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Puerto Madero, Buenos Aires: A Polemical History
Eunice Abascal, Breno Eitel Zylbersztajn

Abstract
Contending projects for the new harbor of Buenos Aires in the 19th century, and the port’s reinvention as a paradigmatic urban project in the late 20th century, reveal the tensions underlying the city’s insertion in the world economy. Initially, as the key to exploring a major agroexporting region that rapidly established itself as provider of essential commodities for the expanding markets of industrialized Europe. The up-to-date harbor installations championed by engineer Eduardo Madero also reinforced Argentina’s dependency on British technology and capital. The port’s troubled history exposes not only the fiery debates that presided over its conception and implementation, but also differing visions involved in Argentina’s nation-building process, as a symbolic and effective link between the city, seen as an outpost of civilization, and as an opportunity for centralizing economic and cultural exchanges; and the foreign sources of its models and of its legitimacy as the dominant capital astride the River Plate. This paper also discusses the recent urban project that reinvented the prematurely obsolescent Puerto Madero, replaced from 1910 by a more modern and much larger port upriver, as a new centrally located neighborhood designed to attract foreign investment in finance, high-end services and prime real estate. It uses historiographic sources that present the port’s conception, functionality and decadence; and the string of projects proposed for the area since the 1020s – including Le Corbusier visionary plan for high-rise development astride the river. It also draws on contemporary sources that justify or condemn the urban intervention, spurred in the 1980s by polemics between consultants from Barcelona and local architects and planners, that transformed its emptied docks and warehouses by means of a successful and well-designed renovation, employing bold governmental and institutional measures; but created an expensive and elitist enclave that already shows signs of premature exhaustion - even though it, along with other recent interventions, brought renewed focus on Buenos Aires’ central area, and its incredibly rich architectural and urban heritage. Convoluted relations between the Federal State, the city government and private investors have been shrewdly negotiated by the agency created to implement the project: Corporación Antiguo Puerto Madero. In an age marked by never-ending competition between would-be “global cities”, the urban project coordinated by architect and planner Alfredo Garay and his colleagues revives similar ideals to those that, all trough the 19th century, capitalized on Argentina’s and particularly Buenos Aires’ potential as a place for exchange, dominating the rich hinterland, and the role of European-inspired urbanism as a blueprint for the city’s ascendancy. Unrivaled a century ago, this dominance is now embattled by the same social and political forces spawned by economic transformation.

Introduction
Cities play an important role in contemporary society’s social and economic dynamics, and urban space has always been regarded as a generator of opportunities for change, reinvention, and investment. Since the 1980s, the theme of the urban project has been claimed in uncounted occasions as a means to transform urban areas blighted by the consequences of economic restructuring in the so-called “post-industrial” stage, with the multiplication of semi-abandoned or underused land and buildings, particularly in former industrial fringes, warehouse and workshop districts, the land used by outdated transportation systems, mainly railways with their depots, junctions, sidelines and ramifications, but also harbors and ports that can’t be enlarged and modernized in order to adapt to the container age. Huge tracts of land have since been viewed as “brownfields”, an open field for public and/or public intervention, with multiple interests involved, held by a comparable number of social groups, public
agencies, former and future owners, investors, users, etc., not least the many professionals – architects, planners, and others – called in to solve the innumerable design issues that must be sorted out in the transformation of these problematic areas in, hopefully, a renewed and vibrant urban fabric.

Since the 1960s and 1970s at least, and more strongly in the 1980s and 1990s, the then-current instruments for urban intervention, centered on ambitious, all-encompassing master plans concerned with zoning and other generalized tools for regulating urban use and occupation, have been described as inappropriate for this kind of operation. What was at first stated by a few isolated voices – urban planning critics such as Mumford and Jacobs, post-modern pioneers such as architects Rossi and Venturi, the defenders of historic buildings and neighborhoods universally threatened by the modernist bulldozer and rallied by impacting losses such as Pennsylvania Station or Baltard’s Halles – became increasingly a chorus of condemnation. Its target: two 20th-century creations, once considered ideal solutions for the congested industrial metropolis - the zoning-based master plan and the modernist “radiant\garden city” imposed model - that had been rather uneasy partners in urban renewal initiatives, and now became associated with a number of social and spatial ills, deemed responsible for a landscape that managed to be monotonous (with its bland repetition of standardized architectural and urbanistic patterns) and unsettling (riddled with dehumanization, disconnectedness, and crime) at the same time.

The presence of historically or visually important structures and the growing value attributed to “heritage” both as a collective patrimony and as a means of attracting tourism and other consumers of culture – even local ones – put a halt on the tabula rasa schemes that had initially been proposed for brownfield sites and other supposedly blighted areas, including Puerto Madero. The unwieldy results of ambitious programs that had at first been lauded for their vision, such as the British New Towns, the French villes nouvelles and ZUPs like La Défense, not to mention the massive suburbanization and road construction that disassembled the American city, seemed to testify further against abrangent, utopist urban policies. It seemed that a new paradigm was required, and this came with the affirmation of different forms of intervention – respectful of sites and existing structures, limited in scope and gradual in implementation, no longer dependent on the omnipotent Welfare State but resulting from negotiations and partnerships. And, as a coup de grâce on modernist know-how, designs no longer bestowed by brilliant auteurs; but evolved from diverse contributions, including: user participation, eventual restorations, feasibility, environmental, job-generation and other concerns – not excluding marketing ones.

At some point in this trajectory, the term “urban project” was coined, or rather redefined, as the major instrument in what should be a new paradigm for city planning. “Strategic”, a military adjective adopted by business consulting, was also hailed as a new perspective for this incremental, market-conscious and corporately financed urban planning. Carefully calibrated punctual interventions in strategically selected areas, profiting from the potential of centrally located underused and undervalued sectors, particularly the vast remnants left by obsolescent industry and transportation, once transformed according to the new demands for high-tech business spaces, high-class housing, name-brand commerce and international travel, would be able to leverage impoverished cities into global competitors favorably reinserted in the world economy.

The perceived success of urban projects implemented in highly visible cities, such as London’s Docklands, Paris’s ZACs, Barcelona’s 1992 Olympic village, and, last but not least, Buenos Aires’s Puerto Madero, contributed to affirm the idea that it would be possible to anchor urban planning no longer in rigid zoning-based master plans, but in flexible, negotiated, locally tuned projects, adaptable to the ever-changing whims of post-industrial investors and scenarios.

A new urbanism, reflective and adapted to the complexities and uncertain futures of contemporary society, however, cannot do without plans, as a means to establish coherent directives, prioritize local
and collective interests, and allow for compatible, qualified spatial solutions. Their urgency, despite opposition from imposing economic and social forces and information flows, has called for projects focused on governance and local management, to gain qualitative levels for the urban environment (1).

This multiple approach, combining punctual projects with general planning, depends for its coherence in the ability to coordinate concerted interventions in urban parts or fragments of the urban territory, sometimes idle and degraded, without losing the capacity to intervene in larger spheres of urban life. This practice was consolidated by means of many experiences in projects and interventions implemented in various cities in Europe and the Americas during the late 20th century. Port cities with disabled or obsolete installations, due to logistical and facility transformation, are examples of such targeted interventions and ideas, investing in the reconversion of affected areas as a potential for the implementation of urban projects.

**Puerto Madero Urban Project: advances and dilemmas in adopting the urban ideas in contemporary Latin American countries**

Puerto Madero, an area historically dedicated to port facilities in Buenos Aires, Argentina, is an exemplary embodiment of an urban project in a Latin American metropolis, and a complex project implemented and managed in its entirety, as an expression of this new urbanism. The intervention aimed to transform the entire extent of the area, which originally housed the port, since the establishment in the 1880s, of the iconic harbor with its closed docks and standard warehouses, the result of decades of the stubborn determination of local merchant Eduardo Madero, the victor in a raging debate, that ran throughout the 1860s and 1870s, as to which should be the design of the modern portuary facilities required by Argentina’s phenomenal surge in exports of beef and wheat (2).

![Figure 1](https://www.vitruvius.com.br)

Figure 1 The port of HSH / Madero developed the project with a sequence of enclosures

Source: www.vitruvius.com.br

While other influential Argentines called for a harbor with open docks, the closed solution advocated by Madero was favored in then end, possibly to ensure customs enforcement in a former center of colonial contraband, now the capital of a nation with a central government dependent on import and export taxes. When an agreement was reached in the early 1880s between Buenos Aires and the other Argentine provinces, which had been at war over federalist or centralist policies, the urgent solution to the portuary problem – trading ships, since the mid-19th century, had to anchor miles off the silted coast of the Plate River estuary, and goods had to be carried in smaller boats and on big-wheeled carts nearer the margin – was to adopt the Madero project, even though it required expensive digging and construction. In a commercial center with a strong British presence, the offer of British financing – with strings attached to British technology, materials and machinery – was a major inducement. However, in the end Puerto Madero proved to be efficient only for a short period. After 1900 newer and larger steamships could not use its narrow entry and closed docks. Argentina and Buenos Aires, on
the other hand, had grown so rich on exports that it was possible to build a much larger and more modern port upriver, a vast facility capable of further enlargement and modernization, started in the 1910s and enhanced throughout the last century.

Meanwhile Puerto Madero was used less and less and finally became a ghost harbor, occupying the city center’s frontage on the river, with its emptied warehouses and whining cranes. A number of schemes for the area were proposed since the 1920s and 1930s. Forestier’s and the Comisión de Estética Edilicia’s 1925 plan, the “Plan Noel” would reclaim the waterfront with monumental parks and buildings, some of which were carried out, but around and beside Puerto Madero, and mostly upriver of the new port, on Costanera Norte. A smaller park, Costanera Sur, was created on the other side of the unused harbor. In 1940, Le Corbusier imagined, in his plan for Buenos Aires, an artificial island with skyscrapers as a business center ahead of the port, which would be razed and given to sports facilities. In the 1960s and 1970s, other ambitious tabula rasa schemes were drawn out for Puerto Madero along with the landfill, resulting from a century of constant dredging of the river, that had covered a large area of the estuary adjacent to Costanera Sur. This landfill, colonized by wildlife, was since reclaimed by environmentalists and transformed into the Parque Ecológico.

However, the real opportunity for Puerto Madero’s transformation came in the late 20th century, when reconversion and/or refilling of old harbors had become an established practice in the United States – with San Francisco, Baltimore, New York – and Europe – where the infamous London Docklands were supplanted as an example by the celebrated Barcelona Olympic project after 1992, and Bilbao’s harbor reconversion was catapulted to fame by Gehry’s Guggenheim Museum. Catalan consultants were already on the move in South America, and proposed an urban project on this line for Puerto Madero in the 1980s. After encountering opposition from local architects and planners, the conciliatory solution was to call for a competition regarding the urban design and warehouse rehabilitation into multiple uses. During the early 1990s, the Menem government conceded the whole area, a federal property, to the Corporación Autónoma Puerto Madero, which could now implement the project with the proceeds from the sale or lease of the warehouses, in the first phase, and later of the large land tracts beyond the docks, after streets and infrastructure had been laid out.

The urban project in question, conceived a hundred years after the port, between the 1980s and the 1990s, is undoubtedly a major achievement by presenting its own management system and taking advantage of an urban design where one of the main objectives was to rearticulate a fraction of territory hitherto emptied of its original uses. The project achieved, within twenty years, the transformation of a deteriorated area, and helped revitalize the historic center of Buenos Aires, adjacent to the port area. In this case the central region had been suffering the competition of other centralities – mainly to the North, towards Palermo and Costanera Norte. These attracted investment and new uses, particularly during the 1980s and 1990s – a period characterized by the spread of information technology, which led to the intensification of global circulation of capital, compression of time and space and spatial reconfigurations – former metropolitan centers worldwide were affected by the development of new centralities that catered to the advanced tertiary functions required by a finance and services-based economy (3), and also by the multiplication of gated communities where this new wealth could be enjoyed with minimum interference from the excluded sectors of society, preferably separated from the existing urban fabric, deemed as a deteriorated, insecure and poorly equipped space.

In the case of Buenos Aires this process was accompanied by the serious economic and political crisis experienced by the Argentine nation at that time. The same city that at first sight benefited from generous contributions of global capital was ridden with socio-territorial inequalities and environmental problems. In this context the intervention in Puerto Madero was seen as an effective antidote for Argentina’s economic downfall and urban deterioration. In this emergency, at the height of the national crisis, in 1989 the federal government of Carlos Menem overcame the usual obstacles
derived from overlapping authorities and ministries with claims on Puerto Madero, and was able to concede the area to an autonomous new agency – the Corporación Autónoma Antiguo Puerto Madero - with the capacity to decide on planning and design and to profit from the sale of the renovated warehouses and the huge empty plots beyond the docks, in order to finance the whole project independently.

A flagship urban project with careful design and attention to architectural and urbanistic qualities would be able to attract new investment to help leverage the local economy; and also epitomize the up-to-date, globalized character of this new business, housing and leisure space, perfectly suited to contemporary upscale demands, including world-class facilities, office spaces, hotels, restaurants and high-rise condominiums. The rapid success of Puerto Madero in this respect made it the most visible urban project in Latin America, and an inescapable reference for other cities and projects throughout the continent. This apparent success motivates further research regarding the causes and processes that accompanied its development and implementation.

The phenomenon of Puerto Madero arouses interest by referring to experiences and seemingly similar solutions practiced by various cities and metropolises, in the 1980s and 1990s. Beset by great changes and economic and social instability, the historical process called for new urban policies marked by strategic planning and by the coordination of multiple urban projects.

Any reflection on the results of the Puerto Madero Urban Project depends on conceptualizing what features should be expected in an intervention of this nature. As a polysemous term, with a multiplicity of meanings and resulting from the expression of multiple determinations, the idea of an Urban Project involves the intention of transforming an underused and/or undervalued area into a compelling new urban space with serious investment potential and recognizable design qualities. This intervention ideally should reverse the area’s (and, hopefully, the surrounding city’s) spatial degradation and economic slowdown, and cater to new, preferably profitable, high-end uses, inserted in a carefully drawn strategic plan, indicating which areas should be prioritized for intervention in terms of possible economic and urban results, so as to revitalize the city and place it more favorably in the competitive global market economy (4).

Urban Projects require careful mediation in their planning and design processes, capable of reconciling the search for architectural, urbanistic, and environmental qualities with the logic and interests of the various social actors involved. This complex articulation and negotiation, flexible and adaptable to different configurations over extended periods, differs from the rigid, monofunctional and sectorial character of modernist urbanism. By stimulating functional diversity, multiple centralities, transport networks and mobility, it preserves and amplifies connections and permeability with other urban sectors (5). Urban Projects thus depend on the mediating capability of urban policies, which politicizes the decision process and aggregates the political will and synergizes the multiple forces that enable its materialization.

Authors such as Ascher (2010) relate Urban Projects in what they refer to as a new phase in urbanism’s principles and practices, reflective and appropriate to contemporary society, allowing for the complex nature and uncertain future that faces any urban intervention, so that the comprehensive urban master plan, formerly the major urban planning instrument, becomes now limited to a set of guidelines and to an array of new instruments aimed at dealing with tactical issues and the many actions required for the project’s implementation.

An urbanism with these characteristics implies multiple projects managed synchronically, consistent with each other due to strategic management, so as to coordinate a wide array of initiatives, actions and interventions, aimed at various segments of the city, in a concerted manner. The plan and its implementation should minimize randomness, and they must articulate the short, medium and long
term, and the small, medium and large scales. Projects of this nature require the so-called strategic planning, which should not be seen in a simplistic manner, as a process serving solely global market forces, but as a means to explore potential events and scenarios, and to capitalize on each urban territory’s economic and social opportunities.

When confronted with the apparent success of the experience of Puerto Madero, to understand its contemporary role it becomes necessary to analyze it as an expression of history, revealing technical and political contingencies that underlie its genesis and relate it to possible future developments that may help explain its position in the planning and urbanism challenges faced by contemporary Argentina.

In Buenos Aires, the edge of the Rio de la Plata was and still is today the target of initiatives and investment projects in infrastructure and urban projects, as exemplified by the conversion of the old Puerto Madero area (6). The intervention in Puerto Madero was the subject of intense debate in the late 1980s and early 1990s. In 1986, in the wake of redemocratization of Argentina, the municipality called for a national competition for “Twenty Ideas for Buenos Aires” including prominently the Puerto Madero area. The presence of a huge sector (170 ha) of public property adjacent to the heart of the city, where old docks and warehouses had not been in current use for decades, offered an unique opportunity for redevelopment and investment. The docks and warehouses also possessed historic and heritage value. In 1989 the Corporación Antiguo Puerto Madero, with ample powers, was established, as we will see ahead. It supplied a Master Plan coordinated by architect and urban planner Alfredo Garay. Corporation and municipality were prone to hire catalan consultants such as Jordi Borja, then involved in planning the new port and Olympic Village of Barcelona.

Local architects and planners protested, defending the role of Argentine professionals in this pivotal intervention. This led to the initiative of holding a National Ideas Competition for Puerto Madero, under the supervision of the local professional entity, the Sociedad Central de Arquitectos. The winning design provided a blueprint for the transformation of the old warehouses, which would become the starting point of the project, since the sale of the first warehouse spaces (where the new owners had to renovate the buildings according to the established design) allowed the Corporación to invest in the remodeling of the public spaces surrounding them, attracting bars and restaurants and inaugurating a new vitality for the area.

So the project has been a polemical and controversial one from the start, not only in recent periods, but all along a long history of debates and discussions that go back to the 1800s, when different ideas for the Buenos Aires harbor problem had been hotly debated for decades, before the adoption of Eduardo Madero’s plan; and all through the 20th century, when its prematurely obsolete docks stood as an unwieldy obstacle between the city center and the River Plate, and was repeatedly assigned for razing, to make room for each planner’s vision for a modern Buenos Aires, from Le Corbusier in 1938-1940 to the military regime in the 1970s. Despite this legacy of failed hopes, the opportunity represented by the availability of 170 ha of terrain in an extremely privileged location next to the city’s historic center, right behind the Plaza de Mayo and the Paseo Colón, remained as a strong stimulus for Argentines to face, once again, the issue of the port.

The period from 1989 to 1999 in Argentine history: foundations for understanding Puerto Madero Urban Project

The decisions and agreements that resulted in the Urban Project realized in Puerto Madero date back to 1989, when then President Raúl Alfonsín delegated the Presidency of the Nation to elected candidate Carlos Saúl Menem. It was a particularly critical moment in the nation’s already troubled history,
marked by an acute economic and social crisis with unprecedented 200% hyperinflation in July, when Menem took office; the inflation receded to 40% in December 1989, but an increasing monetary crisis with the dollarization of currency, and the looting of shops and supermarkets, indicated a social upheaval that urged for action. The crisis affected wages, jobs and money, thereby compromising trust in the State and its leading role in the nation.

The situation demanded from the new president initiatives that should be seen in the light of the historical circumstances that shaped the world economy and politics in that period. In the 1980s, the experience of the Thatcher government in the UK and of the Reagan government in the United States gave legitimacy to neoliberal ideology and policies. While Welfare State policies were being attacked on all sides, Latin American nations riddled with foreign debt were also urged to dismantle their State apparatus, condemned as costly and inefficient (7).

This crisis coincided with international pressure calling for opening of national economies and their insertion in global trade, a new world order in which free market forces and unregulated financial flows would rule. For Argentina and Latin America, such ideas gained consistency supported by the so-called Washington Consensus, by which agencies such as the IMF (International Monetary Fund) and the World Bank imposed this agenda as a condition for aid and refinancing national debts (8). State spending should be controlled, State enterprises should be privatized, social benefits reduced, and resources funneled towards debt payment and financial restructuring. Economists, consultants and the media converged in the dissemination of these ideas, legitimizing the alleged necessity of a general commitment to this neoliberal model.

The accused inefficiency of the State, in the Argentine case, supposedly had its roots in large subsidies for the domestic market and in redistributive public policies, leading to chronic deficits, solved by issuing currency and consequent inflation – recurrent policies in the continent since the 1930s, adopted by Peronist populism in the 1940s and 1950s and continued in the decades that followed.

The Argentine economic collapse of 1989, caused by runaway inflation and debt, seemed to confirm the need for reform, but the adoption of austerity measures encountered intense resistance from groups that benefited from state protection. There was also resistance to decisions identified with the military dictatorship that had lasted until the mid-1980s, ending with the election of Raúl Alfonsín, whose Plano Austral had momentarily relieved the economic crisis.

Alfonsín’s successor Carlos Menem embraced neoliberal reforms, considered the sole alternative to the dissolution of the State and social collapse. Menem, formed in Peron’s era, quickly abandoned the Peronist discourse to embrace a pragmatism that led to vigorous and exceptional interventions, abjuring "Statism" and taking advantage of a "popular market economy" (9).

Given this national and international scene, the intervention in Puerto Madero joined the roster of initiatives made possible by tactical agreements between central and local government institutions, in order to attract significant investment inflows, revive the economy and affirm neoliberal policies. In this context, the project for Puerto Madero was designed not in isolation from other interventions, but as part of a set of equally specific urban projects planned for the center of Buenos Aires, then losing its relative importance, due to the emergence of other centralities.

These urban projects would also be a means to advance the stalled construction sector. The central area of Buenos Aires had lost investments because other, more suburban regions had fiscally favored the migration of the services sector and allowed the erection of corporate buildings (a phenomenon that also occurred in other Latin American metropolises such as Mexico and São Paulo)1. The Argentine

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1 As testified by Architect and Urbanist Alfredo Garay, author of Plan for Puerto Madero, in an interview with author E. Abascal in October 2010, in Buenos Aires.
Congress had passed two bills that regulated the necessary reforms, the Economic Emergency Law and the Law of State Reform, the latter representing a list of state companies to be privatized.

These new policies emphasized a culture of basic investments in physical infrastructure, focusing on the territory and urbanization, where funding should come from private sources. The participation of groups formed by local executives, bankers and foreign investors, who purchased securities based on foreign debt, was encouraged. These securities were accepted in transactions as payment for a fraction of their nominal value, which allowed money laundering for dubious business assets.

In the wake of all these emergency and exceptional measures, Corporación Antiguo Puerto Madero was created on November 15, 1989 by the Ministries of Public Works and Services and of the Interior, representing the federal government, on one side, and by the Municipality of Buenos Aires, on the other. The Corporación, a public company that would manage the transformation of the area, with the national and municipal governments as equal partners, received the power to transfer the federal properties that formed the Puerto Madero area to real estate developers and other buyers, and to decide on the destination of the financial counterparts garnered in these transactions, gains generated by land values produced by environmental and infrastructural improvements in the area that was the object of the Urban Project (10).

At that time, the national government ceded ownership of the Puerto Madero’s 170 acres to the Municipality, and with this gesture eliminating overlapping jurisdictions between the Administración General de Puertos (the national port authority), the national rail company Ferrocarriles Argentinos and the national grain board, all of which had claims on the area. The property passed then definitely to the Corporación Antiguo Puerto Madero A. S., while the Government of the City of Buenos Aires retained powers to regulate the urban development that would follow.

Counterparts obtained with the dynamics of real estate, by capturing the enhancement of land values generated by the completion of infrastructure improvements, even while forming the basic financing logic of the Puerto Madero Urban Project, have not been an object of consistent debate in Argentina, and consequently the country has not witnessed the development of urban legislation that prioritizes the social function of property, comparable to Brazil’s Estatuto da Cidade (City Statute) of 2001. In Argentina, the concept of social investment in developed land, by which land values and increase in value of urban land should return to the community, represented by the government and its agents, has been historically disregarded (11).

In Puerto Madero, the financial counterparts were reapplied in the same area and contributed to increase property values, leading to gentrification. Current debates on urban space production, as pointed by Gorelik, rely on a schedule of short, medium and long term policies, absent in the case of Puerto Madero (IBID.).

Below, Gorelik, speaks of the Argentine experience: "[...] neither the government encouraged a discussion on laws to recover property gains in force in countries such as Colombia or Brazil; never proposed to reestablish active housing policies; never even ventured to discuss the critical issues of the relationship of the city with its metropolitan region in social, environmental or economic terms ". (12).

By functioning as a public agency able to manage resources, plan and execute planning and environmental improvements, while transferring land, properties and benefits to the high-end real estate sector, characterized the Corporación as an institution that facilitated property development. The intervention in Puerto Madero was thus founded in a vision atavistically cultivated, throughout the history of the port of Buenos Aires, as an area destined to safeguard the commercial city and channel capitalist expansion, based on the attraction of international capital flows, a vocation historically demonstrated by the successive plans proposed for the port (13).
The funds recovered from the sale of the port area land became part of a municipal fund under the management of the Corporación, that could apply it where deemed necessary. Corporación’s freedom of action contrasted with the lack of urban tools in Argentina to provide legal public power to capture property value gains and to sell potential building rights.

Puerto Madero’s Urban Project was based on urbanistic ideas circulating at the moment of its conception, according to historical context and to the international urbanistic debate of the 1980s and 1990s. Such concepts were tinted, however, by the area’s singularity as a business front facilitating the reinsertion of Buenos Aires in international capitalist dynamics.

In the same way as Eduardo Madero’s project for the harbor in the 1800s consisted in an initiative that prioritized the city’s relations with overseas markets, contributing to British financial and commercial interests, that at the same time provided the loan that financed the port’s construction and provided the port facilities and equipment, all to be paid back with interest by the revenue of Argentine exports (14), the recent urban project for Puerto Madero supported urban interventions eminently suited to international financial and real estate interests.

Gorelik says (15): "Today (referring to 2008, emphasis added), as an inevitable part of the recovery of the housing market and the increased flow of capital in the boom, have returned with great force the megaprojects of the 1990s, which had been suspended in 2001, such as the urbanization of Retiro and the expansion of Puerto Madero, and it is obvious that their economic forces will prevent any rapprochement with the fundamental issues of the city, arising from a crisis that the government did not treat at that time”.

The Corporación Antiguo Puerto Madero’s original objectives (16) were to identify opportunities, coordinate relations with the housing market, provide for profitable investments and recover the profits from real estate operations, in order to finance urban improvements.

In this context began the actions that characterized the urban intervention in Puerto Madero. Even though municipal urban orientation foresaw at the time a series of coordinated actions, or at least the realization of a set of projects for reinvesting the earnings from revenues generated by Puerto Madero, such as intervention in slums in the Boca neighborhood, for example, actual local and national level decisions bypassed this directive and colluded in privileging the project area and associated private interests. The federal government took steps aimed at privatization, while municipal urban policy maintained the fundamental orientation of the central government, supporting operations to guarantee the increase of property values, whose main territorial feature assumed the form of a frank real estate development.

**Puerto Madero: urban context and ideology of the 1980s and 1990s**

The Twenty Ideas for Buenos Aires Competition in 1986 had set out a number of areas for intervention at different points of the city. The intervention in Puerto Madero should be one of a series planned for the city center, which was losing importance. Originally interesting investment locations in the tertiary sector should remain focused on this sector, such as Calle Cordoba, Avenida 9 de Julio, Libertador and many others, also located in the municipality of Vicente Lopez, north of the metropolitan area. Decentralization, suburbanization, and downtown decline were accompanied by a speech propagated by investors and builders. Downtown became a synonym for congestion, pollution, and promoters began selling the idea of a "new way of living" in the middle of forests and suburban areas, even if in

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2 Idem footnote 1.
unsustainable buildings (often generating architectures of high energetic cost), or in proliferating upscale residential gated communities, locally nicknamed “countrys”.

The rescue of the city center called for four concurrent actions: 1) revitalization of Avenida de Mayo, the boulevard opened in 1890 as an elegant commercial and residential avenue, an axis for the “Paris of South America”; 2) interventions in the Urban Planning Code to make it more attractive to investors; 3) Housing policies were announced resulting in the rehabilitation of historic buildings and operations promoting social housing (RECUP-Boca Program and the Franciscan block); and, last but not least, 4) recovering Puerto Madero and incorporating it to the central district.

A Cooperation Agreement (PACARIM) was established with northern cities of France (Saint Denis and others) in order to learn and determine regulations then lacking in Buenos Aires. The extensive Boca neighborhood Rehabilitation Program (interventions in slums), involved three types of operations: upgrading heritage and prestige; market operations (partnerships, since the State could not front the whole bill); and implementation of social housing. Rehabilitation efforts in Avenida de Mayo relied on PLAM - Plan para la Rehabilitación de Avenida de Mayo, with the population and owners organizing participative “antenna” offices.

Historical Protection Areas (HPAs) were instated, with delimited perimeters and carefully defined protection criteria. A total of 21 (twenty-one) rehabilitation of slums in the Boca neighborhood resulted from an agreement, between the Municipality, the Banco de la Ciudad, and the Junta de Andalucía, which provided resources aimed at social housing. In the Boca temporarily displaced families were housed in hotels, returning to occupy rehabilitated dwellings. The funds were raised through various sources, among these, foreign capital, and emergency employment generation policies. These procedures strengthened the State Reform policies which were key in that moment.

In the 1980s, especially in the Municipal government of Carlos Grosso designated mayor of Distrito Federal (Buenos Aires would not become an autonomous municipality until 1994), the interventions in Puerto Madero were proposed as integrated, concerted, and linked with other areas of the city. Priority was given then to recover the urban landscape and its cultural identity (17) and an Urban Planning Council was created to suggest areas that would merit structural interventions, such as the already mentioned ones, La Boca and Centro Histórico. It declared intentions to reformulate public spaces: roads, squares and parks - a wide range of designed territories to project confidence in the ideas of architecture as an engine for urban transformation (18).

Such logic also coordinated the so-called "Project 90" of CONAMBA (Comisión Nacional del Área Metropolitana de Buenos Aires), a body of metropolitan scope of ephemeral life, which proposed a system of interventions guided by the choice of "key ideas", "strategies" and diverse projects of varying scales. It was an objective to invest in centralities found in a multipolar conception of the city, in order to promote their economic recovery goal. Decentralization strategies and employability by means of specific projects that could benefit from the coordination of multiple public and private counterparts were presented as key to local development. Few of these proposals have materialized, Novick (19) points out, mainly linking urban design to the metropolitan scale problems.

From 1989 onwards, the Corporación Antiguo Puerto Madero became responsible for the urbanization of the 170 ha of Puerto Madero where the major gains could be obtained, and decided to adopt an emblematic Master Plan to develop the port area and schematically define uses, volumes, fluxes and recreational areas.

In 1989 then began the first study for Puerto Madero, authored by architect Alfredo Garay, Municipal Secretary of Urban Planning and a prestigious architect and urbanist, University Professor at the Facultad de Arquitectura, Diseño y Urbanismo of the Universidad de Buenos Aires, an international
reference in urban public policies. In the early 1990s, when the architect came to occupy the position of vice president of Corporación Antiguo Puerto Madero, he was member of the team that designed the parks Micaela Bastidas and Mujeres Argentinas in the process of building a new neighborhood. When the conversion of the area of Puerto Madero started in the midst of grave national convulsion, Garay was fathering the basic plan and went on to become one of its main agents, promoters and supporters.

As a reaction to the proposed hiring of catalan consultants who would bring the experience of Barcelona, its new port and Olympic Village, local professionals gathered in the prestigious Sociedad Central de Arquitectos, Argentine architects’ representative association, took the initiative in June 1991 and entered into an agreement with the municipality, the basis for the convocation of the National Ideas Competition for Puerto Madero. The competition proposed reconversion of the area as a theme to revert degradation, basing itself in a reordering of land uses to supply the deficiencies of the historic central area. It was also necessary to preserve its symbolic and evocative nature, while attracting tertiary activities, public buildings and trade, cultural and residential functions, activities aimed at regaining the waterfront, and incorporating green areas for recreation and leisure (20).

The Master Plan coordinated by Garay converged with the competition results by orienting general directives and a framework for guiding future developments, defining a parallel buildable range beyond the docks, contrasting with the conversion and preservation of the old brick warehouses in the western sector. The eastern sector would allow for new buildings of limited height, with corporate and commercial mixed uses; the new waterfront could attract tourists and remained a unified public space. Beyond this range of buildings with restricted height, large tracts were destined for high-rise residential and high-standard corporate towers, forming transverse central boulevards, in relation to the Costanera Sur park, in the manner of the "Cité Business", designed in 1938 by Le Corbusier.

To compensate for the intensive occupation by buildings, the plan proposed two parks to the east of docks number two and three, with a large recreation area connected to the Costanera Sur to revitalize the waterfront. The recovery of public spaces was enhanced by wide pedestrian tracks on both banks of the river, following the line of the docks, with boulevards parking and small squares.

It has preserved the old sheds in the western sector, and the deposit of windmills called "El Porteño", a silo belonging to the former headquarters of Molinos Río de la Plata, part of the Junta General de Granos. The intervention should include new buildings, without losing in that area, however, the old traditional self of the harbor, preserving the historic character of the old Puerto Madero warehouses. Consisting in the main architectural heritage preserved in the intervention area, the buildings are an identity emblem of the region: there are sixteen warehouses, four along each of the four docks.

The reconversion was timed according to the successive stages of the warehouse’ marketing, starting with those situated North, the most valued sector. In July 1991 the bidding for the first five warehouses was opened, for which 26 groups of entrepreneurs came forth, signaling the interest of investors. In March 1992, the second bidding involved three warehouses on Dock 3 and in October of the same year were sold four warehouses in Dock 1 (south end), and four warehouses in Dock 2 were destined to the Catholic University of Argentina. The Corporación Antiguo Puerto Madero S. A. immediately started works on infrastructure (network services and roads) and the promenade. After the great success obtained in the warehouse sector it was time to launch the Eastern sector to release new ventures. With an area of approximately 1,500,000 square feet divided in large lots along the docks, this area was assigned for contemporary architecture, with strong designs such as the Hilton hotel. However, to make possible the new buildings, serve them with the various networks and infrastructure necessary, along with street space, developers had to carry a large number of demolitions. After these measures, the Port was taking shape, combining a historic area with a contemporary one, recovering and valuing public space and relating it to the coastal area (21).
Alongside the development of the port strip, the municipality still envisioned a sectorial strategy for other interventions in Barracas, La Boca, Centro Histórico, Mataderos, Agronomía, Liniers and Parque Almirante Brown. But those were not conceived as partial interventions in a plan able to synchronize them, by applying, for example, redistributive strategies, or the Urban Operation instrument. Subsequent elections results led to political and technical discontinuity, and did not include public policies with a social foundation. In the Menem government of the 1990s, the adoption of aggressive neoliberal policies that stimulated retraction of the State on the basic rights of the citizen (health, welfare, education and housing), the mayors that followed shared the same Peronist right-wing orientation. This curbed the advances towards a consistent debate about laws aimed at the social function of property, able to ensure continuity for actions of this nature, despite technical and political discontinuities.

Figures 2 and 3 LaBoca and Caminito


In October 2010, through the studies performed during a trip to Buenos Aires with the aim of studying the intervention in Puerto Madero, based on experience and empirical observations, it was possible to detect situations such as those presented below.

The first relevant observation concerns the distance between the existing pedestrian-friendly traditional center of Buenos Aires and the Puerto Madero area. It is possible to say that you can access Puerto Madero from Plaza de Mayo in a few minutes and that the walking distance is acceptable. However, the arrival of pedestrians is hampered by the crossing of Ingeniero Huergo Avenue, a wide roadway with heavy traffic - cars, utilities and freight; a pathway contributes to the flow of traffic of the port operations, which currently works on a site which has its access on the same axis, parallel to the still active railroad – a triple barrier.

Access by car to the area also confronts heavy traffic and the parking of vehicles takes place in the basement of the buildings that are located along the docks bordering avenues in East and West Madero, which indicates that the converted area is destined eminently to a selected audience.
Although one cannot properly speak of gentrification, since it there was no resident population to be removed, it is remarkable that on repeated visits to the area in diverse hours, and on working days the presence of users using the public space available and adjacent squares is scarce or non-existent.

Contrasting with the intense afflux of visitors in its early years, and the lines that formed for ice cream or at particular restaurants, Puerto Madero now remains for the major part of the day a lifeless and neutral space, while close by the vitality of the historic downtown area of Buenos Aires has returned for the most part. We can observe some nightly use of the area, especially on weekends, a relatively intense use of the bars and restaurants housed in the ground floor of the converted warehouses, and of new buildings in East Madero.

However, the use of public areas along the docks on Sundays, in the fullness of the function of public space for locals and tourists, proves to be surprisingly weak, and once more shows a recurring emptiness, with users sometimes using the space as a transition and passage to the popular Costanera Sur park that lies beyond East Madero – a favorite for lower-income porteños since the 1920s – or to the Reserva Ecológica that lies beyond it.

**Final thoughts**

Sectorial interventions in urban disjointed pieces, marked by the absence of urban instruments, reveal a way of thinking the relationship between plan and project that varies according to the configured historical moment. In the late 20th century, when Puerto Madero Urban Project took shape, the major focus of the international urban planning debate was no longer the city as a whole, and punctual interventions in urban segments were deemed more relevant and interesting. In most cases this vision has oriented segmental interventions that favor real estate development.

The priorities for action in the harbor area and revitalization of downtown Buenos Aires, against the unique context of the city were laid, even without connection to the inexorable process of suburban sprawl and decentralization of the tertiary sector, in progress at that time. The port area presented an undeniable potential for real estate development, as well as a laboratory for proposals for public spaces, seeking a new international image for the city, whose former wealth derived from shipped agricultural exports, as a global center of finance, tourism, and tertiary activities - a new port, created by a
prestigious intervention, to harbour the architecturally striking vessels of contemporary global interchange.

The rescue of the port range as a public space, alongside the historic city center, rearticulating and stimulating urban permeability, seemed a natural assumption, and this intervention could then finally achieve the recovery of the hitherto frustrated vision of an urban front on the Rio de La Plata, the never-attained goal of so many plans and projects that succeeded historically.

Still, if Puerto Madero retains its architectural and urban design qualities – somewhat compromised by poorer-quality (but expensive) architecture rising high on the East sector – along with its Calatrava bridge, its Fortabat Foundation, its Yacht Club and its touristy restaurants, the project has fostered mainly what can only be called a huge real estate operation, with boosted property values inaccessible for almost any porteño.

Similar projects envisioned in other areas of Buenos Aires have been discussed, dismissed, discussed again, to no avail; as an urban project it is still the foremost reference in Latin America, with modest counterparts in other ports around the continent; but Puerto Madero’s ambitious realization remains unique and could not possibly be repeated, in Argentina or elsewhere, without the urgency and emergency of the crisis that speeded its articulation. It remains, spatially and historically, as isolated as the closed docks designed by Eduardo Madero more than a century before. The urban and metropolitan scales remain disarticulated, while this shiny urban island caters for a privileged few.

Corporación Antiguo Puerto Madero, after twenty years of operation and interventions, finds herself facing the challenge of a major reorganization and revision of its objectives and methods, and has been reflecting on the real connections between the plans of the agency and environmental and metropolitan planning. The future of the city, in the face of the many difficulties and challenges posed by its transformation, is a priority, the expected course of history.

Notes
(6) ASCHER, op. Cit.
(9) ________. id. Ibid., p. 269.
(10) ________. ID., ibid.


(16) Id., ibid.


(20) Id., ibid.

(21) GARAY, Alfredo. Interview in Buenos Aires to the researcher Eunice Helena S. Abascal, in December 1st, 2010.

Urban Project: Between Concepts and The Reality Of Brazilian Cities
– Vila Leopoldina-Jaguaré Urban Operation, São Paulo
Eunice Helena Sguizzardi Abascal, Angélica A. T. Benatti Alvim

The historical process of regulation of urban planning instruments aimed at socio-territorial equity in Brazil, especially in Sao Paulo, date back to the Federal Constitution of 1988, the City Statute (Federal Law 10.257/2001), and the Master Plan of the City 2002, with the force of law. The discontinuity between the statement of regulatory instruments and their application is the general subject of this article that through a case, seeks to understand the conflicts, opportunities and obstacles to the effective practice of urban planning in the country and at the municipal level. One of the mechanisms of induced development of urban areas secured by such means of regulation are the Urban Consortium Operations, through which urban projects implemented in target perimeters, consist in the possibility of an extensive urban transformation through urban design associated with market practice real estate. The concept of urban project then consists of an indispensable tool for historical understanding of their application, and provides a critical analysis of plans and projects.

The article discusses the concept of urban project from an historical and critical perspective, addressing it through references produced in the 2003-2010 crop, in order to identify recurrences and significant conceptual differences. It discusses beyond this concept, the difficulties of implementing it within the scope of the Brazilian urban legislation, and how it faces the fact of a region without a design transforms itself by the common practice in Brazilian cities of real estate capital combined with traditional zoning.

KEY WORDS: urban project concept; Urban Consortium Operations; induced development of urban areas; real estate practices in Brazilian cities.

Introduction

Currently, the relationship between the dynamics of the real estate market and the application of urbanism instruments for the induced transformation of a given segment of the city with relevant social gains is a theme that shows mismatches and conflicts between the public interest and all agents involved – public and private – in the production of space. In this context, the implementation of urban projects as an instrument for intervention and conflicts stemming therefrom due to its uncertainties brings the opportunity of understanding the role and the action of the public power as a potential agent for the transformation of these segments in the city, the valuing of the urban and environmental space as a counterpart to the activity and the real estate market and capitalist interests.

In Brazil, the expression “urban project” is being incorporated usually in the scope of the urbanism instrument named Consorted Urban Operation, instituted in the set of instruments defined by the important Federal Law 10.257/2001, known as City Statute. Theoretically, this instrument has the goal of promoting the balanced urban development of a given segment of the city, with expressive social gains, from the articulation between public and private agents, based on an urban project.

However, in almost two decades of application of the Urban Operation instrument, the gains for the society and for the cities are inexpressive. Contradictions are observed involving urban planning and
project, different interests of the many actors, whether public or private, and investments, motivated by a fracture between the technical, political and economical scopes.

In a context of uncertainties and ambiguities of the socio-spatial processes of the Brazilian cities, it is seen as necessary to elaborate a conceptual framework of the expression “urban project”, highlighting approximations and conflicts regarding the scope of the Consorted Urban Operation.

This article seeks to discuss the concept of urban project, the difficulties for implementing this concept within the scope of the complex Brazilian urban legislation.

Based on a comparative analysis of Urban Project, selecting them between four authors –Mario Lungo, François Ascher, Joan Bosquets and Nuno Portas – definitions that prove and verify the natural tension of the Urban Project between agents, actors and public and private spaces.

The discussion is based on an empirical research performed about the reality of Vila Leopoldina, a region located in the Southwestern Area of the city of São Paulo, seeking to understand the process of producing the urban space of that territory, consequent verticalization, versus the intention of an urban project implicit in the Urban Operation, an urbanism instrument proposed by the public power in the same year, but not implemented.

From the understanding of the concept of urban project and based on the reality of the region, the article asks if the effective implementation of the urban project implied in the Urban Operation idealized would drive new contours for the region and expressive gains for the society or contribute for a higher valuation of capital interests.

The staging of Urban Projects and Urban Operations in Brazil: meaning and reach

In Brazil, the relationship between the dynamics of the real estate market and the application of urbanism instruments for the induced transformation of territories, such as Urban Operation and Consorted Urban Operation is a theme that reveals mismatches and conflicts in the public-private partnerships. This is an opportunity to understand the role and the action of the public power as a potential agent for transforming deteriorated areas and valuation of the urban and environmental space and the activity of the real estate market, in relation to the interests of the city and to capital interests.

The instrument named Urban Operation was defined in the Country in the decade of 1970, emulating the French and North American experiences. This and other urbanism instruments became, however, effective means of transformation of the urban space with the advancements of the Federal Constitution of 1988 and, especially, with the Law named City Statute (Federal Law 10.257, of July 10th, 2001). The City Statute regulated the chapter “Urban Policy” of the Federal Constitution and presented the Urban Operations (UO) as public-private partnerships, aiming at the induced development of defined portions of the territory, based on the municipal urban planning (MINISTRY OF THE CITIES, 2009).

Urban Operations consist of a system coordinated by the public power, involving actions and interventions on several levels, stating the principle that the State (the municipal public power) is entitled to submitting market interests to the public regulation, which must harmonize objectives and actions with physical-territorial, social-environmental and economic natures, so as to enhance the
potential of the transformative and redistributive reach that is intrinsic to this instrument. An UO consists of a set of measures under the coordination of the municipal Public Power integrating the participation of the private initiative – proprietors and investors, inhabitants and permanent users, with the goal of reaching urbanism transformations, social improvements and environmental valuation. Each Urban Operation is created by a specific law and must be approved by a qualified quorum in the City Council, by at least three fifths of the city council members. The law must then determine the limits of the perimeter of the Operation, establish the rights and duties of the parties involved, create criteria for financing and establish a program of investments, determining what will be paid by the remunerations earned (ABASCAL; BRUNA, 2009).

The UO presuppose that it is up to real estate entrepreneurs to obtain the permit for building areas in addition to those defined by the Law of Use and Occupation of the Soil – LUOS (Zoning). Through the payment of remunerations, the municipal public power, with the profits obtained in transactions of sale of additional potential of the constructive right, has the duty of applying them into improvements in the very target area for the intervention. This procedure allows for, through onerous mechanisms foreseen in the City Statute, such as the Onerous Grant – payment of resources that are the fruit of exceptions to the law of use and occupation of the soil – the collecting of remunerations paid by the entrepreneur in exchange for the exceptions happens, and that the Urban Operation ensures the financing of interventions that re-qualify the environment built, regarding the structuring and improvement of the target areas.

Urban operations suppose that the realization of the instrument depends on the mediation and priority of Urban Projects, that consist, in theory, in the means of materializing the complex list of urbanism instruments proposed by the City Statute, when integrating, through projects and urban design, several urgencies (SOMEKH, 2009): The Urban Project defines itself as a spatialization of foreseen needs, including in this category projects for several territorialities and areas that need re-qualifying. (id., IBID.).

The relationship between the real estate market in activity in the target areas for Urban Operation and possible plans proposed and/or implemented allows to understand the dialectics between the plan as a conception and its fruition, at a given moment of the historic process in which divisions, discontinuities, advancements and ruptures integrate the framework in which the mediation occurs between the plan presented by a technical team, the technical-political management and the society, fundamental object and goal of the planning process. The conflicts that result can be glimpsed through the clear differences observed between the transformations projected by the planes and the fruition in course, stemming from the action of real estate entrepreneurs, with the acquiescence of the municipal public power as an executive agent.

As a specificity of the Urban Operations, the Consorted Urban Operation instrument (CUO) is differentiated by a contemporary view of the relationship between plan and Urban Project in the Brazilian context. CUO areas are defined based on a strategy of urban intervention beyond the traditional zoning (ALVIM; ABASCAL; MORAES, 2010).

Consorted Urban Operations (an institutional evolution of the UO instrument) have been used in Brazil and particularly in São Paulo to allow for public-private partnerships, based on the payment of remunerations with the end of creating Constructible Areas. The CUO instrument was introduced in the São Paulo Urban Master Plans of 1985, 1988, 1991 and definitely received strong acquiescence when it was introduced in the Strategic Master Plan - SMP of 2002 (MONTANDON; SOUZA, 2007).
A Consorted Urban Operation requires the definition of the target perimeter, as well as an activity program for the territory signalized, a plan and respective Urban Project to reach goals. Also required is a program for economic and social services to the population that is directly hit by the intervention, clearly pointing out mechanisms to redistribute financial resources obtained at the UO area. This requires precise knowledge and expertise about the present and future needs that involve the directly affected populations. Due to this fact, the reinvestment of the remunerations obtained in the target perimeter must be a stimulus to the permanence of the population in areas improved by environmental improvements.

UO are mechanisms that are in opposition to the free activity of the real estate market, which is moved by logics of maximizing profits any by strategies for manipulating the quality of the built environment, with individualistic ends. CUO are instruments of dependence and articulation of private and collective instruments, for the construction of a city that is fairer and has a better environmental quality. The qualitative results of the built environment obtained through the CUO must differ substantially from those reached by the reproduction of the logic of transforming the urban space by the real estate market, since Urban Projects may determine a quality of a whole to the object surface, which the isolated action of real estate endeavors does not prioritize.

The disposition of the constructible area is intended for the attraction of real estate investments and obtaining remunerations that are then channeled to finance and stimulate transformations of the whole foreseen in the Urban Project in the intervention area itself.

The negotiation of constructive indexes, therefore, is not in and of itself the goal or final end of the urban policy, because the conception of Onerous Grant, from the City Statute implies the fulfillment of the social function of the property. Policies for the negotiation of indexes separated from a plan and Urban Project must be the object of questioning because, when prioritizing the reproduction of real estate endeavors and mere collection of remunerations in a way that is not connected to plans and projects that can transform the whole is not fulfilling the maximum possibilities that the relation between an urban plan and project foresees.

The Constructible Soil, understood as a public good that is liable to being alienated when linked to the payment of the onerous grant and additional right of construction, is not unlimited, and must meet the ends that are determined by the municipal urban planning (ABASCAL ET AL., 2013).

CUO are anchor plans for the application of these instruments that allow for the constructible soil and aim to reconvert areas that underused or undergoing changes. The CUO have predictable ends and reach, as they are linked to the financing of public works, infrastructures, services and equipment, the set of which characterizes the intervention as a complex articulation of the urban space, within the limits and perimeter of the Operation.

Between the Consorted Urban Operations signaled by the 2002 SMP for São Paulo, the Vila Leopoldina – Jaguaré Urban Operation can be highlighted. While it was not regulated and there was for it a bill that was not sent to the City Council for approval, this UO was the target, in 2003/2004, of a bill based on urbanism and environmental studies made by the technical team of the – at the time – Department of Urban Projects of the São Paulo Urban Planning Secretary (SEMPLA), which considered, at that moment, buoyed by an intellectual debate stemming from the transit of the ideas of international planning and urbanism, the conception of Consorted Urban Operation to be the adequate system to integrate actions that encompassed the urbanism dimension and the interests of the market and of the society.
The discontinuity between the Plan conceived and never implemented and the transformation of the area that was the object of a study by the standards of the real estate market, facilitated by the Public Power itself and by the application of the Law of Use and Occupation of the Soil (LUOS, Law no. 13.885, of August 25th, 2004) is a key element to understand the relations that in Brazil involve the conceptions of the Plan and Project for an area and the accomplishments of the real estate market, making clear the causes and characteristics of the conflict between them.

**Concept of Urban Project: references produced in the period from 2003 to 2010, a historical perspective**

The rigorous understanding of the concept of Urban Project is one of the most important keys to make clear possible mismatches between an urban policy that prioritizes the collection of resources and onerous mechanisms and the execution of UO and Urban Projects. Many authors have been focusing on the effort of theorizing and defining Urban Projects and a review of this literature sheds light on the basis needed to perform a critical analysis of the forms of transformation of the city in São Paulo, Brazil. For this article, four references were selected from the works of Mario Lungo, François Ascher, Juan Busquets and Nuno Portas, authors that are recognized as responsible for the spreading of the debate about the theme of Urban Projects.

François Ascher defines an Urban Project by characterizing it as an intervention that is opposite to the expression of modern urbanism, for which the urban problem could be faced from simple, stable, imperative rules and homogeneous solutions, in which the urbanistic plans had the main goal to control the future, reduce uncertainty and project the totality of the city. As a critical reaction, says Ascher, the Urban Project appeared in Europe in the beginning of the 1970s as a means to contradict the transformation of the city grounded only on symbolic architectural projects and large scale plans.

From the 1980s and on, when the role of the State was weakened with the neo-liberal advancement and that of globalization, the resorting to the aggravation of contradictions between public and private actors went on in such a way as to seek efficient means of management of the forces and actors at stake in the production of the urban space that might benefit the collectivity and society as a whole. The complexity with the flexibilization of the norms followed the growing diversity of the territories, with partnership mechanisms having been developed, as well as public and private interventions, through different kinds of consortiums, grants and subsidies, combined with services.

Born in Metz, France, in 1946 and having died in Paris, France, 2009, François Ascher was a Sociologist and Economist as his initial formation. Since 2000, he led the Scientific Council of the Institute for the City in Movement. He was also a member of the RATP Strategic and Scientific Committee and editorial councils of the Urban Research Journal and local authorities. An academic professor, he taught in the French Urbanism Institute of the VIII Paris University, located in Marne-la-Vallée. For Ascher (2010), the Urban Project uses opportunities, or even crises, to implement territorial reconfiguration strategies, inciding urban pieces or segments, managed by public-private partnerships. The “new urbanism” presupposes a counterpoint to tried-and-true practices of the modern urbanism, among which is the belief that master plans are enough when determining and grounding the long-term planning.

The critical review of this non-negotiable belief in the modernistic ideology introduces the “urban strategic management”, aiming at more reflexive procedures that count on a multiplicity of projects with a diversified nature seeking coherency and articulation, taking into account potentialities and
possibilities for transforming the space. The strategic management is based, for these reasons, on the articulation, synchronicity of actions and social inclusion.

This Author states that the economy is not by itself capable of creating transformed spaces in its set of integrated socio-environmental determining factors; at the same time in which constant movements of activation/deactivation of economic activities generate unbalances in the social/urban mesh, large companies claim the cities, seeking the social diversity and physical quality as a factor of attractiveness of investments.

Said urbanism implies the staging of multiple projects, coherent with the strategic management, coordinating joint actions and synchronized stages in the short and medium terms. The plan and its implementation would be tasked with minimizing random factors and articulating the short and long terms, the small, medium and large scales.

The modern concept of project as design does not vanish, but the project is a mediating instrument for the needs and potentialities that come from society (ASCHER, 2010), consisting of a tool of proposition, analysis and negotiation.

The staging of projects of this nature implies a new modality of planning that does not postulate a shallow, image-based urbanism, but, far from the simplistic proposition that strategic planning is only serving market forces, this is an instrument to explore events and several economic and social opportunities, in a positive fashion regarding its goals.

The modern urbanism aimed at the staging of projects exclusively through ordering the soil, with examples such as zoning, densities, activities and heights, whereas the neo-urbanism, in aiming at goals and results, incites public and private actors to establish partnerships, presupposing success with the maximum efficiency for the collectivity.

It proposes the need of means to qualify and quantify desirable characteristics of the whole: environment, accessibility, collective equipment, urban services, along with productive activities and housing. Social and economic contents are part of the process of the Urban Project, so that they are express or signaled in a drawing that can aggregate architectural and urbanistic quality, integrating the many logics and forces involved. This complex nature discourages simplifying solutions, guiding itself for functional diversity, multiple centralities and transport networks, connections and mobility (ASCHER, 2010).

Born in Vila Viçosa, São Bartolomeu, Portugal, on September 23rd, 1934, Nuno Portas is an architect and urbanist graduated by the Higher-Learning School of Fine Arts of Oporto, in Architecture, in 1959. He was a Project Professor in the Higher Learning School of Fine Arts of Lisbon (1965-1971) and transferred to the course of Architecture in the city of Oporto, being one of its founders. For Nuno Portas, an Urban Project is a notion, due to the wide scope of meanings it encompasses. A historically conditioned definition, it is a concept, a proposition or method of intervention that depends on planning and project instruments, as per the context – solutions and forms defined by the present and future conditions.

An exercise that seeks to reach the maximum certainty regarding its effects on an uncertain environment, it implies the relationship between socioeconomic and territorial factors and environmental ones: it encompasses these variables and management systems, actors and diverse partnerships. It seeks the synergy of economic-social variables with territorial actions and effects.
The Urban Project is not confused with urban design (PORTAS, 1998). It admits a wider and more dynamic character, as an instrument that must reflect the city transformations, predict opportunities and detect necessities. The UP is not a definite design, but an open instrument that must encourage the competitiveness between cities of a same network and the attractiveness of financial resources, counting especially on private capital or public funds.

The urban intervention is characterized by: varied location, working for the consolidated or emerging cities, it admits several strategies and the treatment of the connectivity systems, a scope of nearby meshes and other morphologies and architecture. The architecture performs a significant role – so as to generate a brand and an identity, through the relation with public space and language.

It encompasses architectural interventions integrated by urbanism systems (infrastructures, public space, etc.), admitting an articulation of material and immaterial elements – shapes, space and meaning – material and symbolic capital.

The Urban Project must foresee means for the execution of the public space and count on a set of process and formal rules to allow for the fruition of other urban elements. The investment in infrastructure is one of the fundamental requirements for it to be made possible. However, the action of the whole aiming at the full urban space involved is necessary for its success (ALVIM; ABASCAL; MORAES, 2010). This is a concrete action, as well as the establishment of a different methodological procedure from normative urbanism, because codes and procedures are created at each project.

It allows for a contribution to generate inter-institutional negotiations between several social actors, and the integration of section decisions, with specific activity programs. It must contribute for the fruition of opportunities, prove efficient in relation to goals and viability, in face of the means and financial and technical resources that mobilize it.

The goal of the Urban Project is to offer a response in the short, medium and long terms to areas undergoing transformation or depressed areas; its activity encompasses central areas, historical centers, urban voids, idle or obsolete areas and degraded areas with available infrastructure.

It depends on flexible plans and instruments that can complement the tried-and-true legislation of Zoning, Use and Occupation of the Soil and it intends to reach certain effects – especially qualitative ones – integrating forces and processes.

It implies a solid conception in terms of cost and benefit, institutional and financial mechanisms, availability of the soil and infrastructure; it is not only a plan with a design. It is both a tool for analysis and negotiation. The results may be uncertain, due to their complexity and scale and the instrument may reinforce privatization or recover the public essence of the urban management.

Mario Lungo, Architect, Urbanist and Social Scientist, was the chief of the department of Territory Organization in the Central University of America in San Salvador, director of the planning office of the San Salvador metropolitan area and guided research programs in Central America, leader of the Latin America and Caribbean nucleus of the Lincoln Institute of Land Policy.

Lungo points out that the Urban Project is a notion with many meanings, a strategy that encompasses urban and socioeconomic matters that fall upon the territorial development. It is characterized by a public activity on a segment of the city, articulated to a global view and to socioeconomic problems,
with several actors involved, including private ones. Lungo highlights that an Urban Project necessarily implies a coordination of multiple actors by the public power.

This is an exercise that must analyze the ongoing globalization process, the economic changes, society and the State. The diversity linked to the definition of scale and the multiple actors involved in the urban projects must be specific for the local political and socioeconomic reality. UP are urban interventions based on the construction of infrastructures and urban services, recovering and widening the concept of public work.

These interventions must diversify the objects and forms of production of the territory: new centralities, improvement of poor zones, etc.; they break through geographic limits reaching the periphery and incorporated the private sector as an investor (LUNGO, 2004, pp. 18-9). They have a singular nature, being conceived as motors for developing the metropolitan space (id. Ibid.) and they must channel the use of resources towards the guaranty of the public interest, avoiding social-spatial segregation. From an administration point of view, they aim at the establishment of consensus and agreements in the forum of development of the city as a whole, not isolated (op. Cit., p. 24).

They require the articulation between instances of the federal, state and local government, and the urban management must be conducted by the public sector. The conception of the urban project must reflect the participation of the organizations of the civil society (LUNGO, 2004, pp. 24 and 25).

They ground themselves on the establishment of consensus and agreements in the forum of development of the city as a whole and not isolated, requiring, for these ends, the articulation between governmental levels.

Joan Busquets, urbanist architect and professor in the Catalonia Technical University and in the Graduate School of Design in Harvard. His company is BAU - B Arquitectura i Urbanisme SL, in Barcelona. For Busquets, the Urbanism is tasked with recovering the value of the project to justify its social role, diffused and accepted. It bears noticing, so as to define an Urban Project, the territorial and urban context undergoing a transformation and that the determining decisions depend more and more on the contribution of multiple actors and nowadays do not follow stages in the conventional manner. (BUSQUETS, 2007, p. 15).

Urbanism, for this Author, is not a “bridge”; rather, it acts from the "inside", from the several scales of project, from the definition of programs, strategies and priorities, and it may contribute for a better quality of the existing spaces and promote their development, with a great innovation value. The designation of Urban Design or Urban Project, for Busquets, is not what is the most important; that is the large variety of initiatives and urbanism and cultural baggage that must be considered for a consistent discipline to be constituted.

For Bisquets, man, as a social being, creates new forms of urbanity. We are tasked with knowing how to interpret them and proposing urban forms and processes for these new conditions. The UP are strategic projects in which singular solutions induce a new image, however, so as to produce a relevant urbanistic impact, one must not invest only in isolated architectural objects (2007, p. 11). UPs articulate to operations for promoting centralities and multiplicities of intermodal system and/or actions on infrastructures.

In the existing city, they define actions in the non-built space converting it into a public space or element of urban mobility; proposals on a medium scale are the ones that seek to integrate different
functions from open composition systems that develop in stages. They require innovative project processes that encourage new forms of urbanistic activity so as to face the complexity when dealing with urban processes and problems. They countermand the retraction of the State regarding the needs of urban policy.

When comparing the position presented on the basis texts, it is possible to say that the public management of Urban Projects is defined as a negotiation between actors, not only as regulation. It must at the same time use the public-private partnerships, reconcile diverse actors and ensure the collective benefit in face of the private interest.

As can be concluded from the reading of these referential authors, an Urban Project is a mediation in process, between the regulation of the urban policy and the implementation of structural and urbanistic decisions. UPs mediate interventions grounded on Urban Operations, because the relations with the social and economic determining factors that are the backdrop and animate the design must be produced from adequate urbanistic instruments.

The UP, therefore, is the integrating piece of the technical, judicial and financial determinations to the premises and demands of physical, social and environmental transformation. Urban Projects are the instrument and complex mediation of intervention, acting on the contemporary social and spatial dynamics. The UP is conceptually the means, par excellence, to face the needs of diverse social groups, heterogeneous territories and the urgency of urban governance. One of the fundamental presuppositions of the Urban Project, as a counterpoint to the trends of spatial closure and exclusion and as an acknowledgement of its essentially multiple nature is to contemplate diversity. The specialized literature grants a role and an acknowledgement to the Urban Project in the intricate process of representation of the interaction between social forces.

The UP is adequate to the hybrid identity of the urban condition, valuing the city as a location for exchanges, interlocution, solidarity and tolerance in its expression of a public space, understood as a space for the manifestation of all classes and fractions of classes.

The widening of the meaning of public space in the contemporary cities – in their ability to reunite that which is separate and ensure the continuity and fluidity of the urban mesh – is a challenge with frank political connotations: how to control semi-public and private spaces? In a possible response to this question, the necessary innovations of the urban projects are exactly in the possibility of creating urbanistic mechanisms and rules that can collectivize that which is private, valuing heterogeneous spaces with a collective expression. Also expressed therein is a position that trends against social and spatial exclusions. Portas (2001) argues that the city implies a fluidity and a permanence in a variable geometry, and the public space reveals the quality of housing both attributes.

In following is a comparative table of the main definitions of Urban Project of the authors being analyzed:
<table>
<thead>
<tr>
<th>AUTHOR</th>
<th>ASCHER</th>
<th>LUNGO</th>
<th>BUSQUETS</th>
<th>PORTAS</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATTRIBUTE</td>
<td>Opposition to modern urbanism</td>
<td>A notion with many meanings, a strategy that permeates urban and socioeconomic issues that fall on the territorial development</td>
<td>Defined by a large variety of initiatives and an urbanistic and cultural baggage</td>
<td>It’s a notion, due to the amplitude of meanings it encompasses</td>
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<td></td>
<td>An integration between the production of the urban space and the efficient management of actors</td>
<td>A public activity on a segment of the city, articulated to a global view and to socioeconomic problems, with several actors involved.</td>
<td>They require innovative project processes that encourage new forms of urbanistic activity so as to face the complexity when dealing with urban processes and problems.</td>
<td>Intervention that depends on instruments of planning and project, as per the context – solutions and forms defined by the present and future conditions.</td>
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<td></td>
<td>Intervention as a response to the complexity with the flexibilization of norms</td>
<td>Coordination of multiple actors by the public power</td>
<td>They articulate to operations for promoting centralities and multiplicities of intermodal system and/or actions on infrastructures.</td>
<td>An exercise that seeks to reach the maximum certainty regarding their effects on an uncertain environment.</td>
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<td></td>
<td>Strategies of territorial reconfiguration into segments or urban pieces, managed by public-private partnerships</td>
<td>Diversifies the objects and forms of production of the territory: new centralities, improvement of poor zones, etc.; it breaks conventional geographic limits</td>
<td>Several scales of project, programs, strategies and priorities, a contribution for the better quality of existing spaces and their development.</td>
<td>Varied location, for the consolidated or emerging city.</td>
</tr>
<tr>
<td></td>
<td>Part of a “new urbanism”: multiple projects with diverse natures, potentialities and possibilities of transforming the space</td>
<td>Strategic projects in which singular solutions induce a new image</td>
<td>Not a definitive design: it reflects the transformations, foresees opportunities and detects needs</td>
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Urban Operations in Brazil: meaning and reach

The instrument named Urban Operation was defined in the Country in the decade of 1970, emulating the French and North American experiences. This and other urbanism instruments became, however, effective means of transformation of the urban space with the advancements of the Federal Constitution of 1988 and, especially, with the Law named City Statute (Federal Law 10.257, of July 10th, 2001). The City Statute regulated the chapter “Urban Policy” of the Federal Constitution and presented the Urban Operations (UO) as public-private partnerships, aiming at the induced development of defined portions of the territory, based on the municipal urban planning (MINISTRY OF THE CITIES, 2009).

Urban Operations consist of a system coordinated by the public power, involving actions and interventions on several levels, stating the principle that the State (the municipal public power) is entitled to submitting market interests to the public regulation, which must harmonize objectives and actions with physical-territorial, social-environmental and economic natures, so as to enhance the potential of the transformative and redistributive reach that is intrinsic to this instrument. An UO consists of a set of measures under the coordination of the municipal Public Power integrating the participation of the private initiative – proprietors and investors, inhabitants and permanent users, with the goal of reaching urbanism transformations, social improvements and environmental valuation.

Each Urban Operation is created by a specific law and must be approved by a qualified quorum in the City Council, by at least three fifths of the city council members. The law must then determine the limits of the perimeter of the Operation, establish the rights and duties of the parties involved, create criteria for financing and establish a program of investments, determining what will be paid by the remunerations earned (ABASCAL; BRUNA, 2009).

The CUOs have been used in Brazil and especially in São Paulo since the mid-1980s. Initially and with distinctive characteristics, the instrument was introduced in the Master Plans of São Paulo of 1985, 1988, 1991, but only in 2002 did it definitely receive strong consent upon being introduced into the Strategic Master Plan - SMP of 2002 (MONTANDON; SOUZA, 2007).

A Consorted Urban Operation requires the definition of the target perimeter, as well as an activity program for the territory signalized, a plan and respective Urban Project to reach its goals. It also requires a program for economic and social services to the population that is directly hit by the intervention, clearly pointing out mechanisms to redistribute resources obtained within the UO perimeter. The reinvestment of the remunerations obtained in the target perimeter must be a stimulus to the permanence of the population in areas improved by improvements.

Theoretically, UOs should have mechanisms that are in opposition to the free activity of the real estate market, which is moved by logics of maximizing profits any by strategies for manipulating the quality of the built environment, with individualistic ends. This is an instrument of articulation of private and collective, for the construction of a city that is fairer and has a better environmental quality. The qualitative results of the constructed environment obtained through the CUO should differ substantially from those reached by the reproduction of the logic of transforming the urban space through the real estate market. The incorporation of principles of an Urban Project could determine a wholeness to the object surface seeking to ensure the public interest versus the isolated activity of a set of real estate endeavors.

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3 The re-conversion of Baltimore, in the USA, and the ZAC – Zones d’Amenagement Concerté, in France, must be mentioned as the main emblematic experiences, the latter being the origin and references for Urban Operations in Brazil.
The instrument uses the device of constructible area that serves for the attraction of real estate investments and collection of remunerations that should be channeled to finance and stimulate transformations foreseen within the scope of the set of norms and rules of process that makes up the Urban Project proposed for the intervention area itself.

The negotiation of constructive indexes, therefore, is not in and of itself the goal or final end of the urban policy, because the conception of Onerous Grant, from the City Statute implies the fulfillment of the social function of the property.

Policies for the negotiation of indexes separated from a plan and Urban Project must be the object of questioning because, when prioritizing the reproduction of real estate endeavors and mere collection of remunerations in a way that is not connected to plans and projects that can transform the whole is not fulfilling the maximum possibilities that the relation between an urban plan and project foresees.

The Constructible Soil, understood as a public good that is liable to being alienated when linked to the payment of the onerous grant and additional right of construction, is not unlimited, and must meet the ends that are determined by the municipal urban planning (ABASCAL ET AL., 2013).

Between the Consorted Urban Operations signaled by the 2002 SMP for São Paulo, the study performed to implement the Vila Leopoldina – Jaguaré Urban Operation, located in the western zone of the city, can be highlighted. While it was not regulated by a specific law, the design of the UO, made by the technical team of the then São Paulo Secretary of Urban Planning (SEPLMA) was the target, between the years of 2003/04, of a bill elaborated from the presuppositions of an urban project. Supported at that time by an intellectual debate that stemmed from the transit of the ideas of international urbanism, the team conceived a model of Consorted Urban Operation, adequate to integrate actions that contemplated the urbanistic dimension and the interests of the market and of the society.

However, the non-implementation of the plan and the transformation of the area that is the object of study as per the standards of the real estate market, facilitated by the Public Power itself with the redefinition of Urban Zoning (Law of Use and Occupation of the Soil no. 13.885 of 2004) verify the frailty of the processes that guide the urban policy and the occupation of the city itself.

The analysis performed below allows one to understand the dialectics between the urban project as a conception, at a given moment of the historical process in which splits, discontinuities, advances and ruptures integrate the framework of the planning processes and of the socio-spatial processes that make up the city. The resulting conflicts can be glimpsed through the clear differences observed between the transformations proposed in the Urban Project and the ongoing accomplishments.

**Vila Leopoldina-Jaguaré Urban Operation, São Paulo: a conflict between the plan and the reality**

Within the scope of the City of São Paulo, the 2002 – 2012 SMP, elaborated in compliance with the Statute of the City, proposed a set of nine Urban Operations in the city, reaffirming four that were ongoing - UO Centro, UO Água Branca, UO Faria Lima, UO Água Espraiada and presenting other five - Carandiru, Celso Garcia, Diagonal Norte, Diagonal Sul, Santo Amaro, Vila Leopoldina, Vila Sônia, Jacu-Pêssego and Amador Bueno. Fifteen percent (15%) of the total area of the city were defined as the object of Urban Operations, foreseen or under implementation.
The Urban Operations are present in the SMP in Section VII, “Consorted Urban Operations”, articles 156 to 234. New UO areas could be created in the regions signaled for intervention, and the resources obtained with the application of the mechanism for paying the Onerous Grant in the UO perimeters should be applied, as per the law, within this same perimeter. The area defined for the Vila Leopoldina-Jaguaré Urban Operation encompasses circa 1028 ha, falling under the jurisdiction of the Lapa Sub-prefecture. It was originally occupied by old industries and encompasses the São Paulo General Supply Center - CEAGESP, subscribing to the industrial districts of Jaguaré and Vila Leopoldina. Due to the development of the western vector of expansion of the city, the intense verticalization process of Vila Leopoldina, observed since the 1970s, was stimulated by the abandon of industrial activities that were located there, in search of more advantageous locations. That is why the area presents potential and vocation for a transformation of uses.

The Lapa Neighborhood goes back to the beginning of the population of São Paulo, having developed with the implementation of the railroad and construction of the first industries, along the railroad. A remarkable characteristic of the neighborhood is the accessibility condition in relation to other regions of the city and of the State, with easy access to exits and roads.

New residential launchings and the emptying of industrial warehouses, especially in Vila Leopoldina, have signaled a transformation of the region, which has been following conventional soil occupation patterns, with a prevalence of the residential use and closed condominia, isolated towers in the plot and implementation without regards to the landscape and quality as a whole for the neighborhood.

In 2003-4, the São Paulo City Hall and the City Planning Secretary (SEMPLA) developed a program for urban intervention in which anti-functionalistic assumptions proved visible, when contemplating an Urban Project with the proposal of an urban design. The intent was to innovate, especially in the public activity, linking the Urban Project to an Urban Operation, foreseeing the application of onerous mechanisms and the creation of urbanistic indexes. It was expected to value areas contiguous to the ones that would receive the improvements with the stimulus to the intense use of the soil and increase in density. The land valuation that would follow would be converted into public resources due to the concession to entrepreneurs of exceptions to the right to build, payment of onerous grants and remuneration for the negotiation of the benefits. The negotiation of CEPAC – Certificates of Additional Construction Potential – titles negotiated in the real estate market – would generate the advance collection of resources applied in the execution of infrastructure and other improvements – public areas, Social Interest Housing, draining systems – adapting the region to the new density. An additional constructive potential of circa 2,080,000 m² was foreseen, divided into residential and non-residential uses and that should generate resources to be reapplied in the region. The project also foresaw the use of other onerous instruments from the City Statute: Preemption Right, Transfer of the Right to Build, among others, as a means to allow for the proposed goals (SEMPLA, 2004).

New connections and accesses and divisions, so that each of the sectors could create diverse patterns of occupation of the soil from different coefficients of use for an effect of several typological patterns and forms, were the main resources of the plan. Connective axes had the goal of creating a centrality along which several activities should be articulated, around a wide public space that should value and redraw the area and contribute to the reevaluation of the CEAGESP activities.

The increase in housing density in Vila Leopoldina and Jaguaré would provide the re-sharing of the blocks from the old industrial plotting, redefining them into an adequate scale to the courses.
The redesigning and urban re-qualification of the main streets, such as Imperatriz Leopoldina avenue and Carlos Weber street would adequate them to the new activities and functions. The re-urbanization of Favela do Jaguaré and the creation of a Special Social Interest Zone (ZEIS – a concept foreseen in the Master Plan) in the perimeter were foreseen to hold a population that was originally settled in the area and occasionally originating from other regions in the city.

![Picture 1](source: SEMPLA, 2004)

In following, the many sections created in the Vila Leopoldina-Jaguaré Urban Operation and respective predictions for density increase per section are presented, with the proposal being grounded on the capacity of support of the infrastructure of the area, on the vocation of the real estate market, on the intended urban design and comparative evaluation with other areas of the city (SEMPLA, 2004).

The goal were improvements to the traffic and mobility systems, to traffic articulations internal and external to the target area, new transpositions on the Tietê and Pinheiros rivers connecting the region to the Anhanguera Road and northern area of the city. An improvement of the connection to the Raposo Tavares Road was also foreseen due to the continuity proposed to the Escola Politécnica Avenue, relieving the heavy traffic from the main avenues.
PICTURE 2 – Sections and Increase in Density of the Urban Operation area. Source: SEMPLA, 2004

The implementation of parks, squares, green areas and other public equipment, as well as the re-adaptation of the sidewalks and re-sharing of the blocks were also goals, so as to adapt the area to the new uses (SEMPLA, 2004).

Being located at the Pinheiros River valley, the area is systematically beset by floods. A draining system with a wide scope and on multiple scales, contemplating macro- and micro-draining, would thus be essential. Surface draining should also be dealt with, considering that the usual pattern of occupation of the region presents low permeability of the soil, few green areas and trees, requiring an approach that would recover bodies of water and valley depths in urbanistic and landscaping aspects, with environmental quality.
PICTURE 3 - Transpositions. Source: SEMPLA, 2004

PICTURE 4 – Volumetrics of the Proposal. Source: SEMPLA, 2004
The permanence of CEAGESP would also be a polemic matter, even though its transfer had been foreseen for the medium term. Scenarios of maintenance of the activity (with adaptations) and of a decrease in the activity through specialization, or of creation of several sub-central sections, were prepared.

With the non-staging of the Urban Operation, it is observed that the region that would encompass it – the Districts of Vila Leopoldina and Jaguaré, in southeastern São Paulo – have been visibly changed by vertical residential endeavors, as close condominias.

So as to better analyze the verticalization process, three (3) periods are considered: up to 2004; between 2004 and 2008; and as of 2008. These temporal sections were defined as a function of the availability for the sale of constructible areas through onerous grants, initiated in 2004 and finished in 2008.

It was possible to verify that a first wave of verticalization in Vila Leopoldina happened before 2004; therefore, it was before the 2002 SMP and the calculation of stock of onerous remuneration. The stage has as its characteristic the occupation of smaller plots, located especially in the Carlos Weber Street. Carlos Weber Street is characteristic for presenting consolidated residential and commercial uses. The density increase process began on this axis (ABASCAL et al., 2013).

In 2004, the Law of Use and Occupation of the Soil was reviewed (City Law nº 13.885, of August 25th, 2004), with the beginning of the sale of constructible areas through onerous grants paid for exceptions to the right to build, beyond the basic use coefficient, equal to one (1.0). This is the
beginning of a new period that ends with the end of the stock of constructible areas for negotiation and payment of onerous grants (from 2004 to 2008).

Out of the 56 endeavors that make up the universe researched (EMBRAESP, 2010), 15 paid an onerous grant. A large part of endeavors that used other mechanisms of implementation and verticalization defined by the review of the Law of Use and Occupation of the Soil, in 2004, defining a mixed use for the region and allowing for more verticality to the buildings. A temporal logic can be noticed in the spatial distribution of the endeavors.

Twelve (12) of the fifteen (15) endeavors that paid for the grant were launched in the second verticalization period (2004 to 2008) and only three (3) at the third stage, as of 2009. At the third stage, a distribution of residential endeavors researched to larger plots was noticed, because, when the stock of onerous grants ran out, the indexes determined by the new Law of Use and Occupation of the Soil were used, showing that real estate development uses all mechanisms and items linked. The distribution of the endeavors can also be understood due to the decrease in the availability of plots of land in the originally transformed areas.

The last period evidences a dispersion of endeavors in the full area of the intended CUO. It can be identified that, in the two periods before the verticalization, it was located in originally urbanized areas, whereas, in the 3rd period, the endeavors are more spread out, occupying plots of land that are the fruit of transformations of the industrial use.

The review of the Law of Use and Occupation of the Soil of 1972 (City Law 7.805) modified into the one of 2004 divided the Predominantly Industrial Zone (Z-06) and defined the possible application of the Onerous Grant to the Right to Build through the negotiation of additional constructive potential, with a minimum, basic and maximum Coefficient of Use (CU) the latter one being the object of an Onerous Grant. In the region that is the object of the UO studied, a minimum CU of 0.20, a basic CU of 1.0 (with a small ZM3b portion, where the basic CU is 2.0) and the maximum CU, to be acquired through the payment of an onerous grant between 2.0 and 2.5 were defined (IGNÁCIO; ALVIM, 2013).

In this case, the area of study, a zone that had originally predominantly industrial use, began to admit mixed use and cleared the way for high constructions. This fact pushed the change in uses and, thus, density with the construction of medium and high standard residential endeavors (ABASCAL et al., 2013).

It can be concluded that, in face of the non-realization of the Urban Operation, the verticalization used a combination of strategies: new coefficients defined by the Law of Use and Occupation of the Soil of 2004, plus the over-the-counter trading of the onerous remuneration. The combination of these mechanisms, while it managed to transform the region, was an incentive to its occupation based on the action of the real estate market, against the potentialities and advancements not contained in the entire legal framework that solves Urban Operations and Projects.

The situation, in fact, stimulates the social perception that the urban transformation happens through the individual action of the entrepreneurs, fraying the possibility of building another culture that values the urban space as a public good and as the stage for the manifestation of the public scope.

**Final considerations**
The provision of the Urban Operations in the SMP (2002) and the process that involved the presentation of technical studies for an Urban Project, in the case of the Vila Leopoldina-Jaguaré Urban Operation showed the significant evolution of the related legislation and of the São Paulo city management, expressively effecting the rich contact between debate, transit of the urbanism ideas and Brazilian urbanism practice.

The history of the genesis and development of the practice of Urban Operations and Projects in São Paulo and in Brazil shows existing advances, conquests and frailties, especially of the relations between traffic and the appropriation of the urbanism ideas, the public power as the formulator and sponsor of the urban policy and the real estate market agents. This story clarifies relations of conflict and mediation between actors involved in the transformations of the urban space and possible articulations and splits between agents and forces that determine the proposition and implementation of plans and projects.

The creation of a conceptual basis framework for what is an Urban Project, from a complex approach that the territory is a spatial configuration with a social, economic, cultural and political content undergoing transformations and subject to uncertainties consists of a rigorous instrument to evaluate specific practices and to identify therein advances and omissions, critical problems and signal new means of action.

This grounding intellectual debate integrated the framework of the events at the time the Urban Project was being elaborated, along with the plan for the non-implemented Vila Leopoldina-Jaguaré UO, which allowed for a theoretical base that was gradually incorporated to the course of technical decisions and to the management conduct of the then-public administration. This conquest was the result of the porosity of the relationships established between actors, which, at that time, were at the same time part of the SEMPLA technical body and of the academia (University), demonstrating the innovation this contact is capable of generating.

The space conquered within the public system through theoretical formulations in sync with both the contemporary urbanism production and the urgencies of transformation of the city, however, suffered setbacks due to the course of political events inherent to the city administration, especially for the implementation of these initiatives. However, the reflections and advancements deeply marked the administration.

The urbanism discourse and practice mediated by advanced instruments and by a Project for the effective transformation of the territory were at the order of the day, retaking a central focus. In this context, the participation of the society and of communication bodies had a fundamental role in the spreading of this culture, with the urban themes beginning to appear in press pages; nowadays, there are sections dedicated to the theme in the main newspapers of the metropolis, the city and its transformation became the object of more collective awareness, aiming at its development.

The solutions and proposals suggested by the Vila Leopoldina-Jaguaré Urban Operation project highlighted the importance of the Urban Project as a means for the transformation of a surface with its complexity and for the induced transformation of the totality of an urban piece, as part of a complex movement of the urban condition. Plan and Project reflected another conception of the urban space, beyond its real estate transformation agents, from the priority and notability of public spaces, of the connections and of the mobility and relations of the target object and other scales and domains, but it is convenient to put in perspective the role of an exclusive action of the real estate market.
The project scale presented by the São Paulo city Urban Operations highlights the importance of the Urban Project as fundamental to the technical and public debate of the elaboration and transformation of the cities, allowing for the urban planning to cease to be discussed only among technicians, architects, urban engineers and builders and to begin to integrate a more encompassing social-spatial agenda.

The Vila Leopoldina-Jaguaré Urban Operation was not implemented, although the target region has been changing due to the action of real estate entrepreneurs that build closed residential condos and corporate buildings there, without making the transformation of those districts in a manner that is integrated to other scales, space-time and public equipment that benefit the environment as a whole. Present real estate policies benefit from the parameters and indexes of the Law of Use and Occupation of the Soil of 2004 for that region considered to be an area undergoing transformation of use, which facilitates its reoccupation. The application of remunerations collected through onerous grants paid by each real estate endeavor isolated may replace the urban Project, from a point of view of the benefit of the construction and of the collection, which weakens the legal advances brought about by the current and sophisticated Brazilian urban legislation.

It bears signaling that negotiations between the many actors involved in the transformation of the area proceeded since then between technicians of SEMPLA (nowadays SMDU – City Secretary of Urban Development) and agents of the real estate market and that the result has been a better and more intense approximation between these forces, feeding the historic process that makes a society and its instruments of regulation and action advance. Nowadays, entrepreneurs have been getting used to considering the Urban Operations to be an opportunity for action, which signals the formation of a new culture, to the contrary of expectations that the conservative, entrenched means of action of the private enterprise could never change. The region of Vila Leopoldina and Jaguaré proved attractive to the occupation by medium and high-standard residential endeavors, which continues today. It is natural that the real estate market would complete its activity in that region, which has large terrains that in the past were occupied by industries and warehouses.

In face of the wider view and detailing present in the plan and Project of the UO, previously presented, it is evident that the transformation of the environment could be better serviced if the voracious building were accompanied by an amount of urban intervention, which is still not very attractive for the traditional activity of the market.

The public power, when applying the instruments of the City Statute and those defined in the SMP partially, ensuring the collection with the negotiation of indexes and remunerations through the payment of onerous grants and stocks, misses the opportunity to dominate other means of relationship with the actors of the real estate market, partially making the induced transformation of the urban space.

There is still a lot to be done regarding an improvement of the urban policy and transformation of the Brazilian cities, but, without a doubt, the discussion about what is necessary, ensuring as a means of transformation in territories that get intensely urbanized, as is the case of cities in Brazil, is a challenge to administrators, architects and urbanists and to the academic thinking. It also bears advancing the conceptual framework of what Urban Projects mean for the metropolis today, in the guaranty of equity and liberty that is achievable in the urban environment, an environment that is, par excellence, one of the human presence in space.

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Metropolitan Institutions in Brazil: How It (Not) Works in Brasilia
Alessandro Aveni

This paper investigates the relationships between Brazilian public institutions in Brasilia – DF (Federal District of Brasilia) in order to answer the question if there is Brasília metropolitan area’s institutional definition and which institutional conflicts are ongoing. The objective is to demonstrate that there are several points that show the political path dependence to manage metropolitan areas like Brasilia, in Brazil. It does mean, at last, issues about territorial definitions, governance and lack of public services in the metropolitan area.

Having in mind papers of the International Journal of Urban and Regional Research the basic theory that oriented the present paper was the new institutional historical (NIH) approach considering the institutional theory of Max Weber on bureaucracy and power. The methodology approach used is a bibliographical research about metropolitan institutions in Brazil in order to answer an initial question: are institutional regulations or conflicts going on into Brazilians metropolitan areas? The paper procedure method explore the question using land legislation, public organization laws and government acts as well as doctoral papers of the most famous university in Brazil, the Brazilian literature about constitutional and rights.

The paper is divided in three sections, the first show a world context of the metropolitan area institutional problem. The second section explores Brazilian institutions, Brasilia metropolitan area institutions and main issues and discuss preliminary results. A conclusion ends the paper.

1. THE CONTEXT: INTERNATIONAL SCALE

Brasilia is not the first or the last among the great cities of the world with governance problems. Among the new institutionalism analysis there are several studies that show the difficulties to organize metropolitan areas all over the world. In this section of the paper there are some examples.

In Mexico, Guraneros - Meza (2009) shows both a hierarchical government, elements of old power and new elements, identifying governance relations and institutions in the cities of Queretaro and San Luis Potosi ( SLP ) in central Mexico between 2003 and 2004. That research has shown hybrid situations about relationships, coordination between institutions and the lack of credibility of the new system because of the low results degree.

In this case government intervention in the metropolitan political discussion is still seen by the actors as a mark of confidence by ensuring decisions taken within the metropolitan government. But in this way the metropolitan institution aimed at public-private partnership for the provision of tourist services cannot lead that change. The new metropolitan institution reproduces the problems of the old political regime as a lack of transparency and corruption, which was believed to solve.

In Europe, Degen and Garcia (2012) worked on behalf the understanding of the "Barcelona model". Since the 80s there were different approaches in order to create an appropriate image and a modern cultural city model. The authors explain this model institutionally as an arrangement between all social groups with common goals about the city that bind a cultural policy models for regeneration of
Barcelona. The metropolitan government objective in Barcelona is to maintain social cohesion against changes in the social and economic structure due to capital injection, to keep Barcelona at a level of global city. However, the political, social and economic elites have maintained the alliance with the aim of maintaining a cultural image of Barcelona to ensure sustainable tourism and investment. Therefore, institutions and local political actors, got a local agreement. They began to manage Barcelona as a tourist company with cultural bases where local public institutions had to be modified to maintain a local marketing strategy. In Brazil this model is called entrepreneurship and the left parties and scholars “new Marxists” assumed it’s a bad example of public policy.

Another institutional aspect is the emergence of discontinuous territories and social networks. In England, Wills (2012) showed the resumption of urban social movements in London and its socio-political meanings that many scholars thought already extinct. The author shows networks as political movement and as social movement that support beliefs and share individual problems. The current institutional innovation is assume networks as a fundamental relationship between social groups. The network not necessarily’ contemptuous in space is based on affiliation, building a common identity, collective memory. The overlap graphical representations of networks can demonstrate the presence of individuals and institutions on various networks with strong local roots.

Thomas (2012) in turn addresses the institutional problem based on discussion between ideologies and cultural conflicts as ways to govern metropolis. In Montreal the ideology of new regionalism opposes the decisions derived from central government to manage the metropolis with new institutions. The New Regionalism is an approach that begs for a plan based on the requirements and regional and metropolitan activities as opposed to planning statewide basis. The new regionalist ideology poses as the central concept of federation of cities with a common focus on the elements of mobility (transport) and agreements with many actors. That ideology was supported by political parties who think the system thus leads to increased democracy. But there is the difficulty of dealing with heterogeneous agents and collective goods and services.

Thus for Thomas (2012) the analysis of the normative dimension of the government of the metropolis of Montreal, shows that there was a "metropolitan trap" based on a cultural conflict evidenced in the use of regionalist discourse forming new local institutions. It was opposed to the old decentralized system and institutions with strong local political bases.

The author points out that the political conflict, that was born in 2000 as the creation of the metropolitan area of Montreal, was justified on normative goals of the new regionalist theory. Objectives emphasized democracy, efficiency, competitiveness, fairness, a policy choice of the best scale to achieve the objective of construction of decentralized and local management decisions based on the voluntary cooperation system. According to the author the vision of metropolitan identity and metropolitan culture of different institutional actors fired the local power struggle.

There were build institutional forms to decentralizing the metropolitan area. However, there was a diverged feeling of this decentralization, shared by the various political groups relating to territoriality. This difference was about new institutions and about obstacles represented the culture of autonomy of local institutions. Besides an ideal image of the metropolis, which generated conflicts, was the different culture of local actors and new structures created metropolitan government.

So the central point based these empirical evidence, is to understand how the metropolitan government is articulated to meet the demands of political representation, political and legitimacy but also the
public services for the metropolis and which the path dependence in such institution. In particular it is essential to understand the institutions that meet local requirements and institutional conflicts have become. Brasilia, in this sense is a metropolis with many unique characteristics due to its configuration as Brazilian territorial entity.

2. INSTITUTIONS AND METROPOLITAN MANAGEMENT IN BRAZIL

In Brazil the responsibility for metropolitan management areas in its institutional dimension, it is enabled for any activity, but placed hierarchically in the states government and not in the municipality management. This section will explain institutional problems of political, institutional and cultural legitimacy in relation to metropolitan areas and municipalities in Brazil that are: 1) type of Federalism and territorial entities, in particular the position of the municipality governance; 2) metropolitan functions definition to achieve a common interest among municipalities into metropolitan regions and the management of public functions by public administration; 3) definition of responsibility for public services in metropolitan areas, relationship between municipalities, cities and metropolitan areas in state laws the case of Brasilia development; 4) Metropolitan areas and municipalities involved in case of public transport institution.

2.1 Federalism and metropolitan areas

Brazilian federalism, unlike the U.S., has a centrifugal origin, the federalism was created from a unitary state which suffered territorial division to form the member states. The last Brazilian federalist territorial organization was redefined in the last Federal Constitution in 1988 with two chambers one of Commons and one of States.

There are three administrative levels (federal, states and municipalities), but the municipality is a federated entity with weak autonomy to develop its performance, in fact the Municipal Organic Laws are subject to the Federal Constitution and the State Constitution. The Federal District is an entity with a rank of state level and with special rules as hosts the Brazil government house. However, there is a fourth form of territorial organization for which it was not yet given proper constitutional treatment: the metropolitan areas (CAFFÉ ALVES, 2001).

It is not so obvious, but rather logic, that the Union government and the States, in this configuration are rival political and administrative governance powers. This is because the political discussion between the president and the legislative (which has in the State chamber a great limitation of will) will turn this into a territory governance conflict about union´s policy, plans and programs and state´s policy, plans and programs.

The metropolitan problem under Brazilian authors is a lack of specific solutions to the metropolis, such as political, social, economic and legal. Several academics like Peluso (1983) emphasize that the Brazilian metropolitan issue historically part of the need to identify clusters of regional development in order to discipline both the process of economic growth and accelerated urban growth, in addition to responding to the needs of the municipality and its conurbations. In others words metropolitan institutions and development is part of the same policy. But there is an issue because relationship between Brazil development policy and metropolitan political management into a territory affect public services to citizens.

The first metropolitan areas in Brazil were established by the Union government in 1973 with Complementary Law No. 14 of 8 June. Complementary Law No. 14 established in Article 5, which
services would be reputed metropolitan interest, listing among them:
social development, sanitation, use of underground soil, production and
distribution of piped gas fuel, use of water resources and pollution control,
and others who were to be included as competence of the Board by federal law.
The constitution of 1988 put the same interests at the municipal level.

With the Constitution of 1988 the decision to establish metropolitan areas was provided to member states and by the same constitutional provision there was also the possibility of establishing urban agglomerations and micro statistical areas. All species of administrative regions constituted through laws and in accordance with the CF as the metropolitan areas, the RIDES (Regions of economic development whose territory comprises different states), urban agglomerations and micro would be formed by the grouping of neighboring municipalities to integrate the organization, planning and execution of public functions of common interest.

2.2 Public service definition for metropolitan areas
Thus the constituent power of the new democracy deal in 1988 opted to transfer the metropolitan problem to States, as they enabled, under Article 25 of the Constitution, adopt their own laws and regulations of the organization, noting only the constitutional principles. In this case, it is for each member state to create laws for the organization of metropolitan areas that may exist in their territory, facing, with this, the concept of "constitutional autonomy of municipalities", which has been used as an obstacle to the rules of the Regions metropolitan (ARAÚJO and LORENZETTI, 2008, p. 650).

The ownership of the performance of public functions of common interest (including related services) are therefore of the public administration (municipality) organized at the regional level, the intergovernmental character. The representatives of the State and the municipalities involved must, equally, participate in relevant regulations, policies and administrative functions. The municipal autonomy is described and guaranteed by the Federal Constitution (articles 29, 30 and 31), attaching to the municipality the power of organizational self-regulation and self-government legislation regarding local interest, own, decreeing administration and collection of taxes within their jurisdiction and application of their incomes.

In this way local autonomy is directly related to the field of competence of the municipality. However, considering the space and the networks between municipalities no activities, services or works are considered unique local interest. Thus, for example, the services of collection and treatment of water for public consumption are traditionally local, registered interest in the competence of the municipality. These services are unequivocally common interest in a metropolitan area should be regional jurisdiction of the municipality and not isolated.

The metropolitan municipalities have an autonomy eventually constrained, but a conditional independence from the origin, the possible establishment of metropolitan areas, under the constitutional provision, when there are objective conditions that justify the measure (CAFFÉ ALVES, 2001). In addition municipality lack of funds and especially fund for developing metropolitan services, because it is the Union, and secondary the State, that provide the financial support of municipality budget. In other world there is low autonomy especially the financial one for the municipality to provide its own financial needs.

2.3 The Brasilia case
It was in the 1946 Brazilian Constitution which was taken up the issue of the construction of the new capital. In Article 4 of the Temporary Constitutional Provisions Act President Dutra called for the
appointment of a commission of experts to carry out a study of the location of the capital. The commission headed by General Djalma Polli Coelho expanded location demarcated by Cruls mission. With the law n. 1803 January 5th 1953, President Vargas established a deadline of three years to define the site, considering a population of 500,000 inhabitants. In 1954 the Belcher American company was contracted to point out different sites until in 1955 the chairman of the governmental committee build to locate the new capital, José Pessoa, chose one site among others defined in Belcher report (PELUSO, 1983).

On September 19th, 1956, President Juscelino Kubitschek sanctioned Law 2.874, demarcating the area of the new Federal District, created the Urbanization Company of New Capital of Brazil - Novacap, and attributed the name to the new city of Brasilia. President Juscelino Kubitschek considered the construction of the capital in the Midwest an opportunity to exploitation of inland resources, dissemination of uniform progress in order to level social differences (PELUSO, 1983 p. 85).

During this period they were uncontrollable social dynamics in central Brazil. There was a migratory movement to the west in search of new agricultural areas to grow. There was also a search for public employment in new public investments. At last there was a speculation in the purchase of new capital land sales waiting for raise of value due to future public intervention expected in the region. Again according to Peluso (1983), the purchase and sale of land became the largest area of business and economic growth, adding to the author that this activity was followed in the construction business from the moment of the beginning of the construction of Brasília.

The metropolitan area of Brasilia fits by the supplementary law n. 94 of 19/02/1998 establishing the RIDE/DF being constituted by the Federal District and 21 municipalities of Minas Gerais and Goiás States. Another spatial area, defined only by some research institutions - Metropolitan Area of Brasilia or AMB - includes the Federal District and the municipalities in the immediate surroundings that are only 10 among the 21 municipalities: Luziania, Valparaíso de Goiás, Cidade Ocidental, Novo Gama, Formosa, Planaltina de Goiás, Santo Antônio do Descoberto, Águas Lindas de Goiás, Alexânia and Padre Bernardo. This territorial cut named "Area Metropolitana de Brasília" (AMB) is used in various statistical analyzes of Brazilian's research institutes (CODEPLAN, SEPLAN, IBGE, IPEA) and was initially presented at the Seminar "Alternative Land Management for Urban Chipboard Brasilia", held on 19 and 20 November 1997, through the study "Delimitation of the Metropolitan Area of Brasilia: preliminary study to support the proposed creation of the Metropolitan Region of Brasilia", prepared by Julius Miragaya and Luiz Alberto Agnelo of CODEPLAN.

In 1999, the AMB definition was adopted in the study by IPEA/IBGE/UNICAMP "Characterization and Trends of Urban Network in Brazil." The study Miragaya (MIRAGAYA 2013) shows the population density in the Surrounding Underscoring the strong polarization dependence of the public sector and the acceleration of the occupation of the surroundings are phenomena that create pressure in the institutional articulation of the four levels of government (UNION, DF, RIDE, Municipality) and legitimacy conflicts, and the political power hinders the development of the functions of local interest.

With no or little planning beyond the city of Brasília till its foundation, the social and economic impacts of the new city in the central region was tacking back only few years ago. In between, almost 50 years, the configuration of local institutional system of power remained the same. Old republican, military regime elites and land oligarchs gained control of the economic space of the real
estate industry in the name of economic progress of new political institutions fostered by region the creation of Federal District.

The migration in the new urbanized area created a demand for housing resolved with the establishment of a social segregation: the creation of workers’ quarters until 40km built over the ring plateaus of the watershed of the river basin Paranoá. Thus with the First National Development Plan - NDP, the discussion about metropolitan issues arise on the topic of urban and metropolitan development. It was held in Brasilia in 1971 the first Seminary of Urban and Local Development. During the middle of 70s The Union has set a Special Program of Geo-economic Region of Brasilia – named PERGEB - born under the Second National Development Plan - II PND, in view of the concern of the authorities involved in the federal government and the state of Goiás with accelerated growth migration to the region circumscribing the Capital (PELUSO, 1983). The main objective of the program was to promote the development of the region under the direct influence of Brasilia, aiming to avoid the housing land pressure and the pressure of the migrant on services and jobs DF The population scale territorial scope of PERGEB reached 88 municipalities in the states of Goiás and Minas Gerais (AZEVEDO, 2010).

An interesting aspect of PERGEB was the division of the interventions on scales namely the local scale, the scale of transition that saw ten counties (Planaltina, Padre Bernardo, Alexânia, Luziânia, Cristalina, Formosa, Cabeceiras, Pirenópolis Abadiânia, Corumbá de Goiás), and regional scale covering the remaining municipalities of Goiás to Posse, on the border with Bahia, besides the municipality of Unai, Minas Gerais (BRAZIL, 1975). The PERGEB study shows how the problem of metropolitan regional space and polarization of Brasilia regarding its surroundings was a known phenomenon. The study also has discussed the logic of regional development in the Strategic development - PED (1968-1970) – supported with the operating performance of the Superintendency for the Development of the Midwest - SUDECO. The PERGEB had a strategy of urban development held to strengthen and standardize regional growth. But unplanned migration and lack of public intervention in the face of rapid changes in the territory weakened (FREITAG, 2012) program. While politicians and internal financial problems led to the weakening of regional policy in the late 80s was the final stop of a national and regional planning that was restored only in recent years with the ‘Política nacional de integração regional’.

2.4 RIDE and metropolitan mobility
Public administration and the political articulation, production and management of public services in the metropolitan area of Brasilia actually depends on negotiations between State of Goiás, RIDE / DF, Federal District - DF and State of Minas Gerais, and this last little active due to the fact that the polarization with DF is concentrated in the State of Goiás. Regarding the State of Goiás, the development plan of Goiás, "Integrated Action plan" - PAI - produced by SEPLAN / GO (SEPLAN 2012) involves 29 strategic actions to municipalities around DF. This plan is integrated only between the MADF and the State of Goiás and financed with funds from the CAP, Credit BNDS operations, partnerships with private initiative and resources.

Regarding RIDE / DF is necessary to think this one with the Ministry of National Integration that manage the “Política de integração nacional”, and the new Sudeco that one was revitalized in 2012. As already seen the autonomy of RIDE / DF does not cover the possibility of a RIDE taxation system, as the federal, state and municipal budget and financial resources oriented management services, but only to coordinate projects, being responsible Sudeco for management of the Fund for the Midwest i.e. the articulation of demand for funds and metropolitan projects throughout the Midwest region. Regarding
SUDECO, Ministry of National Integration and RIDE / DF political relations are developed based on the structure shown here below about possibility of free decision’s directions from the Union and the States.

COARIDE Representatives according to the level of institutional government are:
1 for Minister of National Integration - UNION
1 for Managing Director of the Midwest Development - UNION
1 for Ministry of Planning, Budget and Management - UNION
1 for Ministry of Finance - UNION
1 for Ministry of Cities - UNION
1 for Civil House of the Presidency of the Republic - UNION
1 for Ministry of National Integration - UNION
1 for Ministry of National Integration - UNION
1 for Superintendency for the Development of the Midwest SUDECO - UNION
1 for Federal District Government - DF
1 for State Government of Goiás - GOIAS STATE
1 for Government of Minas Gerais – MINAS GERAIS STATE
1 for Municipalities of Ride - REPRESENTATIVE OF ALL MUNICIPALITIES
Source : http://www.sudeco.gov.br/coaride-df

Only recently (2013) there have been conversations between DF and Goiás regarding possible collaborations in the transport sector to the surroundings while there are agreements in other sectors such as health (IPEA, 2013). However it seems not to be discussed the fact that DF is subject to demand public services across suburbs area and metropolitan area. In general policies and plans of the DF (eg, recent planning documents as PDOT 2012 PDTU 2010) does not include collaborations and consortia, on the contrary it seems that there is a certain competitiveness, especially in relation to funding and management.

Between the institutional problems that develop all sort of conflict the greater one, in our opinion, is mobility and public transport. For those that drive Brazilians roads, like the author, the traffic violence and the lack of police control, the number of accidents are great problems. Most Brasilia drivers’ doesn’t have regular driving license and has aggressive way to drive.

Brazil is still trying developing Public transport infrastructure with the main goal to reduce transport matrix dependence on cars and trucks and increase railroads. Walking and cycling too are considered form of transport to be strengthened for pro-poor planning strategy and sustainable environment safe. Railroad transport and new public transport systems as Bus rapid transit (BRT) are planned all over metropolitan areas for the next years as sustainable solution. So Urban policies in Brazil are recently moving from a focus on transportation and developed, instead, focused plans on the human right to “equitable access to opportunities”.

With the Lei nº 12.587, de 3 de Janeiro de 2012, or Política Nacional de Mobilidade Urbana (Urban Mobility National Policy) it is now mandatory to be developed within three years urban mobility plans for human settlement of more than 20,000 inhabitants. Brasilia metropolitan area, have already a transportation plan (Plano Director de Transportes Urbanos - PDTU) that decided in 2009 the future plan implied because of the new policy. The PDTU plan must be upgraded in 2014 and must be organized as well as Mobility Transportation Plan because of the law
12.587 / 2012 above mentioned. In addition an international firm based in Singapore, was appointed by the government of the Brasilia Federal District to develop part of the analysis.

However the lack of adequate services have spawned violent public protests in June 2013, in addition to protests recorded monthly locally by citizens for the lack of service, bus breaks and continuous traffic jams. The argument that there are few resources or projects is not more sustainable by the government, because there is a well-trained technical service and public aware of the problems. It is reported by different source that the corrupted monopoly of public transport in Brasilia last all over the entire life of the capital, but in reality very little was done to create a favorable public administration milieu when in spite of informal and monopolist public transport the government support deeply the vocation of a public service mostly for commuters.

Regarding the difficulty in the neighbor municipalities of the Federal District of Brasilia, Mayors need more autonomy and well coordinated action between them to develop transports in the metropolitan area. Again the administrative regions of Brasilia, that count about 2,5 millions of inhabitants, an administrative division of Federal District that reach sometimes several thousand of people, administrators are persons appointed to the government and not elected by the population, they don’t have any autonomy. The distance between ordinary people and political system, exacerbated the lack of definition of spatial objects as a metropolitan area that are also political subjects, causes distrust and the private actions out of control such as the informal transport. Informal activities increase the risk of incidents and public insecurity, and lack of storage and formalization of jobs. The underground economy is not helping government statistics too.

The slums and underdeveloped growth, but also middle class townhouses, exacerbate existing spatial segregation and social problems. This is an effect of the lack of coordination and planning. It should be considered and underlines that the region of Brasilia does not have yet system control and information about the overall real estate and is delayed in settling land use. Perhaps this is a symptom that there is a political and economic conflict that must be overcome and turned to a significant social pact between politicians, society and industry for the future of the Brazilian capital and mobility inside it.

2.5 Preliminary results

This section presents main results of the research. About institutional configuration a first issue is that the territorial organization in Brazil is a derivative system agreement whereby groups located in different parts of a territory brought their particular demands in order to share the general Brazilian financial budget. National agreement about society formalized principles and aspirations is formalize in a Magna Carta ( the Constitution ) which applies as law in everyday life in which citizens give the state the task of ensuring peaceful coexistence , development (ANDRADE , 2010) and social cohesion that is referenced all national institutions at different scales of power and territory.

However there is also a local organization of powers and institutions that manage directly the territory. This organization, in countries as Brazil, is more strong as the central power is weak, it means that the local governance depends less from laws and more from local political and economic elites that can develop autonomous (from the central government orientation) politics.

An elite power based system always creates an ideology to avoid conflicts stemming reconciling divergent social interests and socioeconomic and cultural trade-offs inherent in decision-making processes that affect political institutions. This is the basic conflict in the Brazilian federal decision-
making process. There is no a strong local, regional and union cohesion, but negotiations and fragile equilibria, because the institutional conflict is structural due also to the socio-economic dynamics, modernization or development, and the asymmetries of power implicit in the system itself.

As results of this fist assumption the balance and cohesion is not a normal condition of the system, but extraordinary (PANEBIANCO, 1973). The legal concept of a metropolitan area can be put as an example of lack of cohesion or explanation of fragmentation, a paradox or conflict, aiming at the realization of the public functions of common interest in regional and local level. A part of the conflict stems from the principle of legality of public functions, as these do not necessitate law to regulate them.

As the metropolitan area does not have its own legislative body to account, independently of the issue of legal norms originating (laws) of their disciplinary matters are the states and municipalities must ensure that this lack. Hence the difficulty of establishing a legislative condo unit aimed at achieving the necessary organization, planning and execution of public functions of interest to all, also referred to the unit and complex urban problems.

A second institutional issue is that the 1998 constitution brought the organization of an institutional metropolitan form, the RIDE in Brasilia. This was born as a new figure made up of a regional government entity, territorial and intergovernmental without legislative force, with not enough structure to ensure the necessary treatment of the public functions of common interest integration. Moreover, there is no bar in the Constitution for the existence of agreements between governmental entities or consortia, especially when taking into account the exercise of public powers and competitors. But the institutional conflict between States and Union government about the territory (capturing votes) do not support cooperative solutions that could unbalance the present configuration of power.

It implies the paradox that in the metropolitan area of Brasilia the regional administrative cities and the Goiás State municipality are not required to actively participate in decision -metropolitan regional process, and the States are not permitted in any way, impede such participation. About the public function of common interest, the municipality is attached to tolerate its execution in its territory, since, if she performs and embodies a sense local interest, it is also of regional interest and cannot suffer interruption otherwise harm the other neighboring municipalities. Thus the possible imposition to cooperate into metropolitan and surrounding has a functional character, i.e. it aims to integrate the grouping of metropolitan municipalities in organizing, planning and execution of public functions of common interest. Thus, such integration requires that municipalities can (and should) participate in regional decisions and actions under different modalities, at all stages of organization, planning and execution of public functions of common interest (CAFFE ALVES, 2001).

The third institutional issue, according to Andrade (2010) is that Brazil is looking to replace this competitive federalism fact that Alves (2001) calls federalism by integration, by the cooperative federalism model, based on horizontal links regional management and interaction of federal entities aiming to improve the results of investments and efforts in a given territory by municipalities. However Goiás State that belong to political opposition to central govern and the Federal District that is managed by the govern coalition, conflicted in almost all public plan and program making real the institutional territorial conflict in the centre of Brazil. The NPDR (National Policy for Regional Development) as well as identifying their spatial scales and objects between action planning (municipalities, Metropolis, Metropolitan Areas, etc.) need mechanisms to ensure the flow and allocation of resources whose
actions are disconnected from actions taken in priority areas leading to inefficiency as to achieve the proposed objectives. The paradox here is that this goal can only be effective with the dialogue and negotiation with all municipalities and States.

The difficulty of cooperate between all governance levels of the constitutional territorial administrative units in Brazil, and between Brasilia and municipality of the surrounding cities of State of Goiás is do first to historical institutional path dependency, and second, as Max Weber explained in this work about power and public administration in the XIX century, because of the elite use of power to preserve people status, and third, because the lack of managing culture in the public administration Brazilian that privilege formal and impersonal work and the public authority status of the administrative worker instead to work for more efficiency, and equity.

3. CONCLUSION

Metropolitan governance in Brazil and the case of Brasilia raise many issues and discussions, so the first conclusion of the research about metropolitan area of Brasilia just showing that the institutional actions are not based on cooperation between the political actors (local and national political system). The public administration management of Brasilia is not efficient, efficient and effective do to a political power conflict and the unclear metropolitan institutions. One explanation is that this conflict does not exist, autonomy, boundaries and functions to municipalities to self organize form, they are hostages of the political coalitions in Congress.

The centralization and the supremacy of the Union, the central government, on the other federal entities and political patronage foster state paternalism and patronage of the Brazilian public administrative culture (ABRUCIO, 1998). Excessive regulation leads to slowness of the shares, the wear of governmental entities and overlapping of duties that hinder the processes of negotiation and coordination of local actions.

A second conclusion of the analysis suggests that, due to political articulation financial resources will not always be reworded or redistributed in terms of their formal or textual configuration. Often carried out a territorial financial redistribution only the change in the next four years will embodying new plans. The paradox of the four years election power cycles implies that there is a fragmented or partial implementation of certain activities and public services, considered solely in the interest of the municipality and metropolis, beyond the territory institutionally and administratively defined a treatment at the regional level.

The objective of managing the required services should be to provide the population of the area, regardless of ideological issues or based political divisions, but this situation is still strongly rooted in Brasilia. So the actual research points out as first major regional bottleneck: political leadership to develop public services and cooperation at regional level. The political conflict between Union, Goiás State, Federal District and municipalities is amplified by the institutional path dependence and replied in all governance levels and economic dimensions.

The research thus suggests a successive stage of the relationship system analysis and in particular the goal to map and identify which services would be absolutely necessary for the management of the Brasilia’s metropolitan area. The transport system and logistic infrastructure was pointed out as the main but metropolitan functions as housing, security, health and education need to be researched as main function for a welfare state. It is a priority for to avoid breakdowns and urban conflicts as
manifestations of recent months ending with the burning of transport buses and to deliver a real welfare for the population.

All citizens suffer the inefficiency of the metropolitan system but mainly the low income and worker class, so the actual government seems not to reach the own main goal - reduce difference between classes - not because of the great number of redistribution programs like “bolsa família” and law created to protect low class but making effective good public services for all.

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Buenos Aires and Modern City through Antonio Bonet Castellana’s urban proposal: the Plan for Barrio Sur, 1956

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Abstract

This paper examines the Plan for Barrio Sur (1956), proposed by Antonio Bonet Castellana to the city of Buenos Aires. Although the plan has not been built, this paper suggests that it inserts important notions to the study of the modern city. The plan defended housing as an important program to exist in the city center, which was supported by others as working and leisure, promoting programmatic multiplicity instead of its spatial separation. In this sense, the idea of the condensed city was claimed, and it was reinforced by the use of high densities. Therefore, the existing city (based on the traditional Spanish grid) was reviewed, being reshaped into three building types – the tower, the greca, and the low-rise one. The last one became important, capable of controlling the amount of green area dedicated to the open space, and of formalizing a pedestrian route. The combination of these three building types resulted in a new urban pattern, from which open space derived was investigated in scale and composition, and diverged from the modern city open space common understanding.

Introduction

Adrián Gorelik in La Grilla y el Parque: espacio publico y cultura urbana en Buenos Aires, 1887-1936 (2010) points out a political and social disequilibrium between northwards and southwards of Buenos Aires, directions that the Avenida de Mayo axis originally placed as symmetrical. The author explains the Buenos Aires “divided in two” as a result of its natural development that fixed northwards as the “elegant city”, which was preferred by private investments, and southwards as the “workers city”, embedded in protests and stagnated in terms of urban planning. As a response to that division, southwards was the municipality scope of intervention in the first half of the twentieth century, and a significant example of such approach was the opening of 9 de Julio Avenue by Mayor Mariano de Vedia in 1937.

The difference between northwards and southwards of Buenos Aires was also perceived by Le Corbusier and the Argentine architects Jorge Ferrari Hardoy and Juan Kurchan in the Buenos Aires Master Plan (1938-40). “El despertar del sur” or “the awakening of the south” was one of the important concerns emphasized by the plan, and later reinforced by Ferrari Hardoy and Kurchan in the magazine La Arquitectura de Hoy (1947). Within this approach, the plan suggested placing public buildings in the south area, such as the Government Center, Municipal Center, Associations Center and the Pan-American Center, aiming to promote equilibrium in comparison with the north area. The authors also claimed that the site was an advantageous one, nearby the “vital center of the city” surrounded by business and services facilities.

The Plan de Remodelación de la Zona Sudeste de la Capital Federal (1956), commonly named by historians and critics as “Plan for Barrio Sur”, was Antonio Bonet Castellana’s contribution to the southwards revitalization issue. The plan intended to remodel one of the oldest sectors of the city, nearby the central business district of Buenos Aires, replacing the traditional grid plan with high-density housing. Bonet Castellana understood housing as a program capable of urban renewal, and as
important to exist in the city center. According to the architect, the plan emerged precisely from that imbalanced north-south relationship:

[The plan] Arose from a lecture about urbanism that I gave at Buenos Aires, proposing a lot of things and among them that something had to be done to avoid the existing imbalance between North and South quarters. [...] Soon from this lecture, the president of the Argentine National Mortgage Bank called me and talked about doing and studying a project with a delimitation proposal.\textsuperscript{vi}

For the president of the Argentine National Mortgage Bank, Manoel Rawson Paz, Bonet Castellana was the architect capable of conducting such urban study (fig. 1). In 1956, the Catalan had already an important record of projects involving the urban scale in Argentina, such as the Casa Amarilla housing (1943), the Plan for Bajo Belgrano (1948-49), the TOSA housing (1952) and the first prize in Necochea-Quequén contest (1953); and in the Uruguayan context, the settlement of Punta Ballena (1945-48). Bonet Castellana was also continuously engaged in important debates about the modern city, including the participation at fourth, fifth and seventh edition of the International Congresses of Modern Architecture (CIAM).\textsuperscript{vii}

![Image](image.jpg)

Figure 1. Plan exhibition. \textit{Left to right}: Antonio Bonet Castellana, Minister of the Air Force Admiral Julio C. Krause, President of the Argentine National Mortgage Bank Manoel Rawson Paz, President of Argentina General Pedro Eugenio Aramburu and Mayor of Buenos Aires Luis María de la Torre. (“Buenos Aires Futuro,” \textit{Esto es} 134 [August 1956]: 24.)

The Plan for Barrio Sur was intended to be a guideline structure, possible through a partnership between public investments and private enterprise, and planned to be built over a period of ten years, involving different architects and companies in the process. At the time, it was published in several specialized magazines such as the Argentine \textit{Mirador} (1957), the Brazilians \textit{Módulo} (1957) and \textit{Habitat} (1958), and the Europeans \textit{Revista Nacional de Arquitectura} (1956), \textit{Bauen und Wohnen}
achieved international projection. Nevertheless, the plan has never been built. By its dimension and its location, the plan promoted polemical discussions among the local press, involving inhabitants and opposite political forces. The context was conflictive, organized between General Juan Perón resistance and the Provisory Government established by Revolución Libertadora. Jorge Francisco Liernur argues that, despite its modern nature, the plan was an “anachronistic instrument”. The author explains that such plan in such instable political context would never succeed – it required a strong political force that was not available anymore, and could not be sustained by a provisory government:

[...] in its contradictory directions, of conservatives and modernists, of leftist and liberals, the new social dynamics that the ideas of the plan put on the move make it impossible to sustain based on that ephemeral power installed after the overthrow of General Perón Government. The uprising slogan against a supposed “dictatorship” – and from where the claiming of democratic forms was just partial and rhetoric – was totally contradictory the dynamic that such proposal required.

If in political terms the plan did not succeed, within the modern city scope it inserted pertinent discussions. Besides the southwards renewal aspect, the Plan for Barrio Sur introduced important changes in the existing city, claiming housing program as essential to the city’s central area development, and questioning the traditional block pertinence by reshaping it into different components. Moreover, the plan stated an important concern about the modern city open space composition, scale and use. In this sense, the Plan for Barrio Sur improved a previous investigation that Bonet Castellana and the architects Jorge Ferrari Hardoy and Jorge Vivanco developed in the Plan for Bajo Belgrano (1948-49) by inserting new components. This paper intent is to examine the Plan for Barrio Sur and its contents in the context of Buenos Aires in the 1950s, comprehending it as part of a recent past that was left open, and still claims further studies.

The city over the city

The remodeling area suggested by Bonet Castellana was circumscribed by Paseo Colón, 9 de Julio and Belgrano Avenues and by Caseros, Brasil and Defensa Streets, organizing a rectangular site that involved about 110 existing blocks plus Lezama Park as complementary area. The plan was calculated to support 450,000 inhabitants in the city center instead of the existing 80,000. Sustaining that central location as the proper one to hold housing, working and leisure facilities, and by claiming that the “citizen must live in the city, not out of it”, the plan was opposed to place housing somewhere still to be occupied – and there were a plenty of empty urban spaces in suburban areas. As Gorelik explains, Buenos Aires urban extension was planned by municipality, which filled a huge territory limited by Boulevard de Circunvalación (or the actual General Paz Avenue), with the manzana: a block derived from the Spanish grid, about 110-130 meters long. Those manzanas were intended to be progressively occupied, being slowly converted into city. At the time, the municipality used to solve the increasing population issue by locating housing precisely in those suburban areas to be filled, and even in the metropolitan area. Although some proposals applied high-density solutions, such as the slab typology instead of freestanding houses, those areas did not display the entire set of basic systems and
services needed, what raised the cost of each living unit. Within this context, the Plan for Barrio Sur emerged as a critique at the same time as a possible solution. The idea was to take advantage of the already existing structure provided by the established city, placing housing nearby traditional working areas (fig. 2), reducing time expended in transportation and Buenos Aires urban extension, in a claim of a more condensed city.

Figure 2. Above left: Plan location. The bold area represents the sector that was to be remodeled and the circled area, the business center of Buenos Aires. (Banco Hipotecario Nacional, Plan de Remodelación de la zona sudeste de la Capital Federal. Estudio Urbanístico, Legal y Financiero [Buenos Aires: 1957].) Above right: aerial photography of the sector in the 1950s. (“Remodelamiento de la Zona Sur de Buenos Aires,” Cuadernos de Arquitectura [1959]: 8.)

In addition to the central location selected, the plan questioned the manzana as a pertinent urban module, a component that Bonet Castellana understood as “out of scale”. Therefore, those 110 existing blocks were amplified and converted into six equivalent sectors about 16 hectares, or 16 existing blocks each. It implied a scale change operation that also altered the pedestrian and vehicular character of the manzana, but maintained the square form as the new city formal order, thus capable of continuing the existing road system. The procedure eliminated some existing streets and adapted others to support fast traffic, such as San Juan and Independencia Avenues and Perú Street (fig. 3). Bonet Castellana extended the manzana up to approximately 400 meters long, agreeing with the average distance suggested by Le Corbusier as the vehicular traffic module for the modern city since Ville Contemporaine (1922). This same measure was also present in Le Corbusier’s Ville Radieuse (1930-35) and in the several proposals from it derived and conceived over existing cities, such as the already mentioned Buenos Aires Master Plan, but also the Macià Master Plan for Barcelona (1932), which Bonet Castellana had the chance to witness through GATEPAC collaboration.
Each new block or sector organized a district supporting 75,000 inhabitants – a number based on the residents that were already present in some defined districts of Buenos Aires, such as “La Boca”, old “Belgrano” or “San Isidro”. To sustain that population number, each district was developed according to an abstract scheme that articulated two movements. At the center, Bonet Castellana placed administrative and cultural buildings, green leisure areas and the civic plaza of the district; at the boundaries, commercial areas were placed, setting the limits between the different districts as well as the continuity through the existing city. The strategy was explained in the description of the plan as a “centripetal element that gives each district its own characteristics” articulated by a “centrifugal element that constitutes a unifying force with the city”, conceiving housing over a multiple programmatic structure.

That abstract scheme was then occupied by basically three components distributed overall planned area: high-rise buildings, of 100 meters high or 35 stories; medium-rise and continuous buildings, of 30 meters high or 11 stories; and low-rise walk-up buildings, up to 6 meters high or 2 stories. Despite different types, those three building models supported the housing program, organizing a density of about 4,700 inhabitants per hectare into three different scales, referred by Bonet Castellana respectively as “space scale”, “tree scale” and “man scale”. The use of high, medium and low-rise buildings introduced an important variation in the planned area, enabling several contrasts that would not have been possible if only one height had been selected. As the height between building types was not the same, its orientations were not either, differing from the known modern scheme of parallel slabs oriented according to the sun’s position. A possible guide rule in Barrio Sur
has not been suggested by an insolation calculus, but by the orthogonal logic of the existing city, perhaps in a compositional attempt to relate new city components to old urban alignments.

In a sense, medium and high-rise buildings could be described as geographical elements: one related to a horizontal domain and the other related to a vertical one. Together, both building types defined the rhythm of the new city, being distributed over green area or over the low-rise building (fig. 4). This last one became an important component within the proposition, developing the ground level in an expanded way, and controlling the amount of green area dedicated to the open space. Moreover, the low-rise building constituted a pedestrian interface, being an essential piece of a supporting system to the high and medium-rise buildings, concretely expressed in a pedestrian route. This pedestrian route connected the ground level of the built components with the open space ones, such as plazas and green areas, and responded to a wider organization that linked the pedestrian scale to the city scale, developing a new city over the existing one.

Figure 4. Physical model of the Plan for Barrio Sur. (Historic Archive of Colegio de Arquitectos de Catalunya. Folder Antoni Bonet i Castellana. C1303/157: 2 [1956].)

“Cow”, “grazing” and pedestrian paths

About the low-rise building type, Bonet Castellana said:
I insisted on give importance to those one-story buildings, creating pedestrians streets among commerce, schools and libraries. First, we sketched the towers, then the greca, and when we were starting with this, I started to enlarge. Someone that was there said, “grazing is being eaten”. As it was eating grazing, they put its name as cow. I insisted on not to create excessive green areas, exactly the opposite that I had done some years before in Bajo Belgrano.\textsuperscript{xxiv}

Beyond housing, the “cow” responded to even other programmatic demands, such as schools, cultural and sportive centers, and commerce, assembling an important pedestrian animation at ground level. The word “grazing” refers to the amount of green areas developed, which the dynamic of the “centripetal” and “centrifugal” movements, previously explained, established mainly at the center of each district. Those green areas, or “grazing”, could be comprehended as remaining fragments of the gradual action of the “cow” (fig. 5). In this sense, and differently from the earlier Plan for Bajo Belgrano, the Plan for Barrio Sur did not represent “green space as the protagonist of urbanism”,\textsuperscript{xxv} establishing an important concern about the use of open space areas.

Figure 5. Partial views of the physical model and remaining green open areas. ("Plan de Remodelamiento de la Zona Sud de Buenos Aires,” Mirador [1957]: 71; “Projeto de Remodelação da Zona Sul de Buenos Aires,” Módulo [1957]: 35.)

Liernur observes, “the cow was one of the most innovative aspects of the proposal, an intermediation structure and the only building type that is not present, even conceptually, at any Le Corbusier’s urban project”.\textsuperscript{xxvi} By existing as an undefined form, assuming the shape of a rectangle, a square, or another special figure, the “cow” was utilized as a tool for animating the pedestrian route, for incorporating preexisting buildings of historical or social importance to be maintained,\textsuperscript{xxvii} and as a disperse component used to neutralize the large open space. Its combination with the tower or the greca produced different sizes and kinds of open spaces, from small and enclosed green areas to expressive civic plazas, supporting varied activities at ground level.
As Cláudia Cabral points out “open space was a key component in the modern movement’s formulation of the city, but also a component that was often reduced to the more-or-less systematic idea of separate blocks spread across an overall green carpet”, xxviii an aspect that the author contests in Bajo Belgrano proposal. The Plan for Bajo Belgrano intended to be an experiment of future city, xxix a new and modern district for Buenos Aires of 50,000 inhabitants over an undeveloped area nearby Río de la Plata and River Plate Soccer Stadium (1938). Bonet Castellana together with Jorge Ferrari Hardoy and Jorge Vivanco developed the plan among the proposals of Estudio del Plan de Buenos Aires (EPBA, 1947-49). Similar to the Plan for Barrio Sur, Bajo Belgrano combined housing with other support programs, but also assembled a large structure of covered pedestrian paths at ground level. Such structure connected the different housing blocks with the open space components, including plazas and sports fields, and supported commerce and service facilities. Thus, Cabral stresses that Bajo Belgrano’s use of ground level reveal a more complex concern about the modern city open space, and do not prove that schematic common understanding, xxx although for Bonet Castellana the large amount of green areas meant an excess to be corrected. xxi Therefore, it was by the introduction of the “cow” component, capable of controlling the excessive green area, that Barrio Sur scheme advanced Bajo Belgrano solution, assembling a built topography that occupied the empty spaces that in Bajo Belgrano were filled by nature (fig. 6).
In Barrio Sur, the pedestrian paths were not a large and unitary structure as it was in Bajo Belgrano, but a system, constituted by the different components of the proposal, such as buildings and plazas, intermediated by the action of the “cow”. Thereby, the pedestrian route could be merged into open and enclosed spaces, what included the ground level of the built components as the circulation diagram shows (fig. 7). The procedure involved the tower ground level as well as the greca and the “cow” borders, compounding a gradation of open, open and covered, and enclosed routes, exclusives of pedestrian domain. The widths of those paths were defined according to the built components position, measuring 8.5 meters between buildings and 3.5 meters between green open areas. As active components of the pedestrian system – the tower, the greca and especially the “cow” – must be comprehended as urban pieces, or, as Bonet Castellana explained, as “city fragments”, not as buildings in the traditional sense of the word.xxxii Those structures were capable of defining urban issues, such as the separation between vehicular and pedestrian traffic or its union when convenient; or the continuity of the pedestrian route beyond ground level, ascending vertically.
From the “cow” to the tower: the vertical dimension

In this sense, the pedestrian route that started at ground level could be continued in a raised circuit, over vehicular streets or within the tower or the greca in a controlled way, inserting the vertical dimension as part of the system. Therefore, the corridor of those buildings, which provide access to each housing unit, did not only belong to each building, but also to the city, being related to the idea of “conventional block stacking” as Cabral explains. When joined to the pedestrian routes at ground level, the “in the air” circuit was a consequence of Bonet Castellana’s concern about separating vehicular traffic from pedestrian transit. The architect stated that the “streets that were before at human scale […], were now converted into simply traffic canals” and were not social spaces anymore, an idea that the plan intended to recover. The division between vehicular and pedestrian circuits did not occur in the overall planned area, but when both systems could be conflicting, especially at the encounters between the pedestrian ground network and the express streets that defined the limits between each district. The solution provided was to raise the pedestrian network, transforming it into footbridges that cross over those streets, or into sidewalks that were kept at level when the site’s topography permitted those streets to occur at a lower level. When crossing streets, the footbridges were equipped with commerce and service facilities, being also pieces of the “cow” component (fig. 8). On the intersection interface between the planned area and the existing city, as well as among parking areas nearby the center of each district, both vehicular and pedestrian circuits were kept at the same level.

Despite the greca be the less mentioned component in the description of the plan, it was important in promoting continuity through planned area. At ground level, it was flanked by commerce, organizing covered galleries in conjunction with the “cow”. Such strategy guaranteed pedestrian animation and use of those spaces independently of climate conditions. The greca was also an “overpass element”, capable of leaping across vehicular streets and of connecting the different districts through housing program. By the directive role of the plan, the greca remained as an abstract solution, but it is possible to establish relations between this component and the idea of Le Corbusier’s redent typology, although in Bonet Castellana’s version it was guided by different patterns.
On the contrary to the *greca*, Bonet Castellana had an opportunity to better define the tower, designing a set that would have been the first stage of the plan to be executed, integrally financed by the Argentine National Mortgage Bank. The tower arrangement was also intended to serve as a model for further stages, to be completed during the ten years of construction. The tower appeared in groupings of three, formed by one squared and two rectangular types, placed nearby the main open area of each district as part of its scenery. The three tower types displayed the same height, but the rectangular ones were placed according to two different orientations, organizing two types: an east-west and a north-south one. Such decision enabled several permutations of the set assembled, introducing variability in the planned area at a skyscraper scale. The east-west type was a double loaded building, displaying units along both sunny sides, in an “interior street” organization with a central elevator core. The north-south one also presented a central elevator core, but was a single loaded building, displaying an open corridor oriented southwards and two-story units (fig. 9), strategies that recalled some Bonet Castellana’s earlier experiences. The grouping of towers could be thought as a dismemberment of the cruciform “City-block” (1928) proposed by the Ukrainian architect, but Argentina-based, Wladimiro Acosta; or even similar to the *redent*-type, as well as the *greca*, according to the corridor placement strategy.

The overall system organized by the tower, the *greca* and by the action of the “cow” composed an urban arrangement to be comprehended three dimensionally, establishing a different urban logic from the traditional city one. In Barrio Sur, enclosed areas provided by buildings and public open areas provided by plazas and green areas were merged, assembling structures capable of interfering at ground level and of expanding socialization spaces. Therefore, Barrio Sur is a graphic testimony of Bonet Castellana’s discourse in *Nuevas Precisiones sobre Arquitectura y Urbanismo* (1949), supporting that,
“the big architectural elements […] will form the real structure of the city, in the same way as in our actual and anachronistic two-dimensional urbanism.”

**Conclusion**

Further studies could be included for an extended comprehension of the ideas developed in the Plan for Barrio Sur – what suggests analyzing the plan in relation with the theories developed at the CIAM congresses, specially at its eighth edition, and with the Latin American contribution of the Catalan architect Josep Lluís Sert. Nevertheless, this paper intent was an attempt to understand the plan by its own contents, within the context of Buenos Aires in the 1950s. In this sense, the Plan for Barrio Sur was Bonet Castellana’s response to the northwards and southwards imbalance of Buenos Aires, being at the same time a critique to the suburban housing placement politics. The architect solved both issues by recognizing the housing program as capable of urban renewal, which legitimate location was the central area of the city.

Therefore, the plan questioned the existing city in its scale and form. The manzana module was amplified, and its traditional divisions were suppressed and converted into three different scale buildings: the tower, the greca and the “cow”. Although housing was the main program proposed in the planned area, and present in the three building types developed, this paper suggests that Bonet Castellana did not comprehended it in an isolated way, but articulated with other programs and with the existing city. The result was not a four-function city of programs spatially separated, but a city that enabled programmatic multiplicity. In this sense, the “cow” was an important component. By existing in several shapes, it was the building type capable of inserting varied programs in different open space contexts, maintaining preexisting buildings, and restraining the excessive amount of green area developed within the proposal. Thus, the Plan for Barrio Sur revealed a concern about the modern city open space composition, scale and use, diverging from its common understanding as an area reduced to the green and nature.

An important element of the open space assembled was a formalized pedestrian route, capable of connecting different scales within the planned area. In comparison with the previous Plan for Bajo Belgrano, where a similar system was also present, the introduction of the “cow” in Barrio Sur improved it, making it occur in a more expanded way. The system assembled was capable of continuing vertically, as also through the existing city. In this sense, even assembling a different urban logic over the old one, the arguments collected in this paper suggest that the new city was related with the existing Buenos Aires, and did not represent a complete break in its continuum.

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2 Ibid., 199.

3 Le Corbusier, Juan Kurchan, and Jorge Ferrari Hardoy, “Plan Director para Buenos Aires,” *La Arquitectura de Hoy* 4 (April 1947): 4. Although the plan was not published in its entirety, the magazine, an Argentine version of *L’architecture d’aujourd’hui*, was its only publication, unauthorized by Le Corbusier; see Jorge Francisco Liernur and Pablo Pschepiurca, *La red austral. Obras y proyectos de Le Corbusier y sus discípulos en la Argentina (1924-1965)* (Bernal: Universidad Nacional de Quilmes/ Prometeo Libros, 2008), 193.

4 Ibid., 29.

5 Bonet Castellana organized a team that involved twenty professionals among architects and general collaborators: Luis H. Aberastain Oro, Horacio Baliero, Nélida Gurevich, Eduardo Polledo, Próspero E. Poyard, Víctor Sigal, César A. Vapñarsky
y estudiar un proyecto con una...

...Bonet

...Bonet. "Encuentros: Antonio Bonet," en Comité Internacional Pour la Resolución des Problèmes de l’Architecture Contemporaine (CIRPAC) in Spain. The group lasted from 1931 to 1936. Bonet Castellana entered in 1932 as the only student member of the organization. Antonio Bonet Castellana in Alejandro Bobzin,


...Ibid.


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...Ibid.

...Ibid.

...Ibid.

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Le Corbusier, Urbanisme (Paris: G. Gres, 1924), 162.

Xavier Monteys, La gran máquina. La ciudad en Le Corbusier (Barcelona: Ediciones del Serbal, 1996), 42.

Alvarez and Roig, Antoni Bonet Castellana 1913-1989, 24. GATEPAC or Grupo de Arquitectos y Técnicos Españoles para el Progreso de la Arquitectura Contemporánea, represented the Comité International Pour la Resolution des Problèmes de l’Architecture Contemporaine (CIRPAC) in Spain. The group lasted from 1931 to 1936. Bonet Castellana entered in 1932 as the only student member of the organization. Antonio Bonet Castellana in Alejandro Bobzin,


xxvi “La ‘vaca’ era uno de los puntos más innovadores del proyecto, una estructura de intermediación y el único tipo de edificio que no está presente, ni siquiera conceptualmente, en ningún proyecto urbano de Le Corbusier.” Liernur, “Las “villas miseria”, el “Barrio Sur,” 89.


xxix “Iniciamos una planificación de Buenos Aires y decidimos hacer paralelamente un barrio que fuera una experiencia, una demostración de lo que queríamos que fuera la ciudad.” Bonet in Bobzin, “Encuentros: Antonio Bonet,” 45.


xxxiv “Las calles que antes estaban a la escala del hombre [...], se han convertido ahora en simples canales de transito,” Bonet, “Plan de Remodelamiento,” 67.

xxxv Ibid., 70.


xxxvii Bonet Castellana had already applied this same mechanism in the Casa Amarilla housing (1943), in the TOSA housing (1952) and even in the Paraguay-Suipacha building (1939), example included in Sigfried Giedion’s A decade of new architecture (Zurich: Editions Girsberguer, 1951), 99.

Bibliography


Military at The Home Front: planning the Postwar Brazilian military houses
Mariana Fialho Bonates, Fernando Diniz Moreira

ABSTRACT
Despite the fact that the 20th century is known as a time of “total wars”, followed by the tensions emanated by the Cold War, there is still a lack of interest about the development of the own military housing, their design process and the techniques adopted to build their residential areas. On this behalf a question arises: what, in fact, were the principles and techniques adopted by the militaries to develop their residential areas? In order to pursue this inquiring, this paper aims to discuss the military housing in Brazil by analyzing the blueprints designed between 1946 and 1971, to draw a postwar picture of the main characteristics of their urban design and planning process. In other words, it is a case study about the history of planning the postwar military housing in Brazil. Since World War II was a globalized event, as Cohen (2011) has singled out, it didn’t affect only the countries directly involved, but also others, as the suppliers of raw and agricultural materials. Brazil, for instance, was an important supplier and also a strategic player in World War II, after joining the USA and the Allies. As an outcome of their participation, the nation faced afterward some political and economic changes likewise the restoration of democracy and industrialization. The militaries also faced institutional changes inspired by the closer relationship with the US Army, especially regarding the training and educational systems. In this sense, another question arises: were the Brazilian military housing designs affected by the cultural exchanges with the Americans and the wartime atmosphere of standardization and mass-production? During the 1950s and 1960s the Brazilian Army designed a significant number of plans under a governmental rental program to dwell the military staff and their dependents into military housing, or vilas militares, which are groups of apartment blocks or individual houses. Despite the presence of more than 19,000 units spread throughout the country, very little is known about their planning methods, their design process, and their layout features. Due to the frame time this discussion has to consider the effects of the worldwide mobilization and defense expenditure because of the widespread idea of standardization and mass-production and the set of a new culture of planning and industrialization put into motion by the militaries in the USA, Brazil and elsewhere. Nonetheless, those ideas had different applications in the military housing practice in Brazil because their design process were mostly characterized by small communities of around one or more dozens of dwellings that represents a different approach of planning. Urban plans of more than one hundred houses were developed as well, but not built as planned and turns out that they weren’t mass-produced, contradicting the unilateral representation that linked standardization and military techniques with uniform mass production. In sum, this paper addresses the issue of revisionist and alternative planning models.
Keyword: military housing, postwar planning, mass-production, standardization; representations
INTRODUCTION

During the 20th century the militaries gained prominence in the society due to the planning methods and techniques of standards and mass-production they applied in wartimes. In a continuously pursue for efficiency those methods and techniques became a central element of the military development as an institution since the early 18th century, and therefore a postwar model. The need for efficiency and functionality were the motto of the military organization and was reflected spatially into the construction of their quarters.

As coined by Eric Hobsbawm (1995), the first half of the 20th century is a time of “total wars”, when all spheres in social, economic, political, and even the domestic life were drawn by the mobilization effort. A time of “mass wars”, mass production, organization and management (HOBBSBAWM, 1995). According to Cohen (2011), World War II was a globalized event: not only did it affect the belligerents but also peripheral countries that played a role as supplier of foodstuffs, raw, agricultural and mineral materials, such as Brazil did (SMITH, 2004). The construction of engine and steel factories in Brazil can be considered another wartime consequence in the country. In a period welded by the Ages of “total wars”, followed by the tensions emanated by the Cold War, the universe of military techniques and new materials had great impact on the universe of architecture and city planning, as several scholars have studied, such as Albrecht (1995), Colomina (2007), Shanken (2009), Castillo (2010), and Cohen (2011). They are pointing to the effects of the military planning methods and techniques such as standardization, mass-production, and prefabrication on the construction field; techniques that were adopted on industrial buildings and also on the housing production for the American middle class in the suburbs during World War II and postwar period. The standardization and mass production process driven by the militaries, for defense purposes, were assimilated as the more technological construction pattern, and from this idea several debates about industrialization, prefabrication, standardization and mass production of housing arouse as a very influential discourse during the war and aftermath. Those ideas were epitomized and carried out by architects interested in applying the scientific management principles or, by other means, Taylor’s and Ford’s principles.

The unilateral representation that linked standardization and military techniques with uniform mass production was part of a postwar general idea that expected military houses to be more technological and to look “modern”, as noted by Joseph Hudnut’s in a 1945 paper published in Architectural Record and later in his book (HUDNUT, 1949). The same author also realized that, besides the generalized idea above state, even the US soldiers would wish for a more traditional looking house, likewise a Cape Cod cottage.

These widespread idea about the military production raises a question: What, in fact, were the principles and techniques adopted by the militaries to develop their residential areas? An attempt to answer this question will be made by analyzing the military housing plans in Brazil designed from 1946 to 1971, in order to draw a postwar picture of the main characteristics of their urban design and planning process. One can understand military housing as an ensemble of individual houses or apartment blocks to the strictly use of the military staff and their dependents. Those dwellings are government ownership, rented to the militaries while they are in service. In other words, the dwellings are part of a state rental housing policy. Nowadays, Brazil has more than 19.000 military houses throughout the country, located in a variety of cities that range from national or regional economic and political centers to small communities along the boundaries of the territory. The sample studied in this paper, consists into 202 urban blueprints that were selected from the Military Archives of the Military Construction Branch located in the Army’s Headquarters in Brasilia. The sample was firstly analyzed by separating different elements that would characterize the urban design such as the location, number of dwellings in each plan, year of the designs, authorship, but also the urban layout features including the existence of open spaces or community buildings, urban forms (whether it was rectangular or curvilinear, with or without cul de sac on the streets, and
others physical features), and so forth. Those characteristics were organized in a table and statistically evaluated in order to identify the frequencies that would provide the drawing of a general idea of the postwar military housing in Brazil. Moreover, the social and spatial relationships were decoded alongside a broader institutional and national context, building an interpretation as summarized in the following pages.

**BRAZIL POSTWAR CONTEXT: and the military historiographical role**

At the beginning, Brazil played a role in World War II as an agricultural supplier but after 1942, when German’s submarines attacked Brazilian’s civilian fleet, the country declared war against Germany and became an US ally. This alliance included the dispatch of Brazilian soldiers to fight in the battlefront with the US troops, particularly during the reconquest of Italy. Due to wartime, the long-lasting relationship the Brazilian Army had with the French Army shifted toward a new approach with the US militaries. In other words, the Brazilian military doctrine shifted from a French to an American approach, having an immediate impact into training and educational systems, as singled out by Penteado (2006).

These events were synchronized by an intense cultural approximation between the US and Brazil that included the exchange of artists (Orson Wells and Carmen Miranda), and the promotion of exhibitions, such as Brazil Builds, which took place in the Museum of Modern Art in New York, in 1943, displaying Brazilian modern architecture to the world.

The US had special interest in Brazil, not only for its strategic position on the Atlantic to send aircrafts to the battlefront, but also because it could be a Latin America barrier against a possible invasion of Germany (Penteado, 2006; McCann, 1979). The interest, however, was mutual and can be summed up in three main aspects: (1) Brazil was seeking for political acknowledge; (2) expecting for American investment in the economy; (3) and to achieve the modernization of Brazilian military institution.

In the Brazilian Army, for example, the consequences of the closer relationship with the US Army were seen in three different aspects. First, in the restructuring of the organization – which included the creation of the air force; second, in the purchase of new equipment; and third, in the location of US military bases in the North and Northeast – in cities like Belém, Natal and Recife. As a matter of fact, the US military played an important role as disseminating American architecture, engineering and construction in many countries, as singled out by Cody (2003). But did it have any impact in the Brazilian case?

In 1946, the Brazilian Army passed through some institutional transformations, including the creation of DOFE that lasted up until 1971, when another department replaced it. The DOFE (Diretoria de Obras e Fortificações do Exército), which means “The Army Division of Works and Fortifications”, was the department in charge of most of the engineering activities of the Army. It was organized into national (or general) and regional sections, though the national section was supposed to draw the final designs. The professionals who drawn it, in most of the cases, are not identified, so the authorship remains anonymous, as a technocratic profile.

Along the 1940s, 1950s and 1960s, the DOFE designed several blueprints for military housing spread throughout the country. During that same time the country passed through major transformations in the economic and political scene. The Brazilian’s economy experienced an industrial development set up by foreign capital and, by some extent, driven by a group of military technicians and engineers. In the political scene, democracy was restored with the help of the same militaries that supported Getúlio Vargas taking over in the 1930 and during his staying in power until 1945. Its worth to recall that during those decades the military was seen as one of the modernizing forces of Brazilian society.

During the 1950s and early 1960s, the democratic aspirations and economic growth created a sense of optimism, especially amid the raising middle class, which included the officers. According to
Lara (2008), the growing role of the middle class affected their taste and they demanded a modern look in their houses in accordance to the modern institutional buildings that were being erected. Brazilian modern architecture achieved international recognition and was also seen by the nationals as a symbol of country affirmation. The construction of Brasilia, for instance, was very influential and crystallized this moment of national pride. Meanwhile, inside the military institution, their first peak of design production was in 1957, during Juscelino Kubitscheck’s government (Fig. 01). One can explain this peak by a 1956 decree that approved a huge financial support for the construction of military houses all over the country to be planned along 10 years – this funding was to be equally divided into 10 parts, each one being released per year \textsuperscript{xlviii}. The other peaks of design production were during the very beginning of the military dictatorship that started in 1964. Considering those peaks of production – 1957, 1965, 1966 and 1967 –, they incorporated together almost 52% of all the blueprints designed during the period of 18 years. In addition, it’s also interesting to note that the stimulation to build the postwar military housing was done not by the military government, yet by the democratic one.

![Graph showing number of blueprints along the years (1953-1971)](image)

Source: elaborated by the sample of blueprints gathered at the Military archives (2012)

The national sense of optimism lasted till 1964 when the militaries toppled the democratic regime and established a new dictatorship, which lasted up until 1985. During this time, the military government strove to legitimize themselves and to leverage the economy by a mass production housing program that was supported by the government’s agency so-called BNH (Banco Nacional de Habitação / 1964-86), or National Housing Bank if translated into English. Intended to rehabilitate the economy through this building effort and to legitimate socially, the BNH policy financed large-scale housing communities for lower and middle-income families usually located on the outskirts of the cities, contributing to the enlargement of the urban fabric in several municipalities. Those communities were mostly standardized and mass-produced, creating monotonous landscapes.

What about the military housing production? Were they planned according to the same principles of standardization and mass-production? Moreover, since the Brazilian military had contact with the US military, did it affect the physical organization of the Army as it did in the training and educational systems? Did the contact with the US militaries affect the Brazilian design process? In sum, were the postwar military plans inspired by the cultural exchanges with the Americans and the wartime atmosphere of standardization and mass- production?
THE BRAZILIAN ARMY POSTWAR OCCUPATION POLICY

During the war, the military strategy implemented by the Americans in Brazil was focused in the North and Northeast of the country, strongly contrasting with the Brazilian traditional occupation policy, which was primarily worried with the south and southwest boundaries. The traditional occupation policy was either concerned with some of the most influential cities where social upheavals were more usual, leading the Army to perform a role of controlling the population and maintaining the order, as noted by Stepan (1974). Rio de Janeiro-RJ, São Paulo-SP, Porto Alegre-RS and Recife-PE are some examples, and later Brasilia – that became an important military site because of its condition as the capital of the country.

The traditional focus on the South was to keep the defense of the boundaries with other Latin America countries, in special with Argentina due to the historical rivalry. During the early 1920s, 49 new military bases were built in 36 different locations throughout the country but 46% of them were built exclusively in the state of Rio Grande do Sul (RS), while the others were scattered between the southeast and southwest and none of them in the north or northeast\textsuperscript{41x}. Even after the war, the design process was still mainly focused toward the south regions of the country (Fig. 02 and Fig. 03)\textsuperscript{41x}.

At a first sight the territorial distribution might seem unequal between the states, however if one consider the Army’s organization into eleven regions – instead of the 24 states and the capital in 1966 – the distribution might be more balanced. Anyway, regarding the divisions between the states, those with more military housing blueprints are also the ones that encompasses more military facilities in the country, especially Rio Grande do Sul-RS and Rio de Janeiro-RJ – both have a long-lasting military history. In those places there was a need for improving housing conditions in the quarters established during the 1920s and thereafter. In addition, there was a need to establish residential areas in smaller cities along the boundaries, rather than in the capital of the states, as can be seen in the case of Rio Grande do Sul-RS, where many blueprints were for the cities closer to the borders with Argentina and Uruguay, though not even one design were seen in the capital (Porto Alegre-RS) between 1953 and 1971\textsuperscript{41x}. The planning was especially geared to house the officers as well\textsuperscript{41x}.

![Fig. 02: Distribution of the military residential areas blueprints between 1953-1971](image)

<table>
<thead>
<tr>
<th>Identification:</th>
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<tbody>
<tr>
<td>black spots: cities used by the US military during WWII;</td>
</tr>
<tr>
<td>red: Brasilia;</td>
</tr>
<tr>
<td>yellow: RS; blue: SP; green: MG; pink: RJ; orange: MT. The triangle means the region where most of</td>
</tr>
</tbody>
</table>

![Fig. 03: Number of the military residential areas blueprints between 1953-1971 per states](image)

Source: elaborated by the sample of blueprints gathered at the Military archives (2012)
The quarters were built during the 1920-program. Source: based on an IBGE cartography but edited to the situation of the states definition in 1966.

The closer relationship between the houses and quarters, or other military facilities (such as military hospitals or military schools and colleges), is a very prominent feature of the Army as an institution. In order to analyze the physical organization of the Army it is important to understand its social organization. According to Carvalho (2006) and McCann (2007), the military can be understood under the concept of “total institution”, due to its strong identity that affect their staff in several dimensions (personally and professionally). It’s a concept originally coined by Goffman (1962) and means:

“A total institution may be defined as a place of residence and work where a large number of like-situated individuals, cut off from the wider society for an appreciable period of time, together lead an enclosed, formally administered round of life” (Goffman, 1962: xiii).

By interpreting Goffman (1962), one can say that a total institution is an organization with specific characteristics such as: highly controlled, hierarchical segregated and inwardly closed, but together creates a strong identity and has a unique symbolism. The idea to provide dwelling is not only because of the need of control or for security issues, but also due to the military career that includes the constantly movement of their personal around different garrisons throughout the country. The relationship between living and working condition could be traced by analyzing the designs. The numbers reveals that more of 50% of the blueprints has some kind of indication that the houses are located around or nearby the quarters, however, this rate could even be higher because of the lack of information in some designs regarding the surroundings – it could also be symptomatic of the total institution character as they do not consider anything outside their limits, which make it harder to understand the insertions within the city. In sum, the wartime interests did not affect the postwar occupation policy. But did it affect the urban design?

THE BRAZILIAN ARMY POSTWAR URBAN DESIGN: an attempt to draw a picture

First and foremost, even though the military housing can be an ensemble of individual houses or apartment blocks, as cited before, very few cases constitute the last oneiii. Rio de Janeiro-RJ was the city with most incidences of the apartment blocks types, fact that is understandable since it is one of the epicenters of militaries facilities with a high demand for housing, besides the question of availability of land.

The sample revealed a variety of designs regarding size, spatial organization and so forth. One of the most emblematic characteristics is the social composition of the ensemble of houses. As the hierarchy is a major attribute of the military social organization it became a major aspect of the housing spatial organization as well. In other words, the hierarchy creates a social separation between officers and non-officers – higher and lower ranks – that is reflected spatially: more than 72% of the designs were homogeneous communities for only one rank. The social division of the space is not an unique feature of the military settlements; companies towns, or industrial cities, designed during the 1950s in Brazil by well-known architects had also the same characteristic, as identified by Correia (2009).

The separation between the ranks could be accomplished by the adoption of open spaces between the blocks, in order to physically separate the different hierarchies. Hence, it’s not surprisingly that the majority of the designs (77,23%) had open spaces as a constant feature of the military communities. Another attempt to separate the ranks was by designing small communities for each rank. Indeed, more than 55% of the plans were small communities around 10 to 39 units,
contradicting the idea of large-scale mass production that was so widely associated with the military production\textsuperscript{lv} (Fig. 04).

\begin{center}
\begin{figure}
\centering
\includegraphics[width=\textwidth]{figure04}
\caption{Number of blueprints per quantity of units for each urban design}
\vspace{0.3cm}
\textbf{Source:} elaborated by the sample of blueprints gathered at the Military archives (2012)
\end{figure}
\end{center}

The option for smaller communities could be explained under the institutional framework of the Brazilian Army that is organized into small units, unlike the United States organization, as described by Stepan (1974) in the quotation below:

Unlike the United States, where tactical units such as the division are kept together for training purposes, a division in Brazil is often subdivided into regiments and battalions which are scattered over a hundred mile radius or more. One of the historical reasons for this splitting up of units is that it extends the capability of the armed forces to control the population. Senior commanders of divisions or whole armies often have very few troops under their command (STEPAN, 1974: 27-28).

Another explanation could be the size of the Army at that point. According to Stepan (1974: 26), “the Brazilian Army in 1968 represented only 0.18 percent of the total population in Brazil” … “of whom 13,373 are army officers”\textsuperscript{lviii}. The size of the Army and, moreover, the size of the officers can be considered the main explanation for the predominance of small community designs. The smallest the community was, the more homogeneous it was supposed to be. Besides, communities with only one rank were more usual within the officers. This is the reason that explains the low rate of open spaces in the communities under 19 units (it represents less than 50%). On the other hand, the bigger in quantity (or number of units), the more heterogeneous they became by dwelling more ranks but still each one located into different blocks – often physically separated by a recreational area, as already mentioned (Fig. 05).

The opens spaces have also a slight relationship with communal buildings\textsuperscript{lvii}, meaning that those blueprints that didn’t have open spaces barely would have other features\textsuperscript{lviii}. The communal buildings, however, were seem only on 30.69% of the designs, which had at least one type, and was more often on bigger communities rather than on the smaller ones. Eventually the designs would have community centers that would be for each rank separately.
Another pattern constantly verified in the sample is the regularity of the designs and the organization of dwellings into foursquare blocks – differing significantly from the US tendency of irregular designs for its residential areas. A quick look at the US military residential areas before World War II could add some information to the current discussion and could address to the issue of cultural exchanges during wartime.

George Ford, a well-known American planner in the early 20th, was firstly hired in 1917 to contribute to the US war efforts by designing cantonments and later, in 1929, to design military residential areas. A passionate advocate of the Garden City and City Beautiful principles, Ford adopted curvilinear streets, open spaces for playgrounds, green areas, large avenues, and the use of vistas in order to create “pleasant environments” in the military residential areas (US ARMY CORPS, 1997: 55). Then, from 1941 to 1965, the landscape architect Leon Zach was hired to take over the activities of planning in the US Army, as the Chief of the Planning Branch of Military Construction of the Office of the Chief of Army Engineers. During that time, most of the urban planning principles adopted by the “Military Construction Branch’s preferred solutions aligned precisely with guidelines the FHA had established [...]”, based on a “Radburn type plan”, according to Hise (1995: 161). The Radburn design, with its cul de sac streets and large open spaces, was an urban model that would offer more intimate spaces, which would probably be desirable for a total institution as the military.
In Brazil, very few examples could be related to the same design principles towards a more irregular shape, which could also create a more private environment. But whenever those examples were designed, they were more frequently addressed to house officers. Besides, the use of more curvilinear lines was an answer to adjust to the topography, as noticeable in the designs of São Gabriel (1959), São Luiz (1958) and Itu (1961). In sum, the contact with the US Army during World War II didn’t affect the design process in the Brazilian Army. Although, the Radburn principles for intimate spaces, as cited, would be adopted for small-scale communities.

STANDARDIZATION AND MASS-PRODUCTION INTO THE MILITARY DESIGN?

Analyzing the planning method

Despite the endeavor to draw a large quantity of designs during the 1950s and 1960s to house the military staff, the planning method was more likely to build small communities and along phases as seen in almost 50% of the designs that indicate houses to be built, in construction or already built. Occasionally, the blueprints could be drawn over and over again with the purpose to show some changes into the previous plans – like the construction of more units into a same community. On the other hand, the construction of the bigger communities weren’t built as initially planned. Many reasons could explain it such as political and even economic issues. Even though there was financial support, was that enough? According to an estimation that considered the expenditure to build one officer’s house during the 1950s, it’s possible to assume that the total amount of financial resources released from 1957 to 1966 would be enough to build approximately 6,000 officers houses. Another rough estimation exposes that during the same time the DOFE planned slightly more than 6,000 units, though the resources would still be enough because the plans included not only the construction of officers’ units but also lower ranks that were usually cheaper. So, it seems that the failure in building bigger communities wasn’t a financial problem but could be an outcome of a political issue. In this regard, it is important to state that in the early 1960s the institution faced a fragmentation between officers and non-officers when the inferior ranks started some uprisings inside the institution claiming for better conditions (CARVALHO, 2006), which could explain why any of the homogeneous communities with more than 200 units to house inferior ranks was built as planned.

Not only the homogeneous big communities weren’t built as planned but also the heterogeneous ones. In general, some of it was partially built, as the case of João Pessoa-PB, planned to house 224 militaries in 1970 but only 44 houses was built among officers and non-officers. Others not even followed the design, let alone the quantity of houses: Cruz Alta-RS, for example, was supposed to
have 200 units in the 1969 blueprint but only 58 units were built in the city (according to a 2009 database). These cases suggest that the construction of larger areas that could be more easily mass-produced were not put into practice even for the officers’ houses. An exception was the design for Brasilia, due to the need to provide housing after the inauguration of the new capital. Another large-scale urban entrepreneur during the 1950s was the design of industrial cities by a group of well-known architects, as already mentioned. According to Correia (2009), those designs were based on the CIAM ideas, particularly regarding circulation system, the organization into neighborhood units, large open spaces and community buildings, although they were also influenced by the traditional characteristics of the company towns. In general they were ensembles of more than 500 houses, organized in an urban plan that would also take advantage of streets with cul de sacs creating a more hierarchical street network (CORREIA, 2009). The author also states that some of the designs were never built, just as what happened with the military bigger communities, which were, by the way, significantly smaller than the company towns proposals. Meantime, in the 1960s, the military government launched a housing policy through the BNH, as mentioned before. Differing from the last two experiences described, this program effectively financed ensembles of thousands of standardized and small houses on the outskirts of the cities, where one can find cheaper and bigger lands for large-scale construction method. For Bonduki (2002), the BNH plans were characterized as a formal rationalism, based on monotonous and repetitious designs, detached from the context as well. Depending upon the region, the BNH financed either single houses or apartment blocks. Besides the low quality of construction and the peripheral location further from urban services, there was also a lack of community buildings in those ensembles, differing substantially from the military practice for their own residential areas. The BNH policy, grounded on house ownership, created a general perception that large-scale housing ensembles would be related to lower-income classes. The officers, on the other hand, were most likely middle class and might not wanted to be visually linked to large-scale housing programs. Due to the financial support of the BNH policy, another happening was a change in the pattern of housing ownership that moved from rental households in the 1940s to major rates of ownership households in the 1960s – the 1950s was a transitional period were both patterns were almost in balance (BONATES, 2009). A new perception and a national desire arose that could have affected the interest in building more rental houses for the militaries. In sum, even though there was an attempt to understand the failure of the construction of the bigger communities further studies must investigate the reasons more deeply. Finally it’s important to mention the division between architectural and urban plans, as they were different design processes, planned separately. Very few urban plans had any indication of architectural typology, but when it did, it refers to it as a numerical code: less than 5% of the 202 blueprints had an identification of what architectural design would be built there, meaning a lack of a more holistic approach in the design process. The fact is that the urban plans were more difficult to standardize but the architectural plans was a subject of standardization and reproduced in a national scale. The houses presented some diversity, depending on the climatic and cultural particularities of each locality, and also presented slightly formal and functional variation. Regarding the style mostly conservative, there was though a timid effort to follow a more modern look through the years. Thus, besides the diversity of urban designs, the architectural plans could offer a more uniform pattern, maybe even a national standard.

#### REGIONALISM APPROACH IN THE MILITARY DESIGN? brief comparison between regions

The Brazilian Army can be considered the first modern institution in the country and with the mission of maintaining the unity and national cohesion; the “Agent of National Integration” was the Army’s motto as identified by Stepan (1971: 12). In order to keep the unity, the Army was
organized regionally\textsuperscript{lxiv} and divided into 11 military regions during the 1960s – in general, one region consists in more than one state.

Each region has its uniqueness regarding the types of the cities it includes. Hence, the variation of the urban plans within the country followed the specific need of each region. For instance, in the Northeast there was a tendency of quarters in the capital of the states, whereas in the South, besides the capitals, there were several quarters along the boundaries with other Latin American countries. Still in the Northeast, the 7\textsuperscript{th} Military Region\textsuperscript{lxv} was characterized by small communities between 10 and 29 units that were mostly organized into foursquare blocks. The urban form was also very rectangular in the designs of the 6\textsuperscript{th} and 10\textsuperscript{th} regions – both in the Northeast. On the other side, the 3\textsuperscript{rd} Military Region\textsuperscript{lxvi}, situated in the extreme South, had a more balanced division between the sizes of the communities ranging from 20 to 99 units, and over 200 units\textsuperscript{lxix}. It had also a variety of urban shapes, in the midst of which one can highlight forms like clusters and cul de sacs that probably had created a more pleasant environment since it provided an intimate open space (cluster) or more private streets (cul de sac).

The cluster was a spatial organization, usually for small communities, where dwellings were organized around a core that was, in general, an open space. This kind of cluster sometimes could be a triangular or even a circular shape, that was relatively more frequent in one block, yet it could be multiplied – as seen in other region (Fig. 07 and 08). Whatever was the form, it would offer a very private space for the militaries families that were supposed to have an enclosed life, as the character of a total institution. This special organization resembles, in some degree, the idea of “carpet housing”, or patio houses, as developed by Sert, especially for his projects in South America\textsuperscript{lxx} through the Town Planning Associates (TPA) (Mumford, 2002). So, while the Brazilian military residential area was seeking for intimate spaces through a kind of cluster organization, the US military was pursuing it by the adoption of Radburn principles.

<table>
<thead>
<tr>
<th>Fig.07: São Luiz Gonzaga-RS: 26 units for one rank (1967)</th>
<th>Fig. 08: Uruguiana-RS: 38 units for one rank (1953)</th>
</tr>
</thead>
</table>

Even though very few examples were proposed in the Brazilian context, the 3\textsuperscript{rd} Region also adopted streets with cul de sac, an option that was defended in the US residential areas as cited previously.

A closer approach to the design process of the 3\textsuperscript{rd} Region was taken by the 5\textsuperscript{th} and 9\textsuperscript{th} Regions. It also seems, according to the blueprints of the 3\textsuperscript{rd} and 5\textsuperscript{th} Regions, both in the South, that the urban design process in those areas was considering the topography more frequently, which implied an irregular urban form to adapt to the local conditions. On the other side, in the Northeast, one could find merely one case of a cul de sac shape in Campina Grande (PB), and one example of cluster in São Luiz (MA).

From this description it might be possible to argue that the design process found better conditions to experiment new spatial organization among the smaller cities located on the boundaries of the
nation. One might think that the availability of land could be a factor for those experiments although it’s worth to remind that most of the designs were planned for small communities that could be placed anywhere.

If the South was striving to develop more intimate settlements, what about the planning of communal buildings? The frequency of communal buildings was not necessarily related to those regions in the South that had designed communities with a more intimate space. As a matter of fact it had more to do with the size of the communities rather than with their locations. The bigger the size of the community the higher it was the chance to set up communal buildings in the design. However, as already mentioned, the design process wasn’t compelled toward the production of large scale communities, yet to the creation of small, homogeneous ensemble of housings, with enclosed recreational spaces for the amusement of a limited group of militaries, maintaining their totality within them.

**FINAL CONSIDERATIONS**

During the 20th century the “total wars” had affected society and also the Brazilian Army, which was exposed to cultural exchanges, moving from Germany, through French and then to the US relationship. The literature had shown how the Brazilian military’s doctrine was affected with the involvement with the US Army during World War II, though there was a lack of information whether their design process was affected as well.

After World War I the Brazilian Army started a mass-construction program to build quarters along the country, mostly in the south and southwest, but there was no evidence of the provision of housing areas. The argument shaped here is that the residential areas were developed in the second postwar but not in large quantity.

During the second postwar the context of standardization and mass production was developed by the BNH housing policy that transformed the urban fabric and landscapes of several cities. Not to mention the modification geared by the construction of industrial complexes, occasionally comprising the planning of residential areas (CORREIA, 2009). However, the military urban plans were developed in a parallel context that didn’t include mass production nor standardization. The design of residential areas was almost an independent universe inside the “total institution”. The reasons for that could be found in the fact that the Brazilian Army structure was organized around small units all over the country that didn’t need to provide so much residential areas for its staff. The size of the officers laid also a significant reason for the construction of small communities rather than bigger ones. It seems that housing was not a priority in the Brazilian Army since a few percentage of dwellings were built to house the staff. Therefore the Brazilian Army doesn’t completely suits the definition of total institution regarding the issue of combining living and working in a large scale and broader context.

As a consequence, nor total institution, neither total wars, affected military design process for residential areas. In other words, the ideas of mass production and standardization that are usually linked to the military universe were not applied to their residential universe. The relationship with the US Army also didn’t affect the design process neither the occupation policy. It doesn’t mean, however, the Brazilian militaries didn’t apply the new method of construction; for instance, they hired Niemeyer in 1968 to design their headquarter in Brasilia that applied standardized and prefab elements.

This whole picture exposes that the significance of this production was not the standardization of one community, neither was the standardization of several communities, but the process of design driven by an institutional framework and a method of an anonymous team working in a technocratic approach to mass-produce drawings for all over the country. The standardization was not reflected in the design but in the method of drawing simple forms with regular lines and in a constant planning process of adding more information on it. It should also be acknowledge as an alternative
planning of small communities with enclosed recreational spaces regardless the context dictated by large scale and mass-produced housing environments.

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Frederick, the Great of Prussia, can be considered the key figure on the modernization of the Army as an institution. He endeavor some reforms from 1740 to 1786, in order to transform his troops in an efficient and reliable organization, and those reforms were followed by other Armies (See Morgan, 2006).

For Cohen (2011: 12-13), “It was during the war that Brazil under Getúlio Vargas started up steelworks in Volta Redonda, in order to contribute to the Allied effort and began producing airplane engines in the Cidade dos Motores, a new town located in the state of Rio”.

Regarding this topic, see Guillén (2006).

The blueprints were gathered in December 2012 in the Military Archives where one can find 4,203 files regarding several kinds of military construction throughout the country. In other words, those files reflect not only urban and architectural projects for military housing but also military hospitals, schools, cantonments and so forth. The first selection included 580 architectural and urban plans built during the 1940s through the 1970s within which 443 were urban blueprints. However, some urban blueprints hadn’t all the information needed; thus, another selection was done ending up with 202 blueprints.

Between 1908 and 1912, a group of Brazilian officers was sent for a training mission into the German Army that was considered the most powerful force at that time. After World War I Brazilian diplomatic relationship with Germany was affected and the defeat of the German Army shifted the attention toward the French Army. Thus, in 1920 up until 1940, an international cooperation was established with the French Army that acted as a consultant for the sake of the professionalization of the institution. This cooperation improved the training system, introduced management principles into the Army, organized the institution by new regulations, and created strategic units (CARVALHO, 2006; McCANN, 2007).

According to McCann (1979: 74): “American military policy toward Brazil had three principal objectives in 1944 and 1945. The first was to insure Brazilian military superiority over Argentina to allow the United States to deal by proxy ‘in strong way’ (FDR’s words) with that republic. The second was to maintain use of United States bases in Brazil. The third was ‘to prevent European powers from providing arms and military missions to Latin American republics’”.

Indeed, the financial support was accomplished through the Lend-Lease Act (1941), which was a law that “enabled the President to sell, transfer, exchange, or lease any defense article to any country whose defense he deemed vital to the defense of the United States” (PENTEADO, 2006: 23).

The US military cooperation with Brazil lasted up until 1979, when the country was already under the military dictatorship.

Let us turn now to the question of what effect the middle-class origins of the Brazilian officer corps have on the behavior of the military as an institution. [...] Since the military are themselves middle class in social composition, the middle sectors find themselves ‘allied to a sector with remarkable degree of institutional cohesion and articulateness. In other words the armed forces become one of the few important institutions controlled by the middle class’ (NUN, 1976)” (STEPAN, 1974: 45).

The decree was approved exactly one month before the regulation of Novacap, the government agency that would be in charge of Brasília’s construction. But the last part of the funding was released in July of 1965.

See Simonsen (1931).

It’s important to recall that during the 1950 and 1960, the division of the states was slightly different form todays. In this sense, the state of Mato Grosso do Sul (MS) did not exist; it was part of Mato Grosso (MT). The same can be said about the state of Tocantins (TO) that was part of Goiás (GO).

Regarding the sample evaluated, Rio Grande do Sul-RS had the higher rate of blueprints if one compares it with the other states. Even though there wasn’t any blueprint for Porto Alegre in the sample, other sources reveal that block of apartments were built in the same time.

Although the recruitment system is more local, as recalled by Stepan (1974), the officers have more movement.

Only nine blueprints consisted in arrangement with the apartment block type.

One can consider open spaces any park, playgrounds, sports areas but mostly gardens.
For a methodological purpose this paper will define the small communities those within 10 to 39 units. The bigger communities will be those with more than 100 units, while the regular will be the communities between 40 and 99 units.

The total numbers given by Stepan (1974: 26) for the Army is 167,000 men.

The community buildings constitute churches, community centers, small markets, schools, and other.

The sample reveals 46 blueprints without open spaces among which 40 of them don’t have communal buildings.

Zach, who worked with the Olmsted Brothers likewise Ford, was worried with the typical monotony of the landscape of the military posts. In a 1945 article – “Site planning of Cantonment and community housing” – he claimed for irregular forms rather than regular layouts not only to accomplish landscape benefits, but also because he proved it to be more economic and efficient (HISE, 1995).

Consideration made possible after a comparison with the current database of the militaries household and current situations – by analyzing the local situation using aerial images.

Including houses to be built, in construction or already built.

The blueprints reveals that between 1957 and 1966 there were planned 6662 dwellings in which 38,55% were to house the officers while 61,45% to house the lower ranks. It’s interesting to roughly compare with the quantity of officers at that time. As already mentioned by Stepan (1974) in 1968 there were 13,373 officers in the Army. During the period of the financial support the sample reveals that the designers planned residential areas to accommodate 19,20% of the totality of officers. On the other side, only 2,66% dwellings were planned for the lower ranks.

As already mentioned, the total sample gathered in the Military Archives were constituted by 580 blueprints into which 443 were urban designs, 112 were architectural designs and 25 were designs of different categories, like landscape, furniture, etc.

It still is organized regionally yet in a different division from the period under study here.

The 7th Military Region was composed by four states: Rio Grande do Norte (RS), Paraíba (PB), Pernambuco (PE) and Alagoas (AL).

It included the states of Bahia (BA) and Sergipe (SE).

It included the states of Maranhão (MA), Piauí (PI) and Ceará (CE).

The 3rd Military Region only included the state of Rio Grande do Sul (RS).

It is the region with the majority of urban plans with 200 units or more (46,15%).

For more information about TPA’s Latin America plans, see also Hyde (2008) and Rovira (2003).

It included the states of Paraná (PR) and Santa Catarina (SC).

It included the state of Mato Grosso (MT).
Grassy plains and low hills characterize the geographical relief of Uruguay, a country that has no great mountains. Villa Serrana was to be a small inland leisure town placed in natural, untouched landscape. Its location, among the hills formed by Sierra del Penitente and Sierra del Carapé, in the Lavalleja Department, was chosen by architect Julio Vilamajó (1894-1948), a leading figure in the development of modern architecture in South America that had been a member of the Board of Design Consultants for the United Nations Headquarters, alongside Le Corbusier and Oscar Niemeyer. Vilamajó was in charge of Villa Serrana’s master plan from December 1945 until his death in April 1948. Built with stone, brick, wood and straw, Ventorrillo de la Buena Vista and Mesón de las Cañas are among his last works. They would be the first completed section of the development plan for Villa Serrana.
Villa Serrana is generally praised for its alleged vernacular connotations, and for Vilamajó’s respect towards regional identities. Nevertheless, exploring the affinities between Vilamajó and geographical reasoning and methods, unveils a much more complex design practice than is usually admitted, and belies conventional description of Villamajó as a sort of critical regionalist avant la lettre, only inspired by a telluric genius loci. This paper expects to shed a new light on Vilamajó’s geographical understanding of place in relation to program, focusing on his work in Villa Serrana, at both territorial and architectural scale.

**Villa Serrana (1945-1948), on landscape and architecture**

Small leisure villages surrounded by nature would be unthinkable without the urbanized metropolis of which they are the reverse side, although many conveyed the nostalgia for an original natural state unspoiled by civilization. Villa Serrana was a modern enterprise, enabled by the prosperous post-war years in Uruguay, with the emergence of an affluent society that could afford an automobile and a vacation house.

Villa Serrana was planned to be a tourist destination alternative to the coastal Uruguayan vacation localities. Vilamajó’s task could be considered symmetrical to the one Catalan architect Antonio Bonet had accepted in Portezuelo in 1945, with the urbanization of Punta Ballena and the construction of La Solana del Mar (1947), as part of the urban growth of the region of Punta del Este. The Uruguayan project of becoming a tourist country had been an answer to the effects of the 1929 economic crisis. The tourist development of the seaside, during the thirties, was its first result. The creation of the National Commission for Tourism in 1933, as an agency of the Ministry of Foreign Affairs, represented the institutionalization of this activity, which would implicate the Uruguayan state and private actors, embodying a strategy for the internationalization of the country. Bonet referred to the creation of Punta Ballena in those terms, emphasizing specific geographical features of the site – the beach, the forest of pines planted by the owner Antonio Lussich, the inner lake - and the Uruguayan coastal region’s tourist potential. By that time, he noticed, 150.000 foreign tourists annually visited Uruguayan beaches. The urbanization of Punta Ballena was to be an ambitious project, comprising residential areas and public areas with collective facilities (hotels, shops, sports services). The relationship between program, site and geography posed there a problem somehow comparable to the one Vilamajó would be faced to in Villa Serrana. From the urban planning perspective, Punta Ballena was not mean “to be exactly a city”, remarked Bonet; the architect “should find the solution whereby the forest, the beach, etc. could be admired and enjoyed by everybody without being destroyed”, with the help of “modern techniques and knowledge”. Residential areas were stretched along the beach, with the forest zone as a background, but Bonet refused the more urban idea of “the traditional coastal avenue” with the seaside promenade. The highway linking Punta Ballena to Punta del Este was then moved inland, and the residential areas were served by separated systems of local vehicular roads and meandering pedestrian paths. As a real state development, Punta Ballena included a time dimension, between the land division and the negotiation of lots for private houses. Some architectural pieces were needed to found a place,
and Bonet designed La Solana del Mar, a little restaurant and hotel at the beach, defined by a single horizontal concrete slab attached to the dune.

Nevertheless, Bonet was consolidating the seaside vocation that still today characterizes the tourist insertion of Uruguay in the southern region of America. Vilamajó, instead, should plan a mountain village in a country of plains.

Despite its over emphasized utopian colours, Villa Serrana was actually a real estate transaction, promoted by private investors (Villa Serrana S.A.), though subordinated to public regulation, obeying the Ley de Centros Poblados of April 1946. According to it, the Departmental Government was the sole public body with the authority to approve the urbanization of rural land, controlling all its aspects.

With the assistance of a team of architects and engineers, Vilamajó undertook a complete survey of the physical and natural structure of the region. He gathered technical information about topography, water sources, plant diversity, mineral and agricultural resources, besides an extensive photographic documentation covering the entire landscape. From the legal perspective, the survey allowed him to comply with the Ley de Centros Poblados, providing evidence on the new town’s feasibility. But, more important than that, from the design perspective such a preliminary survey would ensure him a full geographic control of the landscape, which would constitute the basis for both adaptive and transforming strategies of design.

Paths were traced in order to strictly adhere to the topographic structure of the place, as well as the location of residential zones, dispersed in seven distinct neighbourhoods around the major valley, named Los Romerillos, Las Vistas, La Leona Baja, La Leona Alta, El Prado, Colmenar de Abajo and Las Cuestas. Vilamajó thought that land division should not be of great magnitude, since wild nature should be preserved, and proposed to limit the constructed surface of lots to 14% of the area.

Fig. 2. Julio Vilamajó. Models. Villa Serrana, Uruguay.
(Archive IHA – Instituto de Historia de la Arquitectura, Universidad de la República, Uruguay).
Additionally, he detailed general ordinances that covered a full range of issues, from land uses, water supply, waste management and vegetation to materials and inclination of roofs, which were intended to establish environmentally compatible patterns for urban development and guarantee a certain degree of homogeneity and congruence between future buildings and the natural surroundings. Villa Serrana also aimed at a level of self-sufficiency with agricultural areas close by. Planned facilities and amenities included two big hotels that were not developed.

Vilamajó’s understanding of place in relation to program was deeply geographical and not so conservative as it may appear today. Landscape design combined adaptive strategies to interventions at the territorial scale. He foresaw artificial gropes at the top of the hills, while the construction of two separate dams created an artificial lake as a major feature of the plan, at the center of the composition. Vilamajó was aware of the necessity of not only preserving, but also improving the scenic local qualities of the area, in order to support both private housing and public recreation facilities.

In that sense, Vilamajó seems to be connected to a modern tradition in country planning that goes from Patrick Geddes’ survey to Patrick Abercrombie’s assertion that geography should be the basis of planning in 1938. Vilamajó does not explicitly refer to Geddes, although possible
affinities can be perceived in that line, but he actually quotes Patrick Abercrombie’s ideas on the problem of disfigurement of the countryside in a draft for Villa Serrana’s general ordinances.

These ordinances were intended to establish some patterns for future development, like a policy of environmental protection. The question of the preservation of wild nature facing future urbanization was a key issue. Abercrombie’s *Town and Country Planning* (1933) offered a perspective. First of all, Abercrombie made his point against “those who suggest that country planning is a new and repugnant idea”, and who are “indeed ignorant of the elements of our history.” For him, if it was true that town should not invade and destroy the country, so it was that “the regularizing hand of man [had] nevertheless sophisticated the country to serve his needs.” Therefore, Abercrombie called attention for the necessity “to evolve a system of landscape design which will be authoritative enough to prevent brutal outrage on the one hand and a misguided attempt at a bogus naturalism or fake antiquity on the other.”

Vilamajó shared Abercrombie’s vision of country planning as an instrument of both preservation and development of the countryside, meant to cope with economical demands and rural enjoyment. He expected his work on Villa Serrana could set a framework strong enough to guide future interventions. Master plan and landscape design, a limited number of buildings and extensive ordinances, should be able to establish the desired “unity between the lines used to shape the territory and the surrounding landscape in the present and the future to be created”. He was also conscious that the aesthetic aspects of landscape would be part of its commercial value in that “future to be created”, as he stated in a letter to the president of Villa Serrana S.A., reporting the course of activities. Vilamajó found use in Abercrombie’s classification of disfigurement elements according to a time factor from temporary to permanent. Buildings belonged to the last category. According to Abercrombie, buildings could cause disfigurement of the countryside for the following reasons: being the wrong type of building, “i.e. antagonistic to the general character of the district”; being wrongly placed; being badly designed; constructed with discordant materials.

Besides taking into account Abercrombie’s remarks for the building’s ordinances that he was preparing, Vilamajó seems to have used his own architecture to didactically exemplify a proper way to deal with the natural environment.

At this point, close observation on the architectural pieces that Vilamajó himself built in Villa Serrana may help to clarify the links between architecture and geography. The *Ventorrillo de la Buena Vista* consisted of a restaurant and two wings of rooms placed on the hillside, facing the lake. Despite being a small group of buildings, it played an important role in the landscape design and architectural characterization of Villa Serrana. The buildings are approached from their back, at the upper level of the site. Vilamajó articulated a sequence of descendant paths and terraces leading to the main piece of the group, which is the dining hall. As the visitor approaches the site, he is presented to retaining walls of natural rocks, and low
buildings with masonry façades and straw roofs, executed with autochthonous materials and local techniques.

The volume of the dining hall, inflected to face the lake, stands out with its amazing roof, a combined pattern of the Uruguayan *quincho*, a still present technique that comes from Quechua indigenous constructive traditions. But when the visitor finally enters the dining hall he is confronted with a quite different spatial experience. Inside the restaurant, an unsuspected panoramic modern space discloses a spectacular 180 degrees view of the horizon, enabled by the wood structure that sustains the roof and a cantilevered deck.

If the primitive connotation of the exterior of the building, obtained with local materials and techniques, contributes to merge it with the wild nature, its structural configuration produces the transparency of the modern space, ensuring visual continuity between interior and exterior and converting landscape into scenography.

Although the access level is conformed according to the site’s existing lines, the exterior terraces facing the lake were designed as geometrical components, as square lined platforms emerging from the sinuous contour of the hill. Abercrombie would have called that sort of landscape scale...
reconstruction “the regularizing hand of man”. For Vilamajó, it was certainly not the natural and almost inevitable consequence of some local conditions, but a highly informed and professional search on the artistic possibilities of the picturesque, as a conversation between the wild and the humanized nature.

In *Town and Country Planning*, Abercrombie introduced the part of the book that strictly refers to country planning and preservation with an interesting distinction between town and country: “Towards the town all is centripetal, converging on to a concentrated and limited area; this concentration must of course be controlled and it may consist of a large mass, a detached satellite suburb, a country town or even a village; but the attitude towards it is identical – from all sides people and interests are converging inwards and ultimately upwards. Towards the country all is centrifugal: with our backs on the town or village we look out in all directions on an ever-widening, opening horizon.”

Considered at the territorial scale, the Ventorrillo is just a small spot on Villa Serrana’s 1:5000 Map. Nevertheless, in relation to the human experience of landscape, it is a quite powerful building, that once penetrated, offers a privileged point of control of the whole territory. Vilamajó was interested in combining what he called the “internal characteristics of landscape”, meant to be appreciated “from inside” for their “intimate qualities”, like minor landscape features as ravines, runlets, etc., and the great panoramic perspectives. The Ventorrillo’s external appearance, as the visitors approach it, was somehow conformed to those intimate qualities of landscape, gently and harmoniously incorporated to that conception of landscape as a succession of minor surprises. But its “geographical position” allows it to take possession of the opening horizon and the centrifugal dimension of countryside.

![Image of Ventorrillo de la Buena Vista](image)

**Fig. 5. Julio Vilamajó. Ventorrillo de la Buena Vista, Villa Serrana, Uruguay, 1947.** (Archive IHA – Instituto de Historia de la Arquitectura, Universidad de la República, Uruguay).

**On the wild nature: two partaking concepts between architecture and geography**

Architect Vittorio Gregotti claimed in 1966 that geography was the first discipline engaged in the description of the physical environment at a large scale. The word geography, first used by the Greek scholar Erastosthenes (third century B.C.), is derived from the Greek *ge*, which means Earth, and *graphe*, which refers to writing. The intellectual origins of geography as a distinct
field of study are grounded on that commitment to the precise description of the surface of the earth as the world of man. Hartshorne defined geography as a discipline “concerned to provide accurate, orderly, and rational description and interpretation of the variable character of the Earth surface.” Stoddart identified geographical thought with a set of attitudes, methods and techniques developed towards the end of the eighteenth century, based on direct observation of the world. So, the emergence of geography as a modern discipline was related to the European expansionistic project. Maps, charts, illustrations, as the result of geographical observation of the physical world, “were required to provide precise information in order that they could correctly guide the course of navigators”. Geographical knowledge ensured control over nature and men. As a contemporary branch of knowledge, geography has developed a broad scope of interests, regarding the understanding of the complex relationship between man and nature. The study of the surface of the earth simultaneously demanded the study of men’s action over it; “the earth surface comprises both man-made phenomena, as well as those of natural origin produced by physical, chemical, and biotic processes.” Because geography has to study and describe the great man-environment system, both nature and city constitute the subject of the geographical thought.

Nature and city are also subjects of investigation for architecture. Historically, architecture and geography are concerned with the shape of territory. In its broader sense, that concern means being aware of topographic circumstances, climate conditions, water and energy sources, landscape features, ecological patterns and society-land relations.

But, as Gregotti pointed out, though it may inquire about spatial relationships, geography “does not build propositions”. Architecture does. Both disciplines share a common interest in the form of the physical environment, but they have fundamentally different purposes. Geography is a descriptive discipline, and as such, a “science of the spatial present”. The relationship between geography and landscape is descriptive. Architecture is a projective discipline. The relationship between architecture and landscape is operative. Whether “fighting nature or adapting to it to the point of integration”, as Gregotti put it, architecture uses landscape as a workable material.

In conclusion, this paper singles out two main partaking concepts between Vilamajó’s architectural practice in Villa Serrana and a certain geographical perspective, following from Geddes to Abercrombie: the survey as a geographical technique; the problem of the disfigurement of the countryside.

In the Geddesian tradition, Abercrombie believed that “the cultivated country and the town” were “equally complex palimpsests”, and maps might give “a full and accurate basis upon which to Plan”.

A noticeable aspect regarding the Geddesian tradition of the survey is precisely the emphasis on maps and photographs, on graphic material and visual data over purely quantitative data. Although Geddes was also interested in sociological information, his contribution to the field is very much related to that growing perception that visual description was imperative.
Geography – as the physical description of the territory through graphic material – was the basis of plan, as Abercrombie had stated, not only sociological observation or a plain list of activities. Vilamajó’s *modus operandi* was opposite to the functional determinism implicit in the more sociological uses of survey technics. He did not expect survey to determine or control architectural decisions. On the contrary, in the very sense of modern geography, survey was an aid for architecture, securing its control over nature. For Vilamajó, the geographical description of the landscape, translated into visual data, from plans to systematic photographic documentation, was the way to make wild landscape available as a workable material.

Michiel Dehaene stressed the close affinity between Abercrombie’s survey method and contemporary concerns within the field of geography. He also suggested that Abercrombie’s vision, grounded on Geddes, but also influenced by Vaughan Cornish’s “aesthetic geography”, challenged the functionalist approach in which use is regarded as a normative principle over the question of appearance.\(^{100}\)

Vilamajó was not moved by preservationist zeal, but he was convinced that the shape of the territory demanded an answer at the architectural level, and that environment could be modelled in order to both emphasize landscape’s natural qualities and favour human activities. He justified his plan on both practical and aesthetic basis. “The obliteration of wild nature” – he explained – “might result in aesthetical and practical inconveniences”; in the case of Villa Serrana, “the beauty that can be enjoyed today is a special ordination in terms of form and colour of the mountains that ought to be respected.”\(^{101}\)

In architectural theory, the relationship with wild nature has produced many responses. A long lasting position is the one defended by Adolf Loos in his essay “Architecture”, where he describes a visit to a lakeside mountain village and praises the peasant house that does not seem man made, but the product of God’s workshop, like mountains and trees.\(^{102}\) As Rykwert pointed out, Loos’ argument presupposes the idea of a hidden wisdom that is sealed to the civilized and only accessible to the primitive.\(^{103}\) This argument echoed in those lines of criticism that condemned modern architecture for not being enough subservient to the *genius loci*, fitted into landscape preservationist’s discourses, and eventually reflected a rejection of modernity in general.

The problem of disfigurement of the countryside, central to Vilamajó’s planning and architectural perspective, has never been exclusively an architectural problem. As part of the great man-environment system relationship, it was a geographical issue. Closer to Abercrombie than to Loos, Vilamajó’s objective was not to defend the untouched landscape, but to determine in what extent landscape could be touched, that is humanized, and still preserved as countryside standing for wild nature. And that was an architectural problem.
Villa Serrana has been mainly appraised for Vilamajó’s respect towards regional and natural circumstances from building to territorial scale. Nevertheless, it does not explain the full extent of Vilamajó’s proposal, and perhaps obliterates its paradigmatic condition to a contemporary perspective. This paper sustained that Vilamajó’s design approach was less conservative than it appears today: Villa Serrana was in fact a modern enterprise, committed to modern architecture, although it aimed at an environmentally compatible development considering all design scales, from building to master plan. It reveals a subtle, but active posture before nature and culture. From a theoretical point of view, Vilamajó’s design raised the question of primitivism in art and architecture as a modern problem; from an ecological point of view, it proved to be a sustainable enterprise, representing yet a valuable proposition facing contemporary requirements of sustainability and economical issues.

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78 Law N° 10.723 (Ley de Centros Poblados), April 21, 1946.

79 Miguel Bellini, Jorge Bonino, Nelly Grandal de Scheps, Jose Scheps, architects; Juan Bernasconi, Walter Hill, Arturo Silva Mestre, Ciro Sapriza Vera, engineers.

80 Patrick Abercrombie, “Geography, the basis of planning”, *Geography* Vol. 23, No. 1 (1938), 1-8.

81 Maybe it is not worthless to notice that Vilamajó’s preference for autochthonous materials and local techniques is hardly justified on a culturalist or historical basis, but on the practical evidence that it could occupy local workers.

82 Julio Vilamajó, “Proyecto de ordenanzas generales sobre los distintos tópicos que tienen atingencia con la construcción de Villa Serrana y sus comentarios” (1947), f. 529/66. Archivo IHA (Instituto de Historia de la Arquitectura, Universidad de la República, Montevideo, Uruguay).


89 Julio Vilamajó, Memorandum presented to the Lavalleja Department (1947), 13, Archives IHA (Instituto de Historia de la Arquitectura, Universidad de la República, Montevideo, Uruguay).


93 Dikshith, 7.

94 Idem, 2.

95 Gregotti, 63.

96 Gregotti, 63.


98 Abercrombie, “Geography, the basis of planning”, 4.

99 As we can conclude from Geddes criticism on politicians in the first chapter of *Cities in Evolution*: “Yet ‘practical politicians’ as they all alike claim to be, to us students of cities they seem alike unpractical, unreal; since unobservant, that is ignorant, of this concrete geographical world around them, uninterested in it.” Patrick Geddes, *Cities in Evolution. Cities in evolution. An Introduction to the Town Planning Movement and to the Study of Civics*, (London: Williams & Norgate, 1915) 19. See also Chapter 15, The Survey of Cities, 329-338.


101 Vilamajó, Memorandum, 14.


Which City is on The Scene? Urban interventions in Rio de Janeiro in retrospect

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Keywords: city marketing; urban interventions; Rio de Janeiro/Brazil

Introduction

The economy internationalization, which has in the development of informational technology its main ally, was responsible for changing the meaning of time and space. Nowadays, the cities are defined as consumption territories, where each event is simultaneously propagated by the media. This provides them such a visibility rarely experienced before, introducing a competition between places ruled by strategies for promotion (VARGAS & CASTILHO, 2009).

In this context, the competition to host the most prestigious events, such as FIFA World Cups and Olympic Games, has become as important as attracting companies (SÁNCHEZ, 2010). In fact, the so called “renovations” or “revitalizations”, terms that often represent nothing more than promotional strategies of city marketing (VASCONCELLOS & MELLO, 2009), find on these events the ideal opportunity for their own implementations. Furthermore, their occurrence contributes to establish an optimistic atmosphere, important not only for the propagation of an external image of reliability, but also for the restoration of “city’s patriotism” (SÁNCHEZ, 2010, p.500).

Over recent years, Rio de Janeiro is undergoing one of these optimistic moments related to its worldwide projection as host of several events, including the 2014 World Cup and the 2016 Olympic Games. Although great interventions are being done in order to make Rio de Janeiro pass, or try to, through the greatest transformation in the history of Olympic Games (CDURP, 2012), it is evident that its insertion into the world circuit of big events did not occur without foundation.

Since the 1980s, the government of Rio de Janeiro has been working to consolidate the city not only as a touristic center tied to natural beauty, but also to culture, business, services and events. At the same time, many urban interventions occurred during this period were important strategies to reverse or minimize unwanted images of the city, such as poor infrastructure, lack of educational and health facilities and the stigma of violence (FIORI et al, 2004).

Taking into account the ancient process of the city transformation, the aim of this article is to present a retrospective of iconic interventions and urban planning projects in Rio de Janeiro over the past three decades. In this sense, a paradigmatic project of a specific nature was analyzed for each decade, chronologically: Corredor Cultural (1980s), which consists of a revitalization of historic downtown; Favela-Bairro (1990s), a series of interventions in social interest areas and; Porto Maravilha (2000s), a major project of new centrality for the city’s waterfront.
The proposal is to highlight the multifaceted nature of the city’s restructuring process by showing different projectual intentions that took part in Rio de Janeiro. Further, we seek to understand how themes, focuses and scales of intervention have changed in the course of time, according to specific contexts that are now crowned with a large urban restructuring project. This intervention, *Porto Maravilha*, sometimes complements the ideal of these previous projects, but by others, it breaks with their precepts, in a continuous process of remodeling the image of the *Marvelous City*.

**Marvelous City turning into Marvelously Competitive City**

“*Rio de Janeiro, global and attractive city, perfect for living, working, and also investing*”, this is the slogan of *Rio Negócios Business*, the agency of promotion and investing of Rio de Janeiro. This expression is used for calling the attention of companies and multilateral agencies for the city’s strength points.

The construction of a strong sense of competition in the most representative cities in the world is dealt with a new policy of urban planning, in which public management approaches increasingly to strategies of business administration. In this context, cities are presented as attractive spaces through the propagation of advertising images that select specific aspects of urban reality to be shown (SÁNCHEZ, 2010).

In these years, where the overvaluation of the city’s image becomes a strategy of insertion in the world market, urban interventions in public spaces are considered one of the leading roles into the whole process. Its performance is even greater when we take into account the construction of new centralities, which are attractive poles intentionally located in specific places of the urban territory whose goal is to drive population to consumption.

There are new urban planning imperatives that guide the formalization of a competitive city. According to Sánchez (2010), among them we can point out: replacement of an industrial model of occupation; improvements in communicational infrastructure, such as implementation of fiber optic and construction of *intelligent buildings*; modernization of transportation systems and improvement of urban mobility; implementation of new business and financial centers, with investments in teleports; production of high standard residential spaces; projects for selective spaces of leisure and consumption; and finally, revitalization of degraded areas, with special attention to waterfronts and port zones.

If these are guidelines that permeate the process of urban planning in major centers, including international ones, in Brazil we still have specific features, which are adapted to a reality that not even came true by the assumptions of CIAM, those related to recreate, work and inhabiting (SILVA, 2008). Brazilian cities are fragmented, exclusive, segregated, inefficient, expensive, polluted, dangerous, inequitable and illegal. This framework is driven mostly by the speculative logic of market and its total abdication of social and environmental issues (FERNANDES, 2008).

Therefore, urban planning in Brazil has the hard mission, sometimes revoked, of conjugating different dimensions. Among them, Oliveira & Lima Júnior (2009) highlight: the relation between local and state policy; the current redefinition of the State role into the process; the consideration of effective possibilities for changing poor realities; the work with architectural images and references; and finally, the study of land, economical, environmental and social impacts of the project implementation.
Between international guidelines and national requirements, Rio de Janeiro has been working for a long time in the construction of an image of a reliable city, suitable to business and cultural activities. So that, a series of interventions where implemented in the Marvelous City urban territory, most of them according to the new imperatives of urban planning presented by Sánchez (2010). Among these interventions, we can mention: the construction of a Teleport in the district of Cidade Nova, in 1995, and residential and corporate real estate enterprises focused on a high class public in Barra da Tijuca district.

In addition to major business enterprises, which consequently generate a need for high standard residential accommodation, the public space treatment also begins to receive the government attention. If, as states by Lynch (1997), the city is perceived and comprehended by our everyday flow into its streets, noticing monuments and landmarks that help us to localize ourselves into urban territory, public space is the main stage of urban life. Furthermore, it is one of the leading roles in the construction of the city’s image, so important for worldwide projection.

Therefore, projects like Rio Cidade were implemented following the precepts of urban acupuncture, just as the Catalan mode. These interventions were settle in various districts of the city, involving both road and sanitary infrastructure, focus on pedestrians with implementation of crosswalks, reestablishment of landmarks by the implantation of street furniture and elements of public art.

Although interventions such as Rio Cidade promoted an ideal of urban planning for the city as a whole, many projects of new centralities were implemented on the city in the past two decades. Most of them were related to cultural and entertainment complexes, as the one elaborated to be settled in Marina da Glória, in Flamengo Park, which was not built yet.

There were other urban projects with a straight relation to local culture. One example is Cidade do Samba, an architectonic complex located on the port zone with the function of sheltering samba schools from the city’s especial team. Although it is composed by large warehouses, it is not a strong architectural mark, which does not mean that the city was not acting on this front.

One of the most famous architectural designs of the city, the current City of Arts, was opened in 2013. Besides its insertion in the district of Barra da Tijuca, close to wealthy sectors of society, the project bears all the characteristics of mega architectures related to great urban projects. Among these aspects, is possible to mention the monumentality of architecture, the accurate aesthetic, in addition to the signing of one of the architects of the international star system: Christian de Portzamparc.

This brief review of some urban interventions in Rio de Janeiro allow us to perceive that there is a huge difference between the Marvelous City, the one who won this title because of its exceptional natural beauty, and the New Marvelous City, which is being built by the government to encompass all the competitive prescriptions.

As Featherstone (1995) states, the post modern cities are involved in a new view of culture and urban life style, in which there are many categories they can be fit. Among them, the author cites: great cultural centers, whose built landscape and historical value give them the title of artworks; natural paradises, known for its beautiful landscapes and nature; and those who have in leisure and entertainment industries its recognition of cultural centers.

What happens in this new phase of competitive capitalism is that cities are working into a major urban project in which they became capable to offer all of these sorts of cultural consumption to various specific publics. When we realize that publicity, exhibition and
promotion of these cities is possible by the diffusion of cultural images (FEATHERSTONE, 1995), it becomes easy to understand how important this polyvalence is.

Following a metaphor, competitive cities are actors showing all of the versatility of their performances in order to become the leading roles in this play called worldwide projection. They have to deal with different scenes; each of them requires multiple facets of acting. Sometimes they need to work with the past, sometimes is an unwanted present that has to be faced, and many times they have to perform looking at future scenery.

Rio de Janeiro is a veteran actor in such varied contexts, with iconic, and even polemical, performances occurred in the past three decades. Some of these emblematic moments will be presented in the sequence in a retrospective mode.

Scene 1: revisiting the ancient Rio de Janeiro

The primary ideals of Corredor Cultural project were initialized by the period between the late 1970s and early 1980s. Alcantra (2008) states that it was an important political moment for Brazil: the final breath of a Military Dictatorship and the reestablishing of democracy. According to the author, the vision of urban life quality gained force, the population started pressing the government for acting against an aggressive leadership of real estate market. This shows that an interest by the city’s historical and architectural heritage was being recovered after many urban interventions that have considerably degraded the ancient town.

More than this, Berman (2007) states that one of the main cultural characteristics of the 1970s was the revalorization of historical and ethnical memories. This awareness around identity issues and personal and collective roots had foundation in a widespread insecurity in labor markets and also in the vertigo imposed by the advances in communicational technologies (HARVEY, 2008). This shows that despite of a local aspect, the atmosphere of a historical return, in which Rio de Janeiro was involved, had also an external basis, a strong aspect of post modern cities.

In this context, the Corredor Cultural project was implemented by local government in 1979. The plan was conceived by intellectuals and technicians of the City Hall and it was also the first preservation project for downtown, involving the following places: Praça XV, Lapa, Cinelândia, Largo da Carioca, Largo de São Francisco and Saara (MACEDO, 2004).

The project sought to reconcile preservation of historical and cultural heritage, restoration of urban and architectural exemplars, besides social and economical revitalization (ALCANTRA, 2008). The most emblematic aspect of this program was an introduction of a new intervention logic in the existing city: the inserting of civil society participation into the planning process (MACEDO, 2004).
Figure 1: Coverage area of Corredor Cultural program

The program scope had on its complexity one of its greatest strong points. It was not only an architectural intervention in ancient buildings. The team involved in the implementation of Corredor Cultural acted on the basis of city planning. The system of spatial land use was modified; they also implemented a project of building alignment and a new proposal for zoning. Since its promulgation, every urban or architectonic modification to be settled in the program area requires approval from both executive and legislative levels (ALCANTRA, 2008). This strategy shows that a detailed diagnosis was made for the intervention area, even reflecting about past planning practices that allowed the construction of the well known central landscape of Rio de Janeiro, with its tall office towers along architectural exemplars of historical interest (GUIMARAENS, 2002).

Besides the directives conferred to the buildings, especially those related to the preservation, renovation and composition; the program also involved a complementary scope in which tax incentives, urban design and cultural activities were considered an important part of the restructuring process. In this sense, for the buildings recovered or in a well state of preservation, there is an exemption from the city property tax. Other inducements are related to the promotion of reorganization of public spaces through multilateral agencies funding (ALCANTRA, 2008). As already states by Sánchez (2010), this is a current action of encouraging the renewal of degraded centers, which in this specific case is used for a noble purpose.

Talking about a comprehensive view of cultural heritage preservation, promoting only the recovering of architectural exemplars is not enough to revitalize the urban environment. For this reason, the Corredor Cultural project involved a series of urban interventions that started to be implemented few years after the beginning of the program. In this sense, civil society performed a central role: people who invested in the restoration of their establishments and buildings did not want them along to streets and squares with poor infrastructure and conflicting uses (ALCANTRA, 2008).
Among the interventions that occurred as complementary actions of Corredor Cultural program, Alcantra (2008) highlights: the reform of Praça XV, in 1994; the recovering of Praça da República and Saara, in the same year; the reorganization of Lapa, in 1995; and finally, the remodeling of Largo Alexandre Herculano and Praça Tiradentes, which were configured as large squares into urban territory.

The insertion of cultural uses in the area involved by the Corredor Cultural project was one of the most visible gains of the plan. In fact, there were many institutional buildings with cultural uses established in the program coverage area before its implementation, such as the Municipal Theatre, the National Library, the National Museum of Fine Arts, and so on. But, what calls attention in the project is the huge number of cultural centers implemented on buildings recognized as part of the city’s historical heritage, from the 1980s onward (Sampaio, 2007). Between Flamengo Park and Mauá Pier, Rio Branco Avenue is, for sure, one of the greatest cultural corridors in Brazil.

The successful experience with Corredor Cultural would not be possible without the strong participation of civil society in the whole process. It is not only about being motivated to preserve built environment because of the pressure of real estate market. The coverage area is also deeply influenced by the miscegenation: the Rio de Janeiro downtown was constructed by Brazilians, Portuguese people, Jews, Arabians, to mention few ones. They had established on that territory not only their commercial activities, but also family, friends and identities that made them resist through the years that passed by (Alcantra, 2008).

When Cultural Corridors came to put on scene an ancient city almost forgotten behind so many tall buildings, signboards, outdoors and unsuccessful interventions, an historical heritage was legitimately revealed. It did not occurred by the reductionist lens of pastiche or anecdotal interpretations, recurrent in many cities worldwide, as stated by Berman (2007) and Harvey (2008). It occurred driven by real people that developed a real protagonist role into the process proposed by government technicians. It was the first action in this way promoted in Rio de Janeiro, but it would not be the last one.

Scene 2: Inner revoked city in the foreground

Metropolitan cities, such as Rio de Janeiro, have many inner worlds on their urban territories. Most of them remain forgotten, maybe because time prints its various layers above the ancient city, or maybe because there is an interest by maintaining a specific reality out of projection. The point is: in the current condition, where the city’s image is the most powerful advertisement an urban center can have, some aspects of the real city are revoked and others are exalted.

Denying the poor infrastructure, the lack of educational and healthy establishments, the unemployed people and the stigma of violence, does not mean that these aspects will be eradicated from the territory. Because of this, the cities constantly find themselves compelled to face a sad reality, which is easily found in inner revoked cities, such as the slums.

Integrating informal settlements to the formal city through urban improvements was the challenge assumed by the government of Rio de Janeiro, in 1994. With the intention to reverse or minimize the disadvantages of a poor context (Fiori et al., 2004), the Favela-Bairro program sought to ally strategies such as construction of access routes; granting of land titles and provision of public services to the ideal of making slums part of the city (Acily Jr., 2004).

The first step of Favela-Bairro program was the realization of a public competition opened to private architecture offices. Initially, it involved fifteen communities of small and
The architects who decided to join the competition should elaborate a proposal of intervention contemplating: an approach to the major theme; some design solutions with foundation in the previous knowledge of that reality; frequent problems and their respective responses and, finally, suggestions of directives for land use and occupation (RIBEIRO apud MENDES, 2006).

The communities chosen to integrate the public competition and, later on, the first phase of Favela-Bairro program, were not only listed because of them sizes. The difficulties to consolidate the improvements; local infrastructure; the needs of inhabitants and intervention costs were all aspects considered on the selection of the slums studied (ACIOLY JR., 2004).

In the same way characteristics were important for the slums selection, they would be also relevant for the propositions made for them. The competition’s intention was to formulate a methodology to guide an approach to each area, considering: its history; its occupation process; the cultural identity formation; the specificities of each slum; the use of available properties; its integration with the nearest neighborhoods; the characteristics of the district in which it was located; the various interests involved in the community management and the relocation of families who were living in risk areas. The fifteen different proposals elaborated during the competition at the end converged for a central line of action, forming a model of intervention replied through the city (MENDES, 2006).

What makes Favela-Bairro an ambitious program is the vast number of components involved on its scope: improvements on sanitary infrastructure; public lightening; reforestation; social interest dwelling; implementation of garbage collection systems; training and income generation programs; construction of commercial establishments and social counseling centers (FIORI et al, 2004). The challenge of spatial and, furthermore, social integration was also a difficult question to be solved.

The program worked with different views of spatial integration. To transform a slum territory part of the legal city, the directives pointed three ways out: implementation of infrastructure; elaboration of urban law and land regularization (MENDES, 2006). More than considering legalized land tenure only as the granting of property titles, the program aimed to work out a sense of citizenship, more comprehended by the provision of infrastructure and public
services (ACIOLY, 2004) than through a participatory process with solutions built with civil society.

It is true that the program promoted a valuation of the spatial complexity that is characteristic of the slum territory, in addition to reinforce their peculiar identity and social interchange. The professionals involved on the project prioritized improvements in dwellings and the recovery of cultural references held by population, rather than adopting an aesthetic of a popular planned neighborhood (MENDES, 2006). However, as currently happen in so many great urban planning projects, the collective view sometimes brings pendencies and the breakdown of some expectations.

In fact, the slums contemplated by the Favela-Bairro program faced a huge change on their physical spaces, which had made these communities much more accessible to both residents and external agents. Although, it is not possible to affirm that social integration was conquered, especially because it depends on a change of view by people and their culture (FIORI et al., 2004).

Another point highlighted by the residents was an excessive focus on physical improvements. For them, the programs for income generation were well elaborated; however they were limited with lack of resources and inability to tackle the structural causes of unemployment. Even the architects point out some inconsistencies in the program development, such as the standardization of projective concepts for communities, which impaired innovation and the work with diversity and specific needs (FIORI et al., 2004). Nevertheless, improvements promoted by the public action stimulate residents to make their own improvements on theirs dwellings, although the program did not directly worked in this sense (ACIOLY JR., 2004).

Favela-Bairro program was responsible for opening the curtains closed a long time ago. An inner Rio de Janeiro was revealed into the slums as they really were, and this was the main merit of the program. Moreover, the project was settled in a context where reducing urban poverty and bringing improvements to social interest areas were not only an international aim, but also something encouraged and supported by multilateral agencies, as shown by Fiori et al (2004).

Surely, Favela-Bairro program is a paradigmatic intervention in slum areas that improved a lot the projective approach on these settlements. There was a real focus on the actors of this history, but maybe they did not have the same liberty, as the ones of Corredor Cultural, to compose their own characters. The directors who worked on this scene have thought the entire construction of these protagonists, letting them with few, but still important, contributions, in a context in which they used to have none.

However, thinking that the subjugation of the physical and cultural space of low-income population had an end along with Favela-Bairro program is a big mistake. The acceptance or revoke of certain realities depends on the market importance of the scenery in which the city managers work, and this is being well taught nowadays.

Scene 3: a new real estate market centrality

How gratifying is for a city the implementation of a project in which the main ideal is to restructuring an area regarded as obsolete and degraded? What about doing this through the articulation and requalification of public spaces in accordance to the ideal of improving life quality of current and future residents? What if this area would be located nearby important transportation routes and, moreover, in front of a bay that constitutes one of the main tourist arrivals?
This inner city on the scene is the port zone of Rio de Janeiro and the precepts listed above are some of the goals of Porto Maravilha project, a great urban intervention that involves six districts: Santo Cristo, Gamboa, Saúde, São Cristóvão, Cidade Nova and finally, the city downtown. The strategic location of Porto Maravilha among these districts has an important position in this city marketing context.

As already shown, both the city center and Cidade Nova district were places in which important urban interventions were implemented. In the first case, Corredor Cultural program restuctured the historical city, improving its landscapes and functions. In the second one, a teleport was built, involving the construction of an intelligent building and the implementation of communicational technologies. In this context, which are the main strategies of Porto Maravilha? How do they deal with these previous interventions? Which relation does it maintain with the other neighborhoods?

The main objective of Porto Maravilha is to create a new centrality into the ancient industrial port zone, what means to turn it into an attractive place for both work and living. So that, the intervention contemplates a change in its uses, new building patterns, an adequate rout system, improvements on public transportation and also, an urban and landscape plan.

Into the intervention scope, is possible to highlight: port warehouses requalification for economic and touristic purposes; afforestation project; plans of drainage and basic sanitation; implementation of a transportation system including Light Rail Transit (LRT); redevelopment of existing roads and construction of new ones; implantation of signaling equipment, lightning and street furniture; construction of tunnels and implantation of a cycle lane through the entire shore (CDURP, 2009).

This urban intervention also contemplates the insertion of an architectural referential, which is an iconic element of the project. This building is a museum designed by Santiago Calatrava, which is being constructed in Mauá Pier. Although its construction was not concluded yet, Calatrava’s projected is already one of the strongest images of Porto Maravilha intervention, stimulating even the upgrading of its surroundings by reforms in various exemplars of architectural relevance. One of them is the complex that hosts the Art Museum of Rio de Janeiro.

The insertion of these museums into the Porto Maravilha area comes to finalize a cultural route that starts in Flamengo Park, with the Museum of Modern Art, and passes through the
entire city center and its multiple cultural buildings contemplated by Corredor Cultural program. Therefore, a relation between previous interventions in downtown and the Porto Maravilha project is notified by the inclusion of institutional uses that takes into consideration the cultural nature of the area as a whole.

The project integration does not happen only by the similarity of uses. An important point of its insertion is surely the improvements provided in the transportation sector. The central issue of building a new centrality is to focus on its access and main routes of connection to other districts. In this context, the entire infrastructure implemented, as new routes and tunnels, and furthermore, different transportation modals, are important allies to the intervention success.

In fact, Porto Maravilha was planned to be well connected to Central do Brasil train station; the ferryboat station; to Santos Dumont airport and to the main financial centers of downtown and Cidade Nova. Through this view, the project clearly has a regional scale, besides its international ambition, but what about its local insertion? How does it deal with the traditional neighborhoods of the surroundings? And its current population, it is a new scenery for these people?

More than an industrial area, the port zone of Rio de Janeiro is also recognized as one of the most important hosts of popular culture in the city. Many riots broke out there, multiple carnival groups made the port their homes, the shore landscape and its surrounding hills had in its soundtrack great musicians. That “Little Brazilian Africa” (PASSOS, 2013) was the birthplace of samba; however, this is not the city on the foreground of the scene. A careful analysis of the Study of Neighborhood Impact of Porto Maravilha project (CDURP, 2009), shows that the most important projective directives and structural modifications on land use and landscapes are provided for the waterfront, including the incentive for verticalization.

Regarding the ancient settlements and slums consolidated in its surroundings, problems such inaccessibility; poor sanitary infrastructure and location of dwellings in risk areas are all diagnosed on the Study of Neighborhood Impact. However, the directives for these places are reduced to the possibility of improvements on their surroundings infrastructure (CDURP, 2009). The justification for the inaction on these social interest areas is the preservation of their historic landscapes, although, as shown by Baima & Nóbrega (2012), the verticalization in specific points of the shore can reduce the visibility of some of them.

A more serious issue is related to the process of removal of families. Current complaints about justifications given; inadequacy of action; limited and unfair resettlement strategies, permeates newspapers, photos, reports and documentaries, most of them analyzed by Rainha & Fonseca (2013). According to their research, the lack of information and social participation is a weak point of Porto Maravilha project. The dwellings are marked to be removed without formal communication to the residents, which are indemnified with negligible values.

What can be concluded about Porto Maravilha project is that it prioritizes a different city, much more connected to the ideals of urban marketing. The actors that had been worked on this scenery for so many years do not have voice anymore, not even as supporting actors. The leading roles on this scene are played by intrinsic values such as touristic and economical visions, which lead to an intervention that focuses in a city to be exported, a city built by the precepts of the competitive era, constructed in an international language. On this scene the directors have a clear private interest and new actors, more suitable to the scenery that is being remodeled, will be soon admitted.

Final considerations
Since the end of the 1970s, Rio de Janeiro is passing through a continuous process of remodeling of its image. The ideal of converting the ancient Marvelous City into the polyvalent competitive city of 21st Century has being worked with multiple approaches. The review of the main points of this process allows us to perceive its comprehensiveness. Every single topic listed by Sánchez (2010) as directives guiding the formalization of a competitive city is contemplated, somewhere and somehow, in the evolutionary history of Rio de Janeiro’s urban territory.

Taking into account the specific characteristics required for urban interventions in Brazil, as state by Oliveira & Lima Júnior. (2009), most of the different dimensions assumed by the planning activity are being worked in the context of Rio de Janeiro. The main problem, in this case, is possibly the level of relevance attributed for some aspects. Interventions such as Corredor Cultural and Favela-Bairro programs, for example, really focused in effective possibilities for changing current realities. But, what is revealed by the latest urban projects, as Porto Maravilha, is a major attention to the construction of architectural references rather than solving intrinsic issues related to the real users from the covered area.

In fact, there is a continuous changing on the themes, focuses and scales of intervention. If at the 1980s and 1990s the cities in the foreground of intervention were the real ones, as the ancient downtown of Corredor Cultural and the slums of Favela-Bairro program, nowadays, the city that is being built is a city for projection, entirely new and more international than local.

The study of these three projects shows that the real actors of these inner cities are gradually losing their voices and participation in the process of restructuring their images. If in Corredor Cultural program the residents and traders of the affected area built both the scope and strategies of action among technicians, in Favela-Bairro the approach was a little bit different. The focus was still in the social actors of those settlements, to whom the entire scope of intervention was built, although they did not have many possibilities to discuss or propose projective alternatives.

Unfortunately, the situation gets worse when we analyze Porto Maravilha project. In this intervention the voice of residents and current users is completely silenced by market goals. Ancient settlements are far from the foreground on this intervention, which prioritizes the construction of a new centrality in the waterfront of the port zone. The communication fails even in the aspects that directly affect residents, such as removals, raising a worrying situation.

It is well known that since 1960s we are facing the age of the great urban interventions, but what we concluded by this study is that the coverage area of contemporary urban projects are becoming even greater. Considering the physical aspect, Corredor Cultural program contemplates the city’s central area, constituting a very punctual intervention. Favela-Bairro program, in its turn, presented an ideal of project similar to the one developed in Rio Cidade project, in which the city as a whole was contemplated by various punctual interventions. In this case, we can verify a changing, from one intervention to another. Primary, there was a focus in the district scale, and in the second case the city scale was adopted. Nevertheless, the huge changing was introduced by Porto Maravilha, which clearly has a regional scale, especially because the improvements proposed in transportation sector.

Furthermore, when we analyze the intervention scale by its projection, we face a considerable change. While Corredor Cultural has mainly a local and maybe national projection, Favela-Bairro gained an international visibility. The reasons for this are clear; surely it is a paradigmatic project in relation to the restructuring of urban territory and reestablishing of citizenship in slums, well discussed in many events and publications in the urban planning area.
Nevertheless, nowadays we are facing the age of the great market interventions that are elaborated with the ideal of obtaining worldwide projection. Consequently, it is no surprise that the scale of comprehensiveness, through this view, is becoming bigger. Into academic debates, Porto Maravilha project is already one of the main topics of discussion when the theme is urban planning in Brazil. But soon, when the international events, specifically the 2016 Olympic Games, start to be transmitted worldwide, is likely that the Marvelous City will be identified by these new references that are being inserted in the port zone. Still, cities and sceneries will remain in the real Rio de Janeiro.

References


Rio de Janeiro after the Arrival of the Portuguese Royal Court: Plans, Intentions and Interventions in the Nineteenth Century
Amanda Lima dos S. Carvalho, Vera F. Rezende

Abstract

This article attempts to recover, through the lens of the urban plans, projects and works carried out in Rio de Janeiro in the nineteenth century, the ways of thinking that held sway in the city after the arrival of the Portuguese royal court, and investigate how this event was fundamental to transforming the city well into the twentieth century. The transfer of the royal court to Brazil in 1808 brought new perspectives to the city of Rio de Janeiro and the entire country. The primitive colony needed an organized government and administrative institutions, schools, roads, banks, and factories. The royal administration established institutions for basic and higher education, started publication of the first newspaper, and opened the ports to foreign trade, among other measures, helping to build Portugal’s empire in the American tropics. All of the changes that occurred in the city during that period served to adapt it as capital of the global Portuguese Empire. Through this process, it was essential to overcome the shortcomings of a colonial outpost whose conditions shocked the new arrivals, in contrast to the city’s stunning natural beauty. In the effort to change Brazil, Dom João VI dedicated himself to so-called “civilizing undertakings”, aiming to promote the arts, culture, and refinement. As part of this effort, he contracted the French Artistic Mission, headed by Joaquim Lebreton, which arrived in 1816. The objective was to create an academy of arts and sciences, but they were unable to accomplish this goal. The mission then dedicated its time to the construction of a series of ephemeral buildings in neoclassic style – obelisks, arches of triumph – to affirm the superiority of the Court to the more humble layers of society. The mission was also responsible for two urban proposals that influenced later plans: a monumental avenue linking Campo de Santana [Santana Park], Largo do Rocio [Rocio Square] and Praça XV [XV Square]; and a new regular and symmetrical urban street grid in the swampy São Diogo - Cidade Nova region, along with the renewal of Campo de Santana. The population growth and development of the city, which was the seat of the Crown in the nineteenth century, served as a springboard to modernize it. Two plans were prepared for Rio de Janeiro as the capital of the new Brazilian empire established upon independence from Portugal in 1822: the Beaurepaire Report in 1843, and the Improvements Commission Report of 1875-1876. Both plans focused on orderly development, sanitation, opening of new streets, and widening of existing ones, reflecting a synthesis of the international urban thinking of the time. By analyzing these plans, we find many proposals relegated to the realm of mere ideas; however, some were implemented during the great interventions of the twentieth century. The construction of a canal through the swamps of the Cidade Nova area and the demolition of Castelo Hill, to provide landfill to extend the downtown area into the bay, were two of the ideas that finally came to fruition in the following century.

The Transfer of the Portuguese Royal Family

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The research that originated this article had as its objective to reclaim, under the guise of the urbanistic plans, projects, intentions, and transformations effected in 19th century Rio de Janeiro, a way of “thinking the city” grounded in the arrival of the Portuguese royal court. In so doing, the purpose was to show just how fundamental this fact was to subsequent changes in the city at the beginning of the 20th century.

Rio de Janeiro was a Portuguese colony since the 16th century and capital of the viceroyalty since 1763. The transfer of the Portuguese court in 1808 became an indelible marker in the history of Rio’s development. Until 1821, Rio was the headquarters of the Portuguese monarchy, the only city in the history of the Americas to receive the bureaucratic apparatus and its contingent population previously installed in Europe. Up to that time, no king had ever visited his overseas territories, not even to become acquainted with them, much less to live and to govern from them.

The transfer of the Portuguese monarchy to its American colony by occasion of the invasion of the Napoleonic armies is a turning point in the Brazilian historical process. The initial preparations to accommodate the royal family only marked the beginning of the transformation of Rio de Janeiro, for the project of building a new city and imperial capital lasted through the entire Brazilian reign of the prince regent (SCHULTZ, 2008).

The urban structure encountered by the royal family was in large part constructed by Luis de Vasconcelos e Sousa, who administered the city from 1778 to 1790. The viceroy was a pioneer and forerunner of the interventions aimed at adapting the city to the modern concepts of European capitals, acting not only in the expansion of urban structure, but also in the usage of these new spaces. His administration accomplished the construction of the Passeio Público and the reurbanization of Largo do Carmo. These accomplishments served as expressions of the prosperity of that era.

Figure 1. View of Largo do Carmo in 1775. Source: Digital file from the National Library available at http://bndigital.bn.br/acervo-digital/ (retrieved on July 16, 2013)
The transformation of Rio de Janeiro into royal court began only two months before the arrival of the prince regent, when news of the royal transfer came to Rio. The initial actions were to manage the new uses, classes, necessities, and agents that would accompany the court to Brazil. Less than a week after his arrival, while still in Salvador, D. João VI decreed the opening of the Brazilian ports to "friendly nations." This measure struck a deathblow to the colonial agreement that, in practice, mandated that all colonial products had to pass through customs in Portugal. Countries could not sell their products directly to Brazil, nor import raw materials directly from the colonies, and had to do business with the respective mainland powers. Thus, the integration of Brazil into the world market and consequent invasion of foreign products took place, breaking down the foundation of the mainland dominion: the commercial monopoly. This measure was proof of an inevitable contradiction in the economic policy adopted by the court, which sought to impose the principles of economic liberalism in colonial territory.

In regards to the urban perimeter of Rio de Janeiro, Dom João VI created the 10% tax for urban buildings in habitable conditions within the limits of the cities and villages. An established practice in Portugal, the tax consisted of an annual payment to the royal estate, by landowners, of 10% of the buildings’ net income. This tax created an instant source of income for the coffers of the royal Portuguese court in Rio de Janeiro.

Silva (2012, p. 52) emphasizes that three measures of impact should be highlighted, which were put into practice soon after the arrival of the royal family, when "a new form of organization began to emerge, articulating knowledge and acting upon urban norms and spaces.” The three measures were: 1) creation of the General Police Command, 2) the medical diagnostic, and 3) the official map, which sought to accurately record the situation of the city and serve as an instrument to plan necessary changes for the new seat of government, articulating the civilizatory project to the entire territory. Together, they pointed to a new form of organization and intervention, especially when connected to the introduction of the 10% tax.
Manuel Vieira da Silva, chief physician of the kingdom and assigned by D. João to investigate the causes of ill health in the city, completed the medical diagnostic in 1808. The prince regent requested the diagnostic and published it in the press, thus transforming the study into official guidelines. The objectives of D. João were to create a culture of discussion in the city and publish a document that was unquestionable. Physicians were especially equipped to speak of the problems of urban structure, most notably in linking the health and sickness of the population to geographical surroundings (SILVA, 2012, p.61). This relationship allowed the hygiene movement to become potent discourse in “thinking the city” during the 19th century and the first decades of the 20th century.

**Reconstructing the Portuguese Court**

The arrival of the royal family was the first moment in which the notion of civilization began to connect to usage of the city’s urban territory. All of the changes that occurred in social and urban structure during this period had as their background the adaptation to the role of tropical imperial seat (SILVA, 2012). A new way of “thinking the city” emerged, irrevocably defining the future of the city of Rio de Janeiro. The Portuguese government promoted modernization initiatives,
idealizing beautiful and healthy spaces along with the construction of imposing structures in neoclassical style, thus representing the new phase of Rio de Janeiro.

The institution responsible for the public and common good was the General Police Command, one of the agencies brought to Brazil by the royal family; it was responsible for public works, water supply, lighting, and safety, as well as for the policing of common life among the residents. The provision and regulation of housing figured prominently among the Command’s immediate tasks.

The transformation of Rio de Janeiro into royal court had to involve the marginalization of aesthetics and practices that did not reflect this change. It was consensus among the dominant classes that to no longer be a colony meant the adoption of a colonial project: become civilized. It was necessary to create and impose an aesthetic and cultural uniformity "so that the city had conditions to serve as the seat of the kingdom’s principal authorities" (BRASIL, 1923, p.11).

Constructing a royal court meant constructing an ideal city; a city in which both mundane and monumental architecture, along with the social and cultural practices of its residents, projected an equally powerful and virtuous image of the royal authority and government" (SCHULTZ, 2008, p.157).

In March of 1811, city administrator Paulo Fernandes Viana proposed that the solution to the housing crisis in the already tight quarters of the Old City was readily available if the authorities directed their attention to a region outside the city center known as the New City, where marshes covered the majority of the area. The residents would be encouraged to dry and fill in the land, and to build houses. Thus, the city would be ennobled, more housing would be available, and rents would fall. The imposition of standards for construction in the could be masked by means of exemptions. More importantly, “the interventions of the court would put an end to the ‘misunderstood freedom’ to build any way one wished, consequently reinforcing the authority of the prince regent” (SCHULTZ, 2008, p.163).

The authorities thus decided to concede an exemption from the 10% tax for ten or twenty years to property owners who built two-story houses on properties located in the New City, as well as to prohibit the construction of single-story homes.

Silva (2012, p.79) adds that the necessity not only of accommodating the royal family, but also of putting into effect the "internalization of the metropolis" potentialized, from the beginning of 1810 onwards, the first movement of inland expansion. Another factor that contributed decisively to the conquest of lands above the mangrove of São Diogo was the transfer of the royal residence from Largo do Carmo to Quinta da Boa Vista, in the district of São Cristóvão.

From the intensification of occupation in a westerly direction, the Campo de Santana, the previous limit of the urbanized zone of colonial Rio de Janeiro, began to redefine itself as the link between the Old City and the New City. It is fact that the presence of the royal family in Rio de Janeiro was determinant to this area receiving improvements and becoming more trafficked by the public, since the ample and open region was favorable for new construction that could no longer take place in the old city center without large-scale demolitions and expropriations. Thus
began a process of migration of administrative buildings, linked to the imperial power, from the city center to the countryside environment.

In order to effect the establishment of Portuguese interests in American territory, the city of Rio had to be renewed, for it "had to become the driving center of a movement that represented a novelty while at the same time the fruit of a tradition" (SILVA, 2012, p.78). The coming of the royal family set into motion a process in which urban structure was an intrinsic part, a primordial mechanism, of a project of nation building.

**The French Artistic Mission**

With the goal of modernizing and leaving behind the city’s colonial traces, new standards of civility were imported from France and England, influenced by the reasoning of the bourgeois elite and by the Industrial Revolution, and brought by the French Artistic Mission in 1816. This civilizatory project, led by Joaquim Lebreton, brought with it a new ideology of architecture, fine arts, and urban spaces, and had as its primary objective to update the taste and technique of the empire in Brazilian territory.

(…) sustaining the renovation of the monarchy in the New World demanded correspondent reforms. The greatness of an American monarchy would have to begin with the greatness of its capital.

(SCHULTZ, 2008, p.155)

For Schwarcz (2008), the French Artistic Mission was a grand convergence of interests. Differing from the “official” version, the author asserts that the initiative and execution of the project came from the French artists, led by Joaquim Lebreton, having the support of the Portuguese government after their arrival in Brazilian territory. Only decades later would it be termed a "French mission."

On one side, there was a series of French artists trained by the French Art Academy, in the highest neoclassical style, but yoked to the defeated Napoleonic state. Unemployed, they had lost a good part of their wealth.

On the other side, D. João VI willingly received the artists’ proposals. The court was very interested in receiving a group of academics who could reformulate and elevate its official representation. In a largely illiterate society, iconography presented itself as an important instrument for the building and strengthening of a nation on a local level.

Lebreton projected the decor for numerous public festivals, some of which were short-lived, others not; the fact is that all had the objective of affirming the superiority and presence of the court amongst the common classes. According to Telles (2000), this spectacular architecture, which highlighted neoclassical as the official style of the empire, also had as its objective to transmit the illusion of being in a European capital, thus breaking the city away from its colonial past.

The first of the grand projects involved to the construction of a new imperial palace and the reorganization of the Rio de Janeiro city center. In 1826, Montigny drafted the project of a new avenue that would allow for connection among Campo de Santana, Largo do Rocío and Praça XV, which would house the new palace, incorporating the royal palace into the new structure.
In 1827, a well-crafted proposal previewed the preparation of a new urban network in the mangrove of São Diogo – the New City, more regular and symmetric, going beyond the remodeling of Campo de Santana. Similar to a French plaza, political and administrative buildings would surround the area, thus revealing the intention to create a new center of power further away from the colonial core and reorganize the entire city.

Figure 4. Part of the Rio de Janeiro city plan locating the new Imperial Palace. Source: Pontifícia Universidade Católica, 1979, p. 161

According to Taunay (1956), Grandjean was the first great urbanist of Rio de Janeiro and the first expert in Brazil, outside of the health sector, who was concerned with hygiene in new construction. The problems of sanitation and drainage, fundamental issues that would only be resolved much later, were concerns of the architect that reflected in his projects as he included water and sewer drainage lines.

The neoclassical project for the city did not come to fruition; in spite of the success of public expositions at the Academy of Fine Arts, most of the projects never got off the drawing board. The legacy of Grandjean’s plan was a few isolated buildings and some urbanistic ideas divorced
from their original context. The opening of the monumental rectilinear avenue, which would cut right through the old city, took place in the 20th century, by way of the radical "modernization" of the city executed by mayor Pereira Passos.

Between 1808 and 1821 the population of Rio de Janeiro doubled from around 50-60,000 inhabitants to 100-120,000 (PREFEITURA DA CIDADE DO RIO DE JANEIRO, 2008). The king’s presence in Rio de Janeiro exerted a strong appeal on other parts of Brazil, the Americas, and Europe itself. Gomes (2007) affirms that the thirteen years in which the Portuguese court stayed in Brazil surpasses any other period in Brazilian history concerning the profound, decisive, and rapid changes that took place.

The transformations that the city underwent had to match the level of appeal created as all attentions converged on Rio, the crown seat that was now to become the administrative headquarters of Brazil. However, it is necessary to speak of the gains and losses in this process of metropolization. The transformations that approximated the city to European traits made it cleaner and well lit, with courtesan theaters and fashions, yet moved it away from its colonial characteristics. One example of this is the prohibition of the use of wooden lattices on residential buildings (SILVA, 2012, SCHULTZ, 2008).

**Post-Independence Transformations of Rio de Janeiro**

Two decades after the return of D. João VI to Portugal in 1821 and the definitive break from the Portuguese court in 1822, the social and urban context of Rio de Janeiro was of great demographic growth. This growth, however, did not involve proportional improvements in hygienic conditions. Thus, it is not surprising that sanitation problems were top priority for urbanistic planning during this period.

Although relatively unknown, we can consider the Beaurepaire Report, created by the then-Director of Municipal Works, as the first urbanistic plan for the city of Rio de Janeiro, because it presented an all-encompassing proposal of formal organization. The report did not just address emergency problems; it made an extensive evaluation of the city’s problems and suggested several measures to resolve them.

Henrique Beaurepaire-Rohan was closely connected to the court, since his godparents were Princess Carlota Joaquina and Prince D. Pedro I. At seven years of age, he was named cadet by D. João VI, following the family tradition, and at age twelve he was called to serve in Bahia alongside his father. His interest in geography arose as a result of his time spent living in the backlands. Beaurepaire entered the Royal Military Academy to study engineering and graduated in 1834. In 1837, he became a captain in the Imperial Corps of Engineers, traveling extensively throughout the Brazilian territory, returning to Rio in 1841 to deal with personal health problems. Visconde de Taunay affirms that "Beaurepaire was, without a doubt, one of the men who knew this vast country from top to bottom" (TAUNAY, 1895, p.77). In his biography of Beaurepaire, Taunay describes him as a man of fragile health, but very curious and indefatigable in regards to collecting historical and geographic information about the Brazilian territory.

The eagerness for improvement and beautification, which grew out of the proposals of the French Mission, reached its maturity at the beginning of the 1840s when the imperial elite and
the Council of State began to show interest in the realization of improvements, which were also associated with the consolidation of the urban bourgeoisie (ANDREATTA, 2006). Beyond these factors, one can point to the success of coffee, which balanced the country’s external accounts, permitting the accumulation of domestic capital that, along with foreign investment, stimulated progress and development.

Beaurepaire, after several years of traveling throughout Brazil as a member of the Imperial Corps of Engineers, returned and found the city grappling with the same problems as before; deficient capture and distribution of water, lack of paved streets, and public lighting continued to occupy the entire budget of the Inspector of Public Works of the Imperial Ministry of Commerce. Lent to the court’s city council in 1842 and 1843, he created the report that became standard reference for “thinking the city” in the following years.

Beaurepaire’s report consisted of two parts: public health and city beautification. The primary proposals of the first part, utilizing hygienic criteria, included the transfer of the public slaughterhouse to São Cristóvão beach, and the solution to the issue of a sanitary sewage system by adopting the European standard. The proposals also involved the construction of pipes to supply water to all homes from the Carioca and Maracanã rivers, and the establishment of a navigation channel in the mangrove of the New City – Canal do Mangue – to eliminate the odious “stink” from the region. In addition, Beaurepaire proposed the removal of the Morro do Castelo (Castelo Hill) in order to enhance the extension of the city and contribute to its healthfulness and beautification.

Figure 5. Partial schematic of proposals of the Beaurepaire plan carried out in the zoning plan of 1854. Source: SMU/IPP, 2008, p.29
For the beautification proposals, utilizing urbanistic and aesthetic criteria, Beaurepaire dedicated a rebuilding plan to the region considered most "defective," the Old City. Aiming to improve circulation, he proposed the extension and opening of diverse avenues while establishing urbanistic criteria, such as the length of city blocks and the height of buildings. He also reinforced the necessity of adequate drop-off from sidewalks in order to have proper drainage. In regards to plazas, besides recommending the opening of eight new plazas in specific locations, he proposed the regulation of the Praça da Aclamação, and in so doing drew upon to a portion of the old proposal created by Grandjean de Montigny, which, though never fully implemented, was utilized in the Beaurepaire Plan after undergoing adaptations.

The relevance of Beaurepaire’s proposals seems to indicate that if many of those suggestions had been implemented at that time, countless current problems would be minimized (SMU/IPP, 2008). Even though the plan was not put into practice, it raised many important questions, stimulating urbanistic discussion and paving the way for the Improvements Commission to make a new proposal some decades later.

**Rio de Janeiro and the Process of Modernization**

In regards to infrastructure, after centuries of having its sewage dumped into ditches and even onto the beaches, the general sanitary condition of the city was so precarious that it became the principal target of a campaign spurred by physicians, and soon after by public opinion, in favor of improvements that would systematically sanitize the imperial capital.

The service contract was given to an English company called *The Rio de Janeiro City Improvements*. Although it was quantitatively effective, the service was criticized as being poor in quality.

The proletarian class, with little or no power of social mobility, grew increasingly dense in the central urban neighborhoods. In contrast, the foreigners who lived in Rio, basking in the privileges granted by the imperial state, took possession of large portions of the urban zone, penetrating on many levels into the day-to-day existence of a growing population which was concentrated in the cramped conditions of Rio de Janeiro’s central area (BENCHIMOL, 1992). An increasingly large contingent of free commoners lived and worked in this region.

Rio was always considered an unhealthy city, but official records indicate that the first great epidemic of yellow fever broke out in 1850. The formation of the Central Commission of Public Health and other measures that followed marked the institutionalization of a type of medicine that had been strengthening its position since the 1830s.

Social medicine contributed decisively to the passing of the first laws that attempted to regulate the city’s “spontaneous” growth. Such laws were almost always ineffective; however, their discourse infiltrated into the common sense of the dominant class as well as the middle class, culturally subordinate, which in the 1870s constituted an influential "public opinion" favorable to any type of improvement that would transform the imperial capital into a healthy, modern metropolis.
The last quarter of the 19th century marked the beginning of the diffusion of railroad transport. The diversity of uses and classes that amassed in the old colonial space was only possible due to the introduction of the horse-drawn trolley and the steam locomotive, both of these becoming strong driving forces in the city’s physical growth.

In this context of grand transformations, social contradictions became more and more evident, aggravated by the yellow fever epidemics. In 1874, the then-minister of the empire proposed to the emperor the nomination of an Improvements Commission for the city of Rio de Janeiro, composed of engineers Francisco Pereira Passos, Jerônimo Rodrigues de Morais Jardim, and Marcelino Ramos da Silva. They presented two reports, one in 1875 and another in 1876. Together, these reports are considered the city’s first urbanistic plan to be brought into the sphere of public knowledge, thus enlarging the urban discourse.

The first report was presented in 1875, only ten months after the nomination of the commission, and concentrated its proposals on the New City. The engineers justified their choice by affirming that it was the region most in need of improvements, offering the best conditions for the city’s development, and that costs and obstacles involved in the work would be less.

The commission chose the Canal do Mangue as a primary fulcrum of their proposals in their first report. This channel needed to be navigable and would thus help to resolve the issue of drying out the marshlands, which were still an obstacle to urban expansion. For this reason, the canal’s extension to the sea and the canalization of rivers were of first importance.

In regards to construction parameters, some of the principal highlights are the limitation of the height of facades and the definition of a minimum height of three meters for habitable dwellings. The grand new avenues proposed the commission sought to maintain the rectilinear projection and adopt proportionate standards for the width of the street, sidewalk, and pavement. It was built into the road layout that these avenues would form great urban axes unifying symbolic spaces, referencing Haussmann’s plan for Paris.

In the face of numerous criticisms for not including the Old City in its initial plan, the commission presented a second report in 1876. It was similar in ideas to the first report, insisting in the defense of its premises by using international models. However, this time the engineers took on the task of the Old City, recognizing that it was an indispensable complement to the overall project (ANDREATTA, 2006).

Besides reinforcing the proposals contained in the first project, the commission proposed the opening, extension, widening, and straightening of a series of streets in the Old City. It ratified the hygienists’ opinions and reclaimed Beaurepaire’s contributions by proposing the flattening of Morros de Santo Antonio, Castelo, and Senado, affirming that these actions would be necessary in order to improve ventilation in the city. The enormous scale of demolitions and expropriations that were necessary for the realization of these tasks recollected the Beaurepaire Plan as well.
Only a small portion of the proposals were implemented, primarily due to financial problems. Yet, besides raising the urbanistic question to a level of public discourse, the Improvements Commission experience was critical to molding the thought of the man who was to become mayor of Rio de Janeiro some years later.

**Interventions of the Early 20th Century**

Rio de Janeiro entered into the 20th century as capital of the republic since 1889, but with a whole host of urbanistic problems. The Republican political class, wishing to spread the concept of modernity throughout Rio’s urban territory, and based on the experiences of European capitals, sought to construct a symbolic image of the city linked to its role as the center of the nation. Thus, its public spaces needed to be amplified, organized, and beautified.

The great accomplisher of this mission was Pereira Passos, who received full powers from then-President Rodrigues Alves, whose actions focused squarely upon the capital of the new republic. Grounded in many of the arguments utilized in previous plans, a more mature Pereira Passos proposed the opening of seven major thoroughfares that would serve as support structure for the remodeled city.
The impressiveness of the city was reinforced, and people were expelled from the downtown area by the removal of edifices and the Morro do Senado as well as by the increase in value of property. The latter was one of the factors that led to the appearance of the first favelas, while leaving a massive public debt for Passos’ successors. The efficiency in the immediate execution and programming of public works made this plan distinct from its predecessors, and for this reason is widely commented and studied – a true milestone in the history of Rio de Janeiro.

The "Bota-Abaixo" (Knock it Down) reform of the early 20th century recovered a series of ways of “thinking the city” whose developmental origins lie in the transfer of the Portuguese court, when Rio began to be planned and modified to bring it up to the standards of greatness of a European capital, and new social classes and uses began to cohabitate in the colonial city’s tight quarters. Moving away from its colonial traits, the plans of the previous century primarily sought monumentality, beautification, and sanitation, aiming to turn Rio de Janeiro into the center of the nation, a model national city.

Through recovery of the hygienic discourse, the tenure of Pereira Passos promoted the opening and widening of a series of major thoroughfares that transformed the city of Rio de Janeiro. The greatest landmark is Av. Central, which "tore" the Old City from sea to sea with 1,800 meters of length and 33 meters of width, demolishing around 700 buildings, among them tenement houses and other lower-class dwellings that were, according to the mayor, the primary source of the city’s health hazards. Passos promoted a concourse of facades in neoclassical style so that the new avenue would mirror the appearance of a European capital. The canalization of the mangrove in the New City, along with the construction of a large avenue, which was part of the Improvements Commission proposal, was finally accomplished.

Figure 7. Project detail of the opening of Av. Central. In grey, the new road to be opened, requiring massive demolition of old houses. Source: ABREU, 2008, p.65

The concretization of such works during the tenure of Pereira Passos, is considered the first systematic and direct intervention of the state in the city of Rio de Janeiro’s urban space. The mayor put into practice the principles of modernization and civilization that came with the transfer of the imperial court, but whose meanings were relativized or deepened with the passage of time. During the 19th century, these principles were matured and modified according to the development of society, technology, economy, and consequently, a distinctive way of “thinking
the city” emerged. We can affirm that during Pereira Passos’ tenure, the heritage of the 19th century materialized, marking the history of Rio de Janeiro forever.

Other proposals, such as the removal of Morro do Castelo and Morro de Santo Antonio, were only implemented decades later, in 1921 and 1950, respectively, showing just how long the ideas diffused in that century remained alive and how important their influence was over time.

**Bibliographical References**


Henrique Beaurepaire-Rohan (1812-1894) was born on May 12, 1812, at Sete Pontes in São Gonçalo; his parents arrived in Brazil in 1808 with D. João VI. Beaurepaire was, for all intents and purposes, a solitary voice in defense of the abolition of slavery, and he proclaimed his position publicly without fear or reservation. According to Taunay, Beaurepaire "called all of his family's slaves together and gave them unconditional freedom, during a time in which such an initiative was seen as reckless, if not downright crazy, and a reprehensible waste of valuable and legitimate goods (TAUNAY, 1895, p. 86)."

Hygienism is a doctrine that considers disease as a social phenomenon, encompassing all aspects of human life. Its objective was to maintain basic health conditions and control epidemics.

The first segments began functioning in 1864 (BENCHIMOL, 1992, p.73)

Although it was an all-encompassing proposal for Rio de Janeiro, the Beaurepaire Plan would only come to be considered as an urbanistic plan decades later.

This work, although it took place during the tenure of Pereira Passos, is attributed to President Rodrigues Alves.
The Future of Tradition: An Analysis of Brazilian Colonial Cities, Their Meaning and Role on the Maintenance of Brazil’s Cultural Heritage
Daniella Martins Costa

Abstract
This paper, part of a PhD research conducted at the Universidade Federal Fluminense/UFF, Niterói - Rio de Janeiro State - aims to contribute to the reflection on Brazilian’s colonial cities and its role constructing meanings and building a strong foundation where a relatively young society can rely on. Consequently, colonial cities assume the main role in this narrative. They will be the protagonists of this plot. As if we head out searching for clues that may help us to better understand how the creators of our national past established some traditions readable through our “villages” and how they still affect our modern design. We invite the reader to walk with us through the observation of a case study, the city of Parati in the south part of Rio de Janeiro State. Brazilians colonial settlements, Parati specially, still keeps part of this unique image that Brazilian authors like Campofiorito (1985) related to the myth of “truth and simplicity” present on the main descriptions of our colonial period production.

Key-words: Preservation, Urban Heritage, Brazil, Parati

Presentation
The Historian Spiro Kostof wrote, “Cities are amalgams of Buildings and people”. However, for a historic city we would have to add to the equation some other values. As a city is not only made by its architecture and it users but, also by the culture that fills it and create a particular atmosphere or define its character, as we will see ahead. There are a few questions conducting the research way: The first one regards Brazilians historic sites and authenticity, is the Brazil we see thru our colonial cities authentic? Are those iconic historic plans a testimonial of our culture, and are they still references for modern planners in Brazil?

Perceptions of the real: an intangible matter
Let us introduce our reflection on historic urban sites with some definitions. What are we classifying when we speak of “historic cities”? If all cities have history, therefore all are historic.¹ We could apply the term, “cities with a historical core”, or the one from Gustavo Giovannoni, to which we agree: “old cities”. We know that, when it comes to heritage, history and memory are not connected solely to time and matter, but also to the meaning and symbolism associated with a place, or an object, due to its relevance to a country, a city, or even to a family. This work focuses on Brazil’s colonial period sites, specifically the city of Parati, at Rio de Janeiro State, in an effort to understand its value today, not only as matter, but also as a symbolic representation that helps the nation to move on looking to the future knowing from where they came from.
To understand the importance of historic sites in defining who we are as citizens, let us start the discussion in an unorthodox way, looking at a fictitious town, from 1905 in the Czarist Russia. The text, an adaptation by Joseph Stein for the musical “The Fiddler on the Roof” (1971), tells us how the town of Anatevka and its inhabitants deal with tradition:

And how do we keep our balance? That I can tell you in one word: tradition! Because of our traditions, we have kept our balance for many, many years. Here in Anatevka, we have traditions for everything: how to how to eat, how to sleep, how to wear clothes. [...] You may ask, how did this tradition start? I will tell you. I don't know. But it's a tradition. And because of our traditions, every one of us knows who he is, and what God expects him to do. Without our traditions, our lives would be as shaky as... as... as a fiddler on the roof! (JEWISON, Norman (dir.) The Fiddler on the Roof ,1971 - Emphasis added).

Our old towns are the materialization of our traditions; this representation of Brazil as idealized by its inventors is transformed into matter thru urban design, which add drama and surprise to their plazas, squares and winding streets. Spaces that transport us to another time, transforming into matter the foundation myth of the nation, showing us in a concrete way “who we are”, and what role we have in this story. The Brazilin writer Rachel Jardim, in an article for the Rio Patrimônio Cultural Magazine, gives a description of these features:

Proust himself said through Charlus, one of the characters in the Reserche that during the war he would have rather they bombed Reims Cathedral than any French village, since a village constituted a group of habits, customs, songs, stories which came down the generations and which revealed France more than any monument. And take into consideration that he was in love with churches and cathedrals, with the French Gothic style and that he “invented”, in his work, churches of rare beauty. (JARDIM, 2008 p.55. Emphasis added.)

Proust’s definition of a village is made of immaterial matter, that is, a village, be it in Colonial Brazil, in France or in Czarist Russia is unique precisely due to its immaterial aspects: habits, customs, songs, histories, textures, colors that fill with meaning the empty matter, bringing about a unique identity.

**Mythical Brazil: simplicity and truth**

Cities are dynamic objects, not static immutable Heritage. They are in constant mutation, even if it happens to be a 400-year-old city. The expression Cultural Heritage is dialectic if we consider that the meaning of the word heritage refers us to a received inheritance, passed from father to son, immutable. However, culture leads us to movement, synergy, and expression of the experience accumulated by the people.
Our urban heritage is this expression of the experience of our ancestors’ that brought us here. What brings importance to this historical core as a representative of a singular (authentic) period in time, are the meanings attributed to it, “matter by itself is something inert. Meaningless. What confers meaning to them are the shared myths.” (ROCHA-PEIXOTO, 2012)

Françoise Choay fuels the debate between material x immaterial when she tells us about Ruskin’s struggle to denounce the loss of the Parisian urban fabric, to him a representation of immaterial heritage:

In the beginning of the 1860s, exactly at the time of the “great works of Paris”, the poet of The Stones of Venice rebels and alerts public opinion against the interventions that damage the old city structure, that is, its fabric. To him this texture is the essence of the city, which makes it an intangible heritage object, which should be protected unconditionally. (CHOAY, 2001 p.180 –Emphasis added)

Whenever we speak of Brazilians Colonial Cities as Ouro Preto, Parati, Tiradentes, we think of their simple and “authentic” architecture. However, often, their peculiar urban fabric or singular texture remains in the background. Gustavo Giovannoni invented, according to Choay (2001 p.195), the concept of “Urban Heritage.” He reminds us that when the old city is no longer thought of as a “sum of monuments” and goes on to be considered inclusively, taking into consideration not only its large buildings – jewels punctually incrusted in its historical grid – but also its urban fabric and ‘modest’ buildings, it “acquires the value of a memorial monument” and truth (Idem. p.194).

The image of the palimpsest is suitable for this representation of the old city, based on Giovannoni’s definition of memorial document and truth: a dynamic object, whereupon one constantly writes and erases. A dynamic heritage, with a characteristic texture, a particular essence and all these attributes can insert it into the intangible category. That is what Giovannoni calls the Character of the City – Architecture and urban fabric carrying within their matter the symbol of our identity. How may we keep integrated this (in)material heritage?

The present economic pressure that takes place in Brazilian’s old cities send away of our old urban centers their original population. Along with them, leave also the everyday life, its songs, customs, smells, colors and textures.

Brazilian colonial cities do indeed possess a great dynamism, but in cities such as Parati and Tiradentes at Minas Gerais State possess a historical center that are always populated, come rain or shine, but these new inhabitants don’t have a solid emotional ties to the city. They come over for the weekend and go by the end of the tourist season.

What those people come to consume? Most of them come for a taste of this inheritance left by our ancestors. Translated by the landscape and typical architecture vestiges of a nostalgic Brazil and its European, African, Caboclo and native Indian roots. The Landscape we see in those sites are “formative”, (CAUQUELIN,2007 p.11) we learn more about our customs when we visit
them, or at least we introject this myth of “pure colonial Brazil” written thru our colonial architecture.

We always seek the best frame to register this “vision” of Brazil, in hundreds of images captured by our cameras. These mythical images of our past formalized in colonial architecture fixes itself upon our retina and thus the formation myth we learned at school acquires concrete subsidies to help us visualize it. This myth was not invented by chance; the landscape we see today is the product of a symbol’s idealization.

Neither the production nor the reading of the landscapes is innocent. Both are political in the broadest sense of the term, once they are inexplicably connected to the material interests of the various classes and positions of power within society. (James DUNCAN, Apud RIBEIRO, 2007. p. 23)

This Mythic Brazil was conceived in two moments of our history. The first inventors of the mythical image of a new, exotic and unknown, world were the travelers and explorers that came to the Portuguese colony to explore and record what was found in these new lands. In their textual and graphical records, we will find fanciful descriptions of what they saw, an interpretation of the reality as seen by those men (FONTOURA, João Carlos. (dir.). Documentário: O Brasil no Olhar dos Viajantes, 2012). Many of these travelers came with expeditions to explore the land, and finished their paintings and travel logs “from memory” after their return to Europe. These records were a mixture of scientific report and fantasy.

Later come into play the new generation of Brazil’s inventors: The inventors of a National Identity and of the Patrimônio Histórico Nacional (National Historical Heritage). The mythical image of Brazil rise once again with a new focus: an interest in affirming a Brazilian identity at the beginning of the Twentieth Century. A group composed mainly by modernist intellectuals, headed out in new expeditions to find the material roots of Brazil. People that were rethinking the way we would design cities and architecture selected from our past what would be our national identity, and that quickly became a matter of State (KÜHL, 2008 p.109).

Here is one of the crucial points in the process of building a national image. In our country, this will be taking place by means of official decrees; there is hardly any involvement of the populace in the process.

The cultural preservation practices, in general and the restoration more specifically, can be understood as part of the historical process of building the nation self-image as a powerful feature, which gives materiality to the nation and an evidence of a true historical existence revealed then. To restore was to create the materiality of heritage. [...] The architects of memory have built a version of the nation history. (CHUVA, 2008. Pg. 116 – emphasis added).

In 1937, the Federal Government creates by the Serviço de Patrimônio Histórico e Artístico Nacional - SPHAN (National Historical and Artistic Heritage Service). This marks the beginning
of the Brazilian Identity (re)invention process, by means of State decrees and controlled by modernist’s intellectuals, which makes our history “peculiar” at best, as described by Campofiorito:

It being something that only took place in Brazil, the old was here selected by the revolutionary modernism, which explains the sharp aversion to all that smacks of academia, in the “recent fine arts” sense of the term. (CAMPOFIORITO, 1985. Pg. 35).

In a first moment, they sought to preserve works that were considered meaningful and formative of the Brazilian cultural repertoire. And our Colonial Sites translated that.

The initial activity of the organ [SPHAN] was restricted to the protection of homogeneous historical centers in cities such as Olinda, Recife, Salvador and Ouro Preto. In other urban centers the Service have listed of public buildings and property belonging to religious institutions.

In the first thirty years of SPHAN’s intervention, Heritage concept was of the "city-monument", ie, the historic city was seen as a static picture of the past that should be kept intact. Thus, the buildings and the historic centers were regarded as a "noble heritage" [...] it should be kept for future generations FÉRES (2002)

The first period of SPHAN operations was dedicated to the safeguarding of “exceptional architecture” found on those historic sites. Its experiences and interventions were dedicated to the intervention on buildings, and although urban ensembles were also being protected, the focus was upon the jewels of architecture produced in colonial Brazil and not so much on the historic urban grid, or the regional customs.

The preoccupations with the urban ensembles was to ensure that its uniform reading wasn’t altered by restoration and reconstruction interventions, which often resulted in a “completely idealized” state of the patrimonial asset (KÜHL,2008. p.107).

Materializing the tradition

The first cities registered as historic sites in Brazil were colonial cities from Minas Gerais States. They were the guardians of what was considered by many intellectual “a masterpiece of human creative genius” and “in recognition of its rich historical past […] and their opulent built heritage”. (PINHEIRO,2006 p.7) The First one, Ouro Preto was registered as a preserved historic site in 1938, just a year after the creation of the Heritage Service – SPHAN. Before that (1933) the city was already nominated National Monument.

Other states have started years later to survey and register their cities. Parati was nominated State’s Historic Monument in 1945. In 1966 the whole municipality, not only the historic district, is elevated to the category of National Monument, as we will address ahead.
For Parati is the city where the ways of the sea and the ways of the land converge, better still, mingle. The waters are not barred, but advance into the city led by the moon, and the street grid, marked out by churches - the Nossa Senhora dos Remédios mother church, and the [church of] Rosário, das [the church of] Dores, and Santa Rita chapels - converges to the sea…(Lucio Costa, 1960)

In 1960, three centuries after Parati’s foundation, the brazilian architect Lucio Costa writes a short text for a commemorative edition of the Diretoria do Patrimônio histórico e Artísitico Nacional,- former SPHAN - on the occasion of Parati’s Tercentenary. The text written by Lucio is a witness of the city’s architectonical quality, a sample of the pure beauty of the architecture produced in Brazil in the 18th century and reinvented in the 20th century by the creators of our National Identity.

Located on the south coast of the Rio de Janeiro State, the city begins due to the occupation by the religious order The Vincentians, for its strategic position to control the Ilha Grande Bay and access between the coast and the plateau beyond the Serra do Mar. It is established in 1630 at the shores of the Pereque-Açu River, in a quadrilateral surrounded by rivers on its sides and by the sea on its front. Therefore, “whoever wished to build its house would have to first conquer from the sea the necessary space.” (Mello, Diuner Apud CURY,2008 p.143)

In today’s Parati the frontier between the past and the present it is drastic and very clearly marked out, not only by the architecture, but also by a ring of heavy chains that isolate the historical district from the rest of the city. It is literally chained in, with padlocks and police force² to open it when necessary.

What catches our attention in the preserved core is its uniformity. The public buildings, such as churches, hospitals, city hall take part in the same simple language. This sea of whitewashed houses is a beautiful translation of the actions of this second generation of inventors of this mythical Brazil.

Parati is another witness to that serene tranquility to which the colony – kept from any contact except that with the Portuguese world – saw itself being guided into, like a refugee child, and from which resulted this simple and peculiar way of being and of expressing ourselves, that which in architectural terms is translated into what we call style – our style: regular layouts, simple foyers, small halls, wooden cutouts, trellises, glazed window frames, straight eaves. (COSTA, Lucio in:DPHAN,1960 s/p)

In this text, Lucio describes the idealized Parati, not the one found by the Heritage Service on occasion of their first contacts with the urban site. It is a fact that the images of the city from the 1940s (fig.1) show us that a great portion of the site was kept within a uniformed standard.
However, the actions of the Heritage Service-SPHAN- are what made this “refugee child” reach the “serene maturity” under the nostalgic gaze that these men, responsible for a great transformation in the way we designed architecture in the 20th century, throw towards the past. Six years after the commemoration of the tercentenary of Parati, the municipality is declared a National Monument (1966), due to its landscape ensemble “and especially the architectural assets of the city.” These were done in face of possible future transformations and the ease of access to the region, brought on by the construction of the Rio-Santos Road (BR-101) in the 1970s, the Heritage Service and its technical staff, head out to save the cities that have relevant architectural assets.

Firstly, the urban ensemble was considered a finished “work of art”, of homogeneous aesthetic appearance, whose conservation was the aim of the operations. [...] Secondly, two categories of edifications stood out: the “modest” which formed the housing and gave homogeneity to the group, and the “monumental”, considered to be isolated works of art within a greater work of art (the city) [...] To the modest, the criteria [for preservation] was that of analogy to the contemporary examples and of similar style, with the special attention to the façade elements, so as to make each building dilute itself into the group of houses – known as stylistic reproduction criteria. (Cury, 2008 p.145)

Therefore, the image of colonial Parati we know today was being built, thru the intervention of SPHAN architects and afterword, with the help of local agencies. The first official decrees would legislate about intervention on architecture, and they began as early as 1836.  The urban grid would receive a requalification some years later. The first intervention were intense and happens on the second half of the 19th century when the city will receive transformations that will forge the image of Parati that made its way to our days, a space of “great formal coherence” (fig. 2).

[In 1853]The military engineers who worked on the cobbles of the sierra [parati-cunha] worked also in the city; many urban improvements were made at this stage, such as the desiccation of wetlands and mangroves, the paving of the streets and the revision of the street layout, which then assumed the form of a grid network. (Cury, 2008 p.144)
After that first intervention, the following studies and plans for protection of the urban grid came only with the rediscovery of Parati as a touristic destination, and the opening of the Rio-Santos Road, during the 1970’s. Then, not only the Heritage Service, that has its name change to Instituto do Patrimônio Histórico e Artístico Nacional – IPHAN – but also UNESCO had helped on an Urban Plan and several studies for Parati. During the period from 1968 to 1995, six
different studies for the city were carried on by the State (Federal and Local agencies), and the last one was The Projeto Patrimônio Natural em Núcleos Históricos (Natural landscape on Historic Sites Project), that aimed to discuss the matters of the landscape and cultural heritage protection within the county.

The images above show us the evolution of the historical center over nearly 70 years. It is possible to perceive the filling of the empty spaces found in the city (fig 3 and fig. 4). A careful look into the IPHAN archives helps us to understand the kind of interventions made to historic site at that time.

In the records, we find mainly building license applications filed by the owners and the assessments by the Head of Design and Works Division Edgar Jacyntho da Silva, of the Conservation and Restoration Manager, Renato Soeiro, and of the Head Manager of the new Institute of national heritage – IPHAN- Rodrigo de Melo Franco. These documents were guidelines for design intervention that have helped the city transformation in what we see today. In some cases, that meant a reinvention of the built heritage. The main concern we find in the archives were regarding the color of the houses, the material and models used for windows and roofs, which should mimic the old ones already existing in the city, and the paving of the streets, which was redone in the 1960s:

- The external openings should be fitted with portals made of solid wood, in proportion with the old examples existing in the city.[…]
- All the walls should be whitewashed, without any kind of lower bar, and the windows painted in oil paints in the traditional colors adopted by the patrimony; the color white being obligatory for guillotine frames and eaves. […]
- The building of sidewalks along the front of the buildings is not permitted, only the stone paving of the street in the section corresponding to the property should be rebuilt. (Transcript of excerpts from various processes. Source: Arquivo Central do IPHAN /RJ)

As a result we have arrived to the architecture of great formal coherence seen today in Parati. The Mythical image of a Brazil of serene maturity inherited from Portugal, according to the interpretation of historical heritage Service. Our tradition invented and highly appreciated by its people, though these almost do not dwell in its historical district anymore, and by their visitors.

**Final Considerations**

Let us look to this built heritage today. Parati is the materialization of a part of our history, a testimonial of our culture. Witness of the process for searching and finding Brazil, through the eyes of other Brazilians. Is this the Brazil of simplicity and truth? The answer to these questions will be yes, if what matters "is not the matter of the Church, but its value, that intangible thing and vague, fleeting and changing that dwells in memory". (ROCHA-PEIXOTO, 2012) That will
be then the representation of who we are or maybe from who we have decided be. This amalgam between buildings and people, textures, tangible and intangible, is what attract thousands of people to our historic sites every year. Maybe the writer Rachel Jardim is right when she speaks of a possible new category for heritage: Visions. She talks about a walk at the Paris Square in Rio de Janeiro, during the winter, when its almond trees are exploding with its reddish tones.

At that point of the tour, I that had already requested their registration [the almond trees] by the city Cultural Heritage Agency felt like requesting right then their registration as intangible heritage. At that time they were almost immaterial, a kind of "vision". Could someone request the registration of "visions"? Create the category "visions"? For example: the mountains in the late afternoons and their purplish, immaterialized silhouettes drawn against the sky, that no painter could reproduce, are they not visions? (JARDIM, 2008 P.57)

Parati fits nicely in to the visions category, not only because of its colors but especially for its relation to the water, which invades the city from time to time. The reflections of its whitewashed buildings and the sky onto the large lakes formed on its cobblestone streets are an unforgettable vision. Not to mention the great vision made by nature that surrounds the site. In Parati, the vision ends only when we abruptly have to cross the chains that separate the material from the immaterial, the historic district from city life. And we are back to the harsh reality of Brazilians protected urban sites.

It is not possible anymore to think about Brazilians old cities, listed or not, as it was done sixty years ago. Our historic cities have evolved and expanded. Their needs have changed and can no longer be managed based on concepts and theories produced when Parati was celebrating its tercentenary.

Only by updating these values and thinking about the contribution of the past thru our historic cities as a valid contribution for our current production as designers will give the tradition - where we can find our balance - a future.

Bibliographical References


Filmography

1 All urban communities, whether they have developed gradually over time or have been created deliberately, are an expression of the diversity of societies throughout history.” ICOMOS, Washington Charter. ICOMOS: Washington, 1986.
2 Information given by the resident Leticia, during conversation on November 2013.
3 O registro das posturas da Câmara Municipal da Vila de Nossa senhora dos remédios de Parati, was approved on May 13th 1836. It’s was an official decree legislating about the urban space regulation, designating the design and the “beautification” of public building e public squares (CURRY, 2008 p.144)
4 Material collected by the Research group: The architectural restoration in Brazil, led by Professor Dr. José B. Pessoa, PPGAU/UFF financed by CAPES.
Urban And Metropolitan Planning in Brazil: Reflections on Possible Socially Just Outcomes of Different Planning Models  
Geraldo Costa, Marcos Melo

It is common in the Brazilian academic milieu to refer to the outcomes of past models of urban/metropolitan planning as non-existent in terms of socially just change. This is the case, for instance, with urban and metropolitan planning under the military regime, from 1964 to 1984. It is generally identified as a period of bureaucratic-centralized-authoritarian planning and, as such, unable to produce outcomes that could contribute to socio-spatial equality.

In this paper we will focus on this and other cases of Brazilian planning in search of evidence that things are not always as they are often portrayed in some analyses. It is possible to find good outcomes of technocratic planning, just as it is possible to find unexpected and perverse uses of democratic planning instruments.

Our intention is to compare the above-mentioned episode of bureaucratic urban and metropolitan planning in Brazil with other instances of planning after formal democracy had been restored in the country, i.e., during the period ushered in by the 1988 National Constitution. We suggest that continuities and discontinuities can be identified in this historical process. One common aspect of planning in both the authoritarian and the democratic periods, for instance, is the belief shared by planners and urban social movements that a reformed state could provide the necessary conditions for a democratic and socially effective planning process. This analysis points out the importance of studying the nature of state power as well as the concept of democracy.

The main sources of evidence will be the above-mentioned instances of urban and metropolitan planning in Brazil, particularly in Belo Horizonte, the capital of Minas Gerais state, and its metropolitan region, where new methods, theories and democratic practices have been adopted since the 1990s. Evidence will also come from an ensemble of draft urban legislation, some of which has become law, resulting from urban reform movements and the constitutional process of the 1980s.

The introduction consists of a discussion about the meaning of (socially just) outcomes in the specific case of Brazil. Following that, cases of urban and metropolitan planning are contextualized to allow for a preliminary comparison of outcomes in the two periods in question. The last part raises some issues through a discussion about the relations between planning and the role of state and democracy, as a means to evaluate whether planning outcomes can contribute to achieving significant socio-spatial changes.

1. Introduction: the meaning of outcome
What do we understand by “possible socially just outcomes” of urban and metropolitan planning? Do these outcomes mean just results in terms of urban works and/or the built environment? That is, only materially visible things? If this is the meaning of outcomes, then it is difficult to identify them in the Brazilian case. That is because one can hardly say that urban and metropolitan planning has ever existed as an effective and continuous process in Brazil. Yet there have been real efforts to go beyond the simple process of drafting plans and create a planning process. Indeed, a raft of mechanisms, regulatory systems for land use and occupation, participatory committees, and several other laws and instruments aimed at achieving a just appropriation of urban space has been approved and put into practice, especially since the 1988 Constitution came into force. In our view all these factors can also be seen not exactly as outcomes but as what we might call preconditions for socially just outcomes of urban and metropolitan planning (Table 1).

The meaning of these preconditions varies according to the historical moment and especially the way social agents deal with the idea of planning. That is, they are understood or stated differently by the academic community, social movements, the government, and planners. Besides, this has occurred in all attempts to create an urban and metropolitan planning process in Brazil: in the development and establishment of principles, in the formulation of plans, in the establishment of regulatory instruments, and even in planning practice.

It is, for instance, common in academic circles to recognize that the subject matter of urban and metropolitan plans is complex: socially produced space (Lefebvre, 1993). This means recognizing the need for a transdisciplinary approach to the analysis of cities and regions.

By focusing on different theories, courses in planning incorporate the transdisciplinary approach in environmental thought, political economy of space, political ecology, post-structuralism, cultural studies, and critical theory in general. The main point is that this kind of approach introduces important dimensions of theory for urban and regional analyses, such as politics, history, space, and, more recently, political ecology. As a result, given the nature of the socio-spatial processes involved in the Brazilian social formation, the search for knowledge production on urban and regional issues is almost always also a search for the potential for social change. This, therefore, introduces another difficulty in identifying and evaluating “socially just outcomes”. First, this improved knowledge needs to be incorporated into the process of territorial planning, and a methodology that can evaluate an essentially diffuse outcome has to be formulated and applied.

Second, to be socially effective this kind of approach to knowledge production should be considered a continuous process by city and regional planners and administrations. This is not happening in Brazil. As mentioned previously, urban planning as a process has never been adopted in Brazil. Hence our proposal to expand the understanding of planning outcomes as suggested in Table 1. Among the reasons for that are certainly the political decisions of those in power. And lately, especially from the 1990s onwards, there has been widespread adoption of so-called “strategic planning”—based on what David Harvey (1986) calls “urban
entrepreneurism”—as a means of including places within a globalizing and competitive world economy. A precondition for that was certainly the advent of neoliberalism and the way it influences government decisions and actions.

2. Characterizing and contextualizing urban and metropolitan planning in Brazil

a) 1st phase: Urban/metropolitan planning and policies under the military regime

What we label democratic/participatory urban planning, from the 1988 Constitution onwards, is part of a long-standing debate about the possibility of urban reform in Brazil. This debate started in the early 1960s, when the Brazilian Institute of Architects (IAB) and a number of lawyers and planners, among other professionals and institutions, organized a seminar on Housing and Urban Reform to discuss the essence and the possibilities of structural urban reform.

<table>
<thead>
<tr>
<th>PHASES OF PLANNING</th>
<th>METHODS AND OUTCOMES</th>
<th>Theory/Methodology / Principles/Ideologies</th>
<th>Preconditions for Socially Just Outcomes</th>
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H
A
S
E | Housing (BNH) (1964–1986) | - None | - Land Use and Occupation Regulation (State) | - Poor Houses for Poor People - Distortion of Land Prices |
<p>|                     | Local/Metropolitan Planning | - Comprehensive Planning | - Land Use and Occupation Regulation (State) - Planning Process | - Few, Ineffective Plans |
|                     | PDLIs (1967–1973) | | | |
| National Urban Policy | - Spatial | - | - | - Abstract Space |</p>
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<td>(1975–1979)</td>
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<td></td>
<td>Funding</td>
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<td>Democratic/Participatory Urban Planning (1988– )</td>
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<td>- Social Function of Land and City</td>
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<tr>
<td>Strategic Planning</td>
<td>- Neoliberalism/Ideology</td>
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<td>(1990s– )</td>
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<tr>
<td>“New” Metropolitan Planning (RMBH) (2007– )</td>
<td>- Spatial Totality</td>
<td>- New Institutional Arrangement for Metropolitan Planning and Administration</td>
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<td></td>
<td>- Transversal and Transdisciplinary Approach</td>
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<td>- Participatory Planning</td>
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The seminar was part of the debate on basic reforms that was being promoted by the democratic federal government of the time. Urban reform was seen as essentially the need to adopt some land regulatory instruments to effectively control land use and occupation in the main urban areas of Brazil. The seminar’s outcomes made it clear that the primary urban problem was housing, especially for the poor, and that what was needed was a deliberate decision, by a democratic State, to adopt instruments of land use and occupation in order to occupy vacant urban land. That would require intervening in the absolute rights of real-estate ownership. In short, the object of the proposed law on urban reform was a Federal Government Housing Policy to be detailed in a National Territorial Plan and a National Housing Plan. To achieve socially just outcomes, the main precondition was the existence of a state and a government with the political will to apply the necessary control measures. This is stated in the 2nd article of the Urban Reform Bill: “Art. 2—In order to execute the Housing Policy of the Federal Government, the Superintendency for Urban Policy (SUPURB) is created (…) with financial autonomy and subordinated to the Presidency of the Republic.” There was a belief that centralized control over urban issues in that democratic context would be both necessary and sufficient to achieve socially just outcomes. However, this promising initiative collapsed with the military coup in April 1964.

The belief that a democratic state could deal with a socially fragmented and excluding urban space by implementing socially just public policies continued in the 1980s, when formal democracy was restored in the country after 21 years of authoritarian military rule. During this long period the idea of structural urban reform had vanished. A National Housing Bank (BNH) was created just after the coup (May 1964) to build houses in urban areas. This initiative had other complementary objectives, besides addressing the urban housing deficit: it was a way to deal with the economic crisis through the building industry; and it offered political compensation to workers and “urban masses” for their lost rights, such as trade unions and other political organizations, which were seen as subversive in the new order. In spite of the massive investment, the outcomes of this housing policy were, in short, the favoring of the middle and upper classes and the construction of poor houses for the urban deprived. Another negative outcome was the distortion in urban land prices due the huge volume of funding targeted at building houses for the upper and middle classes in the central areas of main cities. This led to soaring real estate prices in those central areas and inevitable urban sprawl as the poor were forced out to the suburbs.

Parallel to that housing policy there was an attempt to establish an urban planning system through the creation of SERFHAU—the Federal Service on Housing and Urbanism. The objective was to introduce local-level planning done according to the methodology of comprehensive planning. In contrast to the previous (pre-1960s) instance of modernist urbanism based on urban design, the idea in this case was to adopt a multidisciplinary and integrated approach to the preparation of local plans. However, the municipalities were deprived of political and financial autonomy under the military regime, with the result that only a few ineffective plans were produced.\(^2\)
Conversely, some metropolitan areas—including the Metropolitan Region of Belo Horizonte (RMBH)—were the focus of a relatively successful planning process during this same period. Nine metropolitan regions were institutionalized by the Federal Government in 1973/1974. The main objective of the military regime was to use these metropolitan institutions as a means to establish the necessary general conditions of production to support a strategy of economic modernization, especially in the period 1975–1979 (Becker, 1991; Davidovich, 2004). However, paradoxically, those metropolitan institutions managed to obtain a significant amount of freedom, enabling their technical staff to create a continuous, long-term planning process based on the methodology of comprehensive planning. Unlike the SERFHAU episode, the outcomes at the metropolitan scale were the formation of embryonic spatial planning and the production of good analyses and plans (Tonucci Filho, 2012).³

A National Urban Policy was also developed by the military regime between 1975 and 1979. It was part of the same strategy of establishing the necessary general conditions of production to support economic modernization and growth, which was also in part the objective behind the creation of the metropolitan regions. This strategy of “space production” (Becker, 1991) was successful in technically homogenizing Brazilian territory; that is, in producing an abstract space (Lefebvre, 1993) to support capital accumulation. However, investment in space production was selective, favoring the production process almost exclusively to the detriment of social reproduction. Therefore, in spatial terms, the strategy created “a technically homogenized space—facilitating an integration of places and times—but also a fragmented space, because the appropriation of the territory and the allocation of resources was strongly selective, resulting in conflicts that constituted embryos of new territorialities” (Becker, 1991: 50). The general crisis of the late 1970s was primarily responsible for the end of this strategy of space production. The people excluded by the strategy, in new and old social movements began to (re)organize during the (re)democratization of the country from the 1980s onwards. This marks the transition to the 2nd phase of urban and metropolitan planning in Brazil (Table 1).

b) 2nd phase: The 1980s, a period of economic crisis and political transition⁴

The 1980s were a period of political transition in Brazil after 21 years of military rule characterized by authoritarianism and centralism in state decisions and actions. The end of the military regime and the exacerbation of the economic crisis resulted in uncertainties concerning the role of the state. In financial terms the state was certainly weaker than it had been in the previous period of relative economic success and easy external borrowing.

Despite that, all the movements involved in the urban question—led by intellectuals, popular movements and other civil society organizations, particularly those proposing urban reform based on the construction of an effective system of legal land use and occupation—were unanimous in recognizing the centrality of state agency. This was certainly a continuation of the same kind of 1970s thinking that had emphasized democracy and the need for state reform.
After the 1988 Constitution a new kind of urban governance emerged in Brazil, involving representatives of civil society through their organized social movements. Consolidation of the political democratization process, which had started in the early 1980s, made good progress. Local autonomy was restored in political and financial terms, and new forms of social movements emerged and were consolidated, involving social sectors and places not favored during the economic modernization period. The Constitution emphasized municipal responsibility for a new “urban development policy”. The central point of that policy was the need for cities or towns and for urban land in general to fulfill a social function, meaning that all legal and administrative policy initiatives should pursue such an objective.

A democratic state continues to be a precondition for the achievement of socially just outcomes. Instruments to regulate land use and occupation, to be applied by democratic local governments, were also included as preconditions in the Constitution. However, outcomes of urban planning have remained in the realm of plans, land use and occupation law, participatory committees, and participatory budgeting, and have only been effective in a few large cities and towns.

In spite of such democratic advances in terms of decentralization, whereby local governments elected by progressive parties have sought to construct new and more democratic forms of administration, in general the same constraints can be seen in Brazil as have arisen in several other countries. These constraints are related to the spread of globalization and neoliberal ideology, which are leading municipalities to adopt a certain type of strategic planning aimed primarily at integrating local areas into the globalized economy, and consequently may jeopardize the nascent democratic character of urban planning.

Public-private partnership is among the main preconditions for the success of this kind of strategic planning. Its outcomes are especially “old” and “new” conditions for the production and reproduction of capital, provided by the state for the benefit of the private sector. Urban planning as a process, however, is still absent in the majority of Brazilian cities and towns.

A promising instance of metropolitan planning is in progress in the Metropolitan Region of Belo Horizonte, the capital of Minas Gerais state. There is innovation in this case, especially due to the involvement of the Federal University of Minas Gerais (UFMG) in preparing a Master Plan for Integrated Development (PDDI) for that Metropolitan Region in 2010.

The UFMG began to discuss and reflect on metropolitan planning at the 1st Metropolitan Conference in 2007, when civil society representatives were first elected to the Deliberative Committee, part of a new institutional arrangement that had recently been approved for the RMBH. This meant that civil society organizations could actually take part in participatory forms of metropolitan planning and governance. This “return of the metropolis” (Davidovich, 2004), which provides an opportunity to establish a practice of learning and social control over metropolitan socio-spatial processes, ranges from designing the PDDI to setting up a planning process and effectively participating in metropolitan governance.
At the time of the Conference there was broad mobilization of civil society, dissatisfied with its limited representation on the Deliberative Committee, with just two of the 16 members. This mobilization led to the creation of an informal Metropolitan Civil Society Committee, which has no legal standing but has proven itself to be very effective. Initially composed of 20 members\(^6\) representing universities, NGOs, professional associations (including engineers and architects), trade unions and grassroots organizations, among others, this committee brings together a wide range of interests relating to metropolitan issues of a political, economic, social, environmental or cultural nature. In addition to providing the two civil society representatives on the Deliberative Committee with technical and political support, the Civil Society Committee has acted as an important forum for discussing and proposing new ideas, both for the research and analysis of a variety of metropolitan issues and for the integrated planning and management process. This committee was responsible for drafting the terms of reference for the PDDI, which were approved by the Deliberative Committee. Subsequently, the State Government invited UFMG to draw up the Plan itself.\(^7\)

Moreover, the PDDI has incorporated significant innovations in terms of the principles, methodology and practice of planning within a new political and social context, very different from that in which the first experiments in technocratic metropolitan planning took place in the 1970s and 80s. The following extract from the introductory text of the Master Plan sums it up:

>(…) the critical approach supersedes the analytical and functional meaning of reformist planning, not disqualifying it, but limiting it to its immediate, operational character; it goes further, with the objective of apprehending the totality in transformation and seeking to build processes aimed at social, economic and environmental transformation, while searching for contemporary solutions for regulation, investment decisions, forms of social organization that favor diversity, and the construction of emancipatory social processes. (UFMG/PUC-MINAS/UEMG, 2011: 5, translated).

Throughout the development of the Plan, other principles related to the role of the University were constantly observed and practiced, including the association between technical and scientific knowledge and knowledge emanating from everyday life; and the contemporary meaning of planning: moving from social reform to social mobilization and social learning. (Ibid.: 5).

Another methodological aspect that deserves mentioning concerns the adoption of the concept of totality rather than the idea of comprehensiveness. In methodological terms, such a change requires a move from a multidisciplinary approach, as adopted in the early experiments in metropolitan planning in Brazil, to a transdisciplinary vision (Costa, 2008). In planning practice, this meant that the analyses and proposals for the PDDI followed an innovative methodology that went beyond the sectoral and the multidisciplinary in favor of a transdisciplinary approach.
Furthermore, the methodology has proven successful in at least two other ways. First, as stated above, it has been important as a way of breaking with the sectoral approach, which is considered inadequate for addressing the complex metropolitan socio-spatial totality. A second very positive aspect of the methodology concerns the processes of participation and social learning. The immediate, everyday problems faced by the various social groups started to be identified and discussed with a view to finding solutions closely aligned with the idea of a metropolitan socio-spatial totality. However, in spite of major methodological advances, including in the participatory process, metropolitan planning as a process is still far from being consolidated in Belo Horizonte.

3. Contemporary issues

After over twenty years of urban planning under democratic principles, it is still possible to find similarities with some aspects of planning under the military regime. Despite the progressive advances made after the adoption of the constitutional chapter on urban policy in 1988 and the Statute of the City in 2001, planning practices can still be found that depart from the legal principles that have permeated the field since the initial debates of the 1980s seeking urban reform based on socio-spatial justice. The main principle—the search for the social function of property and cities—and the related instruments for regulating land use and occupation in favor of the common good have been shown to be mostly political rhetoric. Besides, instruments designed to boost public investment and control over the capitalist production of space have revealed their limitations and, paradoxically, have increasingly been appropriated by the private sector, helping to increase its profits to the detriment of the social needs of the vulnerable urban population. Even those instruments that were introduced with public participation, such as the symbolic participatory budgeting, have encountered obstacles to their implementation. Despite the end of the dictatorship and the establishment of a formal democracy, it seems that the process of urban space production continues to be monopolized by private interests and alienated from a large part of the citizens. Brazilian cities remain marked by socio-spatial segregation, gentrification of spaces and poor provision of public services.

Common explanations for this situation are that it is merely a detour on the way, an expression of the youthfulness of our democratic experiment, a temporary failure due to the immaturity of Brazilian society. This kind of argument tends to put the goals of urban reform in the near future, but sees their achievement hampered by people’s lack of awareness of the importance of the reform issues and their ineffectual fight for the rights they are guaranteed by law. That would imply that the law and the legal system were excellent and were just waiting to be properly implemented. The problem, therefore, would be one of political will (or the lack of it): that is, a belief that the state through regulatory instruments is able to provide for the common good. Might this not be reproducing the belief that a reformed state could, at last, be the guardian of the public interest to the detriment of the private one?

Despite its importance, it is not enough to point out the disparity between the ‘text of the law’ of regulatory instruments and its actual implementation. We intend, albeit briefly, to take a
different approach by going beyond purely political criticism—which is political precisely because it is restricted to the confines of the political way of thinking—and by considering the structural causes of that disparity. This approach demands a critique of the state-form and of modern democracy as a means of informing an extended critique of planning. This requires escaping from moralistic and idealistic approaches and moving towards a materialistic and historical understanding of urban planning.

As a first step in this move we agree with a provocation implicitly included in the advances of the Marxist theory of the state in the 1970s when trying to deal with very similar political constraints to those faced by the present process of urban planning in Brazil. With the election of social-democratic parties in Europe, the boundaries of the state-form became a matter of concern after these parties found it difficult, if not impossible, to make substantial changes to the economic structure while simultaneously promoting a progressive and radical social agenda. A methodological reconsideration was required to explain this situation, since the two above-mentioned positions on the theory of the state are similar in their judgment on the character of the state. On the one hand, Ralph Miliband sought to explain the capitalist nature of the state through a sociological analysis of those individuals that make up the ruling class; in other words, the state is capitalist because its representatives are the capitalist class. On the other hand, Nicos Poulantzas focuses on the state as an arena of class struggle and explains its capitalist character by the result of this political interplay of forces. Neither of these two approaches, however, sees the state-form as bourgeois-capitalist in character. As a consequence, both authors end up falling into a kind of instrumentalist reading of the state, critiquing only its content, which might reinforce the common belief that a reformed state is able to promote structural social changes. The social-democratic experience would probably deny this possibility.

In an attempt to escape from Miliband’s subjectivism and a Poulantzas-like political structuralism, the German derivationist approach started to gain momentum in the Marxist debate on the state. It is important to note that the derivationist approach shares the concerns of the Russian jurist Evgeny Pashukanis about the reasons why, under capitalism, the political and the economic domination assume two different spheres, apparently independent of one another. It follows from this original observation that derivationists try to demonstrate that the state derives from the contradictions of the capitalist mode of production as a whole and is not just a simple political reflection of economic relations (Borrow, 1993). In this sense the state and the law are materially dependent on the reproduction of capital and are also an expression of it. Furthermore, the state and the law are inherent to capitalism and, as such, they are essential for its historical constitution and reproduction (Mascaro, 2013).

Although the formulation of some derivationists focuses on economic aspects (such as the tendency of the rate of profit to fall) to explain the role of the capitalist state, it has opened up a new methodological perspective on the capitalist nature of the state-form, besides its content or policies. Such a view of the capitalist state could help us to understand both the limits of social
democracy in Europe and the challenges faced by urban planning in Brazil even under a democratic regime.

Together with the familiar Marxist critique of bourgeois democracy,\(^\text{17}\) this kind of discussion has a considerable impact on our understanding of democracy in Brazil. The boundaries of the modern state reveal the limits of modern politics, which in turn mark out the limits of modern democracy. It is becoming increasingly clear that Brazilian urban planning in the democratic period (since the 1990s) often bumps into self-imposed limits, which originate in the belief that a reformed state would represent the common good. We suggest that a renewed critical form of urban planning should consider the structural contradictions that prevent the state from representing the common good, except in an ideological or abstract way.

Therefore, to conceive a democratic planning project it is necessary to go beyond the limits imposed by the modern order, and to point to a utopian\(^\text{18}\) and deep emancipatory process. To this end, it is crucial to hold a radical concept of democracy that transcends the limits imposed by modern politics and the ideal of consensus (Rancière, 1996; Chasin, 2000 [1993]), making it possible to rethink democracy as a revolutionary praxis against capitalism (Wood, 2000 [1995]), the modern state (Abensour, 2011 [1997]), traditional planning, and—why not?—the law.

In conclusion, such issues can be seen as support for a journey to retell Brazil’s recent history of urban planning, to question its idealistic and simplistic characterization, and to propose a historical and critical analysis of the continuities and discontinuities of urban planning in Brazil. We seek not only to understand the roots of the present contradictions of urban planning, but also to identify what has remained the same but under a new appearance. We hope that in this way we will be able to help to overcome the limits and difficulties in developing truly democratic planning, a precondition for socially just outcomes.

**References**


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1 There are no undergraduate courses in planning in Brazil. Therefore, we refer here to the several graduate courses, especially in Geography—most of them associated with Anpur—that somehow focus on planning theory and method.

2 A complete analysis of planning under the military regime can be found in Monte-Mór (2008).

3 Most of these analyses are still sound and useful.

4 This section is part of a text prepared for presentation at the 2013 AESOP-ACSP Conference, Dublin, but not published.

5 Metropolitan planning in Brazil reached its climax under the military regime (1964-84). Its authoritarian and centralized character was in part responsible for its abandonment for a long period after the democratization process began in the early 1980s.

6 There has recently been a proposal to raise this number to 30.
The invitation was made by a sector of the State Secretariat for Regional and Urban Development, which was already relying on the University’s research into metropolitan affairs.

The process of drawing up the Plan lasted a year and involved around 180 university teaching staff, students, and technical and administrative staff. Approximately 2,000 participants were involved overall.

Villaça (2005) presents important reflections on this issue, especially through an analysis of Master Plans, one of the instruments of urban reform in Brazil.

The case of the Urban Public-Private Partnerships between the state and the private sector is the most symbolic example of this kind of appropriation. See Fix (2004, 2008) and Leal (2008).

See Souza (2003) for a critical approach to participatory budgeting and other processes associated with the urban reform movement.

Although very important, the contributions by Fernandes (2013) seem to fall into this interpretative trap.

And to paraphrase this enlightening conclusion by Marx (2010 [1844]), we could say that it is necessary to overcome the legal criticism—which is legal precisely because it is restricted to the confines of the law—in favor of a critique of the law itself, the law as a form. See Mascaro (2013) for a defense of this approach.

In the theoretical field, this was present in the debate between Ralph Miliband and Nicos Poulantzas (Clarke, 1991).

Later, Poulantzas reviewed his positions, trying to respond to the criticism of excessive “politicism” and lack of attention to economic exploitation in his approach, as noted by Carnoy (1984). For a discussion about the Poulantzas–Miliband debate see Clarke (1991) and Mollo (2001).

For a broader examination of the derivationist debate, see Holloway & Picciotto (1979) and Clarke (1991).

For a recent review of this critique, see Pogrebinski (2009).

In Lefebvrian terms, a possible virtuality (Lefebvre, 2003).
Metropolitan planning revisited: Evolution since the pioneer experience of Plambel, Belo Horizonte, Brazil
Heloisa Costa, João Tonucci, Jupira Mendonça

Introduction
The paper explores the pioneer experience of Plambel, a metropolitan planning agency created in the 1970s to deal with urban/metropolitan issues of the then recently established Metropolitan Region of Belo Horizonte in Minas Gerais, Southeast Brazil. The institution performed a leading role in the government planning system, both in terms of gathering a quite well formed team of planning professional, and in terms of the quality and in-depth of the studies and plans carried out by them. Their metropolitan visions and proposals were very influential in the decades to come, in several areas, and were very rarely surpassed by other planning initiatives until very recently, when metropolitan planning became important again in the political agenda. The paper intends to explore two related arguments: the first one refers to the political and socioeconomic context of the 1970s in Brazil, in which planning emerged within an institutional environment of political centralization of power and high rates of industrial growth via insertion in global capitalism, intense internal migration and metropolitan growth. Despite that and the political repression of the military regime, there was some room for alternative thinking and planning propositions associated to social reform, which gained force within Plambel specially during the 1980s. Secondly, the paper aims to throw some light on the theoretical assumptions underlying Plambel’s work, some of them relying heavily on the political economy of urbanization tradition – as, for instance, a pioneer land market research – others exploring lefèbrian concepts of everyday life and social space – as the creative methodological approach used to establish planning units related to the identification of everyday living spaces. Some of those approaches became very influential nowadays in the making of a recent Metropolitan Development Plan carried out by our university. Recovering Plambel’s historical origins, failures and accomplishments may be helpful in opening new perspectives for the metropolitan planning process in course. The paper is therefore organized as follows: the next section presents an overview of the emergence of metropolitan planning from the seventies as part of a broader state-oriented planning structure in Brazil, followed by a discussion of the experience of the most influential metropolitan institution in Belo Horizonte – Plambel – a key element within an institutional structure framed during the military regime. The decline of metropolitan planning and the rise of social movements, together with the emergence of local/municipal power as a consequence of democratization in the 1980s and 1990s are briefly presented in the following section. The contemporary resumption of metropolitan planning in Minas Gerais as an innovation in terms of metropolitan policies is the subject of the last section, as some aspects of Plambel’s planning legacy are highlighted as a clue to understand contemporary tendencies of metropolitan planning, as discussed in the final section leading to the concluding remarks of the paper.

1. Urban and metropolitan policies since the 1970s and the ups and downs of metropolitan planning

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The period from mid-sixties to mid-eighties was marked by a centralized and authoritarian military regime, which produced expressive changes in the contents and targets of several urban and social policies, and altered the power balance between state, capital and civil society. On the one hand, social movements around urban and social issues where silenced or invisible, therefore hardly able to put forward their demands. On the other hand, urban planning was very much concentrated within the state at federal level, financial resources were allocated according to centralized and market-oriented policies, and the economic rationality of planning succeeded territorial and social distribution concerns. Land and urban reform movements that were very active in the pre-military government period were silenced until the late eighties, when they re-emerged, substantially transformed, during the intense debates that would lead to the 1988 Constitution.

As far as the metropolitan level was concerned, it was during the seventies that the Metropolitan Regions were created, around the eight most important provincial state capitals, Belo Horizonte included, plus Rio de Janeiro, the former Brazilian capital. The Federal Supplementary Law 14 of 1973 did not create another level of government – Brazilian Metropolitan Regions were under provincial state jurisdiction and federal financing (Souza, 2005: 341). In addition, the law created the following common structure for all nine Metropolitan Regions: a Deliberative Board, a Consultation Board and a planning agency.

The Deliberative Board was the metropolitan decision-making instance, composed by five appointees of the state governor: one of them should be chosen from a list of three persons indicated by the mayor of the capital and another from a list of three persons indicated by the mayors of the remaining municipalities. The Consultation Board was composed by representatives of the municipalities of the Metropolitan Region and acted as advisor of Deliberative Board, whenever required. The State Governor was the President of both boards. In the provincial state of Minas Gerais, the government also created an independent planning agency known as Plambel (Planejamento da Região Metropolitana). Rolnik and Somekh (2000) consider that this model was highly centralized and authoritarian, in that it was based mainly on the power of state executives (directly submitted to the federal executive), and did not have the effective participation of the municipalities or of the civil society in the decision making process.

This centralized structure worked during this first period, until 1988, when a new Constitution transferred to the provincial state the attribution of creating and defining the configuration of metropolitan regions. In 1989, the new Constitution of Minas Gerais State set out a new metropolitan governance structure: a Metropolitan Assembly (AMBEL) and a Metropolitan Development Fund. The State Government would guarantee the implementation of plans, programs and projects related to the functions of common interest. The Metropolitan Assembly was formed by mayors of all the municipalities and by Municipal Council representatives as a proportion of the population of each municipality. Besides that, AMBEL had only one representative of the State Legislative and one representative of the State Government, appointed by the Governor. It kept Plambel as the institution responsible for planning and coordination at the metropolitan level.

During the first period, that is, before 1989, Plambel developed several studies about various aspects of the MRBH, proposed land use and occupation regulation for the metropolitan region as a whole, and proposed local laws for the municipalities. Insofar as the state Government had control over the Metropolitan Assembly, the rules were coercive. On one hand, planning and management were centralized at provincial level; on the other hand, financial resources were
centralized at federal level: "during the military regime the federal government became accountable for 70% of the total public spending" (Souza, 2005: 341). Thus, public investments were implemented according to priorities established at the federal level.

The second period, after 1989, comprised a response to the authoritarian and centralized paths of previous years. The former metropolitan structure model was rejected by the new federal and provincial state Constitutions. Thus, the Federal Constitution barely mentioned the metropolitan question and the state constitutions established a totally new governance structure. Nevertheless, it never worked, for a number of reasons. First, the representation of the State Government was quite feeble (only one representative) which meant it had no control over decision making in the metropolitan assembly. As a consequence, the state never put money into the Metropolitan Development Fund and played no significant role in it. Even Plambel, which had produced a large amount of knowledge about the region and had also worked as a consultant to small municipalities’ planning groups, became weakened since the late 1980s and was finally abolished in 1996.

The second reason was that the Metropolitan Assembly did not develop mechanisms to solve conflicts. In a context of competition between the cities, including a “tax war”, the Assembly never made any advance in metropolitan planning or governance and had no control over delivery of the main services, which was still the responsibility of provincial state authorities. Moreover, although the Assembly was composed by mayors and councillors, it had no executive or legislative powers. AMBEL’s competences established in the Minas Gerais State Constitution relate to “regulatory normative power to integrate planning and organization of common functions”, “monitor compliance with the law”, “make and approve the Metropolitan Directive Plan”, “approve the metropolitan region budget” [sic], “establish guidelines for the services tariff policy” and “manage the Metropolitan Development Plan”. However, with no financial resources and no supporting planning agency, AMBEL had not much to do.

The hegemony of municipalities in decision-making processes was not translated into governance. Not always does the process of decentralization mean more efficacy and democracy (Azevedo; Mares-Guia, 2003).

In the early 2000s the Minas Gerais State Legislative started to discuss metropolitan governance in order to redesign its structure, as discussed later in the paper. There was a movement toward (re)centralization, which was innovative in the Brazilian context after the 1988 Constitution known for its emphasis on decentralization and strength on the local level.

2. Metropolitan planning under military regime: the experience of Plambel

With the "economic miracle" (1968-1973) a new round of rapid growth and industrialization in Brazil began, supported by an intense process of concentration of capital and income, and this model of growth was continued with the Second National Development Plan (1975-1979). Due to the planning apparatus assembled by the government of Minas Gerais and the opening to foreign capital, the state was awarded with a quarter of all new industrial projects approved in the country during the 1970s, shaping the process of the "new industrialization of Minas" (Diniz, 1981). Between 1970 and 1975, the bulk of these new investments was concentrated in the MRBH. The trump card of this process was the inauguration of the FIAT automobile factory in 1976, promoting a major metropolitan economic restructuring.

It is in this context of rapid demographic and economic growth that begins the planning and development of the MRBH. In 1974, the Superintendence for the Development of the
Metropolitan Region of Belo Horizonte (Plambel) was created as a state authority. It was formed after a state technical group that, since 1971, had been preparing the first Metropolitan Plan of Belo Horizonte. The period of greatest activity and dynamism of Plambel took place between 1975 and 1980, especially in the planning of road and transport systems and land use regulation, as well as in the developing of broad diagnoses and studies. From the mid-1980s, the agency has undergone significant weakening, notably due to the economic and fiscal crisis and the political democratization process, and was officially abolished in 1996 (Gouvêa, 2005).

The work of Plambel during the seventies falls within the context of the II National Development Plan, of the National Commission on Urban Policy and Metropolitan Regions, and of the National Urban Development Policy, which since 1975 began to guide the action of the federal government with regard to the national and urban spatial planning. The urban policy that was under way by the military in a time of centralization of power and restriction of freedoms aimed to ensure the general conditions of production in the metropolis to continue economic growth (Monte-Mór, 2008). During this period, Plambel, including its work and technical staff, occupied a central and prestigious position with the State Government. However, the political and institutional uncertainties and the lack of instruments that would ensure financial capacity to metropolitan regions fueled conflicts between the metropolitan authority, the municipalities and sector agents, preventing the implementation of many of the proposals in the plans. Only transportation programs and projects were more successful in their implementation due to the guarantee of federal funds to the sector.

The Plan for the Integrated Economic and Social Development of the MRBH (PDIES), prepared by Plambel and approved by the Metropolitan Boards in 1975 – along with the Transport and Land Use Metropolitan Plans – incorporated the majority of studies and sectorial plans that had been drawn up by the agency since 1971. During the years following its approval, the plan served as a framework to guide the actions of metropolitan planning. It was also an important reference to guide planning initiatives of some of the metropolitan municipalities, particularly those more integrated to the spatial dynamics of the MRBH. The PDIES was also the only comprehensive plan for the entire metropolitan area completed by Plambel throughout its existence, even though many of its goals, principles and guidelines have been revised and even abandoned in the 1980s.

According to the national guidelines of the II National Development Plan, the keynote of PDIES fell on the need to accelerate the industrialization of the MRBH, with few references to more redistributive proposals and guidelines aiming at reducing socio-spatial inequalities. Therefore, the Plan aimed to spatially prepare the MRBH to continue the process of the “new industrialization of Minas”, suiting and functionally programming the metropolitan space for the needs of capital accumulation, and attenuating the distortions that this growth could have on the quality of life of the population (Tonucci Filho, 2012).

The territorial proposals PDIES were characterized by rationalist and functionalist orientation, with a predominance of physical-territorial dimension over the socioeconomic – as can be seen in the picture bellow – and the formalist and abstract models adopted disregarded the precise nature of the socio-spatial processes acting over the territory. Despite the systemic and integrated approach adopted, there was a clear predominance in PDIES of the physical-territorial dimension. Even proposals for socioeconomic development were formulated as proposals for territorial organization. This "spatialist vice" was later criticized by the technical personnel of Plambel, which from the 1980s showed greater awareness for the need for a critical understanding of social processes that influence the production of metropolitan space. The high
degree of abstraction adopted in the mathematical models of PDIES disregarded the reality of the processes of production and appropriation of metropolitan space, which created an unbridgeable gap between the city designed by the technical rationality of the planners and the real city that was emerging from the concrete socio-spatial processes.

Figure 1 – EME – Alternative 5. Source: FJP; PLAMBEL, 1974: s.p.

The systemic and integrated planning perspective adopted in the Metropolitan Plan reflected the prevailing ideology of technocracy at the time, the result not only of methodological conceptions of technical planning, but also of the political moment lived, marked by authoritarian military regime as mentioned previously. The proposals were prepared in an enclosed environment confined to the state government, but presented as the best technical solutions without unveiling the political positions behind them. Thereby, there was a huge gap between the socially advanced comprehensive technical discourse of Plambel and the actual conditions of implementation of proposals that could actually face metropolitan problems and needs. The PDIES proposals that were really implemented were those most directly related to the implantation of the general conditions of production required by the "new industrialization", at the expense of broader development proposals referring to demands for higher level of social reproduction conditions for the majority of the population, still sparsely attended at the MRBH (Tonucci Filho, 2012). In the period between 1975-1978, several important studies and basic research were carried by Plambel, such as: Survey of Dwelling Processes; Allocation of Public Resources in the MRBH; The Land Market in the MRBH; The Primary Sector in the MRBH; Sectoral analysis of the urban economy and industrial sector; Demographic evolution of the MRBH 1940-1980; Historical, artistic and archaeological heritage; Diagnosis of industrial areas in Greater Belo
The Land Market in the MRBH is still considered a pioneering study in Brazil, in so far as it offered the first broad picture of the interplay between the processes of urban development and land prices dynamics in the metropolitan area. This study was based on theoretical assumptions of the political economy of urbanization, which was an important reference at that time. The study was also very important for revealing how the rationalist and functional proposals made by Plambel during the first half of the 1970s could not stand when confronted with the real production of the metropolitan space by powerful agents, such as landlords, developers and large scale industrial capital.

From 1983, already under the redemocratization process, a system of metropolitan administration was installed with greater municipal participation in decision-making, seeking to make it more representative and legitimate. Parity of representation of the state and municipalities in Deliberative Board was established, and the Advisory Board became mandatory heard by the Deliberative. The metropolitan management system was the subject of numerous studies, debates and proposals. Plambel also revised its urban structure guidelines formulated in the previous period. In addition, it strengthened its participation in land use controls, especially regarding urban expansion and regularization, and the preparation of municipal land use plans. Methodologically, Plambel turned to trying to understand the city as a process, in order to examine any municipal or sectorial proposal and comment on its results and consequences, as well as being able to perceive and understand the full range of problems in the entire region. It was during the 1980s that the technical staff, incorporated a new generation of researchers from various fields of the humanities, and undertook a major review of the theoretical foundations that had been guiding Plambel’s work. The most technocratic and functionalist perspectives were abandoned, and any critical understanding of the social and economic macro-processes that structured the metropolitan space were complemented by a crescent interest in questions related by everyday life. Plambel defined new methods of reading the metropolitan territory departing from different inspirations, particularly from the work of Henri Lefebvre, which placed the city as a mediation between two orders, a close and a distant order. The most interesting contribution was named "complexes of fields", which consisted on a series of regions, in different spatial scales, drawn from units of the minimum spatial configuration of everyday life in the MRBH. Subsequently, these fields were used by other researches, such as the Origin and Destination Survey.

According to Costa (2009), the wear and unmounts of the instances of metropolitan planning gave up due to the direct association between them and the interests of the military regime, to the criticism of integrated functionalist and technocratic planning that was practiced, and to the difficult coexistence of municipal autonomy and metropolitan institutions. The democratization initiated a climate of distrust of institutions and apparatus of government that had been brought under military rule, and had as one of its assumptions abandoning all "authoritarian rubbish" inherited from the previous period, among which the planning agencies created throughout the 1960s and 1970s.

The strengthening of the autonomy and powers of municipalities, after the promulgation of the 1988 Constitution, was achieved at the expense of weakening metropolitan planning. Moreover, with the deepening economic crisis in the country and the subsequent worsening of the fiscal situation over the 1980s, the metropolitan planning organizations, associated with the interests of the military and dependent on the Federal Government scheme, weakened up and become inoperative.
The 1988 Constitution did not turn the instituted metropolitan areas into autonomous government bodies to which resources and expertise could be appointed. Despite widespread debate on the issue of metropolitan management during the constituent process that unfolded between 1986 and 1988, the movement of heavy municipalism and decentralization ended up being imposed to the Constitution due to the tradition of authoritarianism and extreme centralization of the military regime. The Constitution greatly expanded the federative nature of the Brazilian state, and is distinguished from all other previous constitutions by considering the county (município) a federal entity, not just a local administrative level (Fernandes, 2005). Between 1988 and 1996, Plambel worked more as a body of research than as an effective metropolitan planning agency, largely due to the shortage of funds for implementation of projects of metropolitan scope. In early 1988, Plambel, as most planning agencies in the country, went through one of its greatest crises. Their extensive technical staff was massively reduced and their identity as metropolitan planning agency placed into question, due to the strengthening municipalist political movement and to the growing discredit of planning activity and state intervention. Already in a state of political and technical agony, and with no defined competencies, Plambel was definitely abolished in 1996, and their assignments were partially assumed by different state bodies.

In line with national guidelines for urban policy and the system of centralized and hierarchical metropolitan administration mounted during the military regime, the performance of Plambel was characterized by a technocratic and authoritarian planning perspective. The ban on the participation of municipalities and of civil society contributed to the agency not winning sociopolitical legitimacy as the representative of the "collective metropolitan interest". The fragmented and autonomous action of sectorial entities and companies, strengthened by the concentration of resources at the federal level, also prevented that most projects on MRBH were implemented in accordance to the guidelines of integrated and comprehensive metropolitan planning.

3. The decline of metropolitan planning and the rise of urban struggles and social movements
The 1988 Brazilian Federal Constitution gave to the municipalities the status of a federative entity and strengthened their role in the formulation and implementation of public policies. This was partly due to similar international tendencies, but also as a reaction to the authoritarian centralism of the military governments. Although municipal autonomy is rather limited due to financial weakness\(^8\), local governments are responsible for several public policies, especially those related to land use and the control of urban expansion.

As far as local governance in Brazil is concerned, the constitution of municipal committees (Costa et al, 2009) and participatory budgeting experiences are interesting examples of advances in the incorporation of new actors in the decision-making process in spite of the patrimonialist and clientelist legacy still present in our political culture. As far as urban and metropolitan policies are concerned it is important to assess to what extent they are connected to spatial organization and local politics.

In recent years urban planning required the establishment of new relations between state and society. Such relations are being transformed worldwide, sometimes induced by international agencies or by more rapid circulation of ideas, but are also influenced by tendencies related to national and local policies and politics. In the planning field, urban policies in many countries have incorporated values and conceptions related to neoliberalism, to the adoption of structural
adjustments, fuelling strong competition between places, regions or even countries for the location of new economic investments. At the same time, the need to enlarge the political support-base of planning and urban policies, pressed by citizen’s demands to voice their own needs, brought about many forms of participation in the design of policies and/or in the decision-making processes (Costa; Costa, 2007).

Urban policies in Brazil followed those tendencies, but experienced also paradigmatic changes during the last two decades, redefining relations between the state in different geographical scales and civil society through participation. Conventional modernist planning, which constituted the knowledge basis for most urbanistic propositions and also for the conventional institutional structure of urban policies within the state apparatus was widely criticized, as everywhere else in the world, for its functionalist approach.

Reviewing the trajectory of planning in the international literature Watson (2007) points out that the comprehensive functionalist approach based on modernist ideas is still very strong in many countries, especially in the South. She mentions some African situations whereby existing regulatory state structures were originated from European or North American planning instruments of the mid-twentieth century. Also, even when new ideas emerged, some of them very much influenced by international agencies concepts, the shift was mainly from spatial land use planning towards local public administration approaches, which “usually targeted just one aspect of the urban planning system, forward spatial planning, leaving the inherited land regulation systems to continue to protect the rights and perpetuate the inequalities inherent in them” (p.10).

Besides all international criticisms, two other elements are important to understand the rejection of modernist/functionalist. On the one hand the association of institutionalized planning with the period of authoritarian centralization of power and financial resources at the national level, as mentioned previously. Thus, when democratic rule returned in the late 1980s, central planning was rejected together with everything associated to the military rule. On the other hand modernist/functionalist planning did not consider informality as an inherent and constitutive aspect of Brazilian urbanization, rather, informality was (and in many spheres still is) mainly seen as a deviation from the norm, as something that can be repaired by intensive investments or some other remedy. It is not unusual to hear that informality exists as a result of lack of planning, not because of structural social inequalities associated to the prevalence of a juridical order based on longstanding landed property rights. Maricato (2000) called that “ideas out of place, whereas place is out of (the realm of) ideas”. A similar approach at worldwide level can be found in the work of Davis (2007).

The 1988 Constitution marked the emergence of the institutional participation of civil society in many realms of everyday life, reinforcing politics at the local level, urban politics included. Planning and urban policies were reinvented to deal with those issues: to make the prevalence of the social function of property a priority and to redefine state-society relations through participation. New instruments were created and longstanding popular demands were reinterpreted, such as the urban reform⁹. Participatory budgeting, informal settlements upgrading, property developments regulatory mechanisms, the emergence of environmental concerns within planning, the establishment of sectorial deliberative councils to discuss and define priorities within policies and plans are examples of contemporary urban policies implemented. There is now a rather consistent literature related to their assessment and eventual criticism.
But together with innovative practices, traditional tools were reinforced as concepts and long established practices are resistant to change. That is the case of the Municipal Master Plan, a resurrected local planning instrument that became mandatory, by constitutional enforcement, to all municipalities of more than 20,000 inhabitants or belonging to metropolitan regions. The reasons for such drawback are still to be assessed publicly, but such obligation can be considered an important “market reserve” for consultants and planning professionals. It could be considered just as one more legal requirement of minor importance if it were not for the fact that urban reform instruments must be established and defined in the Master Plan in order to be implemented. Such articulation managed to link progressive policies to old fashion criticized planning structures. As a response the urban reform movement put forward an strategy to benefit from the situation, adopting participation and urban reform instruments as part of the process of constructing the Master Plan. Many interesting experiences emerged from such process, but several municipalities were unable to provide an alternative to conventional technical plans. In 2001 several items of the urban policy contained in the 1988 Constitution through a new legislation known as the City Statute (Estatuto da Cidade).

The fact that Master Plans became compulsory to municipalities within metropolitan regions suggests that the 1988 Constitution recognized the complexity and interdependence of urban questions at metropolitan level. However as local (i.e. municipal) autonomy was a basic principle of the Constitution, metropolitan governance, including planning instruments, was seen as a return to the authoritarian centralization of the previous period. In our case study, as mentioned, metropolitan planning propositions and studies carried out by Plambel were very important to form a widespread comprehensive knowledge of the process of production of space, but failed to produce political alternatives of implementation. Such knowledge became deeply rooted in a generation of planners and academics, who dispersed when Plambel was extinguished. At present, part of that expertise is being mobilized as metropolitan planning regains importance and a metropolitan governance structure is under construction. There are, however, competing projects and development strategies as discussed below.

4 – The contemporary resumption of metropolitan planning in Minas Gerais
In response to the void left by the abandonment of metropolitan administration, there were attempts since the mid-1990s to resume and rebuild institutional arrangements and coordination mechanisms capable of guiding multimunicipal public policy (Rolnik; Somekh, 2000). There were several "receipts" adopted by the states that created new metropolitan orders, but according to Fernandes (2005), none have yet made compatible legitimacy nor been durable enough to become law. The institutional architecture of metropolitan management in Brazil today is characterized by a great diversity of articulation mechanisms (Klink, 2008). However, almost all the new arrangements, mostly based on state level, have failed to trigger institutional innovations and effective execution of public functions of common interest beyond the capacity of planning and coordination, as well as have not ensured broader participation of non-governmental spheres in collegiate bodies.

According to Costa (2009), the recent discussion about the supralocal and metropolitan management alternatives are given in the context of metropolitan spatial expansion with urban sprawl and increasing fragmentation, requiring new forms of consortium arrangements. The author lists three recent trends in urban policies in Brazil: the incorporation of new social agents
(popular, business and technical) in decision-making, the growing concerns with environmental issues linked to the sphere of social reproduction, and the divorce between the process of production of urban space and the politico-administrative structure responsible for managing the territory. As Klink (2008), the author recognizes that, given these trends emerge two formats shared management: the first trampled the institutional arrangements defined a priori by the state constitutions; the second sits on the formation of institutional arrangements from a common problem for local governments, such as the river basin committees and consortiums.

In the early 2000s the Minas Gerais State Legislative started to discuss metropolitan governance in order to redesign its structure. There was a movement toward (re)centralization, which was innovative in the Brazilian context after the 1988 Constitution known for its emphasis on decentralization and strength on the local level.

As a result, an amendment to the state Constitution brought some significant shifts to the metropolitan governance structure in 2004\(^{12}\); the most remarkable of these was the State Government’s strengthened position in decision making: it now has half of the Assembly votes. The amendment also created a Deliberative Board and a Development Agency. However, the centralization is now quite different from that of the military period. First, the provincial Government does not have overall control over the Assembly or the Deliberative Board and, secondly, the “functions of common interest” are no longer the same for all metropolitan regions, but must be defined in the law that establishes each metropolitan region\(^{13}\). Both the Assembly and the Deliberative Board are intergovernmental entities and for the first time civil society became represented in the Deliberative Board\(^{14}\). During this last period, the state government has also changed its structure to carry out a more significant role at metropolitan level particularly with the creation of a Metropolitan Development Sub-Secretariat\(^{15}\), transferred to an Extraordinary Secretary for Metropolitan Affairs (2011) recently extinguished with the strengthened role of a Metropolitan Development Agency responsible for the implementation of metropolitan planning initiatives, including the Metropolitan Development Plan (PDDI).

Coelho (1996: 41) asserts that “at the local level in Brazil, the use and meaning of the term ‘governance’ cannot be understood without taking into account the broader process of democratization and the political-administrative decentralization of civil institutions. […] Brazilian society has made a positive association between political-administrative decentralization and democracy.” In addition, she defends the idea that “the municipality is the most important point of convergence between collective actors and a democratic system”. However, decentralization can also mean fragmentation and competition, and, in such framework, disparity may replace democracy in the broader view. In a metropolitan context, infrastructure, transit, social housing and environmental conservation (to mention just some of the main issues) cannot be undertaken by any municipality alone; otherwise municipal inequalities will be deepened. Combining local democracy and metropolitan coordination is a task yet to be accomplished.

Some authors underline the role of local government and emphasize the need to preserve local identities. Friedmann (1992), for example, has opted for “decentralized planning”, at regional and local scales. He considers that variety and differences lead to an understanding that the local specificity will guide the planning process. “There is not one single solution for every public domain problem,” he says (p. 86). Besides, the local scale allows for more social experimentation and democratic practices.

Nevertheless, inequality among cities within a region, especially in conurbations, requires
coordinated planning and service delivery. Local autonomy and decentralization are basic requirements for democracy, but they have to be linked to a more central process of coordination in order to guarantee the distributive principle and collective interests. In planning and urban policy, the interplay of interests is strongly underlined in the distribution of urban resources (infrastructure and services) and the potential for land use. It is therefore crucial to have a central guideline to coordinate different levels of government actions. At the same time, it is also essential to have a governance structure in which different interests can be expressed and negotiated.

5 – Final remarks

Along this paper, part of the Brazilian metropolitan planning experience of the last four decades was discussed as an important background for the understanding of the context in which the present planning experience of the Metropolitan Region of Belo Horizonte emerged in recent years. It could be said that present challenges are the outcome of new tendencies of metropolitan growth and expansion, old and new requirements of social agents in their modes of appropriation of metropolitan space, together with new institutional and legal arrangements and institutions.

At the same time as Plambel was a quite influential institution, its planning legacy remains very present in the proposals of several sectorial areas – transportation and roads system, environmental zones, urban expansion tendencies, among others. To a certain extent some of Plambel’s territorial proposals were adopted by the recent experience of the Metropolitan Integrated Development Plan (PDDI) carried out in 2010 by a huge team of professors, researchers and students within our university. On the other hand, as far as the planning process was concerned, PDDI departed from a quite different political perspective, reinforcing empowerment approaches and participatory methodologies, which were inconceivable during the military regime of the seventies. Along the process of discussion in internal and external workshops and seminars, many original Plambel planners, some already retired but still moved by some sort of metropolitan awareness, joined the university team to contribute with the discussion of old and new planning ideas for the metropolitan region, reinforcing the learning and formative importance of the institution.

As the PDDI process evolved, participation mobilized approximately 600 institutions, representing the state government, local governments and civil society – NGOs, firms, trade unions, committees, community associations, etc (UFMG/Pueminas/UEMG, 2011). Other structures were formed in the process, such as the Frente pela Cidadania Metropolitana (Metropolitan Citizenship Front) an articulation of local councillors from metropolitan municipalities who supported the plan and the discussion process.

Several attempts were made to develop new methodological approaches, most of them including society participation. There was growing awareness that contemporary planning required more complex territorial arrangements, as they refer to increasingly complex forms of production of space. That may lead to less conventional forms of social and political representation. However the traditional political and administrative forms of political power and representation co-exist with the new forms, posing real challenges to the planning process. Belo Horizonte provides good example of that.
6 - References


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Urban and regional planning was consolidated in Brazil during the military dictatorship (1964-1985), mainly in the 1970s, as a tool of economic policy. The 2nd National Development Plan (II PND), published in 1974, established a national urban policy aiming to organize the urban network and infrastructure as a basis for the industrialization model under implementation in the country (Monte-Mór, 2008). Subsequently, the federal government created nine metropolitan regions around the main state capitals.

Brazil is a federal presidential constitutional republic, based on representative democracy. The political and administrative organization of the country comprises the federal government, the states, the federal district and the municipalities: together, these levels of government form the Federative Republic of...
Brazil. The Metropolitan Regions were created in 1973 as administrative and planning supramunicipal organizations under federal and state supervision, and have never been considered levels of government with directly elected bodies and political and fiscal autonomy. Although originally defined by the Federal Government through a mix of technical and political criteria, since the new Constitution of 1988 the Metropolitan Regions have been created directly by the states without a common technical definition.

3 In 1981, an authority to manage the metropolitan transit system - Metrobel (Companhia de Transportes Urbanos da RMBH) – was also created by the provincial government. It was replaced by the autarchy Transmetro (Transportes Metropolitanos) in 1988, later abolished in the mid-90s, when transportation services became municipal responsibility.

4 One councillor for each municipality with up to 100,000 inhabitants; 2 councillors for each municipality with 100,001 to 200,000 inhabitants; 3 councillors for each municipality with 200,001 to 400,000 inhabitants; 4 councillors for each municipality with 400,001 to 800,000 inhabitants; 5 councillors for each municipality with 800,001 to 1,600,000 inhabitants, and 6 councillors for each municipality with more than 1.6 million inhabitants.

5 It is important to point out that during the dictatorship (until 1985) the State Governor and the mayor of the State capital were appointed by the President, as were the mayors of those municipalities considered to be a "national security" matter.

6 Even Law 10.257, passed in 2001, known as the City Statute, which established the most relevant mechanisms for planning and urban governance, gave little weight to metropolitan governance.

7 For water and sewage there is the Sanitation Company of Minas Gerais (COPASA) and for electricity the Energy Company of Minas Gerais (CEMIG). The telephone services became private in the 1990s, and are now provided by several companies. The exception was the Transit Tariff Compensation Chamber, which provided a flat-rate transportation system for the whole metropolitan area until 1997, when the municipality of Belo Horizonte left the chamber.

8 According to the National Conference of Municipalities (Confederação Nacional dos Municípios), in 2003 municipal governments participated with 18% of the country’s current revenue. Provincial states participation was 29%, and central government participation was 53%. (http://www.cnm.org.br/institucional/estudos_tecnicos.asp, access in February 2007).

9 The urban reform movement of the sixties demanded urban land for housing and its aims were very similar to their rural counterpart, the agrarian reform movement. When it reemerged in the eighties, the demand changed from direct expropriation of land for housing to urban reform regulatory instruments, such as fiscal and urbanistic constraints on property, regularization of informal settlements, incentives to prevent the unproductive use of urban land, recuperation of surplus value of property gains, etc.


11 One of the most discussed cases among these attempts is the experience of the Intermunicipal Consortium of the Greater ABC, composed of seven municipalities in the southeast sector of the Metropolitan Region of São Paulo. Cradle of the Brazilian automobile industry, the ABC has suffered the impacts of economic liberalization, recession and productive restructuring, leading to the closure of many factories and the loss of thousands of manufacturing jobs. In response to the economic crisis, the Intermunicipal Consortium was created in 1990, and since then has established guidelines and developed actions in the areas of water sustainability, infrastructure and accessibility, social inclusion and territorial development (Rolnik; Somekh, 2000). Another case is Curitiba, which is a world-known experience in urban sustainability, cultural policies and land use and transport planning integration. However, it should be noted that it was primarily a municipal project lacking metropolitan and regional coordination (Moura, 1998).

12 Amendment no. 65, November 25th, 2004, regulated by Supplementary Law no. 88 (January 12th, 2006).

13 Besides Belo Horizonte, there is another metropolitan region in Minas Gerais (Vale do Aço MR), formed by an “urban agglomeration”, not around a central municipality.

14 The MRBH’s governance structure was regulated in January 2006, by the Supplementary Law no. 89. The Deliberative Board is composed of 15 representative members: 5 for the State Government, 2 for the Legislative Assembly, 3 for the largest cities (one each), 3 for the other municipalities and 2 for civil
society, the State having 50% of decision-making power. The composition of the Metropolitan Assembly and the responsibilities of the Development Agency were later defined by specific laws. The Metropolitan Development Sub-Secretariat was created within the Regional Development and Urban Policy Secretariat.
INTRODUCTION

The housing problem emerges as a greater issue in the City of Rio de Janeiro, Brazil, in the first decades of the 19th Century. As noted by many researches and studies, it is primarily identified in the tenements, inns, among others, occupied by the poor, especially downtown, and it is almost immediately focused in the favelas. These already appeared during this historical moment as groups of shacks in various points of the city. (ABREU, 1994) However, although there is a vast bibliography about the initial process of the expansion of the favelas, and the development of the housing issue in the city of Rio de Janeiro, few publications approach this very issue concerning other cities of the State of Rio de Janeiro. The most surprising case is of the city of Niterói. On the eastern border of the Guanabara Bay and facing Rio de Janeiro, Niterói was the capital of the State until 1975.

In the turn of the 19th Century, Niterói had approximately 34000 inhabitants, and this number raised almost 40% in the following 30 years, in an average growth rate per year of around 4%. The first two decades of the 20th Century represented a period of important debates about the urban growth. A major controversy involved a construction of a port as a mean of economic development and modernization. Some arguments focused on the need to remove the shacks in the mangrove of São Lourenço, where the port would be built, which denotes even then, serious problems concerning housing for the poorer population. In order to house the families that would be removed, the proposition, on the other hand, included a project to be built in Campo do Ipiranga, not far from that area.

Still in the early 20th Century, the important industrialization process the city went through may have attracted a proletarian population to the areas near the factories (in general located in the central and northern areas of Niterói). The habitations built by then were considered mostly unhealthy and were a matter debated by the Government. Thereafter, the propositions focused on the construction of workers’ villages based upon urban actions focused on the hygienic and aesthetic issues, trendy at the time. The aspects relative to the industrialization process and the propositions submitted by the Government focused on the urban questions, were some of the important factors to the emergence of the first favelas.

In the 1930’s, the city was the object of an important academic thesis developed by the architect Attílio Corrêa Lima, entitled Avant Projet D’Aménagement et Extension de la Ville de Niterói au Brésil, subjected to Institut d’Urbanisme de l’Université de Paris. This thesis approached in its chapters, Niterói’s housing situation in a specific way, bringing important and new contributions to this matter, especially concerning the housing for the poor. In this paper, Attílio’s thesis will be referred as "thesis-proposal" (FREITAS e AZEVEDO, 2010), to the extent that although an academic exercise, its content actually outlines proposals that could guide an urban planning project for the city of Niterói.

This article deals, therefore, with the "thesis-proposal" and its contribution to the city, regarding the urban situation during the third decade of the 20th Century. In this sense, we stress
the housing matter, for which the architect presents, in some ways, an advanced concept, compared to the other plans developed before and during this time.

Our main sources to the development of the article are documents and bibliography of existing files, but especially the thesis itself, and comprise, in a first part, a picture of the decade of 1930 and the historical time that preceded (20th Century’s first three decades); in a second part, the role of architect Attílio Corrêa Lima, as an urbanist; and in a third part, the architect Attílio Corrêa Lima’s proposal to Niterói, regarding the housing matter.

This article is part of a broader academic research, that is being developed in the School of Architecture and Urbanism of Universidade Federal Fluminense – UFF, entitled “Uma história a contar: compreendendo Niterói através de suas Favelas”, that analyses the Niterói’s housing issue, in a historical approach, from the early 20th Century through the year of 1975, researching the initial occupation process of its favelas. One of the broader hypothesis is that Niterói’s expansion shows particularities in the development of its favelas and other types of low-income housing, due to the city’s peculiarities in the field of its planning’s History, of public action and of land issues, due to the existence of a major quantity of public lands, given its condition of capital of the State of Rio de Janeiro. The importance of this broader research is justified by the absence or very few studies dealing with the origin and early development of favelas and housing for the poor.

THE HOUSING ISSUE IN NITERÓI

The first years of XXth Century

During the three decades prior to the moment when the thesis was developed by Attílio Corrêa Lima (in the 1930s), Niterói was the capital of the State of Rio de Janeiro.

In the early XXth Century, the proposals for the city in the field of urbanism, whether or not executed by the government, were based on hygienists and aesthetic principles aiming to progress and modernization of Brazilian cities, influenced by the European urbanism.

At that moment, the city of Niterói was undergoing a significant industrialization process. Similar to what happened in the neighbor city of Rio de Janeiro, then federal capital of Brazil, factories were in general located in the central and northern areas of Niterói, and it was to the development of this industrial and manufacturing sector that mayors as Paulo Alves, who ruled from January 1904 to November 1904, and Pereira Nunes, who ruled from November 1904 to October 1905, attributed the progress of Niterói. Discussing the relationship between the cities of Rio de Janeiro and Niterói, Paulo Alves indicates the improvement of the industrial and manufacturing sector and encourages the creation of new factories as one of the possible solutions for the autonomy of the city in relation to Rio de Janeiro. (NUNES, 1905 and ALVES, 1904)

At this time, the factory workers represented a significant portion of the city population. In fact, in 1904, there were 10201 industrial workers that answered for one fourth of the city's population. (ALVES, 1904)

The poorest portion of the habitants lived in tenement houses, inns falling into ruins, and shacks on the hills of Niterói. These dwelling places were regarded as a sign of decay, a threat to the economy, to security and to local public health. (ALVES, 1904 and NUNES, 1905) They were regarded as an obstacle to modernization, especially being Niterói a State capital. The destiny of these houses was almost always the demolition, which effectively occurred in the center area of the city, or at its periphery (Largo do Marron).
On the other hand, the proposals were always in the field of private enterprise, pointing to the industrial worker villages attached to the big industries, following the conceptions of the liberal state.

During the years of 1910 and 1920, the city suffers changes due to the construction of a new Port (1927) and an important increase in population, and urban expansion. This did not stop the consequences of the 1929 crisis, and in the next year, the 1930 Revolution, that caused serious effects on Brazil’s political situation and economy.

The years of 1930

At the period of the 1930 revolution, the State of Rio de Janeiro and its capital, Niterói, were suffering from the economic and financial crisis, following the decline of the coffee culture. At that time, however, the city of Niterói presented some important features of urban growth. In the first place, the population had “jumped” to 130,000 inhabitants, especially in the last years of the twenties (from 1926). Some projects that were being developed were interrupted, but the important Port project and sanitary works continued at some areas of the city. The town, facing Rio de Janeiro, the federal Capital across the bay, had already an intensified communication by sea. At the end of the 1920 years, the ferryboat service made 160 trips daily between the two cities (each boat carried 1500 passengers) (NORONHA SANTOS, 1996). At the political “front” the revolution led to new struggles, in relation to the revolutionary government, that established a system of “interventores” for the estates, till there were new elections, promised by the revolution leaders. The “cycle” of “interventores” started in October and continued through almost 17 years. From 1930 to 1937, when once more the political field changes, with the dictatorship of President Getúlio Vargas, there had already been 6 estate interventores and 8 mayors for the city of Niterói (MACEDO SOARES, 1987). The political instability is in some ways controlled, when comes to power Ernani do Amaral Peixoto, very close to Vargas, and considered an ingenious politician and a capable administrator. He governs the Estate of Rio de Janeiro till 1945, and, after Vargas’s deposition, he returns elected by constitutional votes in 1950.

But the Economic crisis hits hard the population of Niterói, especially the industrial workers, and the poor people in general, through the years of 1931 and 1932. Data covering the period, shows a certain decline in the values of wages, and even a reduction in the number of workers in industrial plots. This happened, for example, on one of the main and most traditional shipyards of Niterói, the Estaleiro Mauá (LOBO, 1992). It must be observed that Niterói had already important industries, ever since the XIX th century, and the industrial plots and factories (and also small factories) concentrated in areas already identified as labor districts, especially in the north zone of the city, the areas of Barreto, Conceição Island, and the filled-in land (“aterrado”) of São Lourenço, where the Port was built. These districts, in especial the case of Barreto, one of the north borderlines of the city, would be known, in the coming years, as an important industrial labor area, concentrating workers, proletarian societies and associations, and left wing political parties (The communist party and others) after 1945, when democracy was restored. The factories and industries were at first attracted to this part of Niterói by it’s natural resources (easy access to the sea), by the presence of a railway system (Leopoldina railway) and the Port. The growing presence of labor living in the area attracted other big industries in the first decades of the XXth century (Estaleiros Hume, Cia de fósforos Fiat lux). But with the permanent growth of the poor population, the area was also known as a place which concentrated poor tenements houses, and a growing occupation of the slopes of the hills by shacks, that
anticipated later squatter settlements. There were also houses built by the Leopoldina railway, and working class villages built by some of the big industries (Cia Manufatora Fluminense, and Cia de fósforos Fiat Lux). But these projects were not enough for the existing needs, and there were constantly demands for housing by the proletarian parties and associations.

The housing problem of the city (not only in the north zone) in 1930, was considered serious by some authorities and the press. At the old city center, there were also poor tenement houses, and at least two old favelas “Morro do Estado and Morro do Palácio” that surrounded the business center with great visibility. (map 1). Morro Estado, till our days is an emblematic favela, dating from the first decade of the XXth Century (OLIVEIRA, 1996).

In earlier years, there had been already some proposals of housing for the poor. The construction of the Port of Niterói, as seen, had destroyed many shacks in the area, and a project for a proletarian village in “campo do Ipiranga”, was specified, but with no details.

The expansion of shacks on the hills of the city was favored by certain particular conditions: the large amount of public land (gained since the XIXth century, and increased by filled-in land), and permissive municipal laws that encouraged the occupation of the hills. (AZEVEDO, 1987, OLIVEIRA,1996)7

On the other hand, the new government that came to power with the 1930 revolution represented a centralized ideology that clashed with the liberal nature of the previous State. So that, in some quarters, grows the conception of the State as the main agent responsible for the social issues. It’s a period of transition and of new ideas that will “contaminate" Urban Policy and Urban Planning. In this sense, as will be seen in the next sessions, the proposal of Attilio Corrêa Lima will bring some aspects of this transition, with innovations specially about housing for the poor.

ATTILIO CORRÊA LIMA: AN ARCHITECT AND URBANIST8

The architect and urbanist Attilio Corrêa Lima, the author of the "thesis-proposal" Avant-Projet D’Aménagement et D’Extension de la ville de Niterói - au Brésil, was born in Rome, in 1901. Son of brazilian parents, he came to Rio de Janeiro when he was five years old. In 1918 he concluded his basic studies and entered the General Course of the Escola Nacional de Belas Artes (ENBA). This course provided him a diversified background, common to that generation of students, which included sculpture, painting and engraving. Upon completion of the general course, Attilio started studying the Special Course of Architecture of the ENBA, in 1923. He graduated in 1925 and two years later he traveled to Paris, after receiving an award conceived to the students that were prominent in the ENBA.

Thereafter, Attilio was a student at the Institut d’Urbanisme de l’Université de Paris, which gave him an opportunity to learn more and direct his professional life to urbanism. It can be said that, until the early twentieth Century, the urban-related issues involved the sum of several sciences, such as geography, engineering, geology among others. This situation begins to change in the first two decades of this Century, especially in the interwar years, when the urbanism was established as an autonomous discipline. In France, this field of study begins to consider the inhabitant and user of the city. It was in that historical and political context that Attilio Corrêa Lima proceeded his studies and developed his theoretical basis.

During the period of time that he studied in Paris, Attilio had his first contact and worked with Alfred Agache, an important architect that was developing a great urban plan for Rio de Janeiro. (Plano de Remodelação, Extensão e Embelezamento da Capital Federal). The student also became involved with other renowned urban planners, for instance Toni Garnier and Henri
Prost. The latter was the professor-adviser of Attílio in his thesis entitled *Avant-Projet D’Aménagement et D’Extension de la ville de Niterói - au Brésil*, that represented an important proposal to the city of Niterói. Beyond this thesis, Attílio participated in others significant projects, such as the urban plan for the city of Goiânia and Recife.

**THE HOUSING PROBLEM IN ATTÍLIO CORRÊA LIMA AS PRESENTED IN HIS "THESIS – PROPOSAL"**

*General proposals*

Some authors that studied the planning proposal of Attílio, as AZEVEDO, ACKEL and others, stresses important points that indicate, as seen, the influences of the period in the urbanist’s professional career, and, at the same time, his innovative conceptions, following the modernists, but in a particular way. As presented by these same authors, the "thesis-proposal" has some basic ideas: in the first place the proposal stresses the hygienic problem, which fitted in the traditional urban ideology that came from the XIXth century, but also pressured by the sanitary conditions of Niterói, as seen through the permanent and growing statistics of diseases (tuberculosis, among others). In the second place, the importance of “thinking” the city of Niterói as a continuity with Rio de Janeiro, so that the communication across the bay should be strong and intense, a tunnel or a bridge (an old argument), the latter being his choice. In his conception, the main transports should be by bus, tramway or metro (subways), and the ferryboat system should be used for tourism across the bay, showing, in a certain way, a “modern” vision.

Other important points of the plan, extremely detailed and integrated, was the structuring of Niterói through a system of radial avenues linked to a monumental axis that absorbed the filled-in land of the Port, completed with a large avenue which crossed the city from sea to inland, in some ways stressing the continuity of Niterói and Rio. These main lines were completed with a civic center, and some other less spectacular proposals. Although it was not an official plan in the sense that it would be implemented, the authors point out that Attílio Corrêa Lima anticipated urban interventions in Niterói: the Av. Amaral Peixoto, built in the early years of 1940, the Rio-Niterói Bridge, in the seventies, the project of the expansion of the center with a “new” filled – in land (o aterrado da Praia Grande) extending the center over the sea, (several years later and till today being object of various projects). The thesis deals also with proposals regarding zoning and division of the urban land and so on.

But also a very important point in the "thesis-proposal", was the conception, the ideas about the housing issue.

*The conception of Housing in the "Thesis – proposal"*

In the first place, as seen in part 2 of this paper, the housing for the poor was a problem felt throughout the city, with its tenements, its hills already occupied by shacks and “visible” from the center and the other zones, and demands constantly made by an industrial labor concentrated in the north zone of Niterói. So that the problem appears in the Attílio proposal, with three important features: 1. as a conception of which agent should be responsible for the solution of the problem, 2. the conception of what represents the housing of the poor, and finally, 3. what kind of solution is proposed.

Attílio is completely identified with the conceptions that will prevail in further years, when the State – as already indicated in this paper – will gradually consider the social problem (including the housing for the poor) as a public responsibility: “build economic houses accessible to the habitants of the favelas (...) is incompatible with a private enterprise, is a responsibility of
the City or even the State, there is no doubt about it” (LIMA, 1932: 66 free translation of the authors)\(^{11}\). In the first years of 1930, the government undertakes the first public direct intervention in housing, through housing plants for workers in various categories (but not for the *favelados*).

A second important conception deals with the “social representation” especially of the *favela* shacks. Although Attílio recognizes the “hygienic and moral inconveniences” (LIMA, 1932: 64) of these poor houses, he admits that they are adequately to the climate, with a good air circulation due to large open spaces. It is interesting that at this point, Attílio remember Le Corbusier’s commentaries about the favelas shacks, considering also their adequate logic in relation to the climate and the needs of the people (LIMA, 1932: 64)\(^{12}\). This is indeed an innovative conception, not easily found at this period.

Another important conception, is about some of the ideas regarding solutions to the problem. In the first paragraph, says Attílio: “the housing issue cannot be delimited in a categorical way, we cannot constrain people to live in such or such place, although in the city there are places that have a character essentially livable (habitable), these must remain as they are, and the way (to proceed) is to establish a very precise regulation, forbidding formally the construction of buildings for other uses”. (LIMA, 1932: 64 free translation)\(^{13}\) Attílio, for the purpose of choosing places for housing, favours the north zone, especially the industrial Barreto, where he proposes a labor town, completed with a stadium, facilities center and so on. He stresses the importance of building in zones of favelas, and the construction of sanitary facilities (in regard mainly to health) and the development of a transportation system.

Still in the field of the plan’s general conception about housing, it is interesting to note a concern regarding the cultural habits of the population. In this sense, he considers that social housing should be a system of individual houses, to be better accepted by the people. (LIMA, 1932: 66) This preoccupation certainly is contrary to the modernists proposals at the time, founded on vertical collective housing, obeying a logic of functionality and the use of advanced technology.

On the other hand, in the Zoning proposed, he maintains the industries where they were already (the north zone and its “islands”: Barreto, Ilha da Conceição, Cajú, Mocanguê and Vianna) but at the zone C is where Attílio details an exclusive zone for three categories of housing: “dense housing, a “transition” zone between the commercial center and the rest of the city; a second category relate to “individual” houses, mostly characterized as houses for the middle classes, and finally what could be seen as “popular” housing. In this last case, Attílio points out some measures by the municipality in order to turn easier and at low cost the construction of these houses: long term loans, permission to build in series, and even a proposal of public concourses for architects. In case of this category the municipality should maintain a permanent financial credit. (LIMA, 1932: 81)

**FINAL CONSIDERATIONS**

The housing issue in Niterói, in reality was considered a problem ever since the first decade of the XXth century, situation that was aggravated in the next decades. The "thesis-proposal" of Attilio Corrêa Lima puts forth the issue in some aspects in an innovative way, as indicated in the above text. It is interesting to observe that the strong expressions with which the *favelas* were represented in Rio de Janeiro, for example in Alfred Agache, as a “cancer” that had to be extirpated, destroyed, is absent in Attilio’s proposal. This is even more significant as the
thesis was developed at almost the same time of Agache’s Rio de Janeiro Plan, in the previous years of 1930.

The concept above does not mean a complete acceptance of the housing of the poor, but can mean a certain difference in a vision that, condemning the houses in regard to its sanitary conditions, does not “sentence them to death” (as a cancer did).

On the other hand, there is also a certain cultural sensibility that shows itself on the architectural and urbanistic proposals. It shows also on the importance given to a diversity of kinds of housing in regard to social differences. In a certain way, Attílio anticipates an urbanism that appears some years later, especially in researches that will be developed in the next decade (some, after 1945) and that will entail experiences of social housing.

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Map 01: The city of Niterói: 1915/1925 with the filled-in land of São Lourenço
Source: Instituto Histórico e Geográfico Brasileiro

Map 02: The city of Niterói: 1915 with factories in red.
In 1930, the national census was not realized due to the revolution. The total population above was apparently an estimate of the Attílio Thesis.

State rulers chosen by the President of the revolutionary Council, leader Getulio Vargas.

In 10/November 1937, Vargas proclaims a “New Estate” (Estado Novo) in Brasil, with a new Constitution, and stays as dictator in power till 1945, aborting the promised presidential elections.

The Cia Manufatora Fluminense, the Lloyd Brasileiro, and Cia Nacional de Navegação Costeira are from 1891 (AMARAL, 2011)

In this part of the text we are following Luciana Wollman do Amaral (2011)

In 1927, a written report presented by the “Comissão Construtora do Porto de Niterói” (The technical commission), indicates that, in 1927 there had already been demolished 180 shacks in the area, and that there were a lot more, “a true favella” COMISSÃO (p75-79)

The Niterói zoning code of 1914 authorized construction in the hills of the city (included the Morro do Estado) for the poor population (OLIVEIRA, 1996:135), Also see “Municipal deliberation number 255 in April 2, 1914. Signed by the Mayor Frôes da Cruz” (OLIVEIRA, 1996: 135)

In this part we are following Marlice Azevedo (2010), Luiz Ackel (2007)

For the more general features of Attílio’s work, we are following the authors appointed above.

The bridge would start at the “ponta do Calabouço” in Rio de janeiro, arriving at “ponta do Gragoatá”, periphery of the center of Niterói, where was established the shipyard of the Cantareira, the ferryboat company that also controlled the electric plant and tramways of the city.

“(...) construire des habitations économiques accessibles aux habitants des favelas, lès habitations économiques NE pouvant pas être suscetibles de Donner de bénéfice, nous Les croyons absolument incompatibles avec l’initiative particulière, c’est une affaire de La ville ou même de l’État, Il n’y a aucun doute, tous les congrés internationaux l’ont démontré.”

Marlice Azevedo also observes this point in Attílios text.

“La question de l’habitation NE peut pas être delimitée d’une façon catégorique, on ne peut pas obliger personne à habiter tel où tel endroit, néanmoins dans la ville il y a des endroits qui ont un caractère essentiellement habitable, ces endroits doivent rester tells qu’ils sont,et le moyen est d’établir une réglementation bien precise avec interdiction formelle de construire des bâtiments destines à d’autres buts.” (p.64)
Communitarian Utopia and Development: The Conceptual Trajectory Taken
By Louis Joseph Lebret¹
Maria Cristina da Silva Leme

AFTER RETURNING FROM HIS FIRST TRIP to South America, French Dominican priest Louis Joseph Lebret wrote a letter to the friends he had left behind in the South American continent. Despite having planned his trip carefully, he was surprised by what he saw. “On the one hand America is in the avant garde of mankind and on the other, it is still deeply rooted in medieval or colonial institutions”. He also remarks on the political inertia he observed here. “It stubbornly maintains a medieval order, aggravated by centuries of colonial habits and oppression, which ignores the presence of accelerant or disruptive elements such as capitalism or socialism. South America is part of a universal movement. Its capitalism has overcome “Manchesterism” and it has been pressurized by the advanced capitalism of “foreign” countries. The masses will not remain indefinitely oblivious to approaches by international workers and peasants’ movements and will be able to join directly or create autonomous groups”⁴

These were very controversial themes in the context of the recent political events in Brazil at the time, and Lebret kept himself involved in the debate. During his visit here he spoke against the closure of the Brazilian Communist Party, for which he was censored by the Church and forbidden from returning to the country for a few years.

In the letter, he talks about the impact of arriving in Rio de Janeiro and São Paulo by plane.

Rio de Janeiro lays out splendor from beach to beach, between hills taken up by miserable dwellings (favellos); São Paulo offers the onlooker a city full of skyscrapers under construction. It has an uncomfortable feeling, further accentuated after a longer stay. Sadly, the initial impression one gets of a certain economic élan fades away after a more careful analysis. São Paulo’s wealthier neighborhoods are among the most beautiful and comfortable in the world. However, the number of slums in the old bourgeois neighborhoods and poorer areas is considerably higher than in the worst French cities⁵.

The comparison with the French cities was one of the conclusions of a preliminary survey to a study about housing in São Paulo,⁶ conducted alongside a post-graduate course in Human Economics taught at the Escola Livre de Sociologia e Política (Free School of Sociology and Politics) between June and August 1947.

Lebret made eleven trips by 1966, during which he spent a few months in São Paulo and shorter periods in Rio de Janeiro. He also visited the cities of Recife, Belém, Curitiba, Porto Alegre and Belo Horizonte. In

¹The researches carried out by the Centre and the SAGMACS Office were the object of studies I carried out at the Archives Nationales, section des Missions Centre des Archives Contemporaines Fond Lebret and Fond Delprat between January and March 2011, sponsored by FAPESP and CNPq.
²LEBRET,L.J( 1947: 566) translated by the author.
³ idem,ibidem p 567
⁴ Published as a reprint of the archive’s magazine at the CXXXIX Departamento de Cultura São Paulo, 1951.
between carrying out research he would rest a little in Poços de Caldas. This long period enabled him to organize a solid network of personal contacts, create political and professional connections and organize research teams.

The first trip to São Paulo was crucial for the French Dominican priest’s intellectual journey. Conclui um ciclo aberto em 1938, he concluded a cycle that opened, related to the war years and to communitarian utopia, which marked the beginning of the Economy and Humanism Movement in France. Upon returning to Brittany, Lebret had left in São Paulo the bases to organize the Society for the Graphic and Mechanographic Analysis of Social Complexes (SAGMACS) research center and a center for Economy and Humanism studies similar to those he had organized in France.

In São Paulo, Lebret finds fertile ground for the formation of young catholic militants. The first trip is marked by a doctrinaire agenda, combining catholic thinking based on the concept of human economics with a proposal to develop empirical research linked to action. Upon his return in 1952, the goals had changed. His trip to Brazil was a necessary alternative to ensure the continuity of the research teams created in France, amid an ideological crisis that was endangering the survival of the Centre Economie et Humanisme in that country.

During Lebret’s intellectual and professional journey, his research themes, approaches and methods undergo conceptual changes that incorporate experiences from various political and economic contexts. This is not about the geographical dislocation of knowledge, as observed by Gomes in reference to Roger Bastide and Pierre Monbeig’s experience - when faced with the challenges of a new reality they created new investigation instruments in order to better understand it. At 50, Lebret was an experienced researcher when he first arrived in São Paulo. He brought collaborators with him and a set of research instruments developed and tested in communities and cities in France that he later adapted to the new reality.

The network of religious, personal and professional relationships created by Lebret during that period enabled him to establish solid bases for action in other countries and cities. This network encompassed both collaborative and training relationships. Antonio Candido remarks on the importance of the collaboration between Louis Joseph Lebret and Josué de Castro, a doctor from Pernambuco. According to him, it gave a new political and social meaning to the studies about development that the Dominican priest was going to carry out at the beginning of the 1950s in Brazil and in other countries in South America, Africa and Asia.

This text seeks to analyze the circumstances that led to this direction in Lebret’s professional and intellectual trajectory, starting with his second trip to Brazil.

The studies about Lebret’s intellectual trajectory and the Centre Economie et Humanisme’s work in France and Brazil signal the importance given to those who took part in it, in distinct intellectual and academic circles. In France, Denis Pelletier’s doctorate thesis

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7 Based on information from Lebret’s diaries, Mathilde Breuil (2006) retraces the dates, itineraries and contacts made by him. Lebret’s first trip took place between June and August 1947, during which he teaches a course at ELSP, carries out research about São Paulo habitat and organizes the SAGMACS research center and the bases for the Economy and Humanist Center. The trip started and ended in Rio de Janeiro, where he contacted Alceu de Amoroso Lima. On his second trip, between May and September 1952, he expands his contacts in Rio de Janeiro, to include Dom Helder Câmara and Artur Rios, and contributes to Josué de Castro’s research. In São Paulo he carries out research for Governor Lucas Nogueira Garcez.

8 This term was created by Denis Pelletier (1996).


10 Mello e Souza (1999).

11 These differences were evident in the heated debates at the International Economy and Humanism Conference in Recife, in September 2011, with participants from both countries.
published by Editons du CERF in 1996\(^\text{12}\) is the most comprehensive study on the subject. More recently, the Vers une Economie Humaine Workshop, held in Caen\(^\text{13}\), aimed to create a coming together of the ideas of five French intellectuals: Lebret, Perroux, Desroches, Mounier and Lefebvre.

In Brazil, Celso Lamparelli’s\(^\text{14}\) pioneering analysis highlighted the importance of Father Lebret’s visit and the creation of SAGMACS for urban and regional studies. This unique report coordinated by the Dominican priest, about research experience regarding the agglomeration of São Paulo in 1956, encouraged the launch of new academic studies\(^\text{15}\).

**Initial research by Lebret and his collaborators:**

*Catholic syndicalism action*

Research always played a central role in Father Lebret’s trajectory. Between 1929 and 1953 he carried out 125 pieces of research.\(^\text{16}\) The research targets and the composition of the teams in France and subsequently in Brazil and Uruguay reveal a great deal about Lebret’s intellectual and political trajectories.

At the initial stage, which precedes the creation of the Center, Lebret had developed a thorough piece of research about the everyday lives of fishermen and the structure of the fishing market on the Brittany coast. This was a period of theoretical formulation and political experience for Lebret. Lydie Garreau draws attention to this strategic moment, when the economic crisis hit the fishing sector and caused a migration from artisanal to industrial fishing, with new labor relations mediated by unions and the beginnings of labor legislation.

This was a proposal for a catholic social policy based on the concept of common welfare. By associating itself to fishing, it sought to combine and propose new possibilities of solidarity within the relations between fishermen and ship owners. These relations between labor, families and the community are the basis of Lebret’s original theory, which proposed a type of corporate action based on the fishermen’s traditional community structure in opposition to CGTU’s class syndicalism.

In his attempts to create alternatives to the growing proletarianization of the fishermen, Lebret criticized the long periods that the fishing industry required them to spend at sea, which kept them away from their families, parishes and communities for several months at a time.

In partnership with Ernest Lamort, Lebret organizes the first mixed “fishermen and ship owners” trade union, with members recruited from the Brittany coast, and sets up a school. The research pieces about the

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13 Vers une Economie Humaine, junho 2012 Caen.  
14 Lamparelli (1995)  
15 Ramos (2011) about the creation of an action group for urban planning; Roldan (2011) about Lebret’s experience in São Paulo between 1947 and 1958, Cestaro (2010); Virginia Pontual( 2012) about the creation of the Latin-American research network formed by Lebret. Since my first studies about the beginnings of urbanism in São Paulo, I have observed the importance of SAGMACS’ research in São Paulo’s urban planning.  
16 Lyste des principales analyses effectues personellement par Lebret or en liaison avec de 1929 a 1941 et par Le Centre Economie et Humanisme or en liaison avec lui 1943-1953. In the last handwritten page there are two research pieces from 1950 in Uruguay carried out by Tojar and Terra about the proletarian urban habitat in Montevideo and about the rural habitat in Rodriguez. 19860461 art. 84
fishermen’s living conditions and the fishing market provided the necessary support and technical bases for his proposals for social changes.

During Lebret’s lecture as *Aumônier-conseil du Secrétariat social maritime de Bretagne* at the Oceanographic Institute in Paris, the president of the Commission de la Marine Merchante at the National Assembly, Michel Geistdoerfer warned about the Dominican priest’s conservative political views. He argued that Lebret neutralized the unequal relations between fishermen and ship owners and failed to take into account artisanal fishing’s uncertain gains and long shifts. At that point, the Commission was fighting to create a fishermen’s trade union to mediate labor relations in favor of steady gains and fixed working shifts.

**The role of community studies in the creation of the Centre Economie et Humanisme: a regressive utopia?**

Although during the German occupation the Secretariat Social Maritime continued to operate in the occupied zone, Lebret created the new Centre Economie et Humanisme in the free zone in Marseille. Even though Marxist studies were the main research and study theme among the Center’s founders, Lebret changed the Center’s name from Centre d’études sur le marxisme to Centre d’études des Complexes Sociaux. According to Lebret’s close collaborator Raymond Delprat, this new denomination emphasized the Center’s political and ideological identity and gave it a broader scope. According to the association’s bylaws, elected lay members and Catholic theologians appointed by the competent authorities had equal participation in the board of directors. Two years later, on Lebret’s insistence, the Association received the official Dominican bylaws from the Order in Rome.

After more than a decade of activities, they went beyond the maritime world and started focusing on social problems, based on a deeper study of the economy and the formulation of a new type of humanism.

The first manifesto, from February 1942, outlined a broader field of action through the creation of study centers and schools both in France and abroad, the periodic publication of a magazine and the organization of conferences and exhibitions.

Deeply rooted in the turbulent war period, the communitarian utopia marked the beginning of studies and research at the Centre Economie et Humanisme. It was a source of original economic thought and of a type of political engagement separated from the traditional left-right divide.

It is possible to establish a relationship between the political and ideological framework of the period and the activities of the Catholic study Center. Initially, the Center was a venue for the debate and analysis of opposing ideas that sprouted during the training and research sessions.

The Association’s first Board included François Perroux, a Professor at the Paris Law School and a well-respected economist. In 1941 he published at the Presses Universitaires de France the Cahiers d’études communautaires series, for which he wrote the first issue Notre communauté. A year later he published Communauté under the same publisher and dedicated a few pages to Economy and Humanism under the title L’analyse de la communauté et théorie de la communauté – also the title of his course at the Paris Law School.

According to Pelletier, communitarian origins appear in the thoughts of both François Perroux and

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17 In Geistedoerfer (2012)
18 Published in the Journal Officiel de l’Etat Français on October 10, 1941.
19 Signed by three Dominican priests: Père Lebret, Père Marie-Reginald Loew and Père Marie-Fabien Moos and five laymen: Alexandre Dubois, Jean Marius Gatheron, René Moreux, François Perroux and Gustave Thibon. Manifeste d’Économie et Humanisme Revue Economie et Humanisme No Special février /mars 1942
20 Session de la Sainte Baume October 19, 1942; Session Propriété et communautés en Sainte-Baume September 1942 and Session l’ordre communautaire au Grand-Bornand in November 1943. Session Les besoins et la valeur May 26, 1944; Session d’équilibre humain mise au point de la sous-commission et Session Higiene et Urbanisme. September 7 and 8, 1945.
Gustave Thibon, a “philosopher peasant” known among catholic circles as the defender of the “communautes de destin”. The third lay member of the Board, agronomist Jean Marie Gatheron, had worked for the Agriculture Ministry and had just published a critique about the destructive effect of capitalist usury on organic communities. This trio was joined by Rene Moreux, a former Lebret collaborator who had taken part in the fishing sector’s reform.

In this heterogeneous circle, Lebret kept up with the catholic tradition but seeking a third alternative to capitalism and socialism. In the book L’ordre communautaire, published in 1943, he reaffirmed the idea of “family as a fundamental basic unit to be used as a model for the harmonious and hierarchic organization of the social body and space.” According to him, the family is both an autarchic community whose balance stems from the sharing of functions between its members and a community opened to the outside world, such as the hamlet, the neighborhood and the country.

According to Gustave Thibon, “destination community” means interdependence and reciprocal solidarity. He called himself a philosopher peasant and affirmed that the model to be followed was rural traditional communities, with their fair distribution of tasks and of the results of their work.

The debate about community, which at first was restricted to utopia, turned into practice. In the spring of 1944, in Ecully, they organized a community of lay and religious people who sought to survive on intellectual labor. They were inspired by BOIMONDEAU (Communautés des Boitiers de Montres du Dauphiné), a community of artisan clockmakers in the region led by Marcel Barbu.

In the fall of 1945, three of the Board’s most renowned intellectuals were forced to resign: Perroux, Thibon and Morreux. As a result, the Board’s new composition shifts the Center’s activities towards research and policy-making. The Centre Economie et Humanisme expanded its activities abroad, through the creation of new research laboratories in France and two years later, in Brazil.

Research about rural and urban habitat

During the post-war period there was a shift in focus and goals from the strong trade unionist content of the initial research pieces, such as that about dock workers in Marseille in 1941 conducted by Réginald Loew, or about the economic structure in small fishing communities coordinated by Lebret a year later. By then, they had already adopted certain research principles and instruments, such as registration methods and the use of charts that set out results and enabled comparisons.

On September 16, 1943, Lebret filed a Brevet d’invention at the Bouches du Rhône city hall. The purpose of the patent was a “statistical procedure for a quick assessment of a commercial establishment and industry or full knowledge about a person, animal or object, using a chart with lines irradiating from a central knot and divided according to an arbitrary scale”. The invention’s innovative aspect lay in the method used to display the results of the research, which went directly from research to recording the information and then to an overall view of the information gathered.

Detailed instructions about how to fill in the forms, accompanied by a Lexicon and researcher manuals helped broaden the use of this method.

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21 Bulletin de depot d’un brevet d’invention “Procédé statistique permettant reveiler très rapidement la marche d’un commerce, d’une industrie ou la connaissance complete d’une personne, d’un animal ou d’une chose” Fond Lebret art. 67
22 Economie et Humanisme Methode d’enquete Ecully (Rhone) 1944. Fond Lebret art. 81
In 1946, the Centre Economie et Humanisme signed a contract with the Ministère de la Reconstruction Urbaine, M.R.U to develop research in four cities. Raymond Delprat coordinated the research in Lyon, R. Levy and R. Loew in Marseille; A. Conon and D. Riboud in Saint Etienne and M. Michoud and J. User in Nantes. According to the Ministry’s contract, the research goals were “to determine habitats to be implemented; to identify physical defects and qualities; and to estimate and locate the needs of these cities’ habitats.”

A research piece into public policy aimed at helping MRU reconstruct those cities was a new challenge for the Center’s researchers. Using the successive approximation method, they selected around 1500 cases in each city and divided them into three series. The first series looked into 800 cases to establish the location of the various types of habitat. The second series analyzed 350 exceptional cases such as working-class neighborhoods, luxurious houses and slums. The third series covered 350 cases in one neighborhood. They managed to classify seven habitat categories, whose individual definition was based on a comparison with the immediately superior or inferior category.

This research resulted in a precise assessment of the dwellings that needed rebuilding in the four cities. Other researches about habitat23 followed. In 1945, the municipality of Marseille commissioned more research into habitat and a year later, they received a commission for a quick survey to detect dwellings with problems in Cannes and about insufficient housing in Metz. Based on these experiences, Lebret included in 1947 a preliminary survey in an analysis about São Paulo’s habitat.

**Human economy and applied sociology**

Catholics’ intellectual engagement in French society was fairly modest until the end of the Second World War. They only managed to recover their visibility in the inter-war period, upon establishing a double catholic and intellectual identity both in France and in other countries. Lebret, Perroux and Desroches took part in this experience to renew the Church’s social teachings.

During the first years of the Center, there were brief references to Frederic Le Play’s writings being indicated as reading material for the training sessions, especially his research on household budgets.24 According to Pelletier25, there were similarities between his works and Le Play and Lebret’s trajectories: both had catholic and rural origins and were born in small port towns. Both men had scientific training as engineers – the first in Polytechnic and Mines and the second, Naval. Both were great travelers and created, on the margins of university, a social science subordinate to immediate action. They created scientific models to understand society based on the natural sciences and used the catholic moral code as a basis for a so-called empirical analysis - the same emphasis given to the monograph research that establishes intimate knowledge of the object of study.

However, their research methods differed in several essential aspects: Economy and Humanism research stems from tension between qualitative and quantitative aspects, monographs and statistics. Le Play’s method, which is based on research about household budgets, tries to establish a typology of European families. He uses the inductive method to move from the particular to the general. In the opposite direction, Economy and Humanism research does not look for “types” of families. Instead, it confronts multiple case studies to analyze the causes behind the disappearance of communities. Raymond Delprat places Economy and Humanism

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23 Thirty one research pieces were conducted between 1947 and 1949 under different responsibilities.
24 Reginald Loew’s correspondence indicates that he asked Romeu Dale for a Le Play book and Romeu Dale’s correspondence to Lebret in 1941 shows him recommending it for the training sessions. Fond Lebret art. 101.
25 Pelletier (1996: 132)
between the doctrines of Le Play and Marx – the latter based on the confiscation of the means of production by the State. However, he considers the Economy and Humanism research method to be more complex than Le Play’s.\(^{26}\)

The community and Christian ideal of the Movement’s first phase is replaced with a lay movement both in France, during the research commissioned by MRU, and during the first research in Brazil. According to Pelletier, the ideal organized Christian family only exists in manuals, having vanished both from research and from the interpretation of the information collected by it. They also made adaptations to cities in different climates and economic conditions.

**Lebret’s first trip to São Paulo – the course at The Free School of Sociology and Politics and the preliminary survey about São Paulo’s habitat**

The initial goal of multiplying the study centers stated in the bylaws of the Centre Economie et Humanisme is also mentioned in the correspondence between Lebret and young Brazilian priest Romeu Dale, who was completing his Doctorate studies in Marseille. He initially referred to the possibility of opening Centers in French territory. When Dale visited him before returning to Brazil, Lebret foresaw a more ambitious expansion for the Association. “You shall build a Centre Economie et Humanisme first in Brazil and then in South America”\(^{27}\)

Romeu Dale met Father Lebret’s expectations by establishing the initial contacts for the latter’s trip to Brazil. He sent an invitation from Director Ciro Berlink for the Dominican priest to teach a course at The Free School of Sociology and Politics (ELSP)\(^{28}\).

Dale sent Lebret information about the School - “an institution connected to the University of São Paulo, which studies the morphology and physiology of human society without taking into account therapeutic studies to solve social pathology cases. This School was created by a Foundation with the purpose of gradually establishing a study and research center with the highest university- standards, so that in the future the School could be handed over to the University of São Paulo. The School is very interested in the possibility of Lebret teaching a course about Economic Policy – that is, a discussion about the main current economic problems and the remedies to treat evident defects in local society. The course will be taught in French and if he is unable to stay for a whole year, the School will be happy with a semester course from March 15 to May 31 or July 15 to October 30.”

The hiring of foreign professors was usual practice at ELSP at the time. In addition to Lebret’s Economy and Humanism course, a report about the first school year of 1947 mentions the hiring of visiting professors Túlio Ascarelli and Reverend Gregory Freige to teach a course about catholic education in the United States; and two female professors to teach English and French. The free course bylaws enabled the School to have more flexible criteria for student participation, even allowing students who had not graduated yet to attend post-graduate classes.

\(^{26}\) Fond Raymond Delprat art. 58.

\(^{27}\) “C’est donc au Bresil d’abord et en Sud amerique que vous allez avoir a constituer un Centre d’ Economie et Humanisme Marseille, 28 de Maio de 1942 Fond Lebret art 101.

\(^{28}\) Correspondence between Ciro Berlink and Lebret, April 12, 1946 Fond Lebret art. 101
The Economics post-graduate course had regular students and a larger number of special students.²⁹

In the course given between April 15 and June 6, Lebret taught the subjects that had engaged the members of the Economy and Humanism Center during a period of growing political and ideological polarization in Europe. The first five classes were about Marxism, another one was about Nazism and three were about Soviet planning. Lebret defended the creation of scientific bylaws for Economy and Humanism theory – the main theme of the course taught by him as of the thirteenth class, during which he explained in detail the research methods using the examples applied in France. The classes were later compiled into four volumes, which were the first attempt to summarize Human Economics as a practice and a theoretical response to the impasses of political economics³⁰.

Lebret conducted research parallel to the post-graduate course, a method adopted by other courses at the School for the training of researchers. "The preliminary survey to a study about housing in São Paulo"³¹ lasted until August 1947. It had been prepared in advance by Lebret, following his request for an information survey³². The documents in the research preparation dossier indicated the existence of a technical group specialized in housing in São Paulo.

A five-page lexicon called Habitat³³ had a detailed account of how to identify and qualify each dwelling based on external characteristics, which was then divided into seven categories.

The first test to apply the SAGMA method showed that some scales required changes. Information about heating systems was excluded, as these were not commonly used in Brazil, and replaced with information about floors. Different from French dwellings, the floors in a large number of houses in São Paulo were dirt. It was also necessary to introduce information about roofs, as many houses did not have a rooftop and several had rooms built directly on the roof.

The city of São Paulo was divided into 43 districts chosen as geographical bases. Research in each district was carried out according to the number of inhabitants and based on density per street block. In order to conduct research that was representative of each neighborhood in the city and proportional to the number of dwellings and inhabitants, a minimum of 1,257 interviews was required. However, due to Father Lebret’s limited time availability, the number of interviews was reduced to 500, which was considered insufficient for adequate representation³⁴.

Doctor Oscar Rezende Lima, alongside André Franco Montoro and

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²⁹ The list of regular students included: Amaral PA, Baptista Filho, O; Dale, J; Escobar Filho, C; Leme OF; Loewenberg, WJ; Lopes, EHM; Luna, ZB; Mariante, MC; Roldão, O; Rosa, MM; Scantimburgo, J. The special students list included: Abrão, N; Almeida DB; Assis, A; Assumpção LN; Barbosa, MA; Bernardini, O; Bridi, E; Calvo, A; Caropreso, Costa Frei AMA; D’Avila HS; Donozetti, JM; Ferreira, EC; Junqueira, OC; Franco, GC; Freitas, JM; Gasso PE; Mello Jr., FR; Meyer, R; Nazo, N; Neves, Frei LM; Penteado, JM; Reis, LC; Saab, Frei GM; Sampaio, AA; Sampaio, MM; Santa Cruz, Frei B; Turpin, JJB; Vampre, CC; Vasconcelos, LC.

³⁰ Pelletier presented a summary of the course in a footnote on page 101 which does not fully correspond to the index published in ELSP’s Year Book in 1947, page 133. A complete version of the course can be found in Fond Lebret art 146.

³¹ Published as a reprint of the archive’s magazine at the CXXXIX Departamento de Cultura São Paulo, 1951.

³² The Free School of Sociology and Politics. Human Economics. Rev. Frei Joseph Louis Lebret. 1947. These are the instructions in Portuguese for the research about housing in São Paulo. Edited by SAGMA on 22/10/1946. Graph key 8 pages.

³³ Edited by SAGMA in November 1946, with copyright.

³⁴ The number of dwellings in each neighborhood researched were: eight at Sé (researchers Maria Teresa Garcez and Maria Galvão Cardoso); 38 in Liberdade; nine in Santo Amaro; nine in Tatuapé; 14 in Vila Prudente; 17 in Pari (researcher Eladia Cesar);
Helena Iracy Junqueira, coordinated the research teams comprised of 40 researchers, including students from the Law School and from the Social Services School. Due to a shortage of researchers, the number of interviews had to be reduced in some neighborhoods. Additionally, it was impossible to find researchers for the more distant areas. Due to these circumstances, the research was qualified as a preliminary study or, according to Lebret, a preliminary survey.35

Before returning to France, Lebret supported the creation of a Center of Economy and Humanism and of a Society for Graphic and Mechanographic Analysis of Social Environment (SAGMACS) research laboratory. Based on the French model, the social research laboratory was organized through contacts with Luís Cintra do Prado – former director of the Polytechnic School; Dr. Freitas, director of the São Paulo Medical School; engineer Lucas Nogueira Garcez; and André Franco Montoro, general secretary of the São Paulo Catholic Action.

A research laboratory in waiting

SAGMACS started operating at the end of 1948, upon the arrival in São Paulo of its temporary coordinator Le Digou, a technical director sent by the Centre Economie et Humanisme. Le Duigou came with the purpose of investing the new laboratory with the role defined by the bylaws and recommended by Lebret. He was supposed to organize it independently from the Economy and Humanism Center - in other words, to carry out research that enabled the Center to achieve financial autonomy. With a lean structure comprised of the technical director and a secretary, the research teams were mobilized prior to each research piece and recruited among the Municipality’s Statistics Department or Culture Department.

Duigou’s36 report upon his return to France was not very encouraging. It showed diminished results, conflicts and growing fragility. This was also the opinion of young Dominican priest Benevenutto de Santa Cruz, who had been appointed to coordinate SAGMACS after Duigou’s premature departure.

Serviço Social Magazine commissioned serious research into the social problem of street children, which was well-conducted and interpreted by Le Duigou with help from his collaborators. It was also the only research at the time featured on Economy and Humanism’s reference list in France. This ambitious study used five different approaches to explain the diverse and complex possibilities behind child abandonment. They looked into 2,000 dossiers from the Children’s Registry Office, sent questionnaires to 15 schools in the capital and investigated child reeducation centers, homes and private and public schools. Finally, they also researched the situation of inmates at the São Paulo State Penitentiary. However, the publication

10 in Indianópolis; two only in Saúde; eight in Jardim America; 11 in Perdizes, 25 in Ipiranga, 32 in Bela Vista , 27 in Mooca, 13 in Bom Retiro (by Eladia Cesar), 28 in Lapa,11 in Osasco, 17 in Butantã , 27 in Cambucy, 17 in Santa Cecilia, 29 in Belenzinho 22 in Vila Mariana , only one in Santana, 16 in Consolação, 39 in Brás (researcher Eladia Cesar), 18 in Santa Efigenia (researchers Maria Aparecida Cardoso, Lia Severo da Costa and Lidia Silva Prado), 12 in Nossa Senhora do Ó; six in Vila Matilde and five em Itaquera.

35 According to him in a letter from December 9, 1950, addressed to Benevenutto, a proper survey would require three to four thousand inquiries. Fond Lebret art 101.

exposing the critical situation of abandoned children was forbidden from being distributed by the Cardinal of São Paulo, on the request of one of the Catholic institutions surveyed.

In the same period, SAGMACS conducted research commissioned by Father Helder Câmara about the material living conditions of the working class in São Paulo. In addition to gathering information and analyzing the everyday lives of the working man, this was the first attempt by Economy and Humanism to penetrate the militant Catholic Working Class Youth (JOC) and prepare it for action. This research yielded more promising results. They managed to mobilize 240 JOC members to carry out field research and the results were presented during the first week of the Brazilian Catholic Action. In addition to generating mutual benefits, the research carried out by SAGMACS with support from the recently founded JOC helped solidify the bases of both movements.

SAGMACS’ insertion in political circles, which at first was broadened by contacts in the Church ranging from the Catholic integralist movement to the Catholic Working Class Youth, started weakening after the controversial results of the research caused reaction from the institutions exposed by them.37

The laboratory’s precarious situation was aggravated by research into jockeys, conducted in return for a subsidy granted by the Jockey Club since the opening of SAGMACS, in July 1948. The brief six-page report, which revealed the jockeys’ terrible working conditions and proposed a series of improvements, was not well-received and the laboratory lost its financial support.

Development – the construction of the concept

In 1949, the Church’s political radicalization had a direct effect on the Centre Economie et Humanisme in France. The publication of Pope Pio XII’s Decretum against Communism announced the decision to excommunicate Catholics who collaborated with communism and socialism. It also exposed the Church hierarchy’s difficulties in dealing with the ideological conflicts of the religious orders and to grant a space to laymen’s theological thoughts.

These measures had a negative effect on the Centre Economie et Humanisme. Louis Joseph Lebret and Henri Desroches’ communitarian project to unite the religious and lay under a proposal of political and social transformation met with strong reservations. Some members submitted to the new precepts, while others like Henri Desroches abandoned the Order. This political and ideological crisis had deep repercussions on the Center’s survival in France.

The need to find other countries to expand the Center’s scope of action is clear in the correspondence between Lebret and his collaborators in Brazil38. However, this time they also needed to find contracts to help support the Center’s structure in France.

This opportunity materialized with the election of Lucas Nogueira Garcez for the São Paulo government39. In a letter to Benevenuto de Santa Cruz, Lebret describes a recent meeting

37 Fond Lebret art 101{ antigo 104}, apud Pelletier, Denis, 1996, opus cit , p 299.
38 The correspondence includes a letter from Lebret to Romeu Dale about the need for financial resources for the Centre, in December 1950; Letter from Lebret to Dale about the possibility of research. Fond Lebret art 101.
39 Letter from Benevenuto to Lebret telling about Garcez’s election and the possibility of a research in November 1950; Letter from Gerveisau to Lebret in October 1951 about research in São Paulo; Letter from Gerveisau to Lebret about the Parana Uruguay Basin, December 2, 1951; Letter from Garcez to Lebret about the possibility of him coming to São Paulo on January 4, 1952. Fond Lebret art 51.
in Paris with the new governor. Despite having reservations about the political alliances that got Garcez elected, Lebret proposed to the former “equipier” a study about the needs and possibilities for the São Paulo State\textsuperscript{40} population. This would be research with intervention proposals.

However, Lebret was still forbidden from returning to Brazil. The themes of his course at The Free School of Sociology and Politics and his public opposition to the closure of the Brazilian Communist Party (PCB) in 1947 led to him being forbidden from returning to Brazil, both by the Dominican order and by the Archbishop of São Paulo. The veto was only suspended after an intervention by Dom Helder Câmara and Josué de Castro. However, Lebret was still forbidden from attending gatherings and giving lectures or courses. Research was the only activity permitted on his return to Brazil and he had prepared it with the same care dedicated to the housing survey. With support from Lucas Garcez, who had lent two assistants for data collection, Gerveiseau coordinated the compiling of information. He was particularly interested in a study about regional divisions in São Paulo State, carried out by Pierre Monbeig and published by The Brazilian Geographers Association. He wrote to the geographer to schedule a meeting near Strasbourg, where Monbeig taught at the Geography Institute of the Language Department\textsuperscript{41}.

Upon returning in 1952, Lebret took part in research in Rio de Janeiro about the living conditions in 34 Brazilian cities, coordinated by Josué de Castro, a consultant at the Social Welfare Committee. The questionnaire was based on the Economy and Humanism model and Father Lebret was put in charge of writing an interpretation chapter. This report was published in 1954.

The importance assigned by Lebret to Pernambuco-born doctor Josué de Castro’s ideas was manifested in complimentary references\textsuperscript{42} to the doctor’s texts published in the Economia e Humanismo Magazine, soon after the publication of the book Geografia da Fome (The geography of hunger). Against the prevailing thought at the time, which persistently portrayed Brazil as a promised land of plenty where nobody starved, Josué de Castro’s studies revealed the country’s harsh reality and strong inequality.\textsuperscript{43} Our hypothesis is that this experience contributed towards Lebret’s perception about the differences in each region in Brazil, taking the populations’ living conditions as a starting point. This was the both the starting point and the basis for the formulation of economic and social policies for each region and city.

After being drawn to study closely the development problem in Brazil through a systematic analysis of collective living standards in homogenous zones, I managed to establish some general conclusions that are bound to draw the attention of economists, sociologists and politicians. Brazil looks like a privileged territory for the study of development, both for its geographic dimension - which enables the contiguous coexistence of regions with different stages of development - and for the

\textsuperscript{40} Sent from La Tourette on December 9, 1950 “as Lebret was away, he chose not to comment on Brazil’s political situation regarding Getulio Vargas’ support for Garcez’s election. He recalls his initial adhesion to the Brigedeer, followed by the disappointment caused by his alliance with the Integralists.” Fond Lebret art 51.

\textsuperscript{41} Fond Lebret art. 51 Pasta Bresil

\textsuperscript{42} “It is necessary to read Josué de Castro’s book, Geografia da fome, whose first volume “A fome no Brazil” (Hunger in Brazil) was published in 1946, O Cruzeiro Rio de Janeiro printing company” in Lettre aux américains”.

\textsuperscript{43} According to Antônio Cândido, the two books Geografia da Fome (1946) and Geopolítica da Fome (the geopolitics of hunger) (1951) became classics and were translated into several languages.
quick development pace in certain nodal areas such as São Paulo or Rio Grande do Sul states. Brazil’s territory has developed areas, developing areas, autonomous developing areas, controlled developing areas and underdeveloped areas.\textsuperscript{44}

The trip to Brazil created an experimentation field where Lebret utilized the research tools he developed during the training sessions. In the latest session about Amenagement du territoire\textsuperscript{45}, the talks were focused on a concept combining territory valuation (\textit{mise en valeur}) and order (\textit{aménagement}) with various experience descriptions and the presentation of the field research instruments. Its outlook combined economic aspects with human valuation and the formulation of intervention policies.

This concept appears in the first study Lebret developed for the São Paulo State government. The preliminary survey commissioned by Garcez about the State’s development possibilities was conducted by Lebret over June to August 1952 with the help of Benevenutto. After six weeks of what he called “global contact with the State”, a plane flight over the territory and interviews with local personalities, he drew up a 64 page report.\textsuperscript{46}

The trip itineraries were an indication that Governor Lucas Nogueira Garcez’s goals were more ambitious and extended beyond São Paulo State.

The first recognition trip to Vale do Paraíba was taken on a small plane to Volta Redonda for a visit to the steel works. In the second trip they went from the West of São Paulo State to the North of Parana, flying over the Bauru, Marilia, Tupã, Londrina, Maringá and Ourinhos mountain ridge. In the third trip back to São Paulo they went to Ribeirão Preto and Guaíra.

The fourth and longest trip was on a commercial plane. They started off from Curitiba towards the coast between Paranaguá and Cananeia. They drove to the German colonies of Joinville and Blumenau. Again they flew on a commercial plane, to Porto Alegre then to São Leopoldo, taking the route between Porto Alegre and Foz de Iguacu, Aquariama and Londrina. The fifth and sixth trips were in a car around Campinas, then to Botelhos to visit the bauxite mines. The last trip was on a commercial plane to Belo Horizonte and Rio de Janeiro, including a visit to the Sabará steel works.

This study made economic development proposals based on a new regional division and on the revamping of municipalities. The report draws attention to São Paulo’s anarchic growth and recommends agrarian structural reform.

This first mission was well-received by the government and confirmed the need for regional studies.\textsuperscript{47} The method adopted would be used as a model for future research, combining analysis of the economic conditions and standards of living with the needs of the urban and rural populations from 64 municipalities in the State.

This was the first step towards a series of new research pieces in other Brazilian states, using the same method and approach. They were applied to another research piece commissioned by CIBPU about the standards of living in the rural areas of Paraná state; and to a study about the development and industrialization

\textsuperscript{45} Session de formation Aménagement du territoire, La Tourette, septembre 1952 Centre Economie et Humanisme
\textsuperscript{46} “Conclusions provisoires du voyage d’études effectué par L J Lebret et B Santa Cruz a la demande du gouverneur de São Paulo (1er juin 31 aout 1952)” 64 p. Fond Lebret art 102.
\textsuperscript{47} SAGMACS (1954)
conditions in Pernambuco State and the Northeast.\(^48\)

The research carried out by the SAGMACS teams and coordinated by Lebret were in line with the overall logics of the period, which proposed development and intervention by the public powers in the economic management of the states. However, there was an important distinction: the inclusion of research about the population’s living conditions introduced a social perspective of valuing the human aspect and a perception about the structural differences between the regions. In order to eliminate complementarity and dependence between the regions’ development stages, it would also be necessary to eliminate the agrarian and archaic structures in Brazilian society.

**Archives**

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“Education for all”: Anísio Teixeira’s *Plan for Educational Buildings in Bahia* (1947-1951)

Nivaldo Vieira de Andrade Junior

1. Introduction
This paper presents and analyzes the *Plan for Educational Buildings* conceived and partially executed in the State of Bahia, in Brazil, between 1947 and 1951, under the coordination of the educational reformer Anísio Teixeira. The *Plan for Educational Buildings* is one of the most complete educational programs ever conceived in Brazil.

The schools designed and built as part of the *Plan for Educational Buildings*, developed according to the innovative pedagogical project conceived by Anísio Teixeira in the Secretary of Education and Health of the State of Bahia between 1947 and 1951 correspond to a sophisticated and multifaceted network of educational buildings which establishes a complex and unique relationship between educational reform, social policies, urban and territorial planning and modern architecture. In the case of the most important achievement of the plan – the *Carneiro Ribeiro Educational Center* – we should add the theme of modern art integrated to architecture and its educational role.

2. The educational reformer Anísio Teixeira
When he was only 25 years old, in 1925, Anísio Teixeira (1900-1971) was invited by Governor Francisco Marques de Goes Calmon to be the General Inspector of Education in Bahia. During 4 years of intensive work, Teixeira reorganized the educational system in Bahia, extended the number of children in school in 67.8% and expanded the investment in education in Bahia from 4.55% to 8.47% of Bahia revenue. Even with these achievements, in 1929, when he left the position, the situation was still critical: only 20.54% of Bahia population completed or was in the elementary school, while in São Paulo there were 60% and in Rio Grande do Sul, 73% (TEIXEIRA, 2001, p. 01-10).

During the time Teixeira occupied this position, he has been twice in the United States. In the first one, in 1927, he stayed there for four months and studied the United States educational organization. After receiving a scholarship, he made a second trip, this time to New York, where he stayed between June 1928 and July 1929. He obtained the title of Master of Arts at Columbia University’s Teachers College, where he met the pedagogical ideas of the philosopher John Dewey, who was his professor and would change his vision on education.

Also in the United States Teixeira meets the *platoon* system, that was then in use there and was based in the separation of subjects on two large groups – or *platoons*: the “home room subjects”, which were the compulsory subjects in elementary school, and the “special subjects”. A *platoon school* for 960 students, for example, had 12 “home rooms” for 480 students and, for the other 480 students, 12 “special rooms” such as auditorium, gym, music room, arts room, reading room, library, geography room, recreation space and room for manual arts. Daily the students had four turns of 90 minutes each for the compulsory subjects and 12 periods of 30 minutes each for special activities.

After returning to Bahia in July 1929, Teixeira presented to Vital Henrique Baptista Soares, governor since 1928, a plan for the reorganization of Bahia educational system, but Soares didn’t
accept it, alleging it was economically unfeasible. Realizing he had no support, Teixeira left the position in November 1929 (GERIBELLO, 1977, p. 24-27).

Between 1931 and 1935, Teixeira occupied the position of General Director of the Department of Education of the Federal District, at Rio de Janeiro, and finally had the opportunity to develop and implement, though only partially, an innovative educational plan, whose guidelines would be the same he adopted in Bahia more than ten years later.

In the “Plan for the year 1942”, published in 1935, Teixeira developed an educational system from the elementary education to teachers education and rural school, defending “the artistic education of the child (...) against the traditionalism in which the strictly useful education from last century had immersed” (TEIXEIRA, 1935, p. 115). Teixeira’s plan proposed a full time educational system:

In the first shift, in an appropriate and economic building, the child would be strictly ‘taught’; in the second shift, would receive, in a developed and structured educational park, his social education, physical education, musical education, sanitary education and alimentary assistance.

So, there would be two different categories of educational buildings that would be complementary and harmonized, composing a complex that could be compared to the most modern schools in the world (TEIXEIRA, 1935, p. 199).

The plan had five different types of schools, from the minimum type, with two classrooms and a room for atelier and workshop, to the Platoon, with 12 classrooms, a library, an auditorium, industrial arts workshops and special rooms for drawing, music, recreation, games and sciences. Between 1934 and 1935, 28 school buildings were built in Rio de Janeiro: only one park-school, also called playground, while the rest included two minimum type schools, twelve nuclear type schools with 12 classrooms, five Platoon type schools and five expanded Platoon type schools (with 16 or 25 classrooms) (DÓREA, 2003, p. 95-97).

With the arrival of Estado Novo dictatorship in 1937, Teixeira – supposedly a communist – was, more than ever, unable to implement his revolutionary educational ideas and returned to his home town, Caetité, where he started, with his brother, a business on mining until 1946, when he would transfer to Paris after being invited to be an Education consultant to the newly created UNESCO.

The election of the democrat Otávio Mangabeira to the Bahia State Government, in 1946, represented a breath of hope to the population of Bahia. One of the most notorious opponents to the Estado Novo dictatorship (1937-1945), Mangabeira was exiled in France between 1930 and 1934, arrested between 1937 and 1938 and exiled again, now in the United States, until 1945. After his election, Mangabeira invited to occupy Bahia’s Secretaries some of the most important intellectuals and managers in each area. Anísio Teixeira was chosen to be the Secretary of Education and Health of Bahia.

When he took over the charge of Secretary, in 1947, Teixeira felt that “everything was in the same conditions as if we were a country which had been devastated by a lost war”. The largest problems were the “difficulties of people and resources” and the “spirit of discourage and disincentive that was installed in everything”. Teixeira realized that dozens of schools were
started to be built 15 years before and were not finished yet, but were already in ruins (TEIXEIRA, 1952, p. 04-05)\textsuperscript{49}.

The most important newspaper of Bahia, A Tarde, wrote in July 18th 1946 that

If there’s a sector in Bahia State public administration where there is little or no efficiency it is education. […] Closed schools, schools with no teachers, no material, are found in every district and county. Hundreds of children grown and develop in a context of analphabetism. The schools found by the reporter are, usually, characterized by groups of boys sit in rude benches and even in kerosene boxes with their books over theirs legs, looking straight to a fly that passes by or any animal or vehicle that crosses the road. The teacher, by its turn, is there only physically, because her spirit thinks in something more enchanting, her fiancé, her boyfriend, her family. Teaches for teaching and no more – and lives day and night dreaming with her vacations or any kind of license.

(ESCOLAS…, 1946, p. 2).

After the first ten months in the Secretary, Teixeira would alert the Governor about what he called the “educational regime of laissez-faire”:

The Bahia State Educational Servisse is made of a group of elementary teachers settled in cities or dispersed in villages and small cities, almost all without buildings, installations or technical, moral or even administrative assistance, a group of secondary teachers distributed on three or four pavilions of the same secondary institution, and three institutes for education of elementary teachers, only one of them with the correct installations, but unacceptably transformed in a confuse secondary school (TEIXEIRA, 1948, p. 1).

3. The Building Service of the Secretary of Education and Health (SOSES) and its Plan for Educational Buildings of Bahia

To face the problem of planning, designing and building hundreds of schools in the large territory of Bahia\textsuperscript{50} in only four years, as well as reform and maintain the existing schools, Teixeira created and structured, as soon as he took over the function, the Building Service of the Secretary of Education and Health (Serviço de Obras da Secretaria de Educação e Saúde – SOSES).

The SOSES was formed by a group of young engineers, newly graduated from Bahia Polytechnic School, and was coordinated, until February 1948, by Fernando Sant’Anna; from then until January 1951, when Mangabeira and Teixeira left their functions in the Government, Hildérico Pinheiro de Oliveira was the coordinator. The architect Diógenes Rebouças was in charge of all building designs.

The SOSES’ aim was, in the first moment, to develop a Plan for Educational Buildings of Bahia, defining the location of each of the rural schools that would be built with Federal Government

\textsuperscript{49} The author is responsible for all translations from Portuguese to English.

\textsuperscript{50} Bahia’s total area is 564,000 square kilometers. Just to have a reference to compare: Spain’s total area is 504,782 square kilometers.
capital, as well as defining types and location for the rest of the school buildings that would be built in Salvador\(^{51}\) and in many other cities with capital from the State of Bahia Government.

In a second moment, this same technical team would be in charge of designing and building those schools. To assure “a roof for each school”, the plan should foresee

[...] a comprehensive elementary school for each Municipality seat, a nuclear school for each other district in the Municipality, a minimal school for every village and penetration schools for the population disperse in rural zones, as well as the regional nuclei of high school, professional and normal education, with their multiple buildings (normal school, elementary school, high school, with pavilions for the commercial, domestic and industrial classes, boarding schools, as dorms in the American universities, as well as buildings for social and cultural activities) (TEIXEIRA, 1948, p. 15-16).

Hildérico Pinheiro de Oliveira informs about the difficulties faced by SOSES team:

Many reasons concurred to complicate the program development. In the whole State of Bahia, there were only 7 kilometers of paved road, so it was really difficult to reach the sites where the schools had to be built. Other difficulties were the availability of the materials that were necessary to guarantee a minimum of durability to the buildings, the absence of industrialized materials that were needed, as well as the absence of qualified workmanship and the discontinuity of the existing one, as a consequence of the plantations, difficulties on regular inspections which, for the distances and costs of transportation, would spend the largest part of the financial and technical available resources, what wouldn’t be accepted. (OLIVEIRA, 1988, p. 32-33).

To find solutions to those difficulties, taking under consideration the existing terms and financial limitations, Fernando Sant’Anna told us that, when he was invited by Teixeira to coordinate SOSES, he focused first on planning the whole process, from the definition of the location for each school to the process of building them. Sant’Anna divided the 150 counties that Bahia had at that time in ten regions, and each one of them was put under the responsibility of one engineer from the SOSES team.

To face the precariousness of the “roads” at that time, each engineer “had a jeep and a driver to go everywhere”. Inside its region, the engineer was responsible for contacting local mayors, for choosing, “with the most influent people in the city, the mayors and others, the best place to build the school” and for guiding workmen about how would the schools be built, because, for obvious reasons, “the engineer couldn’t stay at the site”. The daily inspection of the site, including the payment of workmen with capital from the Secretary of Education and Health, was in charge of a commission formed by three representatives of local community “that were really capable” and “which were seen by locals as their best people”.\(^{52}\)

Hildérico Pinheiro de Oliveira wrote that local commissions “didn’t receive any payment” and that, among the guidelines defined to reach SOSES targets, there were:

- the use of building materials easily found at the site, avoiding the need to import workmen and additional costs for transportation; acquiring, in larger centers of production, to be distributed in the working sites, of

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\(^{51}\) Salvador is the capital and largest city of the State of Bahia and was the first capital of Brazil.

\(^{52}\) Information obtained from an interview made by the author to Fernando Sant’Anna in 16 August 2010.
every industrialized product needed in the buildings, such as frames, inks, sanitary ware, wire, etc. (OLIVEIRA, 1988, p. 33).
The elementary school building designed by Diógenes Rebouças to materialize the system conceived by Anísio Teixeira for the cities of Bahia would add another innovative aspect: the adoption of a basic module and the concept of “extendable building”, i.e. the possibility of, by means of successive enlargements already previewed in the original design, a tiny school could continue to serve the demands of cities in a continuous and accelerated process of population growth.

In terms of program, the educational system adopted in Bahia since 1947 corresponds to a development of the platoon system, conceived by Teixeira in the early 1930s, when he occupied the same Secretary in Rio de Janeiro. Rio’s experience, by its turn, was based in the American platoon system he met in the United Stated in the late 1920s.

In architectural terms, however, the extendable school differs from platoon system not only for presenting this important innovation but also for adopting traditional building technologies and more modest formal solutions, as a consequence of the scarcity of modern materials and qualified workmen in most of the cities of Bahia where those schools had to be built.

The elementary school building conceived by Teixeira and Rebouças should be built in the villages of Bahia with population between 400 and 10,000 inhabitants. The school would be designed and built from a basic module of 1,25 meter, chosen “after studying the conveniences of standardization in areas, frames, etc.”. The classrooms would have, in every situation, 66 square meters, and the result would be, in Teixeira words, “an architecture of great simplicity, and which could use any building material, even mud bricks, which would work as huge supporting columns” (TEIXEIRA, 1950, p. 10-11).

The starting cell of the extendable school building was the Minimum School (EM), conceived for “tiny villages, where there is only space to the isolated school” (TEIXEIRA, 1949, p. 19). The Minimum School corresponds to the “simple roof to the school. […] A building of such simplicity that doesn’t even have windows. Is a classroom with half walls and a door. Around it, a small covered area. Beside it, the minimum sanitary installations” (TEIXEIRA, 1950, p. 10). The Minimum School would be settled in a parcel of one hectare; at least one Minimum School should be built in each of the 3,000 villages of the State of Bahia and, with the village’s future population growth and the consequent demand for new classrooms, it could be progressively extended to two, three, six, twelve or fourteen classrooms.
In most dense villages, should be built a **Nuclear School** (EN), with three classrooms – one for each of the three first years of Elementary School, as well as the school principal room, a library, the janitor house and a covered recreation area (TEIXEIRA, 1950, p. 10).

The **Medium School Building** (GE-6) would be built in small cities and would offer six classrooms, “administration room, a good library, spaces for the school clubs, auditorium, special rooms for drawing, industrial arts and sciences, as well as large covered recreation areas” (TEIXEIRA, 1950, p. 10-11).

The **Complete School Building** (GE-12), with fourteen classrooms, would be built in most populated cities and would house the same spaces as the **Medium School Building**, as well as “six classrooms for the elementary education, two classrooms for preschool, a gym, a canteen, a theater, an adults information center, etc.” (REVISTA FISCAL…, 1949, p. 125).

According to Teixeira (1949, p. 19), the **Complete School Building** would be “in conditions of, after all, allowing the five years Elementary School to operate regularly, as well as offering a recreation and cultural center to whole community”.

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Fig. 01. *Minimum School* in Tijuco village, Municipality of Cipó. Source: Accioly Vieira de Andrade Family Collection.
Fig. 02. Nuclear School model. Source: REVISTA FISCAL..., 1949.

Fig. 03. Medium School Building model. Source: PREFEITURA..., 1954.
In 1950, three of the extendable school buildings conceived in the *Plan for Educational Buildings* were operating\(^{53}\), 47 were under construction and 20 had been started, in a total of 70 buildings. Among them, 40 were built or were being built exclusively with capital from the State of Bahia Government, while the remaining 30 were built or were being built as a part of an agreement between the Ministry of Education and Health and the State of Bahia Government, with capital from both.

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\(^{53}\) The three school buildings that were in function in 1950 were the *Nuclear School* in the village of Cabeças, in the Municipality of Muritiba; the *Nuclear School* in the village of Bonfim, in the Municipality of Feira de Santana; and the *Medium School Building* with five classrooms in the village of Itagi, in the Municipality of Jequié.
Of the 70 educational buildings that were built or were being built, 49 corresponded to *Nuclear Schools* with three or, exceptionally, two classrooms; 15 were *Minimum Schools* with only one classroom; 4 were *Medium School Buildings* with six classrooms; and only 2 were *Complete School Buildings* with twelve classrooms. (BAHIA, 1950, p. 29-34).\(^{54}\)

Regarding high school education, the problem was even worse, in Salvador and in the whole State of Bahia. Outside Salvador, there were only a few High Schools and Normal Schools in the State of Bahia and those, even when owned and run by privates, depended on public grant aid to operate.\(^{55}\)

So, an important challenge was to “generalize the access to high schools, distributing them uniformly over the State of Bahia and creating a unified system in which every Municipality could participate” (BAHIA, 1950, p. 36). The organization of the State of Bahia in ten educational regions, made by Teixeira, Fernando Sant’Anna and their team in order to make possible the construction of the rural schools, was also used in planning a solution to the serious problem of High School Education in Bahia. Each of these ten educational regions would have its center in a Municipality already consolidated as a regional center, which would host a *Regional Educational Center* (CRE), “offering high school education on general and professional approaches, as well as on educating teachers, and it will be the nucleus for cultural diffusion in the whole region” (REVISTA FISCAL…, 1949, p. 133).

This architectural complex, also designed by Rebouças, is formed by a few pavilions distributed in a large park, each of them housing part of the program and working like an school campus: normal school (teachers education), elementary school (annex to normal school), library, administrative building, cultural center with a theater, a general services building with a restaurant, boarding school, gym and houses for the school principal, for teachers and for employees.

Except for the pavilions whose program demand a specific shape, such as the cultural center with the theater and the gym, every pavilion has a similar horizontal shape. With grant aid from the Ministry of Education and Health, the State of Bahia Government started, in 1950, the building of high school pavilions in the *Regional Educational Centers* of the cities of Barra, Caetité, Feira de Santana, Itabuna, Juazeiro and Vitória da Conquista, as well as the building of the normal schools of the cities of Itaberaba and Jacobina (BAHIA, 1950, p. 37).

On the other side, Salvador also needed a larger number of high schools to supply its own demands and also other cities of its region. Thus, a target to be reached was the “uncrowding the official institutions” – the *Colégio da Bahia* (High School of Bahia), located by the Monastery of Our Lady of Lapa, in the neighborhood of Nazaré, and the *Instituto Normal da Bahia* (Normal School of Bahia), in the neighborhood of Barbalho:

> In education, as in any other human service, the preliminary condition is that of the appropriate space and installations for those who will benefit from it. And the number of those is in strict relation with that space and

\(^{54}\) The two *Complete School Buildings* that were under construction and which were opened to public some time later were located in the cities of Santo Amaro and Nazaré, both built only with capital from State of Bahia Government.

\(^{55}\) A document titled “O Ministério da Educação e Saúde e a Bahia na Gestão do Ministro Clemente Mariani 1946-1950”, found in Clemente Mariani Collection at the Fundação Getúlio Vargas Center for Research and Documentation informs that, in 1949, the Ministry of Education and Health had financially aided private high schools in the cities of Amargosa, Barra, Bonfim, Barreiras, Campo Formoso, Feira de Santana, Itabuna, Jequié, Jagaquara, Nazaré, Remanso, Salvador, Santo Antônio de Jesus and Vitória da Conquista (CMa mes d 1950.00.00, doc 1).
those installations. If we congest a palace, the palace will be transformed in a confuse and disorderly camping. That’s what happened in the Instituto Normal. With a building exceeded in its capacity and teaching reduced to a minimum schedule, there is a paradoxical waste of the building and the misuse of its installations resulted in the loss of educational efficiency (TEIXEIRA, 1948, p. 3-4).

Teixeira had decided that the first and largest of the ten Regional Educational Centers would be installed in Salvador, to serve the capital city of Bahia and also the neighbor Municipalities. As it was not possible to build sufficient annexes to the Colégio da Bahia, settled in a consolidated and crowded urban area, and aiming to promote decentralization, in Salvador territory, of those demands, Teixeira and Rebouças decided to divide the Colégio da Bahia in some neighborhoods: they proposed the creation of Colégio da Bahia sections in the neighborhoods of Nazaré, Lberdade, Itapagipe, Brotas and Garcia (MAIS DE…, 1949, p. 2).

The management center of this network would remain in the original Colégio da Bahia, in Nazaré, which would schedule exams, issue certificates and register students and transfers from the sections. That’s why the ancient Colégio da Bahia changed its name to Colégio Central da Bahia (Central High School of Bahia), which it maintains until our days.

The first two sections of Colégio da Bahia were created in 1948, in Nazaré – in about a distance of one kilometer from the Colégio Central da Bahia – and in Lberdade; both used existent buildings. The section of Itapagipe, by its turn, was built in the early 1950s in Avenida Beira Mar, in Ribeira neighborhood, and apparently corresponds to the partial adaptation of many architectural designs made by Diógenes Rebouças to SOSES.

With the creation of the neighborhood sections of Colégio da Bahia, the Instituto Normal building, in Barbalho neighborhood could return to its original role of educating teachers for elementary school.

The design developed by Rebouças for the neighborhood sections of Ginásio da Bahia in Salvador where pretty much the same of the design he made for the high schools that would be built as part of the Regional Educational Centers in other cities of Bahia, such as the ones whose construction started in January 1950 in the cities of Barra, Caetité, Feira de Santana and Juazeiro (REVISTA FISCAL…, 1949, p. 134-135).

Amongst the neighborhood sections of Ginásio da Bahia that were conceived by Teixeira and Rebouças, we should highlight the non-built section of Garcia. About it, Teixeira informed Governor Mangabeira, in his activities report for 1949:

> It will be the first school in the city whose installations will allow it to offer secondary education in every type and category, from high school to technical-industrial school. Annex to it, there will be an elementary school, which will be the stat to the second educational center in Salvador. When finished, it will be connected to Castro Alves Theater (TEIXEIRA, 1949, p. 17). \(^{58}\)

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56 The section of Lberdade was installed in the ancient Duque de Caxias School, opened in 1939 and which later rescued its original name, maintained until our days. The section of Nazaré occupied a building donated to the State of Bahia Government by former Governor Severino Vieira and today corresponds to the Severino Vieira School.

57 The section of Itapagipe corresponds today to João Florêncio Gomes High School.

58 The Castro Alves Theater is the most important theatre of Bahia and one of the most important theaters of Brazil. It started to be built by Mangabeira, in 1948, following a program conceived by Anísio Teixeira and a previous study by Diógenes Rebouças. It was meant to be not only a theater, but also an...
4. The Elementary Educational Centers for Salvador: the Carneiro Ribeiro Educational Center

In Salvador, the problems of elementary education were pretty different from other cities of Bahia:

Here we have an already built city, without the necessary free areas to receive the needed educational buildings, although, like in other cities, there’s a whole educational system to build. Besides that, the system of shifts (the same building houses two schools, one in the morning and other in the afternoon) has created a part-time school, with an excessive short shift to perform the elementary education of a child.

The lack of areas sufficiently spacious to receive complete school buildings and the habits of the teacher of only working in one shift, i.e. four hours, led us to conceive an special system of schools, in which a building would house the regular classes and other or others buildings would shelter physical, artistic, social and pre-vocational activities. That’s how was born the educational building we call class-school (escola-classe), housing only classrooms and spaces for the teachers, and the educational building we call park-school (escola-parque), including rooms for music, dance, theater, clubs (artistic and social education), drawing and industrial arts rooms (pre-vocational education), gym and boarding school, library, restaurant and general services (TEIXEIRA, 1950, p. 11-12).

The system of elementary education conceived for Salvador by Teixeira was based in school complexes called Elementary Educational Centers – or, as he preferred, Popular Centers for Education – for up to 4,000 students. This system rescued an idea conceived by Teixeira in the 1930s in Rio de Janeiro and which was he never able to accomplish: a network of schools made of four class-schools and one park-school.

Each class-school would have 12 classrooms and serve a total of 1,000 students (500 in each shift), being built in a parcel of around 1,200 square meters; the class-schools would offer “classes of letters and sciences, with rooms for the administration and social areas” (TEIXEIRA, 1948, p. 15). Park-school, by its turn, would receive in each shift all the 2,000 students that had been, in the opposite shift, to the class-schools. Each child would spend eight hours in the educational center every day, where he/she would also be offered every meal for free (TEIXEIRA, 1959). To facilitate the displacement of the children from the class-school to the park-school, the distance between them couldn’t be superior to 500 meters.59

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59 “Educational Center for Theatrical Art”, with laboratories for teaching actors, musicians, dancers, scenographers, costume designers, etc. Its construction was finally finished in 1967, after many issues, such as a five years abandon of the construction site, the adoption of a new design and a fire that destroyed almost the entire building five days before its opening. It’s one of the most relevant modern buildings in Brazil and has been listed as a National Monument in 2013.

59 That’s not what happened in the only Elementary Educational Center built in Salvador, in Caixa d’Água neighborhood, in which some class-schools are within a distance of 1.2 kilometers from the park-school. The three class-schools opened in September 1950 were built in parcels with areas between 3,400 (Class-School I) and 12,000 square meters (Class-School II) – i.e. even ten times larger than the originally intended area of 1,200 square meters.
The 2,000 students that would be in the *park-school* at the same time in each shift would be divided in groups of 650 to 700 students in the three sectors of activities: social and artistic activities, working activities and physical activities. The social and artistic activities sector of *park-school* would house a theater and music, singing and dance rooms; the working activities sector would correspond to a complex of ateliers; and the physical activities sector would include a gym and rooms for other classes like karate and *capoeira*.

Besides that, *park-school* would have a restaurant that would be able to serve 2,000 students, a library for 300 children, an open air theater, two dormitories for 100 children each – one for boys and the other for girls –, a general services building and as administrative building.

The dormitories had an important role in the political project of social inclusion conceived by Mangabeira and also in Teixeira’s pedagogical plan, in which homeless children should have the same opportunities as the others. For Teixeira, “children appropriately called abandoned, without parents, […!] won’t be anymore the unhappy guests of sad orphanages, but the inhabitants of *park-school*” (TEIXEIRA, 1959). Thus, 5% of the students of the *Elementary Educational Center* would be in boarding school, living inside *park-school* (TEIXEIRA, 1950, p. 12).
According to Teixeira, *class-school* would be responsible for schooling the child, but it would be in park-school that he would be educated, in terms of social relations, of intellectual and artistic culture, of physical education and of professional formation.

For Teixeira, there were many advantages on these complexes formed by one *park-school* and four *class-schools*: it was a solution to the problem of obtaining huge areas for the schools, as only *park-schools* needed larger parcels, while *class-schools* could be built in smaller plots – easier to be found in consolidated urban areas; the duplication of the time spent by students in the school, if we add the four hours in *class-school* - “at all insufficient to the elementary education” – to the four hours spent in *park-school*; the “easiness of educational renovation”, as teachers at *class-schools* and each of the activities performed at *park-school* would have different formations and profiles; and the “enrichment of education and of the child school life, with inestimable benefits for his social education, for his health education and for the frequency and stability of students as a social group” Beyond that, Teixeira saw in this system the “opportunity to perform a renovation on educational architecture, dividing the functions of school and the larger unit of each type of building or buildings” (TEIXEIRA, 1948, p. 15).

After Teixeira had defined the pedagogical project and the program for each of these *Elementary Educational Centers*, the engineer Paulo de Assis Ribeiro, from Rio de Janeiro, was in charge of planning the functioning of each of these educational complexes, defining its capacity, maximum distances to be walked by the student between the *class-schools* and the *park-school*, among other aspects. Paulo de Assis Ribeiro was an old acquaintance from Teixeira and recently had, in 1947, developed the reformation plan for the education system of the State of Minas Gerais (RIBEIRO, 1975).

The next step was defining the location of each one of these *Elementary Educational Centers* inside Salvador territory. For this, Teixeira again had the support of Diógenes Rebouças, who was by then the coordinator of the EPUCS – *Escritório do Plano de Urbanismo da Cidade do Salvador* (Office for the Urban Planning of the City of Salvador). Years later, Rebouças would register that one of Teixeira’s main concerns was the possibility of integrating the *Plan for Educational Buildings* that was being developed to the State of Bahia with the plan conceived by EPUCS, which identified nineteen neighborhood centers, understood as the “catalysts for social activities” (SANTOS NETO, 1993, p. 12). As Rebouças wrote:

> [Anísio Teixeira] gave us the incumbency of including in the Urban Plan for Salvador eight of these big educational complexes, and we did a draft locating all of them inside that city we had as a parameter in the EPUCS, with a population estimated in one million inhabitants. Thus, when he saw the plan and understood the location of these complexes, he said: “I totally approve” (REBOUÇAS, 1992, p. 148).  

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60 Between 1931 and 1935, while Teixeira was the General Director of Public Education in the Federal District (Rio de Janeiro), Assis Ribeiro was the director of the National Department of Education in the Ministry of Education and Health. In 1935, Teixeira and Assis Ribeiro participated in the creation of the University of the Federal District.

61 Between 1947, when its planning was started, and 1950, when the three first *class-schools* where opened, the number of *Elementary Educational Centers* formed by one *park-school* and four *class-schools* defined in the plan to be built in Salvador varied from seven to ten.
Fig. 07. Plan locarting eight Elementary Educational Centers in Salvador.
Source: REVISTA FISCAL..., 1949.

According to Rebouças, Teixeira decided to build the first Elementary Educational Center in the neighborhood of Liberdade, in the area known as Caixa d’Água because of the ancient water tank and close to Corta-Braço slum. Diógenes reported that Teixeira said to him:
I prefer to start in the neighborhood of Liberdade, because it’s there that we have bigger problems, not only in terms of the number of people with a low income. I want to do it there. (apud REBOUÇAS, 1992, p. 147).

Teixeira’s decision of building the first – and which also be the only – Elementary Educational Center of Salvador in the neighborhood of Liberdade was probably related with the then recent controversy of the invasion of Corta-Braço. The area known as Corta-Braço – also called New Pero Vaz – had been occupied in November 1946 by homeless families, forming one of the first organized occupations in Salvador.

The Corta-Braço invasion started with around 200 families and become a paradigm for the organization of its members, who went daily to the headquarters of A Tarde, to Courthouse and other public institutions, demanding a solution to their problem. Besides that, they opened a savings account in a bank to receive contributions from “firms, commercial societies, privates, everyone who, in a gesture of solidarity, want to give some financial aid” to help the community to acquire the parcel in which they live, in a campaign that immediately had the support of the most important newspaper of the city (UMA CAUSA…, 1947, p. 2).

In 1947, one year after the beginning of the invasion, the Italian Francesco Pellosi, who was the owner of the parcel, obtained an injunction for the restitution of the possession and brought down five of the houses built by the invaders. After that, “the question of Corta-Braço dominates the city”, as written by A Tarde (SÃO QUASI…, 1947, p. 2), and Governor Mangabeira decided to expropriate the state, which finally occurred in 29 April 1947.

The first Elementary Educational Center received the name of Carneiro Ribeiro Educational Center (CECR) and the first phase of its construction was carried out very quickly: in 1948, Rebouças and the architect Hélio Duarte developed the architectural designs for the first three class-schools and the first pavilions for the park-school. In September 1950, Class-Schools I, II and III were opened. Class-Schools I and II were built inside the invasion of Corta-Braço, while Class-School III was built in Marquês de Maricá Street, in Pau Miúdo neighborhood. Class-School I, designed by Rebouças, and Class-Schools II and III, designed by Duarte, had different architectures, but their programs were quite the same: twelve classrooms, covered recreational areas, library, administrative spaces, a canteen for the teachers and a restaurant for the students, as well as the janitor house, an independent building erected in the same plot. These first class-schools had an important role on introducing modern architecture repertoire in Salvador suburbs. This repertoire was inspired by the modern buildings designed by architects from Rio de Janeiro, such as Oscar Niemeyer and Lucio Costa: the ramps that connected the two parallel blocks of Class-School I, the brise-soleils on the facades of Class-Schools II and III, the butterfly roof in the entrance block of Class-School III or the combogós (perforated bricks) and the wood louvers found in all three class-schools.

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62 A Tarde informed that, in 20 November 1946, “more than 500 people with modest look, men and women, filled rooms and corridors of the Courthouse, all of them inhabitants of Corta-Braço, where they had built their houses with a lot of sacrifice, in a parcel rented for them by an Italian who, as A Tarde already informed in another edition, now wants to expel them. As today, at 10:30 am, their case would be judged, they went there to wait for the solution that justice will give to their case [...]” (FORAM AGUARDAR..., 1946, p. 2).

63 During his campaign for the State of Bahia Government, in 1946, Mangabeira – that was supported by the Communist Party – did a rally in Corta-Braço, where he assumed the commitment of solving these families problem.
Besides that, the first three class-schools received artworks that had an important role in consolidating modern art in Bahia: Class-School I had a mural signed by Carlos Bastos; Class-School II presented the first mural painted by the Argentinian artist Carybé in Bahia; and Class-School III included a mural and a sculpture by Mário Cravo.

Between October and December 1950, Class-Schools I, II and III had 1,000 students in each class-school, with 12 classrooms at each school in each shift. Those students came from all the surrounding neighborhoods, including many lived in Corta-Braço invasion, and they had a medium frequency of 86%.

Fig. 08. Topographic model of Liberdade/Caixa d’Água/Pau Miúdo neighborhoods and surroundings, with the location scheme of the first Elementary Educational Center. Source: REVISTA FISCAL…, 1949.
The first pavilion of Park-School to be built was also the larger one: the pavilion for the Working Activities Sector. Designed by Rebouças in 1950, its construction was finished around 1955, after Teixeira had left the Secretary of Education and Health. It corresponds to a huge construction similar to a storehouse (125 m x 31 m). It houses five gigantic murals signed by Carybé, Mário Cravo, Jenner Augusto, Maria Célia Amado and Carlos Magano and they form the most important collection of modern murals in Bahia. The education by art, which had been recurrent in Teixeira’s pedagogical discourse for more than ten years, was finally materialized, for the first time, in the Carneiro Ribeiro Educational Center.

Fig. 09. Class-School I. Source: Carneiro Ribeiro Educational Center – Park-School Library.

Fig. 10. Class-School III. Source: Diógenes Rebouças Collection – Centro de Estudos da Arquitetura na Bahia / Faculdade de Arquitetura / Universidade Federal da Bahia.
Fig. 11. *Class-School I*: Mural “Children Games”, by Carlos Bastos, in the entrance hall. Photo: Author, 12 August 2010.

Fig. 12. Governor Otávio Mangabeira and the Secretary of Education and Health of Bahia, Anísio Teixeira, being received by *Carneiro Ribeiro Educational Center* students. Source: *Biblioteca Pública do Estado da Bahia – Setor de Documentação Baiana.*
The Carneiro Ribeiro Educational Center is the most important product from the Plan for Educational Buildings. It would be completed only in 1964, when the Class-School IV was finally opened. By then, all the buildings and sectors included in Teixeira’s pedagogical plan for the Park-School would have already been built, with the exception of the dormitories, which were the only parts of this ambitious project that would never be built.  

Obviously, the construction of an educational complex with these characteristics and dimensions had a huge contrast with the fragmented occupation of the surroundings, formed by small vernacular buildings in an almost rural area.

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The buildings for Class-School IV and the pavilions of Park-School were all designed by Rebouças, many of them with the collaboration of architect Francisco de Assis Couto dos Reis. The resources that made it possible to continue the construction of the Carneiro Ribeiro Educational Center between 1952 and 1964 came from the Ministry of Education and Health, where Teixeira occupied, for those 13 years, the General Direction of the National Institute for Pedagogical Studies (INEP).

Fig. 15. View of Park-School – Carneiro Ribeiro Educational Center from a surrounding neighborhood. Source: Carneiro Ribeiro Educational Center – Park-School Library.
The journalist Odorico Tavares wrote that the opening of Class-Schools I, II and III, in September 1950, by Governor Mangabeira, happened with the presence of “thousands of people, mostly poor men and women from the neighborhood of Liberdade” and represented “a milestone in the renovation of a zone where, many times, desperation and disenchant could lead to subversion” (apud INAUGURAÇÃO…, 1950, p. 44). Until our days, the inhabitants of the crowded neighborhoods of Caixa d’Água, Pero Vaz/Corta-Braço, Pau Miúdo and surroundings intensively uses this high-quality educational complex which had, in more than 60 years of functioning, developed an important role on the education and social and cultural formation of these communities.

Even before the end of its construction, Carneiro Ribeiro Educational Center had already been transformed in a reference to similar projects in other regions of Brazil, such as the Convênio Escolar buildings erected in São Paulo under the direction of Hélio Duarte (1949-1953). The Carneiro Ribeiro Educational Center was also the theme of a documentary made by UNESCO just after its opening, showing it as an example of an educational system for developing countries. For more than 50 years and until our day, the Carneiro Ribeiro Educational Center has been a model and a reference for initiatives such as the Centros Integrados de Educação Pública – CIEP (Integrated Centers for Public Education), whose buildings where designed by Oscar Niemeyer following a pedagogical project conceived by Darcy Ribeiro, a disciple of Teixeira, when we was the Secretary of Education of the State of Rio de Janeiro (1983-1987), or the recent Centros Educacionais Unificados – CEU (Unified Educational Centers), built by the Secretary of Education of the Municipality of São Paulo in São Paulo suburbs after 2001.

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Green, bright and modern: green-wedge visions for London

Fabiano Lemes de Oliveira

Abstract
It is widely accepted that British post-war planning is marked by the promotion and implementation of green belts. However, recent research has shown that the green wedges idea also played a fundamental role in town planning in Britain for the most part of the twentieth century. This paper examines the use of the green wedge idea in networks of green spaces in reconstruction plans for the post-war London, with special emphasis on Patrick Abercrombie’s 1943 County of London Plan and the 1944 Greater London Plan. The paper starts by contextualising how the green wedges idea emerged and developed in the country. Secondly, it looks into the individual and institutional views on the reconstruction of London. Thirdly, it examines the overall main approaches in the planning of networks of green spaces in the Country of London Plan and in the Greater London Plan, concentrating on how green wedges were put forward as a model of redevelopment and reconstruction. The paper will also analyse how the use of green wedges became symbols of hope, of a new London to be born after the end of the War. This paper aims to contribute to filling the gap in the historiography of planning in the UK by showing the significance of green wedges in structuring the official plans for London for the post-war period.

Keywords: Green wedges, greenbelt, reconstruction, London, planning

Introduction
Green wedges have been theorised and have become an essential part of planning debates since the beginning of the twentieth century. The prominent position that green wedges had in texts and plans rivalled that of the green belt, despite the disproportionate attention given to the latter by planning historians. From the mid-nineteenth century, the provision of green spaces became a fundamental aspect of modern town planning. In this context, the green wedges idea emerged as a solution to the need to provide open spaces for growing urban areas, as well as to establish a direct connection to the countryside for inner city dwellers. Green wedges would also funnel fresh air, greenery and sunlight into the urban core. Their wedge form would allow them to expand in the periphery in relationship with urban sprawl. The concept appeared in British planning debates in opposition to that of the greenbelt, which was criticised for not addressing the need for urban green spaces and for immobilising the urban structure. In the inter-war period, it became evident that both could be used concomitantly in park systems, the green wedges connecting the urban core to the greenbelt. The origins and development of this idea in Britain has been recently examined, however, there is still no account of the role that green wedges played in ideas for the post-war...
reconstruction period. Many authors have examined the most well known reconstruction plans for the capital, namely, unrequested plans such as the Royal Academy Plan and the MARS plan, from 1942; as well as commissioned plans, such as Patrick Abercrombie’s County of London Plan and Greater London Plan. In spite of the large number of analyses the significance of green wedges is notably understated. To overlook the application of this idea is to miss a significant component of the general principles upon which the modern London should be rebuilt on.

This article thus aims to contribute to fill this gap by discussing the significance of the concept on the main reconstruction plans for London envisaged during the Second World War. The timeframe covered in this article ranges from the date of the first official discussions over the need to replan the capital for the post-war period to the years immediate after the publication of the Greater London Plan 1944. This study shows how green wedges were fundamentally used as symbols of the hope of a better future; as a strategy to improve public health by providing access to greenery, sunlight and fresh air; to secure a direct connection from the inner urban areas to the countryside; to increase the amount of recreational space in London; and planning instruments to define and articulate distinct urban fabrics at different scales.

The paper is structured in two parts. The first part begins by introducing the emergence and development of the green wedges idea in Britain, and signalling its relationship with the growth of interest in regional planning for London in the inter-war period. The paper then provides background information on reconstruction and replanning. The second part analyses the main reconstruction plans for London in the light of the roles that green wedges played in the elaboration of their park systems. The paper ends by highlighting that a collective account of the planning ideas for the reconstruction period cannot overlook the significance that green wedges had at the time, as they traversed stylistic boundaries, generations and movements, to become a central principle in the views for the formation of a modern, brighter and greener London.

**Green wedges and regional planning for London**

Reactions to the consequences arising from uncontrolled growth were at the core of town planning ideas from the mid-nineteenth century. Problems with public health, overcrowding, congestion, transportation, poor housing conditions, pollution and deficiency in the amount and distribution of green spaces were paramount. At the turn of the century, London’s six million inhabitants occupied not only the inner-city areas, but – facilitated by the electric tram and motor vehicles - also strips of land along arterial routes, suburbs and neighbouring rural areas. At the same time that this tentacular form of growth into the open country was seen as a threat by social actors, such as rural preservationists, it created the conditions of existence for a new form of urban green space to develop: the green wedges.

It derived from radial parks and parkways of early plans for American cities such as Buffalo and Boston. However, green wedges would acquire a specific identity with Rudolf Eberstadt, Richard Petersen and Bruno Möhring’s runner-up entry to the 1910 Greater Berlin Competition. Notably, the circulation of ideas during the formative years of modern town planning was intense. Presented by Eberstadt at the 1910 RIBA Town Planning Conference, the idea
immediately permeated planning discourses in Britain. After the event, it was mostly promoted by professionals involved with the Liverpool School of Architecture’s Department of Civic Design, founded in 1909, such as Henry Vaughan Lanchester, Patrick Abercrombie and Thomas Mawson.\(^8\) The *Town Planning Review* journal, of which Abercrombie was a founder editor, played a fundamental role in divulging the idea with several papers on the subject. Initially, green wedges were seen as an opposed concept to the greenbelt and in direct relationship with radial traffic systems. The wedges were to be aligned with radial arteries and geographical features, such as river valleys and brooks. They would transform the land left over by development into parks for leisure and recreation, at the same time they would improve access to sunlight, quality of air and provide a direct connection to the countryside.\(^9\)

The history of the green wedges in Britain in the period goes alongside the development of regionalism. Regional planning had already been defended at the RIBA Conference by G. L. Pepler and A. Crow.\(^10\) Abercrombie, in an article from 1912, ‘Town Planning in Greater London: the need for co-operation’,\(^11\) called for coordination among the local authorities for a conjoint effort to plan London and its surrounding areas. In that text, Abercrombie also sought to apply the green wedges idea to the capital. Hampstead Garden Suburb, Hampstead Heath, Parliament Hill and Regents Park would be just one of many that could be created. The London Society Development plan, published in 1918, was another step towards regional planning and the promotion of greenery. The plan highlighted two green wedges, one in the Epping Forest and another one in north-west London, from Stanmore to the Brent Reservoir.\(^12\)

The inter-war period saw regional planning flourish in Britain, influenced mainly by the works of Patrick Geddes, G. L. Pepler, A. Crow, Raymond Unwin and P. Abercrombie.\(^13\) Also during this period, green wedges were used in plans in numerous countries across the world, such as Australia, Germany, Cuba and Brazil. In Britain, the idea gained momentum with the publication of ‘Open Spaces’ by Pepler in 1923,\(^14\) in which a diagram including four green wedges and a circular parkway linking them up formed a model for park system plans. They would be essential in the promotion of healthy environments by enlarging the amount of open space inside cities and funnelling in fresh air from the countryside. In both reports of the Greater London Regional Planning Committee (GLRPC), from 1929 and 1933,\(^15\) green wedges are incorporated into the plans, linking the greenbelt to London’s core. Abercrombie also promoted their use in many inter-war plans and in his book 1933 *Town and Country* book, in which he replicated Pepler’s diagram.\(^16\) By that time, the initial theoretical opposition between belt and wedges in Britain had been resolved and they were promoted, in many cases, as complementary elements of citywide or regional park systems. These plans and texts announced the further use that green wedges would have in plans made during and after the war in the country, both as instruments of hope and of a brighter vision for the future.

**The context of post-war reconstruction**

While the inter-war period had seen the growth of regional plans and claims for the preservation of the countryside;\(^17\) reconstruction of shelled towns, construction of new settlements and the
move towards the coordination of town and country planning became priorities in the immediate post-war.  

Lord Reith, the Minister of Works and Planning between 1940 and 1942, was given the responsibility to work on reconstruction policy to make viable the replanning of existing towns and cities. The most fundamental questions at issue were those related to the private ownership of land and to planning itself.

Regarding the first, some, such as D. E. Gibson, City Architect of Coventry, would argue for ‘some form of nationalisation of the land’ as the ‘only solution for Britain’, because, as fellow commentator A. W. Crapton asserted: ‘the private ownership of land [was] the cause that fetters modern development’. Another notable claim for such bold move can be found in the argument of the Director of the Institute for Research in Agricultural Economics at Oxford University, C. S. Orwin’s, that ‘whatever way the problem is regarded, it seems impossible to be fair to the community so long as private property in land persists’ and that ‘acquisition of the freehold of the land by the State … must be accepted as a pre-requisite of planning control’. In January 1941 Reith established the Expert Committee on Compensation and Betterment, the Uthwatt Committee, which although not as boldly as some expected, formulated a legal framework to support the compulsory purchase of areas needed for reconstruction plans.

Secondly, the question of planning involved the move towards the decentralisation of population and industry away from congested areas, the coordination between town and country planning, and the establishment of visionary plans. In this context, the Barlow Report, published in 1940 by the Royal Commission on the Distribution of Industrial Population, outlined the principles of the depopulation of congested areas and the decentralisation of industry. It presented an opportunity to promote national planning and to consider more efficiently how to control land use. Soon Reith created the Consultative Panel on Physical Reconstruction, a panel of twenty-one expert advisers, which included names such as Abercrombie, Barlow, Osborn and Stamp. In 1942, the Report of the Committee of Land Utilisation in Rural Areas, known as the Scott Report, defended a better coordination between town and country planning and stressed the need to preserve agricultural land.

As soon as the war started diagrammatic views of the future emerged and preliminary reconstruction plans were drawn up. It is well known that between September 1940 and May 1941, the most intensive period of bombing in Britain occurred. Although the destruction of housing was most noticeable, losses covered a wide range of building types. Many commentators argued that the end of the blitz opened up a scenario of hope and enthusiasm, in which planning for the future became an exciting opportunity. Moreover, replanning involved bombed and non-bombed areas perceived as in decay. As Larkham showed, it was not an undertaking only of bombed towns, as those where little or no damage had occurred, spurred by the atmosphere of civic enthusiasm and the will to not be left behind, joined in the realisation of plans. In March 1941, the Ministry of Works asked the London County Council (LCC) and the City of London to draw up reconstruction plans ‘without paying much attention to existing town planning law’, as a new legal framework was being formulated. Still in 1941, Reith
lectured in many bombed cities, such as Coventry, Southampton, Plymouth and Portsmouth, encouraging local governments to ‘plan boldly’ and ‘comprehensively’.31

Indeed, it was with the focus on bold planning interventions brought up by the war and the promise of government support and a legal system to give planning effective transformative power that many plans for bombed cities would start off, including those for London. The problems were many. The destruction caused by the air raids, congestion of traffic and people, uncontrolled mix of uses, poor housing conditions and shortage of open space were central.

This article explores how the belief in planning as a transformative force in the early 1940s, and motivated by the possibility of change, manifested itself in plans for London and how green wedges collaborated to construct views of a new, brighter and modern capital.

The County of London Plan 1943: ‘From garden to park, from park to parkway, from parkway to green wedge and from green wedge to green belt’

Between 1940 and 1944, London became the testing ground for radical ideas. A number of diagrammatic proposals and developed plans for the capital came into existence.32 This paper argues that the green wedges idea, despite the fact that it has been largely overlooked by the historiography, it key to understanding the vision behind the County of London Plan and the Greater London Plan 1944.33

London’s uncontrolled urban and population growth had been cause for concern for over a century. At city scale, this had led to inner-urban problems, such as: overcrowding, lack of green spaces and their ill-distribution, obsolete road system, unsanitary conditions, inadequacy of housing supply and haphazard mixture of incompatible land uses.34 At regional scale, the absence of a plan had allowed ribbon development to stretch far out onto the countryside urbanising the neighbouring areas and suburbanising towns.

Only a month into the blitz, the LCC was already discussing alternatives for the future of the capital. The process was swiftly set in motion. In February 1941, the Architect of the Council suggested the appointment of Patrick Abercrombie as town planning consultant,35 in anticipation of the Council being asked by the Minister of Works and Buildings to prepare a plan, which happened the following month.36 Abercrombie’s appointment was confirmed in a letter from 8 April to draw up the plan with the LCC architect J. H. Forshaw.37

Abercrombie was professor of Town Planning at University College London and was unquestionably the most prominent name in British planning at the time, having worked in many regional plans across the country. Granted Abercrombie’s status – inasmuch as he was the main individual actor involved in the official plans for the capital and one of the most fervent supporters of the green wedges idea – the analysis of his plans and indeed of his planning ideas miss a significant point if they do not consider his views on green wedges.

The green wedges idea becomes almost a constant in Abercrombie’s work since his 1912 article mentioned above. The nature of the ribbon development inherent to many contemporary towns in Britain had generated the wedge-like gaps that – instead of being seen as negative space – should be conceptualised as positive green spaces reaching far into the urban fabric. They
presented valuable opportunities not to be missed. In 1912, he argued for the need to plan the green spaces of London across the boundaries of local authorities, and envisaged the implementation of green wedges. The idea appeared in several other Abercrombie’s works, such as in the plans for Dublin, Sheffield, Plymouth, Hull, among others. Therefore, Abercrombie had been defending the green wedges idea for nearly thirty years when the chance to finally apply it to London appeared.

The County of London Plan aimed at reorganising London into a series of self-sufficient communities, to separate conflicting land uses, improve the traffic system and to ‘provide a properly coordinated system of parks throughout the whole County with continuous green wedges or parkways leading out to the Green Belt and linked at the centre by an inner “Green Ring”’. 38

Indeed, according to Abercrombie and Forshaw, the park system plan for the County was ‘a practical application of the theory of the green wedges’. 39 They argued that ‘the existing open spaces within the County and beyond [were] already loosely grouped in the form of wedges (...) happily to be found between the radiating sprawl of outer London’. Accordingly, their development would be ‘strategically disastrous’, 40, and as a result, on these wedges of open space the plan proposes ‘to base the park system’. 41

The perceived need for more green spaces and their coordination into a linked system is presented as a response to a number of considerations. Firstly, they would allow for a more spacious – and therefore healthier and modern – environment. This would guarantee adequate flux of fresh air, access to sunlight and provide recreational spaces throughout the entire county. Secondly, and mostly due to green wedges, they would create a direct connection to the countryside. Thirdly, wedges of greenery would help form the boundaries of the communities proposed in the plan and establish buffer zones along lines of traffic.

Having in mind that the tuberculosis death-rate and the infant mortality rate in London were 50 per cent higher than, for instance, the average of the boroughs and urban districts in Hertfordshire, 42 planning spaciously—with generous green space provision and their adequate distribution—was seen as key to achieving a healthy environment. In this light, the plan set out to provide four acres of open space per 1,000 inhabitants in the inner areas and three more in the outer zones, reaching a standard of seven acres in total. This would have at least doubled the amount of green spaces in the capital. 43 The population would be restricted to three and a half million inhabitants, which would mean the removal from London of around 600,000 people.

Many commentators have already pointed out the Barlow Report’s influence on Abercrombie’s proposals to stop sprawl by the means of a greenbelt. 44 However, it is to be reinforced that the Plan is clear to state the limitations of the greenbelt alone, and that the focus should be on a conjoined approach: ‘the Green Belt and surrounding countryside need bringing more into the centre through green wedges formed by the existing undeveloped public land’, while parkways along the ring roads would give access from one wedge to another, 45 as envisaged by Pepler and replicated in Abercrombie’s book from 1933. The park system was to be organized on different scales and create a framework starting from the smallest and most local
open spaces to the forest reserves in the countryside. In essence, the Plan’s ambition was that the dweller could get from doorstep to open country through an easy flow of open space: ‘from garden to park, from park to parkway, from parkway to green wedge and from green wedge to Green Belt’. 46

The Plan described thirteen areas to be transformed into green wedges leading towards the greenbelt, including the axes St. James’s Park—Greenford, Regent’s Park—Hampstead Heath, Victoria Park—Lee Valley, Wanstead Flats—Epping Forest, a couple radiating out of Greenwich Park, Ruskin Park—Crystal Palace, among others. 47 The green wedges are loosely represented in the drawings and require some imagination to be fully visualised; nonetheless, it is important to note how much emphasis was put on trying to make the idea work without a hyper-extensive programme of demolitions and making it the centrepiece of the park system plans.

The recurrent theme of linking green spaces with the traffic system was adopted in the LCC Plan. For Forshaw, ‘an essential protection the community needs is against the danger and noise of through traffic—a protection to be secured by a precinctal arrangement of roads or the presence of open spaces and green wedges as buffers between built-up areas’. 48 Greenery would be buffer zones between the communities, encouraging their identity and breaking up the urban form. Most importantly, green wedges should help separate residential areas from the main lines of traffic, as well as from areas of unwanted proximity such as factories.

It was anticipated that allotments would become a ‘war necessity’ and that the demand would eventually decline with peace. In this light, the plan is rather dismissive of them, suggesting that they be dispersed within the residential areas, as their concentration had ‘negligible, if any, amenity value’. 49

If in 1940 there was an overall feeling of idealism in the political spheres as well as in the architects’ visions, by 1943 the impasse was set between idealism and scepticism over the plan’s feasibility and financial implications. On the one hand, it is significant to note that the idealism of the park system plan resonated positively with the local authorities and other bodies, who were requested to send their comments about the plan back to the LCC by the end of 1943. 50 Important individual and social actors were also in support of the scheme, or even encouraging a larger amount of green space, such as: the Chief Officer of the Parks Department, who was delighted with the plan; the RIBA, which considered four acres reasonable provided that an additional three acres were added in the outer zone; the Minister of Town and Country Planning, who welcomed the proposal and suggested that the amount of green space should be even increased to above four acres wherever possible; the Minister for Agriculture and Fisheries, asking for allotments to be considered in addition to the four-acre standard; or the TCPA, who thought that the four-acre standard was far too low. 51

However, on the other side of the spectrum, there were those more directly involved with financial matters in the LCC who would cry for restrain. For instance, A. R. Wood, the Comptroller of the Council, in a report from 31 May 1943, argued that the realisation of the plan would be an ‘impossible achievement’ without much enlarged financial resources being made available. The Comptroller was concerned that much rateable value had been lost with the
bombing and more would still be lost with the dedication of a much increased area to roads and open spaces. In addition, national economic support was elusive and seen with suspicion. If the provision of four acres per 1,000 people were to be achieved, then one-fifth of the whole area of the county would be public open space and that ‘they would involve capital expenditure nearly as large as the Council had spent on the whole of its housing operations during the fifty years up to 1939’. Herbert Westwood, the ‘Valuer’, was not less scandalised by the green space provision proposed and urged the Council not to commit to ‘carry out any of the proposals in the plan’, as the cost was ‘incalculable’. Westwood went on to forewarn that even assuming that these proposals were only tentative and diagrammatic, ‘the publication of the Plan may be a cause of embarrassment to the Council’. In contrast to this advice, the plan was indeed published in July 1943 and exhibited to the public for two months.

In 1944, to break the deadlock, Forshaw suggested that an interim objective of two-and-a-half acre standard would be a good compromise and highlighted that Abercrombie was in ‘full agreement’ with it. This was accepted by the LCC Town Planning Committee as a phase towards the seven-acre ‘target for ultimate achievement’.

The green-wedge based park system in the County of London Plan acted as a precursor to the Greater London Plan 1944. The County plan set forward the principle of articulating a closely linked park system from neighbourhood to regional scale. It assumed the gaps between development along traffic lines and river valleys as the basis upon which to build a comprehensive system of greenery. The solution for lack of green spaces was to increase the County’s baseline ratio to seven acres per 1,000 inhabitants – which, as discussed above, was severely questioned – while to deal with their ill distribution involved the elaboration of a plan. Green wedges were the driving force of the park system plan. They would improve the citizens’ health by bringing sunlight, fresh air and green areas directly into the inner parts of the urban fabric; and bridge the scales – from neighbourhood to regional – opening up direct connections to the countryside. In addition, the green wedges would help define the distinct communities to be formed after the plan. The London of the future was to provide the most adequate framework for the beginning of a new period. One in which a spacious, modern, functional, convivial and green city would help forge a better society. In this conceptual framework, green wedges were fundamental planning principles to be implemented, and charged as a symbol of the hopes for the bright future to come.

Green wedges and the quest for regional planning: the Greater London Plan 1944
The Greater London Plan was the opportunity to resolve the inter-war quest for regionalism. Soon after the LCC started working on their plan, discussions about the need to plan regionally started to emerge. In September 1941, in a meeting including Abercrombie, Pepler and Forshaw it was noted that the ‘outside authorities were highly suspicious’ of the LCC plan. To avoid a multitude of local authorities plans, it was agreed that ‘the plan must be prepared by one mind giving whole time attention to it’ and that the Ministry should ask Abercrombie to carry out a
plan over the Greater London area on behalf of the Standing Conference on London Regional Planning.  

The general ideas of relocation of population beyond the outer greenbelt, control of London’s growth and improvement of inner city standards were developed and embraced more fully in the Greater London Plan 1944. The plan assumed that Greater London’s population would not increase above the 1938 figure of about ten million people and that decentralisation should occur by relocating a million people from the inner ring to expanded towns and to eight new satellite towns, which were to be built 50 miles away from London’s core.

The control of sprawl was to be done by creating a greenbelt on the 1939 urban fringe. Abercrombie proposed the establishment of four rings to structure the general master plan, the first encompassing the inner central area, the second circling London at around 12 miles from Charing Cross, the third being the ‘Green Belt Ring’, with a mix of playing fields and farms, and the fourth the ‘Outer Country Ring’. In addition, the transformation of the existing city should happen mainly by improvements made to the traffic system, the formation of self-sufficient communities and the provision of a comprehensive park system.

Comparatively, the park system plan for Greater London was considerably more elaborate than that of the County plan. It prescribed a standard of ten acres per 1,000 people, as opposed to the seven-acre standard proposed at the County plan. The proposal for Greater London also presented a more developed description of the system’s main functions, ambitions and components.

The overarching principles of using green spaces to provide salubrious spaces for recreation, to create continuous connections to the countryside and define self-sufficient communities were pursued. It must be remembered that one of Abercrombie’s core preoccupations regarding the provision of a park system for London’s region was the lack of connectivity between the built-up centre and the verge of the urbanised area. Making use of Howard’s term, he assumed that the country was the real ‘magnet’ attracting the Londoners. This would generate a ‘centrifugal urge to fly from bricks and mortar and get into the country’. The need for access to the countryside appears in many instances at the time, as in a report from 14 January 1944 arguing that London’s lack of green spaces had reached a point that required ‘taking children out in ‘buses to Outer London to see its green fields’. This would be a ‘further indication of the necessity of keeping Outer London’s open spaces free of building’. Consequently, green wedges were at the core of the proposed park system, as the most appropriate typology of green space to facilitate the achievement of such an objective. They are referred to as ‘interpenetrating wedges of varied open land’. Any land leading from the heart of London to the open country that was considered to be essential for the creation of these green wedges should be bought on lines as those of the Uthwatt Report, be kept free from building and be open to the public.

The park system plan would consist of a range of typologies from the small scale of playgrounds and town squares to the large scale of green wedges and greenbelts. The idea of allowing residents to go from their house in the inner city to the open countryside through green spaces – formerly put forward in the County of London plan – was pursued. Abercrombie alerted
the reader that many green wedges could have been created in the past, but little had been done
in this respect. He warned that the clock was ticking and it was time to act. As envisaged by
Unwin in the 1929 GLRPC report, Abercrombie pictured a protected green canvas as the base for
the plan, rather than a sea of buildings with scattered green spaces. 64

Twenty-four green wedges were proposed in the plan connecting the first and the third rings
of the plan. They were described in the Appendix 20. It is worth noting that the plan had only
two appendices referring to green spaces: ‘Open Spaces Survey and Proposals’ (Ap.19) and
‘Green Wedges – Proposals’ (Ap. 20). Curiously enough, there was no appendix for greenbelts,
which contributes to indicate the importance that Abercrombie attached to the wedges and their
implementation. They ranged from long to short, and continuous to broken wedges and were to,
as much as possible, be converted into public recreation zones and playing fields. All the wedges
from the County of London plan were present in the Greater London Plan, to which eleven more
were added; included the River Thames, ‘the finest natural wedge into London’. 65 River valleys
were naturally to be used as such throughout Greater London, as they were considered to be
‘very valuable as green wedges of lungs to towns in their vicinity’. In addition, they were also of
‘great value in maintaining the all physical separation between expanding communities, and
thereby helping to maintain and emphasise their independent community life’. 66

With regard to the plan’s position in respect to agricultural land, the plan referred to the Scott
Report and stated that farmland would not all be under the greenbelt influence, but also referred
to the ‘wedges penetrating into the Suburban Ring’. 67 Interestingly enough, the Report discussed
distinct views on the idea of greenbelt and made a direct reference to green wedges. From the
perspective of the urban dweller the greenbelt, the report argued, was considered to be ‘a belt of
open land – of commons, woods, fields – to be “preserved” from buildings and so to serve as an
encircling ring of green round the smoke and dirt of the town, perhaps with “wedges” of green
penetrating towards the heart of the town itself’. The report suggested, on the other hand, that
these spaces be understood ‘as a tract of the countryside’, and used for the production of fresh
produce and for the reservation of woodland. 68 It is significant to note that the Committee was
well aware of the existence of green wedge proposals in the country and their relationship with
the greenbelt debates. Despite the call for seeing green wedges as tracts of rural land, the plan
tended to promote the wedges mostly as parkland.

By this time, large open spaces were seen as worthy allies in times of war. Abercrombie, in
his plan for Plymouth published in 1943, stated that ‘parks and town gardens could withstand
bombing and fire better than our solid buildings’ and that war had brought forward the advantage
of more spacious planning, which would lessen the effect of aerial attack and provide emergency
land that could be converted into allotments to reinforce food supplies. 69 Green wedges, in this
respect, would break up the mass of buildings, minimising the proliferation of fire, increasing the
dissipation of smoke, providing escape routes and congregation points in the event of attack, and
be available for temporary conversion into allotments.

On 12 December 1944, the Minister forwarded copies of the plan to the local authorities and
the County Councils for consideration. Their views were then submitted to the Advisory
Committee for London Regional Planning, formed to coordinate Abercrombie’s plan. A series of sub-committees were to be set up, ‘Open Spaces’ being one of them. In March 1946, this sub-committee delved into the range of scales of the open spaces provision in Abercrombie’s plan, ultimately supporting the whole scheme. For Silkin, the Ministry of Town and Country Planning, it seemed practical, however ‘modest relative to need’.

The Advisory Committee reported to Silkin, who, on 27 November 1946, circulated a memorandum back to local authorities within the area of the Greater London Plan. The Memorandum set out the Minister’s views on the Report of the Advisory Committee and was sent to planning authorities to help them develop detailed schemes for their particular areas.

With regards to open spaces, the memorandum suggested that the major difference between the recommendations of the Advisory Committee and those of the Greater London Plan lay in the degree of encroachment into the green wedges and the greenbelt. The Minister was in agreement with the standard for open space prescribed in the Greater London Plan and expressed his intention to ‘prepare a plan to show the land around London, which, as green belt or green wedges, must be preserved from development’. He also expressed his contentment over the fact that the Open Spaces Sub-Committee fully supported the proposals for green wedges within the Region. For Silkin, the preservation of the green wedges was essential. They were seen as particularly vulnerable as a result of the pressure for housing and for the expansion of existing industries after the end of the conflict. As a consequence, he emphasised ‘the necessity for the same strong action as will be required in safeguarding the green belt.’ The minister made clear his adherence to the idea and commitment for their implementation: ‘planning Authorities should not permit any development on land shown for retention as green belt or green wedges, unless they have proved to the satisfaction of the Minister that there is an unanswerable case for reconsideration of the boundaries.

Curiously enough, the reception of these plans in specialist newspapers tended to be minimal and mostly descriptive. Critical assertions about the provision of green spaces being insufficient can be found for both plans, as revealed by an article by M. Cracknell from the TCPA regarding the LCC plan, which stated that the plan was unacceptable as it stood and that the provision of green spaces should be much increased; and by E. C. Kent and F. J. Samuely’s review of the Greater London Plan, arguing that ‘a more radical policy would have been welcome’. On the matter of green wedges, Kent and Samuely used an image of the Lea Valley green wedge as an example of Abercrombie’s approach. The Town Planning Review, in turn, considered the articulation of traffic arteries and green spaces marking the boundaries of districts as ‘the one recent great advance in the theory of the modern city’.

Despite Abercrombie’s and Silkin’s efforts to call attention to the green wedges and keeping them building-free, the idealism behind the possibility of radically transforming London was shaken by legal constraints and lack of funding. Despite the fact that the formation of the Ministry of Town and Country Planning in 1943 meant a move towards the coordination of planning also at national level, the 1943 and the 1944 Town and Country Planning Acts, which gave new powers to local authorities for the acquisition of land, were perceived as
unsatisfactory. As Ticheler described, the 1944 Act in particular was considered by many local authorities as a ‘great betrayal’ and a ‘triumph of the rights of property’. With the end of the War, the economic crisis and the consequent limitation in funding for the realisation of the two plans analysed in this paper, the focus was on the overwhelming need for housing and other aspects of reconstruction.

Contrary to what could have been expected due to the grim forecast of implementing green wedges in London in the immediate post-war, the green wedges idea would gain another boost of diffusion nationally and internationally following the Greater London Plan. It is worth noting that the use of green wedges became a recommendation of the ‘Final Report of the New Towns Committee’. Indeed, many plans for new towns adopted the use of green wedges in their park systems, as for instance, Harlow, Stevenage and Hemel Hempstead. Interestingly enough, the most emblematic post-war period implementation of the green wedges idea is done outside Britain, with the 1947 Finger Plan for Copenhagen.

Conclusions
The war brought with it the feeling that time had come to bring to an end the negative effects of unplanned growth. The responsibility of implementing radical change laid with town planning, which had now to face the enormous challenge of replanning and reconstruction. These plans should be viewed in the broader context of the post-war reconstruction debate. Their authors emphasised that the benefits of radical reconstruction would greatly outweigh, in the long term, the enormous costs of demolition and in building the new London.

One of our conclusions is that green wedges maintained their significance in the mind of planners in the period, achieving at least the same level of relevance that of the greenbelt, regardless of planning or architectural movement and theoretical background. Recurrent in British circles since the beginning of the twentieth century, the idea permeated most of the well-known schemes for the replanning of London. The green wedges’ main raison d’être continued to be four-fold. First, they had a sanitary role in bringing sunlight, fresh air and greenery to the inner parts of the city. Second, and perhaps most importantly, in a period when the countryside was more and more distant from the city’s core, these wedges allowed a direct link from the centre to the open country through a pleasant green route. Third, they were to provide easy access to open space, mainly recreational grounds, to every citizen; and lastly, they were evident instruments of planning, inasmuch as they could be used as zoning tools to connect or separate areas.

The research also reveals that other functions were attached to it, or some already existing were elaborated. First of all, green wedges became symbols of hope for a better and brighter future. At the same time that they opened up a physical path to the now distant countryside, they were also allegories of the search for a balanced society in harmonious contact with nature. Another specific contribution of the post-war context was the mounting importance of open space in conflict times. ‘Spacious’ planning was seen as a preemptive move against air raids and the demise of large populations. Green wedges would then help avoid the proliferation of fire in the city, as well as serve as congregation points and escape routes. In this context, they could also become temporary allotments to support food supply. With the national preoccupation with agricultural land and the need to jointly consider town and country planning in the 1940s,
discourses about considering the wedges as tracts of nature or agricultural land arriving from beyond the urban fringe became stronger, and was particularly evident in the Greater London Plan. An elaboration of a previous function can be seen in the growing importance of wedges in zoning, particularly in their use as buffer zones between traffic arteries and residential areas, and as boundaries of communities.

Another important inference that can be made is that green wedges worked both at the city and regional scales, as anchors of the city in the territory. Ultimately, with the assumption of the creation of new towns around London, green wedges could assume a national dimension by interconnecting them with the capital and beyond.

There is a lack of immediate reactions to green wedges, both contemporary and in later evaluations of post-war reconstruction plans. As discussed, commentators tended not to focus on this aspect of park systems. It could be said that this may be due to the fact that out of all the planning debates, not much was implemented, with the exception of the greenbelt.

Although green wedges had been discussed by British planners for decades, few examples of their implementation could be seen. If green wedges were to go from the open country to the inner core, they needed to cut through numerous privately owned properties and administrative boundaries. These, coupled with difficulty in controlling intra-urban development, problematised both their planning, but most of all any attempt at their potential execution. Competing plans happening at the same time with different objectives were not uncommon, and while overall plans expected a conjoined strategy for London, Borough plans and individual landowners proved to have had other priorities. The immediate urge for houses also contributed to divert the focus away from the provision of such large green spaces. Moreover, the lack of a legal apparatus and the economic crises that came with the end of the war added to the problems that needed to be overcome should green wedges be implemented in London.

Notwithstanding the lack of materialisation of the idea for the capital, green wedges gained a boost of popularity in the new towns. Planning from scratch – in actual fact –, with the support of the New Towns Committee for the idea and counting with the economic and legal powers bestowed upon the new towns corporations undoubtedly facilitated the task of seeing green wedges become reality.

To try to understand the post-war reconstruction debates without considering the significance that contemporary planners gave to green wedges is to paint only a partial picture of the multifaceted nature of what planning for the future really meant. As we have seen here, green wedges were at the core of what London should be like today.

Notes

1 Purdom even stated that: ‘a green belt is a symbol of planning. All town planning is affected by the understanding of what is meant by a green belt.’ C. B. Purdom, How Should we Rebuild London? (Dent, 1945), 151. See also: Freestone, Robert, ‘Greenbelts in City and Regional Planning’, in Kermit Parsons (ed.), From Garden City to Green City: The Legacy of Ebenezer Howard (Baltimore, 2003), 67–98; Stephen Ward, Planning the Twentieth-Century City (Chichester, 2002), 172; Richard Munton, London’s Green Belt (London, 1983); Anthony Sutcliffe, British Town Planning: the Formative Years (Leicester, 1981); Marco Amati and Makoto Yokohari, ‘The Establishment of


5 Anthony Sutcliffe, *Towards the Planned City: Germany, Britain, the United States and France, 1780-1914* (Oxford, 1981), 52.


8 Lanchester was an external examiner in civic design from 1910-12. Thomas Mawson was a Landscape Architect who lectured in the Department of Civic Design from 1910. Abercrombie taught at the School of Architecture, became a research fellow of the Department of Civic Design in 1909 and in 1915 replaced Adshead as Professor of Civic Design, post that he would hold until 1935 when he assumed the chair of Professor of Town Planning at University College London.

9 J. B. Cullingworth showed that the increasing demand for public access to the countryside dates from the last quarter of the nineteenth century, as a response to the dramatic changes to the urban environment in Britain. J. B. Cullingworth, ‘Planning for Leisure’, *Urban Studies*, 1 (1964), 1-25. See also: G. Cherry, *Environmental Planning 1939-1969*, vol. II, 1.
Pepler became one of the future founders of the London Society, of the Town Planning Institute and later worker for the Ministry of Health. Arthur Crow was the District Surveyor of Whitechapel.


See, for instance, Peter Hall and Mark Tewdwr-Jones, Urban and Regional Planning (Abingdon, 2002), 55-79.


A.W. Crampton, ‘Town Planning and Reconstruction, to The Editor of The Builder’, The Builder, 160 (1941), 4-5.


Nicholas Bullock, Building the Post-War World Modern architecture and reconstruction in Britain (London, 2002), 14. See also The National Archives: Housing and Local Government (HLG) 86/7.


Catherine Flinn, “‘The City of our Dreams’? The Political and Economic Realities of Rebuilding Britain’s Blitzed Cities, 1945-54’, Twentieth Century British History, 23 (2012), 226. See this article for more information on the destruction caused by the bombings and for a comprehensive literature review about post-war reconstruction in Britain. For an interactive map with all the bombs that fell in London during the Blitz, visit: Bombsite, www.bombsight.org, accessed on 24 May 2013.


Larkham and Lilley, Planning the ‘City of Tomorrow’, 1-6.
32 These include the plans by Ralph Tubbs and the MARS group, Lanchester’s and Trystan Edwards diagrams, the RIBA LRRC plan, the Royal Academy plan, the LCC plan and the Greater London plan.
33 An example of the tendency to overlook the role of green wedges in relation to that of the greenbelt can be seen in Frederick Osborn and Arnold Whittick, The New Towns: the answer to megalopolis (London, 1969), 96: ‘The Greater London Plan of 1944 (…) converted the concept of metropolitan redevelopment on human standards, and decentralization, green belts [my italics], new towns and country-town expansions, into a clear and concrete practical proposition.’
38 LMA: 4062/06/040, ‘Exhibition of the County of London Plan’.
39 Patrick Abercrombie and John Forshaw, County of London Plan, 1943, 42.
40 Abercrombie and Forshaw, County of London Plan, 1943, 38.
41 Abercrombie and Forshaw, County of London Plan, 1943, 38.
44 For instance, Peter Hall and Mark T-Jones, Urban and Regional Planning (London, 2011), 64.
45 Abercrombie and Forshaw, County of London Plan, 1943, 38.
46 Abercrombie and Forshaw, County of London Plan, 1943, 39.
49 Abercrombie and Forshaw, County of London Plan, 39-40.
54 LMA: CL/TP/1/37, ‘London County Council. Town Planning Committee. Report by Valuer (24.05.43)’.
56 LMA: CL/TP/1/33. ‘London County Council. Letter from the Clerk of the Council to Professor Abercrombie, 8th April 1941’.
57 LMA: CL/TP/37, ‘Observations by Government Departments, Metropolitan Borough Councils and Other Bodies – Open Space Proposals. Report (12.10.44) by Architect (No.4)’.
59 TNA: HLG 71/116 ‘Notes on a meeting between Mr Salmon, Professor Abercrombie Mr Forshaw, Mr Pepler and H.Y.L.’ 16 September 1941.
61 Abercrombie, Greater London Plan, 97. See also, for instance, TNA: HLC 85/17 ‘Greater London Plan. Individual matters for comment, etc. Open Spaces’, 14 January 1944.
63 Abercrombie, Greater London Plan, 103.
64 Abercrombie, Greater London Plan, 100.
67 Abercrombie, Greater London Plan, 103-4. Dudley Stamp wrote to Abercrombie in January 1944 to thank for the invitation to write a short section for the report on farmlands and agricultural land utilization in the Greater London Area. TNA: HLG 71/116 Letter from L. Dudley Stamp to P. Abercrombie, 8 January 1944.


81 Hasegawa, Replanning the blitzed city centre, 5-6; Hasegawa, ‘The Rise and Fall of Reconstruction’.


83 In 1945, together with Lutyens, Abercrombie presents a plan for Hull where the wedges are once more used in a very similar way to the one used in his idea for London. For more information on their plan for Hull, see Philip N. Jones, ‘…a fairer and nobler city – Lutyens and Abercrombie’s plan for the City of Hull 1945’, Planning Perspectives, 13 (1998), 309.

84 The Report suggests that ‘it may be desirable to merge the town quietly into the surrounding landscape, by planting ecologically related to what exists already, with green wedges penetrating from outside into the town area’ (my italics). New Towns Committee, Final Report, Chap. VII, paragraph 60.
INTRODUCTION
This text is the result of an investigation made in conjunction with the research group Urbanism in Brazil, whose general theme is urban planning in the 1960s. While continuing previous works developed for other periods, more distant from the history of urbanism, there arose the necessity of studying a time period closer to our current moment in history. This perspective presents, on the one hand, greater difficulty in the selection and evaluation of documents, and on the other hand, a more familiar relationship with the theme for having been witnessed, though not analyzed, by almost all of the group’s members. The metropolitan approach to cities comes precisely from a situation in which Brazilian cities, especially the capitals, experienced significant physical and population growth, modifying previous relationships between city and region, as well as taking on the role of being the country’s most industrialized centers. In addition, it is notable that Brazil was passing through an extraordinary period in its political history – the military dictatorship – which forever marked its social, economic, and institutional relations. The discussions and actions of planning in regards to the theme of metropolitan regions came to be an important aspect of this period, foreshadowing the next decade. An analysis of Porto Alegre is made here to demonstrate the development of this process in southern Brazil’s largest city.

1. THE FORMATION OF THE BRAZILIAN METROPOLISES: THE 1950s and 1960s
The decade of the 1960s began in the context of a troubling situation. Cities were growing disproportionately, and the rural exodus was accelerating with each passing day, with new settlers coming not only from the countryside to the cities in their own states, but, primarily, from more distant regions to the capitals that already possessed the greatest economic growth. The exodus from the Northeast to the Southeast was especially alarming. No policy was able to impede this process. Industrialization was concentrated in a select few cities, and these cities functioned as great poles of attraction. Henrique Brandão Lopes, Secretary of the Interior Ministry, was quoted in 1971 as saying that

“it will be very difficult for us to modify the tendencies of urban growth, regardless of how great the incentives we offer to encourage people to remain in the countryside, or steer migration towards rural areas. Less effective still will be any attempts to invert the flux and turn it into an urban-rural flow, even for the groups who have recently urbanized”

(LOPES, H.B. 1971)
In addition, the lack of affordable housing and of infrastructure in the peripheral areas was a significant problem, visible especially in the most developed cities such as São Paulo e Rio de Janeiro. Politically, Brazil was going through a very difficult period. At the beginning of this decade, many strikes and protests demonstrated the people’s dissatisfaction, which were supported by the political left. In order to defend the country from the threat of growth from the left, from “communism” as it was called in that time, and against such a state of affairs, a military coup took place, supported by the population segment recognized as “the strength of the bourgeoisie.” A dictatorial regime was implemented in 1964 that lasted for twenty years.

The military that came into power in 1964 believe that the democratic regime which had ruled Brazil since the end of World War II had shown itself incapable of deterring the "communist threat.” With the coup, it began the implementation of a political regime marked by "authoritarianism,” that is, a political regime that favored the authority of the state over individual freedoms, and the Executive Branch in detriment to the Legislative and Judicial powers. (FGV CPdoc)

This drastic change of government, in which the military were decisive protagonists in coming to power, took control of the actions and attitudes of its citizens. The government, which was historically centralist, reinforced itself. The phenomenon known as the “Brazilian miracle” accelerated even more the specter of urban growth and its consequences.

In governmental agencies, concern over urban problems began to grow. Several studies on the subject were initiated, as well as the idea of planning cities and regions to tackle these problems. The dominant idea of the 1950s, which had been the construction of new cities - Brasília (1955) being the icon – was no longer in force. Brasília, projected by Lucio Costa, was upheld as an extraordinary example of urbanism. It was, and still is, the greatest representation of the modernist movement, following the orientation of the Athens Charter and other precepts of urban design, based on the paradigm of Le Corbusier’s ideas. However, in spite of all the recognition and admiration by architects and urbanists, in practice there was great resistance to effective acceptance by the politicians themselves in making Brasília their new home. The transfer from Rio de Janeiro was no easy task. The former capital resisted with its charm, beaches, and lifestyle, in complete contrast to the central plateau, a move proposed in order to pioneer new settlement in this country of continental proportions. The strong central government of the Revolution imposed the change of capital as its determination so that it would finally become reality. However, the difficulty with the transfer of the capital from Rio de Janeiro to Brazil’s interior showed that it was not enough to project a city in physical space; it was necessary to work on all aspects of society - political, economic, social, and institutional - for its effective functioning. In reality these criticisms were not being made only in relation to Brazil. They came from Europe and the United States, referring not only to the urbanistic model utilized, but above all else, to the issue of methodology. Professionals from diverse areas of knowledge decided to tackle the urban problem. New ideas emerged, focusing thought not only towards spatial reordering of the city, but also towards the implementation of a continuous and controlled process that could lead to development. The motto: plan in order to develop. Thus, cities and regions, according to these new ideas that began to hold force, needed to undergo another type of planning, not just physical, but an integrated
The disorganized physical growth of cities began to be understood as the result of a process called development from underdevelopment, a product of the capitalist system (FRANK, G 1973; p.25). In this sense, the capitals that were great magnets of population and industry expanded beyond their traditional boundaries, while at the same time the neighboring cities grew in the direction of the central core. This growth led to the occurrence, in diverse regions, of the unification of urban areas—a phenomenon that came to be known as conurbation. This is what occurred with Porto Alegre and the cities located directly north of the capital, the direction of access to the country’s center. The contiguity and continuity of the urban network, which reinforced itself over time in a process of regional integration, created an area of strong conurbation, and its cities later became part of the Porto Alegre Metropolitan Region, formed in 1970.

2- THE FORMATION OF CONURBAN CITIES AND NEW CONFLICTS IN SOCIAL SPACES

In 1945, after the end of World War II and the return to democracy with the end of the New State 66, Brazilian cities entered into a new phase of development. The acceleration of industrial growth, along with surprising population growth, especially in the capitals, reached unprecedented levels in Brazilian history. The notion that population growth led to development resounded everywhere and made São Paulo, during the 1950s, pride itself on being the city that grew the most in the entire nation. It certainly did grow the most, but it also had the most problems!

The period that followed, with greater freedoms and possibilities of new advancements, led to greater investment in cities, especially in the communications sector. During this time, capitals such as São Paulo, Rio de Janeiro, Recife, Porto Alegre, Belo Horizonte, Belém, Fortaleza, Salvador, and Curitiba transformed themselves into large urban areas while shrinking their rural territory.

‘During the second half of the 20th century, Brazil experienced one of the most accelerated urban transitions in world history. This movement rapidly transformed a rural and agricultural country into an urban and metropolitan one, in which a large part of the population came to live in large cities’” (MARTINE, G. & MACGRANAHAM, G., 2012, p.11)

Demographic and economic growth conducted Brazilian cities along a path to new phenomena, beyond mere expansion, such as the aforementioned process of conurbation that profoundly affected many regions. The internal migratory process accelerated like it never had before, with people moving not only from proximate urban and rural regions, but also from more distant regions, in search of a better quality of life. The primary region of expulsion 67 (SINGER, P 1975) was the Northeast, a harsh region marked by drought and poverty. This migratory flow directed its flow primarily to Brasília, Rio de Janeiro, and São Paulo, regions with better living conditions and job prospects. Until the 1970s the process of Brazilian urbanization was based on a concentration curve: the concentration of dynamic economy, of population in the great metropolises, and of migrations (Baeninger 2012, 209).

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66 Dictatorship from 1937 to 1945 led by Getulio Vargas. See REZENDE,V - “O Urbanismo na Era Vargas”(bibliografia)

67 Paul Singer in....affirms that beyond being a mere rural exodus, the process was one of expulsion from farming, due to the terrible conditions.
Based on a survey of the Brazilian Institute of Geography and Statistics (IBGE), which allows one to infer the population growth of cities between 1940 and 2000, in a distribution relative to population and according to city size, the following table was produced (see below). The table highlights this process from 1940 to 1970 and takes into consideration three urban concentrations: cities with less than 20,000 inhabitants, between 20,000 and 100,000 inhabitants, and with more than 100,000 inhabitants. The urban population of cities with less than 20,000 inhabitants showed a high increment (46.82%) from 1940 to 1950, due to the transfer of the rural population to urban centers. Yet this tendency gradually diminished in the following decades. On the other hand, cities with more than 100,000 inhabitants began a steady climb of population growth. By 1970 more than half of the population was concentrated in cities with more than 100,000 inhabitants, thus showing the face of an increasingly urban nation.

Table 1 - and Graphic1
Relative distribution (%) of urban population according to city size: Brazil 1940-1970

<table>
<thead>
<tr>
<th>Urban Pop.</th>
<th>1940</th>
<th>1950</th>
<th>1960</th>
<th>1970</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 20,000</td>
<td>46.82</td>
<td>38.78</td>
<td>33.77</td>
<td>26.92</td>
</tr>
<tr>
<td>20,000-100,000</td>
<td>16.06</td>
<td>21.87</td>
<td>21.18</td>
<td>29.84</td>
</tr>
<tr>
<td>&gt; 100,000</td>
<td>36.11</td>
<td>39.33</td>
<td>45.06</td>
<td>53.29</td>
</tr>
</tbody>
</table>

SOURCE: IBGE IN BAENINGER, R. PG. 210 - 2010/ our adaptation

Porto Alegre was no exception to this general trend, but its growth was not characterized by the arrival of migrants flowing from the Northeast. The internal migratory movement in the state of Rio Grande do Sul characterized the population growth of the capital. This movement was accentuated due to the incredible growth of the colonial regions\(^{68}\), one of the consequences being the expansion of micro-size farms which became increasingly unproductive, leading to the expulsion of their inhabitants. The search for new agricultural frontiers took part of the farm population...
to the Upper Uruguay region, on the banks of the Uruguay River. If, on the one hand, this boundary was consolidated, on the other hand the migratory front continued to grow, leaving the state and heading northward, through Santa Catarina, Paraná, Mato Grosso, even all the way to Acre. Another portion of the population sought out Porto Alegre and its surroundings.

In this context the region of Porto Alegre and its development are the fruit of two foundational moments: the arrival phrase of the first immigrants in 1824, and the industrialization phase from 1890 onward. The first colonists who arrived in the state were the Germans, in 1824, and established themselves along the Sinos River north of Porto Alegre. The first colonial seat was São Leopoldo, and it was from this hub that they began to occupy the region. Cities arose as a function of supporting production. It is worth noting that their growth was reinforced and accelerated due to the great revolution that broke out statewide and lasted from 1835 to 1845. Porto Alegre was put under siege by the revolutionaries because it was the capital of the province and represented the Brazilian Empire. The newly arrived Germans had to produce many goods in order to supply the city, thus creating from the beginning a strong connection with the capital. The implantation of the railroad in the 1870s strengthened this relationship even further.

Starting in 1890, a wave of industrialization rippled through Brazil. The colonial region during this phase, already with an ample commercial base, focused on the Italian immigrants that began to arrive in 1875, was ready to invest itself in the process of substituting imported products with products produced right there in the region. Novo Hamburgo and São Leopoldo began to grow as industrial centers on this northern axis, reinforced by the freeway, which was implanted during the 1940s, consolidating by the 1950s a well-defined urban network. The freeway, which connected southern Brazil with São Paulo, played a fundamental role in the region’s development, allowing for greater circulation of cars as well as commercial goods, thus driving new growth.

The Porto Alegre Metropolitan Region, comprised of fourteen cities, was formalized in 1970. Of these fourteen, eight were part of the integration process described above, located along the northern axis or in close proximity to it (Canoas, Esteio, Sapucaia do Sul, São Leopoldo, Novo Hamburgo, Campo Bom, Sapiranga, and Estância Velha). The other cities were Guaíba, Gravataí, Viamão, Cachoeirinha, and Alvorada. The first three of this group are part of an older historical process, linked to the very first urban implantations in the region. The other two cities were emancipated from Gravataí and Viamão shortly before the legal definition was finalized.

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69 Regarding the urbanization of Rio Grande do Sul, see Souza, 2000
Regarding the urban evolution of Porto Alegre and surrounding region, see Souza & Muller, 2007
70 The Farroupilha Revolution, or as some authors prefer to call it, the Farrapos War.
3. THE PORTO ALEGRE METROPOLITAN REGION: FORMATION AND STRUCTURE

The perception of the formation of a conurban territory, where cities expanded beyond their municipal limits, constituted a continuous web, corresponding to a
period of great demographic growth and a high concentration of economic activity in the capital of Rio Grande do Sul and its neighboring cities. This phenomenon became increasingly evident in the 1960s. The average percent growth rate of the state’s population from 1940 to 1950 was 2.29% per year, while in the Metropolitan Region the rate was 3.83%. In the following decade, from 1950 to 1960, the growth rates were 2.72% and 5.72%, respectively. The degree of urbanization of Porto Alegre in relation to the state demonstrated the predominance of the capital as a concentrated center of population and economic activities. Studies conducted in the 1950s were already forecasting the rapid expansion of Porto Alegre, especially northward, an area traditionally marked by industrial centers, and eastward, an area of widespread settlement of the working class. In these two directions, however, one can identify two distinct processes of territorial expansion, as mentioned above, deriving from the historical processes of regional occupation.

This concise description brings us back to the presence of the necessary requirements for the formation of metropolitan regions, according to Alonso: the presence of a metropolis, that is, the city that exerts a functional, economic, and social influence over smaller cities; the presence of conurbation among the cities; the third and most important, which we can call relational life, represented by the intense presence of the flow of people and goods between urban centers (Alonso, 2008).

These requisites began to be perceived at the local technical level in areas such as state agencies (Secretary of Public Works) and municipal agencies (Urbanism Division of Porto Alegre City Hall) in the 1950s, but it was in the following decade that these requirements were consolidated, when Porto Alegre had already passed 600,000 inhabitants. The largest Brazilian metropolises, such as Rio de Janeiro and São Paulo, had already integrated themselves into this process. However, Porto Alegre anticipated this process of the institutionalization of Brazilian metropolitan regions. A work group consisting of professionals from the Urbanism Board, the State Secretary of Public Works, and the Urbanism Division of Porto Alegre City Hall promoted studies that defined the first fourteen cities which would constitute the limits of the Porto Alegre Metropolitan Region. When federal laws – Supplementary Laws nº14 and nº20 of 1973 – instituted fourteen metropolitan regions nationwide, the Porto Alegre Metropolitan Region had already prepared a Metropolitan Development Plan (PDM).

4. THE PORTO ALEGRE METROPOLITAN REGION: PLANNING
Organized around the highways that formed the basic network, connecting the diverse urban centers internally and externally to the limits of the fourteen cities, the Metropolitan Region developed primarily along the northern axis of São Leopoldo and Novo Hamburgo, traditional centers of the leather goods & shoes industry, and the second most important industrial zone in the region. The smaller cities that surrounded those two - Estância Velha, Sapiranga and Campo Bom - gravitated around them, forming the northern urban network. Three additional cities complemented this axis Sapucaia, Esteio, and Canoas, the latter being the second largest concentrator of population and jobs in the region. Together, they composed the primary economic territory of industrial development of the capital. Five other cities formed the east-west axis already described: Gravataí, Cachoeirinha, Viamão, Alvorada and Guiaiba. Of the fourteen cities in the metropolitan region, these five depended more heavily upon their relationship with the capital.

From this context, the Metropolitan Region organized itself. In 1970 the fourteen cities had a total population of 1,531,254 inhabitants, which represented 23.0% of the state’s total population.
4.1. THE METROPOLITAN DEVELOPMENT PLAN

The perception of relevance of the metropolitan issue emerged in professional and political arenas during the 1960s. The necessity soon became evident to institute a work group that was empowered to prepare a plan for the region, considered an area of concentration of large-scale socio-economic problems relevant to the state’s overall health.

Politically speaking, the decisions involved the Rio Grande do Sul state government, through the Secretary of Public Works and its Urbanism Division, and the fourteen municipal governments of the cities that comprised the metropolitan region, led by the mayor of Porto Alegre. Thus, the Metropolitan Council of Cities (CMM) was instituted, with the task of promoting the metropolitan plan, in April of 1970. Council members included the State Secretary of Public Works, representing the Rio Grande do Sul state government, a representative from the South Region Superintendence (SUDESUL), the mayor of Porto Alegre, and the mayors of all the Metropolitan Region’s member cities. To prepare the plan, a professional specialist group was put together, which came to be called the Metropolitan Region Executive Group (GERM). This interdisciplinary group consisted of professionals from several areas such as architects, urbanists, engineers, sociologists, economists, and administrators. The prevailing ideas at that time pointed to the necessity of an interdisciplinary vision in approaching urban problems; as a result, cities began to be seen not as isolated structures, but integrated into the regional territory upon which they were dependent. At the same time, the ideas of planning for development had superimposed themselves upon new urbanistic theories. The prevailing ideas were no longer those that came from the modernist movement, which guided the plan for Brasília and so many other cities, even the Porto Alegre master plan of 1959. What was now being acclaimed was integrated planning involving various sectors, from the economic, with its financial, commercial, and industrial fields, to the social, involving education, health, and culture, as well as environmental, transportation, and other sectors. On one side, these proposals were accentuated academically through the comprehensive plans, which the Americans had developed; on the other side, the proposals were influenced by previous local experience linked to Sagmacs71, with the assistance of Fr. Lebret, seeking a society united by humanism.

From 1964 onward, the federal government’s strategy was the centralization of absolute power. Yet, there was a need to establish urban policies, based on a planning structure, within the administrative program and hierarchy, in order to improve living conditions on an urban and regional level. Urban planning became a key focus of the federal administration and was housed in the Ministry of the Interior. The Federal Housing Service (SERFHAU) and the National Housing Bank (BNH) were created, as well as regional superintendencies, to subsidize local actions.

In search of alternative methodologies to take on the complex task of preparing a plan for the Porto Alegre Metropolitan Region in Rio Grande do Sul, the local technical team affiliated itself with a German team, which originated from an institutional partnership with international participation, both in the directive group and within the work teams. This partnership grew out of the Basic Agreement of Technical Cooperation, signed by the leaders of Brazil and Germany in November of 1963, and promulgated by the president of Brazil on July 30, 1964. Supplementary adjustments

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71 Society for Graphic and Mechatonographic Analysis Applied to Social Complexes (Sagmacs), an institution of study and research focused on urban and regional planning, on social and economic development; an organization linked to and influenced by the French group Mouvement Économie et Humanisme, coordinated by Padre Lebret.
were made between the Brazilian and German governments for the preparation of an Integrated Plan for the Porto Alegre Metropolitan Region, in February of 1971, between Brazil’s Ministry of Foreign Relations and representatives from Germany. In April of 1970, an agreement was signed by the cities that comprised the Metropolitan Region, creating the Metropolitan Council of Cities (CMM) and the Metropolitan Region Executive Group (GERM), approved by their respective city councils.

The group’s mission, with dual coordination by Brazilian and German directors for the preparation of metropolitan planning, was considered successful. The Brazilians contributed their knowledge of the local reality, while the Germans brought to the table their methodological instrumentation and the vision of a developed country, according to reports presented by the group (PDM, vol. 1, 1973). See excerpt from the following report:

“Another challenge that was overcome was the initial lack of a methodology specific to metropolitan planning. The prior knowledge base consisted of experiences of urban planning linked to a physical space perfectly characterized and delimited, and of natural regional planning which was essentially economic, applied to an open space that was not perfectly delimited. Thus, one of the first steps of the Planning Group had to be the elaboration of a planning methodology, which happened via the association of the two precedents, adding to it all a systematic focus” (PDM, vol 1, p. XIV).

4.2. THE DIAGNOSTIC

The scenario that presented itself at that moment showed a region whose primary identifiable problems were: an increase in the rate of population concentration which, in 1970, had already reached 23% in relation to the entire state’s population; this population was sparsely distributed throughout the region, resulting in residential areas with low densities. Densities between 75 % and 100 % of inhabitants per hectare were considered compatible with the urbanization costs, i.e. the costs of network extension infrastructure (clean water, sanitation, electricity, paving of public roads, extension of public transport networks) and public facilities (schools, health centers, green areas). (Plan of Metropolitan Development, vol. 3, 1973.)

At that time, 23% of the residential area had an average density of 25 people per hectare, while densities above 200 people per hectare comprised less than 3% of the total occupied area; the employment rate of 25.24% in relation to the economically active population demonstrated the high level of regional unemployment and underemployment. As a result, the average income was very low, especially in the industrial sector; deficient infrastructure was revealed by the percentage of areas served. Porto Alegre was an exception in this situation. In terms of basic infrastructure, the sewage system serviced only 32.3% of the capital, while in the remaining cities it was practically nonexistent. Electricity was the only basic service that reached approximately 90% of the population.

The localization of industrial employment, dispersed throughout the metropolitan territory, provoked diseconomies, such as the difficulty of improving necessary infrastructure for production processes, and excessive distances between housing and places of employment. The housing market was not corresponding to the demand, especially when considering low-income families. The basic causes were established as referent to the lack of an effective housing policy for the lowest income strata and an absence of policies regulating access to urbanized land. These realities contradicted the directives set forth by federal policy which, since 1964, with the
creation of the National Housing Bank (BNH) intended to reduce the country’s housing deficit. Included in the government’s policies were programs for those whose household income was less than or equal to three minimum salaries. The area of transportation received special attention, identified as a key sector for improving both the living conditions of the metropolitan population and commercial production activity.

This diagnostic, as summarized above, methodologically integrated the first phase of elaborating the Metropolitan Plan. The identification of problems grouped by areas, as well as identifying the causes of these problems, served as a foundation for the next task: building a prognostic, in search of a visual model of a probable future scenario. The option chosen was the establishment of goals that would comprise an alternative future scenario for when the region would reach three million inhabitants. According to the historical rates of regional growth, the scenario most accepted was that within approximately twenty years this number would be reached.

4.3. THE SPATIAL MODEL

In search of alternative methodologies to tackle the complex task of preparing a metropolitan plan, the German technical team proposed the adoption of a spatial model that indicated optimal solutions to the complex problems of spatial distribution, establishing the necessity of projecting alternatives and determining their material consequences. Nine alternatives were built and tested using the application of a mathematical model. This information is contained in Document 13 "Spatial Distribution Alternatives - Model Lowry " Plan of Metropolitan Development: Federative Republic of Brazil, the state government of Rio Grande do Sul, Metropolitan Council of Municipalities - CMM, Executive Group of the Metropolitan Region - GERM. Porto Alegre: Issue of the State Government of Rio Grande do Sul, 1973.

“For the testing of spatial relationships among the physical distribution of places of work, residence, and services, dependent upon a regional transport network, the Lowry Model was utilized as an analysis of impact” (PDM, Doc. 13, p. 4).

The chosen alternative would become the desired scenario for the Metropolitan Region and serve as a foundation for the detailing of development directives for the future metropolis, when the region would reach the mark of three million inhabitants. The spatial model consisted of proposed directives for the distribution of activities and population within the metropolitan territory. The decentralization of the capital, the strengthening of secondary centers, the balanced distribution of population and employment, the creation of industrial districts, new cities, and a network of main roads linking the city centers were its principal directives. The Lowry Model was founded on the following basic theoretical premises: individual choice of residence, dependent upon the location of jobs and the availability of residential property. The jobs was divided in basics – industries - and no basics – commercials and services establishment.

The model was utilized as an analysis of impact in two aspects: as a test of alternatives to evaluate how far the respective spatial distribution of the attraction factors of jobs and housing allowed for the desired distribution, and as a determination of the consequences of these alternatives for inter-relationships between the different zones.
The nine possible future scenarios were accompanied by the conception of a road network that foresaw the primary interconnections. The output, representing the relationship between traffic and accessibility, as well as the distribution of the variables considered, both calculated and proposed, was directed to give support to the evaluation of each one of the alternatives. The Lowry Model developed by Lowry, Ira S. U.S. (1962-1963), as part of a modeling system to generate alternatives and contribute to the process of decision-making "Pittsburgh comprehensive Renew Program" and Rand's 'Urban Transportation Study." The Lowry Model aims to generate population estimates and basic employment (industrial) in an urban area. Can be defined as a computational model of spatial organization of human activities within a metropolitan area. Describes changes in prevailing variables such as basic jobs (manufacturing jobs), efficiency of public transport, population growth. (Lowry, Ira S. "A Model of Metropolis Santa Monica Rand Corporation, 1964)\textsuperscript{72}.

The chosen alternative had in its conception the presuppositions of promoting a more balanced regional growth in regards to occupying the regional space, linking various urban activities, and developing the east-west axis as an area of metropolitan expansion. The justification was as follows:

\("...the aim was to reduce pressure on the northern axis (federal highway BR-116) by the organization of a complementary axis...as well as the installation of an internal regional transport system\)" (PDM, Doc. 13, p.53).

The principal strategy in meeting this objective was the promotion of the decentralization of industrial employment, combined with the anticipation of implanting new industrial areas in these cities. Additionally, some areas were prescribed to be new urban nuclei, places of residence and centers of business and services associated with the new industrial areas. Some still free (unoccupied) areas located in urban peripheries were provided by PDM as new urban areas (new cities) for location and organization of new settlements, to absorb the expected demographic expansion (3 million inhabitants in about 20 years - from 1973 to 1993).

The conception of a network of roads was laid down to ensure levels of adequate accessibility to each city center. Founded on this spatial directive, the Metropolitan Transport Plan was developed, initiated in 1973 and concluded in 1976, the fruit of an agreement of intentions and commitments established for the integration of federal transportation policy.

In 1973 and 1974, Supplementary Laws º14 and nº20 were promulgated, creating nine metropolitan regions in a centralized format, which gave the federal government greater control over the areas of highest concentration of population and economic activity in the country – control that was seen as necessary for the political system implanted in Brazil since 1964.

**FINAL CONSIDERATIONS**

The planning of the Porto Alegre Metropolitan Region preceded the institution of metropolitan regions in the country. While the configuration of the northern axis was the result of a historical process of occupation in the region, due to the location of the German colonies along the Sinos River, it is also the result of a strong connection that the cities had with Porto Alegre and the country’s center. Initially, it was the railroad that brought the region together, bringing with it the location of the first industries.

the ones that left the capital to find a more favorable place. With the construction of
the highway, the tendency for more dynamic access, up until 1970, was reinforced.
These circumstances took the growth of Porto Alegre in that direction, and the cities
located on this northern axis also grew, thus determining the rise of the largest area of
population concentration in the state, as well as the conurbation of cities. The
resultant problems caught the attention of government agencies that saw fit to
promote research and studies regarding this urban terrain. For this reason, when in
1973 the federal government instituted the first nine metropolitan regions, Rio Grande
do Sul already possessed a German-Brazilian international work group and had
prepared its Metropolitan Development Plan (PDM). This action was possible
because of local political and professional interest in the discussion that was taking
place on a national level. All had come to recognize the importance of having a supra-
municipal treatment of metropolitan problems that were growing out of control.
Individual cities did not have the necessary conditions, within their own municipal
limits, to solve them or to at least manage them, since their causes might very well
originate from beyond their administrative limits.
This discussion had been taking place for the better part of a decade. The First
Constitutional Amendment of 1969, Article 164, outlined the elements for federal
institution of Metropolitan Regions:

"Considered to be strategic national targets by the military regime since 1964, the legal nature of this concept was broadened until its formalization in 1969" (Schmidt, 1983, p. 162).

What prevailed in the constitutional text was a choice for federal centralism and
authoritarianism, in detriment of a policy that favored state and municipal agencies.
Since these agencies lost their seat at the bargaining table, the only thing left for cities
was the simple role of public entities tasked with discussing the plans and programs to
be defined and implemented by the Executive Board, and suggest steps for
implementation, yet with no real power to intervene in the decision process. The
cities’ representation on the Executive Board consisted only of the mayor of the
capital, nominated by the federal government, and one representative from each of the
remaining cities.

"...National interests prevailed over local interests and allowed the federal
government to form an action strategy in the areas of highest concentration
of urban activity in the country, and thus impose its objectives to modernize
urban administration, serving as a conduit to modernize the periphery, yet
ignoring the participatory claims of those at the local level" (Schmidt, 1983,
p. 165).

The action strategy arrived in Rio Grande do Sul in 1974 by way of the creation of a
foundation – the Metropolitan Planning Foundation. From then onward, implantation
was marked by centralized planning and decentralized action, giving priority to the
construction of modern infrastructure for the capital’s development and expansion.
The objectives of social and spatial integration, frequently present in the planning
policies formulated with support in governmental technical areas, were relegated to
the background. What predominated was support for the monopolist and exportation
industrial sectors, the spatial concentration of resources, and the production of
360).
This administrative model, however, has always placed itself in opposition to the
concept of place as the arena of particular municipal interest, as the Constitution of
1988 asserts. While understood as the cities’ responsibility, metropolitan areas began to threaten this concept, so that in order to be effective for their purposes, it should be substituted for the concept of particular metropolitan interest (Villaça, 2012, p. 231). This conflict is still an open question in Brazil that involves both the political and professional arenas. It is up to urbanists, in these times of democracy, to broaden the debate and shed light on the recognition of this issue. Metropolitan cities and urban conglomerations will only be able to solve or manage their problems through joint actions which recognize the conurbanized cities, the cities that have long passed the limits of their municipal boundaries and maintain an intense relational life among their urban centers.

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REZENDE, V. (ORG) – *Urbanismo na Era Vargas: a transformação da cidade brasileira* Niteroi, Ed. UFF -2012


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(in 11/03/2014)
Abstract
In France, the resident organizations are designated as Area Councils (Conseils de quartier: CQ) by the communes, under the Law of the Democracy in the Neighborhood (Loi relative à la démocratie de proximité) of 2002. This study aims to clarify the situation of these mandatory Area Councils in order to make recommendations for Japan. Thus, I detail the political and actual situation of the Area Councils and analyze the examples as follows: according to the 2007 statistics of INSEE, 47 communes have populations over 80,000; and the oldest CQ was established in Grenoble, in the Rhône-Alpes region, in 1926, and eight other communes also created CQs before the legislation of 2002. Taking Besançon as a case study, I demonstrate how the CCHs worked both as a result of the needs of the administration and spontaneously. In Japan, the local administrations should clarify the local problems with city planning for local residents and demand their help, and provide opportunities for residents to discuss those issues.

Keywords: Area Council; Law of the Democracy in the Neighborhood; Commune; PS; Besançon.

1. INTRODUCTION
In Japan, we are facing both a decline in population and cities. However, we need to recognize the historic value of the buildings and their surroundings through decentralization and reaching a consensus with the residents, and find a way to maintain and enhance the local charm in keeping with the daily needs of contemporary life [1]. In 2004, the Japanese government introduced the Landscape Act, which made it possible for local administrations, by decentralization, to designate certain districts for landscape conservation. In particular, they were able to establish the Landscape Management Organization, composed of local residents, to which they entrusted the conservation of the local landscape; however, as of April 1, 2011, these were limited to just five organizations [2]. The law governing Historical Town Planning introduced in 2008 aims to “maintain and develop Historical Scenic Beauty and bequeath it to the next generation”; Historical Scenic Beauty is defined as “a favorable environment at the center of the city where the activities that reflect the regional unique histories and traditions of the people and the historically precious structures and their surroundings are united” [3] [4]. This law also enabled local administrations to establish the Historical Scenic Beauty Management Support Organization, again composed of local residents, although the number of nominations is small.
In France, it is mandatory, under the Law of Democracy in the Neighborhood (Loi relative à la démocratie de proximité) of 2002, to establish area councils (Conseils de quartier; CQ) in communes with a population over 80,000 [5]—I will refer to these councils as the mandatory area councils—while in those cities with populations between 20,000 and 80,000, the establishment of CQs depends on municipal objectives [6]. CQs present proposals concerning the local area to the communes and then undertake a consultation to determine the response. Nowadays, this system is at the center of decentralization, which first started in 1982, the era of President François Mitterrand [7], and which has become very important in planning history. For example, the SRU Law (Loi relative à la solidarité et au renouvellement urbains; Law of Solidarity and Urban Renovation) was introduced in 2000, allowing local administrations to decide on local general planning issues. The system for landscape conservation was also changed by the Grenelle 2 Law in 2010, which created AVAP (Aires de mise en valeur de l'architecture et du patrimoine; Areas of emphasis on architecture and heritage); under this system, local administrations could formulate all policies concerning the local landscape [8]. Although decentralization is so important, the system of CQs that represents it has not yet been properly clarified, even in France.

2. Aims of the Study

This study aims to clarify the contemporary status of the CQs in the 47 communes with populations over 80,000, in order to research the reality of decentralization in city planning in France, and so derive recommendations for Japan on developing its own effective system and resident groups [9]. In the main, I consulted the homepages and municipal journals of each commune. First, I present the legal definition of CQs and an outline of the 47 communes. I then explain how the CQs were established and the unique systems developed by some communes: the City of Besançon, which I regard as a particularly important example, is taken as a case study. Finally, I present my conclusions.

3. Outline of the CQs

3.1 Legal Definition

I explain here the legal definition of CQs, which are defined by the legislation of 2002, as follows [10]:

“The First Title: of Democracy in the Neighborhood
The First Chapter: Participation of residents in local life
Article 1
1. – 1. Chapter II of Title IV of the first volume of the second part of the general code of territorial collectivity is entitled: ‘Consultation with electors about communal affairs.’
2. Chapter III of the same title is entitled: ‘Participation of residents in local life.’

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3. Articles L.2143-1 and L.2143-3 of the same code are taken from Articles L.2144-1 and L.2144-3, respectively, and constitute Chapter IV of the same title, entitled: ‘Services in the neighborhood.’

II. – Thus, Article L.2143-1 of the same code is restored:

‘Art. L.2143-1 – In the communes with populations over 80,000, the municipal council determines the perimeter of each area that constitutes the commune.’

‘Each is equipped with an area council, for which the municipal council determines the denomination, composition, and its procedures and function.’

‘The CQs are able to consult with the Mayor and respond to the proposals concerning their area of the city; in return, the Mayor is able to elaborate on the purpose and objectives for the proposals in that area, from the perspective of city politics.’

‘The municipal council is able to establish the CQs in an area and allocate an annual budget for their operation.’

‘The communes with populations between 20,000 and 79,999 are able to adopt the current arrangements. In this case, Articles L.2122-2-1 and L.2122-18-1 are applied.’”

3.2 The 47 Communes with Populations Over 80,000

Here, I explain the situation of those communes that are obliged by law to establish CQs; according to the statistics from the Institut National de la Statistique et des Études Économiques (the French National Institute of Statistics and Economic Studies; INSEE, 2007), there are 47 communes with populations over 80,000 (Table 2); their distribution across the regions are shown in Table 1: nine communes in the Île-de-France region, where Paris is located; five in Provence-Alpes-Côte d’Azur, which is situated in the southeast of France on the Mediterranean coast; and four in Rhône-Alpes, again in the southeast of France.

Paris, in the Île-de-France region, is the city with the largest population (2,125,246), followed by the city of Marseilles, in Provence-Alpes-Côte d’Azur, with a population of 798,430, and third, by the city of Lyon, in Rhône-Alpes, with 445,452. At the other end of the spectrum, the cities with the smallest populations are Aulnay-sous-Bois and Créteil, both in Île-de-France, with 80,021 and 82,154, respectively, preceded by Poitiers, in Poitou-Charent, situated in the west of France on the Atlantic coast, with 83,448. The average population per commune is 209,784.
**Table 1.** Number of the 47 communes in the region

<table>
<thead>
<tr>
<th>No.</th>
<th>Commune</th>
<th>Region</th>
<th>Population</th>
<th>No of CQ</th>
<th>Population par CQ</th>
<th>Member of CQ</th>
<th>Established year</th>
<th>Mayor at the moment of establishment</th>
<th>Political party</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Paris</td>
<td>Île-de-France</td>
<td>2,125,24</td>
<td>6</td>
<td>17,420</td>
<td>In case councilor, association, qualifier, resident</td>
<td>2002</td>
<td>Bertrand DELANOË</td>
<td>PS</td>
</tr>
<tr>
<td>2</td>
<td>Marseille</td>
<td>Provence-Alpes-Côte d'Azur</td>
<td>798,430</td>
<td>147</td>
<td>5,431</td>
<td>Resident is able to participate</td>
<td>2002</td>
<td>Gérard COLLOMB</td>
<td>PS</td>
</tr>
<tr>
<td>3</td>
<td>Lyon</td>
<td>Rhône-Alpes</td>
<td>445,452</td>
<td>34</td>
<td>13,102</td>
<td>Open to all the residents</td>
<td>2002</td>
<td>Unknown</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Toulouse</td>
<td>Midi-Pyrénées</td>
<td>390,350</td>
<td>22</td>
<td>17,743</td>
<td>Open to all the residents</td>
<td>Unknown</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Table 2.** Circumstances of CQs in the 47 communes

<table>
<thead>
<tr>
<th>No.</th>
<th>Commune</th>
<th>Region</th>
<th>Population</th>
<th>No of CQ</th>
<th>Population par CQ</th>
<th>Member of CQ</th>
<th>Established year</th>
<th>Mayor at the moment of establishment</th>
<th>Political party</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Paris</td>
<td>Île-de-France</td>
<td>2,125,24</td>
<td>6</td>
<td>17,420</td>
<td>In case councilor, association, qualifier, resident</td>
<td>2002</td>
<td>Bertrand DELANOË</td>
<td>PS</td>
</tr>
<tr>
<td>2</td>
<td>Marseille</td>
<td>Provence-Alpes-Côte d'Azur</td>
<td>798,430</td>
<td>147</td>
<td>5,431</td>
<td>Resident is able to participate</td>
<td>2002</td>
<td>Gérard COLLOMB</td>
<td>PS</td>
</tr>
<tr>
<td>3</td>
<td>Lyon</td>
<td>Rhône-Alpes</td>
<td>445,452</td>
<td>34</td>
<td>13,102</td>
<td>Open to all the residents</td>
<td>2002</td>
<td>Unknown</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Toulouse</td>
<td>Midi-Pyrénées</td>
<td>390,350</td>
<td>22</td>
<td>17,743</td>
<td>Open to all the residents</td>
<td>Unknown</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No.</td>
<td>City</td>
<td>Region</td>
<td>Population</td>
<td>Councilors</td>
<td>Description</td>
<td>Year</td>
<td>Candidate</td>
<td>Party</td>
<td></td>
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<td>------------------------------------------------------------------------------</td>
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<td></td>
</tr>
<tr>
<td>5</td>
<td>Nice</td>
<td>Provence-Alpes-Côte d'Azur</td>
<td>342,738</td>
<td>17</td>
<td>20,161 5 councilors, 7 councilors of ward assembly, 7 residents or commuters, assistant of pole of proximity, deputies and general councilors</td>
<td>2008</td>
<td>Christian ESTROSI</td>
<td>UM P</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Nantes</td>
<td>Pays de la Loire</td>
<td>270,251</td>
<td>11</td>
<td>24,568 850 residents and associations in total</td>
<td>2012</td>
<td>Patrick RIMBERT</td>
<td>PS</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Strasbourg</td>
<td>Alsace</td>
<td>264,115</td>
<td>10</td>
<td>26,412 Resident (2/3), association, specialist</td>
<td>2008</td>
<td>Roland RIES</td>
<td>PS</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Montpellier</td>
<td>Languedoc-Roussillon</td>
<td>225,392</td>
<td>7</td>
<td>32,199 Resident, association, specialist</td>
<td>2001</td>
<td>Georges FRECHE</td>
<td>Div ers gau che</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Bordeaux</td>
<td>Aquitaine</td>
<td>215,363</td>
<td>8</td>
<td>26,920 Tipstaff, qualifier(association, school, religious delegate, trader), resident qualified by assistant</td>
<td>2011</td>
<td>Alain JUPPE</td>
<td>RP R, UMP</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Lille</td>
<td>Nord-Pas-de-Calais</td>
<td>212,597</td>
<td>10</td>
<td>21,260 Unknown</td>
<td></td>
<td>Unknown</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Rennes</td>
<td>Bretagne</td>
<td>206,229</td>
<td>12</td>
<td>17,186 Unknown</td>
<td></td>
<td>Unknown</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Le Havre</td>
<td>Haute-Normandie</td>
<td>190,905</td>
<td>17</td>
<td>11,230 Unknown</td>
<td>1995</td>
<td>Daniel COLLIARD</td>
<td>PC F</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Reims</td>
<td>Champagne-Ardenne</td>
<td>187,206</td>
<td>12</td>
<td>15,601 Resident, association, councilor</td>
<td></td>
<td>Unknown</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Saint-Étienne</td>
<td>Rhône-Alpes</td>
<td>180,210</td>
<td>19</td>
<td>9,485 2 delegates of residents and associations, councilor, councilor of ruling and opposition party</td>
<td>2012</td>
<td>Maurice VANCENT</td>
<td>PS</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>Toulon</td>
<td>Provence-Alpes-Côte d'Azur</td>
<td>160,639</td>
<td>10</td>
<td>16,064 5 councilors (4 from ruling party, 1 prefectural councilor, 1 from opposition party), 1 CIL</td>
<td></td>
<td>Unknown</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No.</td>
<td>City</td>
<td>Region</td>
<td>Population</td>
<td>Age</td>
<td>Delegates</td>
<td>Role</td>
<td>Year</td>
<td>Name</td>
<td>Party</td>
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</tr>
<tr>
<td>16</td>
<td>Grenoble</td>
<td>Rhône-Alpes</td>
<td>153,317</td>
<td>22</td>
<td>6,969</td>
<td>Resident (at first)</td>
<td>1926</td>
<td>Paul MISTRAL</td>
<td>SFI</td>
</tr>
<tr>
<td>17</td>
<td>Angers</td>
<td>Pays de la Loire</td>
<td>151,279</td>
<td>9</td>
<td>16,809</td>
<td>Deputy Mayor, 5 councilors, resident group, delegate of association, house of area</td>
<td>Unknown</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>Dijon</td>
<td>Bourgogne</td>
<td>149,867</td>
<td>9</td>
<td>16,652</td>
<td>Mayor, Councilor, resident, qualifier</td>
<td>2002</td>
<td>François REBASAMEN</td>
<td>PS</td>
</tr>
<tr>
<td>19</td>
<td>Brest</td>
<td>Bretagne</td>
<td>149,634</td>
<td>7</td>
<td>21,376</td>
<td>Resident over the age of 16, delegate of association, councilor</td>
<td>Unknown</td>
<td></td>
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</tr>
<tr>
<td>20</td>
<td>Le Mans</td>
<td>Pays de la Loire</td>
<td>146,105</td>
<td>6</td>
<td>24,351</td>
<td>Resdent, delegate, association, socioeconomic spokesman, councilor; local public service, qualifier</td>
<td>2002</td>
<td>Jean-Claude BOULARD</td>
<td>PS, PC F, MG P, PR G, MD C, Les Verts</td>
</tr>
<tr>
<td>21</td>
<td>Clermont -Ferrand</td>
<td>Auvergne</td>
<td>137,140</td>
<td>5</td>
<td>27,428</td>
<td>Delegate of resident, of association, 3 councilors, thematic concerned to councilor or administration</td>
<td>Unknown</td>
<td></td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>Amiens</td>
<td>Picardie</td>
<td>135,501</td>
<td>26</td>
<td>5,212</td>
<td>In form of association</td>
<td>1989</td>
<td>(In 2004) Brigitte FOURE</td>
<td>UD F</td>
</tr>
<tr>
<td>23</td>
<td>Aix-en-Provence</td>
<td>Provence-Alpes-Côte d'Azur</td>
<td>134,222</td>
<td>57</td>
<td>2,355</td>
<td></td>
<td>Unknown</td>
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</tr>
<tr>
<td>#</td>
<td>Location</td>
<td>Region</td>
<td>Population</td>
<td>Households</td>
<td>Average Households</td>
<td>Year</td>
<td>Position</td>
<td>Political Party</td>
<td></td>
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</tr>
<tr>
<td>24</td>
<td>Limoges</td>
<td>Limousin</td>
<td>133,994</td>
<td>10</td>
<td>13,399</td>
<td>2002</td>
<td>All the residents, delegate of association, councilor</td>
<td>Alain RODET</td>
<td>PS</td>
</tr>
<tr>
<td>25</td>
<td>Nîmes</td>
<td>Languedoc-Roussillon</td>
<td>133,424</td>
<td>7</td>
<td>19,061</td>
<td>2002</td>
<td>Mayor, deputy mayor, councilor, 5 members, delegate of sector local commission, 6 delegates of organizations and of associations in sectors, 6 members of sector</td>
<td>Jean-Paul Fournier</td>
<td>UM P</td>
</tr>
<tr>
<td>26</td>
<td>Tours</td>
<td>Centre</td>
<td>132,820</td>
<td>4</td>
<td>33,205</td>
<td>Unknown</td>
<td>Delegate of resident, delegate of association of residents and of local commission, councilor, delegate of local public service</td>
<td></td>
<td></td>
</tr>
<tr>
<td>27</td>
<td>Villeurbanne</td>
<td>Rhône-Alpes</td>
<td>124,215</td>
<td>8</td>
<td>15,527</td>
<td>1990s'</td>
<td>Councilor group composed with 1 councilor and resident, volunteer resident over the age of 16, delegate of organization and association, councilor living in area</td>
<td>(In 2002) Jean-Paul BRET</td>
<td>PS</td>
</tr>
<tr>
<td>28</td>
<td>Metz</td>
<td>Lorraine</td>
<td>123,776</td>
<td>11</td>
<td>11,252</td>
<td>2008</td>
<td>Motivated resident over the age of 16, delegate of association of area, selected resident with drawing</td>
<td>Dominique Gros</td>
<td>PS</td>
</tr>
<tr>
<td></td>
<td>City</td>
<td>Region</td>
<td>Population</td>
<td>Group Size</td>
<td>Description</td>
<td>Selected by</td>
<td>Mayor</td>
<td></td>
<td></td>
</tr>
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<td></td>
<td></td>
</tr>
<tr>
<td>29</td>
<td>Besançon</td>
<td>Franche-Comté</td>
<td>117,733</td>
<td>13</td>
<td>9,056 Selected group with drawing from all the residents, volunteer resident group, economic association group, selected concerning people by Mayor</td>
<td>1996</td>
<td>Robert SCHWINT</td>
<td>PS</td>
<td></td>
</tr>
<tr>
<td>30</td>
<td>Caen</td>
<td>Basse-Normandie</td>
<td>113,987</td>
<td>9</td>
<td>12,665 Anybody from residents</td>
<td>2011</td>
<td>Philippe DURON</td>
<td>PS</td>
<td></td>
</tr>
<tr>
<td>31</td>
<td>Orléans</td>
<td>Centre</td>
<td>113,126</td>
<td>6</td>
<td>18,854 Resident or commuter over the age of 16</td>
<td>2008</td>
<td>Serge GROUARD</td>
<td>UM P</td>
<td></td>
</tr>
<tr>
<td>32</td>
<td>Mulhouse</td>
<td>Alsace</td>
<td>110,359</td>
<td>16</td>
<td>6,897 Volunteer resident, specialist, association of area</td>
<td>2010</td>
<td>Unknown</td>
<td></td>
<td></td>
</tr>
<tr>
<td>33</td>
<td>Rouen</td>
<td>Haute-Normandie</td>
<td>106,592</td>
<td>12</td>
<td>8,883 Resident over the age of 16, not councilor</td>
<td>1996</td>
<td>Yvon ROBERT</td>
<td>PS</td>
<td></td>
</tr>
<tr>
<td>34</td>
<td>Boulogne -</td>
<td>Île-de-France</td>
<td>106,367</td>
<td>7</td>
<td>15,195 Unknown</td>
<td>2008</td>
<td>Pierre-Christophe BAGUET</td>
<td>UM P</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Billancourt</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>35</td>
<td>Perpignan</td>
<td>Languedoc-Roussillon</td>
<td>105,115</td>
<td>Unknown</td>
<td>Unknown</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>36</td>
<td>Nancy</td>
<td>Lorraine</td>
<td>103,605</td>
<td>11</td>
<td>9,419 Resident over the age of 16 or anybody acts in area</td>
<td>2008</td>
<td>André ROSSINOT</td>
<td>UD F, UM P, UD I, RAD</td>
<td></td>
</tr>
<tr>
<td>37</td>
<td>Roubaix</td>
<td>Nord-Pas-de-Calais</td>
<td>96,984</td>
<td>5</td>
<td>19,397 Delegate of association, of organization and of company, qualifier, resident</td>
<td>2003</td>
<td>René VANDIEREND ONCK</td>
<td>UD F, PS</td>
<td></td>
</tr>
<tr>
<td>38</td>
<td>Argenteuil</td>
<td>Île-de-France</td>
<td>93,961</td>
<td>15</td>
<td>6,264 6 selected residents with drawing, 3 nominated</td>
<td>2008</td>
<td>Philippe DOUCET</td>
<td>PS</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Commune</td>
<td>Metropolitan Area</td>
<td>Population</td>
<td>Selected by</td>
<td>Known Qualifiers</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>39</td>
<td>Tourcoing</td>
<td>Nord-Pas-de-Calais</td>
<td>93,540</td>
<td>Mayor</td>
<td>Unknown</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>40</td>
<td>Montreuil</td>
<td>Île-de-France</td>
<td>90,674</td>
<td>Mayor</td>
<td>Anybody from residents or commuters, councilor is not able to be delegate or director</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>41</td>
<td>Avignon</td>
<td>Provence-Alpes-Côte d'Azur</td>
<td>85,935</td>
<td>Mayor</td>
<td>Unknown</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>42</td>
<td>Saint-Denis</td>
<td>Île-de-France</td>
<td>85,832</td>
<td>Mayor</td>
<td>10 qualifiers from residents, from associations and by Mayor</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>43</td>
<td>Versailles</td>
<td>Île-de-France</td>
<td>85,726</td>
<td>Mayor</td>
<td>Proposed councilor, anybody from residents not concerning age and nationality</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>44</td>
<td>Nanterre</td>
<td>Île-de-France</td>
<td>84,281</td>
<td>Mayor</td>
<td>Resident not councilor, social specialist (like association), councilor</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>45</td>
<td>Poitiers</td>
<td>Poitou-Charentes</td>
<td>83,448</td>
<td>Mayor</td>
<td>Resident, association concerning area, socioeconomic spokesman, public service</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>46</td>
<td>Créteil</td>
<td>Île-de-France</td>
<td>82,154</td>
<td>Mayor</td>
<td>3 councilors, delegate of association, resident and specialist</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>47</td>
<td>Aulnay-sous-Bois</td>
<td>Île-de-France</td>
<td>80,021</td>
<td>Mayor</td>
<td>Gérard SEGURA</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4. Unique Systems

From the CQs established in the 47 communes, I focused on the long-standing CQs and chose those that were well constructed. My selection of those groups most like

It is worth taking particular note of the following groups, however. The Area Union (Union de quartier) in Grenoble may be the oldest residents’ organization in France. Also, the Consultative Area Council (Conseil consultatif de quartier) established in Montpellier in July 2001, which was supported following the election of the present Mayor, Hélène Mandroux, and where 27 Houses of Democracy exist in addition to the CQs. Furthermore, in Amiens, there are four sectors covering the 26 Area Commissions (Comités de quartier), which had to be established in 2004 under the legislation of 2002, although the administration has decided to maintain these groups as associations, while an Area Commission Union (Union des comités de quartier) unites these groups. The system of sectors also exists in Montreuil and Créteil. Finally, the Consultative Council of Inhabitants (CCH: Comité consultative d’habitants) in Besançon has detailed rules about the number of members, etc., according to the area population.

5. Case Study: The City of Besançon

5.1 The System of Conseils consultatif d’habitants (CCHs) in Besançon

From the communes selected, I will now present a case study of Besançon to illustrate the system and the activities of the CQs. The city of Besançon is the capital of the Franche-Comté region in the east of France, and also the Doubs department. It has a population of 117,733 over an area of 65.05 km², and its major industries are precision instruments and clocks. Besançon is also known for being a summer resort, with the city center being located within a ring of the Doubs River (Figure 1).

Figure 1. Plan of Besançon with CCH area and each population extracted by Ville de Besançon., 2011. Besançon Votre Ville. Hors-série CCH, Ville de Besançon, Besançon.
The residents’ participation in the Area Councils of Besançon started in 1996 [12], but when the Charter was revised, in 2008, they renamed the 13 councils as “CCH: Conseil consultatif d’habitants” to promote the “democracy in the neighborhood.”

The CCHs are defined as “the tools to assist political decision-making, which contribute to the best dialogue between the citizens, their delegates, and the administration about:
- enhancing the understanding of the political and administrative organization of the city;
- contributing to an improved quality of life in the each area;
- harnessing the opinions of the residents;
- encouraging people to ‘live together’.”

Under Article 2 of the Charter, the members of the CCH have the following rights:
- The right to be informed and/or consulted about municipal projects in the area or, in some cases, in the city or a collection of areas.
- To guarantee this right, the City must incorporate a consultation within the area concerned as part of the procedure for the project (in both the definition of the project and in providing the opportunity).
- The right to express their position on and opinions about these projects.
- The right to propose amendments to the projects presented, so as to participate in achieving and promoting the best quality of life for the area.
- The right to be involved in the formation of the City, especially its political and administrative organization, and the municipal budget.”

The period over which members serve on each CCH is decided by municipal mandate at the first meeting, and the plenary is held three times per year. The composition of the CCH is defined by Articles 5 and 6: the areas are divided into three categories according to whether their population is less than 5,000, between 5,000 and 11,000, or over 11,000 (Table 3), and the number of members on the CCH for these areas is 28, 36, and 44, respectively. Each CCH is composed of four groups, each with the same number of members:
1) A group drawn from all the residents in the area by the random selection
2) A group of volunteer residents drawn from the responses to a widespread call for candidates.
3) A group of delegates from economic enterprises and local associations in the area.
4) A group of members nominated by the Mayor from people engaged in the area.
The president is elected at the first meeting, from among the members, for a period of 2 years.
Table 3. 3 categories of areas (by the number of residents)

<table>
<thead>
<tr>
<th>Less than 5,000</th>
<th>From 5,000 to 11,000</th>
<th>More than 11,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Battant(4,188)</td>
<td>Boucle/Chapelle des buis(10,794)</td>
<td>Chaprais/Cras(15,439)</td>
</tr>
<tr>
<td>Bregille/Près de Vaux(3,093)</td>
<td>Grette/Butte(9,399)</td>
<td>Montrapon/Orchamps/Combe Saragosse/Vaîtes(14,057)</td>
</tr>
<tr>
<td>Clairs-Soreils(4,118)</td>
<td>Rosement/Saint-Ferjeux(6,176)</td>
<td>Planoise/Châteaufarine(19,531)</td>
</tr>
<tr>
<td>Tilleroyes(1,342)</td>
<td></td>
<td>Saint-Claude/Torcols/Chailluz(13,975)</td>
</tr>
<tr>
<td>Velotte(2,201)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

5.2. The Tramway Project and the Activities of the CCHs

Grand Besançon is a community with a population of 180,786, which was established by 59 communes in 2001 to create a real communal identity. Its delegates had appealed for a 14.5 km tramway, with 31 stations, to improve connections across its territory of 432 km² (Figure 2) [13] [14].

The temporary schedule for the construction of the tramway was: first, on June 15, 2010, the 200 members of the CCHs and Participative Council of Development (Conseil de Développement Participatif) asked the community of Grand Besançon for their views about the project; then, on June 30, 2010, the project was approved; a public inquiry followed from the end of 2010 to the start of 2011, with construction starting at the end of 2010 (Table 4) [15].

Figure 2. The course of future tramway extracted by Ville de Besançon., 2010. Besançon Votre Ville. October, Ville de Besançon, Besançon, 13. Modified by author
Table 4. Temporary schedule of tramway project

<table>
<thead>
<tr>
<th>Date</th>
<th>Schedule</th>
</tr>
</thead>
<tbody>
<tr>
<td>June 15 2010</td>
<td>CCH and Participative Council of Development asked questions</td>
</tr>
<tr>
<td>June 30 2010</td>
<td>Deposit of the documents of DUP(Declaration of Public Utility)</td>
</tr>
<tr>
<td>End of 2010 – Debut 2011</td>
<td>Public inquiry</td>
</tr>
<tr>
<td>End of 2010</td>
<td>Launch the construction of the line</td>
</tr>
<tr>
<td>End of 2011 – End of 2014</td>
<td>Construction of platform</td>
</tr>
<tr>
<td>Debut 2012 – End of 2013</td>
<td>Construction of center of maintenance</td>
</tr>
<tr>
<td>2013</td>
<td>Production of trains for the open in 2014</td>
</tr>
<tr>
<td>End of 2014 – Debut 2015</td>
<td>Test and walk</td>
</tr>
<tr>
<td>Middle of 2015</td>
<td>Opening the Tramway</td>
</tr>
</tbody>
</table>

I have indicated the activities of the CCHs in the tramway project in Table 5. On June 15, 2010, the CCHs and Participative Council of Development (Conseil de développement participatif; CDP) consulted Grand Besançon on the following:
- Will the tramway be constructed?
- Do we need a tramway?
- How do you characterize the future east–west line of the tramway?
- Why should the tramway project not extend to the zones of Temis and the campus of Bouloie?
- Who will pay for the tramway?
- Financially, is the project feasible?
- Do tramways and sustainable development go together?
- What are the advantages of the tramway compared to the bus?
- How will the temporary schedule be presented?

Table 5. Activities concerning the CCHs

<table>
<thead>
<tr>
<th>Date</th>
<th>Schedule</th>
</tr>
</thead>
<tbody>
<tr>
<td>June 15 2010</td>
<td>CCH and Participative Council of Development asked questions</td>
</tr>
<tr>
<td>End of 2010 – Debut 2011</td>
<td>Propositions by CCH Palante at Public inquiry</td>
</tr>
<tr>
<td>June 2011</td>
<td>CCH Rosement formed inquietude. A commission proposed the position of the station</td>
</tr>
<tr>
<td>September 2011</td>
<td>CCH Vellote launched inquiry about the use of public transport</td>
</tr>
<tr>
<td>September 2011</td>
<td>Administration demanded the CCHs to propose the station names</td>
</tr>
<tr>
<td>February 2012</td>
<td>Definitive names were decided with the CCHs. Transfer of the statue of Flore with the CCH Chaprais</td>
</tr>
<tr>
<td>June 2012</td>
<td>CCH Battant demanded to be consulted</td>
</tr>
<tr>
<td></td>
<td>CCH Chaprais transferred the statue by decision making</td>
</tr>
<tr>
<td></td>
<td>CCH Planoise proposed the transfer of totem</td>
</tr>
<tr>
<td></td>
<td>CCH Palante raised concerns about the tramway</td>
</tr>
<tr>
<td></td>
<td>CCH Rosement proposed the transport plan with Transport Service</td>
</tr>
<tr>
<td></td>
<td>CCH Tilleroyes thought about the link with tramway</td>
</tr>
</tbody>
</table>
During the public inquiry, between the end of 2010 to the start of 2011, CCH Palante expressed the following wishes: creation of a cycle path; need for soundproofing; request for research, before construction started, to assess potential damage to façades (cracks, etc.) and vibration levels from the passage of the tram; financial help for the streets bordering the tramway in which residents would be forced to change their exit routes; and creation of a supplementary station [16]. Later, in June 2011, CCH Rosement raised the concerns of their residents that they would “really not be able to benefit from the tramway,” and so the commission, “Space for Everybody (Espaces pour tous),” proposed that a station be provided a little way upstream near the future firemen’s building. Then, CCH Vellotte launched its own inquiry, in September 2011, about residents’ use of public transport during the bric-a-brac sale, because it had been decided to maintain bus line 24 with a connection to the tramway. At the same time, and up to October 14, 2011, the CCHs demanded that they be able to propose names for the 31 tramway stations [17], so that the stations were given representative and meaningful names [18]. The final names were settled in February 2012, following collaboration between the CCHs, CDP, and Transdev Besançon Mobilité, which was the local contractor for the transport network Ginko. Ten names were changed from their original ones (given in brackets), as follows: UFM Médecine (Université), CHRU Minjoz (CHU), Allende (Cassin), Canot (Cité universitaire), Battant (Veil-Picard), Révolution (Beaux-Arts), République (Médiathèque), Fontaine-Angel (Alexis Chopard), Croix de Palente (Corvée), and Chalezeule (Marnières Terminus). At the same time, the CCH and Director of Green Spaces decided that the statue of Déesse Flore, Just Becquet’s masterpiece, would be exhibited in the Chaprais area after its restoration [19]; in the meantime, the CCH decided to place the statue in Place de la Liberté in June 2012 until it could be returned to its original site [20]. CCH Planoise took the same line with regard to the totem on the Ile-de-France roundabout: due to the tramway project, the CCH decided to move it to the roundabout in avenue du Languedoc. Also in June 2012, CCH Battant appealed for a consultation, demonstrating that there were problems with transport related to the construction of the tramway. Similarly, CCH Palante raised concerns about the speed limit for cars in the Pierre & Marie Curie School zone as a result of the new circulation plan generated by the tramway. Likewise, CCH Rosement put forward proposals for traffic circulation on Oratoire street, where cars traveled at high speeds: the CCH proposed a safer speed limit in light of the tramway project by including service streets in the grand plan. Finally, CCH Tilleroyes, through which the tramway would not pass, deliberated on the transport connections between it and its own town center.

6. Conclusions

The CQs were established by the legislation of 2002, as part of the trend toward decentralization in France, and gave decision rights to the residents of local communes. However, the circumstances surrounding their creation differed according to the commune, as there was a difference in population per CQ, of 30,850 at most.
Moreover, the membership of the CQs, and the way in which they were nominated, differed in each commune. Many of the communes where CQs were established before the law was passed were left wing, and consisted of a more complex system than was described in the Articles of the legislation. Taking the case study of Besançon, where the CQ system was well constructed and worked well, the CCHs worked from two perspectives: first, from the needs of the administration, explaining the viewpoint or proposals at organized meetings; and second, in a spontaneous manner, thinking about the local traffic circulation, putting forward proposals for local projects, and gathering public opinion if necessary. Furthermore, the CCHs collaborated with the administrative services whenever possible: I illustrated how they took responsibility for those issues of a large project for which the administration could not. According to my analysis, for this system to be adopted in Japan, I propose the following: 1) Japanese local administrations should clarify the local problems in city planning for local residents and demand their help; and 2) opportunities, such as public consultation, should be made available for residents to have positive discussions with the administrations. However, I will need to conduct further research into local participative urban planning.

References

6. EGUCHI, K., 2013. Study on the Urban Conservation in Paris by the Area Councils-About the Third, the Fourth, the Eleventh and the Twelfth Ward-. Summaries of Technical Papers of Annual Meeting, F-1, Architectural Institute of Japan, Tokyo, 1203-1204.
How public is our park? Assessing public-ness in Centennial Park, Sydney Australia
Catherine Evans

Abstract
Sydney’s large parks are currently under pressure to shift to self-funding models. Centennial Park, one of Sydney’s oldest and largest parks, will lose its recurrent government funding this year, and tensions around anticipated consequences abound. For example, in 2013, amidst the 125th anniversary celebrations of Centennial Park, the centrepiece of a trio of parks known and managed collectively as Centennial Parklands on the eastern edge of the city, park management released a strategic vision as a prelude to the first ever master plan for the park. The controversy created by some of the proposals in the plan, such as food outlets and the introduction of a small entry fee, overshadowed the significance of the master plan itself; more significantly, the uproar echoed ongoing concerns in North America and Europe regarding the increasing commercialisation of urban public spaces, including squares, plazas, as well as parks.

It is clear that we need to think anew about the provision of our parks, and indeed we are, but we need to proceed carefully and deliberately. Can the private sector participate in the provision of public parks without diminishing their most important values? If parks are so critical to our wellbeing, and in so many ways, we need to ask serious questions about them, most importantly what does a public park look like, and what might it offer its city? What defines public in these parks? Who administers such a space? How and, most importantly, for whom?

This paper contributes to these deliberations by providing a brief outline of the trajectory of planning, governance and funding decisions underpinning the funding and associated management shift currently underway in Centennial Park. The research gleans definitions of and models for assessing public-ness from the current urban public space scholarship, and tests these as a framework for interpreting the dimensions and attributes of public-ness evident the strategic visions for Centennial Park in 1993 and 2013. The paper concludes with a discussion of the values of the framework and the opportunities and risks inherent in the current government proposals for park planning and provision in Sydney.

The paper addresses the main theme of the conference-the past as a guide to sustainable futures- and several of the sub-themes, in particular constructing meanings of public and private and private interests and the public realm.

Introduction
As is the case in many large cities, Sydney’s large parks are currently under pressure to shift to self-funding models. Centennial Park, one of Sydney’s oldest and largest parks, will lose its recurrent government funding this year, and tensions around anticipated consequences abound. For example, in 2013, amidst the 125th anniversary celebrations of Centennial Park, the centrepiece of a trio of parks known and managed collectively as Centennial Parklands on the eastern edge of the city, park management released a strategic vision as a prelude to the first ever master plan for the park. The controversy created by some of the proposals in the plan, such as food outlets and the introduction of a small entry fee, overshadowed the significance of the master plan itself; more significantly, the uproar echoed ongoing concerns in North America and
Europe regarding the increasing commercialisation of urban public spaces, including squares, plazas, as well as parks.

The presence of commercial activity in an iconic urban park is not unique to Sydney—indeed Sydney is just catching up. Many of the world’s iconic urban parks have succeeded only because of private funding and commercial activity: in New York, think Central Park and the Highline; in Chicago, Millennium Park. And indeed, in Sydney, Centennial Park and the Sydney Royal Botanic Gardens have been the setting for revenue generating events for several years now, so the move to 100 per cent self-funding may seem a logical step. Many may welcome additional festivals, hubs and kiosks in one of Sydney’s premier outdoor spaces, but this increased activity belies a gradual and distinct shift in park management and programing—and ultimately to the concept of a public park itself.1

It is clear that we need to think anew about the provision of our parks, and indeed we are, but we need to proceed carefully and deliberately. Can the private sector participate in the provision of public parks without diminishing their most important values? If parks are so critical to our wellbeing, and in so many ways, we need to ask serious questions about them, most importantly what does a public park look like, and what might it offer its city? What defines public in these parks? Who administers such a space? How and, most importantly, for whom?

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Background

Urban scholars have been debating the changing civic quality of urban space for the last half century. The main theme of these debates is the decline of the public sphere, an issue which in recent years has been typically referenced to private ownership of public spaces, increased commercialisation, the pervasive use of technology, and the rise of spectacle as a major driver of urban development. Some of the best known critiques of urban public space are those of Michael Sorkin, who in his 1992 book, Variations on a Theme Park: the new American City and the end of Public Space, declared a new era of public life was upon us.2 Almost a decade later Tridib Banerjee labelled a new type of urban space: the pseudo-public space, a reference to the extensive reliance and presence of private investment in public spaces.3 Privatisation and commercialization are often identified as the culprit, and the crime is diminished public interaction, conviviality, social identity and cohesion—in effect, a loss of social capital.

However, recent scholarship suggests that while the changes underway are real enough, they are neither as stark nor as simple as a shift from public to private, but rather more nuanced-- and far less dire.4 Some of these studies have resulted in a series of models that assess degrees of public-ness. A study of pseudo-public spaces by Florian Langstraat and Rianne Van Melik, published in 2013, asserts that the
involvement of the private sector does not necessarily result in ‘the end of the public’. Langstraat and van Melik found three factors that tend to lead scholars and others to overstate the poor state of health of public urban space: a limited definition of the term public, a limited focus on a single type of space—the flagship developments, and finally a limited geographical scope to the studies. In addition to pointing the need to examine this issue in cities outside the United States, the value of the work by Langstraat and van Melik for this paper is the review and synthesis of recent models which assess the meaning and degree of public-ness. Across the three models they reviewed, Langstraat and van Melik found seven measurable attributes of public-ness, as follows: ownership; management; use/users; accessibility; physical configuration; animation and inclusiveness. Urban scholars have also investigated specific issues and opportunities that arise from the practice of exception in the governance of public domain—situations where legislation and policy are written to address specific and/or unique situations. This practice often arises from the planning and staging of mega-events, such as Olympic Games, but can also occur within agencies. Exceptions are often strongly resisted by the public, who anticipates that what may be proposed as a temporary event, will become permanent and diminish the public value of the venue or space. Recent research in this area includes Andrew Smith’s study of the impact and consequences of ‘borrowing’ a public park to stage Olympic equestrian events in Greenwich England, which found that temporary exceptions, regardless of scale, risk becoming the expected norm, and can lead to commercialisation and urbanisation of public parks.

Another important issue and area of research is the plethora of public-private partnerships, because they (as well as other types of strategic alliances) are now common strategies for government agencies to engage support from the private and non-profit sector in community development projects—in strengthening social capital. This dimension of management is not explicitly addressed by Langstraat and van Melik, but warrants study, particularly as an indicator of the pros and cons of creative arrangements for the management of public spaces.

The Australian situation
A limited review of literature addressing the diminishing public sphere in Australia reveals a scholarly focus on mega-events: the outcomes of development associated with the Sydney Olympics in 2000, and the more recent issue of staging motor car races in public venues such as the Parliament zone in Canberra, the physical and symbolic capitol of Australia, and at Sydney Olympic Park. Although McManus reviewed the consequences of an Olympic event in a local bay and park in Sydney’s inner west, in general, scholarly attention to the public urban spaces that have been and continue to be part of daily and weekly experience for urban citizenry in Australia appears to be lacking.

One reason to attend to the issue of public-ness in Sydney’s urban spaces, particularly parks, is the recent spate of changes in governance structures for some of the city’s largest and most significant parks. The NSW State Government manages open space through various instrumentalities, funding programs and policy frameworks. Core responsibilities are devolved to a variety of state agencies, the number and nature of which have shifted with political priorities. The election of a new Liberal Government in April 2011 resulted in the consolidation of several offices responsible for open space into the Department of Premier and Cabinet: these included the Department of Planning and Infrastructure (including the Sydney Harbour Foreshore Authority); the
Office of Environment and Heritage (which includes the Parks and Wildlife Group – formerly NPWS – the NSW Heritage Office and Botanic Gardens Trust); the Office of Western Sydney; Parramatta Park Trust; Centennial Park and Moore Park Trust; and the Western Sydney Parklands Trust.

In the last two years additional consolidation has occurred. The Western Sydney Parklands Trust and the Parramatta Park Trust were merged in 2012, bringing together two major parks in the western edge of the city; in early 2014 Centennial Park and Moore Park Trust was merged with the Botanic Gardens Trust. The latter comprises three separate gardens: Sydney Royal Botanic Gardens, Mt Tomah Botanic Gardens in the Blue Mountains, and Mt Annan Botanic Gardens in the southwest of the metropolitan area. It is too soon to know if or how these mergers will lead to efficiencies, synergies and collaboration. However, because recently released master plans for both Centennial Park and the Sydney Royal Botanic Gardens both indicate an increase in type and number of commercial activities in both parks, it is timely to assess the meaning, value and expression of public-ness in Sydney parks.

**Knowing and Measuring Public-ness in Parks**

Langstraat and Van Melik found that public-ness is a varied concept. While often defined in contrast to private, or as a dichotomy in opposition to private, their research determined that the relationship between public and private is more complex, and may in fact involve a range of diverse and hybrid ownership arrangements. In other words, the presence of a private owner does not equate with neglect of public benefit. Langstraat and van Melik also found seven diverse and ‘multifaceted understandings’ of public-ness, as mentioned above: ownership, accessibility, rights of use, control, civility, physical configuration and animation.

Langstraat and van Melik developed and tested a new model for assessing public-ness using with four descriptors: ownership, management, inclusivity and accessibility. Ownership is the legal status of the place; management describes the operations of care and control; accessibility refers to physical connectivity as well as physical design; inclusiveness refers to how well a place accommodates the needs of a variety of people. Each descriptor can be weighted in reference to a relative value (ranging from 1 to 4) revealed by the data. So, a space in solely public ownership would receive a weighting of 4; a space with a 50-50 public-private arrangement would receive a weight of 2. They also proposed a simple graphic—a four sector pie chart—for communicating their findings. Like the models Langstraat and van Melik based theirs upon, the pie chart provides clear visual register of the dimensions and degrees of public-ness associated with a space.

Another valuable contribution of their work is the distinction made between the indicators and consequences of public-ness, where indicators (of public-ness) are ownership and management, and consequences are the outcomes for use and users. It is important to note however that the relationship between indicators and consequences is not always straightforward; in other words, public ownership and management does not deliver a fully public space. Poor design and uneven programming of space can compromise intentions of managers and owners. The inverse will also be true—private ownership can deliver public space.

Langstraat and van Melik combined observational surveys, in-depth interviews and discourse analysis of secondary data to compare seven pseudo-public spaces in England and the Netherlands. Because this paper presents the first iteration of a more focused study, and a different type of urban space (Centennial Park is not a pseudo-
public space), the research technique was limited in scope to a discourse analysis of primary sources—mainly the vision statements, strategic plans and master plans. This study uses a twenty year time frame, 1993 being the year the first strategic plan for the park was released and the current (2013/2014) documents. This temporal scoping allows us to discern the degree of change in public-ness across this twenty year time frame. Finally, this study adopts the four descriptors of public-ness employed by Langstraat and Van Melik, within one significant variation: it expands the definition of management to capture the range of temporary private vendors and operations that occur within the park across a year—mainly music, film and food festivals.

**Overview of Centennial Park**

Centennial Park sits on the eastern edge of Sydney, and today is one of three adjoining parks that are collectively known as Centennial Parklands. The park, approximately 189 hectares (467 acres), was established in 1887 in response to popular and political demands for recreational space and in anticipation of the centenary celebrations of European settlement in Australia. Considered to be a derivative of 19th century English public parks, particularly the work of Joseph Paxton at Birkenhead Park, Centennial Park was conceived of as a suburban park, surrounded by villas, inscribed with a circular grand avenue, and punctuated with playing fields, ponds, and horticultural plantings.\(^\text{12}\)

Initially administered by the NSW Chief Minister’s Office, Centennial Park was moved in 1908 to the Department of Agriculture into a portfolio with the Sydney Royal Botanic Gardens and Public Domain, where it remained until the 1970s. Joseph Henry Maiden, Director of the Botanic Gardens and Domain and Superintendent of Centennial Park from 1896-1924, was responsible for the planting designs of civic buildings and spaces across the state, as well as the Botanic Gardens and Centennial Park. His horticultural knowledge and civic ideals influenced many planting designs in the public domain throughout NSW. Maiden’s annual reports document his views about the principles of park design generally, and specifically Centennial Park. For Maiden, parks served to improve the moral and physical health of urban residents, and thus his focus was the pursuit and cultivation of beauty, hygiene and safety in public parks.\(^\text{13}\)

Maiden described Centennial Park as a ‘jewel in an unworthy setting’, and,

‘a glorious natural depression, with high land all round it, and within its area, enabling one in one coup d’oeil, to view a landscape which is a dream of beauty, a balm to jaded nerves, and inspiration to the aesthete, be he poet or artist.’\(^\text{14}\)

Given the emphasis on the visual in this description, it is no surprise that Maiden created a Gardenesque landscape. His primary efforts were directed to establishing a Lily Pond and a rose garden, both in the center of the park. He also introduced belts of melaleucas (paperbarks) and rows of palms as main planting elements, to that the extent that, as Ian Hoskins has observed, by the early 1900s, Maiden’s direction was ‘beginning to lend an identifiably Australian character to the park.’\(^\text{15}\) Today these all remain important features of the park.
At the same time, as Maiden’s annual report for 1918 makes clear, there remained extensive areas of unmanaged or uncultivated land: he accounted for approximately 100 acres of highly maintained areas, 100 acres of infrequently mown grass, and the remaining parkland, more than 200 acres, Maiden described as ‘native bush’ -- bush, swamp, rocky land, and ponds. After noting that these areas were ‘providing a lurking place for undesirable people’, Maiden directed their clearing by ‘cutting ways through, leaving clumps of bush, without altering the natural appearance of the surroundings.’ This is a useful anecdote because it reveals that Maiden was a practical manager, here making a decision that created a balance —of aesthetics and labor requirements—between highly maintained areas and more ‘natural’, and apparently uncultivated areas. This also speaks to Maiden’s ideas about public use and access of the park. Undesirable behavior was a constant issue for Maiden, but here he seems to suggest a strategy for discouraging—as opposed to removing or preventing—irksome actors from the park. The park, in other words, remained open to all.

The years between Maiden’s retirement in 1924 and the 1960s are years of perceived neglect in the park. Centennial Park was not a high priority within the portfolio of Department of Agriculture. This was however a time when the introduction of the car, the rapid increase in population post WWI, and the activities of the Parks and Playground Movement (from 1930) put pressure on the park. These socio-demographic changes and pressures led to a series of development proposals in Centennial Park, including the use of sporting fields by nearby schools and sporting associations, the first symphony in the park (in 1950); and a proposal to stage a trade exhibition in the park (this was rebuked). From 1950, there were also a series of proposals for sports facilities in the southwest corner of the park; the two most significant of these occurred in 1963 and 1972. Both involved sporting facilities in the southern portion of the park. Following the public outcry resulting from the 1963 proposal, the Centennial Park Supervisory Committee was established. For the next four years, with over $300,000 in government funding, restorative and developmental work was undertaken. This entailed clearing of undergrowth, removal of silt from ponds, and extensive tree planting.

The 1972 proposal was more consequential. Part of a bid for the 1988 Summer Olympics, it featured a stadium and sports complex in the same area as the 1963 proposal. The response was political and ultimately changed the administration of the park. A ‘Save the Parks’ group formed, a Green Ban was placed on the park, and in 1976 Centennial Park was listed on the NSW National Trust Heritage Register as a Landscape Conservation Area, and two years later on the Australian Register of the National Estate.

In the wake of this flurry of these acknowledgments of the significance of Centennial Park, it was separated from the Botanic Gardens and moved out of the Department of Agriculture and into the direct administration of the Premier’s Department. This separation of the park from the gardens, after
almost a century of external control was favored at least in part because it allowed for the distinction between the scientific mission of the Botanic Gardens and the ‘arcadian’ ideals associated with Centennial Park. The Advisory Board who delivered this decision considered the arcadian ideal as providing ‘respite from metropolitan pressures’—a strong echo of Maiden—but also called for the expansion of Centennial Park’s role for conservation generally and specifically as a wildlife refuge.\textsuperscript{19}

Within a period of four years, a director of Centennial Park was appointed, the Centennial Park Act was passed, and a trust was established to oversee the planning and management of the park. This was first time in its history that the park had the authority and resources to operate independently and a director focused solely on the park—and marked a significant change in governance and management. Even so, it was ten years before the first strategic plan was prepared in 1993. Two years later, in 1995, the first plan of management, a statutory planning instrument, was approved.

The mission of the park as articulated in the 1993 Strategic Plan focused on the conservation of resources and the provision of recreational opportunities—at the time, standard park administration fare. The plan also drew attention to the need to cultivate excellence in park management—a park of national significance must set the standard. The principles in the 1993 Strategic Plan were as follows:

- Conserve the Victorian setting; offer free basic services and interpretation;
- focus on historic values, non-organized and movement related activity;
- maintain a non-commercial emphasis; provide accessible and non-discriminatory urban relief.\textsuperscript{20}

The statutory plans of management prepared in 1995 and 2006 were more detailed; both established specific values and attributes that required attention and resources from park management. These included aboriginal heritage as well as European heritage, the role of the park in the local ecosystem, particularly as a major component of the Botany Basin wetlands, and a representative of the Eastern Suburbs Banksia Scrub, an endangered vegetation community.\textsuperscript{21}

Work directed by these plans of management in Centennial Park since 1995 has focused on improving the water quality in the ponds, upgrading existing buildings, maintaining the health of the tree population, and managing the diverse user demands. The administrative buildings, the café and restaurant, and toilet blocks have been upgraded. Many events, both one-off and recurring have been staged in Centennial Park. These include open air cinema, music and food festivals as well as diverse education programs. Two interpretive walks have been constructed, both in the interior areas of the park along the periphery of pond and swamp edges, and both directing attention to Aboriginal and natural values of the park. In 1997, the transformation of a materials depot, also in the interior of the park, into a venue called Centennial Square, effectively a small urban plaza, marked a fundamental shift in the landscape character of the park: its distinction from
the urban form. In hindsight, this plaza was a precursor to the current proposal for a series of ‘hubs’ of activity throughout the park.

In 2013, a first ever Strategic Land Use Vision for Centennial Parklands (for all 3 parks) was released. Promoted with a ten minute video component, this vision statement is highly accessible but not highly detailed. The main goal is simply stated: “securing a sustainable future.” This anticipates the cessation this year of ongoing state government funding, and encompasses the continuing obligation to provide a ‘people’s park,’ as well as to protect the heritage values and items associated with the park. The principles that underpin the vision are as much a business plan—if not more so—than they are a vision of the park, as follows:

1. Build a customer focused organisation and culture that delivers our strategic goal
2. Grow and diversify our funding sources to allow us to invest our assets
3. Focus our operations on asset management and the integrity of the Parklands
4. Enable all to enjoy a diversity of passive recreation, sporting, cultural and educational facilities

The Strategic Land Use vision was also a prelude to the first master plan prepared for Centennial Park, which was released about a year later in December 2013. Not surprisingly, it indicates an increase in structured activities in the park, mostly on a small scale, such as more food outlets, but also a skateboard facility and an expanded education centre in the vicinity of Centennial Square.

Discussion: Shifting Public-ness in Centennial Park 1993 - 2013

The principles listed in the 1993 Strategic Vision articulate the park as a physical expression of democratic ideals: a space of freedom, unstructured, and permeable. Distinctive and offset from the city, the park was a place that would celebrate the past and maintain the legacy of a people’s park. The current Strategic Land Use Vision is written in a different language: it is a business plan focused on managing assets and program and of necessity, generating revenue for maintenance and capital expenditures. Because of the current economic pressures—the focus on revenue—, there is also an emphasis on image and brand in the current vision, something absent twenty years ago. Has this shift diminished public-ness in Centennial Park?

Ownership

The legal ownership of this land has not changed since 1802 when it was set aside as a Common, the park remains property and responsibility of the NSW government. However, since the 1960s, as the Aboriginal reconciliation movement strengthened across Australia, there was growing acknowledgement of the original owners of the land. This was evident throughout the 1990s when a series of significant reconciliation events occurred in the park, and is even more explicit today with parklands planning documents incorporating descriptions of the Gadigal people as custodians of the occupied by the parklands today. This shift to acknowledge shared ownership may be tokenistic, as it has arguably expanded only implicitly the understanding of what is meant by public ownership, but it has broadened the spectrum of who is consulted and/or involved in the decision making processes of the park.

Management
The intentions— with regard to public benefit— of new administrative arrangements are not clear. How the recently renewed joint administration of Botanic Gardens and Centennial Park is intended to maintain and/or strengthen (or not) the image and identity of this collection of parks and gardens as public institutions remains to be seen—and is an important area for additional research. It is also timely, if not urgent, as this is the second such consolidation of park administrative structures that the NSW Government has made recently—last year, the Western Sydney Parklands Trust and the Parramatta Park Trust were merged. Staffing efficiencies and economies of scale will be one outcome, but the capacity of these condensed structures to address specific and unique issues of access and inclusivity for each park is also a concern. As noted earlier, management takes into consideration the administrative arrangements as well as the types of contractors involved in the care and upkeep of the park. The ongoing arrangements with regard to equestrian and sporting activity represent one way in which the management arrangements support specialised uses and users. Because these arrangements have been in place for decades, it is likely that they are perceived as part of the park operations—and not an intrusion of private interests. This is speculative, and would be an important area to assess when extending this research to surveys and interviews.

Accessibility

Access has always been challenge for Centennial Park. It sits awkwardly in the fabric of the city, and is not served well by public transport—although this will change in the next few years as light rail is re-introduced to the eastern portions of Sydney (an extensive tram system was removed in the 1960s). In addition to the road access, the park has always been a dark park; there are no lights, and gates are closed in evening. This too is changing—with an increasing number of staged events—film series, music festivals—the park is increasingly if only in segments more accessible.

The downside to this expanded temporal accessibility is that these events are run by outside organisations and entry fees are charged. Many would argue that this diminishes the accessibility of the park, particularly when and where large events consume large areas within the park. This is true of Centennial Square, purpose built for special events as well as distinctive landscape settings such as the amphitheatre where a summer film series, the Moonlight Cinema, is held.

Another accessibility issue in Centennial Park is traffic—the amount of cars passing through, parking, causing congestion and compromising safety of pedestrians, cyclists and trees is an ongoing concern for the park. Much of the pressure here is not due to insensitive or exclusive management policies, but rather derives from both the popularity of the park and the increased population in the area. The outcry that resulted from a suggestion in the Master Plan released in December 2013 to charge a small entry fee to the park is a clear indication of how highly the public values free access to this park. While access may be challenging in other ways, the fact that it is fee-free to enter the park is an important register (especially to the public) of its public-ness.

Inclusiveness

Planning instruments and park policies indicate that Centennial Park has clear aims of expanding offerings to accommodate increasingly diverse users. This nature of this diversity is important to note: the interests and needs of all ages, cultures, and species are attended to. As is the case elsewhere, the importance of inclusiveness gives way to tensions— for example between dog walkers and carers of young children. But purpose and outcomes can be easily confused: for example, the park has received a
philanthropic donation specifically for the design and construction of a labyrinth. The proposal was embedded in the Strategic Land Use Vision, and is part of the new Master Plan. However, while both documents celebrate the significance of this opportunity, neither discusses its value in terms of its alignment with or contribution to the public-ness of the park.

Conclusion

Is Centennial Park any more or less public than it was twenty years ago? This preliminary study indicates the value of Langstraat and van Melik’s model of assessing public-ness to answer this question. In particular, a review of park planning documents is a constructive path for interrogating temporal shifts in public-ness, and the assessment of public-ness through an analysis of primary and secondary documents is a useful first step, but, as demonstrated by others, the question warrants a mixed method approach, specifically interviews and surveys.

In spite of the limits of this current study, it is clear that since 1993, the CPMT has consciously developed programs and spaces to accommodate a range of interests and values. The shift in social and political values to include and acknowledge Aboriginal culture and heritage has played a significant role in expanding the public role of the park. Even broader socio-political concerns, coupled with the required development of income streams, have resulted in the current proposal to ‘activate’ existing nodes with kiosks. While these hubs of activity have clear positive intentions, for some users, they may also register as a higher degree of specialization. The real and perceived exclusivity of such operations thus present a risk—or at the very least, a shift— to what has been a defining tradition of public access in the park. In other words, activation may in fact be code for other outcomes, intentional or not, such as privatization and exclusivity. Another related concern is the expanded size and program of Centennial Square since its establishment 1996. In addition to introducing urban form into the park, this type of growth segments the park into specific places for specific people and activities. More in-depth assessment of how this affects the public-ness of Centennial Park could guide future plans at the local level for ‘activating’ the park, and provide a framework for assessing targeted philanthropic gifts. At a broader level such research could also establish a sorely needed evidence base to inform park planning and provision by the NSW Government.


5 Langstraat and van Melik, 431-432.


9 Langstraat and Van Melik, 433-436.

10 Langstraat and Van Melik, 435.

11 Langstraat and Van Melik, 446.


14 Joseph Henry Maiden, p.188.


18 Ashton and Blackmore, 135.

19 Ashton and Blackmore. 135.

20 Centennial Park and Moore Park Trust, Strategic Plan: planning towards Australia’s Centenary of Federation, (Sydney: The Trust, 1993), 9.


23 Centennial Park and Moore Park Trust 2013.


Penedo: Transformations in the Urban Form, From an Utopian Project to Tourist City
Sergio Moraes Rego Fagerlande

INTRODUCTION

Penedo was founded in 1929 by a group of Finnish vegetarian naturalists who wanted to create a new society in the tropics. Penedo was the result of the idealistic project of Toivo Uuskallio and his group, organized around the Finnish Vegetarian Society, with ideas based on natural health treatments and a vegetarian diet. The project was also based on Uuskallio’s ideals of equality, and also some religious Pentecostal Church thoughts. He believed future of man was to live by nature, far from the cities and civilization. Uuskallio always said the colony was not a socialist project, but a place to live in harmony and peace, more religious than political. Finland had become recently independent, in 1917, and it was then a poor country, with a strong process of emigration. It also had an interesting history of other utopian colonies, many of them in South and North America. The most important examples are Sointula, in Canada, founded in 1900, and Colonia Finlandesa, created in 1906 in Argentina. Both examples were in a certain way connected to Penedo, as Uuskallio knew about the experiences, and both encouraged him to choose Brazil (FAGERLANDE, 2007, 2013).

As they came to Brazil they chose an old and abandoned coffee and cattle farm in countryside region of the state of Rio de Janeiro and set their utopian project there, which lasted from 1929 to 1942, when the enterprise could no longer bear its debts and a large portion of the farm land was sold. This apparent end of the experience proved to be a new beginning and tourism-related activities, such as receiving guests in their own homes, the production of hand crafts and cultural activities such as, especially, the Saturday dances, with traditional music and dancing ended up by being attractions in the new activity that would become the definitive vocation of the old Finnish colony: cultural and ecological tourism.

This work seeks to relate the Housing Project dreamed of by the leader of the colony, Toivo Uuskallio, that was studied in a MSc. thesis and became a book (FAGERLANDE, 2007, 2013) and items that refer to the present urban form of Penedo. In this sense, it is important to mention the activities related to the Finnish image, which were the subject of research towards a doctorate thesis (FAGERLANDE, 2012) on image construction in tourist cities, showing how the present profile of the city and its tourist attractions relate to the profile of environmental sustainability provided for in Uuskallio’s design. The study of the urban form as contemplated in the utopia, so rare in Brazil and different from what took place in other countries (REPS, 1980) and the relation of the Finnish with these
utopian enterprises (PELTONIEMI, 1988) were studied by Melkas (1999) and Alva Fagerlande (1996).

The relation between local culture and tourism was studied from Urry (2001), who shows how the visual perspective influences the city and the importance of the tourists and their view to create tourist attractions, and how the representation is linked to this process, by Shields (1992), who shows how the city image is built, and by Shaw and Williams (2004), who presented an adequate definition of what tourist activities are, apart from MacCannell (1999) who, with his concept of staged authenticity leads us to understand how the cultural traditions of a place relate to modern-day tourism.

**THE FOUNDATION OF PENEDO**

The utopian colony of Penedo comes to existence after the ideas of Toivo Uuskallio, a Finnish visionary who was a member of a naturalist and vegetarian activity group set in Finland in the 1920s. In 1925 Uuskallio answered a divine call to travel to the tropics to create a new community where all would live in equal conditions, with free work, in Nature (FAGERLANDE, 2013, p.15). For Uuskallio, God was in Nature, something from free interpretations of the Bible, as embraced by a current of thought in the Lutheran Church, the Vappa Kirkko of Akseli Skutnabb (FAGERLANDE, 2013, p.39) led by Minister H.D.Pennannen, who would become one of the leaders in Finland of a project to create the colony in Brazil.

Following their coming to Brazil, in a first group consisting of Uuskallio, his wife Liisa, and Frans Fagerlund, the farm was finally bought in 1929, close to the mountains of Agulhas Negras where later, in 1937, the first Brazilian National Park would be created, the Itatiaia National Park.
Its privileged location between Rio de Janeiro and São Paulo in a place with easy access by train, near mountains covered with virgin forests, rivers and waterfalls, while at the same time being a farm with large flat areas, ready to be planted, led Uuskallio to choose that farm, whose main house, still standing, is a large 19th century building that, even in a precarious condition would meet his initial goal of housing the Finnish people that would arrive.

**PLANNING THE IMPLEMENTATION OF THE COLONY**

Uuskallio was responsible for the colony’s planning, including not only the way of living and working, but physical planning. All houses, streets, roads, bridges and plantation were based on what he thought and wrote. He did not leave any drawn plans but his ideas to implement the colony were recorded in writing in two versions, one printed and another typed. The first one, published in Finland, is with the Institute for Immigration History of the University of Turku (TYYH) (MELKAS, 1999) whilst the typed version was found by Alva Fagerlande (1998) in Penedo. This study is based on the typed version, which is quite similar to the printed copy but for the absence of one item. Its items are twenty in total, covering subjects such as land ownership, methods for the acquisition of plots, issues related to the existing buildings and those that would be constructed, the water courses, forests and Nature in general.

The main point of the project is the definition for the division of the land in the farm, of 3,373.48 ha (FAGERLANDE, 1998) into 250 two-hectare plots for housing and plantation, apart from 12 ha for plots with forest, up in the mountains and hills. This division, apart from configuring the size Uuskallio considered as ideal for a family to support itself, points to the initial interest in keeping the forests in the mountains, something common in Finland, where a culture for the preservation of Nature already existed but that was new to Brazil, where the hills in all the region had already been cleared, their forests devastated to make room for coffee in the 19th century and after for cattle raising, another very destructive activity for Nature and the vegetation. This first item of the housing Project somehow shows what Penedo became from that moment on: a city with a strong presence of Nature, something that would be confirmed when it was made a Municipal Park in 1995.

When the Finnish bought the property some improvements had already been added to the farm, such as a power plant, and buildings such as the main house, stables, warehouses and some small houses that, according to item 2, would remain as collective property. This can be seen, as well as the first built houses, at map 1.

The rivers were also seen as collective property and should be used for the good of the community. When item 19 mentions that “industrial facilities, whose effluents polluted the river waters, which were for the common use, could not be set up in the
individual plots” once again the interest is made clear for preserving Nature, chiefly the river waters.

The forests should be the private property of every one but even then it was established that the use of wood could be a collective affair for the 'work on roads, bridges, electrical installations, water systems, and in general in community facilities and constructions, as decided in meetings' (FAGERLANDE, 2013, p.209). Once again, the community use was established for the property assets, as it is shown in the way decisions would be made in meetings. As Penedo was yet a farm, there was no interference of any kind of control about the local planning, except what the community wanted for their living. Uuskallio officially owned the farm, but there was an agreement that it was collective. Nobody would own officially his part of the land, and that would later be a problem, when things began to run not so well. Uuskallio thought God owned all the land, and he believed to be a kind of representative of God.

As the enterprise got no outside help, neither from the Finnish nor the Brazilian governments, the financial collection aimed at supporting the project depended on donations and on the participation of the pioneers themselves. Thus the plots were acquired by the parties interested in joining the colony and the choice of location depended on the financial means of each family. A well-located plot, near the river waters or on the flat lands and with access to the road would cost more whilst others place in a less favourable location, up on the slopes or away from the water would be cheaper. The enterprise allowed, however, that the plots could be bought with work, thus enabling the participation of all of those interested.

The machinery and the means of production were also collective property, as well as the seeds and tools used in the work. The new homes would be built in a collective effort, with the materials purchased under the coordination of the entrepreneurs.

The vegetarian basis of the enterprise is clearly stated in item 16 of the Housing Project which says:

'The division and occupation of the property is based on vegetarian eating habits which frees one from the need to own large areas of the land, and of the burden to build fences and ancillary buildings, not needed by those who do not raise domestic animals. It is assumed that the buyers of the plots are aware of and adopt vegetarian habits. If however any dweller should like to keep for oneself an domestic animal, one will have to take steps to prevent this to inconvenience the property of the neighbours.

This item, apparently quite simple, was one of the elements that had the most effect on the urban form Penedo would eventually develop. In leaving the animals, such as cattle, aside, the plants were allowed to grow in a natural manner, producing a landscape that is abundant in trees on all the area of the old colony, making it
different from the other regions around it, which were marked by large areas that had been cleared for pasture.

Map 01 – Penedo at 1929, with existing constructions and new houses and pathways built by the Finnish.
Source: Author's design

THE FIRST PATHWAYS AND HOUSES

The first pathways in Penedo were those found by the Finnish as they arrived. In the beginning of the colony the more important work was that which served to build an infrastructure that would provide conditions to receive the settlers. This way, the opening of ways was one of the priorities, next to the crops and the building of the houses, as provided for in Housing Project.

The initial ideal of Uuskallio was to build a straight way connecting the main farm house to the Marechal Jardim train station; this was partly done and would create the present Avenida das Mangueiras (Mango Trees Avenue), main Penedo road and Avenida Finlândia (Finland Avenue) (VALTONEN, 1998). These two ways were part of that same straight line and the greatest problem was the presence of a river in its way. There was also the physical impossibility of reaching the train station with a straight line as somewhere a curve would have to be made due to the position of the hills that stood in the way of the straight line.

The occupation of the land with the first houses followed the plans of the main ways with the houses located near the river and the roads. Despite this long straight proposed the houses did not follow this line in a rigid way as they spread with no
worry about their forming clusters or alignments. They did not form blocks either, and were not aligned in relation to the streets. As the plots were large, there was no concern with an intensive occupation of the spaces and the houses could be more apart from one another, following not only the interests of the formation of a farming colony but also Finnish urban layout traditions where the houses, whenever possible, had some distance between them.

In any way, the centre of the colony would continue to be the Main Farm House and the patio next to it where the more important ceremonies were held, as shown in photographs of weddings, dance displays, gymnastics events, choirs, apart from commercial and production-related activities. This centre endured until the end of the colony in 1942, when Clube Finlândia (Finland Club) was built, which would from then on centralize the community and commercial activities. It is possible to see this space as a community centre where the group carried out its more important social activities, as the main building of a phalanstère in Charles Fourier's designs.
From 1929 the Finnish started to implement the housing project and, along with the construction of the first ways they started the construction of the first six planned houses, although only four saw completion. An interesting aspect of these houses is their relation with the river. Despite their being near the river, they had no toilets. Valtonen (1998) mentions the use of a dry WC in Uuskallio's home, where the sewage were released directly into the soil, as the old 'out-houses' found in the Brazilian countryside and, this way, the waters would not be contaminated. This ecological principle was probably the precursor of habits presently in force in places where there is a concern with the environment. In many places in Finland the present concern with the conservation of the environment and of the waters had made the houses built near lakes to have this same system to process solid waste. This was yet another of the applications provided for in the Housing Project that covered the non-pollution of the river.

After the construction of these houses, as provided for in the Housing Project, new homes were built, though no longer in line with the initial plans where all would have equal homes. Each one of the pioneers built his home as he he could, due to the hardships faced then.

Of the original houses found in Uuskallio's project, the surviving ones, albeit their many modifications, are those of Suni and of Lehtola. The second wave saw the survival of the stone house of Asikainen, called by him Satulinna^3. Other houses underwent modifications and were changed especially to become pensions and then hostels and hotels.

**TRANSFORMATIONS IN THE COLONY: TOURISM AS A MAIN ACTIVITY**

The utopian period saw, in parallel to the agricultural activities, the start of production for hand crafts as well as the production of jams and liqueurs. At the same time, the homes started to take guests, starting in the 1930s, giving rise to the first pensions (FAGERLANDE, 1996). The Main House for the Penedo Farm also started taking guests as a commercial alternative to the economic crisis that always existed in the colony (FAGERLANDE, 2007).

In the 1940s other pioneer families also started to take guests, such as the Bertells and the Hannonens, with the pension kept by Mrs. Siiri and that of Mrs. Hilja. Visitors were attracted by the Finnish cuisine, with the dishes, breads and jams made by the owner, by the nature of the place, with rivers and mountains, by the sauna which had been brought to Brazil by the Finnish, as well as by the balls held at the Finland Club every Saturday (FAGERLANDE, 1996). Thus, the Finnish culture was present, being an important focal point to attract the guests. There was no need to stimulate something that was natural, such as the presence of the Finnish and their daily habits such as the parties, the food and their daily lives which, being so different from those of the Brazilians, were attractive in themselves.
The success of the guest-taking activity caused the rise of other activities connected to it such as hand crafting, destined to local consumption and that became the object of interest of the guests who stayed at the pensions in Penedo. Another important activity the Finnish brought to Brazil was the habit of the sauna. This traditional Finnish bath has always been much more than a hygiene-oriented activity. A true cultural habit, and a place to socialise, it is a strong element in that culture. The sauna would later be a differential factor as well for tourism in Penedo when it was still rare in other Brazilian places.

The ideals of equality were maintained until 1942 when the financial status of the utopian colony deteriorated to a level that would no longer allow its existence as a collective enterprise. The lack of financial resources led Uuskallio to sell a considerable part of the farm to pay debts. It was a hard time in Penedo, and the World War made thing much more difficult. Finland was officially against Brazil at war time, as it was allied to Germany, and Brazil was on the other side. As a result of the farm sale, Penedo was divided, many streets were opened, and it gained its current form, as seen in map 02 and 03.
Map 02 – Penedo at 1947, with many new houses and small inns. There were also many new streets, as a result of part of the farm sale.

Source: Author's design

At the same time it forced the end of a dream, it allowed Penedo to experience a new stage in its life, where the agriculture was no longer the main activity but that of tourism reception.

The community, even if leaving the utopian issues aside, remained very united, especially around the Finland Club, which had been founded in 1943. This club originated as an agriculture co-op and became the social centre of the colony, after the sale of the old house that served as the centre hub for social life in Penedo. The tourist activities in Penedo were based on the small hotels, at the Finland Club with its Saturday balls, and on activities such as music shows, meetings and parties of the colony, with Finnish food. There was always the idea of a space where the community could meet, a place to stimulate the Arts and where the issues of the local society could be aired.

In 1974 some Finnish and Brazilian persons led by Anneli Turunen, decided to form traditional dance groups, with their Finnish attires, to make presentations at the Finland Club on special occasions. But it was in 1979, with the celebrations held to commemorate the 50 years of the colony, that this group became a definitive element of the colony, taking part in events not only in Penedo but also in other cities. This seems to have been the moment when the tourist process experienced great change, towards that which cannot be considered as linked to activities that were responsible
for the transformation of the old agricultural and naturalist colony into a tourist city, in a process that had been happening this way all over the world.

The time had ended when one would go to Penedo to share the daily life of the Finnish in their local culture, as experienced by their dwellers, as a tourist attraction for the guests, and the city started to change towards the tourism based on the image of a Finnish Colony, where its customs had to be fitted into a scenario, in the process MacCannell (1999) calls staged authenticity.

**CHANGES IN TOURISM: LITTLE FINLAND AND SANTA CLAUS' HOUSE IN PENEDO**

From the 1970s a new stage began for the old colony when the region underwent a process for tourist development based on the construction of roads in Brazil (FRANÇA, 2001). The publicising of Penedo increased a great deal with the big commemoration of the 50 years of the colony's foundation on the 20th of January, 1979, when it was possible to see the start of a process of change in the tourist trade that until then existed in Penedo. This event received wide coverage, with articles that showed the colony, the former dwellers, the hand craft produced and the Finnish dances (HILDÉN, 1989), and showed the importance of the media in constructing the image of the place (URRY, 2001).

From the 1990s the local businessmen sought alternatives for tourist development in the colony and 1998 saw the opening of Little Finland and Penedo's Santa Claus' House, a business centre where the Finnish culture would be represented, with the traditional Finnish Nordic architecture. The idea of a Finnish image, conveyed through the classical architecture of the country became the goal of the project, apart

![Figure 05 – Penedo's 50th Anniversary Celebration, 1979](image)

*Source: Manchete magazine.*
from the presence of a home for Santa Claus. The project was opened to the public with the presence of a Santa Claus who travelled all the way from Finland and the event, apart from the very construction of the group of buildings, changed the image of Penedo, confirming what Urry (1990, p. 18) had said on the need to create places that are contemplated through fantasy and imagination, different from all one has become used to live with.

The places are chosen to be contemplated because there is an expectation, especially that which finds its way through fantasy and imagination, as related to intense pleasures, whether in a different scale, or involving senses other than those we are used to. This expectation is constructed and maintained by a variety of practices that are not tourist-oriented, such as the cinema, TV, literature, magazines, records and videos, which construct and reinforce the view.

The enterprise, with hand craft shops, restaurants, cafés and a small theatre reproduce a traditional Finnish village. The architecture, as in a theme park, would be an element of induction for the image one means to create. The sale of products related to Finland was encouraged, such as hand crafts and Nordic recipe dishes (FAGERLANDE, S.M.R., 1999).

Figure 06 – Santa Claus’ House in Penedo / Little Finland, 1999
Source: Author’s collection

The attempt to produce a Finnish architecture, even as copy of something that never actually existed there, seems to be connected to this architecture of theme parks, with the creation of a perfect setting to adapt the people to the re-lived tradition, whilst keeping those that remained. The possibility for the continuation of certain traditions such as the dances at the Finland Club, of certain crafts that seem only to have been
made possible with the staging that was produced, allowed wide publicizing in newspapers, magazines and the TV, including in Finland.

From that moment on Penedo increased its tourist flow and the Finnish presence started to attract more interest of its visitors and businessmen, especially in the organization of events related to Finnish traditions such as winter festivals and food festivals. As regards the urban form, the city saw a boost to a process of development for a new centre. Penedo did not have a defined commercial concentration as the hand crafts shops and restaurants were scattered, as well as the hotels. The rise in the tourist trade and in the business activity followed these constructions.

TOURISM NOW AND THE INITIAL UTOPIA

Penedo has become a tourist city where the utopian ideals of the vegetarians have practically disappeared. But some parts of the inheritance left by the pioneers linger on. Firstly, Penedo would not have become a tourist place without the coming of the Finnish settlers, both for the attraction produced by the Saturday balls at the Finland Club, or by the hand craft production started by them, or by the food, but especially by the physical features of the place.

![Figure 07 – Present Penedo landscape, 2013](source: Author's photograph)

The configuration of the place, with abundant vegetation in both mountainous and more urban areas, is the result of the ideas found in the Housing Project of Uuskallio. The way the houses were built, distant from one another and with a large green expanse between them can be considered as one of the main features of the place. The simple comparison of the farms that still exist around Penedo with its urban area shows how much superior the number of trees and vegetation is, a result of the naturalist intent of its Finnish pioneers. As they removed the cattle from the formerly
razed land and stimulated the planting of trees, especially fruit producing ones, the Finnish pioneers created a new place that would be taken by tourist activities that are related to both cultural issues as well as the appreciation of Nature.

![Map of Penedo](MAPA DE PENEDO)

Map 03 – Penedo nowadays.

Taking into account that the main avenue in the city is called Mango Trees Avenue, whose fruit trees were all planted by the Finnish in the 1940s, one can fathom the dimension of the fact presented here. Probably there would be no tourism trade in Penedo without the conjunction of the Finnish culture and the preservation of Nature. The construction of the local landscape took place with the coming together of the two parts and that had been established by the Housing Project as it focused on the preservation of the forests and rivers, on the need to remove the animals and on all the urban planning, with the construction of roads and ways.

**FINAL REMARKS**

The fact that Penedo is a place of tourist interest of such importance is linked to its history, which allowed the construction not only of its architecture and urban spaces but also of its so-called natural landscape. The Penedo landscape, its vegetation and
natural aspects has been constructed in line with what was planned in the Housing Project of Toivo Uuskallio, with the preservation of its existing mountain vegetation, with the unoccupied plots of land on the mountains, and with the planting of many species, fruit bearing or not, in the present urban area, formerly destined to the consumption that supported the vegetarian pioneers and that later became part of the natural landscape that also entices the tourists.

Penedo differs from the other cities in the region, some of them also founded as foreign settler colonies, for its exuberant and preserved Nature and for the presence of the Finnish culture, features kept by the mark initially made by its founders and by the physical and urban aspect, and by the early ideas of Uuskallio, found in his Housing Project, which steered the occupation in a balanced and sustainable fashion.

REFERENCES


1 The numbers apparently do not match as 14ha x 250 plots would produce an area larger than the one acquired.
2 Penedo was made into a Municipal Ecological Tourism Park – PAMTEP in 1995.
3 Satulinna means fairy castle in Finnish (FAGERLANDE, 1999c)
4 Ms. Anneli, with Mr. Roberto Araújo, also a member of this group, recounted this fact in August 2008.
On the Contribution of Feng Yuxiang and Northwest Army to Urban Construction in Zhangjiakou City in Modern Times

Jiayu Fan, Haiyi Yu, Fang Xu

[Abstract]

Among the research of domestic urban construction history in modern times, it is found that most studies pay the focus on the role of government rather than individuals and organizations.

Zhangjiakou City is located at the triple junction point of North China Plain, Mongolian Plateau and Loess Plateau. It is one of the most important trading enters along the northern border, which takes the huge advantage of both military and trading all along. With the opening, the commercial in Zhangjiakou City has developed more and more prosperously. At the same time, modern urban management has been implemented, when a large quantity of municipal urban infrastructures have been constructed.

In May of 1923, Feng Yuxiang took the office as the governor of northwest border patrol in Zhangjiakou City in the Chahar Area. The army that he commanded named to Northwest Army (abbreviation for Northwest Border Defense Army). During his term of office, Feng Yuxiang not only repelled the enemy invasion commanding his army, but also played an important role in urban planning and construction. He led his army to build plenty of roads and bridges, put up with some advanced urban planning concepts, carried out series of urban construction practice. For example, a residential area called Xincun that was provided with complete public facilities was built up with the help of architectural experts.

Through the methods of literature review and field survey, the information on the practice of urban planning and construction that led by Feng Yuxiang in Zhangjiakou City is collected firstly. On the basis, the functions and contributions of individuals and organizations are demonstrated on urban planning and construction of Zhangjiakou City in modern times by summarizing, diagrams and illustration.

[Key words]

Zhangjiakou City in modern times, urban construction, Feng Yuxiang, the role of individuals and organizations

1. Introduction

1.1 The purposes, significances, methods of research

1.1.1. The purposes of research

Among the research of domestic urban construction history in modern times, it is found that most studies pay the focus on the role of government rather than individuals and organizations, such as concession, as well as planning history of port city, often neglect the individual or institution that also plays their roles in the city.
planning and construction. This paper mainly discusses Feng Yuxiang as superintendent of northwestern frontier, rather than professional city planners, did on the Zhangjiakou city construction contribution in modern times.

1.1.2. The significances of research

Through the study of city planning and construction in Zhangjiakou City in modern times, I found that Feng Yuxiang took office as the governor of northwest border patrol in Zhangjiakou City in the Chahar Area, not only led the troops, the northwest army, beat the enemy invasion, and made great contributions to the construction of Zhangjiakou City in modern times. He not only committed to the practice of city construction, but also put forward a series of advanced city construction thoughts. Although his ideas couldn’t come into reality, because of war, funds and other reasons, his thoughts still has profound influences on the Zhangjiakou City.

1.1.3. The methods of research

Literature research method. This paper is mainly supported by modern literature, chronicles compilation and other basic materials, and takes reference to the present researches on the city planning and construction earnestly.

Comprehensive analysis. It is necessary to clarify the planning and construction history of Zhangjiakou City in modern times, but also relate Zhangjiakou City with North China regional, from a regional perspective, to study the relationship between Zhangjiakou City and North China region in modern times.

The comparative analysis research method. In this research, only studying Zhangjiakou City is not enough, but needs to be placed in the nationwide stage, compared with the same period, so that we can really understand what Feng Yuxiang’s contributions to the planning and construction of Zhangjiakou City in modern times.

Interdisciplinary research method. Research with multidisciplinary economic, society, transportation and other theories of city planning and construction to learn more about Zhangjiakou City.

1.2. Research background

1.2.1. Feng Yuxiang and his Northwest Army

Feng Yuxiang (1882.11.6--1948.9.1) was a senior General of the Republic of China, the warlord of northwest department, patriotic and democratic personage (Fig. 1-1). The Beijing government of the Republic of China army general, the national revolutionary army level admiral military rank. Department of national government during the Anti Japanese War, the president of World War II America silver medal of freedom, the first victory of the war of Lan Feng, the national government of three war medal.

In the spring of 1925, under the pressure of Anhui two-line warlords, Feng Yuxiang went to Fig.1-1 Feng Yuxiang
Zhangjiakou City of Chahar (now belongs to Hebei Province) became superintendent of northwestern frontier, his commanded named to Northwest Army (abbreviation for Northwest Border Defense Army). During Feng Yuxiang’s tenure, he won the Lan Feng Battle in 1926, Duo Lun Battle in 1933, and other battles.

In September 1, 1948, Feng Yuxiang on the way from New York back to China, the Soviet ship called "victory" went down because of fire.

### 1.2.2. The history of Zhangjiakou City

Ming Xuande forth years (1429), Zhangjiakou Fort (now Zhangjiakou Buzili) was built. There were two gates on east and south side. "Fort" means military defence buildings. The main function of Zhangjiakou was the military castle of the confrontation between Chinese against Mongolian; it was also the north of the Great Wall defence is a military fortress.

Until the Ming Longqing fifth years (1571) in March 28th, the royal court permitted commercial trade in Zhangjiakou City every yea, with cloth, silk, metal, tea, other daily necessities and Mongolia Tatar cattle, leather. Hence, Zhangjiakou City developed from a simply military stronghold into a trade centre rapidly, merchants gathered, many shops were built in that city. Until Yong Zheng 2nd years (1727) in the Qing Dynasty, the Qing government signed the "Treaty of Kyakhta trade" with the Russian government, which stipulated Zhangjiakou City become the market and storage base of the trade between China and Russia. After that, Zhangjiakou City developed into a worldwide market, trade activities were mainly focused on Yuanbao Mountain outside the Dajingmen. Shops, companies and other construction developed rapidly.

In 1914, the Chahar special region was established, in 1928 changed to the Chahar province. Since then, Zhangjiakou City became the economic, cultural, and political centre of Chahar province, the famous commercial port in North China. The national industry developed, and the industrial groups appeared. Merchants gathered in Zhangjiakou City, economy was very prospering because of the complement of Jingzhang railway and Zhangku (now Ulan Bator) highway was built. The commercial activates developed from single trade to multiple transit trade. Zhangjiakou business developed from single trade into multiple transit trade: North to Russia on various commodities, Zhangjiakou City transported all kinds of goods from south to Mongolia and even farther, East to Rehe and Harbin, west to Shanxi, Gansu.

### 1.2.3. Historical background

Good times didn't last long, after the Opium War, with powers to Chinese economic, political aggression, as well as domestic warlords, resulting in a scale ranging from social unrest, a lot of money was withdrew, even the extortion and robbery in public were emerged. Several times army "mutiny" led to businesses looted because of such chaos in Zhangjiakou City. Businessmen and ordinary people lack the sense of security, economic recovery is impossible.

This paper will focus on during this volatile situation, city constructing practice of Feng Yuxiang along with the Northwest army in Zhangjiakou City, and Feng Yuxiang’s city planning and construction thoughts.
2. The construction activities of Feng Yuxiang and the Northwest Army in Zhangjiakou City

During the year that Feng Yuxiang was the superintendent of Zhangjiakou City, he was strict to his army, and enhanced the Northwest Army. At the same time, he also played an important role in municipal engineering construction and popularization of culture. He did some precious and practical to people in Zhangjiakou City.

2.1. Zhangjiakou—Guisui Highway

Before the construction of Feng Yuxiang in Zhangjiakou City, the external transportation of Zhangjiakou City, especially railways, was almost complete. On August 6th during Qing Xuantong first year (1909 AD), the Jing Zhang railway project was completed, the total length was 201.2 km. During the same year, Zhang Sui Railway (Zhangjiakou--Sui Yuan) started constructing. After Jing Zhang railway extended westwards and developed into Zhangjiakou--Guisui (now Hohhot) railway, the two railways formed Jing Sui railway, the total length was 886.16 km. Zhang Jing, Jing Sui railway transportation promoted the development of Zhangjiakou City business greatly, and soon became Chinese east-west traffic artery (Fig. 2-1).

Although Zhangjiakou railway transportation developed rapidly, the road infrastructure had lagged behind. There were two highways at that time, one of them was Zhangku highway, which was built based on the original Zhangku Avenue, through Wanquan, Zhangbei, Erlian to Kulun (now the Mongolia people's Republic of Ulan Bator), 956 kilometers long, this was the first highway in Hebei province; the other one was Jingzhang highway, which was built in 1918, it was built based on the original carts road (from Beijing to Zhangjiakou City), after 3 years construction, it was finally completed in 1921.

Through the study of historical materials, in addition to the Zhangku highway experienced “first business then government” pattern, no matter railways or highways construction were decided and constructed by the government. Feng Yuxiang realized the lack of highway facilities in Zhangjiakou City, he decided to built east-west highway transportation in Zhangjiakou City. Feng Yuxiang along with the Northwest Army and Suiyuan Ma Fuxiang’s army built Zhangjiakou--Guisui (now Hohhot city) highway jointly, that project was completed in 1923. The completion of Zhangjiakou to Guisui highway was greatly increased the east-west highway transportation, and offered a convenient way for military and commerce.

2.2. Xin Cun

Xin Cun project was completed in 1925 by Feng Yuxiang and Northwest Army. Xin Cun was located in the east of Tuergou, Zhangjiakou City, with VIP reception rooms, which Li Dazhao and Xu Qianlai lived in when they came to visit Zhangjiakou City, along with library, auditorium and classrooms. The project was led by Feng Yuxiang's guard commander Feng.
Zhian, and professional technical staff assisted Feng Yuxiang and the Northwest Army. Xin Cun was equipped with almost complete facilities. It provided with superior conditions base of Anti-Japanese military alliance to.

In October, Feng Yuxiang's "Northwest Border Supervision Office" project was constructed, which was located in Xin Cun, equipped with Feng Yuxiang’s office and lounge. It was served as Zhangjiakou militia garrison headquarters and training center. After the completion of that project, Feng Yuxiang held training courses to the officers who were above battalion level in the Northwest Border Supervision Office courtyard. Officers could learn the Three People’s Principles, and a general cultural knowledge base. In August 12, 1933, memorial tower, which was built to memorialize the soldiers who were died in Anti-Japanese war of Chahar allied forces in Cha Dong area", besides that, "Anti-Japanese martyrs tomb" and "the National Military Martyrs Shrine” were built in the original Northwest Border Supervision Office courtyard. The whole project was built by Jing Sui railway engineering department. At the same time, General Feng Yuxiang was inaugurated in person. Monument tower was masonry structure, 13 meters high, six pillars. The wooden top was pointed to north east to show their determination to the Northeast alien army recover landless. The monument tower is nearly well preserved, but the stone carving on tower body is hard to recognize. It is the municipal cultural relics protection units. The tomb of the martyrs and Martyrs Shrine was destroyed by the Japanese invaders.

Feng Yuxiang combined city construction "hard power" and actively carried out education to the public, with Anti-Japanese alliance army propaganda "soft power" together, while constructing city municipal, offered with superior conditions base to the Anti-Japanese military alliance as much as possible, in order to create good environment to make Zhangjiakou City to be a better place for the alliance military.

2.3. Qinghe Bridge

In Ming Wanli 28th years (1600AD), the first bridge in Zhangjiakou City was built above Qingshui River, at the east of Zhangjiakou Fort. Qinghe Bridge was about 83meters long, 6 meters high, 7 meters wide. Untill then, there were South and West Districts in Zhangjiakou City.

In April, 1931, Construction Engineering Department of Chahar Province drew "Zhangjiakou City streets map" (Fig. 2-2). From that map, Qingshui River divided Zhangjiakou into West and East District vertically, and organs, schools, businesses and other institutions were distributed in West District, train station was located in South District, commercial and hotel facilities surrounded throughout, while residential and school were scattered distributed in the north. With the Northwest Frontier Defense Office and Xin Cun were completed in South District, and other commercial and entertainment facilities were gradually developed to the East District, only one bridge couldn’t meet the need to exchange between the East and West District with personnel and
logistics. In 1925, in order to meet the need of traffic, then Feng Yuxiang, who was entitled as supervision of the five northwestern provinces, approved to build a new steel bridge in the south of the original bridge, the project was chaired by Zhao Shizhong, and constructed by Jing Sui railway construction, consumed of more than 50000 silver dollars, which was supported by Province and Jing Sui railway construction. That steel bridge was completed in early 1926, named as Qinghe Bridge. It was about 183 meters long, and it was a through truss plane dual channel bridge. The pier was reinforced concrete structure and steel frame, with wooden deck, at the two ends of the bridge were connected to the stone roads. (Fig. 2-3)

The competition of Qinghe Bridge was not only connecting East and West Districts, but also promoted the development and prosperity of East District. After 70 years, the steel bridge completed its historic mission, it was replaced with a more wide modern bridge in the middle of 1990s. It was an enforced concrete bridge (name of the new bridge still was Qinghe Bridge).

With Feng Yuxiang’s concept of strengthening West and East Districts, Hanqing (Jiefang) Bridge was completed in October 14, 1932. After the bridge was completed, there were more carriages passed through that bridge, so in order to protect the bridge from damage caused by vehicles rolling, some people serviced the deck and cushion track on the bridge to ensure the normal use of the bridge.
2.4. Economic construction

On one hand, Feng Yuxiang was leading the Anti-Japanese Military Alliance to recover Kangbao, Baochang, Guyuan, Duolun County and other Chahar cities, which was greatly encouraged the strong will to fight for the country against the enemy, and expanded the military strength. One the other hand, he tried to promote economic development of Zhangjiakou area through developing the industry, in order to radiate throughout the whole country, and realize the industrial salvation dreams.

We can see from the figures below that with the impact of China-Russian Treaty of Qiaketu, in 1912, the numbers of commercial tenants in Zhangjiakou was 15856, merchants was 132621. In the condition of semi colonial and semi feudal, the economy of Zhangjiakou area was still prosperous. However, by 1924, Zhangjiakou city experienced a flood disaster, more than 3000 people lost in that disaster. More than 11000 buildings collapsed, caused over 10000000 silver dollars lost. Zhangjiakou was ruined by that disaster, and it had a great impact on the local economic. Because of wars and natural disaster, the numbers of commercial tenants dropped to 12870, merchants were reduced by 47.3%.

Then Feng Yuxiang founded the Northwest Bank in Zhangjiakou City to further standardize and strengthen financial management. He also founded leather, cloth, carpet and other 6 kinds of factories, as well as developing military industry and civil industry. He also established domestic products commerce to promote domestic goods, while boycotting foreign products. Fortunately, Chahar Province was just established, and soon, Zhangjiakou became the center of political, economic, and cultural of Chahar Province. The number of commercial tenants in Zhangjiakou increased to 16624, 29.1% more than 1924, even 768 more than 1912. Feng Yuxiang realized the goals of develop economy of Zhangjiakou.

Feng Yuxiang indented to promote the development of Zhangjiakou local economy, carry out Anti-Japanese propaganda and education actively, to make Zhangjiakou to become a base of the National Alliance Army to survive develop.
2.5. Environmental construction

Feng Yuxiang’s strategy of city development was not only relying on industrial economic recovery, but also greatly attaching importance to the protection and recovery of the environment. Since 1915, Sun Zhongshan initiated tree planting and forestation nationwide, Feng Yuxiang carried out faithfully. He planted a lot of trees in his jurisdictions, such as Shanxi, Shaanxi, Inner Mongolia, Beijing, Shandong, Jiangsu and so on. When he was in Xuzhou, he vigorously planted trees while training, and forbade deforesting and destructing trees. He also wrote a poem to show his attention to plant and protect trees.

A year after Feng Yuxiang became the superintendent of Northwestern Frontier, in 1926, "Republic Daily" reported, and more than a thousand people gathered in Zhangjiakou paraded on April 4th. Each attendee held a white flag said, "Save the country with forestation". The industrial officer sent everybody a brochure to popularize forestation. Industry minister Wu Juemin reported meeting purpose to awaking ordinary people with the idea of forestation and hope everybody could plant trees.

According to historical documents, Song Zheyuan was appointed as Military Commission Peiping Committee member and chairman of the Chahar Province Government in 1932. After Song Zheyuan graduated from the Northern Army Institution, he served in Feng Yuxiang’s army as the sentry, Captain, Commander and Colonel. Feng Yuxiang was very appreciated him, and praised him with "brave and calm", "faithful and diligent”. After Song Zheyuan toke the office, he led many people planted many trees on Zhangjiakou Cier Mountain. In the following year, the Construction Department of Chahar Province placard on Cier Mountain in order to ensure the survival and prosperity of the trees.

3. The origin thought of Feng Yuxiang's concept on construction

Through the study about Feng Yuxiang's life and literature, I found that the source of his city construction thought mainly came from two reasons, one was his religious belief, and the other one was the conclusion of the successful experiences of other port cities.

3.1. Religious belief

On the Christmas day in 1917, General Feng Yuxiang attended solemn baptism held by Reverend Liu Fangin Asbury church. Since then, Feng Yuxiang joined the Christian formally, and became a devout Christian. He used the power of religion to control the army, so he was called the" Christian General". In order to make the soldiers could understand more about the Christian, Feng Yuxiang often invited pastor to preach the gospel to the army.

It is obvious that religion served as a medium, western culture had a gradually influence on Feng Yuxiang’s character. So he then proposed to build the "Gospel village" idea, which showed the influence of religion on Feng Yuxiang.

3.2. Experience

On the initial stage of the establishment of the Republic of China, because of the change of dynasties and warlords took power, the society was stuck in chaotic state. However, some port cities enjoyed a special peace like a small country. Even in some concessions, economy, population and other aspects accelerated the speed of their development. Feng Yuxiang had been to many cities, such as Shanghai and Hankou.
He tried to summarize the characters of those prosper cities, and applied those characters into Zhangjiakou.

3.2.1. Shanghai

Shanghai was an ancient port city. In 1853, Shanghai became the country's largest foreign trade port, even larger than Guangzhou. At the end of the 1800s, coal, oil and other bulk cargo throughput of Shanghai had grew rapidly. In 1931, it reached 14000000 tons (including domestic throughput), among the highest in the world. In addition to harbor estuary, Shanghai's first airport, Hongqiao Airport, was built in 1907. After extension, it became Shanghai Hongqiao International Airport, which has become one of Chinese biggest international airports. In addition, at the beginning of the Republic of China, a number of railways passed through Shanghai, such as the Songhu railway, built in 1876; Jinghu Railway, completed in 1908; Huanghai railway completed in 1916; Jinpu railway completed in 1912. Those railways provided sufficient conditions for the connection between Shanghai and other cities.

3.2.2. Hankou

Hankou opened as treaty port after the Opium War, Western powers came here to open companies and overseas factories by all kinds of political, economic and technological privileges. Hankou was known as "Oriental Chicago". Hankou port trade and transportation industry was quite developed. It had become Chinese largest inland port. Wu Qishi, a poet, wrote a poem to show the prosper scene of Hankou treaty port. Railway construction in Hankou was almost completed. Luhan railway was completed in 1901; Jinghan railway was built in 1906.

3.3. Feng Yuxiang’s imagination of Zhangjiakou City

Feng Yuxiang under the influence of western culture, and learning from the excellent experiences of other port cities, Feng Yuxiang proposed the establishment of mail plane and construction of "Gospel village". Although these plans could not put into practice because of wars and funding problems, his ideas of city construction deeply influenced city planning and construction of Zhangjiakou City.

3.3.1. Strengthen transportation

Feng Yuxiang intended to introduce advanced and convenient transportation to Zhangjiakou City, to strengthen transportation with the outside world, promote economic development, and enhance the competitiveness of Zhangjiakou region.

According to "Republic Daily" reported on July 25, 1925 that business of Zhangjiakou City had been increasingly prosperous. Feng Yuxiang grabbed the good opportunity of economic recovery. In order to attract more investors and merchants, he thought that the priority thing was to build the external transport facilities to compete with other European ports. At that time, Zhang Yuan had railway passed by, but it located in the northwest after all, so Feng Yuxiang decided to plan airlines to exchange mails and carry passengers, aim at enhancing transportation to southeast regions of Shanghai, Wuhan, northwest of Baotou, Ningxia. Compared with the railway, airlines were more convenient and efficient. Feng Yuxiang immediately summoned the Deputy Director of Aviation Deng Jianzhong rushed to Zhangjiakou City to consult with related matters.
3.3.2. Gospel Village

Religion served as medium, western culture influenced gradually on Feng Yuxiang. For example, in 1922, Feng Yuxiang, Shaanxi governor of Chahar Province (now in Hebei province), was intent to build a "Gospel Village" in Zhangjiakou City, and he asked experts to draw the blueprint. The center of the village was church, surrounded by residential area, schools and theatres. This idea was very popular. Many Christians heard about the news in Hebei and Shanxi provinces were planning to sell their houses to settle in Gospel Village. However, because of wars, funding and a series of difficulties, this plan failed to achieve. Although the historical literature describes the "Gospel Village" only in a few words, it is still obvious that the design structure of "Gospel Village" was the typical city planning model in Europe in the middle ages.

4. Conclusion

4.1. The characters of Feng Yuxiang’s thought of city construction

4.1.1. Regional concept

According to city construction practice of Feng Yuxiang in Zhangjiakou City, he did not regard Zhangjiakou as an independent city simply, or just limited to Zhangjiakou regional economic development. He from the angle of overall situation, put Zhangjiakou City into North China region, paid attention to connection with other cities about people and products. From the point of view of the coordinated development of the regional perspective, the regional development would prompt the economic development of Zhangjiakou City, the prosperity of Zhangjiakou City would promote the whole regional prosperity.

In addition, Feng Yuxiang was good at summarizing valuable experiences of other port cities, and tried to apply those advanced transportation into Zhangjiakou City. Although because of various reasons, they failed to realize, his advanced ideas influenced the future city planning and construction in Zhangjiakou deeply.

4.1.2. Practical concept

Feng Yuxiang’s thought of city planning and construction was not just empty talk, he also put them into practice. He led people to construct roads, bridges, Xin Cun in Zhangjiakou City, strengthen the transportation between Zhangjiakou and other cities, and promoted the economic prosperity of Zhangjiakou area.

4.1.3. Sustainable concept

Forestation was the most important proof of Feng Yuxiang’s city planning and construction thought of sustainable. He planted many trees in his jurisdiction. During Feng Yuxiang served as the Supervisor of Zhangjiakou, although there was no record of forestation, his forestation thought had been influenced on planning and construction of Zhangjiakou deeply.

4.2. Summary

Study city planning and construction practice in Chinese, it is obvious that the construction and planning were almost decided or funded by the government. However, city construction of Zhangjiakou City in modern times, funds, wars, turmoil and recession had brought negative influence on the government decision-making and city construction.
Analyzing city planning and construction of Feng Yuxiang and the Northwest Army in Zhangjiakou, it can be found, firstly, Feng Yuxiang analyzed the needs of Zhangjiakou City carefully, strengthen the transportation between Zhangjiakou and other cities by a series of thoughts and practice, to promote Zhangjiakou region economy. Secondly, he did not regard Zhangjiakou as an independent city, instead, he put it into North China region, the regional development would prompt the economic development of Zhangjiakou City, and the prosperity of Zhangjiakou City would promote the whole regional prosperity. Finally, Feng Yuxiang combined city construction "hard power" with carrying out publicity education and Anti-Japanese Allies actively "soft power" together. Create excellent base for Anti-Japanese Military Alliance as much as possible, while constructing city municipal infrastructure.

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Planning And Housing In Brazil : The Latin American Metropolis Approach (1939-1963)
Sarah Feldman

Between the late 1930s and early 1960s a redefinition of housing as an urban issue occurs in Brazil. This redefinition can be understood as the overcoming of hygienist conceptions that since the late nineteenth century remained as the most complete formulation of a proposal of transformation of the city where the housing of the so-called “poor” or “dangerous” classes assumed a central role. With the organization of social medicine as a political power, the city becomes a privileged object of its intervention: from the internal organization of the house to urban sprawl, the new urban order must be performed by a highly normative action.

In Brazil, this perspective that associates sanitary and police control of the poor classes, only begins to be rethought and changed in the 1930s. But only at the end of the decade a new conception starts to be formulated: the association between planning and social housing based on the specificities of Latin American urbanization processes. For this new formulation Brazil's inclusion in the circuit of inter-American cooperation promoted by international institutions as Panamerican Union (PAU), Organization of American States (OAS) and United Nations (UN), among others, is decisive.

Over two decades, from the Primer Congreso Panamericano de la Vivienda Popular, organized by the PAU and the Argentine government in Buenos Aires, in 1939, and the Seminario de Técnicos y Funcionários en Planeamiento Urbano organized by the Centro Interamericano de Vivienda y Planeamiento in Bogota, in 1958, with the participation of Brazilian planners, emerges a view of politics as intrinsic to the planning process. The control of urban land speculation, housing as a right and planning in the metropolitan scale are expressed in the “Carta de los Andes” resulting from the Seminario in Bogota.

These principles, deeply rooted in the problems faced by the rapid growth of large cities in Latin America, are to the present days in the center of urban ideas in Brazil. Its first formalization occurs in the Seminário de Habitação e Reforma Urbana held in Rio de Janeiro and São Paulo, in 1963, as part of social movements that demanded the urban reform, just before the military coup in 1964.

The construction of these ideas is discussed in this text considering the combination of three movements of the field of planning between the late 1930s and early 1960s:
• the intense process of reconstructing knowledge and practices in the area of planning and the changes in the actions of the state in housing production in Brazil, in the context of authoritarian Era Vargas (1930-1945) and during the democratic period (1946-1964);
• conferences and congresses held by the Pan American Union and OAS between 1939 and 1958, when the issue of housing is institutionalized within the inter-American cooperation, and the repercussions in Brazil;
• the engagement of experts from different disciplines and different countries through international institutions in the promotion of cooperation and technical assistance to underdeveloped regions.

The turning point for planning and housing approach in Brazil: the "Primer Congreso Panamericano de la Vivienda Popular" (1939)

In Brazil, the 1930s are a moment of reconstruction of knowledge and practices of planning and housing mobilized by the new urban-industrial reality. Both are at the center of policies pursued by President Getulio Vargas when the provisional government is installed in 1930.

With the modernization of public administration, planners take part at the formation of a bureaucratic elite that pursues efficiency, economy and rationality at all levels of government, taking for assumption the separation between politics and administration. (Feldman, 2008) Housing emerges as a crucial aspect of workers living conditions and changes in the state production of dwellings are a result of the involvement of professionals, businessmen and politicians. (Bonduki, 1998)

But despite housing conceptions followed the principles of indissociability between architecture and urbanisme of the International Congresses of Modern Architecture – CIAMs (Bonduki, op.cit) and precariousness of housing conditions in peripheral areas was incorporated in the urban debate, housing and planning remain as parallel fields of formulation and action until the end of the decade.

At this moment, Brazil’s insertion in the technical cooperation programs for Latin and Central America countries sponsored by Panamerican Union triggers two significant movements: the recognition of housing as an urban agenda and the loss of hegemony of the technical perspective that prevails in planning until the 1940s.

Since the 1920s housing had a prominent place not only in the Pan-American Congress of architects, but also in meetings of engineers, sociologists, economists and other professional groups. But at the Primer Congreso Panamericano de la Vivienda Popular, organized by the Panamerican Union and the Argentine Government in 1939, for the first time housing was a unique theme at a Continental Congress. Recognized as one of the greatest and common problems that affected American countries, housing was addressed in its economic, hygienic, social, financial, legal, legislative, architectural, constructive and urban aspects. The creation of an Instituto Panamericano de la Vivienda Popular was recommended. (Solow y Masis, 1950: 4)

Brazil had an outstanding participation in this congress, with a representation that gathered professionals from federal agencies related to housing production and to the industry of construction—Rubens Porto, Paulo Accioly de Sá and an active and nationally recognized planner—Francisco Baptista de Oliveira.¹
Baptista de Oliveira was the chair of the commission responsible for the theme "Urban planning and public housing" and Rubens Porto was the chair of the commission responsible for the theme “Social Aspects”.

The "Urban planning and public housing" Commission included among its recommendations housing to be approached as an urban problem, the idea of a public housing plan as a part of the Regulatory Regional Plan and the creation of national public housing institutions as well as of an Inter-American Committee on Social Housing - for exchanging studies from different countries.

(Unión Panamericana, 1950).

The impact of this participation was immediate and significant. Baptista de Oliveira and Rubens Porto held conferences and published articles in magazines about the decisions and recommendations of the Congreso, highlighting the housing problems in Brazil.

But the greatest evidence of the impact can be better perceived on two congresses held in 1941: the I Congresso Brasileiro de Urbanismo and the Jornadas da Habitação Econômica, both in Rio de Janeiro. Baptista de Oliveira was the chair of the organizing committee of the I Congress and Rubens Porto was the chair of the executive committee of the Jornadas.

In these events the involvement of governmental and technical sectors as well as civil society organizations reveal the effort of institutionalization of planning and housing. The I Congresso gathered three hundred participants, including representatives of municipalities and state governments from various regions of the country, professional associations, organizations of civil constructors, builders, etc. The Jornadas were shaped like a campaign, with lectures at various institutions transmitted by different broadcasting channels.

The agenda of the Jornadas incorporated the housing multidisciplinary approach of the Primer Congreso with social, technical, financial and urban thematic sessions.

The conclusions of the I Congresso de Urbanismo are exactly the same as those of the committee responsible for the urban aspects of the Congress in Buenos Aires.

In this events housing is assumed as an urban issue, as it is enlarged the insertion of Brazil in the interamerican organization. In its conclusions, the I Congresso de Urbanismo embodies that future plans should meet the principles of the Final Act of the 1º Congreso Panamericano de Municípios, held in 1938, in Havana, when the Organización Interamericana de Cooperación Intermunicipal was created.

The Interamerican Conferences: international experts, local professionals and the Latin American metropolis

Throughout the 1940s and 1950s the planning and housing connection is institutionalized within the interamerican cooperation programs. In this process, the mobilization of experts linked to universities and to the practice in the field of planning and of professionals of latin and central american countries boosted a reflection on the Latin American reality.

The urban explosion in the Third World, as shown by Gorelik (2001), becomes the great sociological novelty of the post-war - the center of attention in theories of
modernization, in development policies, in the formulation of the concept of underdevelopment and in the conceptions of urban and regional issues.

The creation of the United Nations (UN) in 1945 and of the Organization of American States (OAS) in 1948, ensures the main institutional support to engage professionals from different disciplines and different countries in programs of cooperation and technical assistance to underdeveloped regions. As shown by Topalov (1982:31), it is a moment that "... without a priori dogma about the role of the state, a good portion of men in urban science become managers or experts in the service of the government apparatus."

In Brazil, the Point IV Program created by Harry Truman in 1949 and approved in 1950 for exchanging technical knowledge and expertise to developing countries was the gateway for consultants of UN, OAS, PAU, Ford Foundation, among other international institutions. In the same year is created in Brazil a National Committee for Technical Assistance in the Ministry of Foreign Affairs to prepare plans to obtain technical assistance and two years later is signed an agreement with the OAS to transfer scientific and technical knowledge. American experts - engineers, economists, administrators, researchers flocked to Brazil to assist institutions to accelerate in the preparation of technicians. On the contrary, more than two thousand Brazilians received training in public and private sectors in the United States (Cottam, s/d: 9).

In the field of planning two approaches in the training of technical staff can be distinguished: on the one hand, the association of planning to development, as a matter of administration, as a rationality to overcome regional inequalities in underdeveloped countries. On the other, the association of planning and housing for low-income populations: the rapid growth of cities, the scarcity of housing, the speculative processes should be considered regional order factors.

In these two ways, the inclusion of experts in Brazil is carried out in several ways: through academic studies, such as Francis Violich’s "Cities of Latin America. Housing and planning to the South", published in 1944; through teaching, as John Friedmann’s planning courses between 1955 and 1958 sponsored by the Point IV Program; through the participation in plans, that involved a large number of professionals, including Violich, in São Paulo (1968), and Friedmann, in Bahia (1961) and Pará (1971).

Another way of integration is through the creation and direction of an institution of urbanism that operates with public agencies. This is the case - perhaps unique in the history of urban planning in Brazil - of Louis Joseph Lebret, linked to the French Movement Economie et Humanisme. In his first visit to Brazil in 1947, Lebret established the SAGMACS - Society of Graphic Analysis and Applied Mecanográfica to Social Complex in São Paulo, as an arm of SAGMA França.3 Until 1964 SAGMACS develops studies and plans and offers courses for the training of technical staff, in Brazil, in other Latin American countries and in France.4
Over the decades of 1940 and 1950 the Inter American Conferences as the supreme organ of OAS are the forums where planning and housing for the Latin American metropolis takes shape – in content and institutional structure.

In 1943 the Division of Labor and Social information of PAU creates an ongoing program of research and information on housing, for which Francis Violich is designated Housing and City Planning Specialist. In the same year the Division publishes “Low cost housing in Latin America”, a preliminary survey conducted by Violich, who runs the program until 1947 when he is replaced by Anatole Solow, from the University of Pittsburg.

In 1949 a Division of Housing and Planning is created at the Economic and Social Department of the Panamerican Union. A wide range of activities for the development of social action programs that meet the needs of the American countries mobilized professionals who added to the technical principles of the experts an extensive knowledge of the Latin American metropolises reality.

Methods of production, construction and financing, inventory and definition of deficit elimination, rehabilitation of unhealthy neighborhoods, planning, institutions, standards of urbanization and zoning, etc. guided meetings all over the continent. Brazil hosted one of the three Regional Seminars on social issues of housing and urban development, in Porto Alegre, in 1951. Quito and El Salvador have hosted the two others in 1950. (Union Panamericana, 1952)

The focus of an Inter-American cooperation for the housing crisis in Latin America is explained in the report that Anatole Solow and Luis Vera presented at the VIII Pan American Congress of Architects in 1952, in Mexico:

“the problem is essentially social and among the different activities involved, the responsibility of the architect to the social order is huge and must overcome the performance in the limits of design and construction.” (Solow, A.; Vera, L. 1952:8)

From the institutional point of view, a decisive step was taken in 1951 with the creation of the Centro Inter-Americano de Vivienda – CINVA, at the National University of Colombia in Bogotá, through a Technical Cooperation Programme of the OAS. At that time an Inter-American Committee is created making real a decision of the Primer Congreso, in 1939. The CINVA starts to operate in teaching, research, exchange, assistance in housing, architecture and urbanism, and gives rise to the first graduate course in the subject in Colombia. (Restrepo, 2003)

In 1954, at the X Panamerican Conference, in Caracas, CINVA’s name is changed to Centro Inter-Americano de Vivienda y Planeamiento. The institution assumes a permanent character and the assignment of developing work in the field of planning. Thereafter CINVA begins to mobilize technicians involved in planning. In 1956 takes place the Primera Reunion Tecnica Interamericana de Vivienda y Planeamiento, and two years later the Seminario de Tecnicos y Funcionarios en Planeamiento Urbano, both in Bogotá.

In this Seminario a set of measures that redefine planning and housing strategies and shape an approach deeply rooted in the Latin American metropolis reality, is
assumed by representatives of Latin and Central America countries in a document called “Carta de Los Andes”.

**From the "Carta de los Andes" (1958) to the “Seminario de Habitação e Reforma Urbana” (1963)**

The "Carta de los Andes", document with the conclusions and recommendations of the Seminario de Técnicos y Funcionários en Planeamiento Urbano reveals the process that occurs at the inter-American cooperation programs from the end of the 1930s to the end of the 1950s. This document combines, on one hand, the repertoire mobilized by experts concerning the "grammar" of the practice of planning detailing the processes, steps and skills. On the other, the repertoire of the reality faced by Latin American professionals in large urban centers.

The document is accompanied by a letter signed by about 40 participants, among them Antonio Bezerra Baltar, Newton de Oliveira and Mario Larangeira, who composed the Brazilian delegation. The letter addressed to the people of America reaffirms the belief in planning as the most suitable tool to overcome the great difficulties in consequence of the low level of economic, political, social and cultural development.

In three items of the Carta – “Characteristics of the regional, metropolitan and urban planning in Latin America”; “The overall process of urban renewal” and “Rehabilitation of underdeveloped areas" - the reality of Central and Latin America’s metropolis is analysed. The migration, the high rates of population growth, the urban sprawl of large centers, the speculation, the formation of slums and substandard housing and the lack of public services make up an accurate picture of the processes that must be overcome by combining planning and housing policies.

Among the decisions, three aspects will be in the following decades in the center of the urban planning debate in Brazil as well as in several other countries of the American continent: planning in the metropolitan scale, control of land speculation, housing for low income families.

The proposals for these aspects brought innovations to ideas and practices disseminated to some extent in Brazil.

Firstly, the metropolitan planning scale is a radical shift from regional planning that had been widely advocated in the early 1950s, having as dominant reference the Tennessee Valley Authority experience in the United States. Although metropolitan planning as a practice fails to materialize, the metropolitan reality remains hegemonic in urban research and urban policy in Brazil, radically blurring the regional dimension.

Second, the taxation on underused land to control speculation and the reserve of undeveloped land by the government to implement social programs will be assumed among planners as a key part of a national housing policy. Although the Town and Country Act of 1947 (England) were mentioned by some professionals, in the 1950’s, as the most advanced land use regulation, it was always in isolated situations.
Thirdly, the possibility of special regulations for settlements for low-income population and the construction by mutual aid with technical, economic and social assistance of the municipalities will break the hegemony of the practices referenced in modern architecture that took place in Brazil, in the 1930s and 1940s. According to Gorelik (2010) it’s the Pan American networks version of urban reformism conceived with intense participation of Violich.⁸

In Brazil, the planning and housing agenda constructed along two decades in the interamerican forums is formalized in the “Seminário de Habitação e Reforma Urbana”, organized by the Institute of Architects of Brazil with the support of federal government », one year before the military coup. With the emergence of politicized social movements claiming the "basic reforms”, during Jango Goulart’s government (1961-1964), architects and planners are mobilized around the idea of urban reform.⁹

There is a consensus among the studies that discuss the Seminario on the prominence of architects in the formulation of a national housing policy. Silva and Silva, (2005) identify the Seminario as the starting point for both the concepts and tools related to the idea of urban reform, and as the origin of the thought of urban policy expressed in the Estatuto da Cidade approved in Brazil in 2001.

For Bonduki and Khoury (2007) the conclusions of the Seminario are an anticipation in many respects of what will be proposed after the 1964 coup, with the creation of the Banco Nacional de Habitação (BNH) and the Serviço Federal de Habitação e Urbanismo (SERFHAU) - especially in the aspects that didn’t conflict with the conservative character of the regime.

About the housing and urban problems, the authors refer to the I Congresso de Habitação, held in São Paulo in 1931, as the only reference that identifies the need for actions to control of urban land property to solve the social housing problem. Ribeiro and Pontual (2009) detect the CIAM’s and the Economie et Humanisme movement’s ideas as two strong references for architects’ social planning approach. But the conclusions of the Seminario allow us to add to those analysis the strong impact of the interamerican ideas on planning and housing. The latin American metropolis approach is evident in the relations between income distribution, migration triggered by population growth, the archaic agrarian structure, industrialization and housing demand that underlie the defense of a national territory and housing planning.

The document produced by Anatole Solow and Luis Vera in 1952 shows the reverberation of inter-American cooperation programs related to planning and housing among architects. Since the V Panamerican Congress of Architecture held in 1940 in Uruguay, we can observe a direct correspondence between the decisions taken at the inter-American conferences and those at the panamerican congresses. The document helps us to unravel an obscure part of history of planning in Brazil, when architects endorsed a social perspective for planning and housing.

Apart from Brazilian professionals participation in the interamerican conferences since the end of the 1930’s, the “Carta de los Andes” had a significant diffusion
among planners. Translated and published in Brazil in 1960, the Carta is pointed out by Luiz de Anhaia Mello, in the preface, as one of the three documents that guide the territorial planning. The other two were, according to Anhaia Mello, the Chart of Atenas (1933) and the Charte d’Aménagement (1952).

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Notes

1 Engineer Plinio Reis Catanhede was president of IAPI; engineer Paulo Acioli de Sa was the director of the Division of Construction Industries of the National Institute of Technology; architect Rubens Porto was technical advisor at the National Labour Council, engineer Francisco Baptista de Oliveira was president of the Center Carioca, a civic organisation. (Revista Arquitetura e Urbanismo. Novembro e Dezembro. 1939: 66-70).

2 The OAS is the successor of Panamerican Union. PAU was created during the IV Inter-American Conference of 1910 in Buenos Aires.

3 Decree 28799/1950

In 1949 an expanded version of Violich’s research is published, including housing conditions, actions and institutions operating in 20 countries in Latin and Central America.

The urban reform was part of the Triennial Plan of Jango Goulart’s government (1961-1964), prepared by economist Celso Furtado -Minister of Planning.

The first eight Metropolitan Regions are established in Brazil in 1967 by a Federal law. Since 1986 the States are responsible for the establishment of Metropolitan Regions.

Gorelik develops an accurate discussion of the implementation and dissemination of technical assistance programs in affordable housing projects for mutual aid with U.S. funding, and the critics to the modern architecture housing projects built in Latin American cities in the 1930’s and 1940’s. The author distinguishes the two approaches as Panamerican and Latin American.

The “Charte d’Aménagement” is the document with the conclusions of a week of studies held in La Torette, Rhône (France) by Economie et Humanisme Group directed by Joseph Louis Lebret.
A Project of a German in the Amazon: a Walled City (c. 1771)
Jorge Nassar Fleury

This article has its initial cut when the military engineers arrived in distant lands\textsuperscript{1}. In 1753, arrived in Belém, Pará, Brazil, professional and technical tasked for the demarcation of the colonial domains of the Portuguese crown in America. These arrived composing what was called the Boundaries Delimitation Commission\textsuperscript{2}. Amid these people can perceive the presence of a figure called Gaspar João Geraldo de Gronsfeld (1716-1779), the present study central social actor.

This German comes occupying the engineers captain role along with Gregório Rebelo Ribeiro Camacho. This group of professionals was composed by eleven men: father Ignatius Szentmartorny, astronomer, John Angelo Brunelli, mathematician, Sebastião José da Silva, Staff Sergeant engineer, João André Shewebel, Captain General Engineer; Henrique Antônio Galuzzi, Adam Leopold Breuning and Philippe Sturm, engineers helpers; Manuel Gotz, lieutenant, Antonio José Landi, designer, besides Gronsfeld and Ribeiro Camacho already mentioned\textsuperscript{3}.

These arrived composing the Boundaries Delimitation Commission\textsuperscript{4}. As already explicit in the name, they came with the purpose of raising and demarcate the colonial Luso-American lands. This committee represented the Portuguese interests and political maneuvering over their colonial territorial areas which at that time were already under Pombal's command (1699-1782).

This entourage never met the Spanish group so they could carry out their markings tasks. Thus, the commission waned and professionals that made up the captaincy spread out in the province of Maranhão and Grão-Pará, which, in 1755, with the arrival of the new governor and Pombal's brother, Mendonça Furtado, was then called the Captaincy of Grão-Para and Maranhão, and also its capital was moved from São Luís to Belem.

Added to this, is the fact that this city has received much attention of the Portuguese government at that time, mainly because it is located in a strategic place for their American lands protection from enemies entry through the "great river" which, in turn, gave access to the most important way of transportation in these region: the fluvial locomotion. Belém received investments of the Portuguese crown and in that region, the hamlet had turned into villages and villages into cities\textsuperscript{5}. It was all part of Pombal's maneuvers to solidify the presence and Portuguese rule.

Much of what was built and designed that time was due to European professionals that arrived composing marking, exploratory, naturalist, among other entourages\textsuperscript{6}. In attempting to put into practice their actions, these people bumped into some problems as the hand labor and also the materials available, using mostly Indigenous and African techniques and work.

It was common for these commissions, sometimes not to have any Portuguese professional. In their absence, or their interest in participating in exploratory entourages, the Lusitanian resorted to foreign, mainly Italian and German nationality. Politically, the Holy Roman-German Empire, also known as I Reich, continued under that name at the turn of the seventeenth century to the next, but all discourse of universality and a centralized government had lost. In the early eighteenth century, it was not possible to establish the boundaries of Germany.

The Middle Age was the scene of intense rivalry between Italy and Germany, however since the eighteenth century, the empire was eclipsed by France and
England. This region experienced constant and active territorial motion, with possessions and controls fight, generating a strong knowledge of both parties concerning cartographic representational and plans (Frees 1999). That, along with the notion of the universality of the Portuguese Empire with its overseas force colonization justified the Portuguese professional race over these two locations for their colonial land demarcation tasks.

Besides Gronsfeld also were part of the same committee with Germanic descendants: João Ângelo Brunelli, mathematician, João André Shewebel, Captain General Engineer; Manuel Gotz, lieutenant, and Philippe Sturm, assistant engineer; and born in Italy came: Henrique António Galuzzi also as assistant engineer besides Antonio Landi, architect that joined the entourage with the role of designer. Landi, along with Gronsfeld were two social actors that stood out in Amazonian Portuguese territory for their actions.

Extensive textual and image production in the region was held by these people in that period. The resulting representations of their actions in the Portuguese colonial land, allows us to conduct deep dives in the past. Enabling as well a better understanding of the ways in which people in the past have appointed individual and collectively memory.

It is worth recapitulating here the understanding of memory, according to the precepts of Pierre Nora, for whom memory is life, always loaded by living people and susceptible to the remembering and forgetting dialectic, unconscious of its successive deformations, vulnerable to all uses and manipulations, vulnerable of long latencies and sudden revivals. Unlike, for him history is always a problematic and incomplete reconstruction of what no longer exists. Memory is an ever-present phenomenon, a link lived in the eternal present, and history a representation of the past. In this sense, analyzing the actions of Gronsfeld in America in the second half of the eighteenth century, attempts to understand his appropriation of a collective memory.

Also becomes possible to think the present, in the current cities context and the ideologies of discussions related to the ways of modify or continue what long ago was made, realizing the bias of interests, problems, techniques and perspectives on public space and the desired needed by today's life. This past-present relationship becomes possible in this case by the fact that much of what was done in the second half of the eighteenth century in Belém concerning urban issues structures what the city is today. It's from what was implemented at the time that the city grows.

Cartography, in addition to explicit its intentional content, whether in combination with other records, information, uses and interpretations becomes real visual certificates of what happened, of the past, ideas and thoughts. Therefore, it becomes a source with relevant social representation. This is, in this research, used as a historical record, held by means of icons, drawings, paintings. The iconography becomes more dangerous as its detailing and trim level, which makes them closer to a "reality". In the case of Gaspar Gronsfeld production, it is needed to know what is intended to extract from it, opening room for different interpretations, making a safe each piece of information.

Since mapping has the strength and weight of any other historical source, it has to be cleared with caution. Common are the moments that end up being taken as "absolute truths", as if they were faithfully portraying an ideology, a landscape, a time. For this reason that this source is addressed in this text as a representation that is part of Gronsfeld life journey and his context, which, according to Chartier, is not neutral speech.
Assuming that currently there are demands, problems, agility and distinct solutions of a few centuries ago, it is argued some of the frequent contemporary discussions around the theme of representation. Constantly hears the possibility of an eventual text exchange by image that goes hand in hand with the possible damage of the new generations critical competence and reading. The imagery reading cannot be seen as a risk for the scholarship. A superficial reading without further insights can happen with an image and a textual representation. Just like people learn to read and are literate, instruction and learning is needed for a perfect interpretation of these images.

This approach is made because the German engineer Gaspar Gronsfeld conducted several projects not only for Belém, but for many cities in the Amazon region. He holds one of the most significant plans for the city of Belém by the conceptual point of view: considering how to improve the city's defense, Gronsfeld elaborated two plans in which he idealized a walled city.

Unlike other engineers in the service of the Portuguese court in America in the same period, the German engineer was tasked to examine the cities where he stopped and detect problems in their formation and morphology, remodel their urban plans and implement changes.

Cultural differences from Europeans echoed in the colonial Americas as the professionals hired by the Portuguese brought with them learning from these contexts, personality intrinsic things and trainings. Beyond this, they were also touched by the acquaintanceship with each other and with all of these Amerindians, Mamelukes, Tapuios and a whole range of ethnic groups already living in South America.

Gronsfeld, to represent his ideas for the Amazonian cities in the maps, discriminated details. Besides highlighting problems and urban solutions detected and resolved by him in his plans, the mapping result of his actions were accurately artfully designed to become representations for easy understanding by many laymen who he should "persuade" or make himself understood. By watching these images, it is detected the presence of a more finished and detailed feature set, with the use of color to better represent forests, rivers, roads and buildings. Everything was done to make the most "popular" map (see Fig. 1 e 2).

Including the dialogue with nature that surrounded the city, in both plans he proposed to preserve a wetland called Piry and, connecting it to the river through gates, he distributed homes around the lake then created, allowing that each resident of the locality had their own boat or canoe, moored at the door of their homes.

Thus it is thought, in detail, the use of natural elements of its surroundings. It should be understood here that the sense of nature carries with a long history. Interestingly, for a better and truer understanding, is to take as a starting point this relationship between the human with nature.

This term basically meaning changes over this cloudy time addressed here, becoming not only a designation, but a description of the world, the environment. This word had several meanings and, even if confined to the physical world, still find dubiousness and changes of direction and meaning. This is important because more than describe or qualify the environment, this term incorporates the very perception of man over man and man over man in society. These meaning transformations of the term "nature", are explained by the fact that they reveal different perceptions about the human being and on different times of the human being.

The ideas and words are transformed along time and with them their senses. It can be noticed that in the mid-eighteenth century, there was a concern and respect of
the man to the physical world. In Amazon, in 1781, there were reports of caution when it comes to expeditions inside this "shadowy" world:

[...] That the number of the military, especially the soldiers, comprehend those that underest, beyond the knowledge of various crafts, also knows how to be fish and hunt, will ask to be considered necessary for different ministries of the expedition service. [...] And that the two canoes aforesaid numbered riders, one of them will go as an upper Jupurá River practical.  

It is understood here man's relationship with the natural world. In Belém’s case, the city dweller observed some natural areas that could be usable as unsanitary spaces, dark, an untouchable place. It is the case of the flooded Piry area. What Gronsfeld noticed as a potential area of beauty and utility designing floodgates for the formation of a lake, the people, and especially some social actors in front of urban decisions, saw as an unhealthy space, a "cancer" that should have been expunged. This thought eventually won the battle in 1791 and a project was done by the engineer Theodósio Constantino de Chermont, which provided the Piry’s embankment. 

Evidently it is not been described here just the physical world, because this perception also reveals and embodies men’s history. This turns out to be a discussion of how men fits in this time and in this history. Regardless of the specific issues, appears to us a restlessness to know: how perceptions of the natural world helps us to understand men and men in society? Keith Thomas says these new perceptions derive from very specific social processes, such as urbanization. It is based on this broad concept that Gronsfeld breaks barriers and overcome the fear of facing nature adapting it to your urban plan. It was the first time someone approached the flooded Piry wich, standing on the western slopes of Belém represented a natural barrier to the growth and development of the city.  

In both plans drawn by Gronsfeld to fortify the city, he envisioned the deployment of a wall. On the first one, the most expensive and daring, the protection of a wall encircled the city as a whole; in the second and cheaper, only the highest place of the city, (now known as Old City) was protected. At that place was situated the most important and wealthy buildings. The core of Belém at that time consisted of town main areas, the Campina and the City. This last one, located in an area with higher elevation and it was surrounded by the river in one side, the Campina on the northeast and by a swamp on the southeast, designated Piry. 

In the proposal that lacked larger resources (Fig. 1), the German engineer designed a Double wall, forming a gap between them. Along the walls were projected six bastions. Piry was isolated and it was suggested a constant lake instead. This lake was supposed to touch the walls on its southeastern part, thus, over sixty percent of the wall would be shrouded by water, leaving only a small portion of dry land on its slopes. 

Curious detail on Belém’s cartography at that time was the fact that the compass of the map appears, since the seventeenth century, pointing north to the lower left corner of the drawing. This ran counter to the pattern established in the international forum that since this same century, the north was appointed to the top of the support shown. 14 This drawing way was only standardized in the following century in Belém’s maps, when the city was already wider and also started to be represented in another scale.
As Gronsfeld is concerning about the understanding of his ideas, in his cartography is easy to detect somethings, for example the main city buildings, as these are represented on the map with stronger colors. The Saint Joseph chain lays outside of the wall, on the other side of the lake, leaving even more isolated the rioters. In the southern part of the city, also outside the fortifier belt, was the arsenal Bonaventure. At the far northwest of the city, projecting itself over the river, but internally the wall, was the Saint Christ Fort, and in further analysis, this building directly protected the central square where there were the main buildings of the city: the Palace, Cathedral Church, the Convent and the military apparatuses.

Fig. 1. Fortification plan to Belém, Grão-Pará, offered to mr. João Pereira Caldas and executed by the the Engineer Gaspar João Geraldo de Gonsfeld. Arquivo Histórico Ultramarino, Pará cartography 808
This shows the symbolic setting of the town ruled by the Lusitanian colonial urbanism and the Tridentine Catholicism, which had been the major driving forces of Church and State. Evidently the composition and distribution of urban facilities in the projects was extremely rich in symbology and rites. The square used as projetual matrix established unequivocally mythological reference, identified with the center of the city, reinforcing the idea of the center of the world, the cradle of life. The installation of the pillory comes only emphasizing this thought. The edges of the squares are marked by the most representative buildings such as the church, the town hall, the chain and the Governors Palace. This set reinforces the term center of the world, sustained by religion and state.

It can be seen two conceptual lines of urban space. One is the concept of space-matter, which fits the responsibility of a technical and engineer, formally modeled; and the notion of a cultural documentary space, conformable in its ideological aspect only. At that point it was up to the city built space attributes that make him an acting body as a whole, possessing social force. It was one of the first times that, as Françoise Choay registered, urban space is understood as having "autonomous discursive formation". The city began to acquire bond with the formation of society itself.

The drawing was the agent through which it became possible to do these studies. From it was understood not only the building and the city but also the population and its link to the place where they lived, where they circulated and the interpersonal relation established. The building and the city were divided into drawing, design and workmanship and is on the drawing that is embedded the conceptual design of the form as a representation of reality.

It is also well perceived sharply the street layout. It is easily detected the two poles of the city: the Old City, situated on the southwest, and the Campina, on the northeast. Despite having some disconnection in the tracing of both areas when observed together, inside each one it was followed a pattern of rectilinear street layout. Despite the irregular medieval city has been absorbed in the imaginary society as signifying beauty, romanticism and functionality, the origin of the Portuguese city plan descent from the Renaissance urbanism, history moment when a preliminary discussion of the urban ideal world takes shape and ultimately define the rectilinear stroke road deployment as "ideal".

It is then explicit in the Portuguese urban pattern based on a template radiated from the center, which was usually brought the square, which had a symbolic association with a figure, usually the square. Moreover, one of the main characteristics of Renaissance geometric system is the shapes correlation. Portuguese engineers had a wide range of geometric figures in its collection, but the common opinion is the fact that favorite and most worked among them being the square, the rectangular and its derivatives.

On this Gronsfeld's proposal (Fig. 2) it can be said that it has been made a more elaborated work. In place of the Piry flooded area was designed a gate to keep the river water impounded since it reached its highest level. Thus the site would become a constant lake eventually benefiting the people, especially the low-income ones. This showed some concern with society and social justice - understood today as a urbanism pillar - by Gronsfeld.
On this project, areas were defined for the houses around the lake and in front of each street leading directly to the water it was thought a staircase, so people who inhabit the surroundings of this place could have anchored their boats and canoes in front of their residences. Given the tangle of rivers that cuts the Amazon region, the population could enjoy the best form of locomotion between the colonial towns that could exist at that time: the locomotion among the rivers. On this plan, the St.
Joseph chain still outside of the walls on the opposite side of the lake, but with greater proximity to the homes around the lake Piry. The same happened with Arsenal Bonaventure.

The largest and most significant difference between both proposals of the German engineer was on the walls length account. On the other proposal it only surrounded the Old Town area, where there were most of the major and most important buildings, which can be identified by the highlighted color filling. In this plan there were eight bastions for better visibility and defense. The walled portion communicated with the outside area in just three points: a door that connected the walled city with the Campina area, and two other passages connecting directly with the Piry. Inside, near these doors that connected directly to the lake, were found the public warehouses, as well as two other points of the walled city.

One of the most interesting points that can be analyzed in the two maps is the detailing, workmanship and careful completion and representation of equipment, terrain, vegetation, streets and everything else that composes it. By analyzing them it can be understand how they were represented with different colors and exquisite artwork the different types of vegetation that surrounded the city. The most consistent vegetation was identified with yellow hue along with the graphics of the highest trees, conclusion made by the size of the shadows that these draws "design on the ground" against the greyish foliage of the marshy region on the waterfront. On these cartography can be also realized a sharp artistic treatment running on a gradient blue tint, highlighting the depth of the river.

also present in the author's concern concerning the street layout is the difference, emphasized by disparate color hues, between street space, private space and public space built, stressing Pombal city concept of the time. The city preconceived by Pombal did not address urban objects, monuments, buildings and even its magnificent facades as the center of their imagery. The main theme and the recovery was for urban, the street and the square space. These were actually so imbued with all the significance, value objectified in itself and by itself.

Gronsfeld in his projects, not only captured the essence of Portuguese thought, but also the societal concern with the security issue from the fortification. Thus appropriated of this a collective memory by proposing, as one of his actions, the fortification of Belem. The concern exposed in these projects, despite not having been executed, is explicit in the morphological form of the city that formed in this period and remains until the present day.

Currently is realized in Belem that the houses built at this time were all configured as a fortification that protected the interior of an enclosure - the city. It was during this period that it was characterized by the image of a city "with their backs to the river," as some current urban reformers projects undermines, claiming for the city to open its "windows to the river." It was then the configuration of an "invisible wall" being built by the action of a society that was edifying their urban space.


13 APEP, carta de diversos, acervo manuscrito da época colonial. Questões de Limites, Fronteira espanhola, 1781. C.375 D. 2


Envisioning and Planning the Future of Adelaide’s Metropolitan Foreshore: From Marine Boulevard to Coast Park

Christine Garnaut

Open space is a key element in the Plan of Adelaide (1837), the capital city of South Australia, and in the District of Adelaide Plan (1839). Both plans show parklands enveloping the city and extending either side of a meandering central river. The District Plan also includes a reservation 99 feet wide extending the full length of the city’s western boundary where it abuts the coastline of Gulf St Vincent. The reservation is referred to as a government road. In the early twentieth century this coastal reservation featured in initiatives to improve and beautify Adelaide’s foreshore, and eventually it became a critical component of a major metropolitan open space plan for the metropolis. This paper examines the evolution, nature, scope and implementation of key community and government proposals to develop the coastal reservation through the twentieth and into the twenty-first century. It highlights a complex and intriguing story that has its denouement only in recent times when a modified version of the twentieth century plans for the Adelaide foreshore began to be realised. The research has drawn principally on primary archival, newspaper and published sources, and on field work.

Introduction

One of several distinctive elements of Adelaide’s “textbook” plan, by the early twentieth century the parklands encircling the city were admired and promoted locally and overseas for several reasons including their health-giving benefits.¹ In 1913, Victor Ryan (1874-1956), Director of the South Australian Intelligence and Tourist Bureau, began advancing the idea of a second – outer – ring of parklands for Adelaide. Ryan was cognisant of the international movement for open space in cities and towns and argued for reserving land for additional parklands specifically to protect against overcrowding and to regulate future expansion, to ensure that open space was accessible to citizens living in the suburbs, and, more generally, to secure “adequate open spaces where vegetation can flourish and purify the air”.² Within a short time, politicians and community activists broadened their efforts to reserve and preserve suburban open space to also include land along the metropolitan coastline. In fact, from 1915, various state governments and community groups promoted the Marino to Outer Harbor portion (the government road in the 1839 District of Adelaide Plan) as a marine boulevard (later referred to also as an esplanade and a drive).
Alive to popular agitation as well as to the necessity and importance not only of open space but also of long-term planning, South Australia’s Town Planning Adviser (later Government Town Planner), New Zealand born Charles Reade (1880-1933) incorporated a marine boulevard in his 1917 Adelaide and Suburbs Plan.³ Reade had worked in London as a volunteer with the Garden Cities and Town Planning Association prior to undertaking a lecture tour of Australasia in 1914–15 with British architect William Davidge (1871-1961). A leading advocate in 1910s Australia for planning on garden city lines, Reade exhibited the Adelaide and Suburbs Plan at the First Town Planning and Housing Conference and Exhibition, a national event held in Adelaide in October 1917. The plan is acknowledged as the first “conscious attempt [in Australia] to plan land use and transport patterns at metropolitan scale” and was informed by international town planning thought and, specifically, the garden city idea.⁴ It had little impact in its time but several of its key components have since come to fruition.⁵

In the 1990s, the South Australian Government incorporated reserved nineteenth and twentieth century metropolitan open spaces into a second generation of parklands known as the Metropolitan Open Space System (MOSS). MOSS connected existing open space across the entire metropolitan area and was eventually incorporated into the Parklands 21 Strategy (renamed Parklands 2036 in 2003).⁶ “A major initiative” of the Strategy was Coast Park, an open space system that linked 70 kilometres (44 miles) of beaches along Adelaide’s foreshore from Sellicks Beach in the south to North Haven in the north.⁷ Coast Park included the land designated by Reade eight decades earlier as a marine boulevard.

**Pressing for open space in twentieth century Adelaide**

In the absence of regulations controlling development, Adelaide’s nineteenth century suburbs were established mostly in laissez-faire fashion by developers keen to maximize the financial return on their landholdings.⁸ The development sites were divided primarily into residential blocks and many were bereft of open space. In 1915 the South Australian Premier, Crawford Vaughan, reflected on the consequences:

> The founders of the city did very well. They surrounded the city with a set of parks, but their work was not followed up. The outer spaces are not well-supported with open spaces. Our faults are faults of omission and neglect.⁹

Spurred on by new knowledge about the objectives and benefits of town planning, including its emphasis on anticipating citizens’ present and future needs, and influenced by local community groups’ advocacy for government acquisition of land
for recreational uses, in the 1910s and 20s the South Australian government and local
government bodies embarked on purchasing and reserving land for open space
purposes. This included nature conservation parks in the Adelaide foothills, suburban
recreation parks for active and passive uses, and sites for children’s playgrounds.

In April 1915, the Australian Natives Association (ANA), a citizen-based pressure
group that focused on a range of issues including town planning and nature and water
conservation, took up the open space mantra but from a different angle. An ANA
deputation urged Premier Vaughan to institute “measures [not only] for the
acquisition of suitable public reserves in the suburbs … [but also for] the repurchase
of certain lands along the foreshore for the purpose of constructing a marine
esplanade.” Broadly, the ANA envisaged the esplanade as a form of open space that
collectively “did for a city what windows and ventilators did for a room – made it
healthy and habitable.” It promoted the esplanade specifically as “a pleasure and
picnic resort for school children”, and argued for centralised coordination of its future
development with a sea wall and roads. The ANA used the esplanade at St Kilda in
South Melbourne, Victoria, as an example of what might be possible in Adelaide.

Later in 1915, on an official trip to Melbourne, Premier Vaughan visited the St Kilda
esplanade and was driven south around Port Phillip Bay to Mordialloc on Beaumaris
Bay. Impressed by what he saw on the “beautiful run”, he indicated in an interview
with the Melbourne *Herald* newspaper that his government was going
to acquire the foreshore running from Largs Bay to Brighton … practically the
whole sea-front of Adelaide. Right along the shore we mean to make an
esplanade, so that those who are driving or cycling will have a sea view the
whole way.11

The government had the authority to make such a purchase under The Harbors Act
1913 which enabled the Crown to acquire water frontages for public purposes.12 By
the time of the passage of the Act, management of the Adelaide foreshore fell under
the jurisdiction of several local corporations – Brighton, Glenelg, Henley and Grange,
Woodville and Port Adelaide – each of which faced the double-edged problem of how
to deal with coastal erosion and sand drift, and how to fund the work necessary to
address these ongoing environmental issues.13 By the mid-1910s the extent of
foreshore development was limited. Furthermore, over time, sections had passed into
private hands, effectively removing public access. Local councils, then, considered
the state government’s proposed acquisition of a continuous strip of land for an
esplanade as a potentially effective solution to a long-standing and vexatious problem.
Improving and beautifying public space

The idea of the improved and beautified esplanade was tied to larger goals of city improvement and beautification that emerged in Australia at the turn of the nineteenth century. Critics of the Australian city supported “aesthetic-driven public interventions”\(^\text{14}\) which would inject a sense of order into the uncoordinated and haphazard urban environments that had resulted from industrialisation, the rise of multiple municipal corporations and the absence of adequate building or comprehensive planning legislation. The City Beautiful movement was a key influence on local architectural and civic design thought and practice from around 1900.\(^\text{15}\) However, in the 1910s, the concept of town planning as well as the garden city idea took hold and led to a “groundswell of support for modern city planning ideas and methods and for legislation to support them”.\(^\text{16}\)

The garden city idea focused on providing comprehensively planned and people-centred environments; the provision of public open space at various scales and for various purposes was a central tenet. Similarly, the town planning movement espoused the provision, acquisition and improvement of open space amongst its key goals. The coastal foreshore was one area of public land that came under the scrutiny of civic authorities intent on urban improvement. The foreshore could be reserved as open space and beautified not only for aesthetic reasons but also to accommodate pleasure and leisure activities.\(^\text{17}\) Sea walls, public promenades and baths, bathing boxes, amusement parks, gardens, bowling greens, tennis courts, band rotundas, children’s playgrounds, and in South Australia during and after World War 1, soldiers’ memorial gardens, were the types of elements introduced into Australian twentieth century foreshore improvement schemes. Table 1 provides examples of selected schemes to 1930.

Table 1 Selected Australian Foreshore Improvement Schemes (Proposed and Executed) c.1910-1930

<table>
<thead>
<tr>
<th>Project</th>
<th>Location</th>
<th>Date</th>
<th>Designer</th>
</tr>
</thead>
<tbody>
<tr>
<td>St Kilda Esplanade</td>
<td>Melbourne, Victoria</td>
<td>c.1910</td>
<td></td>
</tr>
<tr>
<td>Perth City Foreshore</td>
<td>Claremont to the Causeway, Perth,</td>
<td>1910s-20s</td>
<td>Perth Board of Works</td>
</tr>
</tbody>
</table>
Two models for Adelaide’s marine boulevard

Premier Crawford’s 1915 announcement of the South Australian Government’s intention to purchase foreshore land for an esplanade and Reade’s 1917 proposal for a marine boulevard were not acted upon at the time but the concepts remained alive in government, professional and community circles. Although Reade did not prepare a boulevard design concept, his 1919 Report on Towns and Cities in South Australia hinted at the type of scheme he had in mind. In a brief commentary on the proposed foreshore improvement he argued the inadequacy of the 99 foot wide boulevard, “compared with foreshore reservations in other parts of the Commonwealth (St Kilda, Victor Harbor …)”. 18 St Kilda is on Port Phillip Bay about 6 kilometres south-east of Melbourne, while Victor Harbor is a seaside holiday town and tourist destination about 85 kilometres south of Adelaide. What were the improvements at St Kilda and Victor Harbor to which Reade referred?

The St Kilda Esplanade extended for about one kilometre and had been developed from the 1850s as a seaside resort with public baths, a pier and a jetty. 19 Improvements proposed in about 1910 included “retaining walls, rockeries, lawns, drives and walks”. 20 To recoup the beautification costs, from 1906 a leveled area south of the jetty was leased to amusement ride operators. An amusement park known as Luna Park, in the ilk of Coney Island’s Luna Park in Brooklyn, New York, was built in 1912. 21

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<table>
<thead>
<tr>
<th>Project</th>
<th>Location</th>
<th>Year(s)</th>
<th>Designer(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marine Boulevard</td>
<td>Western Australia</td>
<td>1917</td>
<td>Charles Reade: Adelaide and Suburbs</td>
</tr>
<tr>
<td>Victor Harbor Foreshore</td>
<td>Coastal town approximately 85 kms south of Adelaide, South Australia</td>
<td>1917-18</td>
<td>Charles Reade</td>
</tr>
<tr>
<td>Victor Harbor Foreshore Extension</td>
<td>Sydney, NSW</td>
<td>1922</td>
<td>Walter Scott Griffiths</td>
</tr>
<tr>
<td>Bondi Beach</td>
<td>Sydney, NSW</td>
<td>1924</td>
<td>Robertson and Marks</td>
</tr>
<tr>
<td>Balmoral Beautification Scheme</td>
<td>Sydney, NSW</td>
<td>Late 1920s</td>
<td></td>
</tr>
<tr>
<td>Manly Foreshore Design Competition</td>
<td>Sydney, NSW</td>
<td>1930</td>
<td>LM Graham</td>
</tr>
</tbody>
</table>

Following the passage of the Victor Harbor Foreshore Act in 1917, the foreshore reserve was placed under the care and control of the Corporation of Victor Harbor. Subsequently, the Corporation requested Reade’s services to prepare an improvement scheme for a section of the foreshore frequented by residents and tourists. Reade argued for a long-term and holistic approach to the site’s development and advised that his plan should be implemented in stages as the need for additional facilities arose and as funds became available. Stage one focused on improvements to two existing soldiers’ memorial gardens and their immediate environs. His comprehensive recommendations included constructing garden beds and paths and installing seating in the gardens; building a sea wall to redress the recurrent problem of high tides and strong winds, as well as a foreshore promenade and steps to the beach; planting trees; and erecting a band rotunda and shelter sheds.

Lobbying for a marine boulevard

The idea of a marine boulevard for Adelaide was topical through the 1920s. Brighton Corporation was particularly proactive in seeking state government intervention to assist with the problem of sand erosion and also to address the fact that parts of the beach and foreshore under its jurisdiction were in private hands. The Corporation was especially keen that a portion of a property at Marino be purchased for public use. The property, which featured the landmark Kingston House, home to prominent colonial surveyor and architect George Strickland Kingston (1807-1880) from 1851, extended down a steep cliff-face to the high water mark; consequently the beach was fenced off from public access. Following lobbying from the Brighton Corporation and residents, and protracted negotiations between the South Australian government and the estate of Lucy Kingston, the property’s last owner, in 1924 the government purchased Kingston house and 20 acres of foreshore land for a public reserve and as “a terminal for the proposed Marino to Outer Harbour [sic] foreshore scheme”.

Meanwhile A.H. Sanders, Town Clerk of Brighton, had visited Melbourne to inspect the St Kilda Esplanade. He saw the new gardens that had been established there as well as the public baths and amusements. In conjunction with his visit, Sanders drove along the foreshore from St Kilda to Sandringham, as Premier Crawford had done in 1915, and returned to Adelaide convinced of the advantages of the proposed Marino to Outer Harbor boulevard. Through his role on the Brighton Council, he advocated for a government-funded survey of the coastline and for the preparation of a comprehensive plan for the boulevard. Then “portions could be carried out as funds permitted and in the end would be uniform.”
In the background to negotiations for the purchase of Kingston Park, in 1918 Reade recommended to Attorney General Henry Barwell, who was also the Minister in charge of Town Planning, “the preparation of plans and proposals” for the Marino to Outer Harbor foreshore. He argued that the work should be done before any further subdivision or development of land along the sea front. However, at the same time Reade acknowledged the “considerable magnitude [of the task] involving time and assistance of expert officers and staff” which his department lacked. He proposed a number of points for consideration in relation to the actual areas likely to be included in the foreshore scheme, and restated his view that for the project to go ahead it needed the financial commitment of government and “a continuous programme of improvement by all authorities concerned over a series of years. The magnitude of the work demands both collective and co-ordinated effort.” His last point reinforced his larger goal of achieving town planning legislation for South Australia which would, inter alia, create the mechanism for controlling and coordinating development in the state.

At the same time as Reade was pressing his agenda, the ANA was keeping up its pressure for a marine boulevard. The Association passed a resolution for the implementation of a boulevard scheme at its conference in April 1920 and also invited the National Roads Association of Australia (NRAA) to address its monthly meeting in September 1921. Amongst the NRAA’s key objects was one to “stimulate the demand for improved road conditions throughout the Commonwealth”. This objective added fuel to the argument for the marine boulevard. The Association was outspoken about the “deplorable condition” of the Outer Harbor Road at the boulevard’s northern-most end. Passengers from the shipping terminal at Outer Harbor travelled on that stretch of road en route to Adelaide: it was their first introduction to the city. The Association concurred with the popular view that the Outer Harbor Road was not a positive advertisement for Adelaide: “Few visitors – after numbering their bruises – are likely to forget this highway to the Garden City of the South”.

A foreshore scheme emerges

Influenced by ongoing pressure from local councils and groups like the ANA, in 1924 the Minister for Town Planning the Hon. William J. Denny, requested the then Government Town Planner Walter Scott Griffiths to investigate and identify ways of improving the Marino to Outer Harbor foreshore. Griffiths had built on Reade’s proposals for part of the Victor Harbor foreshore in an extension plan that he produced in 1922. He reported on a foreshore scheme for Adelaide in November 1926. Griffiths noted that the beach extended unbroken for 18¼ miles. Together with the hills to the east of Adelaide, it provided a “magnificent natural framework to
the City”. His scheme was designed to take advantage, and to enhance the natural beauty of, the coastline through a “discreet and artistic [foreshore] treatment”.

In 1926 six separate local government councils – Brighton, Glenelg, Henley and Grange, West Torrens, Woodville and Port Adelaide – were responsible for developing and managing particular sections of the foreshore. Griffiths ascertained the actual length of land controlled by each body (noting that some parts were in private or in Commonwealth Government hands), and recorded the improvements already undertaken. His report provided a “tentative plan” for how the sections could be developed as a series of connected and unified spaces featuring a marine drive.

He recommended that wherever possible the foreshore treatment should be a minimum width of 100 feet. Although the current land ownership and use prevented a road running parallel to its full length, he identified how a marine drive could be created by re-purchasing some land and diverting the road around sections already committed to other purposes. The carriageway would be between 40 and 60 feet wide, depending on land availability, while the sea wall along the water front would be from 4 to 6 feet high. Griffiths emphasised that existing improvements including sea walls, grassed areas, promenades, tree plantings and changing facilities should be retained and in some places increased. He made several specific recommendations, for example about where to locate sites for tennis, croquet, carparking and a refreshments kiosk at Brighton, and where to build a bridge to continue the marine drive over the Patawalonga Creek at Glenelg.

Griffiths proposed “discreet plantings” of trees along the marine drive for practical and aesthetic reasons – to cut afternoon sun glare, provide shade and create changing vistas for motorists and passengers. Regarding tree species, he recommended the Norfolk Island Pine (Pinus Insignus) often used in coastal locations in Australia. He suggested a parkway treatment in several spots “with a plantation of Norfolk Island Pines set fairly wide apart” so as not to obstruct views to the water.

Acknowledging that his “extensive” scheme was a long-term “vision”, Griffiths noted that it would require considerable local and state government resources to implement. He argued for a board of control to co-ordinate and oversee the development so as to avoid “distressful results”, and he put the onus on the individual councils to review and cost his proposals. At the time councils were finding it difficult to raise funds for essential municipal improvements and the state debt was increasing in the face of a looming international depression. The Register newspaper asserted that, while the
potential aesthetic and touristic benefits of Griffiths’ vision were undeniable, his proposal should be regarded as beyond current reach; councils were obliged to assign funds to more urgent and “utilitarian” items like road maintenance.\textsuperscript{39} However, the paper urged individual councils to consider Griffiths’ recommendations when they did turn their attention to foreshore improvements; and, essentially, that is what they did over the next two decades.\textsuperscript{40}

**Keeping the marine boulevard/drive vision alive**

Although neither the local councils nor the state government could finance Griffiths’ marine boulevard/drive scheme in its entirety in the late 1920s, it remained on the agenda, largely through the advocacy and efforts of local councils and community-based organisations. The councils pushed forward with foreshore improvements like sea walls, shelter sheds, public conveniences and bandstands; esplanade widening to accommodate promenades, lawns and gardens; tree planting; and creating carparks.\textsuperscript{41}

Constructing the continuous road along the foreshore proved more problematic. The associated costs, including of materials, engineering and labour, were high, and in the absence of a single authority to initiate and oversee its development, any initiatives—individual or collaborative—had to be led and funded by the councils. Although the councils did persist in seeking government support, most efforts in that regard were fruitless.\textsuperscript{42} Indeed, at a conference of councils in 1953, one mayor bemoaned the fact that “Government aid had been sought unavailingly … since before 1939. The Government has stalled us off for years …”.\textsuperscript{43} Councils and the community were not short on suggesting ways and means to achieve the road in the face of the financial obstacle; one widely supported approach was to use the unemployed as labourers during the late 1920s depression and its aftermath.\textsuperscript{44} Significant occasions like the state’s centenary in 1936 were promoted as particular inducements to get the job done, as was the ongoing saga of the poor condition of the road from the Outer Harbor terminal.\textsuperscript{45}

In the upshot, the 18¼ mile continuous road along the metropolitan foreshore was not fully realised.\textsuperscript{46} In June 1954 the Hon. Norman L. Jude, Minister of Local Government, Roads and Railways announced that “the proposed marine drive along the foreshore was ‘unlikely to materialise.’”\textsuperscript{47} Representatives of the affected councils expressed their regret, particularly for the perceived lost tourism opportunities. The author of an article in the *Advertiser* newspaper hoped that the idea would not be abandoned. The drive was almost finished. Its advantages were obvious.
Even if the work were done only in stages … the resultant highway along beaches which have few equals would constitute a seafront attraction and assets which Adelaide might well prize, and perhaps other cities envy.  

New concerns, priorities and visions

By the mid 1950s the subject of a marine drive and the wider topic of the future planning of the Marino to Outer Harbor foreshore were embraced by a larger debate, which had been gathering momentum since the post-war years, about the absence of a master plan for metropolitan Adelaide. Following considerable pressure from the community and from professional organisations like the Town Planning Institute of South Australia, the Playford Liberal Government established a Town Planning Committee “to prepare a co-ordinated plan of development for the metropolitan area.”  

In its Report, the committee referred to the marine drive from Marino to Outer Harbor and noted that in 1947 the Commissioner of Highways had included the drive in proposals for the widening of main roads in Adelaide. However, the committee considered that the drive’s completion would be an expensive undertaking because of the costs of land acquisitions and engineering works. The Report also raised concerns about through traffic, car parking along the foreshore and the safety of pedestrians accessing the beach. It concluded that

the main road for through traffic and the distribution of beach traffic should be near but not along the foreshore. … in suitable locations, a marine drive can be designated for slow moving vehicles …

Forecasting Adelaide’s future extension north and south, the Town Planning Committee argued that land fronting the foreshore should be reserved for public use and that the minimum distance for building allotments should be 150 feet from the high water mark. The last point was pertinent for several reasons including concerns emerging in other quarters about the conservation and management of Adelaide’s coastal environment in general and of the sand dunes in particular. What had become obvious was that for its first 130 years “the Adelaide coast was developed with little knowledge of beach-dune systems and managed in response to storm damage and erosion events.” Severe erosion occurred in the 1950s and 60s following major storms which not only seriously damaged or wiped out several metropolitan jetties but also caused significant sand movement and destruction of the coastline which in turn led to the widespread construction of sea walls and the implementation of other environmentally damaging measures.
In response to the major natural coastal events of the 1950s and 60s, local councils formed the Seaside Councils Committee which, in conjunction with the state government, commissioned the University of Adelaide Civil Engineering Department to undertake research into the coastal processes and erosion problems on the metropolitan beaches.\textsuperscript{53} The resultant Culver Report led to new appreciations of the need to protect surviving beaches and sands dunes, to investigate “restorative measures” and to set up a formal beach protection and planning authority.\textsuperscript{54} A Coast Protection Board (CPB) was formed under The Coast Protection Act 1972 and a series of reviews, plans, strategies and actions followed. In the 1980s it was recognized that the state planning system was more suited to coast protection policies and consequently the CPB’s development control powers were extended and relocated into the Development Act promulgated in 1993.\textsuperscript{55}

While coastal protection policies were being formulated in the 1990s, the South Australian Government created the Metropolitan Open Space System (MOSS) a linked open space system that included a variety of existing open spaces of various scales, significant watercourses and reservoirs and the metropolitan coastline. In 2001, the government released the Parklands 21 Strategy (now Parklands 2036), which extended “the MOSS approach to open space management … [and] offer[ed] a significant direction and outline for Adelaide’s natural resources.”\textsuperscript{56} By adopting “a planned approach” to managing open space it aimed to achieve equitable provision of open spaces, consistent and integrated planning at state and local government levels and efficient planning and implementation of works on the ground. One of the first outcomes of the Strategy was the Coast Park Concept Plan released in 2001.

\textbf{Coast Park Concept Plan}

Planning SA (now the Department of Planning, Transport and Infrastructure), six local councils and key stakeholders developed the Coast Park plan which set out a comprehensive framework for the staged development over ten years of a 70 kilometre (44 mile) stretch of coastal land extending from Sellicks Beach in the south to North Haven in the north. Coast Park encompassed the foreshore and beaches between Marino and Outer Harbor and aimed to celebrate the diversity and attributes – marine, natural, built, recreational, historic – of the coastline and to exploit its tourist potential. The vision of the project group was “To revitalize and sustain a healthy, diverse and accessible Coast Park to be enjoyed and valued by present and future generations.”\textsuperscript{57} A fundamental premise was that the entire length of the coastline would be accessible to the public via a linked pedestrian and cycle path. The path would traverse a variety of environments from sand dunes to urbanised areas.
The Coast Park Concept Plan divided the coast into eight precincts each with
distinctive focal points in their natural and marine environments. Sixty potential
projects were identified across the precincts and costed at a total of $20mAU$. The
original plan included possible concepts for each project with the view to providing a
consistent approach to open space development along the coastline. Final designs
were to be developed using design and other consultants and public consultation
processes. Several of the proposed projects were intended as “development focal
points … for recreation, community activity, commercial and educational projects”;
in other words they were to link into existing major coastal recreational, retail and/or
commercial hubs.

Substantial headway has been made with the development of Coast Park through
staged investment over more than a decade by local councils and the state
government. Approximately 50 per cent of the pedestrian and cycle path is finished
and in use but its completion is not expected before 2023 due to council budget
priorities. The path has opened up areas previously inaccessible to the public and
created opportunities to study local flora and fauna as well as the remarkable
geological features of parts of the coastal landscape, and to take in the ocean views
from new perspectives. However, its construction has not been without controversy.
Indeed, community concerns over potential damage to sand dunes, loss of sea views,
and mis-use of the trail have halted its progress from time-to-time. Alongside the
development of the path, various new recreational facilities like children’s
playgrounds have been built, and the foreshore around existing activity nodes like
jetties and squares has been or is in the process of being revitalised.

**Conclusion**

This paper has introduced visions for Adelaide’s metropolitan foreshore from the
original District of Adelaide Plan in 1839 to the Coast Park Concept Plan of 2001
being implemented currently. The visions reveal common objectives and themes over
time: to reserve a continuous strip of land along the foreshore for public uses; to
ensure that all parts of the reserved land were connected and publicly accessible; to
beautify the foreshore and to develop it according to consistent design principles; to
utilise the foreshore for public leisure and active and passive recreational purposes;
and to approach foreshore development in a co-ordinated way and through investment
by local and state government. For a range of reasons including the cost of the
venture, the waxing and waning of political will, government prioritisation of
spending on other items such as roads, and the effects of global events like world war
and economic depression, the nineteenth and twentieth century goal of a continuous
marine boulevard/drive over 18¼ miles was not fully achieved. However, the idea
was not lost; rather it was incorporated in and replaced by the twenty-first century
vision of a publicly accessible foreshore with a series of distinctive precincts linked by a coastal pedestrian and cyclist trail.

The Coast Park project has re-ignited and energised development activity along Adelaide’s metropolitan coast. Original advocates of a marine boulevard – the ANA, Government Town Planners Reade and Griffiths, local councils and community groups – all called for comprehensive and co-ordinated development of the coast; since 2001, state and local government commitment to Coast Park has enabled that to occur. While twenty-first century development initiatives are guided by new knowledge and an expanded set of imperatives about the care and protection of the local marine and coastal environment, the underlying objective of making the foreshore and beaches accessible and attractive destinations for residents and visitors alike has remained alive. So, too, has the vision of capitalising on the high quality natural asset of Adelaide’s metropolitan coastline for the individual, community and touristic benefit.

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Notes


2 Ryan to Young, 30 May 1913, 1. GRG 35/1, State Records of South Australia (SRSA).


These include a linear park along the River Torrens, a second ring of parklands and the marine boulevard under discussion in this paper.


11 “Adelaide Optimistic”, 11.


14 Robert Freestone, “From City Improvement to the City Beautiful” in *The Australian Metropolis*, 30.


19 Peter Johnson to Christine Garnaut, October 24, 2013.


21 Luna Park, Melbourne, was the earliest of five Luna Parks in Australia.


23 Garnaut, “The Soldiers’ Memorial Gardens”.

“Brighton Foreshore”, 10.

“Report from Town Planner to Attorney General in reference to the Marino Outer Harbor Foreshore …”, 23(4?)/4/1920. GRG73/1/0000/1/21, SRSA. Quotations in this paragraph are from the same source.

ANA letter to Town Planner 20 April 1920. GRG73/1/0000/1/21 SRSA; “Australian Natives Association”, Register, September 30, 1921, 3.


Griffiths, “Foreshore Scheme”, 8.

Griffiths, “Foreshore Scheme”, 2-8.

Griffiths, “Foreshore Scheme”, 3.

Griffiths, “Foreshore Scheme”, 3.

“A Marine Drive”, 9. In 1927 the cost of the scheme was estimated at £4 per foot or £380,000 in total. See, “Foreshore Improvements. Apportionment of the costs discussed”, Advertiser, March 16, 1927, 23.

“A Foreshore Vision”, Register, November 16, 1926, 8.


43 “Beach Councils Unite on Foreshore Aid”, Advertiser, February 26, 1953, 3.


46 Holt, Vanishing Sands, 149-50.


48 “Marine Drive Target”, Advertiser, July 1, 1954, 2.


50 Town Planning Committee, Report, 204.

51 Town Planning Committee, Report, 204.


56 Government of South Australia, Parklands 21, 4.
57 Government of South Australia, *Coast Park*, 5.

58 “Coast Park 2036”, 8.


61 See for example, Deborah Bogle “Henley’s $8m Refit – It’s Hip to be Square”, *Advertiser*, August 3, 2013, 16-17.
Social Site and Decision-Making: The Production Of The Built Environment In Juiz De Fora, Brazil

Victor Hugo Godoy do Nascimento, Antonio Ferreira Colchete Filho, and Frederico Braida Rodrigues de Paula

Keywords: Production of Space; Social Agents; Urban History

Introduction

The aim of this paper is to relate the dispute by the locating power in the city and the decision making between social agents that produce urban space. First we will take a critical look at the processes of social production of urban space highlighting the importance of social agents that produce the built environment. Then we will do a brief history about the origins of the city of Juiz de Fora where we will highlight some agents and forces that played a significant role in shaping the current built environment of the city.

A major contribution of geography to urban studies is the awareness of the "social production of space." I.e., the perception that space is not just a construction of nature, is also "consequence of the action of concrete, historical social agents endowed with interests, strategies and spatial practices of their own, carriers of contradictions and creators of conflicts among themselves and with other segments of society" (our translation) (CORRÊA, 2012, p. 43).

However there is a contradiction that lies at the heart of this process. Space is socially produced, i.e., by agents of the public sphere, as the state, real estate developers and excluded social groups, but it is appropriated by private. Urban space is therefore a commodity. Consequently, there is a differential access to it between different social classes. This condition directly affects the constant process of production of space (LEFEBVRE, 1999).

Urban space is a peculiar product of human labor. It is an unintentional product resulting from the production of values by workers and owners of means of production: buildings, streets, networks, squares. The urban space, however, has its own value that should not be confused either with the value of these products or with their sum. Is the value of the location. Being socially constructed, the location is the element that most influences in the value of spaces in the city and, therefore, of real estate speculation.

According to Milton Santos (1983) speculation derives, ultimately, from combination of two convergent movements: the superposition of a social site to natural site and the dispute between activities and persons for a given location. Social sites are created, since the functioning of urban society selectively transforms places, adjusting them to their functional requirements. That's how some points become more accessible, some arteries become more attractive and also, some others, most valued. So are more dynamic activities that install in these privileged areas; regarding places of residence, the logic is the same, with wealthy people seeking roost where it seems most convenient to them, according to the canons of each epoch, which also includes fashion. This is how the various parts of the city gain or lose value over time.
The *social site*, defined by Milton Santos is a social construction. However, as urban space is a source of income there is a constant struggle between activities and people for the appropriation of a given location. And since the higher classes tend to be located in the same region of the city (VILLAÇA, 2000), this happens to be the location that receives more investment from both the private power, aiming at the reproduction of capital, and the public, due to the increased political power of the wealthier classes (CASTELLS, 1983). In the city of Juiz de Fora, throughout most of its history, this place was the Baron of Rio Branco Avenue, our object of study.

**Social Production of Space**

The notion of social production of space brings important issues: their sense reveals the contents of the production process, producers subject, the agents of material production of space, the purposes that guide this production set in a society as well as the ways is appropriate. From this perspective, man places himself in the center of the discussion of the space as a subject.

The so called social agents are the owners of the means of production, land owners, property developers, the state and excluded social groups. From their action, space is produced, steeped in materiality, such as roads, dams and urban centers with streets, neighborhoods, commercial and industrial areas, but also full of many meanings, such as those associated with aesthetics, status, ethnicity and sacredness (CORRÊA, 2012).

According to Souza (2007), those we might call the "spatial professions", ie, the professions concerned with the study of social spatiality or planning interventions in space (notably Geography, Urbanism and Urban Planning in general), have traditionally represented an approach synthesizable by the expression "overflight vision".

To consider societies and their spaces from a “overflight vision” involves analyzing them "from above" and "at a distance". Essentially means emulate or adopt the typical perspective of the state apparatus.

By studying the social space, many researchers have neglected the study of the producers of space, at least in important aspects. For his part, to plan interventions in space, professional planners often act as if they did not take cognizance of the fact that they are not only planning the spatial organization (as if this would sum up to a relation between things), but also, and especially, relationship and social practices, which would require them to take into account much more deeply concrete men and women, their expectations, their values, their fears (SOUZA, 2007, p. 105-106).

**Juiz de Fora and its Main Axis**

The origins of the city of Juiz de Fora go back to the opening of the “New Way” (Caminho Novo) in 1711, which connected the gold mining region of Minas Gerais to Guanabara state with a journey time of 15 days. The New Way served for around 200 years as an artery for the transportation of goods and commodities between the port of Rio de Janeiro and the state of Minas Gerais. In 1830, the government decided to transform the tortuous, century-old, slippery path into a good, navigable road, compatible with needs. A German engineer, called Heinrich Wilhelm Ferdinand Halfeld, led the construction of the new road, in 1836. The Paraibuna’s road (Estrada do Paraibuna) actually consisted of a series of modifications to the layout of the Caminho Novo.
According to Inácio Gama, quoted by Paulino de Oliveira, when Halfeld modified a part of the previous route emerged in "the gracious hill later called Alto dos passos", the town of Santo Antonio do Paraibuna, which in 1856 was elevated to city status (OLIVEIRA, 1966, p. 10 e 37). Jair Lessa said that according to oral tradition, the engineer commented, after carefully observed the 5Km long and 2Km wide floodplain that fascinated him: "Nice place to build a city! "(LEssa, 1985, p.40). Indeed, in that place he built that stretch of the Paraibuna’s road which eventually became known as New Road, then Right Street and finally Baron of Rio Branco Avenue, the main axis of the city of Juiz de Fora.

In the first decades of the twentieth century, we have major incentives to vertical integration that influenced decisively in the built environment of the avenue, such as the prohibition of one floor buildings in the central streets and tax exemptions for those over two floors (OLIVEIRA, 1966).

A major urban design that has significantly changed the landscape of Juiz de Fora was the Urban Plan and Extension of the City, conducted by Professor Ribeiro Savoy, between the years 1945/52. The Plan may be considered utopian in several of its propositions, being supported by a vision of the modern movement, where he proposes urban operations in the built environment (ABDALLA, 2000).

Over time many investments were made along this axis: paving, sidewalks, infrastructure, lighting, public transport, among others. Consequently, the land and buildings located there were constantly being valued. In the early twentieth century, much of the land was already occupied by major coffee producers and industry owners houses. By the 1960s and 1970s, the avenue was becoming denser as it extended in height, with vertical elevations. Nowadays, with a central reservation exclusively for buses, the two-way Baron of Rio Branco Avenue represents the most majestic street in the city, and experiences considerable movement of people and vehicles (TASCA et al, 2013).

We consider, in agreement with Abdalla (2000), that the city of Juiz de Fora was conceived within an ideology of modernization sustained by coffee barons through industrial and financial investments. Thus, the city sought an image consistent with the parameters of the modernity of large cities. We also emphasize that any improvement towards the beautification of the city, was started in the current Baron of Rio Branco Avenue, not only for its functionality and scale, but also because it shelters the headquarters of the Municipal Offices, the Main Church and the mansions of the most influential families of the city's elite (OLIVEIRA, 1966). Thus, we understand the Avenue as "display case" of this modern city.

Final Considerations

The Baron of Rio Branco Avenue is the primary route of Juiz de Fora. Its history is intertwined with the history of this city from southeastern Brazil. It is no coincidence that the builder of that route is considered to be the founder of the city.

Urban space should be seen as a historic resulting product of the mode of production and the political system, and is thus a witness of time. It works as a memory of the built environment and objects set in the preterit landscapes.
Society produces the space and, in doing so, reveals a deep contradiction, as already noted above, from a production process, which is socialized, and the appropriation of space, which is private. The production process of the space rooted in the working relationships between society and nature involves understanding various relationships: social, political, ideological, legal, cultural, and involves a way of producing, thinking and feeling, ultimately, a way of life.

The study of the different actors, with different visions and goals that influenced the process of formation and development of the city, demonstrates the complexity of relationships that exists between the built environment and social context that allows the achievement of the shape of the city. Urban forces that construct and modify the space show up in search of meeting their needs, fighting for the city space, but also showing an idea of the the city that they want to build.

References


Sustainability as a key theme in the planning history of Canberra
Karl F. Fischer, James Weirick

In the planning history of the Australian capital over the past 100 years, Canberra has been an exceptional testing ground for models of urbanism – from the landscape vision and democratic ideals of Walter Burley Griffin at the beginning of the century\(^1\) via the making of the “garden city metropolis” in the years following World War II,\(^2\) to notions of planning for more sustainable futures in recent decades.\(^3\)

The city that has emerged since the framing of the Australian Constitution in the 1890s has been described as a perfectionist manifestation of ideal concepts in planning.\(^4\) From a critical perspective, realisation of these ideal concepts has revealed deep contradictions between aims and outcomes. This certainly applies to one of the most contentious ideal concepts of the late 20th and early 21st century, that of sustainability.

The paper starts by briefly discussing the definition and inner contradictions of this concept, its ambitions and its tendency to be no more than a fig leaf to the reality of urban development processes. The paper then focuses on a survey of Canberra’s planning history in a broadly-based review of environmental and social planning set against economic determinants.

First it comments on the challenges of founding an inland capital dependent for its water supply on the headwaters of the principal rivers of the continent. The paper then examines the original plan of 1911 by W.B. Griffin and comes to the conclusion that with its orientation on public transport, water recycling, nature reserves, neighbourhood communities, urban forestry and urban agriculture, the Griffin Plan can be reasonably described as an example of sustainability planning \textit{par excellence} – decades before the term emerged in the context of the World Conservation Strategy, the Brundtland Commission and Australian moves to adopt a National Strategy for Ecologically Sustainable Development.\(^5\)

The role of Canberra as the subject and location of advances in environmental sciences is then outlined from the founding of the Federal Capital, through the Inter-War years to the outstanding contributions of the Australian National University since the 1940s and the University of Canberra since the 1970s. In a clear expression of its National Capital role, the combination of frontier research in the environmental sciences, public policy and an informed community committed to environmental ideals laid the foundation for Canberra’s contribution to the national sustainability debate following release of the World Conservation Strategy in 1980 and the report of the Brundtland Commission, \textit{Our Common Future} in 1987. At the same time, the planning and design of the city was contradictory, with the patently unsustainable urban form of low-density, car-based suburbs – widely dispersed in New Towns – set
against advances in environmental design such as the introduction of natural profile stormwater systems and the application of ecological land use planning to greenfields development on a comprehensive scale.

Three major factors have contributed to the salience of the sustainability debate in Canberra. As Australia’s largest inland city in a drought-prone continent, Canberra’s very existence is dependent on the ecology of its regional setting. As a city of government and public administration, its economy is dominated by the public sector and comparatively detached from market forces. And as a city with a highly educated community engaged in research, public policy and media commentary, it is attuned to advanced social concepts.

Two aspects of Canberra’s urban development, however, have militated against the effective implementation of sustainability planning. First the dominant urban form, determined in the late 1960s, has been overwhelmingly car-based and the dispersed pattern of low-density communities has proved resistant to more sustainable urban patterns. Second the retreat from “company town” Commonwealth support to a forced form of self-government in the late 1980s has created an urban economy based on land development and land sales that has continued to trump ecological and social concerns.

Since the introduction of Australian Capital Territory self-government in 1989, the dialectic between environmental ideals and pragmatic reality has seen ambitious plans for eco-suburbs, the declaration of Canberra as a UNESCO Biosphere Reserve and the introduction of light rail come under challenge as economic imperatives have come to the fore. The car-based city has continued to expand. Complex environmental challenges, such as bushfire management following a catastrophic fire in 2003 and water management of the city’s artificial lakes have proved intractable in the face of planning responsibilities poorly divided between the Commonwealth and Territory governments. The paper critically examines the prospect of Canberra achieving a sustainable future.
Comments on the sustainability discourse in Australia

The notion of sustainable development has dominated discourse on the future course of society, environmental protection and urban development for the past 30 years. Sustainability has been a stimulating concept. It has led to fundamental change in society. But it has also been used as “greenwash”, dressing up actions of resource exploitation and commercial development with the semblance of environmental and social responsibility. Sustainable development has therefore been hailed by many as the key feature marking a positive turn for the future of humanity while others have rejected it as a meaningless term.

The Australian debate that gathered force in the 1980s following the World Conservation Strategy in 1980 and the Brundtland Commission report in 1987 took a distinctive turn by adding the prefix “ecologically” to the term sustainable development. Australia is the only nation that has modified the concept outlined in Our Common Future. In Australia, “ecologically sustainable development” is defined as “using, conserving and enhancing the community’s resources so that ecological processes, on which life depends, are maintained and the total quality of life, now and in the future, can be increased.” The term, which had its origins in international forums in the 1960s, was introduced to the Australian debate on economics and the environment by Labor Prime Minister R.J.L. Hawke in a major statement issued in July 1989, Our Country, Our Future.

Although in its title this statement made a clear reference back to Brundtland, in direction it was more closely aligned to the National Conservation Strategy for Australia – adopted in 1983 on the basis of the IUCN World Conservation Strategy – which had as its first objective “to maintain essential ecological processes and life-support systems.” To the advisors who prepared the Prime Ministerial statement, Craig Emerson and Simon Balderstone – the latter a former publicity officer of the Australian Conservation Foundation – the Brundtland Commission’s term “sustainable development” did not give sufficient emphasis to the ecological imperative, hence the term “ecologically sustainable development.”

The background to the “green policy” shift was essentially political. The Hawke Government, then in its second term, faced the prospect of a tight election in 1990. To win votes from minor parties with environmental credentials, Hawke and his Environment Minister Graham Richardson, initiated a bold series of environmental moves under the rubric of ecologically sustainable development. Bringing together environmental activists, industry groups and Canberra bureaucrats in a characteristic “Third Way” exercise in consensus politics, Hawke launched a consultative process that led to the release of a national discussion paper on Ecologically Sustainable Development in 1990. This was followed by preparation and endorsement of Australia’s National Strategy on Ecologically Sustainable Development in 1992.
carrying forward an Intergovernmental Agreement on the Environment signed earlier that year, which bound the Commonwealth, States and Territories in Australia’s federal system to a cooperative national approach to the environment, recognising that “the concept of ecologically sustainable development . . . provides potential for the integration of environmental and economic considerations in decision making and for balancing the interests of current and future generations.”15 In the words of Melbourne University academic Peter Christoff, “the period saw substantial changes in the policy culture around environmental issues . . . . Neo-corporatist institutional innovations were introduced to draw the peak organisations of the environmental movement into forums to ‘manage sustainability’ and promote ecological modernisation.”16

By adopting the term “ecologically sustainable development”, Australia appeared to be set on a different path to that of the international scene, privileging environmental constraints over economic drivers. As Clive Hamilton, a key participant in the Australian debate, explained:

> The issue may be put as a question: What exactly is to be managed sustainably? To the conservationists, the essential requirement is to manage ecological systems so that they are not diminished in quantity or quality; development, or economic activity, is made subject to that constraint. To the business community, it is development itself, thought of in terms of economic growth that must be sustained, recognising that ecological damage can impair our ability to maintain and improve our living standards.17

The difference was further clarified in the juxtaposition of two diagrams in the 1996 State of the Australian Environment Report. One was the well-known Venn diagram of overlapping circles, which positions sustainable development at the occasional intersection of environment, society and economy. The other was a diagram of “ecologically sustainable development” as conceptualised in Australia: three concentric circles showing ecology as the all-embracing sphere, with society the subset of ecology, and economy the subset of society.18

In reality, sustainability initiatives in Australia have conformed more to the conventional notion. Nevertheless, this model helps clarify the distinctiveness of the Canberra experience, because, for a number of reasons, Canberra provided the opportunity to become a notable demonstration of the latter ideal, as is demonstrated in the following outline.

**The pursuit of sustainability in Canberra – positive features and disappointments**
The need to establish the Federal Capital as a new city came out of the Australian constitutional debates of the 1890s, principally to resolve the rivalry between Sydney and Melbourne. Under Section 125 of the Constitution, the Seat of Government was to be located in New South Wales, no closer than 100 miles to Sydney. From the first practical moves toward its establishment, principles of what we today consider as sustainability were central to the formation of the city.

In the ecological sphere, this was the water supply for the inland capital; in the economic and social spheres, this was a progressive land policy of public ownership of land and leasehold tenure. The introduction of leasehold was an achievement of the early reform phase of that progressive and democratically minded new nation, which in Europe was praised as “the Social Continent.” Public ownership of land in the form of leasehold would avoid speculation in undeveloped land and land value increases would remain in the public purse. New residents could concentrate their funds on the construction of their homes and businesses, and would pay land rent not to the banks but to the city administration—a truly sustainable principle based on the radical political economy of Henry George, and the financial model of Ebenezer Howard’s Garden City. This was not only socially equitable but it also aimed at providing a sustainable economic basis of funding the city over time. In terms of our contemporary discussion, this can be seen as a superb combination in the realms of economic and social sustainability. But these perspectives were compromised in the course of time. Public ownership of land has continued to the present, providing a sound basis for urban planning but land rent was eliminated in the 1970s, removing a vital source of funding for urban development and urban management. Plans for the water catchment were compromised even before the foundation of the city.

The issue of water supply and the demarcation of the Australian Capital Territory

It was always assumed the capital would be an inland city to restrict competition with Sydney, for defence in an era of naval bombardment, and as an ideological expression of nation building. The latter was the most powerful, linked to the “Bush ethos” of the settler society as expressed, for example, in Henry Lawson’s poem “The Federal Capital” (1907):

“It shall be a world-wide object lesson,
it shall stand while a bushman is true,
And I tell you the bushman will build it
to show what a nation can do;
And there shall Australia sit queenly
and there shall her children be schooled,
For, I say, from the heart of Australia
shall the whole of Australia be ruled.”22
In selecting the site for the “Bush Capital”, a secure water supply for a large inland population was the determining factor. This led to a search for sites near the headwaters of Australia’s principal rivers. The decision of the first Australian Parliament to purchase the land of the Federal Territory and hold it in public ownership in perpetuity effectively ruled out of consideration the rich farming districts of central NSW. Instead, sites were sought in the poorer sheep country of the southern ranges. This had the long-term consequence that the city would not be underpinned by a strong rural economy, which to this day emphasises the artificiality of this “disembedded capital” in its region.

In contrast to the District of Columbia, established in 1790 as the setting for Washington in the pure form of a square, a mere 10 miles x 10 miles (260 sq km) in extent, the Australian Capital Territory was planned from the outset on the principle of controlling its own water supply, involving the excision of large tracts of land from the state of NSW set within the natural boundaries of river catchments.

After a protracted “Battle of the Sites”, the Yass-Canberra district was selected by the Australian Parliament in 1908. Located west of the Dividing Range on the Molonglo River downstream from its confluence with the Queanbeyan River and the township of Queanbeyan, the site drained east-west to the Murrumbidgee, a major river of the Murray/Darling system. The initial proposal for the Federal Territory included the catchments of the Molonglo and Queanbeyan rivers, which rise to the south-east comprising cleared grazing land, the township of Queanbeyan and a major copper, gold, silver, lead and zinc mining operation at Captain’s Flat all of which leads to the discharge of polluted water through the site of the city. The other part of the initial proposal for the Federal Territory comprised the catchment of the Cotter River, rising to the south-west in pristine wilderness areas of the Australian Alps. The NSW government objected to the inclusion of the Molongo and Queanbeyan river catchments, and in a deal struck in 1909, these vital areas upstream of the Canberra site were excluded from the Federal Territory in exchange for the catchments of two smaller rivers on the west side of the Murrumbidgee. As a consequence, management of the waters flowing through the city is divided among the Commonwealth, State, Territory and three local governments in NSW, with long-term ecological consequences for the water quality of the city and the lake system at its centre. On the positive side of the ledger, the inclusion of the pristine south-west catchment gave the ACT a hinterland of high-value wilderness areas, which have been protected as national parks and nature reserves since the 1980s. The overall area of the ACT – 2,400 sq km – is more than twelve times the size of Washington D.C., mostly comprising these mountainous forested areas, an impressive backdrop and hinterland but bush fire prone, posing considerable problems for ecological management and sustainability of the city.
The inherent challenge in the selection process of the site for the Federal Capital led to the involvement of leading scientific and professional figures of the day including the eminent geologist Edgeworth David, the geographer Griffith Taylor, water engineers Leslie Wade and Ernest de Burgh, surveyors Arthur Lloyd and Charles Scrivener, and architect Walter Liberty Vernon. These experts, together with the professional staff of the Commonwealth Department of Home Affairs, assembled impressive documentation on the geology, geomorphology, hydrology, soils, vegetation and climate of the Canberra site, together with comprehensive topographic plans.

The Griffin Plan

It was on this basis that the Chicago architects Walter Burley Griffin and his wife Marion Mahony Griffin prepared their entry in the competition for the Australian Federal Capital, launched by the Australian Government in 1911. The Griffins’ winning scheme was a synthesis of amazingly advanced ideas on town planning combining the approaches of the City Beautiful and Garden City movements, underpinned by the model of the American parks movement of the nineteenth century, the architectural philosophy of Louis Sullivan, the political economy of Henry George and democratic ideals characteristic of the Progressive Era in the United States. Features of the plan, spectacularly organised around a Land Axis and Water Axis generated from the salient topographic features of the site, included: neighbourhood units and diversified urban sub-centres; ideas on functional and social mix. Above all, in today’s terms it could reasonably be described as an example of sustainability planning *par excellence*. The sustainability dimensions can be summarised as follows:

*Biodiversity*

The Griffins’ Canberra was to be a “garden city” in which diversity of vegetation was a major feature. There were to be extensive parks, greenways and greenbelts. From the outset, urban development was set within an urban forest to ameliorate the harsh climatic conditions of the largely treeless city site. Within the initial neighbourhoods, a variety of street trees were planted under Griffin’s direction. His amenity and broadacre plantings contained a high proportion of Australian trees and supported the regeneration of the hills by temporary fencing to control stock and rabbits. Protection of the water catchment areas by re-establishing forests to prevent erosion was also a high priority.

*Nature and society*

As an architect and landscape architect, Griffin understood the special landscape of Canberra and was able to apply his principles of people and buildings developing in harmony with and enhancing the natural environment as the fundamental basis of the city.
Transport
The Griffins’ Canberra was to have relatively densely populated residential suburbs with an efficient and extensive tram system utilising hydro-electric power. This would be “borne at public expense” financed out of the revenue of the leasehold system. Everybody would live within five minutes’ walk of public transport. The national capital was to be linked to the main railway line between Sydney and Melbourne by a new line from Yass to Canberra, which would have had its main railway station at the market centre on the northern side of the lake, and a series of suburban stations underpinning a linear pattern of urban expansion.

Economic sustainability
Griffin envisaged production horticulture to provide food for the community with market gardens in “Agricultural Suburbs” located on the best soils within the city environs. He also envisaged managed forests to sustain construction of the city using the most advanced forestry techniques. He planned the provision of power by a hydro-electric power station at a dam on the Murrumbidgee River. Griffin’s precept of local self-sufficiency was that suitable mixed industries should be nurtured to provide natural resources, materials and employment.

Social sustainability
Griffin planned a community environment that nurtured children and created safe, healthy and attractive environments for all citizens. He planned the schools to be at the heart of the residential suburbs, built at the centre of the hexagonal street plans so that the children’s space was safe at the centre of the community. In 1920 he designed cheap and attractive “artisans’ cottages” for Canberra. He recognised that high-rise development caused congestion as in the American cities, and so planned Canberra “to have a horizontal distribution of the large masses for more and better air, sunlight, verdure and beauty.”

In all his writings on Canberra, Griffin expounded ideals of community development, embracing collective and individual culture, physical and spiritual wellbeing, the arts, theatre, and recreation. His Report Explanatory for Canberra emphasized the importance to society of respect for the constitution, stable democratic institutions and the history, heritage and prospects of the nation.

Water recycling and the use of hydro-electricity
Since Griffin was aware of the low-rainfall climate of the ACT, his plan envisaged that each valley of the national capital would be self-sufficient in terms of waste water treatment and recycling for landscape and horticultural use. His concept was based on a system of decentralized sewage water treatment applied on the river Emscher in Germany’s Ruhr district. This would not have required the construction of a main outfall sewer. Instead the water would have been treated by a number of Emscher or Imhoff Tanks in the city area. The recycled water would then have been used for irrigation of the agricultural suburbs, parks and street trees of the urban forest.
To protect the ornamental waters of his central lake, Griffin planned a two level lake system with a higher level East Lake and associated wetlands upstream from the formal central basins and West Lake to manage sedimentation and pollution from the rivers draining the cleared grazing lands, settlements and mines to the south-east of the ACT.

Griffin also pointed out the importance of making as much use as possible of electric energy in order to reduce atmospheric pollution. The electricity would be produced at the water supply dams and a large irrigation supply dam on the Murrumbidgee River.

**Griffin’s sustainability principles - departures and legacies**

Unfortunately the site selected for the first water supply dam, prior to Griffin’s arrival in Australia, was at a lower elevation than the city site. This necessitated a large electric pumping station, and led in turn to the construction of a coal-fired power plant on the south bank of the Molonglo, which alienated a prime lakeside site for 90 years. Further departures from Griffin’s sustainability principles included the decision to abandon the city railway and the two-level lake system. Griffin’s detailed plans for a tram system were never implemented. Following World War II, the site Griffin selected for agricultural suburbs on the rich soils of ancient river terraces southeast of the city was zoned for industrial use.

The essential departure, however, consisted in the change from the medium-density scheme and the clearly urban atmosphere implied by the Griffin plan to a low-density suburban conception, in which the skeleton of wide City Beautiful avenues was fleshed out with bungalows. This decision already foreshadowed the dependence on the motor car, even though the consequences of the rates of car ownership from the 1950s on were not yet understood.

On the other hand, key dimensions of the Griffin vision were attained. First the space design involving the axial alignment on the hills and the lake, creates a powerful sense of a city in balance with nature. This is reinforced by the extensive open space system extending from the inner city to the distant ranges and the urban forest which creates a tree canopy across the valley floors.

**“Canberra Following Griffin”**

Taking up Paul Reid’s nicely ambiguous title used in what is the most beautiful book published on Canberra, we are now looking at the major turns in Canberra’s development history from the angle of sustainability. After Griffin’s departure from the project in 1920, construction of the Federal Capital proceeded on a reduced scale along traditional garden suburb lines, creating not so much a garden city as a city of gardens. Extensive tree plantings throughout the suburbs matured to form a distinctive urban forest, which as windbreaks and an almost continuous canopy, ameliorated the severe climatic conditions of the site. Creation of the urban forest across the valley of the Molonglo was augmented by revegetation of the surrounding hills, and establishment of softwood pine plantations on denuded rural lands in the Territory. These initiatives were supported by the Australian Forestry School, formed in Canberra in 1926 as an affiliate of the University of Adelaide, which in the next decade undertook the first studies of regional ecology in the ACT.

**Canberra as a City of Science and Community Activism**
Canberra’s character as a city of science was further expanded by the location of key divisions of the Commonwealth Scientific Industrial Research Organisation (CSIRO) in the 1920s, which included Entomology and Plant Industry. Establishment of the Australian National University (ANU) after World War II further reinforced Canberra’s significance as a centre of scientific eminence with increasing influence on public policy including land capability studies, early GIS and environmental modelling, human ecology, environmental economics, environmental amenity, social equity and urban development generated by the Research School of Physical Sciences, the Centre of Resource & Environmental Studies (established in 1973), the Fenner School of Environment & Society, and the Urban Research Unit in the Research School of Social Sciences, 1965-1999.\(^\text{35}\)

The CSIRO was at that time also undertaking research into bushfire management using innovative techniques of aerial incendiary bombing for controlled burning in the forested catchment of the Canberra water supply,\(^\text{36}\) in parallel with emerging research into Aboriginal burning practices.\(^\text{37}\)

At the University of Canberra (founded as the Canberra College of Advanced Education in 1967), teaching and research in applied ecology developed special expertise in water management, the Murray/Darling river system and freshwater lake ecology leading to establishment of the Co-operative Research Centre for Freshwater Ecology in 1993.

Commonwealth initiatives included establishment of the Bureau of Natural Resources in 1946, the first Department of the Environment in 1971, the Cities Commission in 1973, the Australian National Parks & Wildlife Service in 1975, and the Australian Heritage Commission in 1975 – the latter undertaking extensive research into the natural and cultural heritage of the continent.\(^\text{38}\) The accelerated pace of policy engagement with environmental issues was driven in part by the power of the environmental movement across Australia in the 1970s.\(^\text{39}\) Its manifestation in Canberra and the ACT was evident in five notable campaigns, informed by the high level of scientific expertise and policy experience in the Canberra community, which saw the creation of groups such as the Society for Social Responsibility in Science, the National Parks Association (ACT), the National Trust of Australia (ACT), the Canberra & South East Region Environment Centre – and in 1979, establishment of a peak environmental activist organisation, the Conservation Council of the South East Region & Canberra.\(^\text{40}\)

The first conservation campaign, initiated by the National Parks Association (ACT) in the 1960s under the slogan “A National Park for the National Capital”, sought to dedicate the forested water catchment lands of the ACT and associated wilderness areas as a National Park. This took almost 25 years to be realised but in 1984, the Hawke Government gazetted Namadgi National Park, covering 100,000 hectares – 40% of the ACT.\(^\text{41}\) The second campaign was a spirited but ultimately unsuccessful challenge on ecological and aesthetic grounds to the design and construction of the Black Mountain Tower, a 195 metre tall concrete telecommunications tower,
complete with revolving restaurant and observation decks on the summit of Black Mountain, one of the forest preserves of the Griffin Plan and termination of his Water Axis above the campus of the Australian National University. Led by eminent figures of the intellectual life of the city, the campaign included a High Court challenge to the executive power of the Commonwealth. The third was a protest against the engineering design of the Molonglo Arterial, a major parkway along the base of Black Mountain which threatened to encroach upon the waters of Lake Burley Griffin. The fourth campaign was directed against the West Murrumbidgee component of the southernmost New Town of Tuggeranong, originally planned for both sides of the Murrumbidgee River, with a population of 90,000 on the east and 45,000 on the west. The threat posed to the water quality of the Murrumbidgee and the larger Murray-Darling system, which drains the principal productive lands of the continent, by urban development of this scale was seen as a national issue and in a seven year campaign, the West Murrumbidgee Structure Plan was successfully opposed by conservation groups and the scientific community in Canberra. The fifth campaign, also extending over many years and also successful, conserved the cultural landscape of the heritage grazing property “Lanyon” on the east bank of the Murrumbidgee River from the southern extension of Tuggeranong New Town.

Creation of the “perfectionist Garden City metropolis” under the NCDC, 1958-1989

These campaigns occurred in the context of the rapid expansion of the city under the National Capital Development Commission (NCDC) following its establishment in 1958. This period represents the high point of technocratic planning in the development of Canberra, creating a city recalled in recent years as “a bureaucrats’ and planners’ paradise.” While accommodating rapid population growth from 39,000 in 1958 to 278,000 in 1989, the NCDC combined environmental and social concerns in a reinterpretation of Griffin’s principles. On the social front, the NCDC was committed to the creation of “ideal suburbs” on the neighbourhood unit model supported by the full range of community services including local retail facilities and generous green spaces, all accessible by pedestrian and cycle paths. On the environmental front the Commission built the long-delayed lake as the centrepiece of the city – named for Burley Griffin at the insistence of Prime Minister Menzies – transforming the physical setting and image of the national capital, and complemented this essential element of the Griffin vision with artificial lakes in the New Towns of Belconnen and Tuggeranong. The NCDC also reserved the hills and ridges as an integrated open space system separating the original city of the Griffin plan from the series of five New Towns, which the Commission built in a poly-nucleated structure aimed at balancing employment across the ACT in a metropolitan strategy for a population of 500,000 known as the Y-Plan.

By the 1970s, a fascinating learning process had led to a sequence of plans proceeding from radial–concentric schemes oriented on the early British New Towns to linear
configurations modelled on US methods of land-use transportation studies. It produced the reality of a city which has never been appreciated as such. Canberra is not only “the world’s biggest Garden City”; in no other city have Howard’s Garden City principles been implemented in a similarly complete manner – ranging from a (moderately) revenue-producing leasehold system to a set of rather autonomous, “self-contained satellites” connected to a “central city” with a green core in accordance with Howard’s “Correct Principle for Urban Growth”.

The design of this city was uncompromising in its orientation on the private motor car. But at the same time, its linear urban form and the disposition of the employment and retail centres of the New Towns were constructed around a reservation for a central public transport spine planned for the introduction of a future rapid transit system. Surprisingly, by the 1980s, the “core-satellite” design principle had helped Canberra to achieve the second highest rate of public transport usage in Australia – entirely contrary to common belief.

The city produced in the NCDC era was, as are so many things in life, Janus-faced. On the one hand, it was beautiful, efficient and also benign in environmental terms (until a flash flood in 1971 revealed its vulnerability), just perfect for the population segment for which it had been primarily designed (the up-and-coming public servant family with 2.1 children, and, preferably, two cars). On the other hand, Canberra also became a strangely monstrous exemplar of metropolitan mass-production and optimisation strategies characterised by some of the negative features of post-war modernism, including rigid functional segregation, the ‘new town blues’, concrete agoraphobia in the town centres, and a lack of formal processes for public participation in planning.

The NCDC had begun its work with a classic civic survey in the Geddes tradition, which documented the geographic, economic and social conditions of the Canberra City district in 1959. The detailed planning and design of the New Towns progressed from land capability assessment to advanced concepts of ecological land use planning by the early 1970s.

A first crack in the technocratic confidence of the NCDC occurred in the context of a flash flood in the New Town of Woden in 1971, when an intense storm overwhelmed the engineered stormwater channels along the valley floor resulting in the death of seven people in cars washed away from the city streets. This was the first evidence of failure in the technocratic approach and a major shock to the culture of the NCDC. The result was a re-thinking of infrastructure design, which led to the introduction of natural profile storm water systems instead of concrete-lined channels, together with retention/detention basins and constructed wetlands. In the 1970s and 1980s, Canberra led the nation in this soft engineering approach, which found ultimate expression in the NCDC’s 1982 plan for the utilisation and protection of the Murrumbidgee River in the ACT. This plan established water quality parameters at
key locations in the river system of the Territory based on use requirements, then engineered the natural profile stormwater systems of urban development areas to deliver water at the desired quality at those locations.\textsuperscript{60}

To the authors’ knowledge this was the first time such an approach was taken in Australia. Its physical expression can be found in the expansive green spaces along the valleys of the New Towns at Canberra’s southern and northern ends (Tuggeranong and Gungahlin). One disadvantage of the central floodways, however, was the further dispersal of town centres. As a consequence of commendable decisions on stormwater management, the location of town centres in these satellite communities (of 90,000 and 45,000 residents respectively) proved to be out of balance in terms of retail catchments, commuting patterns and commercial viability.

In view of the high level of Commonwealth subsidies for the capital, Canberra’s local citizens rejected the opportunity for self-government in a 1978 referendum, with 63% against the proposal. Change, nevertheless, was inevitable and in a period of fiscal constraint, the Commonwealth forced self-government on the ACT in 1988\textsuperscript{61} – a step that appeared long overdue in a democratic society. However, the particular arrangements chosen in terms of urban politics, urban economics and urban planning created major problems for the city and its development. Conceived in Australia’s heyday of neo-liberalism,\textsuperscript{62} the new Territory Government took office at the beginning of a long phase of turbulent reforms. On the political front, election of the ACT Legislative Assembly based on multi-member electorates and proportional representation made it difficult for one political party to achieve a majority, with the result that coalition governments would be the norm. On the economic front, the Territory Government could not afford the low-density, far flung city it had inherited from the Commonwealth, on the basis of tax revenues alone. On the planning front, the division of responsibilities between the Commonwealth and Territory governments proved to be dysfunctional.

**Canberra following self-government, 1989 to date**

The critical issue was economic. Fundamental changes towards a neo-liberal agenda had begun well before self-government. As early as 1972, the leasehold system had been emasculated by eliminating land rent and transforming landholdings into what, from an economic viewpoint, was virtual freehold.\textsuperscript{63} While the high level of planning control based on lease-purpose clauses was not immediately affected, the foundations were laid for a new way of financing the capital based on municipal rates.

At self-government, the rates were not sufficient to meet the annual budget of the Territory. A substantial portion of municipal revenue, including infrastructure investment,\textsuperscript{64} therefore had to be financed from the sale of the Territory’s only asset – land.
Under the new arrangements for planning and urban development, the ACT had been divided into Territory land and National land in terms of ownership, with an overlay of “designated areas” of national significance on some parts of Territory land subject to Commonwealth planning control. In the debate on the enabling legislation in the Australian Parliament, Labor member and former Minister responsible for Canberra, Tom Uren made the issue clear:

... it must be understood that the land of the ACT belongs to the people of the nation as a whole, not just to the people of Canberra. Public ownership of and the development rights on it have enabled the Commonwealth to pursue its objectives free from the effects of land speculation and private interest. Public land ownership and integrated planning and development have enabled urban development to be coordinated on a scale far greater than anywhere else in Australia. Under the proposed legislation, there would be a division between national and territorial land for funding certain planning development and for management purposes. Self-government has been designed so the ACT government will have access to the revenues and land and development rights over most of the ACT, and economic necessity is likely to be the basis on which the future declarations of land will be made.65

This came to pass. What had once been conceived as a sustainable method of supplying building land at equitable cost for the homes of average citizens and of channelling land-value increases into the public purse was turned into its opposite. The land policy of the ACT Government now focused on maximising land values, and by the turn of the century the head of the new Office of Assets Management declared that it could “take pride in its success of raising land prices to Sydney levels.”66 By 2004, Canberra was reported to have left Sydney suburban price-levels behind. With the cost of land soaring, affordable housing became a difficult issue, and the low-density, far-flung city the ACT Government could not afford, was further extended by that government for short-term gain in revenue from greenfields development.

The National Capital Development Commission, the powerful planning and development agency that had guided the city’s growth since 1958, was abolished. It was replaced by a municipal land management agency with reduced planning functions, the ACT Planning Authority, and by a Commonwealth agency with reduced planning functions, the National Capital Planning Authority, responsible for national land and designated areas of the capital.

Establishment of ACT self-government took place at the same time as the debate on the National Strategy for Ecologically Sustainable Development (ESD). Background papers on ESD and urban development prepared as part of this debate made clear the need for compact cities, urban consolidation, maximising public transport use,
coordinated city size and the balanced distribution of workforce and jobs, admirable policies under threat in Canberra itself.

These policies were promoted in studies and reports by the National Capital Planning Authority, which in addition to its Canberra role served as a consultant agency on urban development to the Labor Governments of Prime Ministers Hawke and Keating in the years 1989-1996, providing expertise on the National Pattern of Urban Settlement, the Commonwealth-funded “Better Cities” program, and a short-lived proposal for an Australia-Japan Science City, the Multi-Function Polis (MFP).

In Canberra at this time, the National Capital Planning Authority conducted a national ideas competition under the auspices of the OECD for the design of an ecological district in the Jerrabomberra Valley between South Canberra and Queanbeyan aimed at demonstrating the virtues of compact city form, integrated water management, green building design and the use of renewable energy.

In this era of general enthusiasm for the Brundtland Report, preparations for the 1992 Rio Earth Summit, Agenda 21 and the consensus politics of Australia’s National Strategy for Ecologically Sustainable Development, the National Capital Planning Authority joined with the ACT Government, the Australian Conservation Foundation and local industry groups to commission a report by leading academics in the emerging field of sustainable development studies, Peter Newman and Jeff Kenworthy, entitled Towards a More Sustainable Canberra: an assessment of Canberra’s transport, energy and land use. Released in 1991, this was a powerful critique of the car-based city of the NCDC years. The report recommended a more compact form of urban development based on Light Rail and high-density urban villages, supported by comparative statistics of Canberra’s environmental performance in relation to other cities in Australia and overseas.

Nothing came of the Newman & Kenworthy proposal but an initiative of the ACT Government at this time had lasting significance. In 1993, the office of Commissioner for Sustainability & the Environment was established with bipartisan support in the ACT Legislative Assembly, the first such position in Australia. Serving as environmental ombudsmen and independent environmental assessors, the Commissioners have produced five “State of the Environment Reports” over the past 20 years together with landmark studies on issues such as conservation of the urban forest and catchment management for Lake Burley Griffin.

Overall, the period to 1995-1996 in the historical evolution of sustainable development in Australia can be considered comparable to the “first generation” of urban sustainability in Canada outlined in a recent study by Robinson & Dale, characterised by definitional debates, expectations of desired future states, a search for measures of performance, government leadership and top down models. The Australian story, however, diverges from the Canadian experience with respect to the
“second generation” approaches described in the Robinson & Dale study, which the authors suggest emerged around 1995 with release of the Second Assessment Report of the Intergovernmental Panel on Climate Change with its statement that climate change was being primarily influenced by human-induced effects. In Canada, this led to rigorous applications of systems thinking; studies of socio-ecological relationships, biophysical limits and barriers to implementation of sustainability measures; together with the generation of alternatives to top-down models based on public engagement, collaboration and deliberation.74

In Australia, election of the conservative Howard Government in 1996 set back the cause of sustainability in profound ways, signalled at the international level by the decision not to ratify the Kyoto Protocol; at the national level by the failure of Commonwealth Government Departments and Agencies to institutionalise and implement the National Strategy on Ecologically Sustainable Development; and at the National Capital level, by a small but telling expression of neo-liberal orthodoxy – removal of the word “Planning” from the title of the National Capital Planning Authority, downgrading it to “National Capital Authority”.75 The driver of this move was the Howard Government’s ideological removal of all Commonwealth involvement in urban policies and programs across Australia, terminating the role of the National Capital Authority as a consultant in these matters, relegating it to oversight of minor works in the Parliamentary Zone.

In 1996, the Howard Government also drastically reduced the size of the Commonwealth public service in Canberra, plunging the Australian Capital Territory into economic recession.76 The Territory government – a conservative and neo-liberal coalition in the years 1995 to 2001 – outsourced the process of suburban development to the private sector, seizing upon the urban consolidation proposals of the sustainability debate to justify small-lot, high-yield subdivisions while maintaining a commitment to detached dwellings. The result was new housing tracts with poor housing stock, minimal gardens, no street trees, vast expanses of impervious paving – in short, the very opposite of the garden suburb amenity and urban ecology that had distinguished Canberra since the 1920s.

Towards the end of the 1990s, the strength of Canberra’s civil society led to the emergence of a version of “second generation” sustainability at Territory level based on deliberation and participation. At the political level, the ACT Greens Party – formed in 199277 – won two seats (out of 17) in the ACT Legislative Assembly at the 1995 election, and from this base began to influence policy. At the end of the decade, the OECD was invited to include Canberra in its “Urban Renaissance” review program, which was undertaken with extensive consultation leading to preparation of the 2002 report, Urban Renaissance – Canberra: A Sustainable Future.78 The principal finding of the OECD study was that Canberra lacked a strategic plan. Prior to release of the report, a Labor/Greens coalition had won office at the October 2001 ACT election. The new Territory government moved decisively to prepare a strategic
plan for the ACT based on community consultation, social surveys and public submissions, filling a vacuum created by the National Capital Authority in its failure to update and re-vitalise the National Capital Plan it had prepared in the late 1980s. *The Canberra Plan* produced between 2002 and 2004, incorporated a Social Plan, Economic Plan and Spatial Plan, and moved sustainability principles to the fore with a commitment to urban consolidation and a more compact urban form.\(^7^9\)

In this period of strategic planning, however, Canberra suffered its greatest natural disaster. On a day of extreme heat and severe winds in January 2003, a series of bushfires burning to the west of the city in the forested catchments of the ACT combined in a conflagration of firestorm proportions which bore down on the city with terrifying speed, bringing death and destruction on an unprecedented scale. Four people died, many were injured. More than 500 homes were destroyed across ten suburbs in the New Towns of Woden-Weston Creek and Tuggeranong. Mt Stromlo Observatory – Canberra’s oldest scientific establishment – was totally lost. 160,000 hectares – two thirds of the Australian Capital Territory – were burnt, including 99% of Namadgi National Park, 27,000 hectares of rural land and most of the Territory’s long-established pine plantations. At the height of the crisis, key sectors of the city’s infrastructure – electricity, sewerage, gas supply – were disabled, and fires penetrated to within 3 km of Parliament House.\(^8^0\)

The elemental force of the firestorm mocked the very order and perfection that has marked the city since its inception. A series of enquiries documented the disaster and sought resolution of the emergency situation,\(^8^1\) however, its structural basis in the physiography and planning of the ACT has not been confronted. The problem goes back to the idea of an inland capital set within a Territory formed from forested water catchments.

In the 1970s, the National Capital Development Commission had created an overarching conceptual framework for the forested setting of Canberra in the form of an integrated network of public lands termed the National Capital Open Space System. Namadgi National Park, following its gazettal in 1984, became the principal component of this system – 100,000 hectares of wilderness areas, sub-alpine meadows and eucalypt forests. Other components included Tidbinbilla Nature Reserve, the Murrumbidgee and Molonglo River Corridors, the Inner Hills of the city, and the parklands of the Central National Area, incorporating the Parliamentary Zone. At the time of self-government, the Commonwealth retained control over designated areas of the ACT for National Capital purposes. In the process, responsibility for the National Capital Open Space System was divided. The Commonwealth retained control of the visually significant Inner Hills and the parklands of the Central National Area, leaving the ACT Government responsible for the ecologically significant mountain ranges and wilderness areas of the water catchments.\(^8^2\) In this way, a city government became responsible for a National Park and a National government became responsible for a city park. Here lay the seeds of tragedy.
The ACT Government lacked the resources and will to undertake controlled burning in Namadgi National Park, as the CSIRO had carried out before self-government, motivated in part by concern in the Canberra community for the impact on biodiversity these measures entailed. Whether or not the fuel load of the eucalypt forests in the ranges contributed to the 2003 bushfires has not been established, however, controlled burning in the hinterland of the ACT has been re-introduced to bushfire management plans since the disaster.

In the aftermath of the 2003 disaster, the ACT Government selected the burnt out broadacre lands as the site for a new belt of suburbs for 50,000 residents, alienating dedicated parts of the National Capital Open Space System and further exposing the western flank of the city to the risk of fires driven from the forested hinterland of the ACT by hot westerly winds from the deserts of Central Australia. Located along the lower reaches of the Molonglo River, this greenfields development on former parts of the Canberra greenbelt was rationalised on the basis of sustainability planning for a compact city, supported by extensive ecological studies. As such, it represented a style of post-“urban renaissance” planning that could be called “hybrid urbanism” in the sense of the hybrid car, a combination of eco-components and the reality of business-as-usual.

A further example of hybrid urbanism was generated by the National Capital Authority at this time with plans for extensive real estate development in the Central National Area of Canberra in accordance with a project called “The Griffin Legacy”. Again justified on the basis of urban consolidation and compact city form, a 1.8 million sq m development in the symbolic centre of Canberra gained Howard Government approval despite a complete lack of environmental assessment, heritage assessment or traffic analysis.

“The Griffin Legacy” did, however, contain a detailed analysis of the Griffin Plan based on documents long lost in the Commonwealth bureaucracy. This, together with a 2002 National Archives exhibition of the Griffins’ original competition drawings – the first time the complete set of magnificent renderings had been displayed since 1912 – re-awakened enthusiasm for the Griffin vision for Canberra and the principles underpinning it; an enthusiasm that gathered force as the 2012-2013 centenary of the city approached.

In this period, the sustainability debate in Canberra took on something of the “third generation” attributes described by Robinson and Dale in their historical survey of the Canadian sustainability experience: the fusion of generic policies and goals with “the intricacies and uniqueness of place.” The realisation that sustainability principles were embedded in the Griffin Plan gave energy and direction to a series of local initiatives: an investigation of water recycling, construction of urban wetlands.
design of an eco-suburb at Eastlake with advanced scientific input from the CSIRO, urban form analysis, and nomination of the ACT as a UNESCO biosphere reserve.

The fact that none of these initiatives, with the exception of the urban wetlands project, have proceeded demonstrates that on-the-ground implementation remains the fundamental problem of sustainable development, with economic imperatives the principal impediment to change. The ACT Government has consistently given itself a good score in measuring progress towards sustainability over the past decade, with the 2012 assessment recording only one instance of “Performance Worsening” across 28 indicators – but that indicator is the ecological footprint of Canberra, the fundamental measure of consumption and resource use. The Commissioner for Sustainability & the Environment has given details of this result in the 2011 State of the Environment Report. The ecological footprint of the ACT has increased from 7.3 ha per person to 9.2 ha per person over the decade 1999 to 2009. The latter figure is 13% above the national average and nearly 3.5 times the global average. The Commissioner has commented “if everyone in the world lived in the same way as the average person in the ACT, we would need five Earths to give us enough land and surface water to provide our resources and absorb our wastes.” The Commissioner’s report concludes, “the two biggest challenges for sustainability in the ACT are reducing consumption; and balancing urban development with protection of ecosystem values and services.”

A Light Rail system for Canberra has the potential to address these challenges, and like the “third generation’ sustainability programs that have gained community support in the past decade, it resonates with a key sustainability principle of the Griffin Plan that was conceived on the basis of a comprehensive tramway system operating within its own rights-of-way and setting the scale of the city.

Canberra, which once had the second highest rate of public transport usage in Australia, now has the lowest among the seven Australian capitals. Motor vehicle registrations have consistently grown at a higher rate than population growth, and the ACT has the highest rate of car ownership in the nation. Vehicle kilometres travelled increased from 3048 million km in 2001 to 3539 million km in 2010, a rate of increase more than double the Australia-wide average. Canberra clearly needs an efficient, high-use public transport system. A comprehensive study for the first stretch of a Light Rail line on a combination of Griffin’s main avenues and the central transport spine of the NCDC’s Y-Plan was initiated in 2011 and gained political support from the Labor/Green coalition which formed government following the 2012 ACT election.

Extended throughout the city, Light Rail has the potential to be the decisive step in Canberra’s sustainability planning, particularly if powered by renewable energy in line with the ‘90% Renewable” target legislated by the ACT Government in 2013. Integrating the north and south sectors of Griffin’s Canberra along the radial avenues
of the 1911 plan, with rapid connections to the NCDC’s New Towns along the public transport spine of the 1970 Y-Plan, a Light Rail system of this nature could overcome Canberra’s utter car dependency. Combined with high-density development along the route – as indicated in the 2012 update of the ACT Planning Strategy – the Light Rail system would underpin Canberra’s long overdue urban consolidation. The problem, however, is that the proposal is not funded. Budget allocations for planning and engineering studies have been made and a project office established, but the $600 million-plus needed for Stage 1 has not been found, much less funding for the cost of the whole network which unofficial estimates place between $4 billion and $10.9 billion. Furthermore, the conservative opposition in the ACT Legislative Assembly do not support the project and have pledged to scrap it if they win office. Their allies in the property sector are strongly opposed to proposals to “capture” the increase in land values along the transit corridor with betterment charges to fund the project. Once again, a key project of ecologically sustainable development is at risk from economic imperatives.

**Conclusions: The Past as a Guide to the Future in Canberra**

The process of surveying approaches to sustainability in the history of Canberra and evaluating them with respect to their potential for the future leads to surprising insights. On the one hand, critical analysis reveals deep contradictions between aims and outcomes, and in fact, the wasteful ways in which Canberra has been dealing with space, energy, water and other resources may be the most obvious and striking feature of this planned capital.

On the other hand, the sustainability theme has been a constant in Canberra over the last 100 years. This has been a function of the biophysical constraints upon the inland site of the Australian capital, its distinctive civil society based on public administration, policy analysis, advanced research and communication, and finally the pursuit of ecologically oriented planning concepts from the Griffin Plan to the present. Among these, the ideal of ecologically sustainable development is one of the most powerful, if illusive, examples. This survey has identified a surprising variety of approaches to planning for sustainability. Some have led to commendable and encouraging consequences, others have been completely forgotten. Behind the image of the green city, Canberra’s commitment to sustainable principles, first manifest in the Griffin Plan, and carried forward in the Y-Plan continues to influence the development of the city. Planning history has an important function to remember these approaches and to salvage their potential as a guide for the future.

For assistance in the preparation of this paper, the authors wish to thank Brett Odgers, member of the Canberra Chapter of the Walter Burley Griffin Society, who served as Special Project Officer with the ESD Working Groups in the Office of Prime Minister & Cabinet, 1991-1992; and an anonymous referee.
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The Housing Program Minha Casa Minha Vida and Urban Space Production: Obstacles to a Housing Policy in Aracaju-Se, Brazil
Sarah Lúcia Alves França

ABSTRACT
Aracaju, capital of Sergipe located in the northeastern region of Brazil, has been the target of interventions in the public and private sector for the construction of residential projects by the National Programme My Life My House (Minha Casa Minha Vida – PMCMV) launched in 2009 as part of the Accelerated Growth Programme (Programa de Aceleração do Crescimento – PAC). The goal was to provide conditions for expanding the housing market and cater for families with incomes up to 10 minimum wages, in an attempt to reduce the housing deficit estimated at 5.5 million in 2010. However, one of the greatest obstacles is the issue regarding urbanized land which according to the real estate capital makes the product more expensive and as an alternative fosters the occupation of distant, devalued areas lacking infrastructure. Therefore, this article aims at assessing the implementation of the PMCMV in Aracaju, focusing on the first results, noting some social and spatial barriers. The attempt is to relate the shortage of housing to the production of new housing, with regards to the distribution of units by income groups of the population and to verify the location of the projects and the modus operandi of the agents involved. The spatial distribution of these developments is related to some other dynamics that characterize the current production of urban space. This happens due to the large number of housing units deployed in a dispersed and fragmented way toward municipal limits in neighborhoods without provision of infrastructure and public services and low land value. The result is the pursuit of land values in terms of public and private investment, besides the incorporation of new products in the housing market, like the spread of bachelor apartments in neighborhoods, once characterized by horizontal and empty housing lots. Furthermore, it is pertinent to present the social and territorial exclusion factor, when there is the small number of residential projects aimed at serving the low-income segment (0-3 minimum wages), equivalent to only 13.11% of total housing units delivered by the program until 2013, with 84.09% of the housing deficit in Aracaju is concentrated within the income range of 0-3 minimum wages. These numbers reaffirm the fact that housing policies in Brazil continue without regards to the actual needs of urban low-income classes, though the last major attempt to reduce the housing deficit by the National Bank of Housing (BNH) ended in 1986. This article was carried out by means of bibliographic and documentary surveys, by searching public agencies, information on projects, site visits, and drafting tables and maps that spatially translate the process of inserting these housing developments in the urban fabric of Aracaju. Thus, there is the incentive to new real estate products, especially creating new districts without provision of infrastructure and public services, with impact on urban mobility, worsening socio exclusion from the housing financing in peripheral urban fringe. This is a result of the lack of urban planning and lack of implementation of the control instruments of land speculation.
INTRODUCTION

In Brazil, the right to the land and to the appropriate dwelling is guaranteed by the Federal Constitution (1988), and reaffirmed for the Statute of the City (2001), owing this being promoted in the cities through his Master plans and made real through implementation of public politics and norms. Meantime, the realization of this right is still a distant dream of the reality.

From 2000, with the financing of international banks and nationals, and especially in 2007, with the launch of housing programs like the Acceleration of the Growth Program (Programa de Aceleração do Crescimento – PAC), the private market was attracted to follow the axle of the housing production turned to the economical segment.

In Aracaju, the scenery of the housing production of form scattered and broken up in the urbane periphery, it shows the active and privileged participation of the property agents and execution of his interests, in the driving of the expansion process in the city. The State left his protagonist paper in the promotion of the dwelling, to become a mediator, enabler and partner of the property sector, specially in the choice of places of introduction of the undertakings, as in My House My Life Program (Programa Minha Casa Minha Vida – PMCMV) (CARDOSO, et all, 2013).

The attempt of this article is discussing the first results of the introduction of the PMCMV in Aracaju and the dynamics wich characterize the current production of the housing sets towards the municipal limits, in districts without offer of infrastructure and public utilities and with low value of the land.

For realization of this article were carried out bibliographical and documentary lifting through inquiry in public organs, information on undertakings, as well as preparation of charts and maps wich spacially translate insertion of this undertaking housing in the urban space of Aracaju.

ARACAJU IN THE CONTEXT OF HOUSING PRODUCTION

Aracaju is a midsize city and capital of Sergipe State (lowest in the country). It is located in the northeast region of Brazil with an area of 182 km², occupying 0.79% of Sergipe territory and houses 614,577 inhabitants according to IBGE estimates for 2013 (Fig. 1).
Aracaju’s growth was characterized by materialization of socio-spatial inequality resulting from the action of actors from new conceptions about the role of the State and the real estate industry. Social exclusion realized by through informal occupation in precarious settlements which led the government to plan housing and provision of infrastructure policies. Moreover, the proliferation of real estate products increasingly incited a spatial segregation scenario.

Given the excluent panorama of the formal housing market recurring retreat of state policies for the past 30 years the picture of precariousness widened. The result was the growing informal settlements in peripheral subdivisions which worsened urban sprawl scenario. Far from the urbanized center these homes were built in stages in the task force system without technical monitoring of engineering and architecture, without the financing and disrespecting land and urban legislation.

The density, the increase in land value, the scarcity of urban land, the impoverishment of the population, the downward social mobility and the limited access to housing market were important factors related to the increase number of slums in Aracaju.

Indeed, these problems have arisen due the lack of municipal housing policies, implementation of urban, institutional and financial instruments that could be articulated with policy actions adopted in a participatory manner. Moreover, the legislative fragility ensures the formation of numerous slums.

The Master Plan for Urban Development of Aracaju (2000) set guidelines for housing policy in order to ensure access for all to decent housing through democratic processes and to ensure the reservation of Special Areas of Social Interest for insertion of housing developments, although this has not been widespread over the years.

The first initiatives of the city government after the adoption of the Master Plan have turned to the adoption of housing policies and provision of infrastructure. Drafted in 2001, the Program for Eradication of Subnormal Houses identified 23,751 residences distributed in 72 informal settlements both legal point of view (tenure) and urbanistic (lack of infrastructure and services) (PMA/SEPLAN, 2001). From this diagnosis a set of actions and projects to recover these poor areas provided new directions to the city.

One of the first projects for slum upgrading - Citizen Housing Program - promised to remove the precariousness families earning up to three minimum wages. Considered a landmark in municipal housing policy was intended to integrate irregular occupations to the city, ensuring security of tenure treating socioeconomic, environmental and housing issues. The first intervention was in Coroa do Meio neighborhood (Jardim Atlântico Settlements) followed by Santa Maria (Occupations of Arrozal and Canal Santa María) and most recently, Porto Dantas in Coqueiral (Fig.2).
The Integrated Project Urbanization of Coroa do Meio was one of the biggest highlights that was premised on raising seamlessly the standard of quality of life in social, environmental and land tenure scope. For this 652 stilts were eradicated to build...
houses at the same site benefiting some 3,050 families. The realization of social work in the community for tracking monitoring and managing of the project has not only provided decent and legalized housing but rehabilitation of residents and paying for maintenance with the area (PMA/SEPLAN, 2014).

Project 17 de Março as another intervention of great social, urban and environmental impact. It was implemented in the Urban Expansion Area which received 2,012 families residing in the poorer areas of the Santa Maria neighborhood. This construction resulted in 2,562 housing units, with 2,042 houses and 480 apartments. In addition, was implemented all of urban infrastructure with areas for trades and services (FRANÇA, 2011) (Fig.2).

The Project Urbanization of Coqueiral aimed to improving the living conditions of irregular occupations of Japãozinho and Porto Dantas neighborhoods whose interventions were related to the construction of 600 housing units, land regularization and allocation of infrastructure funding. In addition, 369 houses were built by PMCMV to resettle families removed from risk areas, unsanitary or substandard buildings (PMA/SEPLAN, 2014) (Fig.2).

Another strategy was the Residential Leasing Program – PAR (Programa de Arrendamento Residencial), created in 2001 by the Federal Government to contribute in reducing the housing deficit among the poorer classes of society. This strategy worked through participation of the Municipality (select grantees), CAIXA (bank financier), homebuilders (performs the construction of houses and infrastructure works) and Ministry of Cities (transfer of funds).

Adherence to this program resulted in 8,560 dwellings constructions (houses and apartments) in Aracaju for the lower middle class spread over 36 projects located in the north, west and south areas (CAIXA, 2010). The concentration of these units has generated the need for adequate public services and sanitation in order to assist the new demand. Neighborhoods as Jabotiana, Lamarão, Farolândia, Aeroporto, and Expansion Zone target become of this program and should be considered when planning new actions, given new levels of density (FRANÇA, 2011) (Fig.2).

These housing projects developed by the Municipal Management resulted in the construction of 14,674 housing units delivered from 2001 to 2012. They stood out not only by works but by focusing on aspects of urbanization and environmental, including social monitoring, planning family mobility and organization of these at the project site. Another positive element was the environmental restoration of degraded areas such as mangroves of Coroa do Meio and Santa Maria neighborhoods with planting of tree seedlings in Morro do Avião (Table 1).

<table>
<thead>
<tr>
<th>Project</th>
<th>Number of Housing Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coroa do Meio</td>
<td>652</td>
</tr>
<tr>
<td>Santa Maria</td>
<td>1,900</td>
</tr>
<tr>
<td>Porto Dantas</td>
<td>600</td>
</tr>
<tr>
<td>Lamarão</td>
<td>410</td>
</tr>
<tr>
<td>17 de Março</td>
<td>2,562</td>
</tr>
<tr>
<td>PAR</td>
<td>8,560</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>14,674</strong></td>
</tr>
</tbody>
</table>
However, even the Municipality has been acting in the promotion of social interest housing, in 2010, the Plan Social Housing Aracaju registered a housing deficit of 20,851 units (distributed in 44 settlements) indicating a reduction of 13.3% compared to 2001 (23,751 substandard housing) (FAPESE/PMA, 2010). However, considering the number of housing units produced the deficit suffered a small fall which can be inferred that the houses built were not targeted to low-income families.

The housing deficit reflects the amount of housing that should be built to meet the needs arising. In 2010, Aracaju had 3,915 dwellings in a precarious situation and 1,024 improvised. Among these 9,398 correspond to cohabitation and 6,514 to excessive rent burdens. This amount resulted 20,851 dwellings wherein 19,955 from families with incomes between 0-3 minimal wages (MW), which corresponded to 12.6% of total households in the municipality (FAPESE/PMA, 2010).

Thus, it appears that there is a huge shortage of housing in Aracaju as well as the need for provision of infrastructure in slums especially to meet those lower income categories who can’t enter into programs that undertake part of the salary family.

THE MINHA CASA MINHA VIDA PROGRAM IN ARACAJU: FROM DISCOURSE TO REALITY

In 2009 the Residential Leasing Program was replaced by Minha Casa Minha Vida Program (Federal Law N. 11.977/2009) created by Federal Government as to boost the economy and ensure a strategy of expansion access to the housing market, for care of families with incomes of up to 10 MW. Financing of new housing takes place through the partnership between builders and the public sector through the Federal Government, CAIXA and City Hall.

The Municipality of Aracaju joined Minha Casa Minha Vida Program on 04/30/2009 announcing that the construction of houses would run directly through the builders allowing speed to work without limitations and government bureaucracies. The goal was to leverage the construction sector amid the economic crisis plaguing the country.

The program is divided into two lines of service: income range between 0-3 minimum wages per family (called social interest) with subsidies from the Federal Government budget and from 3 to 10 MW per family ("popular" market or "economic") with funds from the FGTS. Aracaju offers projects for these two axes although the supply of housing is inversely proportional to the demand needed to reduce the housing deficit (95.70 % match income range 0-3 MW).

In the income bracket 0-3 MW there was a production of only 2 projects, located in the suburbs with their surroundings characterized by large voids and poor infrastructure. This production adds 650 houses with over 612 housing units in analysis by CAIXA totaling 1,262 housings (Table 2).

Table 2. Aracaju: Distribution of Housing Units by Income Ranges - PMCMV, 2009-2013.
<table>
<thead>
<tr>
<th>Number of Housing Units</th>
<th>1.262</th>
<th>8.196</th>
<th>9.458</th>
</tr>
</thead>
</table>

Source: FAPESE/PMA, 2010

The first venture of PMCMV - Residential Jardim Santa Maria - was delivered in November 2011 in Santa Maria neighborhood, with 281 houses with insufficient conditions of infrastructure and far from urban center. Besides, it surrounded with large empty tracts. Since the Residential Jaime Norberto Silva, located in Porto Dantas neighborhood features vertical residential typology comprising 18 blocks with 360 apartments and also 9 homes for people with special needs. It is inserted into the peripheral fringe taking in your surroundings empty lots and lacking infrastructure (Fig. 3).

![Residential Norberto Jaime Silva and large lots, insertion in peripheral fringe.](image)

Source: Sarah France, dec/2013

Thus, it appears that Aracaju has a peculiarity. A small amount of projects aimed at the track 0-3 MW demonstrates the difficulty in accessing urbanized for the production of social housing opposite the huge demand of land for tracks 3-10 MW. The hypothesis is that the main obstacle is the characteristic of the local real estate market and increased profitability for projects intended for higher economic classes.

Another factor is the institutional and legislative facilities that expedite the implementation of these projects. In December 2009 was enacted Municipal Law N. 93 which established criteria for the definition of Special Zones of Social Interest linked to PMCMV. However, despite the flexibility legislation for projects located in the zones defined in the Master Plan, it was not enough to encourage the housing market to build in these localities.

Those families who receive 3-10 MW find a housing supply higher in 67 projects built resulting in 8,196 housing units scattered the urban space. In total 71 projects between 2009 and 2013 were built, a total of 9,458 housing units, located in neighborhoods of the northern portion, west and south, as Jabotiana and Urban Expansion Zone, totaling 5,427 dwellings corresponding to 57.38 % of total production in Aracaju (Fig. 4 and Table 3).
Figure 4. Minha Casa Minha Vida, 2009-2013.
Table 3. Aracaju, Enterprise Program MCMV by Districts, 2009-2013.

<table>
<thead>
<tr>
<th>Districts</th>
<th>Number of Housing Units</th>
<th>% Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zona de Expansão</td>
<td>1,540</td>
<td>16,28</td>
</tr>
<tr>
<td>Industrial</td>
<td>155</td>
<td>1,64</td>
</tr>
<tr>
<td>18 do Forte</td>
<td>108</td>
<td>1,14</td>
</tr>
<tr>
<td>Jabotiana</td>
<td>3,887</td>
<td>41,10</td>
</tr>
<tr>
<td>Aeroporto</td>
<td>198</td>
<td>2,09</td>
</tr>
<tr>
<td>Santo Antônio</td>
<td>528</td>
<td>5,58</td>
</tr>
<tr>
<td>Inácio Barbosa</td>
<td>120</td>
<td>1,27</td>
</tr>
<tr>
<td>Santos Dumont</td>
<td>226</td>
<td>2,39</td>
</tr>
<tr>
<td>Olaria</td>
<td>608</td>
<td>6,42</td>
</tr>
<tr>
<td>Soledade</td>
<td>240</td>
<td>2,54</td>
</tr>
<tr>
<td>Santa Maria</td>
<td>597</td>
<td>6,31</td>
</tr>
<tr>
<td>Porto Dantas</td>
<td>837</td>
<td>8,84</td>
</tr>
<tr>
<td>São Conrado</td>
<td>176</td>
<td>1,86</td>
</tr>
<tr>
<td>No Definition</td>
<td>238</td>
<td>2,52</td>
</tr>
<tr>
<td>Total General</td>
<td>9,458</td>
<td>100,0</td>
</tr>
</tbody>
</table>

Source: Author’s elaboration with data collected at CAIXA, 2013.

The PMCMV gave the market the free choice of location of projects in a scenario of no instruments to control the value of land. This provided the attenuation of the periphery of the housing production, which occurred intensely in neighborhoods Jabotiana and Urban Expansion Zone, areas of major housing growth in recent years.

In these locations, mainly in Jabotiana neighborhood in the west of Aracaju, the concentration of the projects’ in the range 3-10 MW gave up continuously, being located close to each other strengthening the impacts of transformation in urban space where the predominantly horizontal residential use gives rise to the process of vertical housing.

These developments are closed typology, where the condos are fortified enclaves, as called Caldeira (2000), playing with specific negative effects on society, reflected in the segregated space. The condos were recorded over 2 towers and a larger number of apartments of 2 and 3 bedroom apartments up to 80 square meters, offering internal infrastructure of a private club (Fig. 5, 6 and 7).
Moreover, it appears the valuation of land in before little neighborhoods targeted by the market such as Santo Antonio and Olaria, due to public investment contributing to the production of new suburbs, where expansion, fragmentation and spatial segregation become constant. The best location land is the subject of real estate developments aimed at higher-income segments, out of PMCMV, or to wait for the increasing number of land asset.

On the provision of infrastructure we must consider that being located away from the urban core the level of these services is not satisfactory. There are some cases, such as Jabotiana and Expansion Zone neighborhood, where lack of sanitation is strongly contrasted by the large number of scattered housing units interspersed with empty to await the recovery of land plots.

In parallel, the insert disperses the developments of PMCMV in Aracaju also carries serious impacts as regards mobility being situated far from polarizing cores.
offer of jobs and poor or nonexistent roads. However, even if it is established by Ordinance of the Ministry of Cities (Ministério das Cidades) N. 140/2010 the choice of the Beneficiaries according to the proximity to their places of employment, it is set aside at the time of your choice. Some of these developments are located in areas without paving and public transportation access hindering the displacement of residents as can be seen in the Urban Expansion Zone and Jabotiana.

Although unfavorable in terms of accessibility, the location of the projects tends to be defined primarily in terms of the need to adapt the value of the land to the values determined by the rules of the program and the profit margins of companies across the land market (LIMA et all, 2013).

**CONTRADICTIONS AND POSSIBLE PATHS: BRIEF CONSIDERATIONS**

In this study, we sought to discuss the first results of the implementation of Minha Casa Minha Vida Program in Aracaju between 2009 and 2013. For this, we observed the low effectiveness of the insertion of lower income families 3MW characterized as the most needy because they have huge difficulty accessing financing of housing.

The Government has responsibility for the dissociation between urban, housing, land and infrastructure policies, causing a mismatch in ensuring the right to the city, encouraging and increasingly the real estate market in the relentless pursuit of profit. The possibility of the deployment of urban instruments of the City Statute and the effectiveness of the guidelines established by the Master Plan has been dissolved in a very early form of municipal management practices.

Therefore, other stakeholders emphasize that the high value of land in urban areas is one of the obstacles to the progress of the program. It is evident the importance of intertwining of land policies, housing and infrastructure/urbanization to ensure access to urbanized land with low, allowing projects to be constructed and targeted in areas of social concern, and a greater proportion of those who focus on income range 0-3 MW.

The developments the Minha Casa Minha Vida Program in Aracaju has been responsible for spatial segregation, fragmentation of the urban space and land values resulting in an increasingly exclusionary city. The peripherization of housing units including near the old residential complexes of BNH housing units is a reproduction of the old experiences with new reading, but repetition of the same obstacles.

These projects has guided the growth of Aracaju in new directions, as Jabotiana and Expansion Zone with the increase in the number of dwellings for income range from 3 to 10 MWs. It is important to realize concomitantly infrastructure construction, road system and public services, so that these new residents are integrated into the urban space.

On the other hand, despite the problems observed in the actual program that has distanced the people from the right to the city and housing, in quantitative terms one can not fail to mention that in just four years of existence the PMCMV has already surpassed housing production numbers of the Residential Leasing Program (6,830 dwellings) during its 8 years of operation.

However, it is necessary housing projects for the low income population (0-3MW) who did not have access to housing in structured with regard to services and
close with the job areas. The supply of such housing is becoming increasingly incipient in Aracaju.

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The beginnings of tertiary planning education in Australia 1949-1950

Robert Freestone, Christine Garnaut, David Nichols

Introduction

While a robust voluntary town planning movement had emerged in Australia before World War One, the longstanding goal of university-provided professional education did not become a reality until after World War Two. This paper examines the realization of this goal through the genesis of Australia’s first three tertiary programs – at the South Australian School of Mines and Industries (1949) and the Universities of Sydney (1949) and Melbourne (1950). The inauguration of these qualifications and early moves to subsequently upgrade them each has its own discrete and complex history imperfectly documented. Drawing on an uneven mix of accessible primary, secondary and archival sources, this paper attempts the first synoptic account of these three largely parallel stories focusing on the broader historical prelude to professional planning education in Australia, individual triggering circumstances, key actors, evidence of international connections, legacies, and common themes.

A prelude to professional education

In Australia, town planning was not a widely understood or supported phenomenon through the first half of the twentieth century. Professionals self-identifying as planners were mainly architects, surveyors and engineers with an interest in broader questions about the organisation, aesthetics and management of the built environment. Few had formal technical training in planning from anywhere. By the early 1920s Australia could boast only four corporate members of the British Town Planning Institute (TPI), the peak imperial professional qualification. Nevertheless the promotion of formal training alongside broader community education was a lynchpin of early planning propaganda. A university professorship was a long standing goal of planning advocates in Sydney, for example, and a primary objective of Australia’s first town planning association when formed in Sydney in October 1913.

From the 1910s into the 1940s public lectures were often associated with planning events, from the town planning “tour” of Charles Reade and William Davidge in 1914, to exhibitions on postwar reconstruction in the 1940s. These catered for diverse audiences and were admittedly no substitute for formal professional training. In the 1920s and 1930s town planning lectures were added to a handful of tertiary courses, mostly within architecture degrees. At the University of Queensland, for example, Robert Cummings incorporated basic instruction into the architecture program from the late 1930s. This model was incrementally emulated by other Australian universities and technical colleges but stopped short everywhere of delivering an actual planning qualification.

The most systematic and sustained initiative in the hybrid blend of popular and quasi-professional education prevailing through the inter-war period was the Vernon Memorial Lectures series in Town Planning at Sydney University. Honouring a former NSW Government Architect, these lectures arose from a public subscription in 1914 organised by planning reformer George Taylor. The University’s Extension (adult education) Board assumed the organisational task and John Sulman, the leading
Australian planning advocate of his generation, delivered the inaugural series in 1919. They were published as *An Introduction to Town Planning in Australia* (1921), the first truly substantive local text on the subject. Sulman presented his lectures again in 1921, 1923 and 1926 but was reluctant to continue thereafter, placing on record his opinion “that the Vernon Course is basic, and any further development should be by an additional course or courses”. This was a polite dig at the University’s inaction on a chair in town planning. Nevertheless the Vernon series continued, presented by David Davidson (1928) and Alfred John Brown (1931, 1933, 1935 and 1937), and attracting an eclectic paying audience of all ages and callings.

Davidson, a student in the inaugural 1919 series, employed Sulman’s basic framework, but introduced treatment of “philosophy and ethics” plus more emphasis on survey research at various geographic scales in keeping with the North American turn to the “city functional”.

Midway through the 1928 series a revised program of two lectures per evening was instituted to enable him to take up a new post of Town Planning Commissioner of Western Australia. Davidson reprised his Sydney lectures in 1931 in the Faculty of Engineering at the University of Western Australia.

By the late 1930s the case for planning was put by a new generation of advocates keenly attuned to its vital role in enhancing the productivity and liveability of cities and regions through governmental coordination. After the worst effects of the Great Depression, a nexus between planning and economic development was strongly forged. This was exemplified in South Australia under the leadership of State Premier Thomas Playford who drove the state’s expansion of secondary industry that in turn led to increased demands for new infrastructure and affordable housing. The state’s inaugural Town Planning and Development Act (1920) had been repealed in 1929 and replaced with an emasculated Town Planning Act which controlled only land subdivision. Hence the development push was proceeding devoid of any integrative planning legislation and with properly trained planners scarce on the ground. Architect Gavin Walkley recalled that by the 1940s “the principal difficulty … was that South Australia had virtually no planning legislation … We had to work in a vacuum. … We had no guidance from the State Government; we were working on an *ad hoc* basis, putting houses here, there, and everywhere, without an overall plan to guide us.”

The situation was replicated in other states and the Commonwealth Government recognised a national challenge. In 1944 the landmark Commonwealth Housing Commission report not only provided a manifesto for state-assisted housing provision and progressive new design standards but also enshrined town planning as the means of assuring genuine community development and not just an uncoordinated sprawl of new dwellings. It went as far as recommending a national planning research and training institute at the Australian National University in Canberra but no such institute was realised. While the national government was keen to take the lead in planning matters generally, the states preferred to go their own way and this fragmented, state-based approach prevailed, as in many other areas of public policy.

The increasing demand for qualified planners was certainly evident to most state governments at this time. The drive to enact planning legislation in every state stimulated by the Housing Commission’s recommendations became a major trigger for new educational initiatives. Professionals seeking formal training had limited
opportunities. Public lectures canvassing planning values and ideas were uplifting and instructive. In Hobart in 1945, for example, the new Town and Country Planning Commissioner R.A. McInnis worked with an advisory committee to deliver free night classes for anyone interested. In Adelaide in 1948 architect Andrew Benko and engineer Rex Lloyd presented a series of twenty-four lectures on town planning to a Workers’ Educational class at the University of Adelaide.

But this was not a professional education. Through the 1930s into the mid-1940s there appear to have been several pathways to that end. Dedicated individuals could study by correspondence for the TPI examinations, a demanding and lonely endeavour, but few chose to actually go abroad to study. World War Two caused obvious disruption but from the mid-1940s new opportunities arose. Before returning to Australia some ex-servicemen apparently chose to remain in London to study planning at the Regent Street Polytechnic (now University of Westminster). More popular was the correspondence course from 1946 directed by Jaqueline Tyrwhitt for the School of Planning and Research for Regional Development (SPRRD). SPRRD was the teaching arm of the Association for Planning and Regional Reconstruction. Tyrwhitt, SPRRD’s director of studies until December 1947, designed and taught the postwar correspondence course.

State-based town planning institutes which arose from the 1930s to inject a more professional approach than the populism of the community-based town planning associations, were all active in seeking to educate their members to greater proficiency and accelerated the push for tertiary education in planning. When the institutes federated in 1951 to create what is now the Planning Institute of Australia (PIA), planning education was finally ensconced as a major and national professional priority. But the critical years were 1948-1949. Then, largely independent of each other, leading professionals in three states and strong international connections mobilized to establish professionally based instruction. The individuals concerned were informed primarily by their personal knowledge of planning and by information about the examination curriculum of the British Town Planning Institute. They were not part of an Australian network of architectural and planning professionals like those in the United Kingdom and the United States. Whilst a few made connections with contributors to planning education overseas, no particular individuals or institutions were official conduits through which Australian advocates learnt about progress or trends in the field.

South Australian School of Mines and Industries

Adelaide has the distinction of commencing the first tertiary course in planning in 1949. Against a wider backdrop of disquiet about uncoordinated postwar development, the inadequacy of South Australia’s planning legislation was a major concern for the architectural and associated professions and increasingly for the general public. One consequence was the decision of the Royal Australian Institute of Architects (RAIA) in 1947 to charge two of its members, Dean Berry and Jack Cheesman, with the task of initiating a professional town planning body. Others, including Gavin Walkley who would play a key role in establishing planning education in the state, were made responsible for developing a constitution. The Town Planning Institute of South Australia (TPISA) was inaugurated in April 1948 with Adelaide City Council Town Clerk William Veale as foundation president. An
engineer and surveyor, Veale had been advocating for town planning since the early 1920s.

“The [TPISA’s] principal aim was to induce a reluctant government which did not know the meaning of Town Planning, to introduce suitable Planning legislation”.13 The Institute seized every opportunity to promote its cause. Not surprisingly, it supported a visit to Adelaide in November 1948 by eminent British planner Sir Patrick Abercrombie as part of his Australia-wide tour. By then Walkley was studying planning through the correspondence course offered at SPRRD; he believed that the professional qualification would credential him to set up a course in Adelaide. However, “his impatience got the better of him” and he elected to try to initiate a course while he was still studying. During 1948 he commenced informal discussions about the possibility of introducing a planning course at the South Australian School of Mines and Industries (School of Mines) where he lectured in the History of Architecture.14 Aware of Abercombie’s background and therefore that he was “a potential source of information and wisdom” about a planning course, Walkley arranged to meet with him “to explain in general terms what he was trying to do and to ask for his comments. Abercrombie agreed that it would be necessary to start in a modest way and to let the course grow with available resources.”15 The Adelaide press reported that Abercrombie publicly endorsed introduction of a specialist tertiary course in town planning on the basis that “the most satisfactory way to create a townplanner was to take an architect, engineer, or surveyor and indoctrinate him with the special knowledge he should have for the task.”16

Through Walkley’s studies, and Cheesman and Berry’s enquiries, the TPISA was already up to speed on the external examination syllabus of the TPI in London.17 Spurred on by Abercrombie’s assertion, Walkley was asked by the Institute Council (of which he was a member) to enquire formally at the School of Mines about establishing an academic course in planning. The School of Mines had been established in 1888 and introduced a diploma course in Architecture in 1906. Architect Louis Laybourne Smith, Head of the Architecture Department, was a keen supporter of the introduction of town planning legislation to ensure that “Adelaide developed on satisfactory lines” under the postwar building boom.18 He was already delivering lectures on elementary town planning to senior architecture students and agreed to the proposition of a postgraduate planning course being conducted within the Department.

The TPISA was quick to act. It reached an agreement with the School of Mines whereby the School would provide administrative assistance and lecture spaces in return for the TPISA preparing the course, organising lecturers and providing funds to cover any short-fall between student fees and fees paid to the lecturers.19 The program would be offered part-time over two years to qualified architects, engineers and surveyors. Walkley was responsible for the curriculum. Following the British TPI precedent, the initial syllabus comprised six subjects covering planning practice, law, history, engineering, surveying and “architecture and amenities”. “Naturally”, Walkley recalled later, “we tried to apply the principles in these English-oriented subject-syllabuses to Australian conditions.”20

*The Advertiser* pronounced the new town planning course as an “innovation”.21 The first cohort of fifteen students commenced on 14 February 1949.22 Students attended
weekly classes and sat for annual examinations. Lectures were held in the evenings three nights per week. The lecturers included Walkley and other local practitioners, none of whom was trained in town planning, all appointed by the TPISA and employed part-time.\textsuperscript{23} Given the newness of instruction at this level, they developed their own knowledge by attending one another’s lectures. Students received typed lecture notes with a covering sheet setting out the subject focus, topics covered and the text and reference books. In the main, the reading lists were British-focused in terms of both authors and content. The earliest sets of notes contained the rider: “It is realised that most of the … books will be difficult to obtain but it is hoped that the Public Library will be able to meet this need very shortly.”\textsuperscript{24}

In the second half of 1949 Walkley undertook a three-month, British Council funded study tour of England.\textsuperscript{25} He combined an investigation of the effects of recent planning legislation and trips to new town developments with enquiries into planning education. He visited “a few of the more prestigious Planning Schools throughout the country”, one of which was the School of Civic Design at the University of Liverpool. He met with key educators such as Abercombie and William Holford. Walkley also took the opportunity to gain first-hand knowledge of places like Saltaire, Letchworth and Welwyn featured in his History of Planning lectures. He later reflected that he “learned quite a lot [from his meetings and observations] and managed to bring this back to the State and it helped a bit in the teaching of my course.”\textsuperscript{26}

In London Walkley met Eric Rowse who had replaced Tyrwhitt as head of SPRRD, to review the progress of his own studies, and attended several lectures at SPRRD.\textsuperscript{27} He also gained useful “intelligence” from a meeting about the training of planners with TPI Secretary Alf Potter who advised him that the Institute was changing the external examination syllabus and the criteria on which schools would be “recognized” in the future.\textsuperscript{28} Consequently, on his return to Adelaide, Walkley adjusted the School of Mines planning course to include subjects in “social and economic organization” and “applied geology and economic geography”, all of which fell under the revised TPI syllabus.

By the end of 1952 the School of Mines course was viable without financial support from the TPSIA.\textsuperscript{29} Walkley had restructured it into a three-year part-time program to allow students more time to cover the expanded curriculum and the first cohort to undertake the revised course commenced in 1953. The primary target group remained architects, engineers and surveyors in the public or private sector “who wished to look beyond the normal sphere of their own professions to the broader one of town and country development”.\textsuperscript{30} The School of Mines is now the University of South Australia and offers Bachelors and Masters degrees in planning.

**University of Sydney**

The prospect of legislative reform to address postwar planning challenges was an equally strong driver in the push for academic planning education in Sydney and there is also a particular pre-history to acknowledge again with links to architectural education. Formal training in architecture was originally under the auspices of the technical college system. The appointment of British expatriate Leslie Wilkinson to a foundation chair in architecture at the University of Sydney in 1918 marked a major step forward. The new four-year course included philosophy, theory and practice of design, aesthetics, drawing, and architectural history.\textsuperscript{31} A town planning subject was included in the curriculum and Sydney architect Keith Harris was appointed the
principal instructor in town planning as early as 1921. In 1927 the subject was taught alternatively with History of Painting/Sculpture in the final years.

Until the 1930s the Vernon public lecture series on town planning, referred to earlier, was run independently by the Extension program but from 1929 the Architecture Faculty was consulted on the choice of Vernon lecturer. In 1938 a review was undertaken of the Vernon program that took into account its increasing breadth, the need to consider specialist lectures, the “marked increase in interest in Town Planning in recent years”, and the likelihood of planning legislation being introduced to NSW in the near future. Wilkinson and Harris recommended that the course in its present form be discontinued and resources be redirected to establishment of a new professional course, the content coming from an integration of the Vernon lectures with planning instruction in the architectural degree. A newly combined annual series of 16 lectures covering “history, theory, practice, law, procedure, finance, engineering … and surveying” ran in 1939 and 1940.

The economies of wartime precluded any expansion of academic programs but by 1945 the University was confronting increased enrolments exacerbated by the return of students who had deferred for war service. The Architecture Faculty was preoccupied by the need to provide accommodation, equipment and teaching staff for architecture students rather than ramping up instruction in planning. But the external environment was making a compelling case for action.

After decades of campaigning by the town planning movement, in July 1945 the NSW state government passed new legislation which established a legal regime for town planning. It was recognised immediately that expansion in the number of qualified town planners was essential for this reform to be implemented satisfactorily. The Local Government (Town and Country Planning) Amendment Act established a small planning bureaucracy to oversee preparation of statutory local planning schemes, a new body to prepare an outline plan for the Sydney metropolitan area, and a Ministerial advisory body, the Town and Country Planning Advisory Committee (TACPAC). The new legislation included the requirement that Councils employ only professional planning experts holding certificates of qualification prescribed under a new Ordinance. These certificates would be issued by an examinations committee initially under the umbrella of the TACPAC.

A TACPAC sub-committee under architect William Laurie began investigating educational requirements. Several options were canvassed including commencing new qualifications at either the University of Sydney, the proposed new University of Technology, or Sydney Technical College; instituting a correspondence course; or appointing an expert from Great Britain or the US to oversee a special five-year training program. While these deliberations progressed, the more urgent need was to create an immediate cadre of trained planners and the preferred pathway was through intensive short courses leading to the certificate examinations. Three intensive courses were duly organised in January 1946, January 1947 and February 1947 “to fill the gap pending the establishment of a post-graduate course where town planning can be fully studied.” The first of these short courses resurrected the series of lectures given by A.J. Brown and was run by the University Extension Board. The two series in 1947 were directly organised by TACPAC. The January series was an intensive two-week residential course for regional students held at a Workers’ Educational Association
facility on Sydney’s northern beaches while the February series was a repeat of the 1946 format and held in University Chambers in the city. Each series comprised 24 hours of lectures and 30 hours in the studio to cover the “principles and practice of town and country planning”. By March 1947, 249 students had earned their Ordinance 4 certificates. This fast-tracked certificated route remained not only a qualifications pathway in NSW into the 1970s but also a growing source of concern as to the professional standing of the planning discipline.

Meanwhile, machinations toward establishing a formal postgraduate course continued. As a prestigious institution with an established architecture program, the University of Sydney was the preferred host. Wilkinson was now keen, though nearing retirement, and Laurie, one of the first crop of architecture graduates in the early 1920s, favoured the University, as did TACPAC chairman Walter Bunning. However, the University was lukewarm because of enrolment pressures, other disciplinary demands for new chairs, resource limitations, and the concern that external financial assistance, while desirable, might infringe intellectual freedom. Delays in establishing the new University of Technology plus its singular focus on technical training detracted from its appeal. By contrast Sydney University could readily offer complementary instruction in sociology, economics and geography.

A high-level meeting instigated by TACPAC in February 1947 with senior officials from the state government, educational and university sectors successfully mapped out a desired two-year qualifications framework. In May 1947 the University Senate approved a new Chair of Town Planning within the Faculty of Architecture for a five-year term, extendable conditional upon a £3,000 grant from the NSW Department of Local Government. With input from a special London committee, which included Patrick Abercrombie, Denis Winston, Chief Town Planner and Borough Architect in Southampton, was appointed in June 1948 over 20 applicants. He arrived in Sydney on New Year’s Day 1949, submitted his proposal for the two-year evening Diploma in Town and Country Planning on 10 March, and classes commenced in the last week of March 1949, just a few weeks after Adelaide. Nearly 40 students were enrolled in the first classes.

The initial curriculum was structured around nine courses, each comprising 24 one-hour lectures supplemented by practical work, reports and field excursions, and organised over two years of part-time study. The chosen areas of study were “Theory and Practice of Town and Country Planning”, “History of Town and Country Planning”, “Public Administration and Town Planning Law”, “Outlines of Social and Economic Organisation”, “Landscape Architecture and Horticulture”, and instruction in elementary geography, architecture, surveying and valuation, and civil engineering, all “as related to Planning”. As was the case in Adelaide, enthusiastic part-time professionals assumed the major responsibility for delivering this quickly assembled curriculum with Winston fashioning it from first principles: “As you can imagine, no one in Sydney, least of all at the University, had any idea what a Town Planning Course would or should involve and I have had to start from scratch, as if it were Liverpool in 1914”. The last vestige of the Vernon Lectures was “Architecture in Relation to Planning”. By 1951, Winston as Head of the Department of Town and Country Planning was concerned that the amount of time allowed for practical work was inadequate and
proposed an extended three-year qualification to “[bring] it into line, and the standard would be raised to compare with other Universities overseas”. On a visit to Adelaide that year, Winston commented that he was “impressed by the increased curriculum” set in train by Walkley. The Sydney curriculum was similarly evolving into greater social science content. Just before he sailed for Australia, Winston had made a special study of British town planning degrees which were undergoing considerable change at the time; influenced by the ideas of Frederick Adams at MIT in particular, the new curricula included an increased emphasis on geography, economics and sociology. With this broadening and lengthening of the degree, by 1953 the new Department of Town and Country Planning had ensured that its graduates satisfied the requirements for the practice examinations of the Local Government Department, were recognised by the Australian Planning Institute (established in 1951 with Winston as first president), and qualified for exemption from the final TPI examinations. This meant that by 1955 only the addition of an individual research component was needed to upgrade the existing Diploma qualification to a Master’s degree. A Master of Urban and Regional Planning remains in place today.

University of Melbourne

As in Adelaide and Sydney, the town planning movement in Melbourne first came to the fore just prior to World War One. The surgeon and ophthalmologist James Barrett of the University of Melbourne helped commission a town planning tour by senior planner Thomas Mawson. When this was cancelled, Barrett’s name could be found as Vice-Patron of its replacement, the Reade-Davidge lecture series commencing August 1914. Though Barrett was in no measure a planner, his strong influence can be felt since that time and even beyond his death in April 1945: he was an advocate for planning, public health and associated amenities such as playgrounds. He combined voluntary positions such as the presidency of the Victorian Town Planning Association and Chairmanship of the National Parks Committee, alongside professional appointments such as Chancellorship of the University of Melbourne between 1935 and 1939.

The University’s School of Architecture began to formally emerge as a discrete unit from the Faculty of Engineering in 1911. The faculty’s Professor Henry Payne announced in July 1923 that engineering and architectural students were to be offered a course in town planning. But there was to be no professional qualification for another quarter century. When the School of Architecture became a standalone entity in 1931, town planning remained as a component of the wider architectural curriculum. The University was ready to contemplate a more substantive presence. In 1943 at the opening of an exhibition on town and country planning the Vice-Chancellor invited the private endowment of a new planning department, promising any benefactor “an easy passport to immortality”.

The approach to the teaching of planning at the University of Melbourne would be shaped by several key local and global factors. Planning practice was strongly influenced by the Melbourne Metropolitan Town Planning Commission (MMTPC) of 1923-30. Although the MMTPC’s comprehensive 1929 Report was not implemented, it loomed large in the imaginations of planning advocates for decades. John Gawler, a lecturer in Architecture at the University from 1920, claimed to have regarded the MMTPC’s report “as a text book on town planning” which he “used … at the
University, and recommended … to all my students”. Gawler, later as Chairman of Victoria’s Town and Country Planning Board in tandem with Fred Cook and Arthur Kemsley – both former appointees of the MMTPC – was instrumental in advancing and formalising the teaching of planning at the University. Passage of new state planning legislation in 1944 in the wake of the final report of the Commonwealth Housing Commission (of which Gawler was a member) was another driver.

John Gawler retired from the University in 1946, in large part to facilitate the appointment the following year of the first Chair of Architecture, Brian Lewis. Lewis was an Australian recruited from the Liverpool School of Architecture. He supported planning education and became president of the Town and Country Planning Association but was always worried that including planning in the curriculum might “drain resources away from Architecture.” Lewis’ had close professional and personal connections to Britain. In 1948 his wife, Hilary (née Archer) had heralded the coming visit of Patrick Abercrombie to Melbourne in glowing terms; they had worked together on the County of London plan in 1943. In a public lecture at the University in October 1948 Abercrombie had highlighted the utility of having a town planning department undertake research on planning standards. Wilks concludes that the influence of the British TPI curriculum was unavoidable.

In 1950 it was announced that the School of Architecture would offer a postgraduate course in Town and Regional Planning through its Extension Committee, with architect Phillip Pearce (Dip Arch 1928, and partner in the leading architectural practice Bates Smart), appointed as a temporary lecturer in town planning. Lewis began the new decade with a demonstration of the potential for successful synergies between town planners and architects in two student projects for the burgeoning beachside suburb of Beaumaris, initiated at the request of its Parents and Citizens’ Association, and for the working class suburb of Prahran where students experimented with a consultative approach and residents “would tell the planners what they wanted”.

The first planning curriculum was similar to the Adelaide and Sydney precedents. The pent-up demand to acquire formal planning qualifications saw an initial enrolment rush. Gawler wrote in his memoir, A Roof Over My Head, that the new two-year “post graduate part time course … was open to architects, engineers and surveyors and attracted students at once”. In the first graduation year, 1952, a total of 21 students would receive diplomas.

John Bayly, a young architecture graduate from Melbourne, was appointed by Lewis as the first full-time planning lecturer. But the teaching program still relied heavily on practitioners. Bayly remembers a team of nearly 20 part-timers: “the University didn’t pay much for occasional lecturers and we got some very keen senior people from around various branches of the Public Service and private practice in Melbourne.” One of those part-time lecturers from 1950-53 was Frank Heath, Melbourne’s best known planning advocate and a successful architect. Heath had reportedly met with Jacqueline Tyrwhitt in London in 1947 and drew from some of her War Office Correspondence Course town planning booklets for lecture material. Heath’s speciality was regional planning learned primarily through a series of town extension schemes in rural Victoria. Another lecturer who worked in the School later in the decade, Josephine Johnston, found herself in the potentially awkward position of
teaching professionals very senior to her, men with few formal qualifications but whose rise in the planning ranks required their “skilling up” in the University.

Another important early appointment engineered by Brian Lewis was Niel Abercrombie as a Senior Lecturer to oversee the diploma degree. This was Sir Patrick’s son, and their relationship went back to Brian’s years studying at the University of Liverpool. Niel had emigrated to Australia after the war and was working as a planner in NSW in the late 1940s. Bayly recalls that Abercrombie “was a pretty good name to bring in”. Niel Abercrombie was a competent and good-natured administrator, who saw value in keeping up-to-date with new developments, for example via his “study tour” to Britain in 1952. However he was no innovator. While he could be relied upon to comment on the planning of Melbourne, he did not initiate hands-on student engagement projects such as Lewis’ early 1950s experiments and nor did he research, publish or preside over any far-ranging studies or surveys. He would nonetheless have taken some satisfaction, on the eve of his departure to Hobart to succeed R.A. McInnis as Town and Country Planning Commissioner in 1954, from Danish housing expert and lawyer Eva Siesby declaring that she was “impressed with the postgraduate training available to town planners” in Melbourne.

Abercrombie was succeeded by F.W. Ledgar, who was to loom large in the teaching of planning at Melbourne and the development of masters and bachelors’ degrees. Ledgar was recruited from the University of Manchester in 1956 but not appointed to the first Chair of Regional and Town Planning until 1970. Melbourne still offers a Master of Urban Planning today, and three other Victorian universities also have accredited planning courses.

Conclusion
Relative to Britain and the United States, planning education came late to Australia, four decades after establishment of the civic design course at the University of Liverpool and twenty years after the first city planning course at Harvard University. These pioneering ventures in the English-speaking world had their own triggers; in Australia it all came together only after World War Two with the drive toward legislation to enable local, metropolitan and state planning strategies and the attendant demand for qualified planners in both strategic and regulatory roles. The early efforts were state-focused and independent of each other.

The first three professional courses introduced in this paper all led to postgraduate diplomas, meaning that almost all the first generation of postwar planners also had professional affiliations to other disciplines. The strongest intellectual and logistical connection was to architecture and architectural education. In 1949 a national meeting of heads of schools of architecture resolved that town planning be included in all architecture degrees and that professional study should be postgraduate and associated with architecture faculties. While this proved the early model, as instruction was progressively widened into social science content, the platform was being laid for planning to be offered outside of built environment settings (from the 1970s). The significance of the British connection in terms of early aspirations, syllabuses, textbooks and lecturers is also evident but this would also slowly leaven through time.

The postwar response to the need for an academic-based professional education in planning was not uniform nationally. Several years would elapse before more diploma
programs were started in other states: in Tasmania at Hobart Technical College in 1956, in Western Australia at the Perth Technical College in 1960, and in Queensland at the Central Technical College in Brisbane in 1964.\textsuperscript{70} While all these programs were ultimately the culmination of long-held dreams and more immediate machinations to professionalise planning, their inception still fell short of producing the numbers of qualified planners that Australia needed in the postwar years and recruitment by local and state government of foreign-trained planners (particularly from Britain) continued apace.\textsuperscript{71}

Notes


8 The lectures were also later compiled and published as Andrew Benko and T. Rex V. Lloyd, \textit{Replanning our Towns & Countryside} (Adelaide: Workers’ Educational Association of South Australia, 1949).


Garnaut and Round, “‘The Kaleidoscope of Town Planning’", 204.


Extracts from “Gavin Walkley: A Diary 1911-[June 1998]”, 3 vols including Index, January-December 1948, 94. Extracts courtesy Giles Walkley.

Extracts, January-December 1948, 94.


“Town Planning Course”, *Advertiser*, December 17, 1948, 2.

School of Mines and Industries, *Sixty-First Annual Report*, 1949, 13; The Town Planning Institute of South Australia, “President’s Report for 1950”, Cheesman collection, AM, S209/4/37/20/30. Note that the “President’s Report” states that there were ten students in 1949.


Interview with Gavin Walkley by Peter Harrison 8 May 1981, 5. GW ACC1118 Box 4/33 (Unaccessioned). State Library South Australia. Walkley papers available courtesy Jane Walkley.

Extracts, July-December 1949, 99.
28 Ibid.


32 Minutes of the meeting of the Faculty of Architecture, 21 July 1938, 95-6. University of Sydney Archives [hereafter UoS Archives].


34 Letter from S. Haviland, Undersecretary of the NSW Department of Local Government to the Registrar, University of Sydney, 27 December 1946, DEP Records, AK415; EPA 111; 8, NSWSR.

35 Town and Country Planning Training Course timetable, DEP Records, AK415; EPA 111; 66, NSWSR.


38 Minutes of the meeting of the University Senate, 14 April 1947, 386, UoS Archives.

39 Minutes of the meeting of the Faculty of Architecture, 10 March 1949, 134, UoS Archives.


41 Minutes of the meeting of the Faculty of Architecture, 10 March 1949, *Faculty of Architecture Minutes*, Sydney, 1920-1958, p. 134

42 Denis Winston to Clifford Holliday (Chief Architect, Stevenage Development Corporation), 10 August 1949, Denis Winston papers, 8/10, UoS Archives.

43 Minutes of the meeting of the Faculty of Architecture, 24 July 1951, p. 286, UoS Archives.

44 “Providing Trained Town Planners”, *Advertiser*, January 9, 1951, 4.

46 University of Sydney, *Calendar for the year 1953* (Sydney, 1953): 892-897.

47 University of Sydney, *Calendar for the year 1957* (Sydney, 1957): 268.


60 Bayley interview.


63 John Bayly, Interview with David Nichols, February 27, 2014, Melbourne.

64 “Praise, warning for Adelaide”, *Advertiser*, December 23, 1952, 1.


Liberal Educational and Planning Methods in The Military Regime
In Brazil
José Francisco Bernardino Freitas, Marlice Nazareth Soares de Azevedo

ABSTRACT
This study aims at examining two educational experiences for professional training during the 1960s, both guided by a more liberal ideology. The first experience is the master’s degree course carried out by the University of Brasilia (UnB), created in 1961, and the second is the post-graduate training program for professionals, promoted by the Brazilian Institute for Municipal Administration (IBAM) that initiated in 1965 in Rio de Janeiro. The latter experience was funded by the federal government with resources of the then recently created Service for Habitation and Urban Planning (SERFHAU) and the Planning Secretary of the Presidency of the Republic (SEPLAN-PR). The master’s degree course of the UnB, although oriented to academic activities, applied outcomes towards the construction of the newly established federal capital Brasília and had its foundations on the conceptions of the New School (Escola Nova) created by Brazilian intellectuals like Fernando de Azevedo, Anísio Teixeira, Darcy Ribeiro and Oscar Niemeyer – whose teaching methods held a left-wing ideology. This School proposed an educational renovation, based on the sense of the Brazilian nationalism that emerged during the 1930s. Such renovation should be in line with a strong conception of the social and economic unities in the world. Its educational aim was therefore to prepare individuals to question and solve their own problems. In this respect it was conceived to educate towards the development of the individuals so that they could acquire their “own direction” and share the responsibilities of their common lives. The second experience, the Course of Methodology and Projects for Urban Development and Municipal Administration (CEMUAM) of IBAM, had a strictly practical aim, the formation of urban planners trained to deal with the problems of the local government, and was methodologically inscribed in the principles of the Economy and Humanism Movement (Économie et Humanisme - E&H), founded by the Dominican French priest Joseph Lebret. This Movement included a range of concepts like harmonic development, welfare policy, needs and levels of living and some others that considered the satisfaction of basic needs as a right of the citizens and an obligation of the State. Being so, it was oriented to the human being in the pursuit of the satisfaction of their aspirations and needs in an economic system in which people should come before market and its goods. The investigation of such experiences demonstrates that one of them resisted the ideology of the military regime that took place in Brazil from 1964 to 1985. In the other case the experience was interrupted by such regime. In pointing out the vicissitudes of such experiences, this document, resulted from a work in progress, discloses aspects inherent to them which are responsible for their survival or death, and important to understand the role of the liberal forces tied by the military regime that took place in Brazil.

KEY-WORDS: urban planning in Brazil, professional training, educational experiences.
INTRODUCTION

Brazil experienced a particular period of time during the decades 1950-1960 with regard to its architectonic production. During that period, some architects stood out for their architectural projects, like Ibirapuera Park (Parque do Ibirapuera) by Oscar Niemeyer, in São Paulo, the project of Flamengo Park (Aterro do Flamengo) and the Museum of Modern Art (Museu de Arte Moderna) by Affonso Eduardo Reidy, in Rio de Janeiro, thus giving the country international projection in the domain of Architecture and Urban Planning. This period would reach its peak in 1960, when Brasília was inaugurated.

The courses of Architecture, which existed during the decade of 1950, and that formed the generation responsible for those interventions, originated and developed in distinctive ways. They were located in the main capital cities of the country, Rio de Janeiro, Belo Horizonte, São Paulo, Recife, Salvador and Porto Alegre, and were created in the Schools of Fine Arts or Engineering, except for Belo Horizonte. Such courses consolidated as independent ones at the end of the decade of 1940, with the professional regulamentation of the architects in 1945. Inside the Schools and Colleges of Architecture, courses of Urban Planning for architects and engineers began to be created. The decade of 1940 corresponds with the stage of an accelerated urbanization in the country, levered by the migration process towards the cities and by the intense post-war urbanization.

The Law of Directives and Bases of National Education (Lei de Diretrizes e Bases – LDB), passed in 1961 (Law n. 4.024/61) after 13 years under discussion (Brasil, 1961), united the educational system and enabled the decentralization for the States as to their educational role, but caused frustration for the progressist sectors in Brazil, since it neither widened nor guaranteed, in fact, basic education for the popular sectors of society.

This document presents some preliminary results of a work in progress and aims at examining two educational experiences oriented by ideologies of a more liberal nature and directed at the professional formation in the decade of 1960. The first was carried out in the University of Brasília, created in 1961, and the second was related to the training program of professionals to work with municipal realities, promoted by the Brazilian Institute of Municipal Administration (Instituto Brasileiro de Administração Municipal – IBAM), in Rio de Janeiro, with resources from Federal Service of Housing and Urban Planning (Serviço Federal de Habitação e Urbanismo – SERFHAU) and from the Secretary of Planning of the Presidency of the Republic (Secretaria de Planejamento da Presidência da República – SEPLAN-PR) (IBAM, 1978). It is important to present these initial results to widen the discussions involving such experiences, not completely known yet, to bring to light some features of the professional formation of architects and urban planners in the 1960s.

The University of Brasília (UnB), originated from the conceptions of New School (Escola Nova) which integrated several left-wing Brazilian intellectuals like the educational reformers Fernando de Azevedo, Anísio Teixeira, Darcy Ribeiro and the architect Oscar Niemeyer, and IBAM's Post-Graduation Course in Methodology and Projects for Urban Development (Curso de Pós-Graduação em Metodologia e Projetos de Desenvolvimento Urbano – CEMUAM), was grounded in the principles of the Movement Economy and Humanism (Économie et Humanisme - E&H), founded by the Dominican priest Joseph Lebret.

The analysis of both experiences, one more oriented to the activities of academic formation, and the other, more pragmatical and utilitarian, intends to show that the second experience could resist the prevalent ideology during the period of
dictatorship that began in the country in 1964, while in the first case the experience became unviable by the newly-established regime.

Both experiences pragmatically served the purpose of the Government. The country’s economic development was then focused on the expansion of the domestic market and mass-consumption. As such, widening manpower to face the national industrial projects was paramount. In this respect, education was to serve the Brazilian development model.

On the one hand, the Master of the UnB was to help the construction of Brasilia and the CEMUAM trained people to design plans which also resulted in the making of plans for municipalities from North to South in the country (Freitas, 2012b). On the other, professors of both courses were prosecuted. The author of the book that served as a methodological guide to the CEMUAM was forced to leave the country in the same way that those of UnB.

The exam of the experiences put forward in this paper focuses on their methodological liberal aspects. Their teaching liberal methods, in contrast, did not fit the strict regime that had been established in Brazil by the militaries, as follows.

EDUCATION AND NATIONAL CONTEXT

Several authors point out three pioneering experiences in the 1940s which played an important role in the formation of urban planning professionals: the creation of the Course of Urban Planning in the National College of Architecture (Faculdade Nacional de Arquitetura), in Rio de Janeiro, 1945; the implementation of a similar course in the Institute of Fine Arts (Instituto de Belas-Artes) in Porto Alegre, in 1947, the same year as the School of Engineering implemented its Extension Course of Urban Planning; and, in 1948, the creation of the Course of Urban Planning of the School of Architecture of the (then) University of Minas Gerais (Lima and Gomes, 2010).

The same authors concluded that those Courses of Urban Planning had tried to answer the emerging questions related to the urbanization in some regions of the country, framing, along with the process, a concept of planning as being multi or even interdisciplinary. These courses had to a certain extent the merit of getting closer to the teaching of the professional practice challenges and constituted a reflection forum on the problems that Brazilian cities were facing.

The education in Brazil was then inserted into a universe of school renewal that aimed to assure the valorization of the man and to improve the Brazilian conditions of life from the moral, intellectual and economic point of view. This educational model originated from Getúlio Vargas government from 1930 to 1945, when the country’s economic development was focused on the expansion of the domestic market and mass-consumption, highlighting a close relation between education and the Brazilian development model at the time (Germano, 1990, Ferreira Júnior and Bittar, 2008, Sanfelice, 2011, Horta, 2011).

It would be interesting to remember that the decentralization of power in the First Republic generated the nationalism and, with it, a layer of intellectuals committed to arouse, in Brazilians, feelings of pride for their land and people. In this context, the liberal ideas would welcome educational initiatives of renovation in the country, what resulted in the image of an Educator State. So, in October of 1930, a magazine called Escola Nova (New School) was released containing an article written by Anísio Teixeira in which he criticized the “old school” and proposed the “school renovation” as the solution. Teixeira (1930: 18), in the same article, goes beyond
nationalism, recognizing that this renovation should be aligned with a “[...] more vigorous concept of a social and economic worldwide unity”. So, in his opinion, it was up to education the role of preparing the individual in order to question and solve their own problems. The School was thought as the place where education should develop the individuals’ “own direction” and share responsibilities for their common lives (Teixeira, 1930).

It is interesting to point out that in January 1930, when Getúlio Vargas came forward as a candidate for the presidency of Republic, an edition of Liberal Alliance Platform (Plataforma da Aliança Liberal) was released. It highlighted education as, according to Horta (2011: 281), “[...] one of the appropriate instruments to guarantee ‘man’s valorization’ (original quotations) and to improve the Brazilians’ conditions of life in the ethical, intellectual and economic point of view”. Beyond education, Plataforma pointed out public health, involving sanitation measures that, associated, justified the creation of a new ministry - the prospective Ministry of Instruction and Public Health, conceived to promote the articulation of such services within the three spheres of power – federal, state and municipal.

Elected, Vargas ascribed the newly-born Ministry the task which Horta (2011) defined as ‘moral and physical sanitation’, including sanitary education and wide spread of public schools. Horta (2011: 284) argued that this period was characterized by “[...] the process of transition from an economy that exports raw material and imports industrial goods towards an economy of import substitution”.

In July 1952, in the second phase of Vargas government, he appointed Anísio Teixeira as the principal of the National Institute of Pedagogical Studies (Instituto Nacional de Estudos Pedagógicos – INEP). Three years later, by federal decree, the Brazilian Center of Educational Research (Centro Brasileiro de Pesquisa Educacional – CBPE) was created, linked to INEP (Cunha, 2011).

However, Horta (2011) indicates that as the authoritarian aspect of the regime stood out, the educational system was put at the service of Vargas’ policy. The idea of education as a national concern, its link with health and the emphasis on moral education were themes that revealed this subordination of the education to the regime. The education as a national concern, in particular, served as a means to justify the increasing intervention of the Federal Government on teaching and the respective centralization of its actions (Horta, 2011).

Deriving from Vargas and continuing during the period of the military dictatorship in the country that had begun in 1964, the educational policy framed the system in which technocracy run parallel with goals to be reached. It was necessary to widen manpower to face the national industrial projects that aimed at the Brazilian alignment with the international capitalist system (Sanfelice, 2011).

It is worthy of note that during the period from 1937 to 1964 the military staff claimed for the constitution of a strong State under the cover of fighting communism and possible subversive action from popular mass. Taking this perspective it is important to remember the league with Brazil and The United States of North America (USA), in the context of the so-called Cold War, with the creation of High School of War (Escola Superior de Guerra - ESG) in 1948. ESG created the propitious environment to deepen and spread the basic concepts that were used to justify the intervention and control of the State by the Armed Forces – the ideology or doctrine of National Security (Germano, 2005).

Alves (1984: 35) defined this doctrine as a “[...] comprehensive theoretical body constituted by ideological elements and directive routes for infiltration”. The same author highlighted the theory of war in the theoretical body of the Doctrine.
Within the category of war there is one called revolutionary war, which intends to annihilate a conflict, generally internal, taking aim at the seizing of power by progressive control over the nation (Alves, 1984).

Sanfelice (2011: 323), after analyzing the Doctrine from the point of view of the war defined as revolutionary, referred to it as being necessary for the establishment of ‘ideological borders’, once it “[…] would have the psychological weapon as the strategy for conquering local minds”. The context lead to the reasoning that everybody and any citizen is potentially considered as an ‘internal enemy’ of the State.

In a context which economic development is tied to national security, ‘internal enemy’ and ‘ideological borders’ intermingle. The national security will be ensured as the ‘internal enemy’ is eliminated or put under strict control so the country can develop harmoniously. This development can result in the population’s support and this way the ‘ideological borders’ strengthen. So it is possible to argue that the proposed educational system seems to take aims at seizing ‘minds’, keeping control over the ‘enemy’ and placing it at its service.

In this way the educational system serves as a resource for this doctrine. Knowledge was granted in order to form manpower in which the authoritarianism, technocracy and ‘productivism’ marked the pedagogical concept that necessarily mediated education and world of labor. The doctrine's commitment was orientated towards the market [i.e. the capital], differently from E&H's principles and the New School, as follows.

**THE UNIVERSITY OF BRASILIA (UnB)**

On the 15 of December 1961, João Belchior Marques Goulart (Jango), then President of the Republic, sanctioned the Law n. 3.998/61, which allowed the creation of the University of Brasília (UnB). Darcy Ribeiro and Anísio Teixeira invited scientists, artists, professors of the most traditional Brazilian colleges to take up the classroom command in the young UnB. The rules, structure and concepts of the university were designed by the Guiding Plan (*Plano Orientador*), a kind of Magna Charta, dated 1962, still in force (Universidade de Brasília, 2014).

In the 1960s the financing and administrative structure was supported by a new concept – a Foundation – an autonomous public service. Despite the fact that the creation of the University of Brasília is officially recorded as being 1961, already in the context of João Goulart's government, its actual concept had been performed and encouraged before that, in Kubitschek's government, when the ideal of a new model-university was devised for the new capital city. Anísio Teixeira who had been responsible for the creation of the *Universidade do Distrito Federal* (University of Federal District), in 1935 and Darcy Ribeiro enhanced, by means of UnB, the opportunity of “revising” the paths of Brazilian university teaching. For the task, they both were supported by the Brazilian Society for the Progress of Science (*Sociedade Brasileira para o Progresso da Ciência – SBPC*), that united an important part of the country's scientific community.

After the creation of this University, a board of complementary studies was implemented in order to develop the idea of UnB in several aspects. Such board was formed by the anthropologist Darcy Ribeiro, the lawyer Cyro Versiano dos Anjos and Oscar Niemeyer. Niemeyer would have a special task in it, since he was the architect responsible for the development of the urban plan designed by Lúcio Costa for the *campus*. Niemeyer’s task was in fact wider for also being in charge of the Instituto de Arquitetura (*Institute of Architecture*) of UnB. Concurrently, the Center of Planning (*Centro de Planejamento*) of the University of Brasília (CEPLAN) was formed to
take up the responsibility for the projects of the university buildings and participate in the Architecture courses.

CEPLAN became a working platform for Niemeyer who, by that time, moved to Brasília on a permanent basis. From that office he and his staff would intervene in every aspect related to Architecture in UnB, either under the construction or the academic point of view.

The relation with the academic part of UnB, understood as one of the functions of CEPLAN, grew stronger and stronger while professors of the Graduation Course of Architecture worked for CEPLAN, as well as the UnB mastering students who attended the Post-Graduation, were subject to do technical training period as part of the academic program.

Nevertheless, the Graduation Course of Architecture and the Master Course of the University of Brasília, created under innovative inspiration, having Oscar Niemeyer as its first principal, would be put under pressure. After several political events that obstructed the pedagogical project involved in this initiative, the police invaded the campus and finished Darcy Ribeiro's project, whose objective was to create an autonomous University under the perspective of becoming a center of excellence in the country.

**THE MASTER COURSE OF ARCHITECTURE OF UNB**

The investigation on this Master Course, which has received not much attention from the part of specialists, with scarce bibliographical references, will be enabled by means of interviews with participants; professors and former students, still professionally active. The intention is to understand the contribution to this academic experience, not well known yet, along with the professional formation of architects and urban planners in the 1960s.

The initial memorandum that was designed to implement the Master Course for the period 1962-1963, had been already conceived in a way that it should attend the internal procedures, the same way as the number of vacancies, ways of selection, composition of the courses and the achievement of credits. The Master Course would offer 10 vacancies, being 7 for candidates from universities which did not offer Post-Graduation *stricto sensu*, as in Universidade do Brasil (located in Rio de Janeiro), and other universities: São Paulo, Mackenzie, Rio Grande do Sul, Minas Gerais, Bahia and Recife. The selection was performed by those universities under delegation of the UnB. The remaining three vacancies would be filled by selection of the UnB itself (Universidade de Brasília, 196?a).

Any of the selection procedures should include an obligatory assessment of a foreign language, from the Latin or Anglo Saxon group, and Russian. The analysis of the documents shows the University of Brasília as the responsible for the general classification of the candidates, even because they would be promoted to the condition of “instructors” in the Graduation Course. The Master's academic staff consisted of professional architects who formed the construction team in Brasília and that would gravitate around Niemeyer. This is a marker of strong ideological and modernist component (Universidade de Brasília, 196?a).

**THE STRUCTURE OF THE COURSE**

The Master Course embedded compulsory and free-choice programs. The compulsory ones were organized in five blocks: seminars offered by 1) Departments of Theory and History of Art and Department of Social Sciences; 2) History of Architecture; 3) Construction with training period in construction sites, organized by the Coordination of the Branch of Architecture and Urban Planning; 4) Architecture with training period in workshops of CEPLAN – UnB, directed by Oscar Niemeyer;
and 5) Brazilian Civilization, consisting of two courses organized by the Coordination of the Post-Graduation courses. The Free Program was the master student's free choice and approved by the supervisor in the scope of the courses offered by the University (Universidade de Brasília, 1964a).

The facts indicate that the proposal, besides assuring the Master students the supervision of the architects that formed the collaborative elite group of Niemeyer, also guaranteed the participation in the teaching staff for the Graduation Course and, still, the involvement with the basis team of specialized manpower of Architecture in the newly created CEPLAN. In this way, it was in the construction site of the University, work in progress, that the practical formation of the prospective masters would consolidate.

An internal letter, dated September 1964, was addressed to the coordinator of the Post-Graduation of the University, an architect and professor Aryon Dall'Igna Rodrigues. It has been sent by the executive secretary of the course, architect and professor Ítalo Campofiorito, in which describes the activities approved by the Department of Composition and Planning that would grant the title of Master. The activities consisted of a) presentation of an original architectonic project performed in CEPLAN, or a dissertation on any theme of Architecture (Composition, Planning, Technology of Construction, or Theory and History); b) courses offered to the Post-Graduation Courses by the Department, according to the Master's Plan approved by the supervisor; c) professional training period in CEPLAN, for those who opted for the dissertation, according to the supervisor; d) training period in teaching activities, decided by the Department, in accordance with the School needs and the Master's student plan, approved by the supervisor. The compliance with these requirements would allow the mastering student the right to submit their Project of Architecture or Dissertation to the board for judgment, organized by the Coordination of the Post-Graduation (Universidade de Brasília, 1964b). It means that this proposal of UnB did not make any distinction between professional and academic Master's Degree, as it does today.

The fact that the title can be granted by means of defense of either theoretical dissertation or practical project work endows the Master of UnB with innovative character of a professional master course, category adopted by Coordination for the Brazilian Training Programme for High Level Personnel (Coordenação de Aperfeiçoamento de Pessoal de Nível Superior – CAPES) only in 1995.²

A relevant fact about this Master Course that deserves mention was the extension of the deadline already expired, provided by the supervisor architect João da Gama Filgueiras Lima (that replaced Niemeyer as a supervisor) because “[…] the Instructor [was] incapable of finishing his work” due to the disappearance of material collected during the military siege in UnB on April 9, 1964. So, the delivery date of the work was July 1964, what enabled the defense of the dissertation on March 9, 1965 (Universidade de Brasília, 1964a).

As seen, besides the conditions inherent to a course that started with an innovative pedagogical project and open to diversified practice, it was also subject to political circumstances, what frequently made the process of the degree granting slower and uneven.

The set of documents available to date does not allow us to affirm the date of the first defense as well as the number of mastering students of the first and the second class of the Master Course. This documentation indicates, however, that the pedagogical project enables diversified options focused on the supervisor's guidelines. Documents provided by a mastering student, possibly of the second class, can
explain institutional links between the student and the program by means of a declaration given by the University to this student granting her an instructor scholarship from March 1963 to December 1965, when regularly enrolled in the Master Course. According to the set of documents available, it is possible to see that the student offered one or two courses per semester, but in the second semester of 1964 did not provide any other, what suggests that the courses could have been almost closed during that period (Universidade de Brasília, 1965b).

The same documentation indicates a change in the theme and supervisor, what shows the flexibility of the Master Course, once the student started with Urban Planning under the supervising of the architect and professor José de Anchieta Leal and, in the first semester of 1964, she started his research on primary schools, under the supervision of the architect and professor Glauco Campelo (Universidade de Brasília, 1965b).

The documents obtained up to the moment do not allow a complete list of mastering students and professors along the course, but an interview of the executive officer in charge and also professor, Italo Campofiorito acknowledges some of the participants who became well-known in the national field. In this list some names of architects have been mentioned: Luiz Henrique Gomes Pessina, Fernando Lopes Burmeister, Armando de Holanda Cavalcanti, Armando Pinto, Sérgio Souza Lima, Mayume Watanabe Souza Lima, William Ramos Abdalla, Geraldo Santana, Gunther Wagner, Philomena Chagas Ferreira, Geraldo Nogueira Batista and Márcia Aguiar Nogueira Batista (Campofiorito, 2012).

THE DISSERTATION AND THE MASTER’S PROJECT

Some aspects related to the dissertations and to the projects of conclusion of the Master's have not been made clear yet. Along with the statements made by a professor that took up in October of 1968, after the course's interruption, it is possible to draw some conclusions.

“During that time it was difficult to understand the facts, for we lived a so-called regime of exception, in which the communication was censored. The exact causes for the non-recognition of the course are unknown to me. I believe that the political-ideological motivations were strongly used against the course, no doubt about it! I got acquainted with the subject when I chose the theme of Superquadra SQN 107 for my project subject matter, in 1972. It was the opportunity when I knew the proposal for Superquadra São Miguel, that was much bigger than the other four buildings then built, covering all the neighboring area. I also got acquainted with the studies that had been done by an excellent team of young architects, as their final stage for the Master's, and they included not only the architectural proposal but also the landscape designs, the educational system, the health system, and so on. All in all, it consisted of an integrated project, wide, divided into its several subsystems, as part of many Mastering projects. All of them very well designed”.

So far, the information obtained indicates that in fact the Master Course was interrupted. It is known that the projects had been conceived in the range of this experience, but it is not possible to confirm if or how many of them were effectively carried out.

Among the documents analyzed, access has been given to a dissertation with a project and some opinions of the boarding panel. The “conclusion” effectively proposes as a solution of architectural project. The project refers to four primary schools in a neighbor unit of Brasília (Superquadra as in Prof. Galbinski’s text) known as São Miguel, composed of SQNs 107, 108, 307, 308. It approaches the Educational Plan of Anísio Teixeira, who argues that, in the new units, there will not
be only “[...] schools and classrooms, but a whole set of places in which children can be distributed to concentrate on their study assignments, as well as work, leisure, social interaction, administration, decision-making, life and conviviality, in the widest meaning of this word” (Teixeira, *apud* Batista, 1965: 48).

Teixeira's Educational Plan recommended, for the primary education, the “Centers of Elementary Education” for every *Superquadra* (SQ) unit. These centers consisted of a class school and a kindergarten. For every neighbor unit, as in the case of São Miguel, it also included a “Park School”. The class school was designed for 250 children per turn and the kindergarten for 100 children at pre-school age. The quantitative was taken from the calculation of 2,500 inhabitants per *quadra* (block or quarter).

Four projects were developed for distinctive class schools according to a detailed theoretical analysis on the theme and the project conditionants, constituting a fundamental part of a Master's dissertation, practical in nature according to the course proposal.

As highlighted, taking Prof. Galbinski's words, the projects for São Miguel were outstanding in quality. In spite of the recognition for the quality and practical results and proposed reflections, the Master Course did not survive. Apart from the encroachment of political nature that led to interruption, if there is a more proceeding point, it can be considered the non-entitlement of the supervisors and of the members of the Examination Board.

**THE COURSE OF METHODOLOGY AND PROJECTS OF URBAN DEVELOPMENT**

The Post-Graduation Course of Methodology and Projects of Urban Development (*Curso de Pós-Graduação de Metodologia e Projetos de Desenvolvimento Urbano – CEMUAM*) is grounded in the principles of the Movement Economy and Humanism (E&H) founded by the Dominican priest Joseph Lebret. The CEMUAM program, offered by the National School of Urban Services (*Escola Nacional de Serviços Urbanos - ENSUR*), of Brazilian Institute of Municipal Administration (*Instituto Brasileiro de Administração Municipal - IBAM*) began in 1966 and continued for 17 editions until 1988. It was designed to train professionals from public or private institutions with actions that favored local development, particularly those within the scope of the municipalities’ duties. The training program of those professionals aimed at promoting adequate management in every aspect of administration, finance or legal terms, and, in the same way, the provision of infrastructure and urban services (IBAM, 1978).

As a full-time course, the participants were granted scholarships by the financing institution. The course offered a theoretical program in the morning and the afternoon was reserved for text discussion and presentation of experiences that were in any way related to the classes or texts seen in class.

The CEMUAM program began as a 6-month course later extended to 8 months – in general from April to December – full-time, in a way that 3 out of 5 of those (respectively in the 6 and 8-month format) consisted of training in Rio de Janeiro, at IBAM headquarters. The last three months were taken to practical work that had to be developed in group and *in loco* at a previously selected and agreed municipality in the country, by the participants, instructors and local administration (Freitas, 2012a).

During the training period at the ENSUR of IBAM, the participants devoted themselves to establish contact with the methodological procedures to be applied, in field work, to the problems and possibilities of municipalities as a whole. They also
established personal and professional relationships among them in order to define personal assignments and group work. Further action was taken to develop specific activities oriented to training, involvement and incorporation of the local planning team in working groups, whose participants were also called *cemuares* (Freitas and Azevedo, 2011).

During the months in Rio de Janeiro, the field work was carefully prepared so that information about real life could be accessed, analyzed in the light of specific possibilities of such reality. The synthesis of this approach was the composition of a cross tabulation panel containing life conditions and possibilities of infrastructure and services, to be checked *in loco* during field work.

The CEMUAM’s guarantee of ‘applicability’ could be initially checked by the candidate’s enrollment that had to be formally proposed by the employer, an institution whose activities should be addressed to local development. The selection procedure consisted of a psycho-technical test and an interview by a panel composed of two professionals chosen by IBAM and a representative of the financing institution, SERFHAU or SEPLAN-PR through SAREM, (Freitas and Azevedo, 2011).

If on the one hand every requirement intended that the applicability of the training should be assured, in common terms with the ruling educational system, on the other hand the ideology inherent to the methodology for field work, developed by the course, did not align with the authoritarian fundamentals of the dictatorial government.

**ECONOMY AND HUMANISM AND THE CEMUAMS**

The methodology for the development of field work planned for the last three months of CEMUAMs was primordially grounded in the principles of Economy and Humanism.

The Movement Economy and Humanism (E&H) conceived as an association in the Dominican Convent of Marseille in the year of 1941 and its origin is linked to the social doctrine of the French Catholic Church. The French Dominican Priest Louis-Joseph Lebret was a member of this association together with other intellectual and religious people.

E&H association, from 1946 on, started to organize local groups that proposed action by means of harmonious development in France and other countries in Europe, Latin America, Africa, Asia and Middle East. E&H strengthens in Latin America at the same time as Europe and The United States turn to issues associated to underdevelopment (Freitas, 2012a).

The widening of the economic relations of The United States after World War II, with those known as underdeveloped countries, takes place by means of the financing of economic agencies and agreements for economic assistance, technical and financial cooperation. To quote, the Joint Commission Brazil United States is in the scope of those relations since the early 1950s, taking aim to finance a program to re-equip infrastructural sectors of economy. It guided, in a liberal sense, the economic policy of Brazilian government.

The mission of this Commission was incorporated from 1953 on, in Getulio’s government, by the Economic Commission for Latin America and the Caribbean (Comissão Econômica para a América Latina e o Caribe - CEPAL) associated to the United Nations Organization (UN). It is interesting to highlight that Priest Lebret, founder of E&H, makes common cause with underdeveloped countries in the conference speeches he made as a UN member, regarding that institution as the ideal forum to approach the world development through international interchange, and concurrently inform the world leaders about the actual needs of humanity. When the
physician Josué de Castro, (also a social scientist and a diplomat), from the State of Pernambuco, was the president of the Commission of Social Welfare in Vargas’ government (1951), he had Priest Lebret as his counselor. This relation narrows and consolidates in UN when Castro took the lead of Food and Agriculture Organization of the United Nations (FAO-UN), from 1952 to 1956.

By invitation of the Free School of Political Sociology (Escola Livre de Sociologia Política), in the year 1947, Lebret comes to Brazil and then the headquarter of the Graphic and Mechanographic Applied to the Social Complexes Society (Sociedade Gráfica e Mecanográfica Aplicada aos Complexos Sociais - SAGMACS) is created in São Paulo, the Brazilian group of E&H. This society undertakes studies in several Brazilian states, comprising distinguished themes and scales of regional, metropolitan and urban development, pointing out economic sectors and their association to conditions of life and habitation of the people (Freitas, 2012a).

In 1958, was created the International Institute of Research and Formation for Harmonized Development (Institut International de Recherche et de Formation en Vue du Développement Harmonisé - IRFED) by Lebret in France, that was later changed to International Center of Development and Civilizations – Lebret-Irfed (Centre International Développement et Civilisations – Lebret-Irfed) (Oliveira, 2011). Between 1958 and 1966 this Institute hosted over 400 participants of underdeveloped countries, particularly from Latin America. Among these participants it is important to mention the architect Francisco Whitaker Ferreira who is the responsible for widespread the methodological approach adopted for E&H studies in the book Living Conditions and Physical Planning published by the Getúlio Vargas Foundation (Fundação Getúlio Vargas – FGV) (Freitas, 2012a).

Ferreira’s book of 1966 sets up a series of guidelines devoted to the organization of the territory based on updated social and economic demands. According to Ferreira, that was necessary to strictly organize and conform activities to human needs, taking aim at higher standards of living of the population involved. His definition of development followed E&H’s commitments. Ferreira (1966) classifies living conditions into nine fundamental groups: housing, education, health, leisure, transportation, consumption of goods and services, work and income, communication, and environment. Also, the quality, availability or provision of these conditions can be evaluated according to three levels: the basic, fundamental or essential for human living; the comfort or commodity, level at which living conditions are made easier, and the overwhelming or conquering level, that improves mankind’s cultural and social activities and skills.

The major goal of this approach is to achieve of a point of balance between the levels in that reality so that the quality, the availability or the provision of conditions above mentioned would gradually increasing up to the maximum. For this, directives, proposals and projects should be hierarchized in order to result in effective interventions.

The author also identified a set of seven variables of the territory where human activities develop: separation, polarization, localization of uses, system of uses, land occupation density, road structure, and composition of built elements.

After having defined these conditions and variables, he proposed a cross tabulation among them so that the variables could be evaluated by what he called Table of Conditions and Interferences. Ferreira presented three levels of interference: essential, intermediary and desirable, which, once completed, would allow a comprehensive assessment of living conditions, leading to a hierarchy of needs.
Along with the evaluated levels, this process would indicate possible solutions. This approach is embedded by E&H, above all, as Lamparelli (1944: 90) mentions, for including a “[…] constellation of concepts as harmonious development, ‘welfare’ politics [original quotations], needs, levels of life and others integrated certainly a doctrine and, perhaps, a theory”. The basis of common welfare professed that “[…] the satisfaction of basic needs was considered a right of the citizen and an obligation of the State” (Lamparelli, 1994: 93). The same author points out that:

In Brazil, rights of this kind had not been gained yet, so, there would be room to contribute for a political fight towards these conquests, according to the process of development, repeatedly defined by Priest Lebret in many of his studies. (Lamparelli, 1994: 93).

In accordance with Oliveira (2011), the economic science (and the economic activities), in Lebret's view, should be put “[…] at the service of human beings, guiding it to meet the needs and aspirations of every one committed to an economic system that is able to prioritize people, not the market and its goods” (Oliveira, 2011). According to the author, Lebret enabled projects of development and valorization of human relations based on the method: ‘see, judge and act.’

CONCLUSIONS

The analysis of both experiences, one more oriented to the activities of academic formation, yet practice-oriented, and the other, non-academic although pragmatically and utilitarian, demonstrates that one could resist the prevalent ideology during the period of dictatorship that began in the country in 1964, while the other was interrupted by that regime.

The reported experiences indicate that both courses, conceived on a more liberal e socially oriented ideological basis, compose innovative experiences. Add to this the fact that these experiences were founded in a formation directed at the professional practice. Both CEMUAM and the UnB's Master Course had in its scope a character in which practice took up the dimension committed to intervention on a clear territorial reality: from the city level to the block level.

In addition, the CEMUAM produced plans and its training constituted a very useful product for the Government. It was much cheaper to pay a scholarship for trainees and instruct them to produce a plan than to commission a planner or to pay for consultancy. Its methodology besides training professionals to work in the local government also dealt with the formation of agents who already worked in the local councils.

In the case of the University of Brasília, the documents examined highlight a perspective to research and record some emerging questions of Architecture and Urban Planning as shown by the very course description and by the experiences acquired by the mastering students themselves, in which the city and the university campus appear as protagonists in the proposed studies, in addition to the approaches on document concern, aiming at the constitution of the institution's patrimony.

CEMUAM, in its turn, looked forward to the intervention in less favored realities and lacking infrastructure, services, and mainly knowledge, so that they could reach the so-called level of achievement or overcoming, in order to encourage skills and social and cultural activities in the human being.

In both cases, the possibility of interaction and sharing of experiences was present. In UnB, by means of its own pedagogical project which allowed flexibility of choice for the composition of the formation of the mastering student and, yet, by the
diversified natures of the experiences promoted. In the case of CEMUAM, the variety of experiences in several areas of knowledge from distinctive realities would promote unconditional interchange between participants and local teams. The experience of UnB also aligns with this possibility of exchanging, at defining vacancies for several universities around the country. In addition, there is the fact that UnB's project had a hybrid pedagogical proposal for academic and professional formation, different from the present regime which adopts one or the other modality.

It is important to point out that temporally CEMUAM appears in a time when UnB, besides being placed at the center of the power, is under the watchful eye of the adolescent dictatorship. In this way, it is possible admit that CEMUAM had acquired room for action yet its methodology was inserted in an ideology that was against the ideology or doctrine that guided the actions of the running military regime, the National Security Doctrine.

It is possible that its duration is due to the fact that Rio de Janeiro had ceased to host the center of national decisions, what may have allowed its continuity until the years of 1980s, sponsored by the Federal Government, once it focused on the formation of the professional practice on the benefit of the State. Nevertheless, in the scope of this benefit, which prioritized the market, CEMUAM put emphasis on the welfare of the population. The Master Course of UnB reveals itself as aligned with this intention reasserted by contents and characteristic of its pedagogical project that fitted equally to a socially engaged ideology.

There is a major question that this paper is not able to answer, that is what made the government shut down the Master’s program and not interfere in the CEMUAM program? Some other questions may include the role of international organizations in these training programs, the changes that were made in the Master’s program when it got back to operation. The fact is that UnB has today a Master and a PHD program but, for now we are not able to answer the differences between these and the previous one. The CEMUAM on the other hand was finished in 1988 and we assume that the main reason for that is that the new issued Constitution of the country gave more financial and political power to the municipalities. In this respect the Federal and State governments did not have to perform the task of providing consultancy to them. In continuing the investigation we expect to disclose the reasons for those.
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alunos Luiz Henrique Pessina e Fernando Lopes Burmeister, dirigido ao chefe do Setor, Prof. Edgard Graeff, em 30 de maio de 1963 Brasília (DF) Mimeographed.

1 Getúlio Dornelles Vargas governed Brazil during two terms: from 1930 to 1945 and from 1951 to 1954. Vargas got to power in 1930, after leading the so-called 1930’s Revolution (Revolução de 1930). In the first term, between 1937 and 1945 he established the New State (Estado Novo), a phase of dictatorship. Elected in 1950 he started his second term in 1951 and had a turbulent government up to 1954 when he ended up committing suicide.

2 The so-called First Republic or Old Republic (Primeira República or República Velha) is the first phase of the republican organization in Brazil. It starts with the end of the Empire (Império) in 1889 and finishes with the 1930’s Revolution.

3 All quotes are translated by the authors.

4 While investigations on CEMUAM are well advanced with many papers produced, the examination of the Master Course of the UnB is at its beginning. Being so, much of the information on CEMUAM relies on secondary information because it is based on previously published papers. Those for the Masters are preliminary and have not been object of deep examination yet.

5 Jango was president of the country from 1961 to 1964 when he was deposed by the military coup. He had also been vice president of Brazil between 1954 and 1961 during the rule of Juscelino Kubitschek.

6 Niemeyer’s staff was composed of the architects Alcides da Rocha Miranda, João Filgueiras Lima (Lelé), Glauco Campelo, Italo Campofiorito, Carlos Machado Bittencourt, Virgilio Sosa, Abel Carnaúba, Oscar Kneipp, Evandro Pinto, among others.

7 The first regulamentation of CAPES containing guidelines for the creation of professional Master Courses was Ordinance n. 47, on October 17, 1995. However, this theme was already taking part of “[...] the discussions on the post-graduation stricto sensu in the country” (Revista de Administração Contemporânea, 1997), in view of the need and relevance of the creation of Master Courses directed to professional qualification. This order was replaced by Ordinance n. 080, dated December 16, 1998 (Capes, 1998).

8 Text of electronic message written by Professor Galbinski, (PhD Degree - Architecture - Cornell University - USA), who later joined the academic staff of the Master Course that followed the original experience of 1962.
Renovation and Redevelopment of Public Housing to Create Bases for Aging in Place: The Historical and Current Role of Public Housing in Japan

Sayaka Fujii

Abstract
This paper discusses the historical and current role of public housing corporations in Japan. Public housing corporations have been key players in the implementation of housing policy in Japan. The Japan Housing Corporation (JHC), a nation-wide public housing corporation, was established in 1955 to eliminate the severe housing shortage in metropolitan areas after the war. From the 1950s to the 1980s, JHC and its reformed bodies made significant contributions to the provision of public housing for middle-income commuters in large cities and played an important role in popularizing new multi-unit housing models. Recently, Japan has been facing rapid aging of the population and a significant shortage in both housing and facilities for elderly people. As the owner of the largest number of public housing units, the Urban Renaissance Agency (URA), the successor of JHC, is working on “aging in place” projects in its public housing estates. URA is currently renovating public housing to remove barriers inside and outside the home and building facilities and services as care bases for elderly residents.

1. Introduction
Japan is facing rapid aging of the population to a degree that no other country in the world has experienced. Aging raises numerous issues including changes in the employment system, health care, pensions, social welfare and housing. Children taking care of their elderly parents at home were a Japanese tradition, but due to the increased life expectancy and the increase in the number nuclear families, more elderly people are spending the very last period of their lives in hospitals or nursing homes. Providing adequate facilities and services for the elderly are responsibilities of both social welfare policy and housing policy.

This paper discusses the historical and current role public housing corporations in Japan in relation to changes in housing policy goals after the war. It examines the historical role of the Japan Housing Corporation (JHC) and its successors in public housing policy and then discusses public housing corporation responses to the recent issue of aging in Japan. It also investigates the recent public housing renovation and redevelopment projects that create care bases for the elderly in housing estates and the surroundings areas.

2. Historical role of public housing corporations in Japan
There are two kinds of public housing in Japan; housing that is owned by the municipal or prefectural government and housing that is owned by public housing
corporations. While the government-owned public housing units were targeted at low-income people, the public housing corporations owned housing targeted at middle-income people. Among all public housing, the largest number of housing units belong to the Urban Renaissance Agency (URA), the successor of JHC. Most of URA’s housing units were developed by the JHC, which was established in 1955 and served as the nation-wide public housing corporation. The national government has restructured the JHC three times: it became the Housing and Urban Development Corporation (HUDC) in 1981, the Urban Development Corporation (UDC) in 1999 and the URA in 2004. The role that each corporation played in the provision of public housing has changed in relation to changes in housing policy.

Based on URA (2012)

**Figure 1. History of public housing corporations in Japan**

2.1 Changes in housing policy (1960s - present)

Japanese housing policy changed greatly between 1950 and the present, largely in response to changing economic needs and social preferences. The goals were set every five years by the Five-Year Housing Construction Programs according to the Housing Construction Planning Act of 1966. Based on the goals and the housing conditions, these programs were grouped into three phases. Table 1 shows the details of each phase of the program and the results of the National Housing Survey.

The first phase was between 1966 and 1975 and its goal was to increase the amount of housing to eliminate the housing shortage. At that time, Japan was facing a significant housing shortage because a large amount of housing was destroyed during the war. In the first program, ensuring enough housing for all families was a primary aim. At the completion of the first program, the total number of housing units exceeded the total number of households across the country for the first time since the war ended, according to the National Housing Survey in 1968. The second program aimed to guarantee a room for everyone. The survey in 1973 indicated that the number of housing units exceeded the number of households in every prefecture. After two programs, the housing shortage was eased.

Although the needs for the quantity of housing were met, the quality of housing still needed to be improved, so the goal of the second phase from 1976 to
1995 was to change the focus from quantity to quality. Minimum and average housing standards were set in the third Five-Year Housing Construction Program of 1975 to indicate and evaluate housing conditions. The standards clarified the sizes and facilities that were needed based on the size of the household. For example, for a family of four, 50 m$^2$ was set as the minimum housing size and 86 m$^2$ was set as the average housing size. In the following programs, the standards were revised according to the achievements of former programs and improvements in living conditions.

By the mid 1990s, encouraging the market economy in the public sector, including housing, became the norm. So, the goal of the third phase was the introduction of a market-oriented approach in the provision of housing, as well as the utilization of housing stock. According to the National Housing Survey in 2003, more than half of housing units were of better quality than the minimum housing standard. It was clear that housing conditions in Japan had improved after 40 years of housing programs. In 2005, the government decided to repeal the Five-Year Housing Construction Programs and the Housing Construction Planning Act since the need to build more housing was no longer apparent. This was followed by the 2006 enactment of the Housing and Livelihood Basic Law. This basic act focuses on the quality of housing and life rather than the construction of housing. It also emphasizes the role of the private sector and limits public control in the housing market.

Table 1. Transition of the Five-year Housing Construction Programs from 1966 to 2005

<table>
<thead>
<tr>
<th>Phase of housing policy</th>
<th>First Phase: Elimination of the housing shortage</th>
<th>Second Phase: Focus on the quality of housing rather than the quantity</th>
<th>Third Phase: Introduction of a market-oriented approach and utilization of housing stock</th>
</tr>
</thead>
<tbody>
<tr>
<td>Progam number</td>
<td>1st 2nd</td>
<td>3rd 4th 5th 6th</td>
<td>7th 8th</td>
</tr>
<tr>
<td>Main goal</td>
<td>Ensuring housing for all households</td>
<td>Setting the minimum living environment and average standard of housing</td>
<td>Decreasing the number of rental housing performance</td>
</tr>
</tbody>
</table>

Table 1 shows the transition of the Five-year Housing Construction Programs from 1966 to 2005.
<table>
<thead>
<tr>
<th>Economic condition</th>
<th>Rapid growth</th>
<th>Oil shock and recovery</th>
<th>Stable growth</th>
<th>Stable growth</th>
<th>Bubble economy</th>
<th>Collapse of bubble economy</th>
<th>Post-bubble recession</th>
<th>Short recovery from recession</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population (millions)</td>
<td>101.3</td>
<td>109.1</td>
<td>115.2</td>
<td>N/A</td>
<td>122.8</td>
<td>N/A</td>
<td>126.5</td>
<td>127.6</td>
</tr>
<tr>
<td>Number of households (millions)</td>
<td>25.3</td>
<td>29.7</td>
<td>32.8</td>
<td>N/A</td>
<td>37.8</td>
<td>N/A</td>
<td>44.4</td>
<td>47.3</td>
</tr>
<tr>
<td>Total number of housing units (millions)</td>
<td>25.6</td>
<td>31.1</td>
<td>35.5</td>
<td>N/A</td>
<td>42.0</td>
<td>N/A</td>
<td>50.0</td>
<td>53.9</td>
</tr>
<tr>
<td>Housing condition</td>
<td>Total number of dwellings</td>
<td>Total number of dwellings</td>
<td>Less than half of households</td>
<td>N/A</td>
<td>Less than 10% of households</td>
<td>N/A</td>
<td>Nearly half of households were</td>
<td>More than half of households</td>
</tr>
</tbody>
</table>

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Based on Ministry of Land, Infrastructure, Transport and Tourism (2010)

2.2 The role of the Japan Housing Corporation (1954-1981)

JHC was established to alleviate the significant shortage of housing after the war. The loss of housing during the war was estimated at approximately 4.2 million units across the country, which was equal to one fifth of all housing units at that time. The housing shortage was especially significant in metropolitan areas. To resolve this situation, the national government introduced three measures. One was the creation of a long-term and low-interest loan system. Another was the provision of public housing for low-income households by local governments. The last was the provision of public housing for middle-income commuters in large cities, where the housing shortage was more significant. JHC’s task was to supply 420,000 housing units per year to meet the growing housing demand in metropolitan areas.

JHC started its public housing projects as small, with several hundred units, and gradually expanded the scale. In the 1960s, the average size of JHC public housing projects increased to over 300 units, and to nearly 1,000 units by the end of the 1960s (Table 2). Large housing estates were commonly called “Danchi” in Japanese. With “Danchi”, JHC had built not only houses, but also shops, community facilities, schools, parks and streets. To ensure all units got enough sunlight, JHC also paid a lot of attention to the layout and the planning of housing, facilities and open spaces. In addition, JHC tried to provide good connections between buildings and open spaces in order to stimulate community activities. “Danchi” were the leading development projects in Japan because JHC incorporated the latest theories and ideas in housing from abroad into their projects, including neighborhood units or pedestrian networks such as those in Radburn, New Jersey.

JHC also played an important role in introducing a new housing unit model for nuclear families, which were rapidly increasing in large cities. Before the development of “Danchi”, one-story wooden houses with “tatami” rooms were common in Japan. JHC provided concrete apartment buildings with a new room arrangement known as the “nLDK” dwelling unit. “L” stands for living room, “D” for dining room, where many people had their first experience of sitting at the table on a chair, and “K” for kitchen with a newly introduced stainless-steel sink. “n” in “nLDK” gives the number of bedrooms in one unit, for example, a “2LDK” unit has
two bedrooms. The new housing model became very popular in Japan. Many people applied for highly competitive lots and lotteries were held to move into JHC housing. As a result, JHC’s public housing brought about a big change in the lives of Japanese people, starting with commuters in metropolitan areas and gradually affecting the whole country.

In total, JHC built over 1 million housing units, 760,000 rental-housing units and 140,000 owner-occupied units. The area that JHC developed was 26,000 ha, including 6,000 ha of housing developments. JHC was one of the largest housing and urban developers in the world during this period.

Table 2. Housing development by JHC and its successors

<table>
<thead>
<tr>
<th>Year</th>
<th>1955-64</th>
<th>1965-74</th>
<th>1975-84</th>
<th>1985-94</th>
<th>1995-present</th>
<th>Total as of March 2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of housing units</td>
<td>47,287</td>
<td>320,745</td>
<td>156,861</td>
<td>80,202</td>
<td>145,802</td>
<td>750,897</td>
</tr>
<tr>
<td>Average size of unit (m²/unit)</td>
<td>39.7</td>
<td>45.6</td>
<td>56.8</td>
<td>70.6</td>
<td>69.8</td>
<td>54.9</td>
</tr>
<tr>
<td>Number of estates</td>
<td>157</td>
<td>373</td>
<td>346</td>
<td>384</td>
<td>472</td>
<td>1732</td>
</tr>
<tr>
<td>Average size of estates (units/estate)</td>
<td>325</td>
<td>895</td>
<td>437</td>
<td>217</td>
<td>309</td>
<td>434</td>
</tr>
<tr>
<td>Location</td>
<td>Large cities</td>
<td>Suburbs</td>
<td>Downtown of large cities</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Backgroun d of housing supply</td>
<td>Elimination of housing shortage</td>
<td>Elimination of housing shortage in large cities</td>
<td>Improvement of housing condition</td>
<td>Promotion of urban living</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Based on URA (2013)
2.3 The role of the Housing and Urban Development Corporation (1981-1999)

In the 1980s, the shortage of housing in metropolitan areas was eased and the focus of housing policy shifted to improving the quality of housing and the living environment since JHC had achieved its first goal. To meet the goal of the second housing policy phase, a new organization was required to improve the quality of housing and the living environment.

Meanwhile, the national government began to promote the privatization of government corporations. As a part of privatization, JHC was merged with the Land Development Corporation (LDC) in 1981 to form HUDC. LDC was the public corporation established in 1975 to create high-density housing and residential sites in major metropolitan regions. LDC also developed large-scale urban housing developments and transport facilities all over Japan.

The new organization, HUDC, provided more “Danchi” with good infrastructure and public facilities to provide higher quality living environments. It also promoted urban redevelopments in downtown areas, where brownfields were redeveloped and mixed-use urban housing developments were created.

These projects were intended to have spillover effects in the surrounding areas. HUDC had also redeveloped the congested wooden housing areas of inner cities. In such projects, HUDC combined the redevelopments of old factory sites with the construction of housing, streets and parks. HUDC had also committed to new town projects with high living quality in the suburbs.

By the end of the 1990s, HUDC had built over 1.45 million housing units, 1.17 million rental housing units and 280,000 owner-occupied units, including the units built by JHC. HUDC developed 38,124 ha, including 12,488 ha of housing developments. 159 redevelopment projects were developed over 5,297 ha.

2.4 The role of the Urban Development Corporation (1999-2004)

In the 1990s, Japan’s bubble economy had started to collapse and the country slid into a long depression. To promote economic growth, the national government underwent structural reform and deregulation of various fields took place. As a part of
this reform, the government decided to reorganize the ministries, agencies and public corporations, including HUDC. In 1999, HUDC experienced its second restructuring as it became UDC.

The role of UDC was restricted to the improvement of the living environment in metropolitan areas and redevelopment in downtown areas. UDC withdrew from providing owner-occupied housing by that time, the housing shortage was completely eliminated, and its main function was to conduct redevelopment projects in built-up metropolitan areas.

Due to the bubble economy, land prices became too high for the average household to afford housing downtown, so people had to buy houses outside cities and some commuted more than two hours every day. Therefore, UDC implemented redevelopments to provide urban housing near the workplace. It also redeveloped congested wooden housing areas to improve their resilience against earthquakes and fires. UDC continued to develop and maintain public housing, but was required to introduce market rent, so rent for public housing became more expensive and less competitive than private rental housing.

Under the third phase of enhancing the market economy, UDC was required to play the role of a coordinator between local governments and private companies rather than to be a developer. UDC utilized its know-how and connections with the public sector that it had accumulated over the past 40 years as the main housing and urban developer.

2.5 The role of the Urban Renaissance Agency (2004 - present)

The structural reforms of the national government continued. Only five years after its foundation, UDC was again reorganized and became URA in 2004. In this reorganization, UDC was merged with the Japan Regional Development Corporation (JRDC). JRDC was established in 1973 in order to redistribute Japan’s concentrated population and industry from the major metropolitan areas to other regions. JRDC’s projects were conducted in regions located far from major cities as it tried to facilitate the growth of local industry through development projects.

Rather than spearheading the new developments, URA focused on the following four fields: urban restructuring, utilization of public housing stock, implementation of suburb development and supports for earthquake disaster reconstruction. In each of these fields, URA’s main role was to act as a coordinator between public and private actors in urban projects.
URA is the largest owner of public housing in Japan managing 1,800 housing estates consisting of 770,000 housing units. In 2007, URA released its plan for utilization of the housing stock. In this plan, URA examined its public housing stock and made plans to maintain and renovate all of its “Danchi” estates by 2018. URA classified its housing estates into four types: estate redevelopment, stock utilization, conversion and ownership transfer (Table 3). The utilization plan also stated that 100,000 units would be redeveloped or reduced by 2018 and 30% would be demolished by 2048. With estate redevelopment, URA would conduct large-scale redevelopment projects including the reconstruction of buildings and the implementation of mixed land use developments in collaboration with private developers, whereas it would only renovate estates classified for stock utilization. The estates classified for conversion would be redeveloped and used for different purposes and those classified for ownership transfer would no longer be used as public housing.

In addition, URA emphasizes the participation of residents in its stock utilization projects, so it holds regular meetings with residents to listen to their ideas and to address their needs in the redevelopment projects. URA also reviews the plan according to the information gained in the meetings. During the redevelopment process, URA secures residents a stable home and community by helping them find new houses or offering special contracts to prevent a sharp rise in rent. During and after the redevelopment, URA holds regular meetings with residents to help them adapt to their new environment.

Table 3. Classification of housing units in the 2007 utilization plan

<table>
<thead>
<tr>
<th>Type</th>
<th>Number of units</th>
<th>To be completed by 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Estate redevelopment</td>
<td>160,000</td>
<td></td>
</tr>
<tr>
<td>Total redevelopment</td>
<td>40,000</td>
<td>80,000</td>
</tr>
<tr>
<td>Partial redevelopment and renovation</td>
<td>40,000</td>
<td>20,000</td>
</tr>
</tbody>
</table>
### 3. Demographic change and public housing stock utilization for the aging society

While the national government was undertaking public organization reform, the aging of the population became a national concern because in 2005, for the first time, more than 20% of Japanese people were over age 65 and the total population started to decrease. Japan is the most rapidly aging country in the world. The aging population has brought numerous issues including changes in health care, the work force, pensions, social welfare and housing. Traditionally in Japan, children took care of their elderly parents at home, but with the increase in the number of nuclear families and the long life expectancy, more elderly people are spending the very last period of their lives in hospitals or nursing homes. Thus, the provision of appropriate facilities and services for elderly became an urgent task. To tackle this, both social welfare policy and housing policy have taken responsibility. The utilization of public housing was one of approaches to tackle the challenge of housing for the aging society.

#### 3.1 The aging population and housing

According to the National Institute of Population and Social Security Research (NIPSSR), 25.1% of the population was over 65 years old in 2013, which was already the highest in the world, but this is estimated to increase to 33.4% in 2035 and to 39.9% in 2060. The rapid aging of the population raises numerous challenges for the country including providing adequate housing and care for seniors; however, Japan is far behind in meeting the increasing demands.

There are many problems with respect to housing for elderly people. International Longevity Center Japan (ILC-Japan) (2013) reported that 90% of elderly people live in their own house and they tend to stay in the same house for a long time. In fact, about 60% live in the same place for more than 30 years. ILC-Japan also pointed out that more than half of elderly people face the problem of their house becoming old and damaged and 35% regard their housing structure as unsuitable as facilities such as the kitchen, toilet and bathroom become difficult for them to use. However, renovations are not common in Japan. As ILC-Japan illustrated, only 16% of households with older people undertake renovations to make their house elderly-friendly. Instead, most seniors live with some form of inconvenience inside their home. Moreover, seniors are likely to adapt themselves to uncomfortable living environments rather than move into a better environment.

---

<table>
<thead>
<tr>
<th>Downsize and demolition</th>
<th>80 000</th>
<th>20 000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stock utilization</td>
<td>570 000</td>
<td>---</td>
</tr>
<tr>
<td>Conversion</td>
<td>10 000</td>
<td>10 000</td>
</tr>
<tr>
<td>Ownership transfer</td>
<td>30 000</td>
<td>20 000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>770 000</td>
<td>100 000*</td>
</tr>
</tbody>
</table>

* All figures are rounded to the nearest ten thousand and therefore the total numbers do not match the sum of the units.

Source URA (2007, revise in 2008)
In Japan, many housing estates for the aged are located in the suburbs. Similar to the suburbs in other countries, residents can drive to grocery stores and other facilities while they were young. Yet as soon as they became too old to drive, many people have problems buying food and accessing hospitals. In addition, the number of vacant housing units is increasing in the suburbs, but not many young people are moving in, resulting in community decline and less support among residents. Therefore, providing secure housing and a suitable environment for elderly people is one of the main challenges raised by the aging of society.

In addition to housing, day care, nursing homes, and other such facilities are required for the aging population. The Ministry of Health, Labour and Welfare (MHLW) (2014) reported that the number of people on the waiting list for special nursing homes amounted to over 523,584 in 2014, which had increased from 421,000 in 2009. Special nursing homes cost far less than private nursing homes, so there are usually more applicants than spaces. Among those on the waiting list, 259,830 were living at home, including 67,000 who had level 4 or 5 certification for long-term care needs, meaning that they need support for their daily lives. The rest of the 263,754 applicants were living temporarily in hospitals or health care facilities for elderly people.

The shortage of nursing facilities is becoming more severe as the aging of society progresses. According to NIPSSR, the number of people over age 75 will increase dramatically in the next decade, meaning the number of those who need nursing care will also increase. NIPSSR also reported that the increase in the number of people over age 75 is more significant in larger cities. Hence, the shortage of day care centers and nursing homes is especially acute in larger cities.

For example, in Tokyo, the number of people over age 75 will increase from 1.23 million in 2010 to 1.97 million in 2025. Nevertheless, there are approximately 450 nursing homes in which only 40,000 people can be accommodated, but according to MHLW (2014), there were already 43,384 seniors on waiting lists in 2014. To meet the increasing demand for nursing homes, municipal governments are making various efforts such as providing financial support, relaxing facility standards and leasing public land lots to elderly care service providers. However, because of high land prices and limited available land, it is not easy to overcome the shortage.

At the national level, MHLW and the Ministry of Land, Infrastructure, Transport and Tourism (MLIT) established a co-project named the “Secure and Safe Living Space Project” (the “Anshin Anzen Jukukan Soshutsu project”) in 2008. In this project, MHLW subsidizes developments for the nursing care and rehabilitation of seniors in public housing and child care facilities, whereas MLIT subsidizes the creation of barrier-free spaces and the provision of senior housing units in public housing estates. The subsidies apply to the renovation and redevelopment of public housing. URA was appointed the promoter of this project.

3.2. URA “Aging in Danchi” projects

As the promoter of the “Secure and Safe Living Space Project”, URA commits to efforts to create senior-friendly housing through various public housing renovation
and redevelopment projects. In such projects, URA is aiming for four improvements: renovating the interior and exterior of housing units to be barrier free for the elderly, provision of services and support for senior residents, creation of bases for seniors, and resident participation in renovation and redevelopment projects. URA named these projects for the elderly “Aging in Danchi”. Many URA public housing estates are located in municipalities where aging is rapidly progressing, so the “Aging in Danchi” projects are significant for both public housing estates and the surrounding areas.

To create a barrier-free environment, URA is renovating public housing by replacing barriers such as steps and installing handles and slopes both inside and outside housing units. It is also installing elevators and emergency buzzers inside the buildings and providing regular watch and living support services for elderly residents by collaborating with the attendant service providers at the care bases.

URA is creating care bases including day care, nursing homes, attendant service stations and community centers and facilities for elderly residents inside and outside its housing estates. Before building the bases, URA invites the public housing residents to participate in the planning process. Some plans are made according to the information obtained in the meetings with the residents. Moreover, URA provides a database of public housing estates that have care services and facilities for elderly people, so that elderly people can choose adequate final homes. As seen in Table 4, there are 129 URA housing estates that have services and facilities for the elderly.
67% have day care and 39% have an attendant service station. Both of these facilities provide support and care for seniors living in their own houses.

Table 4. URA public housing with services and facilities for the elderly

<table>
<thead>
<tr>
<th>Number of estates</th>
<th>Attendant service station</th>
<th>Day care</th>
<th>Short-term stay</th>
<th>Multi-functional care center</th>
<th>Community general support center</th>
<th>Group home</th>
<th>Special nursing home</th>
<th>Geriatric health services facility</th>
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<tbody>
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<td>25</td>
<td>5</td>
<td>17</td>
<td>1</td>
<td>2</td>
<td>5</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
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<td>15</td>
<td>5</td>
<td>14</td>
<td>3</td>
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<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Kanagawa</td>
<td>10</td>
<td>6</td>
<td>5</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Saitama</td>
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<td>10</td>
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<td>1</td>
<td>1</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Chiba</td>
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<td>4</td>
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<td>1</td>
<td>2</td>
<td>1</td>
<td></td>
<td>1</td>
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<tr>
<td>Ibaraki</td>
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<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Aichi</td>
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<td>3</td>
<td>8</td>
<td>1</td>
<td>1</td>
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<td></td>
<td>1</td>
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<tr>
<td>Osaka-Nara</td>
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<td></td>
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<tr>
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<td>1</td>
<td>1</td>
<td>4</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Fukuoka</td>
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<td>7</td>
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<tr>
<td>Total</td>
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<td>8%</td>
<td>2%</td>
<td>2%</td>
<td>6%</td>
<td>3%</td>
</tr>
</tbody>
</table>

Based on the URA website

According to a press release on January 9, 2014, URA is going to further enhance the “aging in place” project. It will create bases for seniors in 100 out of the 200 large public housing estates with more than 1,000 housing units across the country by 2020. It also plans to improve the barrier-free environment, create livable work places for seniors, provide lower rent housing units and provide living support for elderly people. In addition, URA is supporting seniors who need to move to nursing homes or housing with care due to their health.

There are three advantages of URA public housing stock utilization creating bases for the elderly. Firstly, the concentration of elderly residents in URA estates is relatively high. In some URA estates, around 30% of residents are elderly and some even have over 40%. Therefore, it is efficient and effective to build care base in these estates. Secondly, it is possible to prepare URA public housing land for care facilities relatively inexpensively or even sometimes for free. This is especially effective because many URA estates are located in large cities where the aging population is increasing and the shortage of facilities is becoming more significant. Finally, URA public housing offers many benefits to residents, including green landscapes and close-knit communities. Besides, many URA estates are capable of accommodating a
higher density of buildings. It is possible to host both existing and new residents and for all residents to enjoy living in a good environment.

4. Conclusion

JHC and its successor organizations have made significant contributions in the provision of public housing for middle-income households between the 1950s and the 1980s. They did not only provide affordable housing, but also introduced a new housing concept and a new approach to housing issues in each phase of their housing policy. Tackling the housing problems and introducing new ideas were traditionally important roles of public housing corporations. Recently, URA is playing an important role in meeting the demands for housing and facilities for seniors. The targets and the scale of development are different between JHC and URA, but the roles of both organizations are equally important in the realization of Japan’s housing policy goals.

References


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To Preserve or Not Preserve? A Look at the Factors that Sway Historic Preservation Decisions

Karolina Gorska

Abstract
Efforts to preserve historic buildings often result in conflict. The relative power of different interests and stakeholders—preservationists, developers, residents, planners, and public officials—plays a major role in defining what part of the historic urban fabric gets to be preserved or demolished. Urban politics and local sentiment towards development and growth may also influence decisions for or against preservation. We examine two battles involving the preservation of two historic hotels in Los Angeles to understand the factors that led to the preservation of one and demolition of the other. We find that in addition to politics three other factors influenced the final outcomes: 1) the way that pro- or anti-preservation narratives were framed; 2) the relative power of opposing stakeholders and 3) the involvement of a city preservation agency. We then draw from interviews with preservation officials in nine cities to understand how cities may find a more rational way than politics for deciding on preservation matters.

Key Words: Historic preservation, politics, Los Angeles, Ambassador Hotel, Century Plaza Hotel

In the last two decades, with trends in many cities shifting towards redevelopment of central-city districts and older suburbs, as opposed to new subdivisions and exurban development (U.S. EPA, 2010), preservation and adaptive reuse have emerged as popular strategies (Donfrio, 2012; Allen, 2011; Rypkema, 2008; Listokin et al., 1998). Some have identified the use of historic preservation as part of the postmodern (Harvey, 1989) or symbolic (Zukin, 1995) economy of cities, where cultural strategies drive the production of commercialized spaces geared solely toward entertainment and tourism (Reichl, 1997; Boyer, 1992). Others, however, have acknowledged historic preservation’s potential to present diverse histories and evoke a sense of place or identity (Hurley, 2010; Kaufmann, 2009; Hayden, 1997).

Of course, private developers or municipalities are often mostly concerned about preservation’s effectiveness as an economic development strategy (Allen, 2011; Isenberg, 2004; Listokin et al., 1998). In order to attract investment and tourists, cities market historic neighborhoods and buildings, such as the French Quarter in New Orleans or Boston’s Faneuil Hall (Greenfield 2004; Reichl, 1997). In small U.S. towns, the Main Street Program has proved an effective model for economic development, the creation of jobs, and public-private initiatives (Listokin et al., 1998; Wojno, 1991). Preservation has been described by some as an “enabler of, even the catalyst for, developer profit” (Isenberg, 2004: 259). But if there are good reasons for cities or the private sector to support preservation on cultural, symbolic, or economic grounds, why do efforts to
preserve historic buildings often result in conflict? What influences municipal decisions to preserve or demolish?

Historic preservation is a “loaded” term. What should be preserved, whose history should be privileged, in what ways, and why has been debated by scholars and planning professionals. The relative power of different interests and stakeholders—preservationists, developers, residents, planners, and public officials—plays a major role in defining what part of the historic urban structure gets to be preserved or demolished. Urban politics and local sentiment towards how development and growth should proceed may also influence such decisions. The question then becomes, can cities reach decisions about historic preservation, when historic significance is defined and weighed differently by various stakeholders, without being gerrymandered by politics?

This study begins by looking comparatively at two case studies of historic hotels in Los Angeles—the Ambassador and Century Plaza—both of which involved preservation battles. By providing a “thick description” of the conflicts and their outcomes, we cast light at the nuances and politics surrounding the decisions to embrace or reject historic preservation. What choices led to the demolition of the Ambassador—a hotel that reflected the glamour of 1920s Los Angeles, exemplified the city’s early entertainment history, and was the site of the assassination of Robert Kennedy? And why, less than five years later, the Century Plaza—a hotel with a much shorter but still significant history—was spared from demolition? To better understand these different outcomes, we have to explore how the narrative for an historic preservation approach was molded to suit the specific interests of the stakeholders involved. While both cases generated considerable attention and conflict, they also exemplified the variety of arguments for and against preservation.

The case studies are followed by an inquiry of how cities can moderate the influence of politics in their decision to preserve or condemn historic properties. This discussion is informed by the insights of historic preservation directors from nine different U.S. cities—Atlanta, Chicago, Los Angeles, New York, Portland, Santa Fe, San Francisco, Seattle and Washington D.C. These cities represent diverse geographic regions, and were chosen because they have a long history of preservation (e.g. Santa Fe, New York, Washington D.C., Chicago) or strong and proactive planning departments (e.g. Seattle, Portland, San Francisco). In the section that follows, we first give a brief background of the context for preservation in Los Angeles.

**Historic Preservation in Los Angeles**

For most of the 20th century, Los Angeles has been identified as an aggressively pro-growth city. Seeking to create a corporate downtown, attract regional and national headquarters and compete with San Francisco, the city demolished the entire historic Bunker Hill neighborhood in the 1960s and replaced it with office towers, hotels, and commercial/retail mega-complexes (Loukaitou-Sideris and Sansbury 1995/96). Smaller high-rise office buildings also sprung up in the region’s secondary centers.

However, the public sentiment towards growth started changing in the 1990s as a result of a weakening office market and worsening traffic congestion in the region. At the same time, a durable opposition to growth emerged, promoted by diverse interests, from homeowner associations to environmentalists (Purcell, 1997). As argued by
geographer Purcell, the attitude that “growth is a self-evident good” significantly diminished by the 1990s (2000: 87).

Anti-growth sentiments were compatible with the cause of historic preservation. Indeed, according to California historian Kevin Starr, by the 1990s the historic preservation (movement or ethic?) had attained great force in Los Angeles, not only because much of the urban fabric had already been lost, but also because a new generation of residents had “discovered the complexity and value of California as a cultural legacy and continuing force” (Starr, 2004: 459).

The major advocate for preservation in the city and Los Angeles (LA) County has been the Los Angeles Conservancy, a nonprofit organization established in 1978 with the mission to “work through education and advocacy to recognize, preserve, and revitalize the historic architectural and cultural resources of Los Angeles County” (LA Conservancy website). With the support of the Conservancy, the city passed the Historic Preservation Overlay Zone (HPOZ) Ordinance in 1981, which enabled the creation of historic districts. In 1999, an Adaptive Reuse Ordinance (ARO) encouraged the conversion of many historic buildings in downtown into apartments, condos, and live/work spaces (Bernstein, 2012). Today the city has 29 HPOZs, and the success of the ARO program led to its expansion in 2003. Additionally, in 2006 the city established the Office of Historic Resources (OHR) with the mission “to create a comprehensive, state-of-the-art, and balanced historic preservation program for the City of Los Angeles” (Los Angeles Office of Historic Resources website).

While these changing sentiments towards historic preservation do not mean that pro-preservation interests will always prevail, they have become a significant consideration in development discussions. This becomes clear from the different outcome of two battles for the fate of two historic hotels in Los Angeles.

Two preservation battles in Los Angeles
For almost a decade (mid-1990s to 2005), the Los Angeles Unified School District (LAUSD) engaged in a protracted struggle with the Los Angeles Conservancy over the preservation or demolition of the Ambassador hotel. The battle was ultimately won by the LAUSD, who proceeded to demolish the hotel and build a large school on its site. Preservationists, however, emerged victorious from a later battle in 2008 against a private developer/owner wanting to demolish the Century Plaza hotel to make room for a new commercial and residential complex. Even though different in architectural style and age, the two buildings can be considered comparable with regards to their social and architectural significance (see also Table 1). What then led to the different outcomes?

Through a process-tracing method (George and Bennett, 2005) this study explores the roles, interaction, and influence of various stakeholders in order to understand the causes and effects of the outcomes. The goal is to get a better sense of factors that affect decisions about preservation or demolition. Research for these case studies drew upon:

- Semi-structured interviews with members of the LA Conservancy, Office of Historic Preservation (OHR), LAUSD consultants, the Latino Urban Forum and consultants for the developers. The interviews lasted 30-60 minutes and acquired information about the roles of the various stakeholders and about the interviewees’ perceptions about the conflict, development process, and final outcomes (See Appendix A for question guides).
• A review of newspaper articles about the history of the projects, their proposed redevelopment, and ensuing conflict.
• A review of other public documents such as litigation documents, LAUSD and LA Conservancy internal memos, and environmental impact reports for the two projects.

The Ambassador Hotel Case Study

Opened in 1921, the Ambassador hotel was designed by Myron Hunt, whose projects included many Southern California landmarks, such as the Rose Bowl and Huntington Art Gallery. Kevin Starr characterized the Ambassador as Hunt’s “triumph of hotel design” (1990: 198). The “Hotel Wonder” was not only admired for its luxury but also for its catalytic role in encouraging development along Wilshire Boulevard and promoting the image of Los Angeles as a major metropolis of the West Coast (Burk, 1980; Los Angeles Times, 1921) (Figure 1).

Up to the mid-century, the Ambassador and its Cocoanut Grove nightclub upheld a glamorous image as the city’s premier nightspot and destination for celebrities. But after the evening of June 5, 1968, the hotel became known around the globe as the place of assassination of Robert Kennedy. This tragic event triggered the beginning of the hotel’s demise that was accelerated by the decline of the surrounding neighborhood in the 1980s, disinvestment, and white flight (McMillan, 1986; Furlong, 1986). The Ambassador stopped operating as a hotel in 1989, but remained open for filming and private events, and went through a succession of owners (Table 2).

In the late 1980s, the Ambassador site was seen as a critical component in a planned revitalization of the mid-Wilshire business district. The site was one of a few available for large-scale development (Furlong, 1990). But although the hotel was not designated as a historic landmark, an agreement between its owners, the city and the Los Angeles Conservancy stipulated that buyers could not demolish it unless the city approved the project that would replace it (New York Times, 1989).

During the same time the LAUSD was searching for an appropriate large site for a new school. The Ambassador location was appealing since it was in one of the densest and most underserved areas of the school district (Rosenfeld Interview). Thus, in July 1990, they deposited nearly $48 million in an escrow account and filed an eminent domain lawsuit to condemn part of the property (Los Angeles Unified School Dist. v. Trump Wilshire Associates). The case became a hot political issue with several prominent
politicians criticizing Trump’s plan and the mayor’s support of it (Boyarsky, 1990). Additionally, the School Board president organized neighborhood opposition to Trump’s plan. As the controversy became more heated, Mayor Bradley distanced himself from the situation.

In 1994, the LAUSD withdrew its bid and decided to build a school at a different site. The litigation was ultimately settled, and Trump Wilshire Associates was required to pay back the escrow account funds with interest. This decision resulted in Trump’s withdrawal in 1998. The remaining developers under the name Wilshire Center Marketplace attempted to save their project, but after a failed attempt at structured mediation between the LAUSD (which still had not received its original deposit) and Wilshire Center Marketplace, the LAUSD issued a notice of foreclosure. In response, Wilshire Center Marketplace sought bankruptcy protection and was forced to sell the property through a bankruptcy sale to the LAUSD (The Planning Report, 2003; Van Ginkel Interview).

The LAUSD gained full ownership of the property in 2001, at which point they had already invested approximately $120 million and wanted to build quickly and within budget (Cobb Interview). They announced their intent to build three schools on the site and began to plan a campus on a clean slate (Rosenfeld Interview; Cobb Interview). According to then LAUSD consultant, David Cobb, there was a willingness to consider all options—preservation, demolition, and everything in between (Cobb Interview), and they employed Urban Partners, LLC to manage the project. Some of the firm’s past projects, such as the Bradbury Building and Bullocks-Wilshire renovation, had been recognized for their creative adaptive reuse of historic structures. Urban Partners principal, Dan Rosenfeld, stated that they were retained “explicitly to try to save the Ambassador Hotel” (Rosenfeld, 2004: 2).

But according to the Los Angeles Conservancy, the LAUSD planned the hotel’s demolition from the onset. In the view of then Conservancy Director, Ken Bernstein, “LAUSD staff from the beginning…. had a strong preference for new construction over preservation, and there was always skepticism if adaptive reuse could work educationally” (Bernstein Interview, 2011). Cindy Olnick, the current director of communications for the Conservancy agreed: “They made their minds up early on that the hotel was coming down, and nothing was going to change their minds” (Olnick Interview).

However, a review of the work done by Urban Partners reveals that several possibilities were proposed. According to the LAUSD, hotel preservation was to be considered only if the resulting facilities could operate as a first-class modern school, and the project cost would be compatible with those of other new facilities. Their strategy was to define development options, which included: 1) maximum feasible reuse of the hotel; 2) partial reuse; or 3) new construction (LAUSD, 2002).

Eventually five alternatives were proposed and compared in a Draft Environmental Impact Report (DEIR), commissioned by the LAUSD (Table 4), reflecting a “strong indication to fully explore as many possibilities as feasible, while continuing to move forward with the obligation to provide these desperately needed seats as quickly as possible” (LAUSD, 2003).
The DEIR found that the new construction option (Alternative 4) would provide a school in the shortest amount of time and within a budget of $286K. The five alternatives were also compared on the basis of meeting additional criteria (square footage of different school areas complying with California Department of Education standards; sustainability requirements in terms of long-term life cycle costs and energy efficiency; and LAUSD policy on Collaborative for High Performance Schools (CHPS)—a certification based on the LEED 2.0 rating system). According to Edwin van Ginkel, former senior development manager for LAUSD, the School Board was also concerned that the hotel had not been seismically reinforced, and they would become personally liable if a student got hurt during an earthquake (van Ginkel Interview). In the end, only the new construction option was found to meet all criteria and considered the best in terms of cost, energy savings, and space requirements.

In response to the DEIR, the Conservancy submitted a public comment through its legal team, arguing that its cost estimates were inaccurate and unsupported (Gibson and Dunn Law Firm, 2003). Their own analysis estimated a cost between $293–349K for adaptive reuse (Alternative 1), much lower than the $381,900 claimed by the DEIR. They charged that there was a heavy bias against preservation, and a failure to provide “sufficient” preservation alternatives (Gibson and Dunn Law Firm, 2003).

As the battle continued, the LAUSD found a strong ally in the Kennedy family that played a significant factor in swaying the final decision toward demolition. As then LAUSD consultant David Cobb elaborated:

The Kennedy family because of what had happened there… wanted the hotel destroyed. They came into it a bit later, but once they engaged…they could bring the media spotlight like that, which they did. (Cobb Interview).

The Kennedys along with the LAUSD highlighted the social equity issues of providing a new school for children in a predominantly Latino community. They labeled Conservancy’s efforts as “misguided” and on the “wrong side of equity, fairness, education, and history” (LAUSD Task Force Memo, August 30, 2004). This created a situation in which the Conservancy was seen as being against providing underprivileged children a school (Figure 2). In reality, the difference in opinion between the LAUSD and the Conservancy was not if a school should be provided but rather how to provide a school and if preservation should be part of the equation. But as argued by Rosenfeld:

Once we had hundreds of cute little kids with backpacks, pleading with us to give them a good school, the possibility for preservation became less popular. “It was presented as, ‘neighborhood kids versus a lead preservationist.’ Then it’s very hard to keep the emotion out of it (Rosenfeld Interview).

[Figure 2 about here]

In September 2004, LAUSD Superintendent Roy Romer announced the chosen proposal that was a variant of Alternative 2 with an estimated cost of $318.2 million (Figure 3) (LAUSD News Release, October 12, 2004). According to the LAUSD, this proposal balanced “the need for school seats, yet still respects the history of the site”
As can be seen in Figure 3, the elements proposed for reuse were a very small part of the original hotel, but according to the LAUSD these were “the elements most Angelenos experienced at the Ambassador Hotel: the Cocoanut Grove, the Embassy Ballroom, and iconic views from Wilshire Boulevard” (LAUSD News Release, September 14, 2004).

In response, the Conservancy filed a lawsuit in November 2003, joined by seven other plaintiffs – the Latino Urban Forum; Mexican American Political Association, Los Angeles Chapter; California Preservation Foundation; Art Deco Society of Los Angeles; Hollywood Heritage; Historic Preservation Overlay Zone (HPOZ) Alliance; and Korean Culture Center. Their goal was to use this litigation as “opportunity to craft a new and creative compromise alternative for the Ambassador site” (Wiley, n.d.). The Latino Urban Forum (a nonprofit dedicated to increasing awareness of planning and design issues facing low-income Latinos) and the Mexican American Political Association (a non-partisan grassroots organization promoting the interests of Mexican-Americans and Latinos in the US) stated:

If the LAUSD school board votes to destroy the Ambassador Hotel, it would establish a precedent that L.A. does not value its shared history, revere its local landmarks or grasp its future,” (Annette Ramirez, Latino Urban Forum quoted in Sodders, Daily News, Apr 3, 2004).

We don't want to delay new classrooms. We don't want to see money wasted. We want to show that a compromise can work,” (Susannah Arellano, president of the Mexican American Political Association, Los Angeles Region, quoted in (Groups fight to save Ambassador Hotel. November 24, 2004)

In turn, the Conservancy issued its A+ Coalition Plan that was supported by the Latino Urban Forum and about 80 other local coalitions (Rojas interview). The plan would save a portion of the Ambassador (the main six-story structure and its historic public spaces) and also build a new school (Bernstein, 2004). They retained Stan Eckstut, a nationally renowned architect of urban schools, to design the proposal. The Eckstut plan (Figure 4) proposed all-new school facilities on the Ambassador site, surrounding the retained and rehabilitated hotel. It suggested the sale of the main hotel building to the Hollywood Community Housing Corporation, an affordable housing developer, for the development of 165 housing units. The plan, titled “Small Learning Communities,” provided the same number of seats (4,240 students) as the LAUSD alternative, but in a more “child-friendly,” smaller-scale design. According to the Conservancy, this proposal would meet open space requirements and save over $20 million. Additionally, the plan proposed “green” rooftops, as a way of addressing elements of the CHPS “sustainable design” standards. Under the Eckstut plan, the LAUSD would not have to pay for historic preservation, which was significant since one of the arguments against preserving the hotel was that it would be “unconscionable to divert the public funds intended to increase classroom space for questionable preservation efforts” (LAUSD Task Force Memo, August 30, 2004).
But the LAUSD refused to change its plan. In August 2005, a Superior Court judge ruled that they had complied with state laws. The Conservancy acknowledged the battle was lost and stated:

While we continue to believe that LAUSD’s approval fell short of the requirements in state law, yet we also recognize that the courts tend to defer to government agencies, particularly when those agencies have prepared a full and lengthy Environmental Impact Report on a project (Wiley, n.d.).

Demolition of the hotel was completed in 2006. Today, a new building housing six schools—the Robert F. Kennedy Community Schools-- stands in the place of the Ambassador hotel.

The Century Plaza Hotel Case Study

During the 1960s, while the Ambassador and its surrounding neighborhood were in decline, a few miles to the west Century City was under construction. At the center of this modernist master-planned community stood the Century Plaza hotel, designed by architect Minoru Yamasaki and built in 1966 (Figure 5). The hotel would soon replace the Ambassador as a destination for celebrities and politicians and the setting for significant events. President Reagan was a hotel guest so often, that Century Plaza earned the nickname “the Western White House.”

Century Plaza was part of Welton Becket’s original master plan for a modernist city. The arc-shaped hotel, located in the center of a 180-acre commercial/office complex, was meant to serve as Century City’s keystone (Owen, 2010). The hotel is one of a few buildings that remain from the original master plan and is viewed as a pure representation of 1960s Los Angeles planning and modernist architecture.

In 2008, Michael Rosenfeld, a real estate investor from Next Century Associates, purchased the hotel and initially declared it "the jewel of his hometown." But a few months later, he called for its demolition to make room for two 50-story towers (Rutten, 2009). The proposed new development by Pei, Cobb, Freed and Partners envisioned two towers soaring over extensive open green spaces (Figure 6). Barbara Casey, a spokesperson for Next Century Associates, stated that the greening plan implemented by Century City officials in 2007 was behind the inspiration for the new two-billion-dollar development (McNamara, 2009), which also included pedestrian-friendly walkways, green roofs, and environmentally sensitive building materials. The proposal won praise by Mayor Antonio Villaraigosa, who said it would create new jobs and "transform an aging hotel site into an iconic destination and a state-of-the-art, mixed-use development in the heart of our Westside" (Groves and Vincent, 2008: C1).
But local residents were critical of the proposal, citing concerns about overdevelopment, increased traffic jams, and limited water and energy services in the area (Groves and Vincent, 2008). As a means of stifling new development, the desire to support preservation emerged, and the Los Angeles Conservancy quickly brought residents together and created strategic allegiances with local councilmen. As indicated by Ken Bernstein:

Councilman Jack Weiss was pretty supportive of [Michael Rosenfeld’s] plans, but [Rosenfeld] announced the project in the middle of a campaign, and the community was not happy. Whether they cared about preservation… they weren’t happy about seeing new high-rises in Century City and the traffic impacts they would create. So all candidates were falling all over themselves to outperform each other and express concern over this issue. And the Conservancy did interviews with council members in order to get them on the record, before they were elected, on preservation issues in their district. Councilmember candidate Koretz went on the record that he would oppose the demolition of the Century Plaza. So when he took office, he announced his opposition to the project and his support to initiate the historic cultural monument application … (Bernstein Interview, 2011).

Initially, Michael Rosenfeld sought to use the hotel’s relative young age as an argument against its preservation stating that "the naming of the hotel as a historic place is not supported by its age… It does not qualify for consideration under stringent criteria for historic designation of a building of this recent age. … We're building a landmark for the future" (Rosenfeld quoted in Groves, 2009: A6). But the Conservancy underlined that designation at the local, state, and national levels does not necessarily require historic resources to be fifty years old in order to gain landmark status (LA Conservancy, Sixties Turn 50 website, 2012). Additionally, they started the campaign “The Sixties Turn 50” to bring attention to the need to preserve modern architecture.

In addition to garnering local political support, the Conservancy was also able to involve the National Trust for Historic Preservation, which added the Century Plaza to its 2009 List of America’s 11 Most Endangered Historic Places. This move brought national media attention and support from preservation groups favoring the preservation of modern architecture (DoCoMomo 2011). As Christine Madrid French, the director of the Modernism + Recent Past Initiative stated, “By naming this structure to the list, the Trust is demonstrating that the preservation of recent past and modern buildings is as important to our cultural record as preserving architecture that’s from the Victorian period or Art Deco era" (Groves, 2009: A6).

Shortly after Councilman Koretz began his term, he supported the designation of the hotel as a historic cultural monument, which would significantly slow or stop demolition plans. At this point it was apparent to the developer that the political support had shifted towards preservation. In response to this shift and the upcoming designation of the property, Michael Rosenfeld incorporated preservation into new design proposals that appeared in a draft EIR in July 2011. Although some elements of the hotel
were compromised, 90 percent of the character-defining features of the building’s site and architecture were to be retained (Figure 7). Emerging victorious from this battle, the Conservancy released a response commending Next Century Associates for their “willingness to work with the preservation community and for their vision in embracing a project that includes preservation” (Dishman, 2011). The Cultural Heritage Commission reviewed the proposed plans and determined that Century Plaza would retain its eligibility for Historic-Cultural Monument designation after the completion of the project.

[Figure 7 about here]

Discussion

What accounts for the contrasting outcomes in the battles over the fate of the two hotels? Was preservation predicated upon their architecture, economic value, or significance for the community? Or were the outcomes a result of the zeitgeist of the time as suggested by the Latino Urban Forum Director, James Rojas (Rojas Interview)? In the absence of a clear consensus about historic significance it appears that three factors mattered: 1) the way that pro- or anti-preservation narratives were framed; 2) the political maneuvering and relative power of the opposing stakeholders; and 3) the level of involvement of a city preservation agency.

Framing Narratives. A significant body of work in political science has examined how public opinion can be manipulated by the way issues are framed (Chong and Druckman 2007). Parties may mobilize voters by encouraging them to think along particular “frames” (Jacoby, 2000). Similarly, specific policies (in this case historic preservation) may be preferred or condemned if only certain aspects or impacts are highlighted. James Rojas suggests that the late timing of the A+ coalition compromise plan and lack of a strong narrative in the case of the Ambassador, as opposed to the Century Plaza, was a significant factor in the outcome: “It was a hotel in a low-income neighborhood that no one respected or understood…For the Ambassador, there was no one to tell [its] story. The narrative wasn’t there and the constituency wasn’t there” (Rojas Interview).

The LAUSD successfully framed its anti-preservation argument as the need to provide a school for one of the city’s most disadvantaged neighborhoods. According to this narrative, the opportunity for a modern, state-of-the-art school with adequate facilities was threatened by preservation. The preservation of the Ambassador and the Conservancy’s desire to retain original windows and walls was portrayed as superfluous, time-consuming, costly, and robbing children from access to a good educational environment. It did not matter that the Conservancy also proposed a school at the site, which would have allegedly “saved the LAUSD $20 million in construction costs” (Wiley, n.d.). The debate had been already framed as one of saving bricks-and-mortar versus the welfare of underprivileged children. LAUSD’s frame proved to be much more potent than the Conservancy’s counter-frame of saving a historic monument and the site of a major event in the nation’s political history.
While historic preservation was seen as a challenge, perhaps even a culprit, in the Ambassador case, it was perceived as the savior in the battle over Century Plaza. This time, preservation was astutely portrayed as offering both environmental and cultural advantages to the neighborhood and larger community but also saving Century City from densification and congestion. On the other hand, the developer tried to frame his arguments for demolition in the context of sustainability, claiming that a new “green” construction would be a way of complying with the “Greening of Century City” community plan. This frame, however, was not enough to appease residents, especially since preservationists were able to turn it around claiming that the hotel’s preservation was a more sustainable solution. As argued by National Trust for Historic Preservation President, Richard Moe: “It is an 800,000-square-foot hotel. Its embodied energy is estimated to be the equivalent of 7 million gallons of gasoline… If you tear the building down, you lose all that energy” (in Groves, 2009: A6).

**Stakeholder Power:** The relative power of the two opposing sides also played a role in the final outcome. In the Ambassador case, the confrontation was between a very powerful public agency and a small local nonprofit. Reflecting on the process, Conservancy Director, Cindy Olnick, stated: “The LAUSD were the judge, jury, and executioner. They were the project proponents, but also the project decision makers. So, they could do whatever they wanted and didn't have to answer to anybody” (Olnick Interview). Additionally, the LAUSD was able to enlist the support of one of the nation’s most powerful and beloved families. Since the Ambassador was so tragically tied to the Kennedys, they had a legitimate claim over its destiny, in the eyes of public opinion.

In the Century Plaza case, the relative power between the Conservancy and the private developer tilted in favor of the former when the Conservancy was able to garner support from the local councilman and the national lobby for historic preservation. The Conservancy also appeared on the side of many Century City residents who were unhappy about the proposed redevelopment. Unlike the case of the Ambassador, Century City had “residents with a stronger history of organizing; the Century Plaza was part of the residents’ lives...” (Rojas Interview). The convergence of local and national stakeholders was able to boost the argument in favor of preservation and eventually force the developer to shift plans away from demolition.

**Presence of City Preservation Agency:** During the time that the Ambassador battle was going on, the city did not have a Historic Preservation agency. Instead, the staff architect in the Cultural Affairs department reviewed projects dealing with preservation, which “made that function really quite divorced from the day-to-day project review taking place in the Planning Department on land use determinations” (Bernstein Interview, 2013). A Los Angeles Office of Historic Resources was established in 2006, and its head, Ken Bernstein, believes that having in-house preservation expertise in a planning department is a vital component of a comprehensive and rational review process.

But can a city preservation agency or preservation commission moderate the influence of political factors and reach rational decisions in preservation matters? We turned to present or past directors of historic preservation departments in nine U.S cities to help us address this question.

**Role of City Preservation Agencies**
According to the directors interviewed, three factors seem to play a role in counteracting politics and strengthening a city’s hand in the outcome of preservation battles: the relationship between preservation and planning; the relative strength of preservation commissions in relation to the city council; and the strength of a city’s preservation ordinance (See Appendix B for questions asked).560

**Relationship with Planning:** Cities have different administrative structures in the way they house preservation offices. Most of the preservation departments interviewed are embedded within their city’s planning department. New York and Portland, however, have independent Landmarks Commissions, while Seattle’s preservation office is embedded in the city’s Department of Neighborhoods. Regardless if preservation is part of the planning department, all interviewees stressed the critical importance of a close collaborative relationship between the offices of planning and preservation. This way, decisions about preservation become embedded in “long-range plans, community plans, and other city policies that may have a preservation component or preservation goal, and allow preservationists to play a role in the project review process, in environmental impact reports and CEQA processes, as well as in other planning approvals” (Bernstein Interview, 2013).

In Chicago, before preservation moved into the planning department “it was not involved in economic development discussions, economic incentives, zoning, or general neighborhood issues; […] It was a critical move. We were able to pass a lot of new economic incentives [for preservation], a building permit fee waiver and a new property tax classification for landmarks that were being rehabbed” (Peters Interview).

**Strength of the Preservation Commission vs. City Council:** Historic preservation commissions that typically oversee the designation and protection of local landmarks are appointed by the city council or the mayor. In seven of the cities interviewed, preservation commission decisions on designations are referred to the city council for approval, which could lead to political influences and a potential overturning of initial decisions. Washington D.C. is different in that its Historic Review Board makes final decisions. According to Steve Callcott, the Deputy Preservation Officer of the D.C. Office of Planning:

D.C. is somewhat unusual in how little political interference we have in our program… We are one of the few jurisdictions that there is not a review of that designation by any other body besides the historic review board. There is no other oversight…. Land use decisions are made exclusively by the professionals appointed by the major. The only way to appeal that decision is to essentially go the district court and argue, arbitrariness, capriciousness, or that the process was not being followed. That never happens. Our designation process is very apolitical (Callcott Interview).

Similarly in New York, Commission decisions are final, but the planning department reviews landmark designations to make sure they are consistent with the zoning code.

It is important to stress that the appointments to the commissions can greatly influence preservation outcomes. Interviewees mentioned the importance of having members with professional knowledge and experience on preservation issues. The
commissions in the cities interviewed typically consist of professionals in the disciplines of history, architecture, planning, archaeology, real estate, historic preservation, or related fields. The appointment of a new mayor can lead to significant changes. In Chicago for instance, after the election of Mayor Emmanuel the appointment of four new members — a doctor, a chef, a former alderman, and a former county tax assessor — left the commission with no architects or architectural historians for the first time in recent history and drew criticism by the press with the nominees being described as long on political ties, but short on credentials (Kamin, 2011).

Strength of a Preservation Ordinance: According to Seattle’s City Historic Preservation Officer, Karen Gordon, “An ordinance reflects the political will of the community” (Gordon Interview), and having a comprehensive preservation ordinance can provide for consistency in the application of policies. Elements of ordinances will vary by jurisdiction; but there are features that should be common to all — a description of the mission statement, the enabling authority, the establishment of the preservation commission, procedures for designation, criteria for review, consideration of economic effects of designation, appeals, and enforcement.

While school districts and other government bodies are often exempt from local preservation laws, cities such as Seattle, Santa Fe, and Washington D.C. have ordinances requiring them to consult on any undertaking that would affect designated or eligible properties to ensure appropriate preservation treatments.

Conclusion

The two case studies clearly show that politics can sway preservation decisions. As Bernstein argued, “The land use planning process ultimately is political. And politics is not always nefarious; it is multidimensional. It involves the views of our elected officials. It involves community inputs, community pressures, and just all of the factors that come into play in making decisions in a public arena” (Bernstein Interview, 2013).

All directors interviewed agreed that decisions about preservation are political but they varied in their assessment of the extent to which political influences can be minimized. On the one hand, Washington D.C. Deputy Preservation Officer, Steve Calcott, argued that designation decisions in his city are apolitical thanks to the final decision power of the preservation committee. On the other hand, according to Seattle City Historic Preservation Officer Karen Gordon, “There are always competing priorities. All I can do is to say to elected officials ‘Here are the pros and cons depending on how it goes. Here are the fallouts for you if you make this decision or that decision. You make this decision, you appease this group or you tick off that group.’ You have to have good political instincts and you can take it from there” (Gordon Interview).

Situation and contexts are different and universal formulas cannot be produced to help planners easily evaluate the architectural, social or cultural significance of the built environment. Nevertheless, the existence of strong historic preservation departments and preservation committees, the way that they are positioned within the city bureaucracy, and their power vis-à-vis the mayor or city council are important in mitigating the influence of politics. Additionally, the creation of a framework that aids preservation planners to identify a city’s significant historic resources and a forward-thinking and detailed preservation ordinance that is created with strong community input can go a long way towards a more rational understanding of what is important for cities to preserve.
| **Table 1: Comparative Characteristics of the two Case Studies** |

<table>
<thead>
<tr>
<th><strong>Current Owner</strong></th>
<th><strong>Century Plaza</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Preservation Advocate</strong></td>
<td><strong>LA Conservancy</strong></td>
</tr>
<tr>
<td><strong>Redevelopment Plan</strong></td>
<td><strong>K-12 School</strong></td>
</tr>
<tr>
<td><strong>Original Use</strong></td>
<td><strong>Hotel</strong></td>
</tr>
<tr>
<td><strong>Architectural Significance</strong></td>
<td>Mediterranean Revival Style. Design by Myron Hunt (architect of Rose Bowl and Huntington Art Gallery).</td>
</tr>
<tr>
<td><strong>Social Significance</strong></td>
<td>Catalyst for 1920s urban development; host of Oscars, destination for celebrities, musicians, and politicians; Robert F. Kennedy assassination.</td>
</tr>
<tr>
<td><strong>Period of Relevance</strong></td>
<td>1920-1970</td>
</tr>
<tr>
<td><strong>Time of Preservation Battle</strong></td>
<td>Mid-1990s until 2005</td>
</tr>
<tr>
<td><strong>National Trust for Historic Preservation Involvement</strong></td>
<td>Minimal, involved in last phase (2004).</td>
</tr>
<tr>
<td><strong>Potential for Designation (National, State, Local)</strong></td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Political Power Players</strong></td>
<td>LAUSD Supervisors, Local Politicians, and Kennedy Family</td>
</tr>
<tr>
<td><strong>National Trust for Historic Preservation Involvement</strong></td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Potential for Designation (National, State, Local)</strong></td>
<td>Yes – local designation</td>
</tr>
<tr>
<td><strong>Political Power Players</strong></td>
<td>Councilman Koretz</td>
</tr>
</tbody>
</table>
Table 2: Hotel Ambassador Ownership Changes

<table>
<thead>
<tr>
<th>Ownership</th>
<th>Years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiple Stakeholders, 1921-1946</td>
<td>1921-1946</td>
</tr>
<tr>
<td>Schine family, 1946-89</td>
<td>1946-1989</td>
</tr>
<tr>
<td>LAUSD ownership, 2001-present</td>
<td>2001-present</td>
</tr>
</tbody>
</table>

Table 3: Milestones in the Preservation Battle

1. Trump proposes to raze hotel, January 1990
2. LAUSD files eminent domain suit, July 1990
3. LAUSD deposits $47.9 million deposit on property, August 1990
4. Negotiations over price fail, November 1993
5. LAUSD withdraws bid & seeks return of deposit
6. Trump withdraws from ownership, August 1998
7. LAUSD moves to foreclose on property, March 2000
8. Wilshire Center Marketplace files for bankruptcy, March 2000
9. LAUSD purchases property, October 2001
10. Hotel demolished, 2005
1. Maximum Reuse
   March 2009
   $381,900,000
   Reuse of original hotel tower, Embassy Ballroom, the Cocoanut Grove, the Paul Williams-designed coffee shop, and the corridor where Senator Robert F. Kennedy was assassinated.

2. Partial Reuse
   December 2007
   $307,400,000
   Reuse of the Cocoanut Grove, reconstruction of the Embassy Ballroom and both the RFK site and the coffee shop.

3. Reuse of North Tower
   July 2008
   $320,800,000
   Reuse of the North tower of the Ambassador Hotel and the Cocoanut Grove, while preserving the coffee shop.

4. New Construction
   September 2007
   $286,300,000
   Entirely new construction with no preservation.

5. Commercial Frontage
   March 2009
   $403,600,000
   Front six acres would be sold for commercial use while reusing and preserving most of the existing structure, much like Alternative 1. Elementary school could not be constructed.

Figure 2: “Support RFK-12, Putting Students and Education First” flier
Figure 3: Proposal chosen by the LAUSD

Preserved Ambassador Hotel
Figure 4: The Eckstut “Small Learning Community” plan, Source: Ehrenkrantz, Eckstut, & Kuhn Architects Concept Plan, 2005. 

Figure 5: Century Plaza Hotel; photo by Andrew Hara
Source: http://lac.laconservancy.org

Figure 6: On the right: Pei Cobb Freed & Partners proposed development with demolition of hotel (shown on the left). Source: www.lacurbed.com
Figure 7: Rendering of the new development proposal and the preserved hotel. Pei Cobb Freed & Partners rendering. Source: Los Angeles Times

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April 25, 2013.


List of Interviews

Callcott, Steve. November, 18 2013


Heron, Tim. November 26, 2013

Olnick, Cindy. February 17, 2012.


Rash, David, November 19, 2013.

Rojas, James. November 11, 2013

Rosenfeld, Dan. February 9, 2012.
Appendix A

*Semi-structured interview questions used for Ambassador and Century Plaza Hotels.*

All interviews were semi-structured. A semi-structured interview is flexible, allowing new questions to be brought up during the interview as a result of what the interviewee says. The interviewer in a semi-structured interview generally has a framework of themes to be explored.

This is an outline of questions that was used as a guide for the conversation:

1. All interviewees were asked how they were involved in a particular case study.
2. How was historic preservation approached?
3. How was historic worth defined?
4. Was there a greater emphasis on physical preservation or social preservation?
5. Why was historic preservation attractive/not attractive?
6. Was sustainability discussed openly?
7. Was “green” design considered better than historic preservation? If so why?
8. Do you think sustainability was seen as compatible with historic preservation?
9. Would you say that politics was an important driver in this particular case?
10. Do you think local development policies encourage “green” design over historic preservation?
11. Do you think “green” design is more attractive financially to developers compared to historic preservation?
12. What can we learn from this case study in your opinion?

Appendix B

*Letter sent to Preservation Directors and Planners*

Dear _____

I am an urban planning PhD student at the UCLA Luskin School of Public Affairs. Currently, I am in the process of co-authoring a paper on preservation and development
conflicts with my advisor professor Anastasia Loukaitou-Sideris. The paper is entitled “To Preserve or Not to Preserve: The Decisions that Sway Historic Preservation Decisions” and concentrates on two case studies in Los Angeles—the Ambassador and Century Plaza hotels. Although the purpose of the paper is to understand and summarize the criteria and methods that preservationists, planners, or stakeholders utilize when dealing with preservation and development conflicts that may arise. The two case studies in the paper show ambivalence and reveal that politics sway many of the final decisions that are made.

I am writing to you because professor Loukaitou-Sideris and I are interested in hearing about any potential controversial preservation conflicts that may have arisen in your city and how they were dealt with. The questions I am specifically looking to ask are:

- Are there specific criteria used by the preservation committee to deal with preservation vs. development conflicts?
- How does the department/committee deal with opposition? For example, is there a protocol that can help in these situations?
- Who gets to decide on any rules or protocols that may be in existence?
- Are final preservation/development decisions made by the same people?

I have already interviewed Ken Bernstein from the Office of Historic Resources in Los Angeles, however a comparison between different city strategies will be helpful in determining what, if any, strategies may be consistent in a wide range of preservation and planning departments.

If possible, I would like to ask you these questions over the phone. It should take no longer than twenty minutes. I appreciate your time.

---

**Endnotes**

552 Purcell (2000) identifies five factors that led to the weakening of LA’s growth machine: 1) The fall of a pro-growth mayoral regime; 2) the globalization of land-based interests; 3) the geographical fragmentation of land-based interests; 4) the emergence of groups opposed to growth; and 5) the city’s diminished ability to act as a partner for growth.

553 Even when two cases are not perfectly matched, process-tracing can strengthen the comparison by helping to assess whether differences other than those in the main variable of interest might account for
the differences in outcomes. Process-tracing can focus on the standard list of potentially “confounding” variables, such as the effects of history, maturation, testing, etc. It can also address any idiosyncratic differences between the two cases that scholars or participants argue might account for their differences (George and Bennett, 2005:81-82).

Interviews were conducted with 1) Ken Bernstein (formerly Head of the LA Conservancy and now Head of the LA Office of Historic Resources) and 2) Cindy Olnick (Head of the LA Conservancy), both of whom were involved in the battles for the preservation of the Ambassador and Century Plaza hotels; 3) David Cobb, a political consultant and former member of the LAUSD Task force; 4) Edwin van Ginkel, former senior development manager with LAUSD; 5) Dan Rosenfeld, who worked on the LAUSD school plan, and was the former head of Urban Partners, LLC. and now the Senior Deputy to Los Angeles County Supervisor Mark Ridley-Thomas; and 6) James Rojas, the founder of the Latino Urban Forum and supporter of the A+ Coalition Compromise for the Ambassador site.

Between 1970 and 1980, the number of Latinos in the area increased to 37%, while Asians, including a growing Korean community, climbed to 22%. Median family income fell from $20,343 to $10,588, and unemployment jumped from 3% to 16% (Furlong, May 18, 1986).

In 2004, The National Trust for Historic Preservation came to Los Angeles to unveil a plan to raise up to $39.6 million in funding for the Ambassador project through the sale of two Federal tax credits (Federal Rehabilitation Tax Credits and New Markets Tax Credits). These tax credits would have been sold to corporate investors, with the proceeds offsetting any remaining additional costs of rehabilitation. The National Trust’s attorneys and consultants studied and overcame every issue that initially led the LAUSD to believe that the use of these credits was doubtful (Bernstein, 2004).

One such group was DoCoMomo, a non-profit organization whose full title is International Working Party for Documentation and Conservation of Buildings, Sites and Neighborhoods of the Modern Movement.

The City of Los Angeles allows for properties to be designated by any interested individual, without an owner’s consent.

“Embodied energy” is defined as the energy required to manufacture, transport, and assemble all materials into a building.

People interviewed included: 1) David Rasch the Planner Supervisor for the Santa Fe Historic Preservation Division; 2) Steve Callcott, the Deputy Preservation Officer for the DC Office of Planning; 3) Jim Peters worked for the Commission on Chicago Landmarks for eight years; 11 years at the statewide non-profit organization, Landmarks Illinois, now teaches historic preservation at the University of Illinois at Chicago and the School of the Art Institute of Chicago; 4) Tim Heron is a senior city planner for the Land Use Services, Design Review, Design Commission, and Landmarks Commission in Portland, Oregon; 5) Karen Gordon is a City Historic Preservation Officer in the Seattle Department of Neighborhoods; 6) Elisabeth de Bourbon the Director of Communications at the NY Landmarks Commission; 7) Doug Young the Executive Director of the Urban Design Commission in Atlanta; and 8) Tina Tam a Senior Preservation Planner in San Francisco; 9) Ken Bernstein, Head of the LA Office of Historic Resources.

See Footnote 5.
In 1998 the Spanish government made radical changes to the city planning laws with the “Ley de Suelo 6/1998”, which gave control over the shape of the city to the free market. With the new law, power over the land and housing market passed from planners to the promoters. The aim of this law was to improve competitiveness among the different agents in order to reduce prices. Thus began a long period of partial deregulation of city planning, coinciding with the decade of the economic boom with very low interest rates. This resulted in an enormous overproduction of housing, far beyond the real needs of the population. General plans favored the construction of new housing, generating new areas of growth, which were not based on population growth. This meant that neighboring towns competed against each other to attract housing promoters. One very clear example is that of Valladolid and the surrounding towns. The process was governed by three essential factors: a type of urban planning that proposed an expansion of the city; the acquisition of massive financial resources as a result of the alliance between politicians, financiers and promoters; and, finally, public investment in the large infrastructures. From 2008 onwards, the difference between supply and demand in the housing market gave rise to an alarming stock of unsold houses, which, in turn, led to the bankruptcy of numerous real estate enterprises. This situation brought about the bankruptcy of several savings banks which were suffering a high rate of credit default. The Spanish government, faced with the danger of a crash in the banking system, created the SAREB, a bank created partially with public money to buy up the so called bad assets, i.e. unsold houses. Consequently, what was designed as an initiative to increase the freedom of the market resulted in the state having to purchase unwanted houses at prices the people had no control over; a far cry from the free market.

Key words: Urban Sprawl, Public Infrastructures, Urban legislation, Urban Development, Urban Planning.

1. The change in the city model in medium sized Spanish cities

Since the mid 1990s, medium-sized Spanish cities have undergone a change in their city model which has propitiated a change in their structures and their relationship with the surrounding territory. In less than 15 years, a new urban and territorial model has been generated. The concentrated and compact urban spaces, characteristic of Spanish cities in the past, has been modified, and the spread of the city into peripheral areas has been favored. The new city model brings with it a radical alteration of the urban structure and the morphology of the outskirts, giving rise to a prolongation of
the city along the new, powerful communication corridors, surpassing the city limits and affecting other towns in the surrounding area. The new outskirts of the city, as well as the towns around the city that are affected by the strictly metropolitan process of urbanization, become the area of new growth and thus of conflict, as competition arises between the many municipalities to catch a slice of the housing market and other urban uses which are necessarily limited.

Clearly, an expansive type of planning alone is not sufficient to change the city model. For cities to grow in the way they have done in Spain, a new city planning law was needed to give agents the necessary freedom; sufficient economic resources had to be made available through the political control of the savings banks; and, finally, there had to be a huge investment in public infrastructures.

a) The liberalization of city planning legislation

This change has been further fostered by the idea, promoted by the Conservative government, that city planning generates a land market monopoly in the city which is totally opposed to the free market. This monopoly, propitiated by city planning, gives rise to land prices which are the exclusive product of the owners’ desires, quite separate from the competitive game. This idea is based on the argument given by the Tribunal in Defense of Competition, when it establishes that city planning causes a reduction in the supply, reducing competition and increasing prices (Tribunal de defensa de la competencia, 1993, p. 148).

As a result of this ultra-liberal ideology, a package of liberalizing measures was applied that changed the laws concerning city planning, professional colleges, and other aspects. Many politicians, democratically elected to represent municipalities, understood that city planning was a problem, a spanner in the works of the political will. Thus, city planning was given greater flexibility, and this brought about what has come to be called “a la carte” city planning, that is to say, the modification and transformation of city plans by city councils at the petition of the constructors, to fit their wishes. This allowed a growing freedom of movement to estate agents, constructors and financial entities, as well as allowing them to play a fundamental role in the process of adapting and modifying city planning at the time of investing large amounts of economic resources. The consequence of these changes has been an overproduction of housing through the use of the new city plans to generate a large amount of urban growth, now permitted by law.

In 1996, the Conservative government of Spain took the first step towards the deregulation of the city planning system through the “Real Decreto-Ley 5/1996”. The first phrase of this law clearly expressed its liberalizing aim: “Given the situation of
the land and housing market, the approval of some preliminary measures to help increase land supply in order to make the available land cheaper is necessary”. These first, urgent legislative measures would later be perfected through the “Ley 6/1998”, which advocated in its Aims: “the reform of the land market in the sense of a greater liberalization, to increase supply” (Ley 6/1998). This law was in force until 2007, when the Socialist government promulgated the new, much more restrictive, urban planning law (Ley 8/2007).

With respect to infrastructures, the law includes a very important aspect which, unfortunately, was not developed in the regional laws or regulations and which would take on a vital importance, as shall be seen later, in the way cities grow. In point 2 of the Motives of this law defining urban plans, it is stated that, in the extensive area of land for new growth in the cities:

“(…) it will thus be possible to promote urban interventions (...) that guarantee the execution by the promoter, and at his cost, of the infrastructures to connect with the general systems that the nature and intensity of the said interventions require in each case; and even the reinforcement and improvement of the said general systems when necessary, (…)”

The question of the infrastructures to connect new growth land with the existing city is a crucial one, and one which the legislator was right to deal with. Nevertheless, what the development of events has revealed is that the promoters’ actions are aimed at avoiding paying the costs of building these new infrastructures. In this sense, they promote the land which is close to the already finished infrastructures, thus saving any additional costs. We shall return to this question in the analysis of the growth of the city of Valladolid.

**b) The savings banks, political power and urbanism**

On the other hand, to understand these urban processes, it is necessary to deal with the origin of the economic resources that have transformed the territory. In Spain, there is a particular type of credit entity, the savings banks or *cajas de ahorros*, which are the same as those that exist in other countries under different names, such as the *Sparkassen* in Germany, the *Caisses d’epargne* in France, or the *Cassa di Risparma* in Italy. These are entities that aim to encourage saving among the popular classes, and are considered to have a social character and, as such, enjoy tax exemptions. The Spanish savings banks work like an ordinary bank but they have some characteristics that set them apart, in particular the following two:

1. They carry out social interventions, so part of their profits are used to carry out various kinds of work that are a service to the community;
2. Politicians are present in their administrative boards.
Spain’s banks and savings banks have preferentially based their activity on the concession of loans to housing promoters, construction companies and house buyers. The promoters have been lent the money to buy the land, granted credit to begin the projects, urbanize the land and build the houses. Closing the circle of the housing business, the savings banks have conceded mortgages to house buyers. The savings banks dedicated all the money from their clients’ deposits to this cycle and they then asked for credit from entities outside Spain so as to be able to lend more.

The central question is why the banks and savings banks took on board such important risks by lending so much money to a sector which, until then, had been profitable, but which had limits. The key questions are:

a) the deactivation of urban planning as a rational, public system for taking decisions in the territory
b) the establishment of “a la carte urbanism”, that is, a system to fit the general plans in force to the preferences of the promoters
c) obtaining sufficient funding to carry out the construction developments that the promoters understand to be the most convenient.

The strategic alliance in many Spanish cities between politicians, financiers and promoters is what has made it possible to break with the rational urban system of taking decisions in cities. In some cases, this alliance between these three social strata was not necessary, as some politicians also controlled certain financial institutions. This was so because, due to their position on the city council, they had the right to sit on the board of directors of the savings banks and thus decisively influence their business. In any case, the power is political.

The role played by the politicians on the administrative boards of the savings banks is virtually unknown and there is very little information. What we do know is that some politicians held two positions at the same time: on the City Council, as either councilor or mayor, and on the Board of Counselors of the savings banks. The mayors direct the growth of their cities, they also direct the Municipal Urban Planning Commissions and, consequently, they have the capacity to influence the granting of planning permits and authorizations. They also have the legal capacity to transform the qualification of land through urban planning. Some mayors have also had parallel responsibilities on the boards of the savings banks. In any case, although we can only

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74 The way in which some councils have taken urban planning decisions, in connivance with a savings bank and a promoter, has come to light through several judicial processes. See, for instance, the case known as ‘Operación Brugal’, in Alicante, with the ‘Caja de Ahorros del Mediterráneo’ (CAM) and a promoter, which clearly shows the coordination between the three social strata. ‘El Mundo’ newspaper 27-07-2011.

75 In spite of this lack of information, the courts of justice have demonstrated the particular workings of some mechanisms involving the councils and the financial institutions, as exemplified in the STS 4297/2011, concerning the so-called ‘Piensos Cia’ case, in which the City Council of Valladolid and others were found guilty, and in which it is established that the plan was approved illegally, since the mayor should have abstained due to his double condition as political representative and representative of the financial institution being one and the same person, i.e., the mayor (STS 2011).
partially know the workings of the financial entities when making investments, we do know the results. The Spanish savings banks have financed the overproduction of housing to the point where some were in danger of disappearing and many were on the brink of bankruptcy. Such is the case of ‘Caja España y Caja Duero’ (CEIS), ‘Caja de Ahorros del Mediterráneo’ (CAM), ‘Banco de Valencia’, ‘Caja Sur’, or ‘Novagalicia Banco’, all of which underwent the intervention of the Spanish State, were refinanced with public money and finally sold to the private sector for a symbolic figure, as, for instance, the one euro paid for the ‘Banco de Valencia’. Client confidentiality prevents us from gaining any precise knowledge of the processes or who exactly was responsible for taking the decisions, but we do know the end result.

The debts that Spain’s financial sector has declared to the Bank of Spain and which are due to investments in housing have reached 300,000 million Euros. Of this quantity, one part is damaged assets (175,000 million Euros) and another is the normal loans without risk (125,000 million Euros) (Bank of Spain).

c) **The abusive use of urban planning to create building rights as a means to obtain funding**

According to Spanish law, urban planning is a public function. In many of Spain’s cities, the political and technical management of urban planning has become divorced from the fundamentals of urban planning as an activity whose raison d’être is the general interest. Thus, the plans have stopped responding to the needs of the population, or the public interest, and have begun to attend to other, private interests and other objectives. In particular, the inappropriate use of planning in the unjustified creation of building rights to obtain economic resources has become evident.

There are numerous examples in Spain’s cities of the abuse of planning through the unjustified creation of building rights by city councils to finance the most diverse and bizarre ends. The financing of football clubs through urban operations blessed by city councils and regional governments is well known in Spain. The most famous of all such operations is that which enabled four skyscrapers to be erected on the site of Real Madrid’s old sporting area, through the modification of the General Plan of Madrid, increasing building rights in an area previously only designated for sporting use and transforming it for tertiary use. The four highest skyscrapers in Madrid have been built where, before, there were only football fields. The sale of the said building rights allowed Real Madrid F.C. to cancel its debts (460 million Euros) and to build a brand new ‘Sporting City’ (90 million Euros). The building rights which were then granted by Madrid City Council depended on the quantity of Real Madrid F. C.’s debt, and not on the needs of the city in that area. In fact, that area’s quality of life worsened due to the brutal tertiary over-densification caused by the said towers.

76 "Territorial and urban regulation are public functions which are not susceptible to transactions that organize and define the use of the territory and the land in accordance with the general interest, determining the powers and duties of the right of land ownership depending on the use of the said land". Art. 3. Ley 8/2007.
height and number of the skyscrapers are in direct relation with Real Madrid’s debt. Naturally, the operation was justified as the need to provide Madrid with skyscrapers, as a necessary image for a capital city, just like other international cities (Blasco Diez, 2008).

Nevertheless, the greatest abuse, if we take into account both the proportions and the absolute figures, has been the concession of building rights to create new urban growth areas in cities without the population or economic growth proportional to the rights granted. The concession of building rights for land initially destined for agriculture, through the modification of the general plan, has been the clearest case of favoring economic gain over the logic of the general interest. In addition, this growth has always taken place in areas that are well served by public infrastructures and, consequently, do not require additional investment by the private promoters.

The factors responsible for this process are very complex when the details of each region or city are taken into account. These factors are also extremely mixed in the examples studied, varying from one case to another. The case of the large cities, such as Madrid and Barcelona, is different from that of the medium sized cities, or that of the coastal cities, which have important pressure to build due to tourism (Roca, Arellano & Moix, 2011). In any case, it is true that there are regions where the problem has been more serious, for instance, Valencia and Madrid; while, in other regions where the economic base is more industrial, the problem has not been so great, for instance, the Basque region.

It is important to point out that there were numerous warning signs, which led very early on to protests, lawsuits and studies. The most significant of all, which included quite a few lawsuits by European citizens, was the so-called Auken report (European Parliament, 2009), originating precisely from the authority that created it. Paradoxically, the Auken report was not reported in the Spanish press or media.

**d) The overproduction of housing**

These factors favored a key phenomenon in Spain’s economy: the overproduction of housing, or the excessive production of houses. This was due to the elimination of a mechanism of rationalization and contention of production such as urban planning, a mechanism that could relate the housing needs with the way to meet the said needs. On the other hand, other mechanisms acted as motivators for the production of housing, in particular, the hope of obtaining high economic profits, as it allowed private agents to take advantage of the new accessibility generated by the new public infrastructures.

The overproduction of housing can be clearly seen in the figures concerning houses built. The average number of houses built annually in Spain during the decade 1991-2000 was 221,259. In the period 2001-2010, this average rose to 474,981, more than double that of the previous decade. The year in which the most houses were built was
2006, with a peak of 597,632. This process of overproduction is related with numerous factors; yet, for some authors, it is something that depends essentially on the agents of the housing sector themselves, on their greed and their inability to control and to put reasonable limits on their activity in order to make their business sustainable:

“It is my opinion (...) that the enormous price rise in the residential housing sector was the spark that set off the problem we are suffering today and which has been brought to light, perhaps rather early, by the financial cash crisis. The greed of the very economic agents who should control the sector has expelled the demand from the housing market. Their excesses have ruined the market”. (Navas, 82).

The overproduction of housing reached the figure of 2.1 million houses. The currently accepted figure for unsold houses in the whole of Spain is 900,000.

2. The example of Valladolid and the surrounding area

Such phenomena, however, need to be looked at as concrete urban operations. To do so, Valladolid and the surrounding area can show us the concrete mechanisms that have led to this situation. Valladolid is a medium sized city, with 315,000 inhabitants in the municipal area, and 410,000 inhabitants if we include the surrounding towns/villages. The example of Valladolid offers some characteristics of great clarity and simplicity, which gives rise to a more productive study. Valladolid has several factors of interest:

- there has been a competitive struggle between the different municipalities to attract urban development and services;
- public investment in infrastructures has given rise to a plan for ring roads that allows the weight of the investment to be analyzed spatially;
- the south and west of the city, characterized as the areas of greatest environmental value (confluence of the two rivers, large extension of pine woods), has been the preferred area for urban development catering for the wealthiest sector of the population, as opposed to the north and east, with minimum development and a less wealthy social character.

a) Urban planning

The urban planning of the city of Valladolid throughout the 20th century was characterized, among other things, by proposals for growth that did not materialize. The Plan Cort of 1939 had two components: It first of all planned to reform the street alignments in the historic center and, secondly, proposed an expansion of the city on the other bank of the River Pisuerga. This expansion was not carried out and the plan

77 Valladolid is the capital city of the region of Castile & Leon. It has some industry and a strong tertiary sector. The municipalities we refer to in this paper as the ‘surrounding villages’ coincide with the delimitations in the Plan “Mesones” and, later, in the Esquema Comarcal of 1982. They are: Arroyo de la Encomienda, Boecillo, Cabezón de Pisuerga, Cigales, La Cistérniga, Fuensaldaña, Laguna de Duero, Renedo de Esgueva, Santovenia de Pisuerga, Simancas, Tudela de Duero, Viana de Cega and Zaratán.
did not materialize. The alignment reform was begun in later years with an Alignment Reform Plan, affecting only the historic center. Concerning the city’s expansion beyond the river, this did not happen until 25 years later. In fact, the area known as ‘Huerta del Rey’, or ‘King’s Garden’, was developed in the 1960s, when the Ministry built the necessary bridges to make this expansion possible and carried out the competition to decide the project, urbanization and sale of the plots of land.

In 1968, the General District Territorial Plan was approved, also known as the Plan “Mesones”. This plan dealt with the regulation of the distribution of the city of Valladolid and 13 of the surrounding municipalities. The plan was characterized by an ambitious proposal of growth, which was not developed, accompanied by the proposal to build a road network which did not happen either. On the contrary, the relaxation of the building controls in the historic city resulted in the concentration of the construction activity in the center, the transformation of the historic center, with the destruction of many historic buildings and an accompanying densification due to the alignment reform and an increase in the building ratio. The immense majority of the planned growth of the Plan “Mesones” got no further than paper.

After the arrival of democracy, in the 1980s, planning obeyed different criteria and the growth of the city was specifically limited. The outer limit of growth as being the ring road became one of the plan’s objectives, and this was complemented by the protection and rehabilitation of the architectural heritage. It is at this time that the Madrid Plan was being drafted, and this had a singular influence on Valladolid. Urban austerity becomes the key idea in Spain’s new urban planning (Campos). Paradoxically, the control over the remodeling interventions in the existing city and over public investment in infrastructure pushes promoters to develop new growth. It is at this point that they begin to extend the city, as foreseen in the Plan of 68, as is the case of the Partial Plan of Parquesol.

The general plans that control the urban development of the city of Valladolid and the surrounding villages over these years of economic bonanza, from 1995 to 2008, are characterized, essentially, by the proposal for a great quantity of areas of new growth. All the general plans foresee an important number of areas of new growth for the construction of new housing, especially low density housing, in garden city suburbs. The general plan of Valladolid authorizes the change to urban land of new growth areas, in which 87,000 houses can be built, while the general plans of the surrounding villages reach 47,000 (Sánchez Mínguez, 2012). These urban developments are not justified by the population growth or by foreseeable investment in industry or offices that could massively generate new jobs, or by immigration from other regions (Jacobs). Surprisingly, in the reports of the general plans, there is no justification using data concerning foreseeable growth in the city. They simply trust that the population to buy and occupy these new houses will appear, just as it had done before.

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78 Valladolid and surroundings in 2011 had 185,489 houses, of which 23,032 were empty (INE, 2011).
without any thought to where these people might come from. Whether this population would come from the capital, from other provinces, or from abroad, had no interest. On the other hand, the municipalities in which the highest growth is envisaged (Arroyo de la Encomienda, Zaratán, La Cistérniga and Simancas) are those that benefit most from the new accessibility provided by the large infrastructures. At the same time, the municipalities that benefit from the construction of these infrastructures place their areas of new growth as close as possible to the said ring roads and highways.

The urban planning of the population of Valladolid and the surrounding villages has been to incorporate large areas of residential land for new growth, despite the fact that the population of the entire area has remained stable or has even decreased. This is one of the most singular aspects of the general plan which, from a strictly numerical analysis, is surprising. In fact, the city of Valladolid itself lost 14,120 inhabitants (4.6% of the total census of the city) over the period 1991-2010. This process has been more acute in the historic center, where a third of the population has been lost over the last 25 years\textsuperscript{79}. In addition, the population that remains in this area is on average elderly, one in four inhabitants being over 70 years of age.

\textbf{b) The role of the connecting infrastructures}

In the mid 1980s the roads in Valladolid were radial, reaching into the center of the city. The traffic, and often even trucks carrying dangerous materials, passed close to historic monuments. It was at this time that the construction of the ring roads began, with the aim of diverting traffic from the center. In a first stage, the inner ring road was started and completed in the mid 1990s. The outer ring road was begun later and, even today, some parts of this are still under construction. The road system of Valladolid has now become radio-concentric, and the traffic is predominantly circular. These road structures, which were mainly carried out to keep trucks from the city center, have finally been used by the city itself as a formula to resolve the local traffic problems and ease congestion in the center. The improvements carried out on the major roads and the new highways and ring roads over the last 25 years, in particular the inner and outer ring roads and the four lane dual carriageways that connect the city with Salamanca, Palencia, Burgos, Segovia and Soria, have also had another effect: to provide a high level of accessibility to the territory around the city of Valladolid. The public resources invested, mainly by the central government channeling EU funds\textsuperscript{80}, in the improvement of the roads has enabled the land around a number of villages near the city to become accessible to the majority of citizens through the use of their private vehicles. These spaces, previously agricultural, and accessible only to a very reduced number of cars, or even only to tractors, have

\textsuperscript{79} The calculation is made for the census districts of Centro, Caño Argales, Universidad, San Pablo, San Nicolás and San Miguel of Valladolid.

\textsuperscript{80} In the period 2000-2006, the UE has invested the amount of 4,702.3 million Euros in Castile & Leon through the Structural Funds, of which 1,216.5 million Euros were destined to Transport Networks and Energy.
become the center of a territory crossed by a dense network of highways that enable mass access by cars to any particular point in a very short space of time. For instance, in 2001, the west inner ring road had a maximum traffic load of 25,600 vehicles per day. The east inner ring road had a lower capacity as it has intersections on the same level that decrease the amount of traffic slightly; in 2000, the traffic was below 20,000 vehicles per day (Ayuntamiento de Valladolid, 2005, p. 37). Reaching this level of accessibility has not come cheap. Between 1989 and 2011, various public administrations, especially the central government with important funding from Europe, have invested around 700 million Euros in this territory, including the new ring roads and the transformation of normal two-way roads into dual carriageways.

The process of expanding the city into the surrounding area and the launching of new uses (residence, industry, commerce) in the areas around the city has given rise, in less than a decade, to congestion on the inner ring road, as traffic has reached 44,000 vehicles per day, of which 8,000 were trucks in 2009. This has been used as an argument by the City Council to ask the central government to construct the outer ring road, so it can be used preferentially by through traffic, thus easing congestion on the inner ring road and leaving it for local, urban use exclusively (Mozo, Rodríguez, 2009).

The conglomerate of Valladolid is an extraordinary example of how the resources invested in roads over an extensive territory have favored the jump from the city to its agricultural hinterland, transforming it into an urban space, into part of the city, generating a growing competition between ever more diverse uses and activities in order to obtain ownership of the land, especially the land which is closest to the main highways. The promoters’ aim was to get the best placed land, with the best accessibility, closest to the major highways and at the best price. At the same time, we have been able to see how the mayors of the municipalities involved in this process have acted individually, competing with the other neighboring municipalities to attract investments, incorporating ever more new growth, without understanding the consequences of these transformation processes for the city as a whole. On the other hand, the regional authorities have allowed the different agents (landowners, promoters, businessmen, mayors) to act, observing but not intervening, in spite of the legal obligation to do so.

3. The economic crisis and its clarifying effect on the urban processes
The economic crisis has particularly hit the housing business in Spain and has shown up the mistakes and lack of foresight by the municipal and regional authorities in governing the territory. Since 2008, bank loans have been reduced spectacularly and the sale of flats fell in the same year by 28.8%. In 2009, they fell by 25.1%, reaching positive figures once more in 2010 with 6.8%, according to data from the National Institute of Statistics (INE, 2011, p. 45). The positive figures of 2010 were due to government measures, but in 2011 they had again fallen by 38%, taking the inter-
annual rate from August to August. As a consequence of the crisis, many promoters, surprised by the severe drop in sales, found themselves in a really difficult situation, as they had large numbers of houses unsold or half built. In both cases, this meant they needed to renew the bank loans that had already been conceded. In view of the drop in sales and the increased money costs, the banks declined to renew the loans, forcing the promoters into bankruptcy. Consequently, the banks and savings banks ended up with the unsold houses, as well as those still under construction. Thus, today, the banks and savings banks are the biggest house owners in Spain. The number of houses currently owned by banks and savings banks is 730,000 in Spain as a whole, and 28,000 in the province of Valladolid, of which most are in the city of Valladolid and the surrounding area. Nevertheless, some voices are saying that the official organisms are hiding the truth, while some authors speak directly of the manipulation and masking of the real figures (Mateo, 241), so as to hide an even more negative reality than that which Spain’s financial world is prepared to admit to.

Aggravating this situation even further is the crisis being suffered by home owners with mortgages who cannot pay, so the houses fall once more into the hands of the banks, thus increasing even further the number of houses owned by the banks. In 2010, the financial entities received 34,112 more unsold houses as a consequence of mortgage default.

The financial crisis has a great value as a clarifier from the point of view of those researching the city, as it throws light upon what has until now been hidden. The crisis has exposed the mechanisms used by politicians, financiers and promoters to transform the city.

In the case of Valladolid and the surrounding area, the crisis has shown us that:

1. Growth in the surrounding villages generates the decadence of the center.
2. To create this new city model, they have used planning in a perverse way.
3. The change of urban model modifies transport in the surrounding area.

a) **The decadence of the center**

The towns/villages around Valladolid are receiving the population that leaves the center of the city, generating a population redeployment process; although the increase in the number of houses is greater than the population moving to the said towns/villages. In 1986, the census showed that 45,718 people lived in the center (13.9% of the total number of inhabitants in the capital), while, at the start of January 2012, that figure had fallen to 33,070 (10.5% of the total). This means that the center has lost 12,648, a third of its population. The situation of the center has also been worsened by the gradual transfer of the headquarters of several public institutions. Thus, over the last decade, displacements from the center to the periphery have included a large hospital (2,000 workers) and several regional government offices (600 workers), while new buildings are being constructed for the Courts and the Tax

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81 Data from the Municipal censuses of 1986 and 2012, referring to the census districts: Centro, Caño Argales, Universidad, San Pablo, San Nicolás and San Miguel.
offices, which will mean the displacement of at least 1,100 jobs out of the center over a period of 2 to 4 years. In addition to this general exodus from the center, 112 small shops closed down after Christmas 2011 and the number of empty premises has increased by 30% over the last two years\textsuperscript{82}. On the other hand, the population leaving the city of Valladolid also leaves behind empty houses that are not occupied. We should also take into account the fact that the makeup of families is changing; the number of members per family has fallen from 4.4 in 1975 to 1.5 in 2012 (Sánchez Minguez, 2012). That is, what has happened is a transfer of the population from the central area (central districts of the city of Valladolid) to the peripheral suburbs of the city and the towns/villages around the city. The population that Valladolid has lost has been gained by the surrounding towns/villages.

b) The use of planning to create capital gains
All the municipalities of the area of Valladolid have had general plans since the end of the 1960s. Since then, several revisions have been made in each municipality, so all the municipalities around Valladolid have already approved and applied at least 4 updated versions of the general plans, while some have approved up to 6 since 1968. Each municipality currently has a general plan of urban distribution entitled “Plan General de Ordenación Urbana”, in accordance with Castile & León’s Urban Law, approved by the city council and endorsed by the Regional Government. In many cases, these plans have been drawn up and approved only recently, so they are modern documents, written by teams of professionals supposedly up to date with the necessary information concerning urban topics and the tendencies of the discipline. However, it must be said that they are documents that essentially express the political will of the Corporation.

Besides these plans, there have been several supra-municipal plans whose aim was to coordinate the political wills of the municipalities. All the municipalities that make up the city of Valladolid and the surrounding towns/villages were included in various territorial plans. As mentioned above, the first of these was the Plan “Mesones” of 1968; while the “Esquema Comarcal”, or District Scheme, was drawn up at the start of the 1980s. Finally, a third plan was drawn up which was entitled “Directrices de Ordenación del Territorio de Valladolid y su Entorno” (DOTVAENT) or ‘Directives concerning the territorial distribution of Valladolid and the surrounding villages’, which was approved in 2001 by the Regional Government. The DOTVAENT respond to the need for a modern instrument of territorial distribution of a directing and coordinating nature, one capable of giving orientation to decisions taken concerning urbanism that affect more than one municipality of the capital and its 23 surrounding municipalities. However, it has never been applied as no-one has effectively taken up the challenge of bringing order and discipline to the territory. Some authors have been

\textsuperscript{82} Data extracted from the study carried out by the firm CYLTAT Statistical Advice for the Association of Commerce of Valladolid (AVADECO), ‘El Norte de Castilla’ 25-01-2012.
extremely critical of the way in which this territorial distribution plan has been applied:

“However, despite its noble intentions, the model of territorial distribution advocated in this text and many of the directives included therein concerning mobility and transport, urbanism, basic services infrastructures, environmental protection, and territorial management and government have not been put into practice, since the affected local corporations have “forgotten” or “remembered” the existence of this document at their most absolute convenience” (Cordero, 2005, p. 25).

The DOTVAENT have currently lost all credibility and their function is merely decorative. If the first territorial documents had a practical application coordinating the diverse departments of the public administration, the DOTVAENT have not been taken seriously by the different administrations.

Planning has not functioned properly, its main failure being its incapacity to control the growth of the large operators. The technicians have been marginalized and political decisions, in the hand of the politicians, promoters and financiers, have taken precedence. It should be pointed out that the plans were in fact effective in controlling individual citizens through a complex set of rules and the discipline of a strict body of municipal civil servants; yet the largest agents have been allowed free rein to put pressure on the councils to make them modify the plans as often as necessary to adapt them to the conditions demanded by these agents. The ad hoc modifications to planning have been done with no argumentation based on urbanism. It is quite normal to see reports on the modifications to the General Plan for a great partial housing plan that can make way for low density houses as opposed to flats, and that the modification is carried out “according to the law”, complying with this or that article, while not providing reflections on a city wide scale, or of a general or territorial nature, that could explain the convenience of this new extension of the city.

Urban planning has disregarded the real complexity of the elements that have traditionally made up this territory, assigning the land uses in the urban plans without any prior analysis of the real suitability of the natural, agricultural or industrial basis. Instead of starting with a growth model that takes into account the territory, its potential and its weaknesses, we find ourselves with a planning process in which the politicians have looked to satisfy the demands of promoters and landowners whose aim is to convert the new accessibility due to the infrastructures into profits. From there, we have moved on to an urban planning which responds to obtaining capital gains, which in turn leads to a distribution dictated by the promoters and landowners.

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83 See the webpage that includes the region’s urban planning, in which the enormous quantity of partial modification accompanying each General Plan can be seen. In the case of the city of Valladolid, there are 32 partial modifications of the General Plan. www.jcyl.es/plau.
who take advantage of the new infrastructures. In short, the decisions taken concerning the building of the infrastructures have effectively become the territorial planning decisions. As a result, we have a city model that involves an extraordinary consumption of land and generates a volume of traffic which is both very costly and unsustainable from the economic and environmental point of view.

c) Transport in the city and the villages around Valladolid as an indicator of unsustainable development

The development of the villages around Valladolid is responsible for the increase in traffic along the various access roads to the city from outlying urban areas, as well as the new uses and activities created around these outlying urban areas: commercial activity (hypermarkets, shopping malls…), sporting installations, leisure centers, and new industrial estates (including offices, stores and even shops). Thus, the villages around the city are not only generating traffic flow, but they also attract a growing number of journeys from the city or from other nearby cities. The number of journeys due to work in the case of the villages surrounding Valladolid is one of the highest, after that produced in the center and around the industrial estates. 78% of the journeys generated by the villages around Valladolid are in private vehicles, as are 80% of those from the center. The villages around Valladolid are characterized by a predominance of private transport in all types of traffic. On the contrary, the center is characterized by a huge majority of pedestrian displacement, since almost two thirds of the journeys from and to the center are carried out exclusively on foot. In the center, public transport is in second place, being 6.8% of the journeys from the center and 31.5% of the journeys to the center, made by residents within the study area. Finally, in the center, private transport is used in 7.1% of journeys from the center and 9.6% of the journeys to the center, made by residents within the study area. The center is characterized by a predominance of pedestrians, followed by public transport and a testimonial presence of private transport (Ayuntamiento de Valladolid, 2005, p. 51). The relationship between the different modes of transport in the different areas of the city clearly shows the radical difference between modes of transport according to the area. The pedestrian is dominant in the streets of the traditional city center, and consequently, the streets are full of life and people; while in the surrounding areas, it is the private car that dominates and the streets of the low density suburbs have very few people and very little activity, while the car is necessary for most displacements.

d) State intervention in the housing market

Overproduction in housing and lack of planning has led to the high sensitivity of Spain’s economy to the housing sector. The banks and savings banks have received financial aid from the State through the Fund for the Ordered Restructuration of the Banks (FROB) so as to avoid bankruptcy. As a consequence, prices have not come down substantially, since it is more profitable to receive money from the State at 3.5% interest than to lower the prices of the houses by 40%. The document signed in 2012 by the Government of Spain and the European Commission entitled “Memorando de Entendimiento sobre condiciones de Politica Sectorial Financiera”,
or ‘Memorandum of Understanding on Financial Sector Policy Conditions’, is very clear with respect to the financial crisis in Spain being caused by the housing crisis and the plan designed to resolve the problem. Some financial entities, as the source of most loans used in housing developments, have suffered enormous losses, thus creating the risk of collapse in the financial system. In particular, the great sensitivity of the housing and building sector has eroded investors’ and consumers’ confidence. In order to resolve this problem, an agreement was reached to segregate the problematic assets of the banks which had received public assistance to recapitalize them, and the transfer of the said damaged assets to an external asset management entity, the Society for the Management of Assets from Bank Restructuring (SAREB). That is, in order to save the financial entities from bankruptcy, precisely those that had invested most in the housing sector, the Spanish State comes to their aid (with the financial assistance of the European Commission and the banking sector), recapitalizing them. It is what has been called the ‘rescue of the banks’ (Ministerio de Asuntos Exteriores, 2012). In order to help the financial entities to continue with their function, the houses and land they cannot sell, the so-called “toxic assets”, are bought up. Ironically, what began as an initiative to increase the freedom of the market, increase competitiveness and lower prices, has ended up with the breakdown of the market, the ruin of many promoters and the purchase by the Spanish State of the land and the houses that the market could not digest and which threaten the functioning of Spain’s entire economy. Because the State has intervened in the housing market, the prices have not dropped considerably more, in spite of the enormous drop in sales.

Conclusions
The city of Valladolid, as a medium sized city, shares common characteristics with many other Spanish cities that have experienced similar conditions. The following points from the example analyzed should be stressed:

1. The deregulation of urban legislation produced the deactivation of urban planning as a system of growth control in the city that could be adjusted to the economic and social reality. The new plans of the municipal area of Valladolid and of the majority of the surrounding towns/villages do not respect the necessary proportionality between the growth of the city and that of the population. Not only were the housing needs surpassed, but even the purchasing and consumption capacity.

2. The particular alliance between some municipal authorities, which give urban planning licenses, some banking authorities, which lend money, and some promoters, has been determinant in the transformation of the cities and has caused a great sensitivity in the large capitals to the housing sector, to highly imprudent levels, contributing in a decisive way to the bankruptcy of the said banks and savings banks.

3. The suburban growth in Valladolid has been carried out with the exclusive support of the positioning of the public infrastructures. The lack of legal mechanisms to oblige the promoters and landowners to contribute economically, and in a
proportional manner, to the improvement of the accessibility to their land, has led to the privatization of public investment and, in consequence, that there has been unreasonable growth. If this public investment in road infrastructures had not occurred, or the landowners who benefitted had had to pay for it, then the suburban growth would have been limited to a few areas with low density housing.

As a consequence of these three great causes, there has been a phenomenon of overproduction in the housing sector in Valladolid and the surrounding towns/villages. This overproduction of housing on urban land greatly weakens Spain’s economy, and it represents a drag on the economy that makes recovery from the crisis a lot more difficult.

The resulting new city model produces important dysfunctions, is more expensive, and consumes more natural resources, more space, more fuel, and more time. The new city model brings with it the decadence of the existing city, and in particular of the downtown area, generating an exodus from the historic center.

Finally, the process begun by the Conservative government to increase competition between the agents has not brought the expected lowering in the prices of houses. Prices have only fallen slightly in comparison with the increases in the previous phase. On the contrary, what is clear is that the Spanish people as a whole, through the decisions of their governments, are today obliged to buy, from the banks, the houses the latter cannot sell, through the so-called “bad bank” (SAREB), with the justification of saving the financial system. The said purchase has been done in a forced way, the final price paid and the quality of the materials or the location being nonnegotiable on the part of the buyer. All this is imposed through a decision of the central government. It is difficult to imagine a final panorama further from the free market.

Translator: Alan F. Hynds
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In 1927 John Tudor Walters published his book ‘The Building of Twelve Thousand Houses’ documenting how cottage housing estates had been built for miners’ families in over 28 different areas of the South Yorkshire, North Derbyshire and Nottinghamshire coalfields and in South Wales. He demonstrated how the standards set in his 1918 report for the Ministry of Health, could be achieved by the colliery companies and involved the setting up of the Industrial Housing Association Limited to implement the plans.

This paper reviews the origins of these colliery housing developments, including the influence of the garden city movement, examines how they have fared since and attempts to explain some of the differences. The majority of the houses still survive and are in use, but there have been a number of changes over the intervening years which have had an impact – particularly the demise of the coal mining industry in Britain. Ownership and management of the properties has been affected over this period by the nationalisation of the mines, Right to Buy legislation, local authority takeover of housing, the Decent Homes programme and transfer to housing associations. Because of the spread of the villages over different regions, they have also been variously affected by different planning and regeneration strategies. Overall the housing has proved remarkably resilient and whilst the quantity of houses built was notable, it was the quality of the housing and estate layout which has stood the test of time even if less individually designed than the more well-known Garden Cities and suburbs.

The longer term research aims to cover the changing nature of the communities in these once mining villages, especially the change from accommodation which was ‘tied’ to mining employment, to that of mixed tenure housing. However this paper focuses on the longevity of some of the design features, the changes and adaptations made and issues and opportunities for the management and planning of the areas in their different locations. This includes both the homes themselves and the external environment and associated facilities. An overview is therefore provided of the significant features of their early development and original site planning principles, how the estates have evolved relative to current needs and government policies and also some insights relevant for affordable housing, neighbourhood planning and sustainable developments.

1. Introduction and Background to the Industrial Housing Association and building of the 12000 houses

The announcement by the British Government of a new garden city (Osborne 2014) and a call for the potential of existing cottage estates to be recognised (Crookston 2013), indicates that garden city movement principles are being revisited, but now face some different challenges. However, much can be learnt from an evaluation of past housing developments and if and how they can meet current housing needs and aspirations. This paper investigates the origins and development of a very specific
workers housing provision in England and Wales in the 1920’s and how the housing has fared since then, particularly in relationship to major shifts in government policy and if there are notable differences between the estates and if so why. Three significant factors were, firstly that the housing was for mineworkers, mainly in Yorkshire and the north Midlands, and the majority of mines in Britain have now been closed; secondly, the housing was provided by the Industrial Housing Association (IHA) formed by 24 colliery companies which, as a Public Utility Society was able to borrow from the Public Works Loans Board and apply for subsidies under the 1923 Housing Act; and thirdly that the managing director was Sir John Tudor Walters, who had been the chair of a government committee into the provision of housing for the working classes (known generally as the Tudor Walters Report, 1918) which was largely the work of Raymond Unwin, a central figure in the garden city movement, and in turn influenced subsequent housing standards.

Approximately 12000 houses were built between 1922 and 1928 and Tudor Walters brought out his book in the later period of the scheme, as a type of good practice guide, with many practical points about organisation and design also illustrated with plans and drawings from almost all of the areas. In reviewing the book Patrick Abercrombie commended the ‘enterprising organisation’ for its achievement – a ‘great house-building programme’ (Abercrombie 1929 p.63). An example of typical housing is shown below (Fig 1 a and b, including a line drawing of what was a suggested interior view and a layout of one of the larger estates is shown in fig. 2
Fig. 2 Layout of one of the estates at Thurnscoe, South Yorkshire: including provision for schools, church and recreation space. The colliery lay immediately to the south.
Tudor Walters’ book set out what had been achieved by the IHA to provide housing for miners at a time when the subsidies for council housing had been reduced. The instigator was Lord Aberconway, who was a director of several colliery companies in the Midlands and South Wales and aware that housing was urgently needed for workers in the rapidly expanding coalfield. He proposed forming an association to act on behalf of the companies. Tudor Walters, an architect and surveyor, who had links to this area having been until 1922 an MP for Sheffield and chaired the Committee on Housing “fit for heroes”3, was the ideal person to take this forward. The Tudor Walters Report of 1918 had also recommended the use of public utility societies to supplement local authority house building. (Skilleter 1993). The project was an opportunity to put into place the design ideas and housing standards as set out in the report and the subsequent Local Government Housing Manual - principally by Unwin, an architect of Letchworth ‘having provided prototypes for the typical suburban house in the arts and crafts tradition’ (Oliver, Davies and Bentley 1981). Tudor Walters recognised that large employers did not want to tie up capital in housing and needed some inducement. The subsidies of the 1919 (Addison) Act provided this mainly to local authorities and the subsequent Housing Acts of 1923 and 1924 to Public Utility Societies, via the Public Works Loans Board and a number were set up in the inter-war period.

The IHA was to be a not for profit company with the investments of the coal owners gaining a return by the increased profitability of the coal mine. Economies of scale would be gained by ‘judicious standardisation’ (Tudor Walters p 29) of materials and fittings, and also by ensuring the selection of efficient building contractors, sometimes using the works department of the Doncaster Amalgamated Collieries. The book devotes much of the content to explaining the layouts, house plans and associated design features and emphasising that good quality design would in the long term result in economies. This was later borne out, as much of the cheaper housing for miners built previously by the colliery owners, required considerable maintenance or was condemned as unfit and had to be cleared. The IHA houses meanwhile although somewhat plainer and more standardised than the ‘romanticised’4 garden city movement ideal cottages were of a better quality in terms of construction and space standards and they also planned for associated facilities such as recreation grounds, shops and, for the larger estates, schools and welfare halls.

An interesting aspect was where these houses were built. They feature in settlements near coal mines across South Yorkshire, North East Derbyshire, North Nottinghamshire and also in South Wales, often in quite remote rural locations. This was a product of deep mining and the royalties which related to large estate ownership so that villages often had large tracts of land in between so conforming more to the ‘isolated mass’ model of a mining community (Ashworth 1986). The Colliery companies in all these areas were involved, with directors sitting on the IHS board. In some cases the housing formed the major part of the coal mining settlement, whilst in others it provided an addition to existing stock, usually as near to the pit head as possible. Fig 3 is based on the map provided in the Tudor Walters book and shows the location of the housing categorised by the number built.
Figure 1. Location of the 12000 Houses Source: Tudor Walters. J (1927 frontispiece D)
In addition further areas of housing were developed in South Wales at Wyllie, Oakdale and Markham villages in the Sirhowy Valley and for the Llay Main colliery company in Wrexham.

Table 1 (appended) provides the details related to the developments. It can be seen from the list of mine closures that none of the mines remain open so that the original purpose for these settlements has disappeared. Whilst nearly all the houses remain in use, residents are no longer involved in the mining industry, although the proportion had already been declining since the 1960’s. With the closure of the mines in the 80’s and 90’s, the wider community, including miners who had been housed by the local authority, faced major unemployment. The implications of being in tied housing and under the authority of the company (whereby miners could be evicted if they lost their jobs in the mines) were no longer relevant. The accommodation now houses more owner-occupiers, in line with national trends, and many of the properties have been individualised or reconfigured, with some selective demolition.

However the outcome varies between areas and the paper attempts to explain not only where why and how the housing was built but also some differences in their fortunes. In particular how this relates to the changing ownership of the housing and the planning and renewal strategies over a period of almost a century. In fact local and regional planning is seen as a linking theme in the story of these village estates so that in general the planning of the areas including their integration with other housing and consequent links to wider facilities and transportation have been relevant to their different outcomes.

The study builds on personal knowledge of some of the area, particularly the Doncaster region, visits to all of the colliery villages, local and national archive material on the IHA and miners’ housing and a review of literature about the changing housing policy context. Use has been made of the original designs and drawings to identify specific buildings in order to compare them with their current use and appearance.

The paper is structured to firstly explain in more detail the catalyst for the IHA programme and then analyse the original designs and layouts of the housing and compare them with how they appear now. The following sections then look at the roles of different factors affecting the housing over a period of more than 90 years: the decline of the coal mining industry and changes in ownership of the housing, the role of planning and regeneration strategies and finally the community aspect, before drawing some overall conclusions about the scheme and considering what lessons can be learnt for future developments.

2. The catalyst for the Tudor Walters housing development for miners: need, inspiration and means of implementation

The drive for the development of the 12000 houses was therefore a combination of factors: the urgent need for housing with the rapid expansion of the South Yorkshire and North Nottinghamshire coalfield in the early 20th century; the advice on better housing standards for the working classes contained in the Tudor Walters report of 1918; the subsidies made available to Public Utility Societies and the unique network of influential people involved.

Opening of new coalfields – need for miners
In the early 20th century the fastest growing area was the south Yorkshire coalfield and the rich Barnsley seam. The development of the concealed coalfield, also in adjacent areas of the Midlands, brought frontier town mining communities with migratory labour and overcrowding (Griffin 1977) as miners transferred from other areas such as the North East and Wales, needed accommodation. The involvement of colliery companies in urban development (White and Mayer 1955) was required because the rapid expansion could not be met by local authority housing provision so that colliery owners to undertake more house-building in the earlier interwar period so that by 1925 there were nationally 171,000 colliery owned houses. (Supple 1987). However the deeper reserves were more expensive to exploit which led to more joint undertakings of collieries and engineering companies, such as in the Doncaster area (Benson 1976), which paved the way for the later IHA collaboration in housing provision.

The Sirhowy Valley in South Wales was another area where the high value of the coal seams were exploited by intensive mining activity from the mid 19th century (Lawrence 2008). These were often small enterprises but by the start of the 20th century the Tredegar Iron and Coal company was engaging in large scale production. Previously workers had travelled up and down the valleys to the pits and the coal companies had no interest in providing houses. However during the peak years of production from 1916 the traditional agencies were unable to provide sufficient accommodation and it was then that ‘philanthropically motivated building companies’ (Jones 1969) stepped in to provide housing which was of a better quality than previously including the IHA via the Markham company. There were also some local examples of garden city ideas with the Barry Garden Suburb by the Welsh Town Planning and Housing Trust.

Need for housing of a better quality / housing standards
It was not only additional numbers of houses that were required but an improvement in the quality. At the start of the 20th century housing provided by coal companies was very poor and some remained from the early period of mine-working over a century before until the 1930’s and 40’s so that, writing about Askern near Doncaster, a Bevin Boy noted ‘the houses are built in uncouth blocks providing minimum space and comfort for the maximum number of people – and most without bathrooms’ (Rosenberg 1947). In South Wales housing for miners was more often built by private landlords rather than coal mine owners, but the standard was no better - although in some cases miners bought their own houses via building clubs. A Liberal Party enquiry of 1925 provided evidence of very poor conditions and overcrowding in the older housing for miners, in the north east and Scotland in particular. (Griffin 1971). Local authorities had been encouraged by the 1919 Housing Act to provide better housing for the working classes and this produced the first major local authority housing programmes. The ‘Addison Act’ estates built between 1919 – 1921 were generally of a high standard and recognisable in the types which followed the Local Government manual house layouts and the ‘necessary price of social stability’. (Swenarton 1981: 111)

A key question was whether local authorities could have provided the miners housing and how did the houses compare with the council houses. Whilst initially equivalent to the IHA homes, the quality of local authority-built housing during rest of the interwar period was criticised. Kirby, assessing the properties 30-50 years after they were built concluded that they were not fit for habitation at the worst and most did not meet current needs in terms of the space, equipment and services and the quality of the
wider environment. The structure was often of in poor condition partly due to the original standard and the lack of maintenance (Kirby 1971). Meanwhile debates continued in Parliament about the condition of rural miners housing (Hansard April 1923) and the pros and cons of public v private housing as a solution.

**The Garden City influence and model housing**
There was concern to improve the welfare of the working classes in 19th century Britain which translated into limited improvements in housing standards for miners in the late part of the century, such as the model village of Creswell by the owners of the Bolsover Colliery company on land leased from the Duke of Portland. This and Woodlands model village, discussed in detail by Gaskell (1979) would have been known about by the directors of the IHA. Whilst it was noted that these model villages served new mines which paid relatively high wages and ‘encouraged quiescence among mining communities on the coalfield’. (Griffin 1977 p.167).

The garden city influence was directly via Unwin – in the housing layouts and density as described in the later sections, but on a simplified basis with ‘no elaborate ornamentation, but comfortable sanitary and sound’ (Tudor Walters 1927).

**Key Individuals and Agencies**
Of significance in the IHA initiative was the collaboration across a number of companies where key individuals were connected not only by industrial interests, but also by welfare reform ideals, public office and/or a ‘northern’ or South Wales connection. (Appendix 2 attempts to map out how the IHA related to the colliery companies and other important organisations or individuals).

The Industrial Housing Association Board comprised of well-placed landowners and professionals, who were also colliery directors, members of parliament or linked via engineering companies such as the Markham group and the older iron and coal companies: Staveley and Tredegar. Of the nine members five were, or had been Liberal MP’s, (three having lost their seats in 1922/3). The Board included Charles and Arthur Markham – brothers who had extensive interests in the coalmines. Charles who was director of the Staveley Iron and Coal Company had already built mining villages for example in Arkwright and Poolsbrook. Arthur meanwhile was the Liberal MP for Mansfield and been involved in proposing Woodlands model village. Also included were Lord Aberconway’s son and son-in-law, so the directors were a well connected group with Tudor Walters complementing the society on its ability to work together and to acquire land and organise the implementation of the scheme. (Tudor Walters 1927: 36)

The street names in the housing developments reflect two key influences on their development – company directors and the garden city movement. There are therefore several Markham, Aberconway and Tudor streets and roads named for example Elm, Beech, Larch, or Poplar.

A Coal Industry inquiry, the Sankey Commission, had reported in 1919 not only on the low quality of housing for workers and that the ‘individual ownership of collieries was extravagant and wasteful’ (Supple 1987). Doncaster Collieries Association had already formed, and coming together with other colliery companies to provide housing was very timely.

The factors leading to the IHA provision for miners was therefore a combination of physical economic and social. The next section looks in more detail at the design aspect of the original scheme for the IHA houses and changes over time.

3. **The Layout and Design of Housing Then and Now**
**Location and site planning**

The main design influence was the earlier Tudor Walters report which had reflected Unwin’s ‘ruralist ethos’ with its ‘quasi-rural developments complete with winding lanes, cottages, gardens, trees and greens’ promoted by the layout. (Bayliss 2001 pp174-5). Rather than the long rows of the early colliery housing, the IHA developments were influenced by the reformist / garden suburb designers such as Percy Houfton, the architect of Cresswell and Woodlands model villages, with their curving streets, tree lined avenues and blocks of 4-6 houses, ‘sometimes recessed with offset corners, open greens and closed vistas’. (Gaskell 1979: 453).

The schemes provided were the large part of, or small extensions to, what have been classified as ‘planned industrial settlements’ in a detailed landscape characterisation assessment by the South Yorkshire Archaeological Service (SYAS 2009). Sometimes, as at Hickleton, the original village was protected as a rural settlement and the new ‘pit village ‘ of Thurnscoe was planted further away to house the workers at Hickleton colliery and ‘the earlier phase of terracing has been subsumed by the later planned settlement,’ (SYAS 2009 p ). However they were placed generally within walking distance of the pit head – it was felt that this would enable the colliery companies to compete for reliable and steady workmen’ (Church & Outram 1998).

They did not incorporate the ‘village greens’ of earlier Garden City inspired model villages such as Woodlands but often included areas of allotments and recreation space. They were laid out largely as shown in Tudor Walter’s plans, although some variations were discovered from the original drawings. Following the guidelines of the Tudor Walters report, the density was aimed to be less than 12 houses per acre – a ‘system of development control’ also used in the local authority house building of the inter-war period. (Oliver et al 1981). They demonstrated the claim of the Tudor Walters report that development could be built economically at low density also including the provision of amenities.

An interesting development was at Rossington where changes were made from the first phase of the model village. One concentric circle of housing had already been built by the Rossington Colliery company. The IHA took this forward and added a further circle but at a lower density, with a linking road and additional culs-de-sac as shown in the plan (fig 4a )The local authority also contributed housing in addition to speculative building to form the larger settlement shown on the right (fig. 4b ).

Fig 4a. Rossington Layout Plan (TW 1927)
Fig 4b Rossington 1986
In a similar way in Carcroft, the IHA housing did not look to continue the recent colliery housing – in this case, housing for the mineworkers had experimentally turned houses towards a central space with a service road to the rear, as had also been designed by Benjamin Marson for the nearby colliery settlement of Highfields. The IHA scheme rejected this forerunner of a Radburn type layout and reverted to traditional street front houses and gardens. (Fordham 2009)

Unwin had recommended the use of culs-de-sac for the prevention of through traffic and to save money (Swenarton 1988) and the smaller rows of houses to allow rear access from the side entrances or tunnels through, rather than a rear back lane. (This was wise as the latter in other areas have been problematic for refuse collection.) The cul-de-sac became a feature of suburban housing, which has attracted opposing views. In the IHA schemes now, the main issue appears to be the varying width of the access streets with the addition of so many parked vehicles (Fig. 5b). Whilst the location of the settlements and winding streets might have meant little through traffic there are a number of streets in the larger schemes which have required traffic calming measures, including closing off of roads such as at Langold.

Now the main impact is that of car-ownership. No garages were provided in the schemes, but there have been some ingenious ways of providing hard standings. The generous size of the gardens including at the front means that in many of the locations cars can be accommodated in front gardens and often also includes caravans.
The sites for the estates were generally on flat land but in some cases the terrain was more difficult. Wyllie provides a good example of adapting the layout to different contours, with south east facing aspects and within walking distance of the pit head.

The pit had a relatively short life, closing in 1968 and the rail line is now a walking route and part of the Sirhowy country park, which was provided as part of a regeneration strategy for the area. In the local plan for the Caerphilly area, a main aim in this area now is to improve the communication links between the settlements and to the main employment centres.

The drawing from the book (fig. 7b) shows the treatment of walls and different levels and the photo’s below from the 1930’s and the present, illustrate how most of the features survive apart from secondary chimneys and with the large addition on the corner property. These properties are now almost 80% owner occupied with house prices higher than most of the 28 IHA estates.

**Housing types**

A review of the scheme at the time had commended the variety of designs for the houses (Abercrombie 1929) These included 3 and 4 bedroom houses either semi-detached or in terraces of 4 or 6, with some bungalows and 2 bedroom properties. The
plans included parlour and non-parlour types as discussed in the Tudor Walters report, the former being the preferred type by the women reporting to the committee. Some of the non-parlour types with just a main living room and scullery have proved acceptable with the advent of the modern kitchen-diner and the conversion of redundant coal stores. A welcome feature was also a hot water supply provided by colliery companies such as Staveley Coal and Iron Co.

More than 15 different house types were shown in the TW document indicated the variety (although mainly resulting now in mostly three bedroom properties). A further feature in some of the estates was the inclusion of some bungalows for older residents and larger houses for colliery officials usually sited on the main roads.

**Changing ownership and individualisation of the housing**

Over the 90 years, control of the housing has completely changed since it was first built, due to changes in government policy which affected both the rundown of the mining industry and the control of the housing stock. This is described further in section 4. However the result is that only some of the properties are occupied by those who have been connected to coal mining. On average across the IHA schemes approximately a quarter are managed by local authorities or registered social landlords whilst a higher proportion are owner occupied. This has facilitated home owners to ‘express individual taste and choice’, as discussed in their book on suburbia ‘Dunroamin’ (Oliver et al, 1981) which also looks at the symbolism of the external elements that are changed and the internal furnishings.

Observations across the IHA villages show the flexibility of the housing to adapt to new aspirations and lifestyles but also that the tenure differences can be very visible, affecting not only the coherence of the style but also the social cohesion. Local authority efforts to improve their properties under the Decent Homes legislation could be problematic when for example involving only some of the homes in a terraced block but also for those who had bought their homes but could not afford subsequent improvements.

Changes to the exterior include additions, as would be found in many areas of housing, including more substantial porches and conservatories / rear extensions – although this is less for the terraced properties. As none of the estates are designated
historic or architectural conservation areas, there does not appear to have been any
restrictive control on the various additions, which can jar but also show changes in
fashion and tastes and the ability of the basic house-plan to be ‘stretched’ because of
the lower density and garden space. Crookston in his study of council cottage estates
(similar to the IHA) found no comparable changes to the ‘intensification and on-plot
expansion’ found on some outer London estates. (Crookston 2014: 99).

Fig 11a Rossington      Fig 11b Rossington

The appearance of the original houses was either all in red brick with grey tiles or half
brick and half pebbledash. Painting the latter or fully rendering the frontage, repainting and other means of improving or changing the frontages of the houses are
popular. This was taken on board with the renewal scheme for housing in the market
renewal areas.

Boundaries are now rarely uniform. Tudor Walters notes in his book that the
occupants ‘cling to the idea of all the gardens being fenced in’ and of South Yorkshire
preferring brick front walls. Their renewal in regeneration schemes can substantially
improve the appearance of the area, compare the two streets shown below.

Fig. 12 a Mixed boundary treatment      Fig 12b Thurnscoe improvements

**Provision of Facilities: their significance then and now**
In many of the areas provision was made for various community facilities such as
recreation grounds and several of the schemes allowed for plots to be used in this way
close to the housing. It was suggested that the provision of welfare facilities was to
‘cultivate respectable and sober behaviour (Church & Outram 1998). The Miners
Welfare Fund often provided the finance as ‘the product of a levy paid by colliery
companies of 1d on every ton of coal produced, following the Mining Industry Act of
1920 (Griffin 1971, 170). At collieries this fund provided pit-head baths, but within
IHA schemes notable features are also welfare halls, recreation grounds and parks.
The provision has certain characteristics - team and spectator sports are well catered
for, with football and cricket pitches at most grounds’. (SYAS 2009).
The welfare facilities provided in the more isolated rural colliery villages were an ‘indispensable institution’ (Griffin 1977). As the mines closed and the facilities could not always be supported, the loss of these institutions is another blow to the community. Some substantial welfare buildings now lay empty including the churches – which used to demonstrate the diverse origin of some of the miners moving to the area: Catholic, Anglican and Methodist.

The IHA was concerned to provide social facilities but these did have to be justified in market terms (Oliver et al. 1981). This was the case for the shops, Tudor Walters had described how, in preparing the village plans (as opposed to the extension areas) sites were set out for shopping facilities. As it was not expected that these would be commercially viable in the early period, he proposed that corner sites could be developed as ‘cottage shops’, later to revert to residential, which did happen as shown below and providing an early example of flexible land use planning.

Meanwhile several have remained in shop use e.g. Duckmanton (below), although reconfigured internally.

The shops in 2014 (Grocer and hairdresser)
It had also been suggested that there should be market squares in the villages as ‘a check .. upon the prices charged by the local shopkeepers’ (Tudor Walters 1928 p25). These had been argued for by Charles Markham and some were provided e.g. in Rossington and Edlington – but are no longer in regular use. Given the decline in the markets of major towns such as Barnsley and Doncaster, it is unlikely they will thrive, although it was noted that some of the miners welfare halls now hold car boot sales.

Fig. 17 Site of the market in Rossington
In contrast to the model villages by some other industrialists, such as Joseph Rowntree at Bournville, public houses were also considered and sites located in the larger villages such as Armthorpe and Woodlands. An interesting provision was made that breweries could develop the public houses, but were to make a contribution to the Housing Association for community facilities (Tudor Walters 1928 p 25). The Tadcaster Arms shown below remains in use partly being located on a main route from Doncaster, but others located within residential areas have closed – in line with the general trend public house closures.

Fig 18a and The Tadcaster Arms in the 1920’s and now 18b

Therefore in most areas a picture emerges of quite popular housing, which has been adapted to modern requirements (although some are still needing improvements), with
community facilities and generally integrated with nearby local authority built housing. However, the picture 20 years ago in many of the estates was very different, mainly due to the run-down of the coal industry.

5. The Decline of Coal Mining, Changes of Ownership and Impact on the Schemes

There has been a rapid decline in the coal mining industry in Britain from a peak employment in 1920 of 1,191,000 in the UK to 6000 in 2012 (DECC 2012), with only three deep mines still in operation, but due to close. The impact has not only been related to the jobs lost but also on the mining community as a whole, whilst in the intervening years other changes in the industry have also affected the housing.

*Colliery housing and nationalisation of the coal mines.*

Colliery companies had played a major role in building houses for their workers but with the depression of the 1930’s and housing being viewed as an unproductive investment, this ‘led colliery owners to disengage themselves from this market’. Together with slum clearance, this meant that between 1925 and 1946 the net number of colliery houses fell from 171,000 – 141,000. (Supple 1987).

After the second world war, the nationalisation of the coal mines meant the transfer in 1947/8 of all the houses including entire colliery villages to the newly constituted National Coal Board (NCB). (Supple 1987). This included all the assets of the IHA which was wound up voluntarily in 1948. (Company documents in the National Archives). However, recognising that local authorities would not be able to provide all the housing required by workers in some of the expanding coalfields, the NCB set up the Coal Industry Housing Association in 1952 and by 1955 they had built 19,354 houses, although they did not build any further from the mid 1960’s (Sykes 1980).

A significant feature of the Yorkshire / N. Nottinghamshire/ NE Derbyshire coalfield was the impact of miners who were now also labour councillors and who wanted to replace the worst company housing with council housing (Williamson 1982). As the IHA houses in the immediate post-war period were still relatively young, their condition was satisfactory. Some improvements such as the replacement of sanitary fittings were undertaken by the National Coal Board in the 1970’s with grants from the European Coal and Steel Community, but overall the board had no interest in improving the stock or building further homes (Sykes 1980). In addition, many miners were housed by the local authority. In 1971 20% of employees lived in NCB houses, and of those living in this accommodation 32% were occupied by retired miners or widows (Ashworth 1986). A survey in 1977 revealed that only 12% of miners lived in NCB housing. The NCB had become reluctant landlords with a poor record of repairs and estate management. (Sykes 1980).

*Sales of National Coal Board housing*

In a paper on falling manpower requirements and restructuring in the coal industry, it was noted that the Board wished to dispose of many of its houses (MHLG 1969). Just after nationalisation it had been suggested by the Ministry of Fuel and Power 1949 that a scheme be drawn up to sell homes to the mineworkers. This was not taken further until 1960 when there was a request by tenants of the Coal Industry Housing Association to be sold their houses. An internal government briefing note presented the points for and against - the latter being the recommendation, with arguments that it would reduce the required mobility of labour, encourage possible subsidence claims
and if there was insufficient housing available to let to miners this would impact on the numbers on the council waiting lists. A high demand was not expected at that time. By the late 1960’s the NCB was reducing its housing stock with some having been demolished through slum clearance (Ashworth 1986) and by 1976 the NCB took the decision to sell off its houses. Housing was not seen as a welfare component but more as a commodity (Harloe 1995). Tenants were encouraged to buy and some were sold to local authorities including Doncaster. In the Yorkshire and Humberside region the National Union of Mineworkers was against sales to the private sector or housing associations, whilst the government had a concern over municipalisation if local authorities took over the stock. Meanwhile many of the houses became vacant and in poor repair, for example in Edlington. A Shelter report (1987) notes that public auctions also took place for some properties, heralding the arrival of the absentee landlords, although some Thurnscoe tenants formed a co-operative and bought 361 of their homes. However many were also sold to tenants under the 1976 sales policy as sitting tenants could buy their homes at 50% of the market value, which continued up to 1980.

In this period in the Yorkshire coalfield 36% of the 27,816 houses were sold to sitting tenants. Local authorities only bought a small number at this time as it coincided with cutbacks in their finance, so the NCB continued as ‘reluctant landlord’ of the remainder (Sykes 1980). Houses for miners were only ‘an aid to securing and retaining a big enough labour force for the coal industry locating it where it was most needed’ (Ashworth 1986). For the 27,500 NCB houses remaining by 1985 after the coal miners’ strike, a deadline of 1988 was set for the rest to be sold, including by public auctions as noted above. The Housing Act of 1980 had introduced the ‘right to buy’ so that tenants in the housing now owned by the local authorities could also consider buying their homes.

There is no specific information on sales of the IHA houses but of the 12000, the proportion now owner-occupied varies greatly between areas (see table 1) from 40 – 80%. The well-located houses in relation to transport and other centres of employment have been more popular than some of the more isolated areas or those of the smaller/terraced properties.

The national miners’ strike of 1984/5 marked a rapid escalation in mine closures and the workforce reduced significantly throughout the following decade. The remaining mines were reprivatised in 1997 but continue to be scaled down with the last deep mines now due to be closed. Whilst the industry which required an urgent response to house its workers is no longer operating, the houses built by the IHA have continued, but now are part of a changed community.

**Stock Transfer and Decent Homes**

The Conservative Government’s Housing Act of 1988 and the Local Government and Housing Act of 1989 gave tenants the choice to transfer to another landlord. In 1990, substantial financial support was made available to housing associations, so that transfer was attractive to some councils facing years of financial constraints. There was also privatisation of management of council stock via compulsory competitive tendering for such work. The changing ownerships of the IHA stock are shown in Table 1.

Local authority ownership / management has also changed with the impact of Decent Homes targets. A requirement of the previous Labour government which had set a target of all social housing tenants having access to a decent home by 2010 (DTLR
2001), echoed Lloyd George in 1919 promising ‘Homes fit for heroes’ (Gallent and Tewdr Jones 2007).

Some authorities created an Arms Length Management Organisation (ALMO) to gain additional finance to improve and manage their housing. Of the IHA housing areas in local authority ownership, about 1/3 have now been taken over by an ALMO, by stock transfer and the rest (not sold to tenants) retained by the traditional local authority – Rotherham Chesterfield and Mansfield Bolsover, Newark and Sherwood. (see Table 1).

Meanwhile the biggest impact on the colliery villages was the closure of pits and the virtual end of the coal industry in Britain. This has had a major impact not only in the loss of jobs and the tied housing but the communities and their future. The coalfields research programme found that housing was seen as a major issue, although regeneration had usually focussed on job creation and retraining (Beynon et al 1999.) A particular problem was that the remaining NCB housing was to be sold off between 1985-8: a number of tenants bought their homes (69%) and 20% went to local authorities or housing associations. It was decided to sell the remainder to the private sector and these were often absentee landlords, concentrated in some of the areas such as Warsop, who did not maintain their properties. It was also noted that the very low prices of housing in these areas made them attractive to speculative landlords, which was particularly problematic when one landlord owns a large number of properties. ‘Private landlords are contributing to the rundown through poor maintenance and an overall lack of commitment to housing the community’ (Beynon 1999 p.13)

5. The Role of Planning and Regeneration Policy

During the life of the colliery estates, there have been many developments in the history of planning in the UK which have affected them, but two periods are singled out: the early regional planning and regeneration policies as the coal industry declined.

Evolution of early Town & Regional Planning

The planning of colliery settlements took place at a time when, under the 1909 Town Planning Act, there was ‘a new era in British town planning’ (Shurtleff 1910). Soon after the act was passed conferences were held by both the Garden City Association and the Housing and Town Planning Council, to discuss the operation of the act, an early conference being held in Doncaster looking to develop settlements on garden city lines – with a central town and satellite settlements (Longstreth Thompson 1929). Regional Planning was facilitated by the 1919 Housing Town Planning etc Act as it provided for joint working by a number of districts. The Doncaster area is of note because of some early planning developments and interest of some well-known planning experts including Patrick Abercrombie who produced a regional planning scheme for the area (Abercrombie 1922). The latter, shown in the diagram fig 19 set Doncaster as the main town surrounded by a number of satellite settlements which were either the expanding colliery villages / small towns or the historic centres and provided a useful blueprint for the exploitation of the coalfield. Emphasis was put on the transport system and avoidance of the land liable to flood still of relevance now.
Yet Gaskell commenting on the longer term impact of this early regional plan noted that ‘the region could not sustain, under the economic constraints of the inter-war years, a transference from community building and estate layout to planning on a grander scale with broader objectives’ (Gaskell 1979: 456).

This was particularly important when regional planning came to the fore at the end of the 1990’s when regional planning agencies were set up and it was hoped that they could be instrumental in helping revive the economy especially in the declining coalfield areas.

**Regeneration and Planning Strategies**

The National Coalfields Programme was set up to provide support for the coalfield communities affected by the colliery closures of the 1980’s. It was recognised that a wide range of programmes was needed to regenerate the areas including ‘managed decline’. This has involved ‘further demolition of cramped housing, sometimes leading to replacement homes being built, but often leaving the land as an area of urban green space’ (SLAS 2009). The government reviewed the programme in 2011 and acknowledged the need for further investment in these areas and funding was provided to continue the programme although the regional development agencies were abolished. Coalfield sites remaining are now with the Homes and Communities Agency transferred from the Regional Development Agencies in 2012.

There have been some initiatives from this period which have benefitted the local communities in which the IHA estates are situated—such as the reclaiming of the pit head sites and colliery spoil heaps. Former collieries in rural locations have provided opportunities for environmental enhancement rather than redevelopment. From being industrial villages with limited access to the nearby countryside, the landscaping has been successful in specific areas such as Poolsbrook Country Park or community Woodland at Brodsworth pit and at Dinnington (via The Land Trust). Table 1 appended shows the change of use of the colliery sites associated with the IHA locations.
Housing market renewal, as part of the government’s linked Sustainable Communities Plan from 2003, aimed to rebalance the housing market where areas of empty homes or in poor condition were not meeting current needs – in the North and Midlands. The emphasis was on physical improvements which saw major investment between 2002 and 2011. A key designated housing market renewal area was the ‘Green Corridor’ project, involving a partnership of Doncaster Wakefield and Barnsley districts and included some housing improvements and a joint application for funding. The overall aim of the Green Corridor project was for the former coalfield areas lying between these towns to be seen as an area of opportunity ‘where low demand and poor quality housing, neighbourhood decline and poor environment were a thing of the past’. (Barnsley Council 2012). Yet not every area benefitted: Thurnscoe was contrasted with the nearby village of Grimethorpe in a BBC documentary which highlighted how the area continues to decline despite some housing renewal. (BBC 2012 A tale of two villages)

In Nottinghamshire, Meden Valley Making Places was set up in 2003, by Mansfield and Bolsover councils with English Partnerships as a ‘special purpose vehicle’ to deal with the problems of the area which included unfit housing, a poor environment and tenure mix. Comprising 11 settlements including the IHA housing at Church Warsop, this was an area which had been hit most by the sale of housing to absentee landlords (Homes and Communities Agency 2010). The company acquired the worst of the rented housing stock and housing associations undertook improvements to the properties which landlords had allowed to deteriorate.

A result of the changing ownership of the housing across the old coalfield areas has been the mixed tenure areas ‘pepper-pot tenures’ (where owner-occupied properties or privately rented properties are sprinkled across estates) which can be problematic for regeneration and funding. All the housing cannot be tackled together and especially in relation to the owner-occupiers who bought early on in right to buy. Whilst the programme of improvements has been delayed, many of the IHA estates have had properties improved under the Decent Homes programme. However because some of the properties are owner occupied or privately rented these were not covered by the improvement programme.

Since the closure of the mines the colliery villages have had mixed fortunes, but the IHA properties have survived well, although further regeneration is required. In some areas new buyers have taken the opportunity to not only extend and improve their properties but there have been further investment in new infill housing (fig 21) and conversion of smaller terrace properties into larger ones (fig 22)
A house price survey of the neighbourhoods in which the estates are located (Table 1 appended gives the ranking (from £55000 to £130000) which indicates considerable variations between them, but they do not appeared to have undergone a ‘gentrification’ process, possibly related to the previous designation (stigma?) as ‘coal board’ then council housing.

Community development
Meanwhile finance for regeneration has fluctuated and EU funding was not generally been available for housing or local facilities other than training centres (Beynon et al, 1999). When the houses were provided in relation to employment in the mines, community involvement tended to be via the miners unions, and tenants groups acted more as channels of communication with the housing authority. Greater activism of the unions in some areas such as Barnsley reduced the impact of right to buy, whilst the introduction of community development workers in the areas of mine closures supported the tenants involvement in key decisions. (Grayson 1991). However many areas now have Tenants and Residents Associations which bring together the different tenures.

Current planning strategies in the areas of the estates
Finally the planning strategies for these areas are not clear. Some have suffered from delays in the production of Local Development Frameworks and the abolition of Regional Planning Bodies and their spatial strategies. It might have appeared that some of the previous mining villages would have been candidates for neighbourhood plans, introduced by the coalition government, but of the 24 villages only one has produced a neighbourhood plan (Armthorpe), whilst just two others have applied for designation (Rossington and Warsop).

The different areas in which the villages are located have diverged in terms of their economic development, community involvement, and the current standard and role of the housing built at a different time by a group of employers.

6. Conclusions
The IHA houses overall have stood the test of time overall – proving the economic value argument of Tudor Walters in being better built and well designed, only deteriorating through lack of maintenance.
Their influence was also in showing the Tudor Walters report in action. Local authorities also built to similar standards early on and following the Dudley report, although not consistently. For the Industrial Housing Association to build this number of houses spread across many different areas was not insignificant and they were the only Public Utility Society to build on this scale. The main factors appear to be the drive of the leading figures involved, a well-connected network of people and companies, welfare and garden city ideals and the economic need for workers in the new coalfields and government subsidies. As suburbs had their defenders (Oliver et al 1981, Clapson 2003 and Barker 2009), the council built cottage estate have also been reconsidered in Crookston’s writing on their future role. He terms them ‘a lazy asset’ as a national resource we are not making the most of (Crookston 2013). The 12000 houses are of the same vintage and some already display the potential he defines although some also reflect the stigma of some of the poorer council areas. Whilst outwardly there is similar council housing of the same period, their history as tied housing of the mining industry has affected both their physical maintenance and the once close-knit community. The National Coal Board as a reluctant landlord was in some cases replaced by an absentee landlord leading to a decline in housing conditions. Nevertheless, regeneration schemes have made significant improvements in some of the areas, particularly those remaining as social housing.

The low density of the developments and well constructed houses have proved adaptable to new needs even if they do not always fit with the overall design of the original housing areas. A key point is that they were generally integrated with the existing community, including where other developments with similar styles were nearby and the provision of community facilities. The populations in the areas have also changed and adapted, but not without some major periods of depression and areas of decline. Some areas still require further physical and economic regeneration. The collaboration of the companies across a number of areas is a demonstration of the value of wider partnerships, a ‘great co-operative enterprise’ as termed by Tudor Walters, but what was missing in the early days of the colliery housing was tenant participation. The involvement of the community has been central to the success of regeneration schemes in the Meden Vale and could ensure that such areas remain as sustainable settlements.
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DETR (2000): Decent Homes Quality and Choice for all. London DETR
National Archives: Company Papers of the Industrial Housing Association.
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Osborne, G (2014): Budget speech....
It seems that the number 12000 includes some of the properties previously built on Tudor Walters lines by the colliery companies involved in the IHA and some which were planned at the time of writing but not constructed until a few years later. However, approximately 10000 had been built during the period 1922-28.

The book: 'The Building of 12000 houses’ has illustrations of nearly all the estate layouts, drawings of street scenes and examples of the house plans and elevations. Wherever possible these were identified on site and a photographic record kept in order to compare the original design with the current appearance.

This term was explained more fully by Mark Swenarton in his book on ‘Homes fit for Heroes’ – ascribed to David Lloyd George, regarding post-war reconstruction requirements.

A criticism noted by Gaskell (1987) of some architects about the Garden City movement style.

Three new pits were sunk in the middle Sirhowy valley: Wyllie, Oakdale and Markham. The latter name being the clue to the link with the Yorkshire / Notts/Derbyshire coalfield, as board member Arthur Markham was involved with the subsidiary companies which ran the three pits - Markham Steam Coal company, Oakdale Navigation and Tredegar southern collieries. As Lord Aberconway was a member of the Board, it was not surprising that here three model villages were also planned to house the mine-workers (although only Wyllie is specifically mentioned in the Tudor Walters book).

Settlements of this period could be quite substantial such as Markham or comprise of just a few streets such as at Wyllie. Jones in his classification of the South Wales colliery settlement put these in the category of pithead settlement, often grafted on to an existing village and limited to about 200 houses. (Jones 1969).

Bevin boys was a title given to men conscripted to work in the coal mines during the second World War named after Ernest Bevin the war-time Minister of Labour and National Service.

Abercrombie in his review of the Tudor Walters book commented that he did not expect to see all the front and linking side walls built (Abercrombie 1927) although many were built as designed.

The choice of sites was apparently left to the colliery companies (White 1955), probably influenced by their land ownership and preference for their workers to be nearer the pit head.

Church and Outram (1998) Looked at ‘strike proneness’ of mines and whether this might be affected by the provision of welfare facilities and good housing such as provided by the IHA. Whilst characteristics of the settlement might be one factor it appeared that good relations with management was significant in averting strikes.
THE WELL-CONNECTED INDUSTRIAL HOUSING ASSOCIATION

INDUSTRIAL HOUSING ASSOCIATION

Lord Aberconway (MP) Chairman
(Director on majority of the colliery companies X)
Sir John Tudor Walters: Managing Director
(MP in Sheffield)

Directors
- Robert Armitage MP
- William Bird MP
- Maurice Deacon
- Sir Charles Ellis
- William Humble
- William McConnell
- Henry McLaren
- Charles Markham
- Sir Henry Burt MP
- William Mother Jackson
- John Ashton
- Frank Knight

Hickleton Colliery
Markham Main X

Gunthorn Colliery
Bullcroft colliery
Brodsworth Colliery
Woodlands model village - Arthur Markham

Dinnington Main Colliery X
Maltby Main X
Lay Main Colliery

Rossington Main X
Yorkshire Main Colliery X
Cortonwood Collieries X
Edsor Colliery

Tredgar Iron and Coal Company X
Tredgar Southern Collieries

John Brown Co. X
Engineering

Markham collieries 1-4
Markham Steam Coal Co.

Langwith
Glapwell

Sheepbridge Iron and Coal Company X
Newstead Colliery Co. X
New Monkton Collieries

Oakdale Navigation Collieries X
Wylie Colliery

Worsop Main

Old Silkstone Collieries

Staveley Coal and Iron
Markham Company

Tudor Walters Committee 1918

Ministry of Health

Ministry of Munitions and Reconstruction
Public Works Loan Board

Christopher Addison
Minister for Housing;
1919 Housing Town Planning etc Act

Patrick Abercrombie:
Regional Plans for expanding coalfield areas

Housing and Town Planning
Trust. Design of Housing

Percy Bond Houton, architect ( Mansfield)

Benjamin Marson, architect
Carmoft Highfields

Source: National Archives re. IHA and Durham Mining Museum

Links with companies — mainly directors from the companies sitting on the Industrial Housing Association, when set up or subsequently (— — —) but also architects, family connections or via government departments or committees —

504
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<th>Date opened/ closed</th>
<th>Rate</th>
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DAC = Doncaster Amalgamated Collieries, Location = Yorkshire coalfield, Derbyshire Coalfield, Nottinghamshire coalfield, Other. ADC = Amalgamated Danby Collieries, TENUR = Owner occupied, SR = Social rented, PR = Private rented, Data is as included in the study.
The Living Environment in Tsukuba Science City, Japan: Progress and Current Challenges

Kimihiro Hino, Sayaka Fujii, Sachiko Yamamoto, Akinobu Murakami, Shun Watanabe

ABSTRACT
Tsukuba Science City (TSC) was planned and developed by the Japanese government in the early 1960s. This paper aims to determine if TSC has achieved its goal in creating a suitable environment for research and education and to identify its current challenges from the perspective of the living environment. According to a questionnaire survey of 940 residents conducted in 2013, a high level of satisfaction was expressed with the environmental aspects of TSC. However, three main challenges were identified because of the massive demolition of national officers’ housing followed by large-scale redevelopment on former housing sites.
1. INTRODUCTION

1.1 Purpose
Tsukuba Science City (TSC, see Fig. 1) covers approximately 28,400 hectares and is located approximately 60 km northeast of Tokyo. TSC was planned and developed by the Japanese government in the early 1960s. One of the goals of establishing TSC was to form a suitable environment for high-level research and education. The purpose of this paper is to determine if TSC has achieved its goal of creating a suitable environment for research and education and to identify its current challenges from the perspective of the living environment.

1.2 Outline of Tsukuba Science City (TSC)
TSC was planned to help relieve the extremely concentrated population density of Tokyo in the mid-1950s. As the Japanese economy grew rapidly, the population influx from rural areas increased the population of Tokyo to more than 8 million in 1955, which was larger than the peak population before the war (7.35 million in 1940). The population exceeded 10 million in 1962, overloaded the urban infrastructure, and resulted in urban sprawl. The policy of relocating governmental offices was finally approved by the Japanese Cabinet in 1961. In 1963, the second Ikeda Cabinet agreed to construct a 4,000-hectare Science City in Tsukuba Area (see Table 1). The reason why the Tsukuba Area was selected as the construction site was unclear, but four reasons were gleaned from records of the Committee on Basic Problems in the Tokyo Metropolitan Area: 1) the distance between Tsukuba and Tokyo was approximately 60 km, which would enable a one-day trip between the two cities, whereas the other three candidate areas were at least 100 km away, 2) Lake Kasumigaura, the second largest lake in Japan, which lies 10 km east of the Tsukuba Area, would supply water for living and research, 3) Tsukuba Area is located on the Kanto Plain, and a smaller elevation difference would be advantageous for construction compared with the other three candidate areas, 4) related municipalities, including Ibaraki Prefecture, worked hard on the invitation. The goals of establishing TSC were both to form a suitable environment for high-level research and education and to help relieve the increasing population and industrial density in Tokyo. Promoted by the TSC Construction Act proclaimed in 1970, all 43 national universities and research institutes that had decided to relocate completed their relocation and started operations by 1980. Following this, the Japanese government declared that the construction of TSC was almost completed. Nearly 20 years had passed since the Cabinet Agreement.

1.3 Methodology
A literature survey and quantitative research method using a questionnaire survey were used in the present study. The questionnaire survey was conducted from May 24 to June 14, 2013 targeting all households of the national officers’ housing to determine residents’ evaluation of the living environment of TSC. Survey items included their housing (date of occupancy, address and reason for habitation), their evaluation of the living environment, communication with neighbors and their demographics. Some questions concerning the living environment were the same as
those of a national census to compare the evaluation of TSC with the national average. A total of 3,754 questionnaires were distributed, and 940 were returned by mail (response rate = 25.0%).

Table 1 Chronicle of Tsukuba Science City

<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>1963</td>
<td>The Cabinet agreed to construct a Science City in Tsukuba Area</td>
</tr>
<tr>
<td>1964</td>
<td>The Cabinet decided to establish the Headquarters to promote construction</td>
</tr>
<tr>
<td>1966</td>
<td>Land purchase started</td>
</tr>
<tr>
<td>1970</td>
<td>Tsukuba Science City Construction Act was proclaimed</td>
</tr>
<tr>
<td>1972</td>
<td>Residents started to move into national officers’ housing</td>
</tr>
<tr>
<td>1972</td>
<td>The first institute finished its relocation to TSC</td>
</tr>
<tr>
<td>1973</td>
<td>The University of Tsukuba was founded</td>
</tr>
<tr>
<td>1980</td>
<td>43 research and educational institutes completed their relocation and started operations</td>
</tr>
<tr>
<td>1985</td>
<td>Joban Expressway was connected to Tokyo Expressway Tsukuba Expo ’85 was held</td>
</tr>
<tr>
<td>1987</td>
<td>Three towns and a village were integrated to form Tsukuba City</td>
</tr>
<tr>
<td>2001</td>
<td>National research and educational institutes were turned into independent administrative agencies</td>
</tr>
<tr>
<td>2002</td>
<td>Tsukuba City integrated Kukizaki Town</td>
</tr>
<tr>
<td>2005</td>
<td>Tsukuba Express Railway started its service</td>
</tr>
</tbody>
</table>

Source: Ministry of Land, Infrastructure, Transport and Tourism
http://www.mlit.go.jp/crd/daisei/tsukuba/english/outline/003.html
2. CONSTRUCTION AND PROGRESS OF TSC

2.1 Major developer of TSC
In 1963, the Cabinet approved that the Japan Housing Corporation (JHC) would carry out land purchase for and construction of TSC. Founded in 1955, JHC played a major role in the development of large housing areas in the Tokyo Metropolitan Area such as Tamadaira (168 hectares) and Tokiwadaira (133 hectares) and started construction...
of much larger Kozoji Newtown (702 hectares) in Aichi Prefecture. Including the above, JHC helped develop numerous large, suburban “new towns” during the period of rapid economic growth between the 1950s and the 1980s. However, unlike other “new towns” developed primarily as residential areas, TSC was designated by the fourth National Capital Region Basic Plan in 1986 as a “Business Core City” in the Tokyo Metropolitan Area.

2.2 Land Use of TSC
TSC comprises the Research and Education District (2,696 hectares) at the core and the surrounding Suburban District, which is expected to be conserved as much as possible. In the middle of the Research and Education District, which stretches for 18 km from north to south, the city center area covers 80 hectares and includes public facilities, shopping facilities and a bus terminal. The residential area, which covers 665 hectares, has three clusters: Hanamuro (now named Azuma, Kasuga and Takezono), Sasagi (Namiki) and Teshirogi (Matsushiro). Based on the “neighborhood unit” concept, each residential area except for those in the city center has a square, a community center, schools, shops and clinics at its core so that residents can enjoy the services necessary for everyday life.

2.3 National Officers’ Housing and Housing Construction Standard
To accommodate researchers working in TSC, approximately 8,000 housing units were constructed (Fig. 2). The first housing development in 1971 was in Hanamuro East Area (a part of Takezono and Azuma Area at present), which accommodated 142 households. Five-storied residential buildings were built in parallel there, which met existing specifications of the Ministry of Finance, but did not follow JHC’s master plan of developing a high-quality living environment. It was because JHC had been unsuccessful in persuading the Kanto Local Finance Bureau to completely change its first plan. (Fig. 3 shows that the implemented plan after JHC’s persuasion was almost the same as the first plan.) Feeling uneasy about this, JHC and a committee of experts formulated a construction standard for Hanamuro East Area in 1972. Extending it to all planned housing areas in TSC, the Housing Construction Standard was established in 1973 with the goal of constructing a high-quality living environment that was appropriate for a science city. There were four principles in the Standard: (1) Realization of an excellent townscape by implementing harmonic changes in form, height and design of buildings and attaching importance to views from parks and walkways, (2) Preserving and growing greenery through planting trees in housing sites to harmonize them with their surroundings, (3) Separation of pedestrians and traffic, which is described below, and (4) Realization of a comfortable living environment.

The Standard included those already being practiced by JHC. Those standards were based on a master plan from their prior experience of “new town” development, and included the “neighborhood unit” concept as well as the ideal layout of open spaces.
2.4 Construction of Walkway Network (Pede)

A 48-km network of walkways (commonly called ‘Pede’) was designed and constructed to keep pedestrians separated from traffic, similar to what was done in Radburn, NJ in the United States.

The main Pede, which linked Tsukuba University in the north and Akatsuka Park in the south via the central area of TSC, ranged from 10 m to 20 m in width and 10 km in length. Main parks, cultural facilities, central commercial facilities, research facilities and housing were located on the main Pede.

In planned housing areas, an 8-m-wide Pede was constructed considering bicycle use, which was connected to the main Pede at many points where squares and parks were
located. Neighborhood parks, schools and commercial sub-centers were located on the 8-m-wide Pede.

2.4 TSC at Present
In 2013, the population of TSC reached 220,000, including approximately 12,000 scientists from roughly 300 national and private research institutions and corporations, making it Japan's largest center of research and development. Another unique aspect of TSC is that it does not suffer from many of the problems facing other massive suburban “new towns” in Japan, such as an aging population and, due to its designation as a “Business Core City”, commercial decline. Based on responses from the questionnaire survey shown in Table 2, a higher level of satisfaction was expressed with the environmental aspects of TSC, particularly in regard to “proximity to nature”, “playgrounds for children”, “spaciousness and openness of the area” and “streetscapes and landscapes” compared with the national average. In the city center area (Azuma and Takezono), where commercial and cultural facilities are located, especially after the opening of the Tsukuba Express Railway, convenient access to the workplace, schools and shopping was highly valued as well. Although the contribution of TSC in helping to resolve excessive overcrowding in Tokyo remains unclear, its contributions to the promotion of science and technology and the realization of a truly livable city are unquestionable.
Table 2 Percentage of residents who were satisfied with items concerning their living environment

<table>
<thead>
<tr>
<th>Item</th>
<th>TSC (2013)</th>
<th>National (2008)*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Azuma</td>
<td>Takezono</td>
</tr>
<tr>
<td></td>
<td>Namiki</td>
<td>Matsushiro</td>
</tr>
<tr>
<td></td>
<td>Kasuga</td>
<td>TSC (2013) Azuma</td>
</tr>
<tr>
<td>Proximity to nature, such as greenery and water</td>
<td>93%</td>
<td>97%</td>
</tr>
<tr>
<td></td>
<td>92%</td>
<td>95%</td>
</tr>
<tr>
<td></td>
<td>98%</td>
<td>94%</td>
</tr>
<tr>
<td></td>
<td>67%</td>
<td>65%</td>
</tr>
<tr>
<td>Playgrounds, parks, etc. for children</td>
<td>94%</td>
<td>98%</td>
</tr>
<tr>
<td></td>
<td>86%</td>
<td>96%</td>
</tr>
<tr>
<td></td>
<td>95%</td>
<td>93%</td>
</tr>
<tr>
<td></td>
<td>93%</td>
<td>65%</td>
</tr>
<tr>
<td>Convenience of commute to work, school, etc.</td>
<td>97%</td>
<td>96%</td>
</tr>
<tr>
<td></td>
<td>88%</td>
<td>82%</td>
</tr>
<tr>
<td></td>
<td>86%</td>
<td>92%</td>
</tr>
<tr>
<td></td>
<td>79%</td>
<td>79%</td>
</tr>
<tr>
<td>Convenience in terms of shops for daily necessities and access to medical care, welfare services, cultural facilities, etc.</td>
<td>95%</td>
<td>94%</td>
</tr>
<tr>
<td></td>
<td>88%</td>
<td>83%</td>
</tr>
<tr>
<td></td>
<td>80%</td>
<td>91%</td>
</tr>
<tr>
<td></td>
<td>74%</td>
<td>74%</td>
</tr>
<tr>
<td>Spaciousness and openness of the area, as well as its exposure to sunlight</td>
<td>88%</td>
<td>87%</td>
</tr>
<tr>
<td></td>
<td>87%</td>
<td>91%</td>
</tr>
<tr>
<td></td>
<td>84%</td>
<td>88%</td>
</tr>
<tr>
<td></td>
<td>65%</td>
<td>65%</td>
</tr>
<tr>
<td>Streetscapes and landscapes</td>
<td>89%</td>
<td>81%</td>
</tr>
<tr>
<td></td>
<td>79%</td>
<td>89%</td>
</tr>
<tr>
<td></td>
<td>89%</td>
<td>84%</td>
</tr>
<tr>
<td></td>
<td>86%</td>
<td>71%</td>
</tr>
<tr>
<td>Access to child support services</td>
<td>74%</td>
<td>79%</td>
</tr>
<tr>
<td></td>
<td>71%</td>
<td>80%</td>
</tr>
<tr>
<td></td>
<td>71%</td>
<td>75%</td>
</tr>
<tr>
<td></td>
<td>75%</td>
<td>63%</td>
</tr>
<tr>
<td></td>
<td>74%</td>
<td>66%</td>
</tr>
<tr>
<td>Interaction with neighbors and the community</td>
<td>71%</td>
<td>78%</td>
</tr>
<tr>
<td></td>
<td>75%</td>
<td>84%</td>
</tr>
<tr>
<td></td>
<td>83%</td>
<td>63%</td>
</tr>
<tr>
<td></td>
<td>74%</td>
<td>66%</td>
</tr>
<tr>
<td>Access to welfare and other support services</td>
<td>70%</td>
<td>77%</td>
</tr>
<tr>
<td></td>
<td>66%</td>
<td>73%</td>
</tr>
<tr>
<td></td>
<td>73%</td>
<td>75%</td>
</tr>
<tr>
<td></td>
<td>71%</td>
<td>63%</td>
</tr>
<tr>
<td>Protection against fires, earthquakes, and water damage</td>
<td>68%</td>
<td>73%</td>
</tr>
<tr>
<td></td>
<td>69%</td>
<td>68%</td>
</tr>
<tr>
<td></td>
<td>70%</td>
<td>69%</td>
</tr>
<tr>
<td></td>
<td>58%</td>
<td>58%</td>
</tr>
<tr>
<td>Noise and air pollution</td>
<td>60%</td>
<td>72%</td>
</tr>
<tr>
<td></td>
<td>73%</td>
<td>73%</td>
</tr>
<tr>
<td></td>
<td>73%</td>
<td>66%</td>
</tr>
<tr>
<td></td>
<td>66%</td>
<td>59%</td>
</tr>
<tr>
<td>Pedestrian safety in the neighborhood</td>
<td>63%</td>
<td>69%</td>
</tr>
<tr>
<td></td>
<td>66%</td>
<td>66%</td>
</tr>
<tr>
<td></td>
<td>66%</td>
<td>56%</td>
</tr>
<tr>
<td></td>
<td>64%</td>
<td>54%</td>
</tr>
<tr>
<td>Security and crime prevention</td>
<td>51%</td>
<td>57%</td>
</tr>
<tr>
<td></td>
<td>49%</td>
<td>61%</td>
</tr>
<tr>
<td></td>
<td>57%</td>
<td>53%</td>
</tr>
<tr>
<td></td>
<td>55%</td>
<td>55%</td>
</tr>
<tr>
<td>Traveling distance to parents and relatives</td>
<td>47%</td>
<td>46%</td>
</tr>
<tr>
<td></td>
<td>48%</td>
<td>40%</td>
</tr>
<tr>
<td></td>
<td>47%</td>
<td>46%</td>
</tr>
<tr>
<td></td>
<td>64%</td>
<td>64%</td>
</tr>
<tr>
<td>Accessibility of the site and its surroundings</td>
<td>41%</td>
<td>39%</td>
</tr>
<tr>
<td></td>
<td>34%</td>
<td>38%</td>
</tr>
<tr>
<td></td>
<td>30%</td>
<td>38%</td>
</tr>
<tr>
<td></td>
<td>42%</td>
<td>42%</td>
</tr>
</tbody>
</table>

* Average of 13,778 responders who lived in rental housing and answered the “Comprehensive Survey on Housing and Living Environment” conducted by the Ministry of Land, Infrastructure, Transport and Tourism in 2008.
** Shaded cells indicate 80% or more.
3. PROBLEMS CAUSED BY MASSIVE DEMOLITION OF THE NATIONAL OFFICERS’ HOUSING

However, TSC is currently at a major turning point. Due to worsening public finances and increasing pressure for development after the opening of the Tsukuba Express Railway in 2005, housing for national officers is gradually being demolished and replaced with private housing developments, even though this runs contrary to the standards established in 1973. Moreover, no less than 2,500 national officers’ housing units will be demolished in 2015, after which, only 1,200 will be left standing (Fig. 4). All former housing sites are expected to be sold to private developers. The number of households living in the national officers’ housing units and the overall occupancy rate are decreasing. This appears to be due to not only the deteriorating attractiveness of the old-fashioned housing buildings but also the development of new private housing buildings nearby in spite of the low rents of the national officers’ housing units. Additionally, the opening of the Tsukuba Express Railway prompted residents to leave the national officers’ housing units in the suburban areas (Namiki and Matsushiro). However, the number of units expected to be demolished is much more than the number of empty units, and the demolition plan fails to consider the local characteristics.

The demolition of national officers’ housing is expected to be associated with the following three main problems: 1) deterioration of the townscape, 2) decrease in the amount of local foliage and green spaces and 3) the residents’ fear of crime. In this section, these problems are described with quantified information in turn.

Fig. 4 Change in the number of national officers’ housing units
Source: Tsukuba City
* These numbers do not include approximately 1,800 units whose management was transferred to the University of Tsukuba and a few institutes when they were turned into independent administrative agencies in 2001.

3.1 Deterioration of the Townscape
Private developers who bought former national officers’ housing sites built massive housing complexes one after another, as shown in Fig. 5. These housing complexes
do not meet the Housing Construction Standard under section 4 of chapter 4, which states that a massive building is to be divided into human-scale buildings. An example is a site in Takezono Area about 1.3 km east of the city center where the building coverage ratio (i.e., building area / lot area) increased from 15% before redevelopment to approximately 25% (Figs. 6, 7). The floor area ratio (i.e., total floor area / lot area) almost doubled to 200%, and the building interrupted the view from the Pede to the north. The site is surrounded by a wall because of recent demand for security and privacy, which does not meet the Standard under section 4 of chapter 8, which states that a barrier should not be built to enclose a housing lot. Another example is a site approximately 3.7 km away from the city center, which is on the main Pede of Namiki Area. Namiki Area (formerly Sasagi Area) was planned as a comparatively low-rise area in the Housing Construction Standard. The building coverage ratio increased from 12% before redevelopment to approximately 35%. The floor area ratio increased from 30% to 200% (Figs. 8, 9). Thus, the townscape, which is highly valued by residents, is deteriorating as a result of massive redevelopment on former housing sites.

Fig. 5 Photographs of redevelopment sites in Takezono (left) and Namiki (right)

Fig. 6 Computer-generated birds-eye images before and after redevelopment in Takezono
Source: Field Study of Urban Space 2013 (Graduate school of Univ. of Tsukuba)

Fig. 7 Aerial photographs before and after redevelopment in Takezono
Source: MLIT (left) and Tsukuba City (right)
3.2 Decrease in the Amount of Local Foliage and Green Spaces
Local foliage and greenery that has grown over the years contributes to the enjoyable urban walking environment in TSC. It can be quantified with the ‘ratio of greenery’, which is defined by the ratio of green area in the entire visual field. Figure 10 illustrates that the ratio of greenery on the Pede in the national officers’ housing area is generally more than 50%; however, the rate decreases to at least 5% in redeveloped areas. Some standards, such as the Housing Construction Standard in 1973 that upheld a principle of preserving and growing greenery, are needed for future redevelopment.
3.3 Residents’ Fear of Crime

According to the Broken Windows Theory, small acts of deviance will, if ignored, escalate into more serious crime. An area of abandoned housing is a likely target for littering, graffiti and anti-social behaviors. It is difficult to quantify deviance in or around areas of abandoned housing, but residents’ fear of crime was clearly noted in responses from the questionnaire survey.

Asked how they think the security level of their area has changed compared to five years ago, 31% of respondents chose ‘somewhat worse’ or ‘much worse’ (Fig. 11). This percentage was the highest in Takezono 3-chome where the first buildings for national officers’ housing constructed in 1971 were taken out of service in 2008 and left untouched, as shown in Fig. 12.

Figure 13 shows the reason(s) for choosing ‘somewhat worse’/‘much worse’ on the questionnaire in the descending order of the number of answers that included ‘more vacant housing’ (59%), ‘hearing more about crime’ (55%) and ‘abandoned housing’ (45%). Once it is decided that housing is to be demolished, residents move to private housing, leaving behind vacant rooms. This makes maintenance of vegetation difficult, weakens community ties and decreases the number of passersby in the areas.

In Takezono 3-chome, no less than 94% of the residents thought that the abandoned housing decreased the level of security in their area. The percentages of ‘maintenance of vegetation’ (61%) and ‘littering’ (33%) are significantly higher among all areas in TSC.
4. CONCLUSION
The results of literature and questionnaire surveys conducted in the present study show that the goal of TSC, to create a suitable environment for research and education, has been achieved. However, three main problems caused by the massive demolition of national officers’ housing were identified:
1. deterioration of the townscape as a result of massive redevelopment on former housing sites
2. decrease in the amount of local foliage and green spaces that have grown over the years and contributed to the enjoyable urban walking environment
3. residents’ fear of crime, which was clearly noted in responses from the questionnaire survey

Regarding the first and the second problems, a guideline for redevelopment on sites of former national officers’ housing would be needed instead of the Housing Construction Standard, which contributed to the creation of the present TSC environment. Regarding the third problem, both gradual demolition to ease the impact on communities and shortening of the period from the demolition to redevelopment would be needed.
REFERENCES
Japan Housing Corporation (1973) *Housing construction standard in Tsukuba Science City*
Kanto Local Finance Bureau (1980) *Outline of national officers’ housing*
Urban Development Corporation (2002). *Memorial book of urban development projects of Tsukuba Science City*
Rudolph Atcon and the Planning of University Campuses in Brazil in The 1960s
Gabriella Inhan, Klaus Alberto Chaves

Abstract
In the 1950s and 60s, the fragility of existing university structures was becoming apparent and their reformulation was proposed. In this context, the North-American consultant Rudolph Atcon was one of the key actors in the administrative, educational and physical restructuring process of Brazilian universities. His ties with Brazil formed in 1951, and he started working with higher education the following year when he was invited by Anisio S. Teixeira to consult on the organization of the newly created CAPES (Portuguese acronym for Campaign for the Improvement of College Educated Personnel). His involvement in this field intensified between the 1960s and 70s, participating actively in the formulation and structuring of the CRUB (Council of Rectors of Brazilian Universities). His work in the governmental sphere consisted partly in facilitating agreements between USAID (United States Agency for International Development) and the Department of Education and Culture in Brazil. During these decades, Atcon published two studies that were relevant to the planning of university spaces: *Towards a Structural overhaul of the Brazilian University* (1966); and the *Manual for the Integral Planning of the University Campus* (1970), which was requested by the CRUB and became the only official Brazilian guide on the topic. It is worth highlighting that the national university structure was going through its largest expansion ever in the 1960s. His work transcended Brazil. He consulted countries in Latin America (Venezuela, Chile, Honduras and Colombia), Central America (Dominican Republic and Mexico) and Europe (Portugal and Germany), either through international agencies such as the OAS (Organization of American States) or not. This paper seeks to present the ideas of this consultant about university planning and their impact on the physical restructuring of the Brazilian campuses created in the 1960s. To understand the scope of his proposals, we analyzed a campus for which Rudolph Atcon did not provide direct advice. The campus of the State University of Campinas (Unicamp) which was built 1966 without ties to preexisting schools. This study uses a mixture of urbanistic designs used to set up these campuses, photographs and documents from the development period. Primary sources were prioritized, such as the publications by Atcon, his letters archived in both the Documentation Center of UNESCO and the Research and Documentation Center of Contemporary History of Brazil. Secondary sources were used for contextualization, contributing to a broader understanding of the relations between the educational and urbanistic fields at the time. The study reasserts the importance of Rudolph Atcon in the planning of Brazilian university campuses. Although he did not work directly on the planning of some universities and their campuses, it is possible to see that he shared the same ideas as the intellectuals of his time who were trying to reformulate the country's university issue. This can be confirmed by the ideas that he promoted through his publications and activities with official bodies, which ended up becoming guidelines that influenced the thinking of the designers responsible for creating federal university campuses.
1 INTRODUCTION

The field of higher education in the 1950s and 1960s in Brazil was marked by various changes that reconfigured the foundations of this educational sector. The increase in population caused a lack of vacancies for the existing demand from students exiting the secondary education system. Even with the increase of universities in the 1960s, the final number of vacancies did not meet the demand. The recent industrialization of the country, on the other hand, was demanding quality education that met the new standards for professional knowledge.

Through the physical configuration of the higher education system during this decade, the notion that the university campus should integrate various academic structures within a new education model was reestablished. It would, in this sense, cease to be merely a space to bring together several faculties.

Rudolph Atcon arrives in Brazil precisely in this context of reformulation in the field of education. His professional ties with the country were first established in 1951, and tightened in the 1960s, leading many studies and works focused on the country's university education. His professional career was linked to organizations of great relevance. In Brazil, he worked with CAPES (Campaign for the Improvement of Higher Education Personnel) and CRUB (Dean's Council of Brazilian Universities). He also worked, in the international context, with USAID (United States Agency for International Development) and OAS (Organization of American States).

The objective of this paper is to present the ideas of this consultant about university planning and their impact on the physical restructuring of the Brazilian campuses that were created in the 1960s. To understand the scope of his proposals, and to demonstrate the complete interaction with the ideas that were being discussed at the time by Brazilian intellectuals, a campus was analyzed for which Rudolph Atcon did not provide direct consulting services. It's precisely because he didn't work directly on these projects, however, that we are able to evaluate how his ideas influenced the university space and gave shape to the discussions that were taking place throughout Brazil. One of the problems in studying these matters, is the fact that the figure of Atcon remains obscure in the University Reform history. For there are few and limited studies on the actions and concepts on which he based his ideals. This is why a study about a campus on which he didn't work directly as a consultant is justified. It is as a way to understand the scope of his influence in the country.

The object chosen to demonstrate this relation between the consultant's ideas and those circulating in the intellectual milieu, was the campus of the Universidade Estadual de Campinas (Unicamp), which was built in 1966 without ties to preexisting schools.

To achieve our objective, we analyzed primary sources, such as the publications by Atcon, his letters archived in both the Documentation Center of UNESCO and the Research and Documentation Center of Contemporary History of Brazil (CPDOC). We also consulted the urban design projects to set up these campuses, photographs and documents from the development period. For contextualization of the period, secondary sources were used that contributed to a broader understanding of the relations between the educational and urbanistic fields at the time.

2 ATCON AND HIS PROPOSALS FOR THE CAMPUS
Atcon was Greek by birth (1921-1995), but became an American citizen. His technical training was extensive. In 1943 he graduated in civil engineering from Union College, Schenectady, New York, and in 1949 in liberal arts from Amherst College, Amherst, Massachusetts. In 1951, he earned his graduate's degree in philosophy of science and symbolic logic from Harvard University (ATCON, 1973, p.179,180).

His had an intense professional life, working on several projects simultaneously in different countries. In Latin America he provided services for universities of Venezuela (ATCON, 1973, p.186) (ATCON; TRUCCO, 1973, p.180 and 186), Chile and Colombia (ATCON; TRUCCO, 1973, p.186-187). In Central America his studies covered the Dominican Republic, Honduras (ATCON, 1973, p.184-186) and Mexico (ATCON; TRUCCO, 1973, p.188-189). In Europe, he limited himself to Germany (ATCON, 1973, p.184-185). And in Africa he provided services to Angola through Portugal (ATCON, 1973, p.185).

His first ties with Brazilian higher education were established in 1952 when he was invited by Anísio Teixeira to consult on the restructuring of the CAPES (Campaign for the Improvement of Higher Education Personnel) (ATCON, 1973, p.180-183). He was then appointed as its deputy director (1953 to 1956). Right from the start, he visited ten European countries in order to recruit professionals for Brazilian universities (ATCON, 1984, p.11). Simultaneously to this work at CAPES (1956 and 1957), he developed other projects in the country and in Chile. According to Atcon himself, he had several involvements between 1958 and 1960 with the Brazilian authorities responsible for the creation of the University of Brasilia.

Figure 1: Rudolph Atcon
Source: Amherst College
which is confirmed by the letters exchanged with the then Secretary-General Anísio Teixeira in 1961 (TEIXEIRA, 1961).

In the following two years, 1961 to 1962, Atcon interrupted his work in Brazil to develop projects in Honduras, Chile, Germany and Angola, returning to advise the Director of Higher Education of the Brazilian Ministry of Education and Culture in 1963. That year he stayed for seven months in the city of Rio de Janeiro to put his analyses in order of the German Universities he’d visited between 1961 and 1962, which he published in 1964 under the title Zum Strukturwandel de deutschen Universitat. Still in 1962, the Organization of American States (OAS) asked Atcon to assist in the establishment of the principles that should guide the educational development of Latin America in the next decade. Among the nine experts, he was the only one involved in the field of higher education (ATCON, 1973, p.184-186). We were still not able to establish how far this involvement with the OAS went, but since this study is part of a master's thesis, our intent is to get a fuller understanding of this issue before its conclusion.

His activities in Brazil intensified after the United States Agency for International Development (USAID) and the Brazilian Ministry of Education and Culture (MEC) entered agreements in order to stimulate education through technical and financial aid (MINTO, 2013). These agreements had the greatest impact between June 1964 and January 1968, without immediate results, but according to Minto, they sustained the university reform made during the Brazilian Military Regime in 1968 (MINTO, 2013).

In 1965, he advised the Pontifical Catholic University of Rio de Janeiro (PUC-Rio), which resulted in the publication Proposal for the restructuring of the Pontifical Catholic University of Rio de Janeiro. The same year, Atcon advised the Minister of Education and Culture in Brazil and, at the request of the Division of Higher Education, prepared a critical study comparing the current situation of Brazilian universities with the previous decade, and the changes at the University of Brasilia (ATCON; TRUCCO, 1973, p.187). The result was the publication of the book Towards a Structural Overhaul of the Brazilian University in 1966. In the wake of the debates that were already occurring between the deans of public universities, he suggested in this text the creation of the Dean's Council, which would be responsible for promoting studies that were an adequate fit for the country's actual university context, including its structural, pedagogical and administrative aspects (ATCON, 1966, p.13).

In the same year the CRUB was founded, Atcon took on the position of Executive Secretary of this council (1966-1968). His publication Manual for the Complete Planning of the Campus (1968) was one of the works developed in this period at the request of the CRUB. This text became the only official guide in the country about the theme (ATCON; TRUCCO, 1973, p.187-188).

From 1969 to 1972, he returned to work through the OAS for countries such as Brazil, Mexico, Argentina and Colombia. In May 1970, he resumed contact with Espírito Santo, Guanabara and Rio Grande do Sul (ATCON; TRUCCO, 1973, p.189).

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1 Before this, the deans had already come together in meetings called Forums for the Dean's of Brazilian Universities. These forums established the need for the creation of a body that was fully devote to this theme, mirroring Chile, Germany and Central America. It was during the VII Forum for the Dean's of Brazilian Universities, in April 1966 in the city of Rio de Janeiro, that the creation of the Dean's Council of Brazilian Universities (CRUB) was proposed, which was accomplished in April 30, 1966.
3 ATCON'S PROPOSALS FOR THE UNIVERSITIES

Atcon's proposal for the reform of Brazilian universities contemplated the pedagogical, administrative and physical spheres. Two principles stand out among his ideas: the need for the deployment of an integrated university that connects research, education and extension (SERRANO, 1974, p.8-9), which broke with the traditional model focused on the development of qualified professionals with extensive training (PINTO; BUFFA, 2009, p.107); and the understanding of the direct relationship between a country's educational and economic development (ATCON, 2009, p.4-5), which was a strong reason for Latin America to invest in higher education (FAVERO, 1991, p.20).

In his model the university should fulfill four tasks: educate, research, strengthen ties with the community and foster the importance of social issues and respect for others in educators (ATCON, 1970, p.11).

One of Atcon's main goals was the quantitative and qualitative expansion of education, which would serve a greater share of the population with higher quality education through long-term planning and economic strategies to minimize costs (SERRANO, 1974, p.11 -17).

In the pedagogical sphere, Atcon proposed a new university unit that would bring together the basic disciplines in a University Center of Studies, similar to the model adopted by him in Concepcion, Chile (1958), and subsequently at the University of Brasilia (1962), with the exception of the strictly professional subjects, which should be united in departments. This model in which the student would first go through a basic cycle before the professionalization cycle, would postpone the time at which students had to make their career choice, which means they'd be more mature during this decision-making process. The model would provide for a greater integration of disciplines, a broader foundation for students, a reduction of the institution's costs related to professional and physical space, stimulate competition between the teachers to get additional training, provide more freedom for the professional faculties to focus on actually learning the profession, without worrying about basic disciplines, enable the development of graduate programs, which had stagnated, and foster scientific production. The entire change process would be gradual, taking into account the financial reality of each institution (ATCON, 1966, p.15-18).

This university conceived by Atcon meant a physical change in relation to the traditional isolated schools and also, according to the author, in relation to the monumental, thoughtless and anti-functional university cities (ATCON, 1970, p.13). These changes in physical structure should absorb the pedagogical and administrative changes proposed by him.

Atcon's job as consultant did not cover the design of the campuses. His work was limited to its planning and guidelines. The design would remain the responsibility of the urban planner who, among other technical studies, such as analyses of the topography, subsoil, environment, surroundings, public accesses and relationship with urban services, should develop studies on solar orientation and ventilation to ensure a better thermal comfort for the buildings. Only after considering these results would "zoning" be started (ATCON, 1970, p.28-39), which in his view would enable the integrated growth of all campus activities.

From this perspective, Atcon created diagrams (figure 2) containing seven sectors, which in his view would be of vital importance for the functioning of the
university, and which should be located so as to enable the relationship between the intersecting sectors.

All sectors start with the basic sector (BA), located in the center of the diagram, where the basic disciplines would be housed for all courses offered by the university. The biomedical sector (BM) would be at one extreme and near the entrance. Its location is explained by the potential construction of a University Hospital (HC), which would meet the demands of the academic faculties of this sector and of the community. Its position on the "periphery" of the university would allow it to be easily accessed by the community without a significant impact on academic life. At the other extreme, the sporting sector (ES) would be housed, keeping HC patients far removed from the noises and avoiding the visual contact between the sick and the healthy people of the sporting sector, since for Atcon seeing healthy people practicing sports would constitute a provocation of the patient's psychological senses. Should a stadium, or a sports department for the community be built, then this should also have easy access (ATCON, 1970, p. 38-47).

The basic disciplines stipulated by Atcon would depend on the courses that the university made available to its students. In general, Atcon listed some types: mathematics, languages and letters, education, theology, geography, physics, chemistry, biology, psychology, philosophy, sociology and anthropology. Physical education (figure 2) would not be a basic subject, "but its activities must nourish the entire university, and especially the students of the first two years" (ATCON, 1970, p. 71-72).
The other sectors were located according to their relationship with the others. The technology sector (TC) would be responsible for engineering and would have a design department (de), which would also serve the artistic sector (AR). The cybernetic sector (CI) ended up being distant from one of the important departments, mathematics. It was located between the agriculture sector (AP) and sporting sector, because of the basic sector departments of social sciences. The agriculture sector and biomedical sector sectors had the same basic disciplines in common, which explains their proximity (ATCON, 1970, p. 49-67).

To separate the campus area in relation to the neighborhood, Atcon stressed the need for the creation of a green ring that would form a boundary between the campus in relation to its surroundings. This would initially function as a park, allowing the expansion of the campus. If the university decided in the future that it didn't need all the extra land acquired, it could put portions of land up for sale,

The construction method suggested by Atcon was simple and articulated. It provided for the use of pavilions that would allow expansions and changes in functions, with only one floor, which could be extended, if the size of the land purchased so required, to a maximum of three, thus avoiding the use of elevators. (ATCON, 1970, p. 86-88).

In 1965, Atcon made a diagnosis of Brazilian universities for the MEC, for which he visited 12 campuses. On this occasion he criticized the Federal University of Minas Gerais and the Federal University of Bahia (ATCON, 1966, 44) because of their luxuriousness, which hindered the expansion and integration of other fields of education (ATCON, 1966, p. 44). At the Federal University of Paraíba, Atcon praised both the engagement of the dean and other people involved regarding the already developed program. His analysis about the Federal University of Pará was the most flattering since he regarded it to be a step ahead of all other universities he visited, and because it showed constant growth since his first visit 11 years before. He highlighted the political, financial and administrative structure of this university; the deployment of two cores for the basic disciplines of physics and mathematics in order to enable an expansion; the policy to improve the academic staff and the acquisition of more than 500 hectares of land (ATCON, 1966, 23-39).

In his manual, Atcon treated both the Federal University of Paraíba and the Federal University of Pará, in addition to the Federal University of Espírito Santo, as examples of his ideas for physical space (ATCON, 1970, p. 86-88). The Federal University of Espírito Santo was not included in these visits in 1965, but one of its campuses, the Goiabeiras, was of great influence on the consultant through the development of a the guideline document titled Proposal for the Restructuring of the Federal University of Espírito Santo, in 1966 (BORGO, 1995, p. 109-110).

4 5. STATE UNIVERSITY OF CAMPINAS (UNICAMP)

4.1 Founding of State University of Campinas

Within the changing higher education context of the 60s, the governor of the state of São Paulo Adhemar de Barros stated through and announcement in the Official Gazette of June 1950 that

To solve the problem of excess students approved in entrance exams, but not allocated in existing institutions, the government suggests three solutions: 1) Wait for private initiative to build new Higher Education institutions; 2) Integrate other institutes and faculties to University of São Paulo; 3) Create isolated institutions in the heartland that can be centers for other universities in the future. Another benefit of this measure is that it would open up prospects for development and cultural life in the heartland (MENEGHEL, 1994, p. 145 apud DIÁRIO OFICIAL³, 1950, p. 20).

³ Announcement no. 156 of State Governor Adhemar de Barros published in the Official Gazette of 06.15.1950, p. 20
He concluded that one of the solutions for the lack of vacancies would be the creation of new private or public units, which would enable an increase of students. He also suggested that these higher education institutions should be built in the heartland.\footnote{Some examples of universities created in the 1960s in the state of São Paulo: Faculty of Medical and Biological Sciences of Botucatu, currently Universidade Estadual Paulista, deployed in 1963; Faculty of Medicine of Marília, established by State Law no. 9236, of January 19, 1966, by then-governor Adhemar de Barros; Federal University of São Carlos, founded in 1968; The Faculty of Medicine of São José do Rio Preto, founded in 1968.}

The researcher Stella Meneghel adds that by this time education had gained political value for mayors and members of congress with the need to service the large number of students from the heartland who went to the capital looking for higher education (MENEGHEL, 1994, p.145).

State University of Campinas was created within this context of focusing on the heartland and also of a reflection by the academic community on the quality of higher education in Brazil. In 1965, a commission was created to stimulate discussions among qualified professionals to make the institution viable, called the Planning Commission of the University of Campinas (COPLAN). The Commission's proposal was approved in December 19, 1966, and was based on the "tripartite model (Faculties, Institutes and Additional Bodies), with a credits and basic cycle systems, a departmental structure, interdisciplinarity, dedication to teaching, research and extension activities, etc." (MENEGUEL, 1994, p.146), a model that was first tried out at the University of Brasilia. Meneghel highlights that the approved model was aligned with the MEC-USAID agreements in several aspects, such as: the State-University-Company scheme; development of graduate's programs; the scholarship programs; and the different way of administering the university as if it were a private company. In Zeferino's vision, a university was a "company that produced culture", which should render profits for an economy that was expanding industrially through the delivery of skilled labor for the country (MENEGUEL, 1994, p. and 148).

State University of Campinas was born, therefore, out of the reflection by a group of educators on the current state of Brazilian institutions that were deployed earlier, and who sought to emulate the education of developed countries. (MENEGHEL, 1994, p. 150 and 158). According to Fausto Castilho, who was one of the protagonists in the first steps towards the establishment of State University of Campinas (CASTILHO, 2008, p. 17), State University of Campinas was an opportunity to help solve the higher education problem of the time.

First, it was a university that was built almost without any anterior structures. Second, the organizers were able to learn from previous experiences ( ... ), the case of the University of São Paulo. And third, there was great discussion going on about the modern university concept (Humboldtian) during the drafting of its design. (CASTILHO, 2008, p. 17)

According to the researcher Eustáquio Gomes, Zeferino Vas, who was imbued with the thinking of his time, tied the pedagogical proposal to an integrated campus, "an organism, and not a colony of organisms", prioritizing the interaction between
students, teachers and researchers from various courses, which in his view would stimulate creativity (GOMES, 2007, p. 48).

For Fausto Castilho, the Commission based itself, at the national level, on the first design for the University of São Paulo and that of the University of Brasilia. At the international level, they took inspiration from the seven projects of the German federal universities⁵, which were initiated in 1965. These universities developed their physical and structural proposals simultaneously. In the case of University of São Paulo, the reports by Castilho demonstrate that those involved in the creation of the State University of Campinas observed two problematic aspects: the disparity between the initial ideas of the founders and the reality that was implemented, as a way to guard against a similar misfortune; and the lack of synchrony in the creation of the university structure and the structure of the university city, which caused the "unrecoverable misalignment between the moment of conception and the time of implementation" (CASTILHO, 2008, p.97 -98). In the case of the University of Brasilia, on the other hand, Gomes (2007, p. 48) states that Zeferino Vaz took advantage of the scientific, didactic and administrative precepts of the University of Brasilia as an important source in the construction of State University of Campinas. Castilho nevertheless criticized the poor utilization of the campus area by choosing for an architectural solution that allocated the Central Institute of Sciences in a single large building that could not meet the needs for expansion of the institutes, instead of an urban solution, which would dilute the departments over a greater number of buildings, remaining as central institutes (GOMES, 2007, p. 48) (CASTILHO, 2008, p. 103).

Just as was the case for the University of Brasilia, in 1969 State University of Campinas also had initial concepts that were not implemented. One of them was that "the central square wasn't prepared to receive the General Studies" (EG), through which the freshmen would attend internships before graduation, allowing a better reflection on what course to take. The non-deployment of the EG meant students entered through an isolated professional college, contrary to the projected immediate access to the university (CASTILHO, 2008, p.137 and 148). Medicine also ended up being far away, and for this reason it was distanced from research, restricting itself not to a hospital school, but to a clinics hospital, despite the fact it was still funded by the university (CASTILHO, 2008, p.141 -142).

The full support of the State Government enabled the hiring of at least 230 scientists from institutions of the United States and Europe (GOMES, 2007, p.44 and 57). The faculty staff of the State University of Campinas also included Brazilian professionals, such as renowned researchers from the University of São Paulo, alumni for the ITA and professionals who’d lived abroad (MENEGHEL, 1994, p.151).

5.2 Physical Planning

According to Castilho, the COPLAN (Planning Commission of the University of Campinas) saw the university integration through

\[ \text{two } a \text{ priori principles - and a corollary resulting from them [...]} \]

First, the \textit{a priori} principle of a centered structure, incorporating the

⁵ As one of the members of the Commission, Fausto Castilho took advantage of his stay in France for his work at the University of Besançon to get to know the reform of the German universities that were underway, visiting the first of a program of seven higher education institutions (CASTILHO, 2008, p. 46 and 115-118).
concept of the university since 1934; Second, the *a priori* principle of a radial campus, proposed in 1963 as a first step in the search for a planning solution to overcome the obstacles on which Darcy Ribeiro’s design had stumbled in Brasilia; And third, the resulting corollary of the combination of the two principles, namely: that the integrated encyclopedia should be installed in its entirety in a single campus (CASTILHO, 2008, p.130-131).

Castilho stated that the choice for a "radial" format would enable the organization of the two proposed structures: "The university structure and the actual functional portion of the university city". According to Fausto Castilho, this concept was based on four points:

1) The campaign in defense of the public school; 2) the debates about the proposed university reform; 3) my stay for a whole month in Brasilia to discuss the plan of the University of Brasilia at the invitation of Darcy Ribeiro; and 4) the studies, discussions and reflections on the design for the Federal University of São Paulo by its university council (CASTILHO, 2008, p.18).

The integration of all departments as one unit proposed by Zeferino would interfere in the physical infrastructure of the campus, and urban planning would be his ally to give life to his idea. They started with a large central square and the institute buildings and the Dean's Office would be placed around it, promoting a meeting point and the interaction between students, teachers and researchers from various courses. The library would stand out in the square as a symbol of knowledge, and the other buildings would be subordinate to it (GOMES, 2007, p.48-49).

To put all of COPLAN's intentions into practice, they entrusted the design of the campus to the architect João Carlos Bross, and the execution became the responsibility of the *Escritório Técnico de Engenharia* (ESTEC) under the supervision of engineer Paulo D’Andrea (CASTILHO, 2008, p.122) (PINTO; BUFFA, 2009, p.129 -136). According to Bross (1970, p. 85), the campus was designed to receive the concepts and philosophy of State University of Campinas, giving prominence to research. It was installed in an area of 52 hectares, located at 1.5 kilometers from the ring road that surrounded the city, with a projected future growth (1980-1984) to 12 thousand graduate and undergraduate students⁶, and a population of 3 to 5 thousand teachers, researchers, technicians and general service providers (BROSS, 1970, p.85-86).

For the zoning the office adopted the model of the "radial" campus (Figure 4) approved by the COPLAN, containing a large square in the center surrounded by the institute buildings, the library, the dean's office and the support services. As can be seen in figure 5 buildings of all Institutes would be constructed in its perimeter (VAZ et al, 1966, p.17-18). The COPLAN also defined the location of buildings in sequence and by affinity, with the idea of creating something in between those two great but distinct institutions, University of São Paulo and University of Brasilia. In University of São Paulo's case, the criticism resided in the large distances within the campus, which hindered the relationship between the fields of research. The problem at

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⁶ Value above the one originally approved by COPLAN, which projected up to 10,000 (CASTILHO, 2008, p.133).
University of Brasilia, on the other hand, was the implementation of a single building of enormous proportions to shelter its institutes, despite the fact that the campus disposed of a large terrain. Castilho considered this a mistake, "resembling the departments of faculties" (CASTILHO, 2008, p.132 and 135) (GOMES, 2007, p.48-49).

Bross' justification for his design was that

The Campus will have a focal point, established by a "cuore " or large square, allocated as an external area where people meet and share experiences, seen as a pole (...). As such, in his first contact with the "Campus" through this square, the visitor will have an immediate idea and sense about the destination and integration of surrounding areas, which showcase the true universe of the University (BROSS, 1970, p.85)

![Figure 5: Schematic of the physical structure of State University of Campinas](source: BROSS, 1970, p . 85)

The schematic of State University of Campinas's physical structure, shown in figure 4, demonstrates that the guidelines laid down by COPLAN were followed by Bross, who sought to bring together the related areas, divided

"Into 3 large sectors: exact sciences, biological sciences and humanities. The sub-sectors were grouped together in order to provide an exchange in the use of spaces and to improve the relationship between students and activities" (BROSS, 1970, p.86).

The sectorization started with the cuore, located in the center and with easy access to the Centro de Vivências (Living Center) that housed the "socio-cultural activities (museum, the main lecture hall, shopping-center, etc) next to the Computer Center and Dean's Office" (BROSS, 1970, p. 86). The Biological Sciences sector was placed at the entrance of the campus, which would facilitate the access of patients to the Clinics Hospital. The proximity of Humanities to Exact Sciences was done because of the Arts, which form a link between the two fields. As can be seen in Figure 5, the Humanities terrain provided for a stadium, which had no relationship with the Biological Sciences. Encircling the campus, all facilities were surrounded by a ring road (PINTO; BUFFA, 2009, p.129 -136).
In the book *O conceito de universidade no projeto da Unicamp* (the concept of the university in State University of Campinas's design), Castilho states that he does not think the campus and university city are the same. As he put it, the campus is the location where research and teaching are focused, the *cuore* that is nestled in the university city. The latter would also include the administrative and financial functions (CASTILHO, 2008, p.133). As such, as can be seen in figure 7, the university city of Barão Geraldo was divided into two slices. One (area 1) housed "the campus area - where the research-and-teaching that properly define a university meet - and, on the other hand, the remaining area of the university city (area 2), where all other units are located (CASTILHO, 2008, p.131)."

By dividing the concepts, the scales are developed differently, as illustrated in figure 8. While the campus is designed for the pedestrian, the university city enables the displacement by car, with the transport within the campus occurring through collective and individual (roller skates or bicycles) means (CASTILHO, 2008, p.133).
The construction methods for the State University of Campinas campus were based on simplicity and uniformity, adopting the same finishing for all the buildings in order to minimize costs. The buildings would be flexible, with as little masonry as possible, permitting changes through removable walls. The electrical, hydraulic and gas installations would be installed in ostensible piping to facilitate maintenance. Buildings would not exceed three floors, eliminating the need for elevators (VAZ et al, 1966, p.16-18).

5 CONCLUDING REMARKS

The importance of Atcon in consolidating the educational policy of Brazilian higher education could be identified by his publications and consulting activities, highlighting the text about the planning of university spaces, Manual On the Integral Planning of the University Campus (1970), which guided the creation and expansion of many Brazilian universities.

This study also demonstrates the similarities between the plan proposed by Atcon and those executed by the Federal University of Juiz de Fora and the Federal University of Campinas.

In the pedagogical sphere, we can see that Unicamp shares the proposal of departmentalizing the institutes, and in the administrative sphere they recognized the necessity of seeing the university as a private company that yields profits, which Atcon promoted in his consultancies.

Physically, the similarity begins by the proposal of the cuore, with a large central square surrounded by other sectors that make up the university. The Unicamp proposal is faithful to Atcon in maintaining its institutes around the square in order to be able to quickly link the sectors with the institutes.

A difference was the change regarding the green ring envisioned by Atcon and the ring road designed for Unicamp. In both cases, however, the premises were removed from the urban environment, complying with the consultant's goal.

As for the buildings' construction methods, Unicamp provided for economic buildings based on modular, standardized structures that would be flexible enough to house the most varied occupations. Such guidelines are in alignment with Atcon's recommendations for the Brazilian campus.

The similarities between Atcon's proposals and the ideas for the State University of Campinas (Unicamp), regardless if they were actually implemented,
indicate that Rudolph Atcon shared the same ideas as many scholars in the field of higher education of the time, which is also exemplified by the cases of the University of Brasilia (UnB) and University of São Paulo (USP), and that he was of great influence on the university reform process of the 60s in Brazil, not only because of his work in the political and administrative sphere, but also by associating his proposals for university reform with a strategy for the physical planning of universities.

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Conflicts and continuity: 
the development of green spaces in Qingdao, China (1898-1938) 
Benyan Jiang, Masaki Fujikawa

Abstract:
Qingdao was governed by Germany, Japan and Republic of China from 1898 to 1938, which means not only the city but also green spaces in Qingdao showed colonial features and cultural conflicts. Those features can be seen from the unequal access to green spaces, monuments built in parks and even plant landscapes created by tree species imported from Germany and Japan. However, colonial features can hardly be seen from the forest landscape. That was probably because most forests were created in the suburb and the main functions of forest was to protect water and prevent soil erosion. On the other hand, from the end of 19th century, many countries were trying to solve the problems brought by industrialization. Ideas such like “hygienic city” and “park city” were proposed by governors. Thanks to these ideas to build Qingdao into an ideal city, constructions of green spaces also showed continuity from 1898 to 1938 and Qingdao finally became the most beautiful city in China.

Key words: Conflicts, continuity, forest, park, urban planning

1. Introduction
Qingdao, governed by Germany, Japan and Republic of China from 1898 to 1938, is one of the most famous modern cities in China. Same as many other modern cities, there are multiple modern historical houses and complexes described as “world architecture exhibition” in the old town. That is why by far most of previous studies of Qingdao have been carried out in architectural field. Some surveys reported the locations and present situations of historical buildings; some studies focused on the evaluations and conservations, and some analyzed the architectural styles and designs.

By contrast, few concerns were shown on green spaces in Qingdao. As a matter of fact, Qingdao was regarded as “paradise”, “the most beautiful city in China” before WW II because of the numerous and diversified green spaces distributed along coast, hills and downtown. Since Qingdao is a modern city constructed under the direction of urban planning theories, we assume that the green spaces had a close connection with Qingdao’s urban planning and therefore, were results of accumulated ideas of different governors. This paper will take forests and parks as two main elements of Qingdao’s green spaces, aiming to explore the continuity and conflicts among the three countries’ cultures. We intend to find answers to the following questions: 1. What was the area of green spaces created and how were they distributed in the city? 2. What kind of roles were they given in Qingdao’s urban planning and
construction? 3. What features did green spaces have and how were they adapted to meet requirements of different cultures and residents?

In order to answer the above questions, first-hand materials such as government and military records, postcards and old pictures will be utilized as the main references and sources.

2. The beginning of Qingdao’s green spaces (1898-1914)
2-1. The construction of forests and parks formed by forestation

In 1898, the Qing government signed the “Treaty of Leasing Kiautschou” with Germany and Qingdao became a concession of Germany. According to the Development memorandum of Kiautschou (Memorandum for short below) the German government opened Qingdao as a Freeport, and intended to construct Qingdao into a trading area, a health resort and a cultural center.

However, there was no forest on Qingdao’s hills or along the coast at the time, because timber was used in massive quantities as fuel during the cold winter. As a result, soil erosion and water loss were extremely serious, causing shortage of drinking water and significant construction difficulties due to many valleys formed in the city. In order to solve these problems, a huge forestation scheme was set up in 1898. In Memorandum, the significance of forest was described like this: from the viewpoint of water conservation, improving hygienic conditions and creating a summer resort in East Asia for foreigners living in China, the significance of forestation cannot be over evaluated.

Forestation activities were implemented in the same year Qingdao was occupied and by 1914, forests planted in Qingdao amounted to 1259.6 ha, costing 2,300,000.

![Figure 1](image.png)

Figure 1  The distribution map of forest in Qingdao(From Qingdao civil engineering and construction department of Defensive Force)
golden marks. These forests can be mainly divided into 3 types according to their main functions: soil erosion prevention forests, water conservation forests and productive forests. Figure 1 is the distribution map of the forests planted by Germany. They not only protected the headwater, kept wind and moisture from the city, but also formed the foundation of Qingdao’s first parks.

The Forest Park (Fig.2No.3) located in Mt. Iltis (now known as Zhongshan Park) is one of the most typical parks gradually formed by forestation. Forest park was firstly built as a nursery garden. As mentioned above, there were no forests in Qingdao and the local tree species that can be used to create forests and parks were very few as well. In order to get trees for forestation, street trees and parks, the German government started to import various tree species into Qingdao from foreign countries such as Germany, Japan, America, and so on. However, it turned out that the cost was expensive and the damage to saplings transported by ship was high. Therefore, the general-government decided to nurture trees by itself. In 1899, a trial plot for these trees was built at the southern foot of Mount. Iltis. Japanese Cherry Blossom, Black Pine, German Black locust, Paulownia and other trees were planted in the nursery.

In 1900, the government bought Iltis Hill for forestation. As the trees grew, wild rabbits, birds and other animals started to gather there and the government start to set hunting areas in the forest. By October 1908, there were already seven hunting areas. There were free range pheasants and deer and a leopard, a bear and other wild beasts

![Figure3. The Coastal Park (Source: Reference 15, 135)](image1)
![Figure4. The Albert Park (Source: Reference 12, 182)](image2)
kept in captivity. By cultivating forest and setting hunting areas, a park was gradually formed. Today, it is still the biggest and most comprehensive park in Qingdao with its current 77.4ha area. Two other parks formed by afforestation were the Coastal Park near Augusta Bay and Albert Park built on a valley. The Coastal Park (Fig.3) was started from a green belt planted along the coast, which was meant to provide green background for the beach. Creating a popular beach was one of the ways to realize the goal to build Qingdao into a health resort. As trees grew up, road networks were enlarged and a park was gradually formed. Albert Park (Fig.4) was a valley and transferred into a park in 1913. It is bound between two one-way streets and has a long and narrow shape, which makes it quite different from other parks in Qingdao. In 1911, the Urban Develop Bureau proposed to plant trees on the slopes of the valley and filled the valley with construction wastes. Two years later, a 330-meter-long and 34-meter-wide park was formed with the bottom 3 meters lower than the street. The first urban planning and parks
The first urban development planning for Qingdao was made in 1898 (Fig.5). One significant feature should be noticed is that this plan separated Qingdao into two areas, the European area and the Chinese area. The main reason was that the governors intended to create a city, the hygienic level of which almost the same as their homeland Germany\textsuperscript{xiii}. However, the hygienic habits of local population were absolutely far away from the governors’ standards at that time. In order to prevent the spread of infectious diseases, the original villages were all destroyed and the local residents were displaced to Tapautau.

The European Area was set in the southern part between the government hill and Tsingtau bay possessing both climate and landscape advantages. It was zoned into residential district, industrial district and commercial district, and all of them were

![Image of 1898 Urban Plan for Qingdao](source)

Figure 5. 1898 Urban Plan for Qingdao (Source: *Pandect of Qingdao’s historical maps*\textsuperscript{xiv}. Translated by authors.)

![Image of Protestant Church Park](source)

Figure 6. The Protestant Church Park (Source: Torsten Warner, 2009,141)

![Image of Government Office Plaza](source)

Figure 7. The government office plaza (Source: *Historical View of Qingdao (1897-1914)*)
arranged with reasonable locations. While the Chinese area was set in the northern part next to the harbor where there was nothing to block the cold northwestern wind in winter. Zoning theory was not implemented in the Chinese area either.

There was only one park and one plaza included in the first plan. The park was juxtaposed with the Protestant church (Fig. 6) and the plaza was located in front of the government office (Fig. 7). It is obvious that the park and the plaza were planned to highlight the significance of religious and political facilities.

In October 1901, the map of TSING TAU & TA PAU TAU was drawn up (Fig. 8). Comparing with the previous plan, the city was expanded to the western part and roads were planned in grid system. Besides, there were two residential districts built for Chinese migrant labors in the northeast Taitong Chen and southwest Taihsi Chen (Fig. 2). In Figure 8, another plaza can be seen written on the western side of Friedrich Street which used to be the most prosperous commercial street in Qingdao. The plaza was the only open space set in the commercial district. The reason underlying its placement is not clear. The contour lines indicate a valley that formed through soil erosion, which may have created difficult construction conditions. Perhaps another reason was for provision of outside leisure areas to the Navy Club that was planned in the next block.

Figure 8. Map of Qingdao in 1901 (Source: Pandect of Qingdao’s historical maps)
In 1905, another new park (Fig.2No.6) was planned when the construction of new governor-general’s residence began at the southern foot of Diedrichstein Hill (now known as Signal Hill) to replace the temporary one located on the western side of the Auguste-Viktoria Bay. The new residence was completed in 1907 at the cost of over 450,000 gold Deutschmarks\(^{xv}\), and in the same year a 12hm\(^2\)-area park was completed in front of it. The southern part of the park was opened to the public and the northern part was used as a private garden. There were 655 large trees, 1,532 small trees, 51,796 shrubs and 56,150 saplings transplanted into the park.\(^{xvi}\) As can be seen from the picture, circular roads and two bridges were built in the park. The mansion was set in a prominent location where it commanded the whole of the regal landscape.

By 1913, the total area of parks reached 1,017,700m\(^2\). However, all of them were arranged in the European area, while not a single one was set in the Chinese area. This unequal distribution of parks reflected the inequality between Chinese and European. Another problem during this period was that park’s theory was not established and this made classifying greenery difficult.

3. The expansion of Qingdao’s green spaces (1914-1922)

3-1. Constructions of water conservation forests

In 1914, Japan occupied Qingdao and ended the governance of Germany. The Japanese governors made a high evaluation to the forests, claiming that same as railways and harbors, forest was one of the most significant facilities left by the German governors\(^{xvii}\). Based on the existing circumstances, the new government “felt the obligation to construct Qingdao into a place of interest. Establishing water conservation forests as natural parks and connecting natural parks and common parks within the city to make Qingdao into a so-called big park”\(^{xvii}\). From this description, we can know that forest was endowed with a new role: Natural Park.

In order to realize the goal of constructing Qingdao into a big park, the government made a huge forestation plan. That was: to create 206.8ha forest near Haipo River by 1922; to create 1334ha forest near Licun River and Zhangcun River from 1921 to 1923; to spend 10 years from 1920 to create 7870.6ha forest near Basha River\(^{xviii}\). What can be seen clearly was water conservation forest was the core of this plan. That was because Qingdao was open to Japanese immigrants after it was occupied by Japan. As a result, the Japanese population increased to 11,009 in 1915 while there was only 300 Japanese living in 1914\(^{xx}\). Not only Japanese but also Chinese population increased rapidly during the governance of Japan. This made the government keep developing new water head to ensure the provision of drinking water.

However, only 741.7ha was accomplished when Qingdao was recovered by the Republic of China.

3-2. Constructions of Parks

As mentioned above, the Japanese immigrants increased rapidly in the first two years after Qingdao was occupied by Japan. Therefore, the new government made a expansion plan for Qingdao to accommodate the new residents. Figure 9 was the
original plan which shows that the expanded area was established to the northern part of the old town. Most Japanese immigrants lived in the area designated as the first phase and formed a Japanese area there. The second phase and the third phase were mainly designated around the big harbor, mainly for industry and new town. However, most of the constructions of these the second and third phases were not accomplished when Qingdao was recovered by Republic of China in 1922.

Three parks were included in this plan: Qingdao Shrine, Matsusaka Park and Shinmachi park (new town park). However, Matsusaka Park was not been realized. All of them were arranged in the new Japanese area.

Qingdao Shrine was planned as a significant symbol of Japan and a religious facility to provide bless and protection to the Japanese residents as well. Because of its significant political and religious status, the plan was established in 1915, and the main part of Qingdao Shrine was accomplished in 1919 at the cost of $120,000^{\text{xx}}$. Figure 10 is an old picture of Qingdao Shrine, according to which we can tell not only the buildings, but also the plant landscape revealed the emphasis of Japanese culture.

Shinmachi Park used to be the soil-taken place of a brick and tile factory in the colonial period by Germany. It was transformed to a park by planting trees especially Japanese black pine, digging a pond and building a bridge there. As what we can tell from old pictures it was quite a simple park and far away from the majestic scenery of Qingdao Shrine (Fig.11).
Although it was not included in the expansion plan, Chiba Park which was located in front of the railway station was built as a token by the Chiba regiment which engaged in the battle between 1914 and 1915, with a monument raised in the middle of the park.

4. The enrichment of Qingdao’s green spaces (1922-1938)

4-1. Constructions of forests

In 1922, Qingdao was recovered by Republic of China Peking government. In *Agriculture and Forest of Qingdao*, the significance of forest was described as following: “Qingdao is famous for its beautiful scenery in the world…however, if there were no forests on the hills like the past, Qingdao can just be described as a good harbor but far away from a beautiful city even though splendid builds and convenient traffic systems were built here”\(^{xxi}\).

However, there was not a forestation plan made up in the beginning of the Republic of China period, the forestation activities were carried out year by year. The forestation activities made hardly any progress because of the incessant fighting between warlords until 1929 China was reunited and Qingdao was took over by Nanking government.

![Figure 12. Distribution map of forest in 1939](image)
Table 1 shows the forest created from 1929-1931. As we can see from this table, much effort was made to the construction of scenic beauty forest, and what is more, most of the scenic plantations were carried out around fort barbettes left by the German governors, which indicated the governors’ intention to create unique historic landscape in Qingdao.

By 1939, the area of forest made by government had reached 2474.6ha, more than 614.6ha forest created by Republic of China. At the same time, the forest area created by private sector reached 23,345ha. Figure 12 shows the distribution of forest in 1939. It can be seen that almost all rivers and mountains were covered by forest. Thanks to the forest in large area, the landscape of Qingdao was changed completely.

4.2. Constructions of parks

As mentioned above, no plan was made for either forestation or urban enlargement in the beginning of Republic of China. Although later in 1935, a new urban planning was carried out for the whole city, it was not implemented when the Second World War broke out and Qingdao was occupied by Japan again. Before the plan made up in 1935, the construction of city and parks were carried out under the direction of Works Bureau. Qingdao was expanded to the eastern part of Taiping Harbor. In addition to the new district, infrastructures such as pathways, steps, toilets and chimneys were repaired in Ta-Pau-Tao, the first Chinese area. In addition to that, social houses were built to accommodate migrant workers and low-income residents in Tai-Xi-Zhen.

There were mainly 6 parks built during this period (Fig. 13). Dongzhen Park (Fig. 13No.16) and Xizhen Park (Fig. 13No.17) were first parks built for Chinese, and thanks to them, the unequal access to parks was greatly changed. Another park built in the residential district was Wushengguan Road Park (Fig. 13No.14), to the eastern part of which was a planned villa district.
The Jetty Park (Fig.13No.12) was a typical one built along the coast. In 1934, Qingdao Works Bureau took instructions from the Mayer that fixing the toilet and transforming the vacant land on the western side of the pier into a park (Fig.14). In 1935, a design was made for this park. From the master plan and lawn planted in the park (Fig.15), we can tell it was obviously designed into a western style with geometrical composition. By contrast, at the end of the pier stands a Chinese traditional octagonal pavilion (Fig.16), which was accomplished in 1933. That was probably because the Republic of China government probably intended to brand on Qingdao with Chinese traditional buildings to weaken the impact of German and Japanese culture.
5. Conclusions

From the process of the forests’ and parks’ construction, it can be said that all governments attached great importance to forest and park when they made urban development goals. Thanks to their continuous effort, the environment and landscape of Qingdao were greatly improved. That was why Qingdao was described as “paradise” or “the most beautiful city in China”.

Forests had a clear position in the process to realize goals to build Qingdao into a hygienic city and park city, even clearer than parks in the beginning phase. Each government made clear forestation plan because forest has irreplaceable effect on water conservation, purifying air, preventing soil erosion and so on. That was why construction of forest showed high continuity rather than cultural conflicts. The forest constructed on the hills and along the coast laid a good fountain for future parks and the sustainable development of Qingdao.

Park was another important element of realizing city constructional goals. Unexpectedly, parks did not have a close connection with urban planning. As a matter of fact, only some significant parks located around government office or religious facilities were determined by urban planning. Other parks such as those formed by forestation did not have a clear plan from the very beginning. Parks formed during the domination of Germany were not even given a specific name. Another significant
feature was that parks were regarded as the most significant green facilities, showed remarkable colonial features. Especially during the domination by Japan, many monuments were built in the parks, symbolizing the culture of Japan. The colonial domination all led to the unequal access to parks, even though this situation was improved by Republic of China, the green spaces were still distributed unequally nowadays in Qingdao.

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On the Function of Shimen Chamber of Commerce on Urban Construction of Shijiazhuang City in Modern Times
Xin Jing, Fang Xu, Haiyi Yu

[Abstract]
Shijiazhuang City has developed to be a small and mid-sized city since modern times independently, which has never been a concession like Tianjin, etc. or a foreign monopoly city like Tsingtao, etc. Most former studies focus on the relationship between the rise of Shijiazhuang City and the railway, yet there are few studies on the urban construction and urban planning in modern times. Due to the lack of official urban planning this paper discusses Shimen Chamber of Commerce, a private non-governmental organization, on its function on urban construction in Shijiazhuang City at that time. Through literature review and field survey this paper aims to clarify the story of the practice of urban planning and constructing that led by Shimen Chamber of Commerce, summarize the role of individuals and organizations in city planning, and complement city history of modern Shijiazhuang City.

Shimen Chamber of Commerce was founded in 1910 and blown up by the war in 1937. During the 27 years of its existence, especially in the period of Shijiazhuang autonomy(1921-1928), it played the role of the municipal councils to certain extent. Depending on it, varieties of measurements were implemented on charities, education, and municipal infrastructure construction. The important achievements included as follows: 1) to develop social charity by opening alms houses; 2) to concern with social education establishing Shimen Junior Middle School; 3) to manage municipal construction projects. Even a plan named Shijiazhuang Commercial Port Development Plan was drawn by Wang Xiang, the association representative, which is the first city development planning and has profound impact on subsequent development of Shijiazhuang City.

[Key Words] Modern times; Shijiazhuang; Shimen Chamber of Commerce; Urban construction

1. Introduction
1.1 Related Background
With the deepening of the study on the planning theory, more and more people are not only confined to the study of official historical planning, but begin to pay attention to non-official institutional impacts on urban planning and construction. The Hesperian scholars made a lot of researches on modern China city planning history. However, under the influence of Western planning theories, these investigations mainly concentrated on a concession like Tianjin, or a foreign monopoly city like Tsingtao, and ignored some medium cities on the rise of modern such as Shijiazhuang. Then they took practice of foreigners in China as subject investigated lack of attention on Chinese practice in their own land.

So the paper chooses Shimen Chamber of Commerce in modern Shijiazhuang as a clue to explore non-official institutional impacted on urban planning and construction, analysis its role in the planning, complement the history of Chinese modern urban planning.

1.2 Research purposes

This paper aims to disposal the development process of Shimen Chamber of Commerce, clarify the practice of urban planning and constructing, summarize the role of individuals and organizations in the city planning, enrich the study of modern Chinese history of planning.

1.3 Research methods

The main research methods are: ① document investigation method: focuses on the collection of Shimen Chamber of Commerce of historical documents, such as yearbooks, local history, publications, memoirs, newspapers, etc., and other relevant literature on urban planning and construction, such as urban planning maps, municipal reports, etc., then prepares for the next in-depth study by reading, researching, integrating data. ② Field survey method: on the one hand, it can supplement the lack of literature, on the other hand promote contribute to understand literature and extend research ideas. ③ Generalization and summarization method: through the analysis of literature and field research to summarize the role of Shimen Chamber of Commerce in city planning.

1.4 Explanation of term

1.4.1 Modern Times

The beginning and ending time of Chinese Modern History is from the opium war in 1840 to the eve of establishment of People's Republic of China in 1949. In this case, Shijiazhuang stepped onto the historical stage because Lu Han (Beijing-Hankou) railway has been constructed since 1902. So it planning and construction of Shijiazhuang in modern times period was defined for 1902—1949.

1.4.2 Chamber of Commerce

Chamber of Commerce, originated in France, is a social organization as legal person which is a lawfully formed organization to safeguard the legitimate rights and interests, promote business prosperity for the purpose. In China, Chamber of
Commerce is a product of modernization began in late Qing Dynasty and was typically run by big capitalists and the local gentry and was composed of the liverymen or firm members. Compared with the Western Chamber, it is more official nature.

2. Shimen Chamber of Commerce

2.1 Overview of Shijiazhuang city

Shijiazhuang, formerly known as Shimen City, the capital of Hebei province, is located in the Beijing-Tianjin-Hebei Metropolitan Region (Figure 1), the third largest city in North China.

Before 1902, Shijiazhuang is an area of about 0.5 square kilometers of the village. With Beijing-Hankou Railway and Shijiazhuang-Taiyuan Railway been succession opened to traffic, Shijiazhuang became the intersection of two of the road, so it is called "the city brought by railways".

In 1925, Shijiazhuang and Xiumen were merged which take a word from each called "Shimen City."

In 1937, the Japanese army occupied Shimen and set up a pseudo "Preparatory committee of Shihmen municipal administration".

In 1947, Shijiazhuang became one of the earliest large cities which was liberated by the People's Liberation Army.

2.2 History of Shimen Chamber of Commerce

Shijiazhuang was “brought by railways”. With the industrial and commercial prosperity, population growth, market expansion, it has become a pressing matter of the moment which set up a commerce to carry on the management to the business, so Shimen Chamber of Commerce emerged as the times require.

According to the record of the relevant historical data from the Yearbook of old Chinese economy, Shimen Chamber of Commerce, formerly known as Commerce Association of Shijiazhuang, was founded in August 1910, which belonged to Tianjin
Chamber of Commerce at that time. Yunhua Wang was the first head. There were the board of directors 11, and normal member 70 in this organization.

From 1910 when Shimen Chamber of Commerce was set up to 1937, in accordance with the provisions of the elected every two years, and there should be the 13 elected chamber of Commerce. Due to suffer from the attacks of war, chamber of commerce site was destroyed, all the documents has vanished so that it is hard to collect the data.

2.3 Shimen Chamber of Commerce historical development stage

As the cross industry business association, Shimen Chamber of Commerce is the highest folk businessman association. It was an independent operating institution which made their duty to promote the development of local industry and commerce. After the long-term development, Shimen Chamber of Commerce can be divided into the following development stage (Figure 2):

①The establishment period: (1910 - 1921)

At the beginning of the establishment of Shimen chamber of Commerce, "the chamber of Commerce, no achievement, there was almost no other affairs." It is mainly responsible for the local commerce and industry, mediating disputes within the same industries. There were no other expansion functions.

②The development period: (1921 - 1925)

In the preparatory phase “the autonomy of urban self - government " of Shimen City, local squire showed great enthusiasm, then Shijiazhuang merged with Xiumen, so this organization also was renamed Shimen Chamber of Commerce . Shicai Zhang ( Yuezhong Zhang?), Chamber of Commerce Head, declared himself to be Shimen " Mayor ", and got the power to deal with related matters. It showed Shimen chamber of Commerce officially stepped on the political stage.

![Figure 2 Shimen Chamber of Commerce historical development stage](image-url)

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3. The peak period: (1925-1937)

This stage can be divided into two stages: 1925 -- 1928 Shimen autonomous stage, Weixin Zhou was elected as the Mayor who come from Shimen chamber of commerce become the real managers. The many construction projects were formulated and implemented in this period, which greatly strengthened the position of the Shimen chamber of commerce. 1928 – 1937 post autonomy stage, a large number of data was sent to the Shimen chamber of Commerce, which became the non-official institutions of self – government to clean up affairs after post autonomy. The status is more important.

Shimen Chamber of Commerce became a government in control of the businessman, especially around autonomy Shimen City; it has become "the government bureaucratic" organization, whose role was almost touching the whole community autonomy city.

4. The reconstruction period: (1937-1947)

Shimen Chamber of Commerce reconstructed after it baptized in the fire of combat in 1937, Hechou Ma serviced as the head. But the nature, the status and the role of the Chamber of Commerce has undergone fundamental changes.

3. Major initiatives on urban Construction were led by Shimen Chamber of Commerce

3.1 In charge of charity, to set up almshouses

At the beginning of 20th century, Shijiazhuang, while forming regional economic center, has become bankrupt farmers and street beggars gathered. The chamber of Commerce of Shijiazhuang relief beggar's activities is entirely for the maintenance of the business to normal trading business purposes. Under the initiative of the head Mengshen Yao, funded by the chamber of Commerce in Shijiazhuang village north of Temple of the Dragon King to buy acres of land, then built a bungalow 5 and a half and half brick blank, as a beggar sheltered which was also known as "the poor shop ". This was the embryonic form of the Shimen relief institute.

In 1926, the Shimen municipal government was formally established. The original vice head of Shimen chamber of Commerce Weixin Chou was elected as mayor. He cooperated with the chamber of Commerce and municipal government, to manage autonomously the commercial market, society life and tax in Shijiazhuang. Then he made through grants and donations of chamber of Commerce to expansion “the poor shop ", and combined into a whole with the vagrant house in the Shimen region which laid the foundation for the development of Shimen almshouses.
The social assistance activities of Shimen almshouses include active housing, education for poor and self-help production. The most important source of funds was donation income and allocation from the chamber of Commerce, and formed a set of relatively complete independent operating mechanisms (Figure 3). The Shimen chamber of commerce is responsible for funding sources, both the leadership and the members played important roles to promote the development of philanthropy in Shijiazhuang.

3.2 Paid attention to social education, to establish junior middle school

One of the important mechanisms which in the previous paper in the Shimen almshouses mechanisms is the education which is responsible for the education of the poor. After the Shimen almshouses was formally established, it changed the original primary school into two grade primary school of Shimen almshouses, together with the primary preparatory classes, a total of 7 classes. The appointed teachers were compulsory primary school teachers, a total of 9 people; the number of students reached 500 people at the most.

Under the great support of the Chamber of Commerce, the first middle school - the Shimen middle school - was founded in 1930. The school board was established, the chairman was Weixin Chou, the vice was Yongchi Zhang who were both from the Chamber of Commerce. In the post autonomy of Shijiazhuang, the Chamber of Commerce annual allocated 2000 yuan as a normal school funding, and the expansion of temporary costs was raised by the chamber of Commerce. This initiative has not only promoted the Shijiazhuang on backward education for local output a lot of young talent, but also to consolidate political and economic status of the Council (Chamber of Commerce) Yongchi Zhang, Weixin Chou political and economic status in Shijiazhuang.

3.3 Presided over the construction of municipal facilities, to make development planning
The chamber of Commerce widely concerned and actively participated in management matters which contained social management and infrastructure construction of Shijiazhuang. In dealing with the problem of city construction engineering, chamber of commerce also completed a number of important construction project. For example, because of the Ping Han railway cutting area, resulting in the east-west direction of traffic was sluggish. In 1929, under the auspices of the chamber of Commerce, the Daxing Cotton Mill spent 1960 tael in building the first underpass bridge in Shijiazhuang.

In resolving the Shijiazhuang South Road fork expansion renovation project, they set up a special organization to discuss unity Shijiazhuang turnout rehabilitation programs. Then a solution was design by Xiang Wang as civil society representatives, who made the first Shijiazhuang city development planning that is Shijiazhuang Commercial Port Development Plan published in Monthly Hebei Industry and Commerce, third issue of the first volume on January 15, 1929.

The plan consists of 9 parts: 1 the evolution of Shijiazhuang; 2 the importance of Shijiazhuang; 3 the built facilities and the problem of the buildings; 4 the special association for new turnout Shijiazhuang; 5 the disadvantages of new switch and the design; 6 the street plan of Shijiazhuang; 7 the Tunnel should be construct in the Beijing-Hankou Railway; 8 the possibility of become flood and drought dock for Shijiazhuang; 9 the future development of Shijiazhuang.

The plan attached 3 pictures: “the present map of the turnout and the block in Shijiazhuang”; “the map of new turnout by the special association”; “the new Shijiazhuang turnout and road map to be carried out”. The most important is a 1/5000 map, “the present map of the turnout and the block in Shijiazhuang” (Figure 4),
which very detailed recorded the original street, alley, name of the Shijiazhuang at the time. It is important to clarify some of the important facts in the development history of Shijiazhuang city.

This plan centered on the planning of Shijiazhuang hub turn out, but not rigidly adhered to the transformation of the turnout. Which carried out a series of insightful discussion for the question of Shijiazhuang city development, this plan put forward to provide a feasible idea, work out the blueprint of Shijiazhuang's development for the construction of Shijiazhuang industrial economy development and city in a series of important problems which needed to be solved urgently in the use of goods transport, railway switch and distribution, district planning, park green space planning.

As the plan said, the city planning could be successful “hosted by the government, supported by the local people”. Because of the war, the status of Shijiazhuang has not been confirmed, therefore this plan also was not confirmed by the officially authorities. So it could not be implemented.

4. On the Function of Shimen Chamber of Commerce on Urban Construction of Shijiazhuang City

4.1 It is a non-official organization

Due to the special historical background of modern Shijiazhuang, there is no doubt that Shimen Chamber of Commerce is as the leadership position in Shijiazhuang city planning, but its historical position is very debatable:

Firstly, there is no official Urban Planning Department in modern Shijiazhuang government agencies, and Shimen Chamber of Commerce can also not be simply defined as "planning department" because of its functions covering all aspects of the city life. Secondly, despite Shimen Chamber of Commerce host a number of projects in Shijiazhuang city construction around “the autonomy of urban self - government “, which is a government handled by businessmen in essence. Its historical position as "government" was not recognized, which was still defined as a civil organization. Finally, the major ways Shimen Chamber of Commerce to participate in the construction were injection of funds, not to take too much intervention and guidance on policy. This is different with urban planning department functions now. So Shimen chamber of Commerce position in the modern urban construction in Shijiazhuang city is still a non-official organization.

4.2 To promote the government's decision and expand the city space

In Professor Huimin Li book "Research on Urbanization in Modern Shijiazhuang City " believes that the process of urbanization the modern city of Shijiazhuang can be divided into four stages: ① 1901 – 1911: start-up phase of urbanization ; ② 1912 – 1925: preliminary stage of urbanization village; ③ 1926 – 1937: rapid development phase of urbanization village; ④ 1938 – 1949: stagnation and abnormal development, recession, recovery period. This is entirely consistent with historical development of Shimen Chamber of Commerce in important node,
especially the development and the peak period of the Chamber of Commerce is covered the rapid development phase of Shijiazhuang urbanization village. To a certain extent, it shows that Shimen Chamber of Commerce promoted the process of Shijiazhuang urbanization.

Before 1926, with the industrial and commercial prosperity, population growth, market expansion, Shijiazhuang has gradually connected as a whole with Xiumen. Then the head of Shimen chamber of Commerce Shicai Zhang actively contributed to merge with Shijiazhuang and Xiumen, carried out " the autonomy of urban self-government ", which he also regarded himself as " Mayor ". The move not only expanded the Shijiazhuang city space, broaden the development direction of urban construction, but also met the needs of Chamber’s own development.

4.3 To formulate development planning which has a forward-looking

Compared with other chambers of commerce, Shimen chamber of Commerce has a certain forward-looking:

①In1927, a plan named Shijiazhuang Commercial Port Development Plan, was drawn by Wang Xiang, was the earliest development urban planning in Shijiazhuang. This in itself was an extremely important document, from analysis the evolutionary history to draw a design which showed Shimen Chamber of Commerce paid great attention to urban planning and construction. In the strict meaning of design, the plan focused on urban layout. Although it was not implemented finally, a part of the key insights had a profound influence on urban development of Shijiazhuang.

②During the renovation process, there formed a pattern that led by the Chamber of Commerce (Government), the businesses (the Principal) and Jingxing Mining Bureau (the Designer) to participation in the planning. Firstly, early in the project, they set up a special association to reconcile the conflicting interests of the business and discuss turnou reconstruction scheme. Secondly, through detailed research and on the head of Shimen chamber of Commerce attention, this association put forward a corresponding solution. Finally, the final plan was proposed by Xiang Wang, the Jingxing Mining Bureau director (not Shimen Chamber of Commerce). This is a very innovative plan of cooperation.

4.4 To attempt to lead city construction by local forces

In 27 years of existence of Shimen Chamber of Commerce, there is an important characteristic that was not manipulated by Europe, Japan and other countries. Past leadership were Chinese even Shijiazhuang native, therefore Shimen Chamber of Commerce as an independent local groups participated in urban construction. It was no guidance by Western system planning theory, nor limits by Chinese traditional big city background. However it was the representative understanding of the Chinese on urban planning on the special background at that time, it may be just an experimentation, to develop in disorder which is extremely valuable for the planning history in modern times of China.

5. Conclusion
Shimen chamber of Commerce as the highest folk businessmen groups in Shijiazhuang, as a local force, though he is not an official city construction mechanism, then plays a critical role in city construction. These historical contributions that expansion of urban space, attention charitable education, presided over the city municipal, development planning are indelible.

References
[10] Li, H. M. 2009. *On company - managed schools of contemporary Shijiazhuang*. Journal of the University School of Shijiazhuang City of Committee of CPC.
Value of Historical Reflection in Planning - Planning trials and issues after the Great East Japan Disaster of March 11, 2011

Keiichi Kobayashi

1. Introduction

In this paper, I will report on my proposals as a planner over the three years since the Great East Japan Disaster and will examine them from the position of planning logics. I presented my first proposals from the 2011 fiscal year at the 2012 IPHS conference in Sao Paulo [1]. I will add three proposals for the 2013 fiscal year and review these now.

The processes for recovery from the Great East Japan Disaster are distinctive in that a policy to relocate affected residential areas to higher places was included from the beginning [2]. The reconstruction process bore the strong tint of a new development. However, the area of concern is located in Matsushima, a famous, nationally-designated place of scenic beauty. Therefore, reconstructive developments here ought to give careful consideration to conserving the scenic beauty of the area. In order to help reconcile conflicting requirements, in 2011 a Special Conservation Board for the Matsushima Reconstruction Process was organized under Miyagi Prefecture, as well as an ad hoc investigative committee in “Oku-Matsushima,” a part of Matsushima. I am a member of the latter committee, composed of specialists and representatives of local residents. After our first meeting on 15 September, 2011, I started my study and made proposals concerning the landscape, which is my domain. [3]. These proposals may fall into the category of advocacy planning, in an attempt to have some effect on the outcomes of municipal reconstruction projects and inhabitants’ behaviors.

Through the review of these, I would like to rethink the meaning of contexts and the added value of a historical perspective in planning as a universal feature, not only in the reconstruction process after a great disaster, but also in planning under normal circumstances.

2. Outline of the three-year reconstruction process

The disaster was so serious and extensive that it was necessary to modify the legal system to initiate a reconstruction process financed through the national budget and sustained by taxes and bonds [Figure 1]. The Basic Act on Reconstruction in Response to the Great East Japan Earthquake, announced and enforced on 24 June, 2011 outlined the legal, financial and administrative framework. Concrete implementations for reconstruction projects were provided for in the Law on the Great East Japan Earthquake Special Reconstruction Areas which had been programmed in the Basic Act. About nine months was needed to prepare the planning tools [4].

During this period, in Miyagi Prefecture, a Special Conservation Board for the Matsushima Reconstruction Process was assembled, organized by specialists and mayors concerned with Matsushima, to create guidelines in order to reconcile or minimize diametrically-opposed interests between conservation and reconstruction. This board’s discussion concluded with the establishment of guidelines on 25
January, 2012. The guidelines require each kind of facility to harmonize with the surrounding

Figure 1 Time Line of the Reconstruction (in the case of Higashi-Matsushima City)
scenic beauty and, especially, as far as possible, they restrict the relocated housing
districts from being visible from traditional view points.
Our ad hoc investigative committee had already executed surveys on each domain by
this time.

Meanwhile, the municipal office of Higashi-Matsushima City had been
advancing planning processes steadily. In 2011, only one month after the disaster, the
mayor proclaimed policy guidelines for reconstruction which outlined what needed to
be done, and three months later, on 13 June, announced a basic policy for
reconstruction, with estimates of what kind of plan and what kind of municipal
system would be needed, based on meetings in each district. At the end of the year, a
Comprehensive Reconstruction Plan was made, articulating the policies of all
concerned departments, along with implementations and time span images.
My first proposals [ch.3] were also formed during this period and presented at
meetings and in the final report of our committee, in the hope of influencing
administrative thinking and public opinion.

In the 2012 fiscal year, as we have already seen, the tools for reconstruction
projects were prepared by the national government and the Reconstruction Agency
established. In consequence, the first version of the Higashi-Matsushima City Land
Restructuring Plan was made on 30 May, and the first version of the Plan for Housing
Relocation Projects was set forth on 30 July [Figure 1]. The latter plan decided the
number of housing lots to be constructed, based on initial interviews with all of the
households who had been living in the designated relocation promotion area.

In fiscal 2012, evolving from our investigative committee, a new committee
was organized under the municipal system of Higashi-Matsushima City, shown as the
Investigative Committee for the Conservation and Management of the Matsushima
Area [Figure 1] [5]. We discussed the acceptability of each reconstruction project,
according to the guidelines enacted in January 2012 and the accepted guidelines
originally agreed and confirmed in the conservation plan published in 2010.
Furthermore, we gave detailed consideration to what modifications or changes would
make the projects acceptable. I suppose the fact that we could get the participation of
the chiefs of some of the reconstruction bureaus was one of the reasons that our
discussions turned out to be more practical.

Our committee’s signboard was changed to Special Committee for the
Conservation and Management of the Matsushima Area in Higashi-Matsushima City
in the following fiscal year, 2013. This was in reaction to a notice in the official
gazette about the transfer of the authority of permission on 1 April 2013, which meant
a transfer of authority from the national government to the city, in a move to speed up
the permission procedure for reconstruction in the designated area of scenic beauty.
Based on the municipal concrete project plan, land creation works began at the
beginning of 2013. By the end of this fiscal year, I made a second round of proposals
[ch.4] in order to contribute to the committee’s discussions, which reflect changes in
the real landscape caused by the reconstructive developments and by a clarification of
people’s chosen actions and behaviors.

Three years have passed since the disaster and even now, 104,000 households
are living in temporary housing [6]. In Oku-Matsushima, one of the relocation project
sites where work is further advanced, land creation works will shift to building works
in June 2014.
3. Review of the ten proposals made in 2011

In 2011, I executed a visual field survey and change analysis using old maps of the Oku-Matsushima area and made proposals intended to conserve and reflect the specific features of this area in the reconstruction plans [1]. These proposals are listed under 10 themes in the final report of the committee. In this paper, I reexamine the 10 themes, noting the contents in the left box and the meaning or contexts of thinking in the right box in Table 1. The contents means planning treatments which were expected to achieve the theme, and the contexts means grounded fact and logics which led to the proposed theme.

Of course, these have not been worked out only from my own ideas and at least Nos. 3, 4, 5 and 10 were reactions to what the municipal officers are coping with. My role has been to propose or introduce acceptable plans which can conserve and/or enhance the scenic beauty of the area, while accommodating the requirements of the reconstruction bureau and residents. As I haven’t received any official reaction, approval or disapproval, until now, I cannot know the effect of these proposals. But as I also recognize this sort of non-response as normal in Japan, I don’t feel it was ignored. In any case, it is too soon to discern what effect my proposals may have had, based on objective analysis of what has or has not been done.

Only proposal No.10, to maintain the features of the village, has proved unpersuasive and has been rejected. The authorized relocation plan takes the form of a newly-developed residential district as if it were located in a suburb, and a mountain has been completely cut to prepare the ground for it. I suppose the municipal planners and residents required a height out of range of a potential similar tsunami, and they defaulted to the choice of a reliable

<table>
<thead>
<tr>
<th>Theme</th>
<th>Contents and Contexts of the 10 themes in Oku-Matsushima in 2011</th>
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<tbody>
<tr>
<td>Theme 1: to utilize the potential of the Nakuru Shore</td>
<td>- Encourage and rationalization of road network patraining to separate midtown traffic from through traffic. - Increase availability of temporary parking in the summer season. - Improve support facilities for marine sports. - Amendment of land permission system to enable commercial or service facilities in support of marine leisure activities within guidelines.</td>
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<td>Theme 2: to utilize the potential of the Tohna-Unga Canal</td>
<td>- Encourage urban and cross-sectional composition of the road running alongside the canal. - Enforce footpath and bank access to the water and improve canal scenery. - Improve accessibility from residential districts around the canal. - Preserve and/or plant pine trees on the bank promote leisure activities on and along the canal.</td>
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<td>Theme 3: to ensure proper amenities in the district to be built in a higher place</td>
<td>- Improve the surrounding road networks serving the district. - Design usable and attractive footpaths in and around the district. - Design a complex landscape architecture for the town so that a monotone environment is not created and ensure sufficient amenities. - Technically devise a surface covering for the surrounding steep slopes.</td>
</tr>
<tr>
<td>Theme 4: to ensure proper amenities in the district to be built in a higher place</td>
<td>- Combine solar power generation and biomass energy projects not only for nighttime power generation but also for modifying the landscape. - Create a green matrix in mid-distance areas and create solar panels from some viewpoints. - Create a footpath network. - Cultivate a bonsai environment.</td>
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<tr>
<td>Theme 5: to create an attractive node with the green matrix</td>
<td>- Create a destination zone for walking among these facilities and a designed park. - Coordinate the disaster with this memorial park. - Landscape the area with mounds which would also serve as evacuation sites in the event of a tsunami.</td>
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The technique of housing development, familiar to the developers, within the short period of elaboration. The plan was decided by August 2012.

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<th>Themes and Contents of Planning Proposals</th>
<th>Meaning or Context of Thinking</th>
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<tr>
<td><strong>Theme 6: to improve and enhance axial space and form termini</strong>&lt;br&gt;- revise the cross-sectional composition of the axial road&lt;br&gt;- improve the landscape along the road, including the planning of roadside trees&lt;br&gt;- concentrate facilities for residents and tourists along the road&lt;br&gt;- improve terminal facilities to make modal transfer easier</td>
<td>This theme reflects history or other contexts as follows;&lt;br&gt;- The road network of the island has evolved into an axial pattern from the radial one which had been centered on the Sato-Hama settlement.&lt;br&gt;- The greatest concern of Miyamo Island is to improve accessibility of the island from the mainland.&lt;br&gt;- The concentration of investment should create a better quality of space that would deter residents from building new roads, which inevitably spell the natural environment.</td>
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<td><strong>Theme 7: to utilize the old road networks for footpaths</strong>&lt;br&gt;- develop terminal facilities including parking, signs, and a multi-purpose building similar to a rest stop that could also be a market for primary products sustained by producers&lt;br&gt;- enhance the environment of the roads so they may be used as footpaths, creating rest spaces, maintaining scenic views by trimming trees, and systematizing signs and information boards&lt;br&gt;- make traffic rules easier to understand, even for the casual visitor</td>
<td>This theme reflects history or other contexts as follows;&lt;br&gt;- Old main roads of this island which form a radial pattern remain as they were with the same width and alignment, providing a pleasant environment for pedestrians.&lt;br&gt;- Walking would add to the range of this island's leisure activities, which include climbing to a view point, sea bathing, shellfish gathering, fishing, excursions by boat and so forth.&lt;br&gt;- Walking is within the ability of most people and it provides a chance to discover and learn more about the less visible features of a place.</td>
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<td><strong>Theme 8: to manage the environment in each spatial unit</strong>&lt;br&gt;- resudy conservation and management guidelines for designated sites of scenic beauty&lt;br&gt;- utilize farmland as allotment gardens&lt;br&gt;- promote the appeal of the area to those interested in a sustainable lifestyle&lt;br&gt;- improve land management from a permission procedure to a continuous, communicable, and inductive process</td>
<td>This theme reflects history or other contexts as follows;&lt;br&gt;- The landscape of this island is characterized by several distinct units, clearly separated one from the next. It would be sensible to comprehensively manage the environment of each unit individually.&lt;br&gt;- If each unit becomes more distinctive, the image of this island will gain in complexity and gain a greater impression of depth.&lt;br&gt;- Tidal embankments were built for each seashore after the 1960 Chile Earthquake and Tsunami, but by 1985 we can distinguish the number of abandoned fields increasing on the map.</td>
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<td><strong>Theme 9: to promote the &quot;maishūki&quot; process by reflecting the residents' dose lifestyle with nature</strong>&lt;br&gt;- improve the availability of B &amp; B services in accordance with demand&lt;br&gt;- community building&lt;br&gt;- development of personal abilities and improvement of social relationships, especially promoting young women's social participation&lt;br&gt;- development of products&lt;br&gt;- build a regional brand</td>
<td>This theme reflects history or other contexts as follows;&lt;br&gt;- Fishermen on this island have traditionally been highly conscious of natural conditions which affect water quality. This attitude should be given expression as the basis for the local philosophy.&lt;br&gt;- Historic sites of Johnson (Japanese neo-erotic age) demonstrate prosperous ancient life in this island which also indicates the richness of the natural products.&lt;br&gt;- In order to utilize the rich resources, integral development and brand building is necessary.&lt;br&gt;- Enhancement of the attractiveness of this region will be spurred by an increased range of leisure activities and supporters.</td>
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<td><strong>Theme 10: to preserve the traditional character of villages in the newly built dwellings in the higher place</strong>&lt;br&gt;- reflect traditional settlement forms&lt;br&gt;- devise each house and housing lot to promote social relationships&lt;br&gt;- arrange festivals space&lt;br&gt;- maturely design to ensure good form with high performance&lt;br&gt;- minimize land creation works&lt;br&gt;- plant trees</td>
<td>This theme reflects history or other contexts as follows;&lt;br&gt;- Everyone in these three settlements managed to escape the tsunami. This is presumed to be the result of their tightly-connected community and familiarity with the surrounding hills.&lt;br&gt;- The three settlements were located on narrow flat land along the seashore which resulted in the high density of these settlements. Such physical conditions may have influenced social conditions.&lt;br&gt;- The newly-restored settlements should incorporate the positive characteristics of traditional society while reflecting contemporary needs.&lt;br&gt;- Relocated districts are required by guidelines to remain hidden from the main scenic view points.</td>
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In the reconstruction process after a big disaster, urban succession is accelerated [7]. This empirical rule is reasonable as a disaster removes obstacles resistant to alteration. We are always in the process of succeeding according to natural or logical changes, and we have a tendency to rebuild what we think better, as far as possible, reflecting our ongoing wishes and public plans to be realized. When we consider things in this way, according to the empirical rule, we can understand the actions of those advancing the urbanization and modernization processes, which have been given impetus by the relocation project, compounding the effects of the tsunami. We are already in the process of population decrease, statistically shown by a decrease in the overall Japanese population from 2010. As I noted in my last paper, Higashi-Matsushima city had just formulated a master plan in 2010. This plan was based on a framework which estimated the population at its peak in 2005 with a 5.63% decrease by 2030, in 25 years. Individual households are projected to increase by approximately 5,500 (40.6%) by the same year, because of a change from extended family living to nuclear family life. However, the plan seems to expect quite a large amount of continuing development through 2030, and the master plan asserts that the management of stable growth is one of the main planning issues. Conservation of the natural environment and its utilization for leisure and tourist activities are main policies [8]. It can be said that the post-urbanization period was in evidence before the disaster, but effective schemes to transition into the next period were not formulated.

My proposals are distinctive in their attitude to the urbanization period and most of them include some reflections on this period. Nos. 1 and 2 urge correction of what was constructed in the urbanization period, Nos. 7 and 8 appreciate the value of non-development, and the group of Nos. 3, 4, 5, 6, and 10 are directed at improving or reforming conventional ways of construction. But, if we make the assumption that the most important issue is to promote succession to the post-urbanization period and revitalize this region, No. 9 must be developed more concretely.

4. New issues in 2013
4-1. Disturbance of the grand scenic view by relocated housing districts

On 1 November, 2013, it was realized that the relocated housing districts in Oh-hama and Muro-hama would be seen from the important scenic viewpoint named Ohtakamori. By that time the land creation works had progressed [Photo 1]. This misadventure is apparently in contravention of the guidelines of 25 January, 2012, even though it could come under the heading of an inevitable situation, as candidate areas with sufficient height were limited.

To address this problem, I proposed a draft of design guidelines for the relocated district and houses based on an estimation of building types [Fig. 2]. But what was the cause of this misadventure? We may have presumed that the relocated blocks would not be seen from the viewpoint or even if they could be seen, the impact would be insignificant because an elementary school, situated on a created lot
on a hill near the relocation area, is hidden. It reminds us of previous generations’ conscious stewardship with regard to the natural scenery and the hitherto careful attitude towards development which preserved scenic views.

We have one helpful example. The perspective of the Sato-hama settlement from the viewpoint shows how harmonious scenery may be preserved. This historic settlement is located on a hill and did not suffer from the tsunami. It has tall, mature trees among the houses that provide cover for the artificial things and make the whole village one part of the grand view [Photo 2].

4-2. Change in the townscape of Sato-hama

The problem with the Sato-hama settlement is not from the outside but the inside. Along the main lane of this village, many houses were damaged by the earthquake and some of them were rebuilt by 2013 with a subsidy [Aerial Photo1, 2]. But, the popular building type of the present day home is pre-fabricated, compact cubic, and the houses are not aligned with the contours of the road. This recent construction alters the traditional village townscape [Photo 3].

I executed a plain field survey by taking photos sequentially along the road [9]. We might be inclined to consider the scene commonplace and ordinary, but the survey shows how the traditional townscape is sensitive and well elaborated, and we can recognize its value. The sequence of sceneries is inflected by a right-angled hook shape in the road, the location of the pass is given meaning by the fact that the sea comes into sight, peaks visible over the rooftops sometimes serve to orient the road direction, etc. The assemblage of new building types creates the impression that such traditional order has been lost and its value diminished. Of course, since the primary guideline of scenic beauty is not strict enough, such new buildings are permitted, and it must be difficult to strengthen the guidelines under conditions where the streetscape is not valued by the residents or deemed worth preserving. Additionally, we notice the tendency of residents to freely use their own lots and nearby vacant space as parking areas and orient their new houses to maximize exposure to sunlight, including some that were rebuilt before the earthquake. If we think more deeply, we may have to interpret our wonder at seeing the sudden change in street view after the disaster as a result of our lack of awareness of the possible desires of residents. Taking their point of view, we can notice the inconvenience of the long, narrow, winding lane and come to a realization of the importance of total conservational planning that would improve the performance of the settlement’s environment and enhance its attractiveness.

4-3. Land use of the vacant lots where relocated houses once stood

Proposals on how to revitalize the devastated area and how to utilize the vacant lots where the relocated houses once stood have still not been sufficiently discussed. It will be difficult to assess the condition of the relocation promoting area until after the relocation project is completed, because residents can choose whether to move to the higher places or stay on their own land and rebuild houses under the new building code which requires better protection against tsunamis [10].

This freedom of choice for residents will cause variations from district to district, from situations in which all lots are owned by the public to those in which public lots are scattered in a fragmented fashion among private houses. Between both extremes, there may be many kinds of mixtures. For example, we can imagine the case that although buildings are removed, private lots are lasting and mixed with
public ones and that, even though most of the lots become public, infrastructure must be maintained for a few surviving private lots.

However, the intentions of the residents are still fluid, and newly-built roads will change the potentiality of each place. I have pointed out issues concerned with town planning and proposed treatments for conserving the scenic beauty, based on gathered maps, the results of two separate interview sessions with residents, land use regulations and customs, old maps, and aerial photos [11].

The point of my proposal is to create guidelines for plan making in each sub-regional unit which could be applied to any future project, whatever the scale. If it is still within the urbanization period, we may be able to wait for a Tabula Rasa situation in order to execute bigger projects. Even a relocation project can make a patchwork of open spaces as if it were ahead of the post-urbanization period.

5. Conclusion

I would like to conclude this report of my proposals in this early period of the reconstruction process from the great disaster and reflect on them as follows;

1) Making the effort to evaluate spatial and historical contexts has merit when preparing a proposal in such a confused situation. One challenge is devising proposals that are trustworthy and persuasive, because to clarify contexts means to share primary information in thinking about a plan, and linking the contexts to a proposal means reasoning in planning. We must remind ourselves that we, who hadn’t had any concern with the region before the disaster, are only strangers to the residents. A situation arose where there was a “storm of proposals” just after the disaster, which means that so many people who can’t stay still or who think it a chance to propose revolutionary change presented a lot of ideas. In such a case, historical perspective and contextual thinking add significant value.

2) In my previous paper, I pointed out at least four time scales that can be distinguished that affected our attitudes and plans after the disaster in this region [1]. The shortest time span can be observed in the strong intention to rebuild what had existed. The relocation projects can be interpreted as a repetition of urbanizing developments. I felt a sense of déjà vu in the liveliness of the municipal reconstruction bureau, whose members are able to feel that they are doing worthwhile work. This is understandable because the relocation policy initiates developments which would not normally occur in these areas. The second value of historical thinking is to refer to another time span so that we can think more rationally about how we should react. Especially in this case, as we are temporally in transition from an urbanization period to a post-urbanization period, keeping the larger situation in mind is important. Even if we are unable to formulate a comprehensive method to vitalize a region in the post-urbanization period, it is necessary to promote activities that intend to go beyond the old period.

3) As I have shown, changes in the landscape caused by residents’ actions observed over these three years reveal people’s potential requirements and suggest the future direction of change. Moreover, spatio-temporal reflection on the alterations reminds us of the meaning of the unchanged state of the landscape, for example, in this case, the reason that the Sato-hama settlement is covered by grown trees; that the elementary school near the Oh-hama relocated district cannot be seen from the historic view point; and that the sequence of the main lane of the Sato-hama settlement is well formed for pedestrians but inconvenient for drivers. In other words, subtle changes help us interpret the meaning of presented ordinary landscapes. We
never doubted the presence and continuity of the landscape before alterations caused us to become conscious of its desirability.

4) This reflection on steps taken, based on my proposals, in these three years since the disaster, caused us to realize that the aims of the propositions gradually changed. In the devastation just after the disaster, we had to make an effort to remain cognizant of the spatio-temporal features of the region through the proposals in order to form common understandings with regard to contexts. When the official reconstructive projects began, sustained by legal and administrative frameworks, the aim of our propositions was to sublate official construction plans into ones which would be more acceptable from the view point of preserving and enhancing the scenic beauty of the environment. On the other side, it means that our thinking turned to a concentration on forming objects and their relationships with the surroundings, which is common in planning and design. In this way, our temporal images are projected on to the future. Now at last we have come to reflect on the meaning of the unconscious background of the conscious figure, and we intend to construct a vision by integrally developing the value of our environment. This indicates the urban design process which should be explored in each region, as well as the individual recognitive process in design, not only after a disaster but also as a general rule.
Notes and References


[2] The relocation policy was announced at the news conference given by former Prime Minister, Naoto Kan, on 1 April. (Asahi News Paper 2 April, 2011)

[3] My area of responsibility was “keikan.” This word is usually translated as “landscape” but has wider meanings, which often include objective visual environment and subjective images.

[4] The names of the laws are not standardized or authorized, even now. I have accepted the terms used in the Reconstruction Agency's English brief.

[5] All of the specialist members of the new organization were appointed concurrently with the members of the former committee. The former ad hoc investigative committee is continuing through the 2013 fiscal year at least and functions as a base for specialist surveys on the governmental budget. [9]


[8] Higashi-Matsushima City Master Plan, May 2010

[9] Final report of the ad hoc investigative committee in Oku-Matsushima area (Committee for Rebirth and Utilization of the Cultural Properties in Miyato and Nobiru Area), 2014

[10] Application for treatment of restrictions on building construction in the relocation promotion area dependent on the municipality.

[11] ibid. of [9]. These data were kindly provided by the Bureau of Reconstruction and Town Planning in Higashi-Matsushima City.
Housing policy and urbanization in Brazil (1946-1974)
Ana Paula Koury

Architect and urban planner at the School of Engineering of São Carlos (1991). Phd in Urban Environmental Structures from the Faculty of Architecture and Urbanism-USP (2005). Currently developing the Project Pioneers of Social Housing in Brazil an inventory of housing in Brazil between 1930 and 1964. Has taught on the Graduate Program in Architecture and Urbanism - University São Judas Tadeu - São Paulo – Brazil (since 2008). Has published articles on the topics; industrialization and the production of architecture and also on the history of Brazilian housing policies.

Abstract
This paper discusses the relationship between housing policy and urbanization in Brazil since the organization of the Popular Home Foundation (FCP) in 1946 until the closure of the Federal Office of Housing and Urbanism (SERFHAU) in 1974. These two institutions were created with the role to integrate the urban and housing policy to face the process of urbanization in the country that reached its peak during this period.

Introduction
In 1940 the urban population in Brazil was 31% of the total (about 13 million inhabitants) reaching 45% in 1960 (about 32 million inhabitants) and 56% in 1970 (about 53 million inhabitants). In Latin America the most populous cities in 1960 were Buenos Aires (6,775,000 inhabitants), Mexico City (4,725,000 inhabitants), Rio de Janeiro (4,700,000 inhabitants) and São Paulo (4,375,000 inhabitants).

The intensification of the urbanization process in the country from the 1940s onwards reflects the substantial changes in its productive structure particularly on the industrialization process. The first period of industrialization in Brazil from the end of the XIX th century until 1930 was called import substitution. In the period between 1936 and 1939 new investments took place in the manufacturing sector, and were responsible for a new expansion and diversification of Brazilian industry. As such this last period represents the consolidation of the labor market in large cities such as Rio de Janeiro and São Paulo.

The main challenge of this process of urbanization was the management of the population that was crowding the big cities. Faced by this challenge the State, after 1930, waged an intense debate that focused on housing and urban models to be adopted, on the urban land availability, and on the organization of the materials industry and also on the access to finance for housing production.

Triggered by the industrialization process the following decades were characterized by the emergence of a new class, made up of urban workers with stable incomes and social rights.

The workers emerged as a political force in Brazil after 1910 when they started to organize strikes, to improve their working conditions. The most famous was the
general strike of 1917. The emergence of Vargas was greatly supported by this social force, and during his leadership the social issue was central to the problem of industrial development. It was a turning point in comparison with the Brazilian Republican Government (1889-1930) for which "the social issue was a police matter". Then in the middle of the forties these urban workers demanded housing estates and access to urban facilities, and of course to them the labor rights and social assistance were fundamental. These subjects were gradually increasing in importance in the political agenda of the Vargas period (1930-1945 and 1950-1954) and the policy he led on this social base was called Labourism. This political approach, followed during the period called national developmentalism that stretched until the deposition of João Goulart in 1964 by a military coup.

Even with the military coup in April 1964, the social tensions generated by the urban concentration - the urban and housing issues - had an important role in the Brazilian political agenda of the authoritarian period. The creation of the National Housing Bank and the Federal Office of Housing and Urban Development in August of the same year attested it.

The vicissitudes of the housing debate in this period allows us to track the shift from democratic to authoritarian intervention perspective in the modernization process in Brazil. Following the history of the political approach, the meaning of technical decisions in the planning of the city and housing policies could take on a new meaning to conduct our challenges in the present.

**Housing, city and political process (1943-1946): the rise of a democratic project**

The transition from one society based on agro exporting activities to another based on industrial city in Brazil, did not occur as a natural evolution driven by technical transformations of territory. The history of housing and urban policies can be taken as a case study of the struggle for democracy in Brazil and the role of planning in their claim.

The 1930 revolution broke out with the aim of halting the political reproduction of regional oligarchies. It was a political power based on local authorities and the exchange of votes for personal favors. This kind of democracy in the Republican period was so called "coronelismo".

Understanding the regional oligarchy mechanisms of political reproduction in the local power and creating a new form of government was the immense task of Vargas period. It was initiated early in the provisional government in 1930 and continued in the authoritarian period between 1937 and 1945. Afterwards, the modernization process that began with the 1930 revolution acquired new challenges during the democratic period from 1945 to 1964.

The control of the municipal administration since the beginning of the revolutionary government in 1930 until the Constitution of 1946 was the responsibility of the Department of Municipalities, an agency of technical assistance designed to support the implementation of municipal budgets and plans. The Departments were created to keep the municipalities under control, which were also administered by appointed mayors. Even in the presence of the 1934 Constitution, when the eligibility of mayors
was restored and the budget of municipalities was widened, the municipal control was strengthened furthermore.\(^1\)

In 1937 a new authoritarian constitution suppressed the principle of eligibility of mayors and reduced the municipal budgets. After the 1937 Constitution there was not even the advisory municipal agency that was created just after the 1930 revolution\(^2\).

The system of municipal control onwards would be played by both the States and Municipalities. Because of that \textit{State Administrative Departments} were created.

The control of the administration activities in the states and municipalities has been a fundamental item of Vargas policies such as the regulation of citizenship, mainly through the first ordinance of labor and the creation of its Ministry in the early 1930s and two years later in 1932 the ordinance of the Electoral Code.

Besides these measures another fundamental change was made to the pensions and retirement system. Vargas reorganized it unifying the old pension funds created in 1923 for workers from each private company in Institutes of the main employees sectors, the \textit{Institutes of Pensions and Retirement}. Further being unified by professional categories instead of private companies the administration of pension funds were transferred to the State. This large amount of capital regimented by the social retirement system at a time of expanding urban industrial economy had a key role in financing many infrastructure projects for industrialization of the country. To improve these funds they were invested in the growth of the real estate market in the big cities in Brazil.

However, the authoritarian formula of Vargas implemented in 1937 was not sustained long after the end of World War II when the defeat of European totalitarian governments increased distrust in his government. From this moment on, the proposal made by the entrepreneur Roberto Simonsen assumed a great political potential to democratic transition for the Vargas government.

The transition measures had started in 1942 when an official radio program defunded systematically the government agenda. In 1943 to reinforce the \textit{Labourism} policy Vargas launched the \textit{Consolidation of the Labor Laws} and increased the minimum wage.

From the private sector, Simonsen advocated a broad action taken by the state to plan the Brazilian economy. Attacked by his counterparts and also by the Finance Minister Artur de Souza Costa, the Simonsen project echoed in Vargas strategy to enlist the support of part of the entrepreneurs and increase his political base. Then Vargas Minister of Labour Alexandre Marcondes Filho proposed the creation of the \textit{National Board of Industrial and Commercial Policy} chaired by himself and composed of the engineers Ary Torres and Roberto Simonsen, who were responsible for technical advice. The members of the Board were Heitor Grillo, John Daudt d’ Oliveira, João Pinheiro and Santiago Dantas and also Euvaldo Lodi (rapporteur) and Rômulo Almeida (technical Secretariat)\(^3\).

The Board conducted a study to guide Brazilian industrial development and trade and establish priorities for an economic protection policy. The proposal included the creation of a \textit{National Development Council} and a \textit{Secretariat of Planning}, something that would happen only eighteen years later, in 1962 under João Goulart’s term in
office. In addition the Board pointed to the need for the Executives Departments to conduce the growth of different sectors of economy, included; Industry; Agriculture; Energy and Fuel; Trade and Transportation; Education and also a Department for Urban Organization.

The report prepared by the Technical Secretariat of the Board highlighted the social limitation to economic growth and increased visibility to the Simonsen proposal summarized by the slogan "war on pauperism ". The slogan evoked the mobilizing force that the damages of war had caused to the planned economy in the European reconstruction. Similarly, for the Board the social issue in Brazil would mobilize forces and purposes to overcome the resistance of the liberal sector and reach the planning for the growth of the Brazilian industry economy and to raise the social standard of urban living.

The Roberto Simonsen proposals were important to Vargas because they met his challenge to combine economic growth and social development meanwhile widening his political base of votes. This is the first way that the underdevelopment was characterized as a whole condition and proposed to be faced by both social and economic measures to give a stable base for political democracy.

Simonsen, himself, had experienced the limitation of economic growth caused by the Brazilian population's lower pattern of loan. In 1912 his Construction Company of Economic Housing went broke trying to implement a estate housing for workers in Vila Belmiro Santos - SP. The workers can't even pay a little to acquire their own homes.

Although the decisions of the Board were not implemented immediately and caused raging debate among the defenders of the free market and defenders of economy planning, the report sets out a central point of urban and housing policy which was incorporated in the Popular Home Foundation project launched two years later.

In the slogan "war on pauperism" which summarized the Board's approach, the State intervention in social issue was not only to shape a stable manpower market for industrial supply. This role had been played by social legislation. But unlike State intervention on social issues would increase the production linked with the construction industry and with materials and components industry. An anti-cyclic measure motivated by the social issue. The participation of the engineers Roberto Simonsen and Ary Torres on the Board was fundamental to formulate it.

The year following 1945 was marked by the presence of another Advisory Commission, at that time in the National Constituent Assembly. They drafted a report, remembered as the most important document to understand the Brazilian social life in the forties. The report was conducted by a team led by John Carlos Vital and composed of Américo Barbosa de Oliveira, Jesus Soares Pereira, Rômulo Almeida, Thomas Pompeu Acioly Borges and Ulysses Hellmeister. The aim of the Commission

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1 The relation between the the slogan "war on pauperism " and the Underdevelopment I am in debt with Carlos Eduardo Comas who suggest it in our debate on Rio Grande do Sul Graduate Program.
was to study a project to unify again the pensions and retirement system and to create only one Institute, the Brazilian Institute of Social Service (ISSB).

The Commission assessed the living conditions in the country and found to be strategic to reduce the costs of production to supply the housing deficit. The proposal was the "Plan to Proletarian Construction" presented by eng Ulyses Hellmeister. He was the head of the Engineering Division of the Institute of Retirement and Pensions of Commercial Workers (IAPC), from 1940 to 1948. In his term he developed alternative techniques and streamlined processes for mass production of housing across the country, taking into account the difficulties to access industrialized material and also the different skills of the labor force in the various regions around the country.  

On the construction site of housing estates which Ulysses Hellmeister led in Recife, São Paulo and Rio de Janeiro, he drew up his plan. At Coelho Neto housing estate (Rio de Janeiro) in 1945, he adopted mechanical casting to produce soil cement panels. A pioneering experiment of rationalization of building with alternative materials in Brazil. Besides innovating in the construction of the units, Hellmeister also developed a typological contribution in housing design. He proposed overlapping rows of staggered homes that allowed him to combine average density (about 270 inhabitants/ha), environmental variation, and low cost of infrastructure through a kind of urbanism with more green and less paving areas. The model was called City Garden of Commercial Workers.  

As Such the institutions proposed in the economic planning provided by the Board of 1944, the creation of the Brazilian Institute of Social Security and the "Plan to Proletarian Construction" was not implemented. Nevertheless it had a wide contribution to urban and house debate. At first the deeply knowledge on the living condition of poor people conduced to face the problem of poverty in rural areas. Second the measures to improving production factors of house nationwide. Third the necessity of a centralized agency to face in articulated with municipal power the urban and housing policies. These measures were also incorporated by the Popular Home Foundation project.  

The creation of the Popular Home Foundation announced in the same year point out the possibility to put in practice an innovative plan. Creating programs to improve both rural and urban living conditions the new agency intended to face the urban crisis. Besides housing, the Foundation could implement improvements in rural facilities and also provide infrastructure in poor urban neighborhoods. Launched on May 1 reinforcing the Labourism agenda, and would improve the standard of living of Brazilian workers. To aimed it the Popular Home Foundation strategy included increasing the distribution of building materials network and the availability of land, thus expanding the factors of production of housing nationwide and increasing the construction industry sector. The huge amounts of funds required to carry out this ambitious social project in Brazil would be met by transferring funds, from the real estate portfolios of pensions and retirement institutes and also from the states and municipalities.
With the democratic constitution of 1946, the municipalities had a share in the taxes on fuel, electric energy and minerals, these sectors were in expansion to encourage new industrial economy. The increase in the municipal budget would allow the financial autonomy needed by the Popular Home Foundation. The municipal campaign inaugurated by the 1946 Constitution at first allowed Vargas to dissipate the resistance of the liberals. However, soon it was reverted into a dispute between the technical sectors, compromised with the modernization of administrative structure and another municipal sector, which kept the political culture of rurality and formed a kind of sub elite shut out of the modern administration. With this political dispute within the municipal campaign, the funds were not transferred to the Foundation that despite having a great plan to address urban and housing crisis and consolidating the democratic process in urban base nationwide, suffered by inactivity due to the lack of resources.

The author of the Popular Home Foundation project remains anonymous but the gradual and collective construction of the agenda for a comprehensive urban and housing policy which characterized its contribution could be followed by the report made by the interdisciplinary teams on National Board of Industrial and Commercial Policy and by the National Constituent Assembly. Both reports aim to conduce on democratic way the Brazilian society creating interdependences between social, political and economic issues.

The integrative model of planning (1946-1954): conducting a national collaboration

"This work (The Popular Home Foundation) can only reach the magnitude expected if it is a legitimate work of national collaboration, and if it is a revolutionary manifestation of culture, revealed in the technical solutions, in the form of ecological and landscape suitability of new Brazilian house."

Vargas returns elected president in 1950 with broad popular support and a significant victory with 48.7 % of the vote. In its second government, the guidelines for the integration of economic development and social progress were recorded in its Presidential Message of 1951. The social mission in his second term in office would be conducted by the Commission of Social Welfare established in September of the same year.

The Commission was under the Ministry of Labor, Industry and Commerce and reassumed the promise to universalize the welfare benefits which had been tried unsuccessfully in 1946 by the Brazilian Institute of Social Security (ISSB). The proposal of the Commission of Social Welfare had a reformist character and maintained intact the organization of the Institutes of Pensions and Retirement. In spite of this, its objective is to control the social policies and, to administrate the investments of the Institutes in a centralized way.

Under the vice presidency of Josué de Castro the Committee was composed of several sub - committees: social insurance; social services; housing and slums; health; cottage
industries and handicrafts; colonization and rural welfare; recreation and culture; and technical assistance. The Subcommittee of Housing and Slums was coordinated by Rômulo Almeida and developed several studies on living conditions nationwide. Such as had been done by the Commission for the Constituent Assembly of 1946 the report made by the Subcommittee organizing a very comprehensive frame of the Brazilian housing problem in the early 1950s.

The studies were made in collaboration with the Popular Home Foundation and with the Bank of Brazil and also a research of living conditions was commissioned to the Dominican Priest Joseph Louis Lebret, the founder of Humanism and Economy Movement in France. This study called "Survey of the Brazilian Standards of Living" would contribute to formulate policies to overcome the delay of economic development in poor regions of the country.11

The Subcommittee also gathered proposals of the main promoters of social housing. It identified the existing regional programs and documented innovative initiatives. The studies and proposals were presented in a seminar "Problems of Lower Income Housing Standard" promoted by the Subcommittee of Housing and Slums in 1952 in Rio de Janeiro. The results were reported at the Second National Congress of Brazilian Municipalities (São Vicente-SP, 1952), and published under the title Problems of Popular Housing. It points out to the damage caused in large cities by the unilateral urban programs of housing assistance that encouraged the rural exodus.12

Aiming to modernize and develop rural areas several institutions were established during the second government of Vargas. The National Commission of Agricultural Policy (CNPA), the Rural Social Services and the Institute of Immigration and Colonization. In 1954, also the Northeast Bank implemented a program for the improvement of rural areas financing in priority rural complexes that includes beyond housing units, also equipments and agricultural production or domestic industry.13

Rômulo Almeida, based on the studies of Subcommittee assert that the urban crisis of the 1940s was the result of both process the rural exodus and the investments in luxury real estate market made with the funds from the Institutes of Pensions and Retirement in the big cities. Real estate market investments were the solution to guarantee the integrity of these funds for the Institutes, but also worsened the access to housing for large parcels of urban population. Quantifying the lack of new units and the evolution of overcrowding, the report conducted by Almeida showed the magnitude of the problem between the 1940s and 1950s and the "illusory appearance of prosperity in the Brazilian large cities"14 at that time. The Mixed Commission Brazil - United States implemented in 1951 observed the pattern of Civil Construction in the period between 1939 and 1951. The report point out the high level of civil construction activities during all the period after the World War II. In 1939 the inversions in the sector were 16% of total gross investment and 20% of gross investment of the private sector. In 1947 it were 40% of total gross investment and 47% of gross investment of the private sector and in 1949-50 around 25% of total gross investment and 34% of gross investment of the private sector. After presenting the numbers the reporter commented that the major significance of it was the concentration: 60% were investments in real estate market for high standard apartments in the such big cities São Paulo e Rio de Janeiro.15
Increased lack of new units between 1940 and 1950. Chart prepared with the data presented by Almeida in the letter forwarding the report of the Subcommittee on Housing and Slums. CPDOC Arquivo: Getúlio Vargas. Fundação Getúlio Vargas.

The report presents an agenda with 8 points to "a new popular housing policy" that would be led by the government. The measures would be: to stop the investments by the Institutes of Pensions and Retirement in the real estate market; to combine housing policy with improvements in rural areas; to finance low-income families and develop low-cost systems for housing construction; to finance the purchase of land and construction materials; to build housing for rent; to organize "self-made" for the production of housing and spread rationalized construction methods, to offer by lower prices building materials and urban land; to centralize federal funds for public housing and; to promote administrative reforms.¹⁶

The specific contribution of the Subcommittee report for the housing policy was to increase knowledge of the living conditions of poor people and gather innovative practices made by the municipalities. The majority of points presented by the Subcommittee reinforced the policy proposed in 1946.

In 1953 a new system of financing units and improvements were implemented through the creation of a mortgage bank. The goal was to meet the difficulties to transfer funds to the Popular Home Foundation. According to Andrade and Azevedo¹⁷ the measure was an innovation because would integrate the private savings it into a financing system giving interest to the investments in low-income housing market.

In 1954 the suicide of Vargas represents the limit of the national project based on the interdependence of classes and on the utopia of an industrialization project focused on equal social development. Despite being supported by the mass of workers the next political period began to show signs of what this project would be in the future.

Architecture and National Planning (The Target Plan: 1956-1961)

In the Juscelino Kubitscheck term in office (1956-1961) the social issue was no longer organically linked to development as it was in the previous period. To
overcome the limitation of the Popular Home Foundation or even trying to universalize the social benefits were not on the new government agenda such as the intense debate on the improvement of living conditions, like housing and urban policies. Development goals were mobilizing all the attention of the President and its success seemed to be enough for a modern, industrial and democratic society and planning focused on elementary programs, such as the expansion of the basic factors for industrial production - mainly the energy sector - and the huge project of the new capital, Brasilia. The last one resulted in a great boost to the construction industry and also to the development of building systems. *The Target Plan* was drawn up by a team led by Lucas Lopes. Lopes had been part of the technical staff of Kubitschek since his term in office as governor of the State of Minas Gerais from 1951 to 1955. In this period Lopes formulated the plan for the State electrification and its Power Plants. In 1952 Lopes, being an expert in the energy sector, was invited by the Vargas Government to join the *Mixed Commission Brazil- United States*. This Commission formulated a plan to finance development infrastructure nationwide. Thus, the leader of the technical team of *The Target Plan* of Juscelino Kubitschek had profound knowledge of the institutions that had been created, qualified and funded during the previous period of Vargas as was drawn up in the Mixed Commission. *The Target Plan* provided functionality between the sectors and outlined a set of goals for these existing agencies. These measures performing the big jump to industrial development and also reaching an organized and effective policy for development planning as had not been possible in the country previously. *The Target Plan* established two lines of strategic actions. The first would address the bottlenecks of five basic sectors: energy, transport, industry of capital goods, food production and training of human resources. The first three were priorities. The energy sector (electric, nuclear, mineral oil) covered 43% of the goals, transportation (railways, highways, ports, merchant shipping and air transportation) 29.6% of the goals and Industry of capital goods 20.4% of the goals.\(^ {18}\) The second line of action would produce strategic points of germination, linking the supply of factors in a dynamic set of economic relations. Brasilia was included as the last goal of *The Target Plan* and can be considered a summary of it. Built in just four years the new capital spent about 250 billion cruzeiros in values of 1961, mobilizing 2.3% of the Gross National Product. Represented the expansion of the economic system based on the sector of Construction Industry.\(^ {19}\) The short time between the result of the contest and the start of construction of Brasilia prevented better organization of the building site\(^ {20}\). However the creativity and management skills of the technical staff in charge of it allowed developing a set of experimental systems and designs. Unlike it the *University of Brasilia-UNB* was built in a planned way and employed streamlined systems, which were developed by a *Center to Planning the University - Ceplan*, led by João Filgueiras Lima who had participated in the construction site of Brasilia. The Center was created to plan, deploy and build the entire University. It
was part of its scope to conduce the course of the Faculty of Architecture, incorporating the innovative experiments conducted by it into academic activities. The main idea was to set up a factory to produce components for the buildings in closed cycle systems. Beyond it the factory would become the largest design center to attend similar demands across the Latin American continent.

Filgueiras Lima visited several similar experiences of prefabrication systems in Eastern European countries like Poland, Tchecozlováquia, Soviet Union and East Germany. He come back to Brasilia and organized the factory. Some buildings were constructed with these prefabricated components. The buildings experiments were abandoned in the second round of expansion of the University in the late sixties, which was the object of the action of entrepreneurs from the private sector.

The partnership between Oscar Niemeyer (1907-2012) and João Filgueiras Lima (1932-2014) at the University of Brasilia design produced a series of prefabricated building in closed cycle, performed by state-owned factory. The system could meet the demand for various types of building, from large equipment to the housing units. Among these experiments the Housing Module and The Big Earthworm are the most striking examples. Both were designed by Oscar Niemeyer for different purposes, the first one for student accommodation and the second one for teaching science. Both demonstrated an integration between planning and design to produce urban environmental infrastructure through industrialized system. The building technology applied in these examples shows us an important improvement in construction process in Brazil.

The Housing Module was designed in 1962 as a container to be organized on a vertical structure composed of full and empty spaces. The units were only 32 square meters and would create balconies for each unit, that nearly duplicate the area available per module. The Big Earthworm as the Central Institute of Sciences was called (ICC) was held the following year in 1963 and continued to be built until 1971. It was nicknamed because of its enormous longitudinal extension (720 meters). The original idea was to concentrate all courses in basic sciences inside the huge structure.

Brasilia also fostered the creativity and entrepreneurial spirit of a part of the technical sector interested in expanding their business. Many engineering companies, which over the next decade were dedicated to the manufacture of precast concrete elements, and even the few companies who had dedicated themselves to building fully industrialized homes, such as National Company of Industrialized Construction SA (Cinasa), originated from the building site of Brasilia. However, the high intensity of the real estate market that took place in Brasilia was more permanent than the constructive experiments that focused on affordable housing and facilities made by the public sector or by private entrepreneurs. The spectacle of birth of the planned city showed to the Brazilians the two sides of the modernization project. The workers who materialized the dream of national modernization were expelled from the modern monument. The Candangos were driven to peripheral settlements showing the selective nature of the ongoing project that would be conducted by the autocratic way a few years later, in 1964.
An integration between industrialization and social progress, changing once again in the role of planning for the national development in the Kubitschek Era. Despite the enormous improvement of technical skills in the systems and unit building design it didn't meet the knowledge on housing and urban policies developed at Vargas Era. The following period was of great political turmoil. The social issue back on the government agenda with an explosive political potential.

Housing policy, urban reform and democratic crises (1961-1964)

The construction of Brasilia attracted the attention of public opinion and the topic on housing policy and urban reform had just returned to the government agenda at the beginning of Jânio Quadros term in office in 1961. Before his resignation in August, 1961 Quadros launched the Housing Assistance Plan and created the Brazilian Institute of Housing.

It was evident at the beginning of the sixties the dependence between political stability and social policies included housing and urban reform. Behind of that it was also evident the housing problem would be solved only throughout a sustainable financing program. In this frame the effort to overcome the difficulties inherited from the creation of the Popular Home Foundation reemerged in a new institution and program. The Brazilian Institute of Housing was launched basically with the same agenda but instead been under the municipality power the new institution was directly linked with the presidency. The finance system was composed by taxes on consumption and on real estate transactions and even by loans through the Bonus Housing. To complete the chain was also created an income program the Housing Assistance Plan. It provided to rural workers who had migrated from the countryside an occupation in civil construction sector with stable income. The program worked as an adaptive phase for urban labor.

With the resignation of Jânio Quadros, these proposals were abandoned. João Goulart took office in September of 1961 in a context of institutional and economical crisis. The Gross Domestic Product was decreasing rapidly while inflation was rising out of control.

To break the economic crises and to promote social development, in December of 1962 than recently created Ministry of Planning had announced the Triennial Plan for Economic and Social Development. The Plan had eight basic general objectives. The economic measures were oriented to keep the inflationary process under control reducing the investments but it resulted in the opposite. In terms of administration the Plan also defined a set of guidelines to basic reforms, in the banks, in the agrarian structure and in the tax system. In terms of social development the plan included improvements in education and the health system but didn't mention anything on urban or housing policy.

In February 1963 the editorial of Architecture - the official magazine of the Brazilian Institute of Architects- criticized the Triennial Plan. In an article entitled The Triennial Plan and Housing the authors recognized the need for economic measures and the importance that was given to social development, but they pointed out the lack of attention given to the housing problem in the official document. There is, throughout the Plan, only one single reference to housing. It
was included in the chapter on health policy in the item called *Pre-investments for the improvements of human factor*. In this item, the housing problem appears as crucial in eliminating diseases which were still prevalent in the majority of Brazilian communities who were living in precarious accommodation. Since the beginning of the Quadros term in office there was a perception of a large-scale crisis. The crowded cities and the lack of housing worsened the situation, threatening the political stability and democracy itself. Despite federal investments in the housing sector it had always been less than was needed. In the 1960s the federal agencies that had traditionally provided units, such as the *Institutes of Pensions and Retirement* and the *Popular Home Foundation*, had an even more insignificant performance. When approaching the inversion point of the demographic curve investments were divided with the construction of Brasília and with the regional planning by attending the rural areas to block the rural exodus. The urban population would surpass the rural in Brazil in 1966.

In March 1963, the presidential message to Congress sought to correct the mistakes in the political process made by the *Triennial Plan* in omitting the housing and urban policy in the document. In April 1963 the Act n. 87 was approved. It was introduced by Floriceno Paixão and established the *National Housing Plan*, the *National Housing Fund* and the *National Housing Board* and recast again the legislation on the *Popular Home Foundation*. The mechanism of housing policy created by João Goulart consisted of a plan, a fund and a technical board to conduce it and was directly linked to the presidency. The same solution was adopted by the Institute of housing created by Jânio Quadros in 1961.

In July of 1963 when the political situation led to a policy shift, an important seminar on housing and urban reform was organized, which was known as *Quitandinha Meeting*. The *Seminar of Housing and Urban Reform (S. HRU)* occurred from 24 to 31 July 1963 in two stages, the first in the sumptuous building *Quitandinha Palace* in Rio de Janeiro, and the second in the modernist headquarters of the *Brazilian Institute of Architects* in São Paulo. The debates were distributed into four subjects: 1- the housing situation in the country: exhibition and analysis of current conditions; 2- housing and urban agglomeration; 3- the urban reform and measures to establish a housing and urban policies; 4- the implementation of urban planning and housing programs.

A review of the Act n. 87 resulted from the last subject. It provided to articulate the housing policy and the urban reform through the creation of a *Urban Policy Superintendence* (SUPURB). This agency further controlled the urban growth, promoted the development of technical innovations to be applied to produce housing on a large scale methods.

Other points were highlighted by the report from the Seminar. One of them was of great importance. It was a consideration that the limit to urban growth was caused by the private ownership of land. Consequently the report indicated the amendment of the 1946 Constitution, excluding the need for prior cash payment for evictions in case of social utility. The suggestion was to compensate homeowners and urban
land owners with public debts. The same solution was proposed to compensate
landowners in an Agrarian Reform project, presented by João Goulart to the
Congress. Both reforms, agrarian and urban, recognized in the structure of land
ownership the limit to the Brazilian urban development.

Further the problem of landowner the housing policy proposed by the Seminar
included the technology policy, through standardization and normalization
(modular coordination) for designs and components, contributing to the partial
prefabrication of dwellings. On this subject the report of the Seminar also pointed
out the need to explore new materials, components and systems to achieve the
industrialization of buildings. The dwellings could be built by the private sector,
increasing the rationality of the production process, lowering the cost of the unit
and supplying the market of low-income housing maintained by the National
Housing Plan. The funds oriented to the housing programs would allow new
perspectives to the experiments in the industrialization of the building originated in
the construction site of Brasilia now linked with a policy on housing e urban
planning.

The organization of the meeting and government’s decision to intervene in housing
and urban policy was strategic to social stability. Even for the civilian-military
regime that broke the legal mandate of João Goulart this formula revealed its
political potential.

The Military government had created in August 1964, just four months after the
coup, the National Housing Bank and the Federal Office of Housing and Urban
Development. Both institutions retained much of expertise developed along the
past but also interrupt important experiments in social and technical policies. The
most significant interruptions were the lack of the urban land policy and the low
technological policy adopted in the building system. These main points revealed
the conservative face of the transformation which was in progress after 1964. On
the other hand the link between urban and housing polices; economic and social
intervention and the financing system adopted, exposed the link with housing
polices since the Vargas Era.

The National Housing Bank and the Federal Office of Housing and Urban
Development were created by the same Act which also established the system of
operating and secured the investments in the financial system. Initially the Bank
was only a support for the housing policy, but soon became responsible to
conducting research on technologies, to quantify the housing deficit, to planning
the available land location to the estates, to evaluate socio-economic aspects for
the contracts and also to assist the municipalities in developing and deploying its
master plans.

In 1966 the Guarantee Fund for Time of Service was created and integrated into
the housing finance system. This is the most intense period of Banking activities.
In the same year the Financing Fund for Integrated Local Development Plan was
created. It was a department with specific funds to finance urban master plans.
The master plans were initially made by the National Service of Municipalities
(Senam) created in 1961, but in 1970 the Service was incorporated into Federal
Office which further expanded the role of the Bank system in the area of urban policy. This period formed technical skills in urban and housing planning in Brazil.

In the short period of four years of operation as the only agency responsible for urban planning, the Federal Office conducted an experiment that was later criticized in the democratization period in the eighties. The master plans made by the Federal Office were charged being ineffectiveness and resulting in authoritarian formula.

The National Housing Bank was also criticized. The bad quality of the design and construction of the estates, the lack of integration with the consolidated city and the finance system aimed at the middle class, were the points highlighted by the majority of critics.

Some recent works have revised it and analyzed the National Housing Bank and Federal Office throughout other elements which may draw a new meaning for planning in the country. The interest of the authors lies in the integration of federal, states and municipals levels, thus ensuring the local investments in correspondence to regional and national development improving rationality to the planning.

Another aspect pointed out by the authors is the interdisciplinary nature of the plans. Aggregating many areas of knowledge in the board the plans produced broadly diagnostics for successful interventions.

It also raises the interest of authors the organization of the information system for municipalities through the Information Center for Urban and Local Development which was responsible for collecting and systematizing the information to urban and local planning.

The National Housing Bank and the Federal Office provided a start point to think the shift of technical decisions in the planning of the city housing policy. A critical approach considering positive and negative points need to be done and may conduct our challenges in the present.

Conclusion

At the antecedents of the Popular Home Foundation we showed that the first measure of Vargas after the 1930 revolution was to take control of the municipalities. They are the center of political power linked to the ruralism that characterized the economic conservative elites that Vargas and his support group wanted to clear away. Because of that the local power were controlled by the technical instance which means the Municipalities Departments.

Another measure that affects directly the urban development was the control on the Pensions and Retirements Funds throughout the creation of the Institutes from 1933. The Institutes designed modern housing estates for workers nationwide. These estates were part of the labor assistance and were provided with facilities and social assistance. Further being an important piece to spread an ideology based on the value of labor – to overcome the slave culture- the Institutes were great promoters of the real estate market in the biggest city during the ascendancy of the urbanization process.
This period of the Vargas authoritarian regime from 1930 to 1946 was the creation of a modern and industrialized society base of regulated urban workers. The transition to the democracy promoted by the Vargas Era was the consequence to keep under control this political process. Because of that the Popular Home Foundation project was formulated as an integrative answer to the social problem. Providing homes “for every one every where” the appeal of the program would also improve the conditions of the labor market in rural and urban areas and the chain of civil construction and materials. Being effective to the industrial sector the project also needed to attend the rural sector. Because of that the Popular Home Foundation was launched in the municipal campaign on the 1946 Constitution. It was responsible for the failure of performance that characterized its entire existence until 1964. Being a centralized agency to control the urban and housing policy it was in conflict with the municipalities and local interests. The contradiction was the financing system which should have been transferred by them.

The social formula provided from the democratic transition in 1946 in Brazil combines social and economic policies, but couldn’t combine the technical sector formed by the State bureaucracy with the heritage of rural economy.

The further period of Kubitscheck the social approach was overcome by the goals of development. He implemented The Target Plan which gave priority to the bottlenecks of economy and the goals in basic sector. The systemic approach of social planning and economic development was substitute in Kubitscheck period by a pattern of elementary planning. In this period was increased the innovation in the civil construction sector mainly in building systems. The technological innovation was tested first in the Popular Home Foundation but large experiments in different scales of interventions were made on the spur of the construction site of Brasilia. Despite that an effective technological policy in civil construction sector wasn’t carried forward by the State.

After Kubitscheck, in Janio Quadros and João Goulart's term in office, a political and economic crisis was in place. Even so the planning in this period drew syntheses between the previous patterns of planning. Including the technical development of the Kubistscheck period in a systemic heritage from the Vargas Era. It was done by the proposals to housing and urban policies resulting from the Urban Reform Seminar in 1963. The housing and urban planning institutions were idealized to work together and they were created with the financing system, the board responsible by the policies, the plans to be implemented, and also a research office to develop technologies.

From the sixties the housing and urban planning became fundamental to social and political stability even in the autocratic regime implemented in April of 1964. In August the National Housing Bank and the Federal Office were created to make a huge intervention in financing housings estates and to improve the urban conditions. Despite being mainly idealized under the important transformation in the Brazilian society in João Goulart term in office the institutions created under
the military regime in 1964 were conducted in a conservative way, without the limitation on the land owner and without the technological development. The National Housing Bank and the Federal Office were responsible for producing 5 million units nationwide and to conduct the development in several cities. Its organic link with the political process in the military period put the Bank under fire and its problems were emphasized. The low quality of the estates implemented in outskirts of the cities without facilities. The major attendance classes with higher income (up to 7 minimum wages). And the financing system with deeply the unequal distribution of income transferring the workers funds created in 1966 to the private sector that realized great accumulation implementing the policy. The Federal Office was also criticized by its authoritarian and infective methods of urban planning. Following the relationship between the housing policy and urbanization in Brazil since the creation of the Popular Home Foundation (1946) until the military intervention in urban development made by the Federal Office (1964-1974) we realized the role of planning in the political and economical stability of the country. The success of initiatives including the housing and planning policies was to associate the social welfare to economic development. We followed the housing and urban policies under the shifts of economic development. It seems important to us to inquire what underlies in the "social function of planning". Is it possible to think of an independent "social welfare initiative" only "to make life better for people"?

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RELATÓRIO DA SUB COMISSÃO DE HABITAÇÃO E FAVELAS .CPDOC
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2 Idem p. 92.
5 Idem p. 141.
12 RELATÓRIO DA SUB COMISSÃO DE HABITAÇÃO E FAVELAS .CPDOC Arquivo: Getúlio Vargas CPDOC Fundação Getúlio Vargas.
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Diário do Congresso Nacional, 5 de abril de 1963, p. 1216, sessão I.


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The Settlement Congregations Of The Moravians As Special Case Of Town Planning
Jürgen Lafrenz

Abstract

The Moravian Church established itself as a protestant denomination in the 18th century. The country estate owner Nicolaus von Zinzendorf established a self-sufficient Christian community on his Berthelsdorf property in Upper Lusatia with a group of German speaking refugees from the region of Moravia. This original Herrnhut settlement soon became the template for the establishment of a significant number of further settlements:

1. The Moravians founded 28 new settlement congregations (in addition to further similar settlements) in Europe and America, not only as strictly religious congregations, but also as communal independent settlements, of which many had an urban character. In the British Colonies of North America they acquired extensive stretches of land and even influenced the regional development with the construction of comprehensive settlement networks, so in Pennsylvania with the capital Bethlehem and in South Carolina with the capital Salem.

2. The Moravians soon advanced to the status of largest Protestant missionary movement, and already during the lifetime of Zinzendorf established over 200 serviceable missionary stations as well as missionary settlements, on all over the world.

The pietistic denomination, which based its way of life on the close interaction of members, set up settlements at its own discretion. The tightly-meshed Christian social structure, which originated and unfurled in Herrnhut and included the group organization of the congregation, became the model for the new locations and was integrated in the existing urban fabric.

The Moravians´ position that they were the creator or their branches is based on the fact that they themselves were in command of building operation. They were closely involved in the selection of the settlement site, the initial town plans as well as the collective building projects. The building supervision of the settlements was a major concern of the Brotherhood’s management in Herrnhut.

With the construction of further settlements, various models emerged. From the outset, the Moravians did not underscore the religious background in their settlement plans. However, the symbolical relation to the settlement with biblical visions was reflected later, whereby a formal similarity with the Levities towns was contemplated. The building plan which proved the most suitable to the Moravians can be attributed to the later famous architect Benjamin Henry de Latrobe with the inspirational design of Fairfield (which later became a part of Manchester).

The convivial leader of the Moravians, Zinzendorf, had quite personal ideas and was often ahead of his time when it came establishing new settlements. The elaborate
plans for the congregation near the castle of Zeist and also for Saron, the spacious site in Chelsea which had been envisaged for the proposed new headquarter of the Brotherhood, anticipated elements of the (utopian) projects of Charles Fourier and Jean-Baptiste Godin (Familistère, 1858). The layout of the central town in Wachovia in South Carolina (Salem) in the octagonal design of an ideal city includes distinct elements of the garden city designed by Ebenezer Howard (1898)

The paper will deal in detail with the special importance of the Moravian city planning which John Reps has already drawn attention to.

1. The establishment of Herrnhut

The ingenious count Nicolaus von Zinzendorf (1700-1760), in cooperation with religious fugitives from Moravia in the tradition of the 15th century Hussite movement, created a form of pietistic practice of great influence. In spring 1722, young Zinzendorf instructed the estate manager on his Berthelsdorf estate in Upper Lusatia to provide for arriving Moravian families and to allocate a spot in the village convenient for their residence. The site determined had, beforehand, been used as grazing ground (Hutung). The deduced place name “Herrnhut” was immediately read as a symbolic designation for a place under the protection (Hut) of the Lord (Herr).

In 1727, in close co-operation between the count and the spiritual heads among the people from Moravia, a whole new Christian community was called into being according to pietistic principles. The organization of the members into choirs (“choir”, derived from “corps”) necessitated the establishment of special buildings, so for the unmarried brothers and the unmarried sisters, and the widows and the widowers. Membership numbers in the choirs rose steadily, so that their buildings were enlarged or, in the end, the choirs transferred to a different location. So Herrnhut was evolving gradually by successive expansion as well as by internal alterations.

2. The establishment of further settlements

Herrnhut became the basis for later settlements of the religious movement. Zinzendorf’s enthusiasm and zeal soon directed the Moravians’ energies towards activity in the Diaspora within Protestant and Anglican regions and, even more intensely, towards establishing Christian missions in many parts of the world.

1. In 1732, the setting up of missionary stations was the first prior objective. The missionary work, which required the acceptance of the competent colonial power, commenced immediately in several cultural continents, initially under the flag of Denmark in 1732 on St. Thome and in 1733 in Greenland; under the flag of the Netherlands in 1735 in Surinam and in 1737 in the Province of the Cape of the Good Hope, and already in the 1730’s, efforts were being made to convert the Indians in the back-country of provinces of the Atlantic east coast of North America. The mission of the Moravians became the most significant Protestant missionary movement in the 18th and 19th centuries which ultimately encompassed wide areas of the world although some efforts, mainly in Asia, failed in the end. During Zinzendorf’s lifetime, the Moravians eventually established more than 200 serviceable missionary stations. In some rare cases only, more extensive mission
settlements were set up which were exclusively connected to school and medical facilities. According to their functionality, the corresponding places have many structural similarities.

2. The Moravians soon looked for more places where they could unfold their Christian faith with each other and without restrictions. The strong response to the >Model< of a new way of life in Herrnhut finally resulted in comparable settlements, the place or settlement congregations (Ortsgemeinen), which mostly were individual places or sometimes separate town sectors where not only the religious, but also the communal life was determined by the Moravians. The settlement congregations became the marrow of the Moravian movement. Ultimately, 28 such new congregations were founded: 17 on the continent of Europe, 3 in the middle of England and 1 in Ulster, moreover 7 in the British colonies of North America. The great majority of successful foundations originated between 1742 and 1767.

Most of the settlement congregations were established on the European continent under the patronage of pietistic noblemen and accepted by sovereigns with commercial ideas. The prospects of acceptance were highest where, on the one hand, the nobility adhered to pietistic teachings and, on the other hand, where Protestant territorial princes were keen on attracting settlers like the Moravians to stimulate the economic development of their crafts and trades. In the second half of the 18th century, many German sovereigns were eager for the Moravians, to establish settlements in their territories. There were offers, too, from noblemen from Poland and the Ukraine, even by the Tsar of Grusinia (Georgia). The Moravians rejected more than 40 offers.

The Moravians made contacts with England because their early ties to the North American Colonies went via London. In England and Ireland, the Brethren’s Unity was affected by a strong current of a movement of awakening and congregations were not founded by the nobility, but grew out of local revival meetings. This grassroots approach led to the foundation of many small-scale societies, but to only very few settlement congregations. At the beginning, only three of these evolved - Fulneck in Co. West Yorkshire, Ockbrook in Co. Derbyshire, and Gracehill in Co. Antrim. A fourth place came into being in Co. Lancashire, in an attempt to relocate the congregation of Dukinfield to the settlement congregation of Fairfield.

The Moravians’ missionary zeal and British colonial interests brought the Brethren to the western shores of the Atlantic. The British authorities welcomed all sorts of Protestants as a buffer against the Spanish in Florida and the French in Louisiana. There, the Moravians had ample opportunity to purchase land and engage in farming. However, with the experiences they had brought from their home congregations they rather turned to crafts, as elsewhere. They set up settlement and country congregations in Pennsylvania and South Carolina, but also regional networks with the centres of Bethlehem and Salem.

3. The morphology of the settlement congregations

The similarities between the settlement congregations were amplified by the fact that the Moravians generally took all building matters into ‘their own hands’, with lots being
The Moravian construction work was in their own command. Such a practice was derived from the christocratic constitution of the Brethren (done since 1741), recalling that Christ could give direct instructions by lot.

The Brethren with their close-knit and strictly organised social structure really were ‘at home’ not only in one, but in all the settlement congregations with their typical facilities, as the assembly hall, the choir houses, the guesthouse and especially the unique God’s acre. The initial plans very often did not yet include the later site arrangement of the communal installations. Frequently, the required dimensions for the buildings only became clear gradually, as people settled in, and changing dispositions then necessitated the relocation of some functions. The course of the building activities shows that each step was taken according to the momentary requirements so that, in most instances, no strictly geometrical building patterns evolved. Only in rare cases, like in the short term in Fairfield and in the long term almost in Zeist, an elaborate layout-plan including the elevation was closely adhered to.

Most settlements were probably measured out according to preconceived plans which included the street pattern, though not always the plot boundaries. The Moravians favoured the grid plan, a practical traditional method of layout. The first plan for Gnadau can be regarded as the master plan of a series of ground-plans and developments which, in the process, emerged as the >ideal layout plan< of the Moravians. This –reconstructed -plan has the following characteristics:

1. The square layout is divided into nine equal squares by the two streets which cross each other. The central square is the open town core with only secondary elements such as paths and fountain. The streets do not run axially on the central square but meet tangentially.
2. The predominant buildings with the assembly hall lie centrally on an edge of the central square. In the corners of the relative plot symmetrically opposite each other are the houses of the pastor and the leader of the local congregation.
3. The two corner buildings alongside the central square with the main building are the living quarters of the unmarried brothers and the unmarried sisters – corresponding to the seating order in the hall. The street facades of these choir houses are symmetrical to the front of the hall.
4. The remaining five quarters line the street side of four plots of equal breadth and width and open edges with single and double storey houses.
5. The God’s acre lies behind the assembly hall and is in axial symmetry with the whole topography.

The ground plans executed in many of the settlement congregations at the actual implementation stage indicate that at least one or two of the modules mentioned here are residual. The symmetrical order of the main buildings was already developing in s’Heerendijk. The first quadrate middle square of the complex is situated in Herrnhag but without a focal point for the assembly hall on one of the four sides. The central squares of later settlements were seldom actually square, they were mostly more rectangular in shape. The location of the hall building on the square became common only later on, for instance in Herrnhut.
In 1761, the surveyor Christian Gottlieb Reuter who carried out the original survey for some of the Moravian settlements on both sides of the Atlantic, wished to justify the ideal layout for the settlements when looking for an analogy with the postulation for the Levities towns, which he tried to construct on the scriptural passage of the bible (Moses 4.1-6). The assumption that such a theologically based model already existed for the older Moravians settlements is unfounded. However, following the construction of Reuter, the basic plans of Gnadau and Gracehill, and probably also Sarepta, might reflect an influence on their duct, all of which were founded just a few years later.

When establishing several settlements, the key figure of the Moravians, Zinzendorf, brought in his own ideas, namely, when it concerned the privileges of some settlements congregations whose topographic position was to be examined, or when one or the other projected plan was to be drawn up. His ideas on the ground plans of such settlements were diverse. For instance, he suggested extensive plans for the Moravian settlement near the castle in Zeist, and probably also for Saron, as the spacious settlement of the proposed new headquarter of the Brethren in Chelsea. These relative drafts went beyond their conventional concept, incorporated vast court formations, and in the entirety, took on elements of the (utopian) projects of Charles Fourier and Jean-Baptiste Godin (Familistère, 1858).

In 1756, Zinzendorf created a model for the layout of the planned central town in the region of Wachovia in South Carolina, in distinct contrast to all already existing settlement congregations. We don´t know if he had reflected on the concept of Vitruv or the model of Speckle for an octagonal town. The model of Zinzendorf has the design of an ideal city, but in its essential elements also anticipates the later town-planning models of Theodor Fritsch (1895) and Ebenezer Howard (1898).

4. The end of the communal independence of the settlement congregations
The mid 19th century with the introduction of the civic municipalities marks a turning point for the Moravians and, ultimately, brought on the end of the settlement congregations. The confessional proportions in the places shifted and freedom of trade generally permitted the establishment of businesses. Intensified industrialization caused the traditional small-scale trades to deteriorate, ultimately leading to the decline of the choir houses. In the long run, the task was to find new (educational and charitable) uses for the broad buildings. Adjustment to changing circumstances for the individual places took its time. Urbanization processes affected them to various degrees, from stagnation (Gnadenfeld) to integration into a city (Winston-Salem).
Still finding our ‘wet people’ way in the planning and management of Melbourne, Victoria’s urban watercourses from 1890s until 1970s
Marcus Lancaster, Margaret Grose, David Nichols

Although Melbourne – one of Australia’s largest cities for most of its existence – was first settled by Europeans in 1835 it was not until 1891 that a statutory authority for the management of the city’s water, sewerage and watercourses occurred with the creation of the Melbourne and Metropolitan Board of Works. Originally conceived to oversee water supply and the design and construction of a sewerage system and treatment facility for the developing city, the Board’s responsibilities later increased to include town planning, the management of streams, rivers, parkland, open space, and the design and construction of highways, freeways and bridges.

Urban watercourses have often been utilised as open sewers draining liquid wastes and stormwater from the urban fabric to combine these with a stream’s normal flow. As a result urban streams became primary sources of public health epidemics, as well as flood and drowning risks, and consequently many were engineered into combined sewers and covered to be formalised as conduits transporting liquid wastes and urban runoff into the next large body of water.

Melbourne was slow to act on the city’s significant problems with sewage and waste polluting the city’s waterscapes until the last decade of the nineteenth century. A visiting journalist’s reference in the late 19th century to “Marvellous Melbourne” was soon changed to “Marvellous Smellbourne” referring to wastes entering the rivers from noxious industries. The Board of Works’ solution to the sewage problem was the design and construction of a separate sewerage system, leaving watercourses open to the surface.

This paper examines the history of the role of the Melbourne Metropolitan Board of Works to the planning and management of the urban watercourses under their control from the 1890s until the 1970s. It was during this period much of Melbourne’s inner and middle ring suburbia town planning and main infrastructure and drainage work was carried out. Although not converted into combined sewers, watercourses were to become part of the urban fabric’s wider surface and stormwater drainage system. Many smaller, ephemeral, and headwater streams were covered for flood control, land reclamation, and issues of public health and safety.

Melbourne is located in the south-east of the Australian mainland and is one of the country’s major cities with a metropolitan population of 4.25 million people; it may soon become Australia’s largest city. The region’s climate is temperate with an average yearly rainfall of 650mm (26 inches), while climate change predictions suggest that the region will become hotter and drier by 2100. Long inhabited by the Wurundjeri, Boonerwrung, Taungurong, Djajawurrung and the Wathaurung peoples who were drawn to the Yarra River, the Melbourne area was settled by Europeans in 1835. Since then the sluggish river has undergone enormous change, from a meandering stream to a 110 metre (360 foot) wide urban watercourse travelling through the conurbation and passing by the edge of Melbourne’s central business district.

The treatment, management, planning for, and attitudes towards Melbourne’s rivers, streams and creeks has a long, complex and largely ‘hidden’ history. The city was almost half a century old before a management body was created to control its water supply; between the
1890s and 1970s the Melbourne Metropolitan Board of Works (MMBW) changed Melbourne’s watercourses from heavily polluted open sewers to components of the urban drainage and parkland systems. Along the way the streams, their flood plains, and valleys were modified for flood control, considered as areas of cheap land for the positioning of freeways, thought of as sites for community recreation fields, areas for retarding basin construction, or in some cases, left as natural reserves.

The first European settlers found that sources of fresh-water in Melbourne were unreliable, with periods of prolonged dryness and flood events. Their attitudes to, experiences of, and ideas regarding water and the environment in general were all based on their European backgrounds, and it was this on which they based their understanding of rivers, which they assumed were relatively humid. They were ‘wet country people’ settling in the driest inhabited continent on the globe. Wet country ideas would remain as the prime influence in the future policies of the MMBW and its management of Melbourne’s watercourses.

During the twentieth century ideas from Europe, then North America significantly influenced Melbourne’s development and treatment of its watercourses. This paper outlines the step by step processes of water management and policy responses from European settlement from 1891 and suggests that the manner in which Melbournians strove to shape their rivers and indeed their whole city was essentially reactionary rather than pre-emptive or visionary.

**Early European settlement of Melbourne: The search for water**

It was not until 1837 that permanent European settlement was established on the Yarra River at the present site of central Melbourne. This small settlement was located near a basalt ledge or falls in the river that separated fresh-water flowing downstream from the salt-water of Port Phillip Bay flowing upstream with the tides. Although during high tides salt water flowed over the falls, the contamination was minimal due to the flow rates of water downstream. By the 1880s, following a gold rush mid-century and a land boom, this small settlement by the freshwater falls had developed into a sprawling metropolis. In 1884 the remaining rock forming the falls was removed to prevent flooding. The lower section of the river became a saline tidal estuary. This was amongst the first major river modification works carried out in Melbourne by the Harbour Trust, seven years before the formation of the Board of Works; however, the river continued to flood.

Drainage was slowly constructed in tandem with new local municipalities. The developing city and suburbs were not serviced by a sewerage system, and extant surface drains were incomplete. In many places cess pits were used for domestic waste, with residents using the pits as convenient dumps for all types of rubbish and waste. Infection of the city’s rivers (particularly the Yarra and the Maribyrnong), and hence public health epidemics such as typhoid and dysentery, was common.

In the 1850s work commenced on the city’s first fresh water reservoir, on the Plenty River at Yan Yean about 30 kilometres north of the city. Yet this was only a temporary salve. In 1890 the Board of Public Health released its Report on the sanitary condition and sanitary administration of Melbourne and suburbs by Doctor Dan Gresswell. In his report Gresswell graphically describes the problems occurring all over the metropolis at the time:

Liquid refuse, consisting of chamber-slops, of bath and sink water, of drainage matters from urinals, from stables and cowsheds, from noxious trades, from stores of green hides and skins, from manufactories, together with some amount of night-soil and rain water, as well as materials carried off in this water from...
polluted back-yards – liquid refuse of this composite character, on reaching the street-channels, courses over then for long distances (even in localities, where sewers have been provided, for an average distance of a half to a quarter of a mile) to some sewer, to some water-course, or to some quarry-hole, swamp, or lagoon – that portion of it which has not evaporated or soaked into the soil, or been allowed to remain as sludge on the way, being ultimately discharged into the Yarra or the Bay…¹⁶

It was from this background of utilising Melbourne's rivers and streams as open sewers that the Melbourne and Metropolitan Board of Works would be formed in order to primarily design, construct and manage a sewerage system and the water supply for Melbourne.

Creation of the Melbourne Metropolitan Board of Works:

After decades of municipal conferences, constitutional crisis and political deadlocks the worsening pollution and sanitation problems caused the introduction of legislation into Parliament in June 1890 for the proposed establishment of a Board of Works.¹⁷ In March 1891, the Board met for the first time. Its role was relatively clear-cut:

All the bed soil and banks of the River Yarra and of all other public rivers, creeks and watercourses within the metropolis…shall without any conveyance assignment or transfer be and become vested in the Board upon trust for the purposes respectively of supplying water to the inhabitants of the metropolis of providing for the sewerage and drainage of the metropolis and the commerce and recreation of the inhabitants of the metropolis.¹⁸

The first task for the newly created Board was to design, construct, and maintain a metropolis-wide sewerage system and treatment facility.¹⁹ Although Melbourne’s main rivers and streams had been plotted and mapped, the minor, headwater and ephemeral streams were generally neglected. Many ephemeral streams flowed so intermittently they may never have been surveyed or mapped, and although such courses are common across the Melbourne area, they often remain un-named.²⁰

A rigorous survey of Melbourne for construction of the system commenced in December 1891. The sewerage scheme adopted by the Board was the one similar to the scheme recommended by the Sanitary Commission report of 1889. The Sanitary Commission had been created as a government response to conduct a Royal Commission into the deteriorating sanitary conditions of Melbourne and the ongoing threat of public health epidemics such of typhoid and cholera.²¹ It recommended the design and construction of an underground sewerage system.²² All stormwater and runoff was to be collected by separate street drains and discharged into local watercourses. The decision to build a separate rather than combined sewer, where all urban drainage and sewage is collected by a single system was based upon the following figures and assumptions, first discussed by one of the local engineers in his early proposal from the late 1880s.

Taking 700,000 people as the basis, 60 gallons per head, you get 42,000,000 gallons to start with as the polluted drainage water. There are about 40,000 acres covered in Melbourne with population. At 3,000 gallons an acre that comes to 120,000,000: and if you deal with your water supply alone, you have only to deal with 40,000,000. If you deal with water, say the tenth of an inch of rainfall, that makes 160,000,000 so that even taking in that very small amount you make it necessary to increase the size of your sewers four times..²³

By 1910, of the originally surveyed 108,000 homes, almost 106,000 had been connected to the sewerage system. Marked improvements were noticed in the condition of the Yarra River, local watercourses and general streetscapes. There was no longer sewage flowing along open
street drains and stagnating in the remaining wetlands and other waterscapes. The Yarra was still polluted, but to a lesser degree; yet the stench was gone, along with the pools of stagnated surface water that collected in lower parts of the city.  

**Early Management of Rivers and Streams:**

Melbourne experienced a major boom in the first five years following World War I. New suburbs exceeded the sewerage system, and as surface drainage had never really been addressed, periodic flooding was causing new drainage problems downstream in existing suburbs.  
The Board’s founding act made it responsible for the bed and banks of the Yarra River, and all other public rivers, creeks and watercourses within the metropolis. However, the decision to construct a separate sewerage system that excluded stormwater had not been considered by the original authors of the legislation, therefore any clear distinction had not been drawn between sewers and drains.  
Combined sewers collect and conduct both foul sewage and surface water runoff including rainfall and stormwater. As discussed above the designers of Melbourne’s sewerage system chose to exclude all surface and rainwater drainage as including this water would have dramatically increased the size of the system required to cope with such large amounts of water. Combined systems were primarily designed to discharge both sewage and rainwater into a receiving watercourse as rapidly as possible. They were not originally developed to include treatment of wastewater. Both combined and separate sewers are based on the centralised water carriage waste removal system. This consists of construction of a coordinated system of conduits and channels that utilise water to convey sewage waste away from the source to a central disposal locality. The principle of the water carriage system was to keep sewage diluted and flowing thus providing a self-cleaning motion to the conduit.  
In London the combined sewerage system utilised rivers and watercourses as conduits for the collection and transport of sewage and urban wastes. As a result many of London’s sewers are built along the lines of watercourses that were turned into sewers and drains being either culverted or covered over and lost from the urban surface. However, this did not occur in Melbourne. Besides not having a clear definition between sewers and drains, the Board was also reluctant to accept responsibility for rivers, streams and drainage. This was the case for two reasons. First, the City of Melbourne had responsibility over the Yarra River and portions of its banks and was reluctant to relinquish control. In 1896 a scheme to redevelop the Yarra River between the city and neighbouring suburb of Richmond was legislated by the *Yarra Improvement Act 1896*; it was to involve the doubling of the river’s width, slight relocation of the river bed, and the straightening of two horseshoe shape bends located adjacent to the Botanical Gardens close to the city centre. The cut, known as the Botanic Gardens Cut, straightened the river significantly by removing a series of billabongs that banked up flood waters. Flood control was the main basis for the project following another severe flood in 1891. Second was that liability for compensation to landowners affected by floods made the Board reluctant to manage rivers and streams. Buildings already constructed on flood prone land created a major problem for the sewerage system. In times of flood, water that rose above the level of domestic sewerage fittings flowed into the sewer. The additional water filled the system, flowing to the pumping station that pumped sewage onto the treatment farm. The pumping station would struggle to move the additional quantity. In addition the treatment
An integrated approach to rivers and stream management arrived in 1923 in the form of legislation. *The Metropolitan Drainage Act 1923* made the Board responsible for “making further and better provision with respect to main drains, main drainage works and rivers, creeks and watercourses within the metropolis.” Following the enactment of the legislation, confusion developed over the terms of the act. For example the Board’s ‘beautification’ works along the Yarra River were hindered because the scope of its activities was not defined; similarly, the exact portion of river banks under its jurisdiction was also unclear. River and drainage work was again hampered this time due to the lack of a definition of what constituted a main drain. The Board delayed all drainage work early in 1924 while conducting a survey of Melbourne’s watercourses to decide which would be termed ‘main drains’ to fall under its control.

Melbourne in the mid-1920s was still experiencing severe flooding after heavy rain; the region was deemed a drainage nightmare. Although various improvement works to the main rivers and streams were implemented to increase the speed in which flood flows could reach the bay, the Yarra and Maribyrnong Rivers continued to flood periodically, the main reason for the Board’s concern over flood compensation claims.

Two assistant engineers were appointed, one for main drainage and the other for rivers and streams. A river officer was appointed for river traffic on the Yarra, with the Board now also responsible for this aspect of river use. A river de-snagging operation was also commenced and Board staff reported the removal of 3000 snags from the Yarra bed. The perceived aim of de-snagging in the early twentieth century was the removal of timber from the river bed to prevent flooding and improved access for boating. Successive work involved dredging and widening works on both the Yarra and Maribyrnong rivers in conjunction with beaching the banks to control erosion.

In late 1926 the legislation of “An Act to Amend the Metropolitan Drainage and Rivers Act 1923”, was introduced. The new act stated the following in regard to main drainage works:

> for the interpretation of "Main drainage works" there shall be substituted the following interpretation:-
> 'Main drainage works' means works within the metropolis (other than main drains) for the prevention of or defence against flooding by surface or storm water ".

In regard to the interpretation of river improvements the act stated:

> in the interpretation of River improvement "River works" after the words "The formation of the banks" there shall be inserted the words (including the forming sloping beaching pitching piling and altering of the banks and of any land abutting thereon or adjacent thereto).

In regard to the interpretation of ‘main drains’:

(a) that any then existing drain creek or water-course (or portion thereof) within the metropolis shall be a main drain under and for the purposes of this Act; or

(b) that any new main drain within the metropolis proposed to be constructed under this Act shall be a main drain under and for the purposes of this Act.

(2) Every such notice shall describe the course of and contents of specify the points of commencement and termination of every then existing drain creek or water-
course (or portion thereof) or any proposed new main drain to which the same relates.  

The act set the terms for definition of all rivers, streams, creeks, and drains within Melbourne’s metropolitan area and consequently management and planning; as main drains. The Board would define main drains as those drains that drained an area of 150 acres (60 hectares) or more. In 1928/29 the Board was continuing with flood control works along the Yarra River. At Richmond – 3.6 kilometres along the river – the Richmond Quarry cut was undertaken and Herring Island created. The cut went through disused quarries allowing the river to split at its natural bend and flow through the old quarries as well as its original bed. Levee banks were built up on the island from dredged silt. Another project to assist with flood control on the Yarra River was the de-snagging program of one of the Yarra’s longer (30 km, or 19 miles) eastern tributaries, Gardiners Creek. In 1940 as part of an unemployment program Gardiners Creek was straightened, widened and lined with pitches for a distance of between 2-3 kilometres to assist with flood control and erosion.

A major problem to planning and construction drainage projects was the recurring theme of lack of vital data. This was a similar situation to the lack of proper surveys of Melbourne when the first sewerage scheme was being designed. All existing drains were required to be surveyed, collecting data on their capacities and condition. All river beds, stream and creek beds were also surveyed to obtain their capacities. The lack of reliable rainfall and runoff data also hampered drainage design. The existing rainfall data was only recorded over twenty-four hour periods being therefore of little use for designing drainage systems able to manage brief intense summer storms. As such a network of rainfall gauges was set up across the metropolitan area.

The decision was made to construct drains that would allow for an average of the maximum rainfall liable to fall once every ten years. However many existing drains were not large enough to conduct this amount. In addition structural design standards had to be developed for the construction of drainage and river infrastructure. Progress was slow due to the large amount of data collection, research and design required for the whole metropolitan area. The Metropolitan Town Planning Commission (MTPC), established in 1922 and set up to provide a comprehensive metropolitan plan for Melbourne, was often critical of the Board’s perceived slowness. Arguably, the MTPC failed to appreciate the amount of preparation work required in the planning of drainage for Melbourne, particularly as key members of this Commission had other priorities in questions of waterway development, as discussed below.

**Melbourne’s first town planning commission:**

The MMBW had contributed to numerous town planning conferences but demonstrated limited interest as an agency in planning beyond its core concerns. The MTPC’s activities throughout the 1920s had a significant impact on the conduct of other civic bodies during its existence. Its 1928 report recommended the construction of various American-inspired parkways and the continued beautification of the banks of the Yarra River along the lines of European and North American examples. It espoused:

> [T]he utilisation of the comparatively cheap and open lands along the valleys of the streams. The location of these watercourses is such that roads planned to separate the park lands along them from the residential development form a series of radiating and picturesque drives between the inner and outer suburbs.

Additionally, “the river, creek, and foreshore improvement schemes” proposed by the
MTPC would ‘form a series of park strips mostly radiating from the center of the metropolitan area. These large reservations along the streams are distributed fairly uniformly throughout the metropolitan area at intervals of 2 miles’. Commission member Saxil Tuxen was particularly ardent in his defense of the Yarra River for its potential aesthetic value rather than its function within the city’s water management infrastructure. Tuxen’s article ‘What We Might Do With The Yarra’ was published in Saturday’s Melbourne Herald in November 1926. Here he expounded on the beauty of the Yarra, remarking that ‘[m]any artists have put it on canvas’. He wrote:

Do you realise what a wonderful city Nature… has given to us, not for our use merely, but as a trust for posterity, to use, to enjoy, to hand on enhanced by whatever of invention, of art, of hard work each generation can give?

Tuxen also seems to have been attempting to kindle in his readers an appreciation for the river’s ecology. Here he used examples from his recent travels in the USA to drive his point home:

After [the Yarra traverses] another mile of mingled charm and ugliness, Nature being responsible for one and man the other, Studley Park is reached, and from that point for miles the river twists through an enormous permanent reservation which has the bad luck to be in Australia instead of America. Were it in the latter country, it would be advertised so widely that folk would come from far countries to see a natural park whose nearest point was but two miles away from the heart of a great metropolis.

In this, Tuxen was expanding on a line developed very comprehensively by the Chairman of the MTPC, Frank Stapley. During Stapley’s time as Lord Mayor of Melbourne (1917-18), and indeed for the fifteen years of his life after the submission of the MTPC report, Stapley argued vociferously for civic beautification schemes, most particularly for the Yarra as it passed through central Melbourne. Though the MTPC’s report was not implemented, many of the report’s recommendations would be introduced at later dates by state and local authorities. The Board of Works’ planning scheme of 1954 was greatly influenced by its predecessor.

Despite continued works along the Yarra, floods continued. In addition both local councils and local residents were criticising river clearing as encouraging bank erosion. Engineers from the Board considered erosion was unavoidable along a river such as the Yarra due to its alluvial banks and winding course and proposed a solution of ‘beaching’ all the banks with bluestone or concrete – a costly solution which would destroy much of river’s natural beauty.

As the outer suburbs expanded, more impervious surfaces meant more surface water runoff, with increased flows entering the creek system and causing flooding downstream in the older middle and inner suburbs. One of more significant drainage crises was Elster Creek, which flowed into the Elwood canal and Port Phillip Bay: the canal periodically flooded Elwood. As a solution the canal was repeatedly enlarged and deepened by the Board, to little effect. The Board’s solution of constructing a drain large enough to take huge flood flows provided too costly to design and construct.

It was also during this time of post-war development that the need to construct retarding basins for flood control became necessary, along with an additional 120 miles (193.12 kilometres) of stormwater drains. Moonee Ponds Creek north-west of the city was
straightened and confined to a channel lined with rough cut square basalt blocks to control erosion of the creek’s banks. As stated in the 1923 act, creeks were referred to as drains and the lining of Moonee Ponds Creek is an example of stream modification into a drain for much of its length.

**New Planning Powers in 1949:**

As part of post-war reconstruction, the Commonwealth Government began to encourage the Australian states to develop effective town planning legislation. During the late 1930s town planning in Melbourne was patchy at best, with any planning innovation generally conducted by local government and in some instances the newly-formed Housing Commission of Victoria. The Town and Country Planning Board – influential in its time and containing two former MTPC commissioners – was regarded as a valuable advisory board but lacking necessary skills to plan for the entire metropolis. In 1948 the Planning Board asked the MMBW to prepare a Master Plan for Melbourne. The published results included Melbourne’s future urban boundaries and population distribution, and illustrated the MMBW’s expertise and skills for planning that were absent from the MTPC. Melbourne’s suburban development during the 1940’s was largely residential with no other facilities or infrastructure, and highlights the largely suburban rather than urban nature of the Melbourne Metropolitan Region. Facing ever mounting planning problems, local councils and the State Government eventually passed planning onto the MMBW legislating for new planning powers. Based on the MMBW’s earlier master plan the government and local councils considered there was no other credible organisation with the expertise for planning on a metropolitan wide scale.

The *Town and Country Planning (Metropolitan Area) Act* of 1949 provided the MMBW with the authority to develop a metropolitan planning scheme for Melbourne. In late 1949 the Board established a Town Planning Committee with the Board’s engineer of sewerage as the chief planner. A committee was set-up consisting of an architect, engineer, surveyor, and economist/sociologist. *Melbourne Metropolitan Planning Scheme 1954: Report* focussed on the main aims of the limitation of the urban area utilising a rural zone with minimum subdivision size of five acres (2 hectares), the rationalisation of future growth utilising a zoning system, and the reservation of land for future public purposes including arterial roads. The 1954 Report devoted a chapter on open space and recreation, with the acknowledgement of the need for better distribution of public open space throughout Melbourne’s urban area. Importantly, the Report proposed using streams and flood plain areas for linear park systems. The scheme proposed new recreational and outdoor sporting facilities with a series of large peripheral parks with opportunity to construct artificial lakes. Radial parks were to be located along the valleys of the Yarra River and various creeks throughout the metropolitan area. A related arterial radial road system was also proposed to commence at a city ring road and radiate outwards through the urban area. Each individual arterial road was given a route number, with one of the most essential future roads now part of the Citylink tollway and Monash Freeway; both occupy large streams in Melbourne — Moonee Ponds Creek and Gardiner’s Creek. The descriptions of these roadworks highlight the beginning of the erasure of streams and creeks around Melbourne despite their value in a dry continent and the important role they might have played in public open space. In regard to the South Eastern Freeway (completed by the mid-1960s):

Its location has been carefully chosen to minimise interference with playing fields along Gardiner’s Creek, and consequently its construction will involve covering Gardiner’s Creek and Scotchman’s Creek in places.
Covering the creeks was a major policy shift. This attitude persisted all through the latter part of the twentieth century, with freeway construction over waterways rather than public open space. Such tension between waterways and freeways is curious in a dry region with hot summers and small, often poorly defined creeks. Though these creeks are comparatively few, they were essentially sent ‘out of sight’ as if humid rivers were of little importance.

’Letting nature do our Drainage’

Drains designed during the 1930s to service lightly developed suburbs were proving inadequate to the expanding suburbs, and were requiring replacement or duplication. Brick drains constructed in the mid to late 19th century were often too small or required maintenance or replacement due to their age. The Board’s policy had always been to construct structures to prevent the flooding of property in susceptible areas. Concrete channels and underground drains were designed to transfer stormwater into creeks and rivers as swiftly as possible. This approach was thought to be all that could be done in locations where development had already taken place in flood-prone locations. By the late 1950’s non-structural solutions to flooding were instituted wherever practical; the 1954 MMBW Planning Scheme was the first policy step in managing flood plain development by recommending the reservation of public open space along many urban watercourses. However, non-structural solutions for flooding could only be implemented where the Board had control over land use.

The main impact of this policy shift meant additional public open space was reserved along the banks of many watercourses for flood control. However, local councils often filled, levelled and modified flood plains, with work which interfered with both the passage of flood-waters and plans for future drainage works along the watercourses. In 1963 it became a planning requirement that the natural condition and topography of flood plains could not be modified without permission from the Board. In 1979 the Board’s publication Living City reported the chief engineer of main drainage suggesting:

[I]Instead of putting houses and other buildings on every available space, we believe it is better to preserve natural flood plains for the storage and passage of flood-waters and some areas as flood retarding basins …And instead of pouring stormwater into nature’s drainage system as fast as we can, we should copy nature’s example and devise ways of slowing it down.

As part of this new approach more akin to natural methods of flood behaviour, flood retarding basins were constructed in large numbers on the main watercourse systems such that by the late 1960s twenty were in operation. Most large basins became important public recreation facilities providing sites for sporting complexes. During this period parks and golf courses had also been located on the flood plains of larger watercourses. These sites were to attract the attention of freeway planners during the 1950’s and 1960’s as possible freeway routes because construction on the green-spaces did not involve added costs of compulsory land acquisition, housing and building demolition, and the relocation of local residents. Despite the apparent planning constraints, the construction of the South Eastern and Eastern Freeways both required diversion of the Yarra River, and the use of hard engineered concrete-lined channels along many sections of Melbourne’s watercourses. This type of approach to Melbourne’s waterways received increasing criticism on environmental and aesthetic reasons from the 1960s. In response to community objections to concrete lined streams in the 1970’s the Board commenced the landscaping of streams where possible to improve the aesthetic value while also retaining their roles as part of the urban drainage system. As a result of early stream re-landscaping works during the 1970s local councils and property developers began to realise the possibilities for nature-based recreation along
streams and increased property values for real-estate located on or near ‘natural’ or newly constructed watercourses.  

Public concerns did stop some planned freeways along waterways. In the early 1960’s the Board remained responsible for freeway planning and proposed a ring road that would circle the central Melbourne, utilising streams, creeks, and public open space, under the rubric of planning improved access to Melbourne’s Central Business District (CBD).  

This highlights an essential conflict in the wide roles of the Board of Works, for both transport routes and the ecological health of waterways. Once released to the public the plans created outrage and protest over the use of open space and creek corridors for this particular major road.  

The central ring road was never constructed. However, from the mid 1960’s onwards all proposed and realised freeway projects involved sections of roadway being constructed along watercourses despite continuing public protest at the treatment of waterways. Indeed, road construction over waterways increased. In 1969 The Melbourne Transportation Study was released detailing The Transportation Plan, which was to be funded by four state government bodies including the Board of Works.  

The plan recommended construction of 510 kilometres of freeways across metropolitan Melbourne, with about half of the required land to follow reservations already established by the Board of Works 1954 Metropolitan Planning Scheme. Many of the freeways were located along watercourse valleys covering much of the previously reserved parkland system. In some areas a freeway would be constructed directly over the creek bed, shading it, such as in Moonee Ponds Creek covered by the Tullamarine Freeway to Melbourne’s major international airport. Although few planned freeways were actually constructed those that were realised involved massive drainage works.  

For example the construction of the South Eastern (now known as the Monash) Freeway required the diversion of the Yarra River, as did that of the Eastern freeway additionally, many smaller creeks were modified, some diverted along fully or partially concrete lined channels in limited spaces adjacent to freeways.  

The 1970s - Growth corridors and more freeway extensions:  

In late 1971 the Board released the planning document Planning Policies for the Melbourne Metropolitan Region, with the report having the main aim of defining a long term policy for the development and conservation of the Melbourne Region. The report was described by the then Chairman of the Board of Works as being one of the most important planning reports for Melbourne’s future since the 1929 Metropolitan Town Planning Commission report (discussed above). In regard to Melbourne’s rivers, streams and creeks the report differed from the previous 1929 and 1954 planning schemes, by appearing to concentrate specifically on flood control in relation to future urban development. The report proposed growth corridors for future development to attempt to contain outward sprawl. Construction of urban development within the corridors would be subject to the provision of adequate floodways, drainage and retarding basins to ensure flood protection of existing downstream communities.  

Melbourne’s metropolitan area is primarily flat terrain with the land surface progressively rising from the shoreline of Port Phillip Bay to elevations reaching 244 metres (800 feet) in some areas. The topography to the west and south consists primarily of flat volcanic or coastal plains while the higher contours towards the east and north/east rise gradually into undulating to hilly country. This topography has long dictated the development of Melbourne with the metropolis expanding outwards covering firstly the flat plains moving gradually into the undulating and hilly areas.  

The 1971 plan’s proposed urban growth corridors was heavily based on the topography, proposing watercourses to the flatter areas of west, and north could accept further urban
development providing major flood control works were carried out. As the contours rose so did the cost for flood control infrastructure therefore development was not recommended for higher areas. In the lower south-eastern suburbs development was also recommended provided adequate flood-ways combined with drainage improvement works were provided.

Despite changes in policies towards re-landscaping of creeks and flood plain protection (as discussed above), the overall tone towards Melbourne’s watercourses in the 1971 plan continued to view creeks as components of the urban drainage system, to be controlled and managed to the advantage of further urban development. During the same decade the issue of freeway construction along and/or over creeks was also to remain a preferred planning option for the extension of existing freeways. In mid-1974 the responsibility for highways and freeways was removed from the Board of Works and given to the Country Roads Board (CRB). At the time two main freeway extensions were planned for Melbourne’s Eastern and South-Eastern freeways involving large streams – the Koonung and Gardiners Creeks. Although the CRB was now responsible for design and construction the Board of Works along with other government agencies participated in pre-design research teams studying road proposals, waterways, drainage, and recreation. In the case of Gardiners Creek, four different freeway proposals were examined with all involving major drainage works to Gardiners Creek consisting of various sections being re-aligned, concrete lined, and/or placed underground. A major tributary of Gardiners Creek would also need to be placed underground.

When the freeway was finally built during the 1980s sections of Gardiners Creek were covered by elevated roadways, other sections concrete-lined, and/or covered and a major tributary placed underground for several kilometres. The other freeway extension during the period was the Eastern Freeway that would reduce the length of the meandering Koonung Creek by fifty per cent within the proposed freeway reserve. The role of the Board of Works was to propose design solutions for the realignment of the creek bed. Their report detailed the creek as being a weed infested, overgrown, polluted ‘drain’ with ongoing flooding severely eroding the banks and bed and depositing large amounts of flood debris. The images used in the report clearly illustrated the view that creek was a severely degraded hazard for the public with little ecological or recreational value.

The main aspects considered by the report included relocation of the creek to allow for freeway construction, flood mitigation, erosion control, protection of the public, and enhancing the bank environs along what was termed the ‘drainage systems’, not a creek. Four alternative designs were proposed for relocating the creek and addressing the above listed problems. The completed design was realignment away from the freeway reserve and piping and covering of the creek, leaving only a grassed easement for use as floodway during the one in one hundred year flood, and secondly use as public parkland consisting of a few trees, some shrub beds and mown introduced turf grass. By the close of the 1970s Melbourne’s watercourses since European settlement had undergone change from being valuable sources of fresh-water to open sewers to components of the engineered urban drainage system. Along the way the watercourses were considered valuable assets for parkland, modified for flood control and considered as corridors of empty land for freeway construction. Although the 1970s saw a gradual recognition of urban watercourses as valuable habitat and open space, many streams remained at risk of being diverted, buried, or modified for flood control, suburban expansion or freeway construction.
Conclusion

Typically, river and drainage systems will dictate the shape and style of a city; Melbourne is no exception. The city’s extensive water history – a story yet to be comprehensively written – is one of a city which has taken on board alternating views of treasuring the natural beauty of its river courses, utilising the open spaces they create for other (often, arguably contradictory) means, and demonising the difficulties inherent in their management and control.

The history of Melbourne’s river and stream management across the century from the late 19th to the mid-to-late twentieth century, dominated as it was by one central planning and infrastructure authority, has seen the city shaped and guided inexorably by that authority’s values and interests. Not unnaturally – given the exigencies of city bureaucracy politics as seen in cities (democratically governed and otherwise) throughout history – such guidance, and its consequences, has gone in fits and starts and taken turns that in hindsight may be cause for regret by many.

In the case of the MMBW, it might be seen that the move towards the covering of waterways, and the use of waterway reserves for road transport, can be traced to the Board’s responses to the MTPC’s advocacy of such spaces for civic beauty; both were contentious approaches, in which there could be little middle ground. The MPTC’s understanding of the ‘parkway’ as a road through a riverside landscape of beauty morphed, between the 1920s and the 1950s, into the conception of the riverside as a space best fit for an unmediated and unabbreviated road.

In other instances, outside the particular tension between the MMBW and the MTPC, we also see the strong influence of pragmatic, yet under researched, waterway management – not least, the reasonable fear of flooding and the spread of disease – resulting in a host of measures which altered the urban landscape inexorably throughout the city on an ongoing basis. The MMBW’s corporate memory did, in the long term, allow it to develop its own understanding of the particular meteorological and environmental requirements of Melbourne – an understanding that has, to an extent, continued in its successor body, Melbourne Water. However much of its foundational work was done with only knowledge from a ‘wet country’, typically the United Kingdom but also other English-speaking places in the northern hemisphere. It was with this knowledge that the initial management and strategy decisions were made, and the shaping of Melbourne into a city with ‘Europeanised’ watercourses and water infrastructure was, and indeed remains, ‘set in stone’ – and concrete.
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Modernization and Extinction of Urban Streams: Urban Structure
Changes and Introduction of Urban Water and Drainage System in Seoul
after the 20th Century
Kyu-Chul Lee, Yong-Hoon Son

Abstract
The object of this study first is to investigate Cheonggyecheon and it’s branches’
physical changes until it was covered and disappeared in the modernization process. Also, it
is to comprehend the cause that enabled the stream's physical changes. This study seeks to
reveal the plan ideology and social recognition, along with historical background that enabled
the physical changes of the stream.

Joseon's capital, Hanseong, which was built along with the establishment of Joseon
Dynasty, has gone through many changes until the early 20th century, when it changed to
Gyeongseong due to Japanese colonial era. Especially, streams were changed due to humans'
needs as the city developed and grew, and eventually were covered and disappeared. The
reason for the disappearance of streams result from the urban structure changes due to
modernization and technical changes of introducing modern water supply system. In the
background is the change from the ideology of city planning that adapted to the nature and
sought harmony, to the blind faith in modern technology and ideology of plans focusing on
developments. In other words, it is the change of social perception.

The introduction of modern water supply system, along with the changes in urban
structure, is the basic reason why the streams were covered. Whereas the modern water
supply system, which was introduced due to the contamination of well water quality,
gradually expanded, the maintenance of drainage system did not occur systematically. As a
result, the vicious cycle of worsening the stream contamination happened. Also, due to the
social perception changes based on the idea of modern hygiene, streams degenerated as an
origin of contagious diseases, and constant discussion on covering them occurred. Eventually,
after the Korean War, Cheonggyecheon was covered completely.

Since the Cheonggyecheon restoration project, many urban streams that were
covered have been restored through the similar method used for Cheonggyecheon. The future
value of urban streams will be re-estimated based on the close relationship between people
and streams, which is observed in traditional cities before the modern period.

Keywords: Urbanization, Covered urban stream, urban stream restoration, Cheonggyecheon,
Traditional water infrastructure, Green infrastructure
I Introduction

Since its restoration project in 2005, Cheonggyecheon (‘cheon (川)’ means a stream) has become a major urban amenity space that provides rest and leisure to people. Through the restoration of Cheonggyecheon, the importance of urban streams were magnified, and the movement to restore urban streams are expanding country-wide.

Cheonggyecheon, which is receiving such attention, was considered it should disappear for modern city development, only 100 years ago, in the earth 20th century. As a result, in 1960s, Cheonggyecheon was covered and completely disappeared in the city. Also, the covering method of Cheonggyecheon was perceived as a model of city development. Eventually, as the urban area of Seoul expanded, small streams were covered in the same way as Cheonggyecheon, and most are still being used as sewerage.

With the recent restoration of Cheonggyecheon, there is a movement of the urban streams changing once again. At this time, identifying the change process and the cause of streams from the past to the present can play an important indicator in deciding the form of future urban streams.

The object of this study first is to investigate Cheonggyecheon and its branches’ physical changes until it was covered and disappeared in the modernization process. Also, it is to comprehend the cause that enabled the stream's physical changes. This study seeks to reveal the plan ideology and social recognition, along with historical background that enabled the physical changes of the stream.

The spatial extent of the study is the present center of Seoul, and the extent of physical domain is inside the fortress. The temporal range is from 14th century when Joseon was found to Japanese colonial era when the discussion to cover Cheonggyecheon became active. Study methodology includes searching the relative keyword, such as streams, urban structure, etc., in the Annuals of the Joseon Dynasty, and the newspapers or official documents published during the Japanese colonial era.

II Urban Development and Alteration of Stream in Seoul

1. Regional Scope and Topography of Seoul in the Joseon Dynasty

Seoul was called Hanseongbu (漢城府) (‘bu (府)’ means a traditional administrative division) in the Joseon Dynasty and it regional scope included Hanseong(漢城), the internal area of castle, and Seongjeosipri (城底十里), about 4km away from the castle (Ko, 2006). Hanseong is the central part of modern Seoul, a small inner-basin surrounded by 4 mountains- Bukaksan (342m) (‘san (山)’ means a mountain) to the north, Naksan (125m) to the east, Namsan (265m) to the south and Inwangsan (338m) to the west. The internal topography of Hanseong has a lot of hills formed by the root of mountains stretched from Bukaksan and Namsan of 4 mountains. It is difficult to identify the shape of streams within Hanseong in the Joseon Dynasty. However, Cheonggyecheon is a 8.4 km stream flowing west to east through the center of Seoul interflew into Jungryangcheon and flew into Hangang (‘gang (江)’ means a river).
2. Formation of Seoul and Changes of Urban Streams in the Joseon Dynasty

The urban structure of Hanseong in the Joseon Dynasty was formed in the early Joseon Dynasty, from King Taejo to King Sejong, and has been maintained in broad outlines until the late Joseon Dynasty. On the other hand, the intensive large-scale stream maintenance was carried out during the times of King Taejong and King Sejong when the urban structure was formed in the early stage of the foundation of a nation; and in the times of King Yeongjo and King Jeongjo when the city was reconstructed after the war.

In the times of King Taejo (1392-1398), the construction was concentrated on the political and religious facilities such as palaces, shrines, and fortresses. Most of them were constructed in the north of Cheonggyecheon. However, the maintenance of Cheonggyecheon and its branches was not carried out except for the installation of floodgate while building fortresses.

Full-scale urban construction was carried out in the times of King Taejong (1400-1418). The first stream maintenance was carried out while constructing a new palace Changdeokgung (昌德宮) ('gung (宮)' means a palace). Records show the stream maintenance was carried out and roads were built while maintaining stream, indicating the surrounding creeks were improved for the maintenance of the road connecting Changdeokgung and Jongno (鍾路) ('no (路)' means an avenue), not Cheonggyecheon, the mainstream.

From 1409 till 1407, heavy rainfall incurred flood within Hanseong every year and killed people, brought down bridges and induced landslides. In an effort to prepare for flood, Gaegedogam (開渠都監) ('dogam (都監)' means a temporary office) that takes the responsibility for maintaining streams was established in 1412 and the maintenance of Cheonggyecheon was carried out for about one month from Jan 15 till Feb 15 next year by mobilizing about 52,800 soldiers. For the maintenance, stone banks were built in the critical
sections of Chengyecheon and wooden banks were built for the rest. The major intersections were made by stone bridges.

By the time the stream maintenance was complete, a site was prepared for building Sijeonhangrang (市廛行廊), a commercial street facilities, in some sections of Jongno. Hangrangchoseongdogam (行廊造都監), the former Gaecheondogam (開川都監), has started constructing full-scale Sijeonhangrang, and a total length of about 3,648m were constructed by way of 3 projects until 1412 (Sim; Kim, 2009). The construction of Sijeonhangrang in the main road of Hangseong, Jongno and Namdaemun-ro (南大門路) extended the regional scope of Hanseong to Cheonggyecheon and Namdaemun (the great South Gate of Seoul).

In the times of King Sejong (1418-1450), the creeks in the south-north direction were maintained and the floodgate installed first in the times of King Taejong were expanded and the artificial waterways were constructed behind the commercial street facilities. In 1442, two floodgates were additionally constructed when constructing the fortresses and most of streams within Hanseong were improved. Residential areas were secured through the maintenance of streams and the regional scope of Hanseong was expanded to the outside area of Hanseong adjacent to castle.

Since then the stream maintenance was carried out intermittently in the early stage of the Joseon Dynasty before the Imjin War (Japanese Invasion of Korea in 1592). In 1458, it was prohibited to cut riverside trees to cultivate the field and those who violate these rules were punished severely. In 1475, the embankments were protected from breaking down by planting willows in the sections that were not made of stones out of Cheonggyecheon embankments.

In the late Joseon Dynasty, many efforts were made to reconstruct Hanseong devastated over several wars and the chaos of regimes. Meanwhile, droughts continued for a long time, followed by temporary and concentrated flood (Lee, 2012). In the times of King Jungjong (1506-1544), horses were buried due to flood and people by the stream were sept away. In the times of King Sukjong (1674-1720), the earth piled up in the upper Cheonggyecheon and the stream bed arose, which led to flood even by a fairly small amount of rain. The residents needed to dig out the stream bed. The necessity of river maintenance and of plans were suggested and yet were not put into practice.

From the times of King Hyojong (1619-1659) to the times of King Yeongjo (1724-1776), for about 100 years, the city was rebuilt. The process and procedure was similar that for the construction of Hanseong in the early Joseon Dynasty. In the early reconstruction stage, main buildings such as the political and religious facilities were recovered first and the city regained stability to some extent. The urban stabilization brought a sharp increase of population in the times of King Yeongjo, which led to the necessity of maintaining the whole Hanseong including streams.

In the times of King Yeongjo, the stream bed arose to the bridges and thus the necessity of rive maintenance was seriously discussed first time. First, the residents of Jongno were asked about their opinions about the pros and cons of stream maintenance as a way to collect a wide range of opinions. About 150,000 residents of Hanseong and 50,000 labors were mobilized to maintain rivers for 57 days, from Feb 18 till Apr 15 1750, which was the largest stream maintenance project historically in Joseon Dynasty. King Yeongjo, on the other hand, has let the maintenance process recorded for setting an example for the next generations as it was difficult to maintain streams, and also established an office Juncheonsa (濬川事) responsible for the stream maintenance independently.

In the times of King Jeongjo (1776-1800), even the mountainsides were cultivated, which made sand and earth run down. Thus the rivers were maintained every year. In the times of King Sunjo (1800-1834), streams were maintained every other year or every 2–3
years. Since then, in the times of King Heonjong (1834-1849) and King Cheoljong (1849-1863), only stream maintenance was carried out intermittently for about 30 years. Eventually, in the times of King Gojong (1863-1907), the maintenance was carried out for the streams that did not flow because of accumulated sediment. This river maintenance continued in the times of the Great Han Empire (1897-1910).

![Figure 2: The Map of Hanseong in the late of Joseon Dynasty](image)

Source: The author

3. Expansion of Seoul and Extinction of Streams during the Japanese Occupation

At the end of the 19th century, the Joseon Dynasty was renamed as the Great Han Empire. With the reform movement, new forms of roads were built and the existing roads were expanded for the modernization of Hanseong and streams were maintained in this process.
The transformation of the urban structure of Hanseong was concentrated in the residential areas for Japanese people such as the surrounding areas of Deoksugung (德壽宮), north area of Namsan and Namdaemun area. Makeshift buildings that had invaded the roads because of the development in commerce and an increase of population and the road system was broken down. Thus the makeshift buildings in the main road Jongno and Namdaemun-ro were brought down for maintaining the consistent width of roads. Since then, a radial road system, like the spokes of a wheel, was made first with Deoksugung as the hub (Han, 1999). The urban improvement project was influenced by the Baroque-style radial road system focused on critical facilities in Washington D.C., the US and in Tokyo, Japan (Han, 1999). Influenced by the modern urban planning theory in the West showed quite different structure from the conventional urban structure.

The maintenance of existing roads and the generation of new roads in Hanseong have increased the importance of the maintenance and management of roads. It is because some streams flew between roads and trash piled up in the streams, damaging the public hygiene, and flood interrupted traffic greatly. Starting with the measurement of streams in Hanseong in Mar 1897 (Han, 1999), stream maintenance was carried out in full-scale. Since then, Machahosia (馬車會社) (‘macha (馬車)’ means a carriage, ‘hoisa (會社)’ means a company) has dredged from Yeongdogyo (永渡橋) (‘gyo (橋)’ means a bridge) to Majeongyo (馬廛橋), outside Dongdaemun (the great East Gate of Seoul), firstly, and from Hyogyeonggyo (孝經橋) to Sugakgyo (水閣橋) in Changdongcheon, a branch of Cheonggyecheon, secondly (Oh, 2008). The sections maintained at that time correspond to the Jongno and Namdaemun areas.

With the Japanese annexation of Korea in 1910, Hanseong was renamed as Gyeongseong (京城) and a grid pattern road system was established for improving the efficiency of colonial city, getting rid of its symbolism as the capital of Joseon and the Great Han Empire. A grid pattern road system was achieved by way of the Urban Improvement that started from 1923. As a result, roads in the east-west direction were expanded and straightened in the south of Cheonggyecheon and new roads in the south-north direction were constructed. In 1899 the first tram line was built between Cheongryangri in Seodaemun (Shin, 2013). Since then, roads were expanded in conjunction with grid pattern road systems newly established or maintained during the Japanese Occupation.

At the time of the Japanese annexation of Korea, Cheonggyecheon served a role as the main drainage system for rainwater or waste water. Branches buried with earth and sand were not maintained. Thus human wastes were discharged and muddy stream were flooded by heavy rainfall, resulting in the hygiene issues of roads (Kim, 1999). It was critical to maintain the streams in order to resolve the problems of road safety and hygiene in parallel with the construction and expansion of tram lines as well as the construction of grid pattern road systems.

Road maintenance was carried out 4 times under the name ‘Sewerage System Improvement Project’ from 1918 till 1939. Sewer to culvert conversion was greatly influenced by the scale of waterway. The main stream, Cheonggyecheon and its branches, for the areas of large scale and with many bridges, dredging and banks maintenance were carried out whereas creeks were converted into culverts.

The 1st sewerage improvement project was carried out from 1918 to 1924. Cheonggyecheon was dredged and 17 branches showing poor drainage performance were maintained. A total length of rivers dredged was 13,114.9m and the length of the rivers converted into culverts was 4,690.5m. Cheonggyecheon were converted into culverts from 1925 till 1928: Shingyodong (‘dong (洞)’ means a district)-Doryeomdong section, Junghakcheon-Cheongwooncheon confluence–Seorindong section. Streams were recovered
to construct new roads from Hwangtohyeon (‘hyeon (岘)’ means a hill) intersection to Shingyodong.

The 2nd sewerage improvement project was carried out from 1925 till 1931. The length of rivers dredged was 5,204m and the length of rivers converted into culverts was 6,830m. Since then, rivers of 19,507m and of 8,397m were converted into culverts after the 3rd and 4th sewerage improvement project. As a result of sewerage improvement project, some of Cheonggyecheon, such as Seochon, Namchon and Bukchon, and Deoksoogung and Namdeamun areas and most of branches were covered.

Figure 3 The Map of Gyeongseong in the early 20th century
Source: The author

### III Changes of Seoul's Urban Streams' Characteristics after the 20th Century

#### 1. Change in the Ideology of Planning on City Development

Hanseong, which used to be Seoul in Joseon Dynasty, is where the king lived; it symbolized the new royal authority, and at the same time, played an important center of distribution and traffic as the capital. To reflect such characteristics, Hanseong was constructed with the partial application of the plan ideology of Feungshui (風水) and Zhouli Kaogongji (周禮考工記). The reason why the idea of the plan was partially applied comes from Hanseong's geographical characteristics. Especially, Zhouli Kaogongji's grid pattern road system plan was not implemented due to the streams and hills in Hanseong (Jung, 2011), and not only the small streets, but the main roads, Jongno and Namdaemun-ro were affected by the shape of the streams.
The reason why the road system was affected by the shape of the streams can be found out through the expansion process of the urban area within Hanseong. In the times of King Taejong (1400-1418), as the first maintenance of Cheonggyecheon was performed to reduce the damage by flood, safety of the land within the stream was acquired, and using such land, Sijeonhangrang, a commercial street facilities, was built. In the time of King Sejong (1418-1450), the branches of Cheonggyecheon were maintained to acquire residential area within the fortress, and it expanded to partial area outside the fortress. In the time of King Yeongjo (1724-1776) as well, along with extensive stream maintenance, embankments were built using precipitation, and lands near the stream were turned into housing sites. Like this, in the process of gradually expanding the urban area by acquiring lands that can be developed through stream maintenance, the road system was naturally affected by the shape of the streams.

Another reason why the grid pattern road system did not form was because most of the major facilities within Hanseong were restricted centering the northern region of Cheonggyecheon, Jongno, and Namdaemun-ro. Namchon, the southern region of Cheonggyecheon, was not suitable as a residential area, and dry-field farming was not even possible, so it was not a preferred region (Son, 1984). The distribution of arterial streets in north-south direction that connects to Jongno, a commercial center, shows that in the northern region of Cheonggyecheon exists Gwanghwamun-ro and Donhwamun-ro, which connected to the palace, but in the southern region was no main roads, and only small streets according to the shape of the waterway existed. Only Gurijae-gil (‘gil’ means a street) and Jingogae-gil, which connected to Namdaemunro in east-west direction, had the characteristics of main roads in the southern region.

After the 20th century, Hanseong changed to Gyeongseong due to Japanese colonial ruling, and fell into a focal point region of colonial country. Eventually, its role as shifted externally to position of traffic center, the expansion of urban area, beyond the fortress, to connect with the national railroad system occurred (Shin, 2013). On the other hand, internally, in addition to additional opening of tram routes, grid pattern road system was formed by establishing and expanding roads in north-south direction.

The reason why north-south directional road system was emphasized was because of the expansion of the routes of tram created in 1899. A representative route that was created in north-south direction was Bonjung Line, and it was for Japanese living in southern Cheonggyecheon area to move comfortably. Whereas the Japanese urban area was limited to the southern Cheonggyecheon area in the beginning of Japanese colonial era, it expanded to northern Cheonggyecheon area after the mid-era, and hence the north-south directional roads were emphasized.

In order to construct grid pattern road system, which was affected by the western modern urban planning, the straightening and expansion of the roads was required and it created the opposite the shape of existing streams which had been formed adapting itself to streams. Consequently, in order to acquire land for road, streams were covered.

2. Introduction of Modern Water Supply System and Extinction of Streams

Hanseong during Joseon Dynasty was granite zone, was rich in water resources, and the water quality was excellent also, so drinking water was easily obtained from wells (Kim, 2009). Therefore, rather than the supply of water sources, the draining ability of stormwater and wastewater was more focused on, in order to prevent the flood and contamination of wells.

Streams were to be continuously maintained by establishing a government office that manages streams. The office managing streams were Gaechundogam (開川都監) and Soosunggeumhwadogam (修城禁火都監) until 1460. With the abolition of
Soosunggeumhwadogam in 1460, Gongjo (工曹) and Hansungbu (漢城府) took charge of stream management (Yeom, 1998). Stream maintenance was extensively performed with in the time of King Yeongjo, and Juncheonsa (濬川事) was established for a continued management streams. Except for the period in the mid-Joseon Dynasty when the streams are regularly managed due to the wars, social confusion, and 'little ice-age', the safety of settlement environment was tried to be obtained through dredging the stream and rearrangement of embankments.

Also in the Japanese Colonial Era, to solve the frequent flood damage, the narrow spots of the streams were widened, the collapsed embankments were reinforced with stones, and streams were dredged, but they were still inadequate. Since the establishment of Gyeongseong Weather Station, due to the largest heavy rain observed, houses were destroyed, stone embankments collapsed and drifted down, and with flooding of 1500 houses in 1926 and overflowing of Cheonggyecheon in 1929, damages like bridge collapse continuously occurred. Stream maintenance to control flooding continued not only in Joseon Dynasty, but also through the Japanese Colonial Era.

Besides the flooding issue, drinking water problems arose due to deterioration of water quality, and instead of using well, modern water supply system was introduced. Such modern water supply system affected on degrading stream's original functions, and eventually became the fundamental cause of covering the streams.

The traditional water supply system used within Hanseong in Joseon Dynasty was wells. Wells were a means of acquiring drinking water by utilizing the underground water, and the water quality of wells was decided upon the water environment of the overall watershed area including the stream. During Joseon Dynasty, water environment close to nature was to be maintained by maintaining the water system and protecting the forest, and as a result, there was no big problem in using the wells.

Modern water supply system received water from the outside of the watershed to meet the needs of drinking water in Gyeongseong. Therefore, it was not affected the quality and amount of water within Gyeongseong, and water could be stably supplied with proper management of the water supply system itself. As a result, the attention and management of water quality and quantity within Gyeongseong became neglected, and furthermore, it brought the qualitative decline of water environment along with the degeneration of stream contamination within Gyeongseong.

Japanese living in Gyeongseong built the first modern water supply system within the Japanese residential area in 1903 with the reason of water quality deterioration, to resolve the drinking water problem. This private water supply was connected with approximately 1082m iron pipe and distributed water through the faucet, and the catchment area at the time was the valley water in Namsan. The public water supply was built in Ttukseom (‘seom’
means an island) in 1908 along with the first water purification plant (Lee; Kim 2012). At the time, most of the private and public water supply users were Japanese.

Since then, Japanese recommended using the tap water by the media, continuously emphasizing the unhygienic side of the wells. Articles on how wells should be eliminated as soon as possible, tap water is safe for drinking and it should be supplied to people of Korean who are still drinking contaminated well water due to lack of water supply system equipment, and well water should be chemically processed, were continuously reported. Along with such social atmosphere, the population using water supply system increased from approximately 1,600 households in 1910 (about 400 Koreans households) to 38,000 households in 1931 (about 16,000 Korean households).

On the other hand, the water quality of Cheonggyecheon in Gyeongseong worsened day by day. First, the water supply system construction enthusiastically tried to expand, but didn't consider the disposal of wastewater, like high-rise buildings discharging the wastewater without purifying them.

Meanwhile, Koreans still used the wells in traditional ways and used the stream to do laundry and wash vegetables. Number of Koreans using water supply system did increase, but 70% of Korean still used the water resources in traditional ways. There were more than 20 wash places in streams that they can freely use, and plans to build additional the public wash places were established. However, for the reason of contagious disease prevention, Cheonggyecheon was considered the origin of contagious diseases, and was continuously prohibited from using. Also, based on the water quality test result that 80% of well water was unsuitable for drinking water, the use of water supply was recommended.

As the contamination of Cheonggyecheon became more serious, debates on covering it started to appear. In the beginning, construction of amusement parks, roads, and houses were planned after covering Cheonggyecheon. After, with serious discussion, the most realistic plan of culverting Cheonggyecheon was also planned. As covering Cheonggyecheon became publicized, Gyeongseong candidates, without exception, all offered the realization of Cheonggyecheon's culverting.

However, the modern water supply system, which was introduced for the reason of outstanding hygiene and convenience compared to traditional water foundation equipment, showed many problems. With the deterioration of water pipes, water quality deteriorated, and the lack of budget to manage this lead to not regularly changing the old water pipes, which in end encouraged the citizen's anxiety and suspicion. Meanwhile, the drainage system that was created by covering the streams caused the flood damage on houses from backflow due to flood. Such flood from backflow caused more serious hygiene problems than previous flood damages.

After the emancipation and going through Korean War, the refugees gathered and lived near the streams, and the contamination became more serious. For a fast reconstruction of the city, maintenance of modern water supply system equipment, and improvement of cityscape, Cheonggyecheon was covered, and urban streams in Seoul disappeared.

Figure 5 The Covering process of Cheonggyecheon during 1950s-60s
Source: Seoul Museum of History (http://www.museum.seoul.kr)
### IV Conclusion

Joseon's capital, Hanseong, which was built along with the establishment of Joseon Dynasty, has gone through many changes until the early 20th century, when it changed to Gyeongseong due to Japanese colonial era. Especially, streams were changed due to humans' needs as the city developed and grew, and eventually were covered and disappeared. The reason for the disappearance of streams result from the urban structure changes due to modernization and technical changes of introducing modern water supply system. In the background is the change from the ideology of city planning that adapted to the nature and sought harmony, to the blind faith in modern technology and ideology of plans focusing on developments. In other words, it is the change of social perception.

The urban structure of Hanseong in Joseon Dynasty was a result of the plan ideology such as Feungshui and Jure-gogonggje Zhouli Kaogongji affected by the geography. Also, since the city was gradually developed as the streams were maintained, the road system naturally was affected by the shape of streams. With the influence of American's city planning ideology in the late 19th century, radial street systems were constructed, and after in the Japanese colonial era, grid pattern road system was introduced. To construct such road systems, natural geographical features like streams were considered obstacles, and the streams were covered in order to overcome such obstacles.

The introduction of modern water supply system, along with the changes in urban structure, is the basic reason why the streams were covered. Whereas the modern water supply system, which was introduced due to the contamination of well water quality, gradually expanded, the maintenance of drainage system did not occur systematically. As a result, the vicious cycle of worsening the stream contamination happened. Also, due to the social perception changes based on the idea of modern hygiene, streams degenerated as an origin of contagious diseases, and constant discussion on covering them occurred. Eventually, after the Korean War, Cheonggyecheon was covered completely.

After the 21st century, Cheonggyecheon was restored and is being recognized as an excellent rest and leisure space. However, since it is not connected with the headstream, it just is an artificial stream which has to use the pump in water purification plant in order for the water to flow. Cheonggyecheon restoration was successful in economic and social point of view, but still needs improvements in the sustainability and ecological point of view.

The reasons for covering streams are various, such as urban structure changes due to development, introduction of modern water and drainage system technology, and social perception change on water. Also, daylighting covered streams is not just simply revealing the stream outside, but entails improving the overall water environment of the urban area, and improving the citizens' perception on the streams.

This study confirmed that the modification of urban streams is very closely related to city development and that is was largely affected by the social perceptions. As a result, in order to soundly restore streams, the value of urban streams should be well-delivered to the citizens. Streams after the 20th century was disconnected to the lives of urban residents, and the perception of stream was also very low. However, the functions of water in the modern society are being understood as multilateral value in the form of green infrastructure, and the importance of harmony between city management and water management are emphasized. Such change in the perception may soon bring an opportunity to regenerate Cheonggyecheon to more ecological form, more naturally. This is the time to consider a plan to recover Cheonggyecheon in ecologically healthy way, and the historical value of the stream culture which it gives to the public.
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From Static Master Plans to ‘Elastic Planning’ and Participation: Otto Koenigsberger’s Planning Work in India (1939-1951)

Rachel Lee

Writing to his sister in 1943 from Bangalore in Mysore State, Otto Koenigsberger (1908-1999), whose Jewish background had forced him from his home in Berlin, Germany, into exile in Egypt, Switzerland and finally India, happily explained that the strain WWII had put on Mysore State’s financial coffers had led to a slow down in building activity and allowed him to spend more time on town planning work, which he referred to as “his line”. He continued:

“I am saying ‘my line’ because townplanning and housing used to be our (Jochen Gr’s [Grasshoff] and mine) favourite subject in our student days and in the years after.”

Until then, Koenigsberger had spent the majority of his four years in exile in India working on architectural projects, amassing an extensive range of experiences in building for both the Maharaja of Mysore State and for private clients. Koenigsberger, who was educated at the TH Berlin under Hans Poelzig, Bruno Taut and Hermann Jansen, had developed a ‘scientific’ approach to architecture that attempted to embrace the spirit of the contemporary Mysorean culture, accommodate local practices and lifestyles, respond to the local climate, and optimise the use of local building materials and vernacular architectural forms. In terms of town planning, however, at the time of the abovementioned letter, his experience was limited to the Bhadravati Development Plan (1942).

In Bhadravati, a small industrial town 255km west of Bangalore, the old town and the industrial area that were initially separated by the river, had gradually grown together along the connecting railway line. Koenigsberger’s plan rather dramatically suggests completely “abolishing” the old town, and concentrating residential and commercial areas to the south of the river, separated from the industrial zone by a strip of continuous parkland. The north bank of the river would be kept free for agricultural development. Unfortunately no detailed plans remain of the scheme, which is clearly an application of the linear city planning principle developed during the 19th century by Arturo Soria y Mata in Madrid and promoted by the Soviet planner Nikolai Alexander Milyutin in the late 1920s through his plan for Stalingrad. Indeed, as his student projects also illustrate, Koenigsberger was well versed in contemporary planning debate and practice, mixing ideas such as Zeilenbau and neighbourhood units, with other features, such as strips of allotments and hierarchical road networks, thereby developing his own interpretations and combinations of the emerging typologies.

As the Second World War continued, Koenigsberger was able to increasingly devote more of his time to town planning issues, working both for public and private clients, and publishing his ideas in Indian magazines. By the end of his career in India, when he left for Europe in 1951, Koenigsberger was working almost exclusively as a planning expert, as Director of Housing of the Federal Republic of India, and as an advisor to the government of Burma, for example. This paper will examine the changes in his approach to planning during his 12 years in India and assess the role they played in shaping the rest of his career.

The Bangalore Development Plan (1944) was Koenigsberger’s second major planning project for the government of Mysore State. Unlike Bhadravati, which used the band town
principle, the planning concept behind the Bangalore Development Plan is the satellite town, a concept that had been popularised by Raymond Unwin. Koenigsberger argued that with a population of 350,000, Bangalore had reached the ideal urban size and the future population growth (10,000 per annum at the time) should be housed in six satellite suburbs that would enjoy “all advantages of country life” and good rail and road connections to the city centre. The plan also proposes a new industrial strip to the west of Bangalore connected to a new railway line for goods traffic that would prevent the undesirable build up of industrial developments along the city’s five main traffic arteries. Koenigsberger noted the planning difficulty the division of Bangalore into the Indian-governed City and the British-controlled C&M Station caused as well as the potential negative effects of the largely privately controlled housing and industrial sectors on the implementation of the plan, especially before a town planning act has been passed. While the Bhadravati and Bangalore plans demonstrate an awareness of contemporary international planning concepts they do not appear to respond particularly to the local context to the same degree as his architectural work. However, it is difficult to draw conclusions on this as so little documentation of the projects remain and the surviving material is at a very diagrammatic, abstract level.

In addition to these state-backed planning projects, Koenigsberger also began working on large-scale private planning commissions, particularly for the powerful industrial concern Tata & Sons for whom he planned workers’ housing at the Swadeshi Mills (1943), and drafted the Jamshedpur Development Plan (1944-45) and the Plan for Mithapur (1948). As well as illustrating shifts in his planning approach, these projects show the significance of Koenigsberger’s personal and professional networks in creating access to the clients, winning important private commissions and furthering his career.

In addition to a qualitative analysis, I studied Koenigsberger’s networks using software developed by the medialab in Paris: Gephi. The network visualisations show the most significant figures in Koenigsberger’s networks—the people that were involved in the greatest number of network categories, and whose lives intersected the most with Koenigsberger’s on both a professional and personal level. Before arriving in India, Koenigsberger’s maternal uncle and Nobel laureate Max Born was responsible for forging many of the connections that enabled Koenigsberger to escape Nazi Germany and become Government Architect of Mysore State. In India it was Homi Bhabha, a physicist who had studied in Cambridge and knew Max Born, and was “stuck” in India during the war, who became one of Koenigsberger’s closest friends and opened the most important doors for Koenigsberger, introducing and recommending him to the Tatas, who were determinedly establishing an indigenous industrial and educational infrastructure that paved the way to independence. Other Jewish refugees also played important roles, but I will not discuss them in this context.

It should be noted that while Koenigsberger had limited contact to British architects, such as Henry Medd in Delhi, George Goldstraw in Jodhpur and Claude Batley in Bombay, during his time in India he was relatively cut off from the contemporary architecture and planning discourses, writing to his uncle Max Born in 1943:

How did you like Homi’s [Bhabha] contribution to the [Nils] Bohr jubilee number? I witnessed the birth of his ideas during many common walks and am anxious to know what experts think about them. We are very isolated here with regard to professional exchange of ideas, though it is not quite as bad in his line as it is in mine. [italics added]
It was not until after Indian independence that Koenigsberger was able to add internationally influential architects and planners to his network. These included Robert Gardner-Medwin, Jacob L. Crane, Antonio C. Kayanan and Jacobus P. Thijsse who formed the UN Tropical Housing Mission in 1950, as well as Maxwell Fry and Jane Drew who were part of the Chandigarh planning team and met Koenigsberger shortly before he returned to Europe in 1951. While these figures would certainly play a role in his later career, their influence on his work in India is limited. Lesser known architects and planners such as Albert Mayer were of more significance. Moreover, it is not clear whether Koenigsberger had access to architecture or planning journals or relevant professional publications such as Fry and Drew’s seminal 1947 book *Village Housing in the Tropics*, although his archive shows that he was acquainted with and respected Patrick Abercrombie’s *County of London Plan* and Patrick Geddes’ work on India.

The Jamshedpur Development Plan (1944-45) was a major project, and is the best-documented town planning scheme that Koenigsberger undertook in India. Published as a book in an edition of 300 in 1946, his report contained drawings as well as 50 pages of text. In the report Koenigsberger asserts that Jamshedpur, which was founded in 1909, had only two major shortcomings: over-crowded and out-of-date housing, and a jumble of houses and industries. He continues by underlining the need for what he termed “elastic planning”:

Any plan which wants to do away with the two defects of insufficient housing and the mixture of houses and industries, and which wants to be a guide for the future development of recreation areas and traffic must be flexible. Nobody can predict that a town will grow to a certain size and not further; nor is it easy to limit the development of a settlement if the economic need for its growth continues to exist.\(^\text{vi}\)

Twenty years before he formulated his influential ‘action planning’ concept, Koenigsberger was clearly distancing himself from the idea of static planning that was inherent in the planning ideas of Howard, Unwin and to some extent Le Corbusier. This perhaps illustrates an awareness of the work of the socialist Russian architect and planner Nikolai Ladovsky who also underlined the need for dynamic urban structures. Certainly, as shown below, Koenigsberger was aware of the planning debate in Russia.

In Jamshedpur, in order to accommodate the desired “elasticity” and provide a direction for future growth, Koenigsberger chose the band town model as the basis for his intervention, devising a plan that separated, as far as possible, housing from industry along a north-south divide, and allowed both zones to expand eastwards along two distinct traffic arteries, thereby emphasising the primacy of zoning, or area planning, in controlled urban development. In Koenigsberger’s plan, the housing areas are organised into 12 neighbourhood units. Koenigsberger’s application of the neighbourhood unit in Jamshedpur in 1944 may mark the first use of the planning concept in India. If this is the case, it was an industrial concern, rather than the state that sanctioned its implementation. It is interesting to note that Koenigsberger later ascribed the origin of the neighbourhood unit as a planning module as follows: “the conception of a Neighbourhood Unit in town planning was first mentioned in Russia in about 1934.”\(^\text{vii}\) Evidently Koenigsberger did not know of the widespread use of the neighbourhood unit concept from the late 1920s in the USA or similar developments in the UK. Considering the timeframe, apparently Koenigsberger had not been aware of the concept while studying at the TH Berlin where urban residential planning was still understood in terms of settlements rather than neighbourhoods. Instead of building the neighbourhood units solely around an elementary school, Koenigsberger suggested focussing them on a civic
centre comprising a kindergarten and primary school, a small playground, a shopping centre, a police out-post, a dispensary with maternity welfare centre and crèche, a sub post office, an open air cinema and a recreation hall with an outdoor stage.

Surprisingly, Koenigsberger’s development plan for Jamshedpur was designed around residential areas of different social groupings, inculcating the differences in social and economic standing into the urban fabric of the steel town. Koenigsberger acknowledged that this was a “very difficult question” and that “modern town planners would deplore this development because it accentuates social classes and hampers contact and understanding between the various groups of society.” His justification for the move is based on his perception of an unbridgeable gap between Indian social classes:

Theoretically, it would be desirable that each Neighbourhood Unit in Jamshedpur should be composed of people of all social classes, highly paid officers, technicians, clerks, skilled workers, coolies and sweepers. However, I am convinced that such groupings, however good in theory, will not be practicable in present-day India. Cultural differences and contrasts in the style of living are still too great for such an attempt.

Koenigsberger’s development plan for Jamshedpur, though well intentioned, is frustrating. While policies such as separating housing and industry, protecting pedestrians from motorised traffic through a hierarchical road system, relocating the main park to a better drained site, creating an interlinked network of green spaces, and preserving as many trees as possible would have improved the environment and standard of living in the future city, his use of the neighbourhood unit to create autonomous, homogenous residential areas distributed throughout the city according to income level would have deepened the existing rifts between classes and castes. And while neighbourhood unit residents were encouraged to participate in local government, those with the most precarious existences, such as widows and slum dwellers, were banished to informal settlements outside the topographical limits of the city.

In contrast to Jamshedpur, all that remains of Koenigsberger’s plan for Mithapur (1948) is an incomplete ten-page draft report and three drawings. However, in the draft report Koenigsberger clearly articulates his ambition for Mithapur, then a colony of 2500 employees of Tata Chemicals Okha Salt works, located on a flat, windswept strip of land between the Arabian Sea and the Gulf of Cutch in Gujarat. Koenigsberger’s scheme again separates housing, traffic and industry; the existing railway line between the factory and the housing area making this cut easier than in Jamshedpur. Basing his calculations on the availability of water, Koenigsberger planned the town for a maximum of 20,000 people, a number too small to support neighbourhood units. Instead, the town plan radiates from the focus of activity—the factory—with a civic centre placed between the factory and the housing areas. For the street plan, Koenigsberger employs a favourite tool of neighbourhood planning: the cul-de-sac. However, instead of serving the houses, the cul-de-sacs form the town’s main roads, to which subsidiary housing streets with cycle paths and footpaths are connected, and also act as radial lines of possible future expansion. The houses, which are single-storied and oriented to take advantage of the cool breezes, are again segregated according to income, with bungalows in the west, clerks and mechanics in the central wedge and labour quarters in the east. Unlike the Jamshedpur plan, however, the civic centre was a shared space for all members of the community. While the men were at work, it was intended as a focus of interest for women and children, and was to contain shopping, administration, entertainment,
education, health, security and “all other activities of community life.” xi Presumably Koenigsberger hoped it would be encourage social interaction between the different classes of residents in isolated Mithapur.

In contrast to Jamshedpur and Mithapur, Koenigsberger’s 1948 master plan for Bhubaneswar (1948) and all his later planning projects conducted as Director of Housing reject the segregation of social classes, instead attempting to render each neighbourhood unit “a small scale cross-section of the social strata of the whole population.” xii The reason for Koenigsberger’s fundamental shift in attitude is not clear. Perhaps the reports in Western town planning literature on the dangers of ghetto formation through neighbourhood units xiii forced Koenigsberger to reassess the policy he had subscribed to in Jamshedpur. Moreover, the four intervening years between the Jamshedpur and Bhubaneswar plans had witnessed independence, partition and the accompanying violence and bloodshed. Though the aggression had predominantly been between Muslims and Hindus, it underlined the dangers of promulgating differences in Indian society. Nehru’s vision of independent India was an inclusive one, as the historian Benjamin Zachariah states,

The vision of India to which Nehru remained publicly committed depended upon the disarming of sectarian tendencies through the delivery of economic progress for everyone, ‘irrespective of caste, creed, religion or sex’ xiv

Even if Koenigsberger remained sceptical that integrated neighbourhood planning would be successful, with the new Indian state’s backing, it was an experiment that could—and perhaps had to—be attempted. On the other hand, as early as 1940, in his response to a National Housing questionnaire, Koenigsberger had advocated creating mixed housing areas. Thus, the only use of segregated residential areas in his portfolio is in his work for the Tatas. It is therefore plausible that the idea was not Koenigsberger’s; perhaps it was the outwardly progressive Tatas, as clients, who insisted on the social segregation in the plans for their towns and cities.

In contrast to the previous urban planning projects, Bhubaneswar was a new town, built on land that had just been cleared of its covering of light jungle. As the administrative capital of the new state of Orissa, Koenigsberger was convinced that the town would grow rapidly and designed a plan that would “provide for unlimited expansion” but simultaneously form, “an organic and healthy structure at each stage of its development.” xv

In essence, the master plan for Bhubaneswar continues in the same vein as his earlier planning work in Bhadravati and Jamshedpur, while refining some ideas and radically rethinking others, such as the neighbourhood unit mentioned above. In Bhubaneswar, Koenigsberger again based the urban development concept on the linear city idea with neighbourhood units strung along either side of a central traffic artery, “like leaves to the branch of a tree.” xvii As well as providing a direction for growth and an efficient route for public transportation, Koenigsberger felt that the “band-town” model was particularly suited to India because if the neighbourhood units were kept to a depth of not more than half a mile, everybody would live within a short walk of the surrounding countryside, cutting down the need for open spaces within the city itself, which were expensive to maintain and tended to be “used as public latrines and refuse dumping grounds, and what was intended to be an asset to the community develops into a plague spot and source of infection.” xvi

Koenigsberger recognised that the neighbourhood unit also reflected rural forms of community living, which made it all the more appropriate for India, a predominantly rural
In effect, the neighbourhood unit was an urban village that could help newcomers understand civic responsibilities in a way that a large amorphous city could not and perhaps be governed on a community level by organisations with structures resembling the village panchayat. For Koenigsberger the neighbourhood unit was “the first attempt to combine the advantages of town life with those of life in the country.” However, the inherent paradox of utilising a rural typology to build a city was not lost on Koenigsberger who later wrote,

it is difficult to visualise how the extreme form of the band town with self-contained villages in single file along a road or railway is going to create the urban atmosphere, the interest in communal affairs and the awareness of a common fate which are essential to our conceptions of town. It is a significant fact that the peaks of urban civilisation were reached in towns which [...] had to be concentrated and compact.

As well as engendering community spirit in general, the neighbourhood units were designed to improve the quality of life of women and children in particular. While in Western countries residents of neighbourhood units could increasingly depend on cars, the situation in India was quite different:

Women and children have to walk. Wage-earners can use cycles or public-conveyances.

Koenigsberger linked the long distances children often had to walk to school in punishing climatic conditions with the low standard of education and widespread illiteracy in India. By placing junior schools at the centre of neighbourhood units, within 500m of the furthest residences, he felt that not only would children be able to walk to school without the danger of crossing busy roads, but they would arrive at school in better physical shape and thus be more capable of learning. As women too were often forced to walk long distances in the hot tropical climate, Koenigsberger felt that they should be able to access civic centres with amenities such as a bazaar, a dispensary (with a child-welfare centre and a reading room) and cooperative stores within 800m of their homes. In a progressive move, Koenigsberger also suggested that the civic centres should contain “adult education” facilities, presumably to increase literacy and numeracy in adult women.

Based on his experiences in Mysore State, Jamshedpur and Bhubaneswar, Jawaharlal Nehru appointed Koenigsberger Director of Housing in 1948. In this position, he was responsible for advising the Government of India on a new towns policy and supervising its implementation. The new towns policy was bound up with the resettlement of the millions of homeless refugees who had left Pakistan for India following partition. Instead of situating the new towns near existing urban areas, they were often located in “backward regions” where they would function as catalysts for the development of the area. While not directly part of Koenigsberger’s team, the America architect and planner Albert Mayer, who later planned Chandigarh with Matthew Nowicki, was also involved with regional development in India at the time. Koenigsberger and Mayer were friends and would certainly have exchanged and discussed professional ideas. Koenigsberger describes the new towns as:

pioneering ventures designed to bring new industries, marketing centres, education and urban life into regions where life has been stagnant for centuries.
The new town policy developed by Koenigsberger aimed to re-educate and retrain the refugees so that they could become a productive force in the economies of their new communities. By implementing retraining programmes that challenged caste barriers, and by involving the refugees in the process of constructing heterogeneous neighbourhoods, the new town programme was an experiment in social engineering. What is more, the gravity of the situation required swift action, which also provided an opportunity to experiment with planning concepts:

Planning ideas could be put into effect quickly—often in their purest form and on virgin ground—and results observed within a comparatively short time.\textsuperscript{xvi}

For Koenigsberger, therefore, the work on the new town projects provided an education in the feasibility and functionality of the town planning methods he had developed at Bhadravati, Jamshedpur and Bhubaneswar. His experiences at Faridabad and Gandhidam especially forced him to reconsider his approach and formulate concepts that he would continue to develop during the rest of his career.

While the New Town projects were based on the principles of walkable neighbourhoods, separate industrial and residential areas as well as separate pedestrian and vehicular traffic, they differ from his previous work. Most significantly, the planning projects are all collaborations with Indian colleagues. It is also worth mentioning here that Koenigsberger, as part of his efforts to establish a professional and academic town planning infrastructure in India, was a founding member of the Institute of Town Planners, India, together with a number of his Indian colleagues. Undoubtedly, working in a team with professional Indian town planners affected Koenigsberger’s own planning approach, perhaps influencing the inclusion of the apartment typology in Gandhidam or the efforts towards establishing an aided self-help scheme in Faridabad.

Moreover, the projects at Faridabad and Gandhidam were also collaborations with the future inhabitants of the towns—at Faridabad through a self-build scheme and at Gandhidam through a private organisation of refugees who controlled the contracting and construction work. Due to the limited amount of space in this paper, I will only discuss \textit{Faridabad} (1949) in detail here.

The site for this refugee resettlement town, located about 20km south of Delhi on the Delhi-Agra trunk road and the Delhi-Bombay railway line, was chosen because of the presence of water, and the nearby war-damaged power plant, which was being repaired as part of the project.\textsuperscript{xvii} Otherwise the site was “flat and uninteresting”\textsuperscript{xviii} apart from a low hill that became a central feature of the scheme. The hill – the green core of the town - was to be landscaped, contain leisure facilities and accentuate the public and community buildings constructed on its slopes.

Wrapped around the curving contours of the bottom of the hill are 5 neighbourhood units, each planned for 10,000 inhabitants, and each containing centrally located areas for schools, bazaars and shopping centres, as well as green space. The neighbourhoods were planned to accommodate a cross-section of the population and to avoid the formation of caste-based ghettos. A large commercial centre is located between two residential neighbourhoods next to the train station. South of the settlement, and positioned so that the prevailing winds would carry pollution away from the town, is the industrial area.
Through the offer of government loans and the attractive road and rail links, Koenigsberger and his co-planner P.L. Varma hoped industries from Delhi and elsewhere could be enticed to relocate to Faridabad and provide a sustainable economic base for the town’s future. It was also hoped that Faridabad would become a centre for marketing milk and vegetables.

While the refugees were not involved in the planning of the new town, they were very much involved in its construction. Amongst the refugee towns, Faridabad was a pilot project in aided self help and self build. According to Koenigsberger, the cost of labour involved in building a simple house in Faridabad accounted for up to 80% of the total cost of the house.\textsuperscript{xxxi} Instead of the money being paid to private building companies, in Faridabad it was the refugees who covered the costs - by building the houses, schools and infrastructure themselves. Most of the initial group of 20,000 refugees who built the beginnings of the town were shopkeepers,\textsuperscript{xxx} an indifferent group of mostly middle-aged or elderly men and women who had been members of the privileged middle class and thought themselves too good for manual labour […] they refused almost unanimously to accept employment with contractors, but agreed to form themselves into small co-operative groups of earth workers, brick manufacturers, road workers, brick layers, carpenters etc.\textsuperscript{xxxi}

As the refugees were unskilled in building work and not accustomed to physical labour, their work within the cooperatives was initially subsidised by the federal government, who paid up to 150% of the equivalent average regional wage as part of the re-education programme. The subsidies were incrementally reduced to zero as the quality and efficiency of the work improved and the workers could secure their own livelihoods. According to Rebecca Knowles\textsuperscript{xxxii} unpublished Bachelor thesis, the refugees completed over 90% of the building work.\textsuperscript{xxxiii} As well as creating a skilled workforce to build the town, by retraining the refugees the planners hoped to break up old caste distinctions and create a more integrated community.

In Faridabad Koenigsberger and Varma succeeded in mobilising 20,000 refugees to build their own town and secure their futures by learning new professional skills. Although their original plan to engage the refugees as employees of private building contractors ended, for cultural reasons, in defeat, the acuteness of the situation, no doubt combined with increased communication with the refugees, led them to the cooperative idea, which was a success. Through their resistance, the refugees were able to actively influence the organisation of the building project to their advantage and Koenigsberger, removed from the security of an office and forced to think on his feet, learned the value of listening to and negotiating with the people he was planning for. In his Indian lectures and articles Koenigsberger certainly discussed the importance of understanding the customs and living habits of a locality, but in the manner of an abstract scientific survey. The situation in Faridabad forced him to radically rethink his ideas and brought him down from his position as a detached expert, closer to the ground, and closer to the people he was planning for.

\textbf{Conclusion}

Koenigsberger’s planning projects in India reveal his evolving approach to the social and cultural circumstances he was confronted with. As his experience grew, Koenigsberger adapted Western planning concepts such as the neighbourhood unit to Indian circumstances.
Using low-density single-storey housing within walkable neighbourhoods, which included community and educational facilities, and were in walking distance of green space and public transport, Koenigsberger hoped to create morphologies that would ease India’s transition from a rural to an urban society while generating a sense of community.

An interesting shift in Koenigsberger’s planning thought is his eventual rejection of socially segregated neighbourhoods. This was not an imposition of a Western planning concept, but a spatial translation of the ideals of independent India. In addition to attempting to break caste barriers, Koenigsberger’s planning ideas developed to include aspects that moved towards empowering women and children.

Moreover, it was his engagement with refugees that forced him to re-examine the planning process, opening it up to negotiations with those whose lives would be affected by the plan—a primitive form of participative planning. In turn, this contributed to his rejection of the static master plan and the realisation that local problems demanded locally sourced planning solutions. As was the case with the architectural projects, Koenigsberger’s final planning projects were collaborations with Indian planners.

In 1951—as a naturalised Indian citizen—Koenigsberger returned to Europe, where his exilic experience put him in a unique and powerful position. His deep understanding of architecture and planning in India set him apart from his so-called ‘tropical’ expert contemporaries, who had worked in the former colonies as ‘agents of empire’ and were, as the empires crumbled, following a neo-colonial agenda. Koenigsberger dedicated the rest of his career to improving the standard of living in developing countries and, after years of Western colonisation and domination, as he articulated it, “restoring the balance of power.”

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1 KP/JMB: letter from Otto Koenigsberger to Susanna Koenigsberger dated 28 November 1943.
3 O. H. Koenigsberger, “Town Planning and Housing,” MysIndia, 1943: 32-34
5 OKPA: Bangalore Development Plan, p.2
6 Churchill Archives Centre: Born 1/2/2/6. Letter from Otto Koenigsberger to Max Born dated July 16th 1945
7 Otto Koenigsberger, Jamshedpur Development Plan (Bombay: Tata, 1945) p.1
8 Dr. Otto H. Koenigsberger, Master Plan for the New Capital of Orissa at Bhubaneswar (Government of Orissa, 1948). P.5
9 Otto Koenigsberger, Jamshedpur Development Plan (Bombay: Tata, 1945). p.8
10 Dr. Otto H. Koenigsberger, Master Plan for the New Capital of Orissa at Bhubaneswar (Government of Orissa, 1948). P.4
11 OKPA: Draft of “Plan for Mithapur” p.6, undated (1948)
12 Dr. Otto H. Koenigsberger, Master Plan for the New Capital of Orissa at Bhubaneswar (Government of Orissa, 1948). P.17
15 Dr. Otto H. Koenigsberger, Master Plan for the New Capital of Orissa at Bhubaneswar (Government of Orissa, 1948) p.4
16 Dr. Otto H. Koenigsberger, Master Plan for the New Capital of Orissa at Bhubaneswar (Government of Orissa, 1948). P.9
Involving Industrial Landscape in Pearl River Delta: The Post-socialist Case
Shaojun Li, Weijen Wang

Rural Revolution

Industrialization has been associated with the rise of modern society in Europe and the States (Berman, 1982, Lefebvre, 1996, 2003). During the planning economic era from 1949-1970s (Mao’s socialist era), the people’s commune movement in rural China following the soviet industrial society policy did not successfully produce modern society. Until early 1980s, vast farmland and its clan society settlements have been dramatically restructured with the booming of Township and Village Enterprises (TVEs) and private enterprises in coastal rural area (Eng, 1997). As one of the most dynamic regions, Pearl River Delta (PRD) was implemented the urban system planning by Guangdong provincial planning bureau since early 1990s, claimed to accelerate the urbanization rate and address the unbalanced issues of rural and urban development (Ng & Tang, 1999, Po, 2005).

From traditional to modern society, it is widely accepted that the market oriented economy system after the 1978 was responsible for China’s transition (Friedmann 2005, Hsing, 2010). In particular, PRD’s adjacent location to Hong Kong and Macau, where the external capital source, directly stimulates the industrial technology improvement and infrastructural provision (Wu, 1997, Smart & Lin 2007). However, as the state industrial support in Mao’s period was seldom put in PRD region, leading to industrial level of PRD region was much lower than the general level in China, such economic condition in pre-modern society can merely makes convincing argument for this radical transformation (Lu, 1995, Vogel, 2008). Thus, the dynamics on top of the economic and social condition should not be overlooked, as the phenomenon complexity requires more comprehensive understandings (Oi 1999, Zhou & Logan 2008).

The study is clearly divided into two parts. Firstly, it reviews the historical development of PRD’s rural settlements, ranging from clan village in the feudal period to People’s Commune in Mao era, which provides comprehensive evaluation of PRD’s socio-spatial implications associated with several ways of industrial development after Chinese economic reform in the late 1970s - the critical transition of contemporary Chinese built environment. The second part looks into the impact of governmental market oriented planning experiment in transforming PRD’s rural settlements with attempts to examine the relation between the role of township and village government and the rural planning implementation in production of post socialist rural space.

1. Traditional Rural Settlement of Regime Periphery
Pearl River Delta (PRD) located in the southern Guangdong Province of China, is one of the most densely populated regions with core cities of Guangzhou, Dongguan, Foshan, Shenzhen, Zhongshan and Zhuhai. Guangdong Province, belong to the territory of “Lingnan”, was historically recognized as “huawaizhidi”, referring the enclaves without civilization and remote places beyond the central Chinese regime (Cartier 2001, Feng 2010). Ancient people of fringe region such as Taiwan, Hainan, Xinjiang and even Guangdong were regards as underdeveloped "barbarians". The remote geographical location of Guangdong has made it as an excellent retreat area of war refugees as well as the exiled scholar officials after Nanyue Kingdom (203 BC-111 BC). This cultural enclave was slowly influenced by the mainstream of the Chinese culture through the arriving of different group of Han immigrants. Among them, largest number of central Chinese immigrants after Southern Song Dynasty (1127 AD - 1279 AD) through the northern branch of Pearl River settled in the low-lying delta flat land.

Figure 1. A historical map of delta areas of Guangzhou Fu in 1733-1738 (Resources: Ancient Guangzhou historical map exhibition, Guangzhou)

Habitants in PRD lived in lineage villages with one surname or multi-surname settlements, which have been the basic social unit of its rural society for thousand years. Normally,
landlords of Chinese hinterland are those who came from government officials and rich clan families for several generations while the peasants composed of different clans are employed from various clan families. Different from the condition of rural China, some clan families of PRD got rich according to the collective reclamation activities of sand land, and the clan leader became the landlord and clan members carrying out the agricultural activities since late Ming Dynasty (Tan, 1993)(Figure.1). Along with the expanded boundary of cultivated delta land, they gradually develop a unique hybrid form of prevailing mercantilism and marine culture, which is considered as the origins of dominant Lingnan culture (Deng 1992). Under this circumstance, the grid structural settlement, featured "comb" type layout, was found to be the most common Lingnan Guangdong traditional clan settlement (Lu 1990). It is a linear organization of three modular-bay houses enclosing a courtyard oriented to the cardinal directions, with main hall generally facing south or southeast (Figure.2). Each unit of the courtyard houses, which belongs to one household, were required to follow the grid principles and the strict building regulation to ensure the maximum of agricultural land and minimum of residential area.

Figure.2. A typical layout of the grid structural settlement, Zhonglou Village in north Guangzhou (Redrawn based on (Lu 2008))

In addition to the dwelling area, at least one ancestral hall was located in the center or front side of the settlement, worshipping the common ancestor among the clan families. It is the most significant public space of a clan, where the ritual ceremonies, festivals, family affairs, important meetings were also held. Such spatial organization, "modular bay (jian)- Three-side courtyard house(sanheyuan)- linear patch of houses (li)- neighborhood (she) " as well as the ancestral hall, consisting of one big clan settlements, become the dominant prototype of PRD rural settlement (Shi & Pan, 2011). Its compacted grid structure allows further flexible adjustments to be applied to various local topographical conditions (Ye, 2011). For example, in the large piece of flat land, the settlement was expanded in a rectangular form, while in the hilly landform or small flat piece of lands, the settlement was expanded peripherally based on the topographical orientation or twisted by the directions of water system.

PRD clans and their settlement, had undergone uneven development especially after the period that Guangzhou Huangpu was turned to the only trading port for foreign traders due to the policy of seclusion between Qianlong and Opium War (1757-1842). Stimulated by the international market, thousands of specialized markets, such as mulberry, silkworm, and silk market were found in the commercial farming areas (Li, 1982). In fact, markets in early period were originally agglomerated in riverbank and temple plaza for exchanging farmers
surplus agricultural product and daily necessities in relatively small scale, but markets in PRD not only represented “the starting point for the upward flow of agricultural products and craft items into higher reaches of the marketing system, and the termination of the downward flow of imported items designed for peasant consumption”, but also for the needs of huge regional and global demand (Skinner, 2001). Unlike the spontaneous farmers market, many PRD markets of Qing and Republic China is owned and operated by the gentries and clan leaders, who also run the industrial cooperatives among villages. Driven by the specialized market competitions, the primitive collective production chain system in those coastal commoditized areas emerged (Fei, 1980). Some villagers, and even the female clan members no longer involved to the traditional farming and housework but became the factory labor run by the clan leaders or the capitalist. Take PRD’s silk factory for example, there were total 299 silk factories in 1922, with women labor of over 10 million since the first silk factory “Jichanglong” in Nanhai County (of current Foshan) in 1866. The number of silk industry workers of Shunde counted for the total amount of industrial workers in Shanghai and Tianjin at that time (Zhang, 2005).

The clan leaders bossed actively in the network of the settlement, factories to the market town that beyond the boundary of lineage community (Siu, 1989). The wealthy clan funded to construct the public facilities such as the piers, bridges, and education institutes and some of them even owned the independent clan military force (Liu, 1992). Ranging from administrative issues, business activities to the organization of physical environment, the role of clan leader was fundamentally changed and no difference from the local autonomous government (Faure & Siu, 1995).

Depending not only on the site condition, the size of clan families, but also the prevailing clan political and economic climate, the Lingnan Guangdong traditional settlements are thus recognized not only under natural evolving process, but also reflect the clannish provincialism in related to the global capitalist environment (Marks 2006). Spatial hierarchy of clan settlement was carefully structured from public space, agricultural land division to private single unit size of each household to sustain the clan business. It is considered that such settlement order, adapted by numerous of clans in PRD, catered for the needs of property defensive function and moreover, facilitated to promote the overall development of commodity economy in the period of late Qing and Republic China. In this process, the settlement space and its lifestyle dominated by the clan tradition as villages’ enterprises have marked as the distinguishing cultural identity in the pre-modern PRD rural society.

2 Planning the rural modernization-Rural settlements as People’s Commune 1950-1978

After the establishment of Socialist China in 1949, China’s political environment constantly underwent rapid changes. To confirm the leading role of socialist industrialization strategy, large numbers of work-unit compounds was constructed to be the production domain under first five-year plan by CCP between 1953 to 1957. In 1958, People’s Congress launched the Great Leap Forward Movement in rural areas, which aimed to turn the traditional rural feudal society into socialist structure by the mobilization of People’s Communes. The implementation of people’s commune was based upon the land reform of “gengzheyouqitian” (all land to the tiller) in the “the new democratic stage” between 1950-1953, by altering land
ownership from landlords to peasants to facilitate equalism (Lu, 2006). On account of the transformed collective land property right, the original township government was reorganized as the institution of a People’s Communes, while the surrounding villages were centralized into a large institution called Shengchandui, meaning the production brigade. To achieve the agricultural collectivization, a people's commune, as the leader agency, committed to the guidance of economic, political, administrative, educational quotas, the schemes of agriculture, industrial, transportation development, as well as the physical environment ranging from the public infrastructures such as irrigation, roads and railways systems, to proper allocation of the residential area, the new small factories, campus, hospitals as well as barn, pigsty and other agricultural facilities (Hou, 2010). Consisting of twenty to thirty production teams, some people's commune covers over dozens of square kilometers of agricultural land made no exception to depart the radical rural trajectories of utopian expansion under strict top-down control of municipal government.

Guangzhou, as one of the three national metropolitan cities has not been included in socialist industrial development scheme until the second five-year plan in 1958 (Vogel 1972). To catch up the pace of communist reform, large number of small trading shops that on behalf of the personal interests were required to close down or transformed into state-own property in 3 years, while the villages in PRD were forced to be detached from market system replacing by the planned rural collective economy. However, the imposed people’s commune policy did not gained the fully support by public, especially by those wealthier villages being unsatisfied with their property divided equally to other villages to fulfill the state distributed task.

By the end of 1958, there were more than twenty-four thousands people’s communes in Guangdong, and over 100 People’s Communes in the Guangzhou, Dongguan, Nanhai, Shunde, Zhongshan and Shenzhen (Vogel 1972). Each people’s commune was required to propose the planning scheme that reflected the aspirations of socialist collectivization of agricultural production, while the remote mountainous areas, or serious damage region like Xinhui county, or demonstrative unit could be assisted by Provincial-level Planning Bureau under the state design guidelines. Ideally there were four types of residential clusters: the central town (3,000-1,000,000 residents) complete with social, cultural and educational facilities; the satellite residential cluster (10,000-15,000 residents), accommodating major agricultural and industrial production; the specialized residential cluster (3,000-4,000 residents) for small production units such as pastures and orchards; and the work stations (300-400 residents) for resting and storage (Wu, 1959). Influenced by the Paris commune of 1871 and the peasant communes in the Soviet Union in 1930s, it is found that the planning proposal made by planers prefer a complete redevelopment of rural residential clusters at whatever cost, with passionate languages of modern architectural design replacing traditional built forms and local architectural motif (Lu, 2006). In addition, similar spatial features were found in the proposals of rural people’s commune and the urban work unit compound, such as the close association of work and residence, the extensive provision of social facilities and the rationalist spatial layout and style of the buildings.

But only a few of rural modern proposals were realized. Many villages in PRD just simply adapted certain communist functions of the office of production brigade and public canteen into their original clan temples and ancestral halls. These traditional vernacular buildings were continuously being transformed when some of the people’s communes started to take
over more tasks to satisfy the increasing demands of urban area in 1960s. They were turned into collective production sphere for food processing, carpentry, brick manufacture and farm machinery repair. Even the People’s Halls, as significant communist meeting place in late 1950s, have become the factories and warehouses in 1960s and 1970s.

The implementation of socialist agricultural collectivization of Mao, which attempted to end the clan farming tradition, resulted in tragedy of extreme scarcity and the contradiction to pursue the better life between 1950s to 1970s. As the leading planners, the people’s communes failed to bring massive transformation in terms of the physical environment of traditional clan settlements for the reason of lacking sufficient finical support by central government as well as Guangdong province’s tardy execution to changing policies. The utopia nature of commune experiment is no more than a concept of modernism ideology which has never successfully turn the traditional Chinese and PRD’s settlements into modern rural society. In socialist regime periphery, nevertheless, certain significant impacts to the later industrial development in 1980s were positively achieved. First, a large amount of villagers including housewives, retired persons and unemployees, have get involved in socialization process by completing a collective task to form a kind of solidarity and cooperation beyond kinship groups. Secondly, as the villagers themselves are also both members of the peasant and workers the small factories and workshops carrying the local craftsmanship tradition through the cooperative’s forms of organization accelerated agricultural mechanization and the (Hoa, 2006).

3. Fragmented Industrial Rural Landscape of Post-socialist PRD

After the struggle period of Cultural Revolution between 1966-1976, the sudden ideological shift from “Planed Socialism” to “Market Socialism” turned the rural areas to assume all profits and losses by applying the policy of Household-Responsibility System (HRS) to supplant the egalitarian distribution method and increase efficiency in the use of resources. Since then, rural property was recognized as valuable treasures that stimulate the possibility to release the farmland to other kind of use (Friedmann, 2005). Regional inequalities became evident and the coastal areas have pulled ahead of the vast central and western regions in China (Oi, 1999). Sharing the extremely convenient location to developed region such as Hong Kong and Taiwan, PRD emerged tensive land commoditization and industrial restructure activities, initiated by releasing rural collective land, establishment of TVEs (Township and Village Enterprises) and government loan (Xu, 2003). Originated from family workshop, one type of TVS in PRD projects the continuation of traditional craftsman skills and internal clan resources was to enterprises sector and normally emerges in the relatively wealthy villages as earliest form of industrial sector. Ranging from village to township space, these industrial clusters physically intersected into the traditional settlements fabric, which reflects the deep involvement of local community. They were soon entitled as Zhuanye Zhen, literally meaning the township space with highly specialized industrial agglomeration (Johnson & Woon, 1997). Typical Zhuanye Zhen’s are located in Nanhai county of Foshan, Shunde and Northwest Zhongshan and northwest Dongguan, where was the prosperous settlements of high agricultural commodified degree in the period of late Qing and Republican China.
Different from informal agglomeration of specialized industrial enterprises, another type of TVEs features cooperative project oriented development mode originated from Sanlaiyibu and Sanzi. Highly depend on the external market resources, Sanlaiyibu referred to enterprise performs single function contract work with client provide raw material, equipment and technique and Sanzi means the source of capital channel from oversea Chinese, foreign and Chinese-foreign cooperative. Commonly found in the economic constraint mountain area of Dongguan and Shenzhen, this form of industrial communities were normally isolated within the gated compounds with much larger size than the adjacent traditional settlement.

Under special State Policy, state invested industrial development mode is also the recognized as a approach to facilitate the rural modernity within large piece of land labeled as “Kafaqu” in 1990s and “industrial park” in 2000s. In most cases, lands of Fringe Townships such as West Foshan, Longgang and Baoan in Shenzhen, and Nansha district of Guangzhou are designated strategically for these types of development at promoting industrialization, high technology and job provisions.

Fragmented industrial landscape were formed by hybrid strategies applied in the massive village campaigns, which called for upgraded Central Authority Planning Schemes more with market pragmatism. From the late 1980s to 2008, seven regional strategic plans were produced in the PRD for better regional coordination. They were formulated by the Guangdong Provincial Government in collaboration with four different ministries-the National Development and Reform Commission (NDRC), the Ministry of Land and Resources (MLR), the Ministry of Housing and Urban-Rural Development (MOHURD), and the Ministry of Environmental Protection (MEP). The very first shift to market-oriented planning is “PRD City-Township System Planning” in 1989 to cope with problems emerging from initial phase of economic reforms by serious of regional development such as infrastructure construction, urban renewal and environmental protection, etc. The planning schemes have conveyed their prominent ambitious to restrict the localism in township and rural level through the amplified status of provincial city Guangzhou, which was still profoundly following Soviet model of socialist top-down planning structure.

After the Deng Xiaoping’s statement to speed up the modernization pace and catch up with Asian Four Dragons within 20 years in 1992, the NDRC created two regional plans in 1994 and 1998, in an attempt to coordinate growth in the PRD through three metropolitan resource allocation. Shenzhen and Dongguan as Eastern metropolitan, Guangzhou and Foshan as Northern metropolitan and Zhongshan and Zhuhai as Western metropolitan are proposed to regulate the urban-rural land acquisition under the four land use development guidance -the urban areas, township areas, open areas and ecologically sensitive areas. The shift of ministry-led development to comprehensive development has contributed to the decentralization of power. Localities have obtained unprecedented autonomy to arrange the use of their land as a result of the devolution of economic planning power from the central government (Xu & Yeh, 2010).

In 2004, Guangdong, in collaboration with the MOHURD, established another regional plan, which is widely known as the PRD Urban Cluster Coordinated Development Plan (UCCDP), with intensified top-down regulation. Nine policy zones were defined under four different levels of spatial regulation to strengthen the supervisory and regulatory functions of the central and provincial governments (Figure.3). The legend indicated in the diagram was
arranged according to the control level from strongest to weakest. For instants, regional open spaces and transport corridors are under strictest top-down supervisory governance, while the general policy regions refers to cities and towns allowed to make independent investment and land use alteration decisions. An UCCDP Ordinance was also promulgated in 2006 to enforce plan implementation. Distinction of urban control created by UCCDP results in spatial inequality in higher degree.

Figure.3. Nine policy zones in PRD Urban Cluster Coordinated Development Plan (UCCDP)(Resource: Xu Jiang http://www.grm.cuhk.edu.hk/eng/research/feature/interjurisPRD.html)

PRD planning schemes bond to goal of fast modernization with hierarchy governance facilitate the uneven mobilized resources under the dominant actor’s interest. The plan becomes “private” with respect to any planning that relates to that property (Abramson, 2008). In the general policy regions in UCCDP under least provincial government supervisory, village power of PRD’s Zhuanye Zhen that related to the specialized industrial form plays a role that no less important than that of the township level (Hsing, 2010). Distributed in the “repetitions” of specialized industrial townships in the formal Lingnan clan settlement, two empirical case studies are selected to synthesis two dominant types of rural modernization through the dynamics of Township planning scheme and village-initiated projects.

Case I: Clan Elites’ Consolidation of Village Planning
Adjacent to Foshan City center, Lecong Township (乐从镇) is a fringe township of Shunde
where was prosperous silk producing region in the period of the Republic of China. Initiated by village collective cooperative, large number of fishponds were converted into industrial use from the 1980s to mid 1990(Figure.4). Lecong became the "Chinese Capital of Furniture" with thousands of furniture factories and retail and wholesale stores spreading within Le Cong’s 26 natural villages since 1980s. In fact, these spontaneous fishpond factories as well as roadside shops originated from the simple bamboo shelters along State Road 325 were the illegal constructions against government regulations. Most of them, initiated by the TVEs or invested by clan members as private enterprise, were under protection of local township government for more than 10 years due to the huge fiscal revenue for both village and township government. Homogeneous industrial enterprises aggregation intimately connected to the sales center has been imitated by neighborhood townships.

Along with the thriving industry, multi-story concrete villas gradually replaced the original grey brick courtyard house neighborhood (Figure.5). In 1998, "Four-one" project by Lecong Township government was implemented to promote the construction of one road, one new village residential compound, one park and one market in major villages near State Road 325. The upgraded infrastructure mobilized the village land resources toward profitable redevelopment. For example, along the new main road of "four-one" project, continues commodity apartment buildings with commercial function in ground floor were built to attract the agglomeration of private small business. If the sides of state road 325 are considered as the industrial axis with large-scale high-end malls, the new roads leading to each village are sub-corridor spaces of furniture retail and wholesale activities (Figure.6). The accessible road space as the consumption spaces and the factories sectors hidden in the fishponds as production spaces effectively generate the land efficiency. This spatial structure is interestingly similar to the previous silk industry market town system in feudal period when villages serve as production units and the riverbank market place was a trading center.

Figure.4. Ariel Map of Shajiao Village, Lecong. (Resource:Google Map)
Only a few villagers family still owns agricultural land nowadays. The rentals from each unit of collective land, called “Fen Hong”, are the basic income of a household in addition to their apartment or storage plant leasing. The thriving TVEs continued to attract large numbers of migrant workers, mainly from Hunan and Sichuan provinces. Mobility is not obvious as many of them were stabilized with their family members for more than 10 years.

Figure 5. Ancestral hall and its surrounding multi-story village villas (Photo taken in 2014)

The traditional clan village was no longer the dominant living space along with some of the clan members’ moving to commodity residential district or the city center. The population proportion of expanding immigrant community and shrinking local neighborhood reach around 1.2: 1. In the late 2000s, the township government decided to release more collective land by promoting peasant apartment under the policy of “nongminshanglou”, literally meaning peasants living in high rise residential tower. Occupying 61.06 acres area of collective land, township government, cooperated with Beijiaobei village cooperative leader, spent 500 million in the first peasant apartment project “Bei An Mei Lu” with 605 villager removal settlement units (Figure.7). Without any local identity, “Bei An Mei Lu” and the opposite high rise commodified residential towers have broke through the quiet skyline, overlooking the surrounding involving landscape. High rise buildings, high-ended furniture malls as well as the village park linked by accessible car road shows local governments’ efforts to use planning for modern propaganda (Broudehoux, 2004).
Case II: Village Development as "One Man’s Business"

Zhongtang Township (中堂鎮), located in fringe of northwest Dongguan, was once a prosperous region of paper and sugar manufactured industry in late Qing Dynasty and Republican China. After the economic reform, seldom foreign investor was interested to set
up their business in Zhongtang due to the poor infrastructure and the remote location to Hong Kong. Originated from the Li families in Southern Song Dynasty, Huangchong Village was one of struggle villages in Zhongtang. Actually in the early 1970s, village leaders have started several village enterprises such as brick manufacture factory, cement factory, breweries factory, paper factory and grass matting factory. Cement and brick factories well benefited from the construction boom of Shenzhen in 1980s. Attracted by the low price land and natural river resource, few foreign enterprises came to Huangchong including a large paper company Hong Kong Liwen Ltd in 1994. By observing Liwen’s business, a critical decision was made by Mr. Li, the associate director of village party office to expand the village paper enterprise, with consideration of the raw material of brick and cements would eventually fall into decay. Along with the success of the village enterprise Jinzhou Paper Ltd. and Yinzhou Paper Ltd in early 2000s, the village landscape made huge difference undertaken by the village party office (Figure.8).

Graduated from Communist Party School of Economics and Management, Li, who joined the village party office since 1994. Apart from the administrative position in village party office, he has also established Dongguan Huangchong Foreign Economic Development Corporation and acts the role of the general manager of the village enterprise. Supported by the village administrative system, village leadership power of both village party office and village economic cooperative reinforces one another between the township and peasantry. Dominant significantly in the fiscal income of Zhongtang, Huangchong village enterprises enables their leader’s overwhelming control in every aspect. Li was responsible for sourcing external investment and enterprise management, while another village leader was responsible for the village development strategy. Li Xikui and his office partners were titled as the “commander in chief” for the reason of their multiple tasks, ranging from the detail labor division coordination in village enterprises to the overall village planning scheme and housing development. Village planning is a fresh concept to most villages but it was never new to Huangchong’s office leaders. Unlike the unregulated spontaneous industrial land use in other villages, said by Li, the planning concept of Huangchong to physically separate the factories and residential area was archived after analyzing the land structure from the village aerial image in 1987. As the largest traditional settlement is located in the south side of Huangchong village, factory sectors were planned to allocate in the north side, adjacent to the east branch of Pearl River. To further reinforce the zoning function, an east-west main business corridor was designed in between industrial and residential district, gathering modern style public buildings such as sports center, opera stage, and the infrastructure offices. (Figure.9)
Village urbanization is the favorite word of Li. Enhancement of community social infrastructure were considered as a main target by village leaders since 2000s, with the establishment of the landmark projects such as the Taiwan Businessmen's Dongguan School in 2002 and first phase of Farmer’s Commodity Housing in 2007. Without concealment, Li was candid that the traditional villages would definitely disappear within no more than 20 years (Figure.10). Huangchong seems never ceases its ambitious rural urban transformation under its active commands.

Figure.8. Village paper enterprise factory, Huangchong Village. (Photo taken in 2012)

Figure.9. Ariel Map of Huangchong Village, Zhongtang. (Resource: Google Map)
5. Conclusion

Through the historical review and the case investigation, the study records the involving industrial landscape of traditional clan settlements, and further explores the varieties of the local modernization strategy under the regional planning schemes in PRD, China. It is suggested that the traditional clan villages was governed to achieve the socialist mode of production under Mao, while in the post socialist conditions, they are being created with modern identity under the mechanism of local capitalism against state socialism. Such dramatic rural transition could not have been happened without the traditions of the clan leaders’ crucial role and collectivistic basis formed in late feudal and communist period.

Under the transition of state planning ideology after the economic reform, the rural revolution has witnessed a radical shift from spontaneously unregulated land use conversion, to the arising modern facilities, resulting the spectacle of hybrid rural urban landscape. In Zhongtang Township and its prosperous village like Huangchong, management of both village enterprise and spatial propositions are highly concentrated in the village cadre’s seat. It is like one man’s business taking charge of every single detail. The modernity promoted in the multi development phases reflects the flexibility of adapting various kinds of advanced market economies, and moreover, to sustain the village leader’s constant superseded role of the township government. In contrast, the township authorities are possible to gain the right to develop parts of the village collective land in collaboration with village cadre in the case of Lecong. According to the capital coalitions of township and village government, local recourse and spatial schemes were resembled among the villages of Lecong Township, demonstrating the equal controls of village and township with consistency.
The difference of village power control over the village collective land in both cases actually reflects the collective and stated-owned land proportion in original village administrative boundary. In fact, the state has inverted some of collective land into governmental land automatically through “Four-one” project in Lecong case, since the new provided road system was statutorily belong to government. Such conversion from collective land to state-owned land provides the potential feasibility to further alter the remaining collective properties use. In contrast, over 90 percent of village collective land including residential, industrial and infrastructure use were still owned by Huangchong village, which imply the high degree of planning autonomy of Huangchong Village Office.

Without surprise, industrial zoning in 1990s and high-rise peasant apartment projects in 2000s gained extensive popularity among the elites in both cases, because these urban settings manipulated are considered to be the preservation of local power territory on the village collective land property against the graduate occupy by the central and provincial governments. Contesting in the rural urbanization campaign, planning in China in post-socialist context becomes the product both of a renewed support of professionalization as well as of the decentralization of development powers (Abramson, 2008).
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The Influence of the Jing Sui Railway on Modern Development and Transformation in Datong
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[Abstract]
The setting of the traffic lines, traffic nodes affects the development direction of a city to a great extent. The Datong city in Shanxi province, China locates in the intersection of Shanxi, Hebei and Inner Mongolia provinces, and it has been an important town since YAN times. The city constructed by Ming Dynasty based on Liao, Jin, Yuan Dynasty laid the foundation of Datong city today. Because of its important position in the military, the constantly recharge of items from all over the country promoted the rapid development of business. At the same time, as the "tea horse" business center, its foreign trade and economic cooperation were also very prosperous.

In 1914, Datong's acceptance to the Jing Sui railway line became the most important turning point during its history. Thus, the connection between Datong and the capital, port cities became increasingly prosperous. Its original function as a regional pole has gradually become the hinterland of larger regional core. The planar radiation structure between Datong and business ports in north China was substituted by linear relationship. Generally speaking, the construction of Jing-Sui railway not only promotes the development of transformation, but also changes the urban functional reorganization in north China.

Through the methods of literature review and field research, this article focuses on the analysis of the influence on the development and transformation of this traditional political and military center and the impact on the distribution of city group, even the formation of urban function since the construction of Jing-Sui railway. It is objective to summarize the impact on the modern transformation and the space layout by the railway as the main mode of transportation, and therefore stating the important role of public decision-making in the development, transformation and layout of a city in order to provide references for the contemporary Chinese public planning.

Key words
City Development Transformation ; Jing-Sui Railway ; Modern Datong ; Public Planning

1 Background and Significance
Since the beginning of 1840s, the development of China's urban construction has entered a new phase. Foreign cities' ideological and theoretical planning started acting on the related fields of urban planning and studying foreign experience and building local planning.
and construction theory have been influencing each other. History proved that foreign theory or experience has a positive role in promoting the practice of domestic urban construction. However, building the local planning system is the way to solve their local fundamental problem.

It became the most important turning point in the history of the Datong development when it was included into Jing Sui railway line at 1914. Thus, the relationship between Datong and the capital and trading ports was increasingly prosperous. Its original function as a regional pole gradually became the hinterland of larger area. Datong’s linear contact with the North China treaty ports replaced the planar radiating structure before. This paper selects Jing Sui Railway and Modern Shanxi Datong for study, through the methods of literature review and field research to study the joint effect of foreign culture and local culture of public decision - Jing Sui railway construction, and focus on the analysis the effects of Jing Sui Railway construction on Datong city development, urban functions and changes in other aspects of railway layout of urban space, and to show the correct attitude toward foreign culture while exploring the merits of the local planning ideas in the field of transport and urban development, then provide support for the construction of the local planning system.

2 Glossary

2.1 Jing Sui railway lines: from Beijing Fengtai district to Suiyuan Guisui County before, now part of the Beijing-Baotou railway section.

2.2 Guisui County, Suiyuan Province: Suiyuan Province was one of the Saibei four provinces of the Republic of China (Rehe province, Chahar Province, Suiyuan Province, Ningxia Province), referred to as Sui, the provincial capital Guisui (now Hohhot) which was wasted in 1954 and accepted into the Inner Mongolia Autonomous Region. (See Figure 1)

2.3 Beijing-Baotou Railway (Beijing - Baotou): Starting from the Beijing North Railway Station, ending in Baotou East Railway Station. Formerly known as Jing Sui Railway. Beijing-Baotou railway starts from Beijing, via Zhangjiakou, Datong, Wulanchabu (Jining), Hohhot, and finally to Baotou, is a leading railway in northwest China. (See Figure 1)

3 The Study Objects

3.1 Datong
Built in Qin and Han Dynasty, Datong was the capital of the Northern Wei, as the provisional capital of Atlantis of Liao and Jin. The government established in the Ming and Qing dynasty is one of the Nine Important Cities. Datong is in northern Shanxi, northeastern edge of the Loess Plateau, also in the convergence zone of Hebei, Shanxi, Inner Mongolia provinces (see Figure 2). Due to geographical constraints, land transport is the main form of Datong and outside traffic since ancient times. Datong east by hunyuan into Zhili to Beijing, as the old routes to Beijing, to the south by Wai Yan, Qi County to Taiyuan, Suiyuan west, north to Mongolia and Russia. Long history city, excellent location, well-developed land transport make military and political factor as a key factor of Datong, and also affect urban development in the 20th century.

Today, Datong is the national historical and cultural city, one of China's ancient capital; also the second largest city in Shanxi Province, the provincial deputy central city, country and heavy chemical energy base, influential international city, known as "China Sculpture all," "Phoenix" and "China coal". The proportion of Datong GDP in 2012 is 5% : 59% : 36%, Datong's city function is changing into the economic and the administrative center of northern Shanxi Province.

3.2 Jing Sui Railway

Twenty-nine years of the Qing dynasty (AD 1903), businessmen included Minghe Li, laid Beijing to Zhangjiakou Railway petition, while the Qing court refused the permission of the proposed government-run. To thirty-one years (AD 1905), starting from the rail boost the money, while businessman pleased Jingxi coal railway building, to thirty-two years (AD 1906), the commercial department repaired Jing-Zhang railway, named jing-men railway branch.

Xuantong first year (AD 1909), Jing Zhang would be completed in time and the repetition of Zhang Sui Railway was accepted. November 1911, the opening to the GaoYang stopped, because of the Wuchang Uprising. In four years in September (AD 1915), it arrived in Xinfeng segment, 1916 Jing Zhang and Zhang Sui two-way merged, renamed Jing Sui Railway. In 1917, building Datong coal branch, and the whole road opened to traffic in 1921. The route stretching Yan Jin, was about one thousand and sixty-five Comptroller, the East contacted North Ning and Ping Han two-phase, the West with Sui Bao and Sui Ning two convergence. January 1923, it opened to Baotou, length 817.9 km. (See Figure 3)
4 Government decision-making and Jing Sui Railway

4.1 Era Background

The rise and development of China's railways were in the modern era of a war turmoil, strife and contention of struggling for the right of railway made the right path in modern China Railway Construction doubly difficult. Defensive characteristics of Chinese society has also hampered the development of railway construction, on the one hand, there was a dispute whether or not to build the railway, on the other hand was the emphasis on defense of early Chinese railway functions. Qing government’s attitude at first refused to treat railroad, gradually transformed into acceptance, and finally decided to build. The enemy capital, sick people and unemployment were three rejected factors of railway construction, and military considerations was the most important reason for this shift.

Westernization Movement provided a good environment for the railway coming into China. First, the government sent children abroad to learn advanced science and technology; Secondly, the railway knowledge through a variety of books and magazines gradually spread; Thirdly, the creation of schools trained technical personnel independently. With the deepening of the Westernization Movement, people's attitudes towards the railway have been gradually changing.

After Sino-Japanese war, the railway industry as a huge role in strengthening national defense and commerce became increasingly apparent, the Qing government more clearly understood that the railway was “the reason for rich and powerful” and must be “carefully planned” and established mineral Administration in 1898, in charge of setting up the railway matters. However, due to the national treasury, it relaxed restrictions on private railways and allowed merchants to raise funds, setting up companies. By 1903, the Qing government developed the commercial department of the "railroad simplified prospectus", and the policy provided a good background for JingSui Railway.

4.2 The purpose of the construction of the Jing Sui Railway:
After the Sino, purposes of new railway no longer confined to the role of military defense, while commercial transportation has gradually occupy a major position in the construction of the JingSui Railway. The decisions were made for two purposes. Politically, outsiders and foreign penetration made Chinese railway change hands, thus the government hoped to safeguard national sovereignty by building railway by themselves and implementing railway construction technology independently; on the economy, the government gradually saw the tremendous value of rail transport, which could enhance the contact between Shanxi, Hebei, Inner Mongolia and Beijing, and promoted the development of industry and commerce of northern China.

4.3 Significance of Building Jing Sui Railway

Railway construction from 1894 to 1923 played an important role in the history of the development of China's railway transport and laid the basic framework of China's railway transportation network, while Jing Sui Railway as well as had more special meaning:

1) As the main traffic route in North, Jing Sui railway accelerated the trade between Northwest region and the Mainland, and played a huge role in the birth of the city of Jining, made Baotou change from a small town into a big city, affected the cities pattern of Datong and Hohhot, changed the functions of the city of Datong, played an important role in promoting the economic development and formation of China's Inner Mongolia, Shanxi and Hebei region.

2) By analyzing the "IEEE Transactions Pingsui technology," local designers referred to foreign advanced railway technology and put it into practice to achieve a fully localized in Chinese railway technology in the construction of the Jing Sui Railway, which had important guiding significance for us to learn advanced foreign theoretical experience and built local planning system.

3) Jing Sui Railway was built in 1905-1923 years, spanning the late Qing Dynasty and the Northern Government periods, creating a miracle under different social backgrounds, using various channels to raise funds independently to complete the feat of railway engineering, but also training a large number of outstanding railway technical personnel.

5 The Impact of Jing Sui Railway on Datong City Development

Before the construction of the railway, by geographical constraints, Shanxi's contact with the outside world relied mainly on post road and the carriage was the main means of transport. After 1907, rail transportation became a major way in Shanxi and offshore. Along the lines, towns from scratch and rapidly emerged prosperity, and some towns because of the set of the railway station gave birth to a new land, which led to the structural layout of the city changes.
In 1914, Datong station was opened to traffic, therefore Datong ushered in a new opportunity for development and its commerce and trade developed rapidly. In 1923, the Jing Sui Railway to Baotou made Datong become the central site of Jing Sui line, and the importance of Datong upgraded again; 1936, Tongpu Railway (Datong to Yongji) opened to traffic, thus Datong’s function as a transit station officially formed. (See Figure 4)

5.1 Jing Sui railway and industrial structure in Datong City

—" Ming Dynasty the department located in the northwest corner of the town with one hundred thirty-five thousand military system. In order to meet munitions, supplies across the country continue to Datong and commerce and trade are very busy; Meanwhile, as a " tea -horse trade", "the center of Datong city " bustling affluent, more than the south"

Due to the important position of military geography, Datong has a long history. All along, Datong not only trade flourished, and because the northern border is located, it was also an export-oriented commodity distribution center and trade center. Therefore, military supplies and trade goods distribution of transit-oriented industries constituted the leading industry in Datong, the proportion of primary industry and the tertiary industry was low.

After the opening of the railway, due to the great advantages of rail transport, railway transport industry of Datong developed rapidly; rise of new industries also contributed to Datong’s economy; at the same time, transport of various types of fur-based industry company appeared including grain, wood, coal. Meanwhile, the growth of commercial capital and industrial capital gave birth to the emergence of modern financial industry, banking, ticket number, as many as dozens of. Datong’s second industry continued to dominate, but the development of the tertiary industry makes Datong industry bodies became more reasonable. Changes in the industrial structure made the city’s economy richer, providing more employment channels to promote the modernization of its development.

5.2 Jing Sui railway and urban function of Datong

Under natural economic conditions, post road transport have difficulties, so transportation system lack of traditional waterway only can maintain administration, consumption-based traditional towns. Such as Datong, which supplied it with rural economy and relied mainly on military and administrative functions, industrial and commercial production systems do not have the possibility of further expansion of city size or shape. Since various functions continue to improve, the modern military administrative status of the city is still the decisive factor in urban development.

The advantages of modern rail transport modes lies in its line of fast and cost savings that can make goods and personnel transferred over long distances in a short time. Under the influence of rail transport, the input and output commodities contributed to the rapid development of internal and external trade. Jing Sui Railway shortened the distance between Datong and Beijing or trading ports, so Datong’s commercial trade ushered in the opportunity of rapid development. Since then, agricultural products from Gansu, Ningxia, Inner Mongolia and other provinces can be transported by rail to inland for resale or transferred to Tianjin for exports. While, cotton, kerosene, paper and other goods in Beijing-Tianjin region can be transported to the Mainland by Jing Sui Railway, Datong in the
process will assume the functions of the transit of goods and sales; while its role as a core function of the original northwest Shanxi area gradually became the core of a larger hinterland region, its urban functions also from the military and administrative center gradually transformed into Shanxi Province, Meng Nan, Ji West transportation hub and economic center. Beijin, Tianjin, Qinhuangdao and other cities regarded Jing Sui railway as medium, and Datong as node, put into development along the rural hinterland, thus contributing to the development and construction of the entire North China’s modern cities. (See Figure 5)

5.3 Jing Sui Railway and Datong city space structure and morphology

The development of Datong railway transport industry, commerce and the foreign trade formed a crowd gathered effect and logistics. On one hand, railway workers mainly working class gradually appeared unions; prosperity of commerce and industry on the other hand demanded increases the employment of workers, a large number of unemployed peasants flocked to the surrounding cities, significant changes in the class hierarchy, the city has also undergone a corresponding change in the layout.

Before railway traffic, same with the most traditional cities, industrial and commercial center was in the city of Datong, " one hundred thirty-six city street corners, houses more than fetters, there is no open space." (See Figure 6) After the railway station built four miles from north door, new industrial and commercial crowd crowded here, because the rise of the Datong station and its surrounding space transportation industry, the service sector became a new city. To see the city from the spatial pattern formation, "picture-city" layout of the city formed. The old town with traditional administrative bodies, still the maintain political functions, and the new district was to break the shackles of the wall, along the railway was built with irregular shape and prominent economic function. (See Figure 7) The evolution of urban spatial structure highlights that the Datong is being changed from a traditional feature of military control, consumer center to a modern urban economy changes.

5.4 Cities along Jing Sui Railway

Railway operation not only affected railway station cities significantly, but also accelerated the development of the cities along the railway line. Plenty of north China cities traditionally located in the post road or waterways, which more selected military and political center and transportation hub as its functions. After the completion of the Jing Sui railway, the pace of urban transformation to modernization accelerated. Some small towns because of this opportunity opened up a new era of development, and the building of

Figure 5 Jing Sui trade center along the railway signal transfer
Jing Sui railway reconstructed the distribution of cities along.

Firstly, railway determined the distribution character of urban countries. Before the railway construction, the main town in Shanxi distributed along the post road, after the railway's forming, the original towns along the railway gradually evolved into a commercial and industrial town, railway hubs, rail or road intersection with the inn, the development of urbans with a mineral or economic hinterland is most rapid.

Secondly, the railway traffic has accelerated the town level differentiation. Before railway construction, the amount of commodities circulation is small, and commodity distribution level scale is significant; with the railway, a large number of goods can be carried long distances in a short time in circulation, thus depending on the scale of the logistics division level, the commodity trading market scale formed naturally.

Thirdly, Railways increased the relationship of urban and rural areas, urban and city, also contributed to the modernization of the regional cities. Jing Sui Railway shortened space area of the city of Datong in North China from one hand to make the regional center of Datong city status more stable, it also made the hinterland of large urban centers in North broader.

6. **Summary - urban development under cultural integration**

This article is based on the localization of urban planning decisions, setting modern Datong as an example, on the one hand, analysing the impact of Jing Sui railway construction on urban development direction and spatial structure, including the transition of function from the military and political center to commercial and economic center, from urban land expansion of freedom to change the orientation of development, but also changed the relationship between the area of the city - from the regional Development polar nuclei into a larger area of the city in the hinterland. These changes affect the Datong industry bodies, broaden the channels for the exchange of commodities outside Datong, accelerate the effective use of resources,
in a wider regional context, and promote the economic development of the city's along railway. On the other hand, the Jing Sui Railway used foreign advanced technology, combined with the concept of local designers, achieved strong government support, was the theoretical model of localization experience abroad, and had important guiding meanings for us to learn foreign thoughts and build local planning theory rationally.

Modern China's urban development history is a long and complex process which is the beginning of China's urban "urbanization" phenomenon. This phase of research about achievements in urban construction, urban development ideas and experience has great importance for us to appreciate the interplay between tradition and modernity, especially the timeliness and rationality of traditional ingredients, then explore, summarize, and understand the evolution complexity of modern Chinese cities.

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Interpretation on the Administrative Space Pattern of Chinese Ancient Capital from the Perspective of Central Official System Evolution
Yuan Lin, Yuan Lin

[Abstract]
In ancient China, administrative spaces play a very important role in framing urban space structure of capital cities. The ancient administrative space patterns in capital cities are directly affected by both urban planning institutions and administrative institutions, especially by central administrative institutions. The core administrative space in capital cities contains two parts: the empire palace and the central government offices which are separate buildings close to the former, and the whole layout always affects the relationship between the empire and the central officials in different dynasties. The location and pattern of empire palace and central government offices in capital cities in different dynasties are also affected by different institutional factors, such as the idea of country governance, administrative institution, central official power distribution and so on, whereas, we can also re-understand the changes of administrative institutions through analyzing the changes of space patterns of empire palaces and central government offices in different dynasties. This research focuses on the relationship between central administrative institutions and space patterns of empire palaces and central government offices in different dynasties to re-interpret the capital space patterns in ancient China, especially focuses the Tang and Song Dynasties during which the changes of the institutions are very significant and important in Chinese history.

[Keywords]
Official institution, Capital, Administrative space, City space pattern

I. Introduction
In history, after a new regime was established, establishing imperial rites, making official system and building capital took priority over others matters. Imperial rite is the rite between the monarch and the ministers, namely the power relationship between the monarch and the ministers; official system is the power relationship, distribution and organization between the monarch and the ministers as well as between the ministers, such as the “Three Lords and Nine Ministers System” in the Qin and Han Dynasties, the “Nine Courts and Five Directorates” and the “Three Departments and Six Ministries” in the Sui Dynasty; capital is the physical space carrier of imperial rites and official system. Therefore, in history, the pattern and system of the administrative space in the core of ancient capitals were affected by capital construction system, namely the constructers’ overall control towards the capital space
in the initial construction stage, and by the official system, especially by the central official system. The characteristics of the official system and political system will also be reflected in the administrative space of the capital.

The central government office had different names and composition modes in different dynasties, but its core space which is the most powerful authority is the governmental affairs discussion place of the chancellor. From the morphological perspective, the governmental affairs discussion place of the chancellor was a relatively independent building group near the imperial palace in history. It symbolizes the interdependent and contradictory subtle relationship between the monarchical power and the chancellor’s power to some extent. The ancient imperial palace, the governmental affairs discussion place of the chancellor and its pattern were influenced by the state governing concept, administrative system, chancellor’s power setting and other factors, undergoing great changes. On the contrary, the spatial relationship between the governmental affairs discussion place and the imperial palace reflects the relevant characteristics of the imperial rite system and central official system.

II. Development Stages of the Capital Central Government Office System from Two Perspectives

(1) Development Stages from the Perspective of Political History

Hirata Shigeki, a scholar in Japanese political history field, proposed the concept of “space” (political space) in his study and divided the central government office system according to the characteristics of the spatial form, participants and participating forms of “space”. It is also an important theory of combining abstract politics and concrete space.

According to the features of “space” in different periods, he divided the development of the central official systems in Chinese history into 3 stages: ancient times, medieval times, and the later Tang Dynasty. Beginning with the Qin Dynasty and excluding the Xia and Shang Dynasties and the Spring and Autumn and Warring States Period, the ancient time mainly includes the Qin and Han Dynasties. During this period, “big discussion and chancellor discussion were held by the bureaucrats with certain status”. However, Hirata Shigeki just briefly described “political space”, so no significant characteristic was found for space form. Medieval times mainly refer to the Six Dynasties as well as the Sui and Tang Dynasties. In this period, “various special meetings and chancellor meetings began to develop”, and the core of “space” (political space) for the decision of the bureaucratic group gradually formed. Besides, the “space” for the decision of the aristocratic family groups even broke away from the political power of the monarch. The third stage refers to the period after the late Tang Dynasty, namely the second half of Chinese history including the Song, Yuan, Ming and Qing Dynasties. In this period, “the ‘space’ for the decision of the monarch developed a lot as a system to directly contact the monarch and the bureaucrats. The decision-making process was transferred to the space with monarch as the core.”

With the evolution of dynasties, the official system gradually became mature and kept different uniqueness in different dynasties. For example, as the chancellor system was gradually formed, the central power wasn’t held only by the monarch any more. Instead, a power group with different forms in different periods, such as aristocratic family in the Tang Dynasty and officers in the Song Dynasty, was formed. In the same period, perhaps there were several power groups supporting the monarch, such as the eunuch group, the chancellor group and the military governors in the late Tang Dynasty. As the central official system became mature, the number of the members from these power groups increased and the power was decentralized. They constrained each other, become a huge system to safeguard the monarchical power. This is also the essence of the central government office system.

As we see, the buildings standing for the chancellors’ power space in the Pre-Qin, Qin and Han Dynasties, such as the imperial court and Mansion of Chancellor of the Masses, were with high level and big area. Some even share the same structure with the imperial city. However, changes emerged in the Wei and Jin Dynasties. Different kinds of political space were divided with division of power. For example, the pivot of the imperial meeting was the “senate” meeting held in the imperial palace, during which the aristocrats (bureaucrats) gradually shown its insubordinate property; on the other hand, the monarchical power is mainly concentrated in the Hall of Supreme Principle and the imperial court.

In the Tang Dynasty, the central government office gradually evolved into office and the space was decentralized and miniaturized. Besides, various “power space” (Yanying Hall, etc.) with interference of monarchical power appeared in the imperial city. This transition occurred probably in the middle Tang Dynasty. In the first half of the Tang Dynasty, the monarch “administrated the governmental affairs in the main hall and controlled the bureaucrats with personal power”; in the latter half of the Tang Dynasty, the political system that the bureaucrats gave face-to-face statements to the monarch with Yanying Hall as the center” was developed. Later, the Song, Yuan, Ming and Qing Dynasties inherited, carried forward and stabilized this political system, so a central political spatial system was formed that the imperial palace of the capital and the central government office were juxtaposed in space but their space forms and grade were greatly different.

(2) Development Stages from the Perspective of Architectural History and City History

Mr. Fu Xinian noticed the several important changes of the distribution and functions of the central government office in history:

A). Distribution and pattern. In the Three Kingdoms and the Northern and Southern Dynasties, the central government offices in the imperial palace were juxtaposed with the front gate of the imperial palace, and the government offices outside the imperial palace were mainly distributed in front of the palace; in the Sui and Tang Dynasties, central government offices were mainly distributed in front of the palace and in the imperial city; in the Ming Dynasty, the central government offices were only distributed outside the imperial city.


B). Functions. Pure office-functional central government office was formed after the Tang Dynasty. Before the Tang Dynasty, the mansion of the chancellor was always the governmental affairs discussion place.

Mr. Guo Husheng summarized the 3 stages of ancient China by proposing “the Warring States System, Yecheng System and Bianjing System”. 4 The system also includes some of his interpretations on the central government offices in history, “Generally speaking, after the Han State inherited the Qin centralization, Emperor Wu of Han strengthened the monarchical power and weakened the chancellor’s power; thus, the court was divided into internal court and external court and finally Nine Ministers were replaced by chancellor. As a result, since the period of Yecheng, the court had been juxtaposed with the imperial palace and the Juxtaposition System was formed. Therefore, the imperial palace in the Wei, Jin and Northern and Southern Dynasties was juxtaposed with Nanyuan Gate. There were 2 corresponding main roads in front of the palace. … There was imperial city in the Sui and Tang Dynasties, but there was no one in the Song Dynasty. However, it appeared again in Ming and Qing Dynasties, whose contents were different from that in the Sui and Tang Dynasties. It underwent a transmitting process. The imperial city didn’t need to conform to the requirements of the Rites of Zhou System.” 5

Although the 2 scholars made analysis in different ages and from different perspectives, they had something in common in interpreting the central official system. Both of them described the formation and development and independence process of the chancellor’s power and the court as well as the process when they were suppressed by the monarchical power. Obviously, during this process, the power and system changed slightly faster than the architectural form.

III. Long-Period Inspection of the Central Official System and Government Office System in History

Referring to the above scholars’ understanding for the central government office system, I study the location relationship between the central government office and the imperial palace or imperial city in different periods as well as the similarities and differences of characteristics of the central official system in different periods by studying archaeological materials and references according to the time sequence of Chinese historical dynasty. As a result, the author grasps the relation between the political system and government office buildings as well as the law of their change.

(1) Pre-Qin

Central official system was established in the early Western Zhou Dynasty. King Tai of Zhou, reformed the customs of the Northern Barbarians, built city walls and houses for people and set up Five Departments.(貶戎狄之俗，而營筑城郭，室屋，而邑別居之。作

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Unfortunately, it is very difficult to find the building site with consistent functions in the Pre-Qin capital site.

At present, capitals which have been clearly found as archaeological sites include: Erlitou Site in the Xia Dynasty; Shang City Site at Zhengzhou, Yanshi and Huanbei and Ruins in Anyang in the Shang Dynasty. Among such cases, limited by the depth of the archaeological materials, archeologists have only analyzed Shang City Site at Yanshi with higher legibility in urban structure (such as inner and outer city walls, imperial palace and architectural bases). At present, nature of Shang City Site at Yanshi has been determined as “Western Bo of Tang Capital” by archeologists.

The basic pattern of Shang City Site at Yanshi was that the large city was combined with the small one and imperial palace was located in the small city in the middle south. The southwestern part of the imperial palace was regarded as the main palace with the court in the front and the sleeping palaces at the back. The area consisting of the No.2, No.3 and No.7 palace sites was regarded as the main front court for “holding state affairs and activities and handling political affairs”⁸; the main No.2 and No.3 architectural bases outside the imperial palace were respectively located in the southwestern and northeastern corners of the imperial palace with “thickly special and closed colors”⁹ and recognized with the functions of “natures of a protective city combining mansion, granary or gathering troops for safeguard”¹⁰. In other words, the building groups outside the imperial palace were mainly characterized by storage and protection without classifying the government offices and architecture. It’s estimated that morning meetings at that time must have been held in the external court in the imperial palace, as is shown in Diagram 1.

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¹⁰ “The No.2 square small city was found in the southwestern corner of the outer large city with nearly 200 m in length of each side and an area of more than 40,000 square meters. It has cob walls of 2 m in thickness all around and 6 lines of architectural sites in strip shape inside with 16 seats each line. Every site is more than 20 m in length from south to north and 6 m in width from east to west with corridors outside and 3 parts inside divided by partition walls endwise. The shape, size and space of the base are regular and unified. No. 3 small city (or No. 3 site of the building group) was found in the northeast of the internal city and outside the external small city within the scope of the external large city with a nearly square shape and bounding walls of 2 m in width.” Zhang Guoshuo. *Study on Capital System in the Xia and Shang Dynasties*. (Zhengzhou: Henan People’s Publishing House, 2001), p. 34.
Figure 1 Large Building Group Sites outside the Imperial Palace of the Shang City Site at Yanshi and External Court in the Imperial Palace


(2) The Qin Dynasty

The Three Lords and Nine Ministers System was established in the Qin Dynasty, but the specific official posts and the affiliated departments were not specifically described. The document only mentioned that Xianyang Palace and the front hall of Epang Palace were used to meet all ministers:

Take Xianyang Palace as an example. King of Qin or Qin Shi Huang “met the ambassadors or distinguished guests from vassal states, held a grand national banquet to celebrate the birthday of emperor and discussed state affairs with all ministers”\(^1\) in Xianyang Palace.

Take Epang Palace\(^2\) as another example. It was first built in the 35th year during the reign of Qin Shi Huang but suspended in 207 B.C. when the Qin Dynasty was destroyed. Epang Palace was built for 2 reasons. The first reason was that the old Xianyang Palace was small: “Qin Shi Huang thought that the population of Xianyang was large but the palace of the former king was relatively small. … So he ordered to build palaces in Shanglin Palatial Garden. The front hall of Epang Palace was the first to be built.”\(^2\) The second reason was to meet all ministers: “Qin Shi Huang built 146 detached palaces outside the imperial palace in Shanglin Palatial Garden, but they were still not enough to meet all ministers. Qin Er Shi rebuilt Epang Palace which stretched for 3 li from the east to the west, about 300 steps from

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\(^2\) *Sima Qian* (司马迁). *Sixth of Biography of Qin Shi Huang* in Volume Six of Records of the Grand Historian
the south to the north and the downside of which could be built with a 5-zhang-long flagpole (五丈旗). Located at the hillside, it was called Epang Palace.”

Above all, Xianyang Palace and the front hall of Epang Palace of the Qin Dynasty were used by emperors to “meet all ministers” just like Yanshi City of the Shang Dynasty. Besides, the concept of “front hall” was proposed and a system was constructed to symbolize that the emperor was the core of the central power. Meanwhile, it also meant that no building group which was independent from the imperial palace and consistent with the central official system of the central government had been formed yet.

(3) The Western Han and Eastern Han Dynasties

The Three Lords and Nine Ministers System was still in use in the early Han Dynasty. Three Lords referred to the chancellor, the Imperial Secretary and the Grand Commandant. But its connotation was a bit different from that of the Qin Dynasty. Firstly, compared with the extreme centralization of the Qin Dynasty, the monarchical power of the Han Dynasty was weakened. While in terms of the chancellor’s power, the Three Lords’ power was shared by the newly set internal court officials. The monarchical power and the chancellor’s power restricted each other and reached a new balance. Secondly, the functions of buildings of the imperial palace were separated. The imperial palace which had been used as the emperor’s living room and for imperial rituals and imperial conferences was divided into the imperial palace, courts, mansions of the Three Lords (Two Mansions) and ordinary official mansions.

A) Imperial Palace. Many new palaces such as Changle Palace, Weiyang Palace, Bei Palace, Gui Palace, Mingguang Palace and Jianzhang Palace were built in the Han Dynasty, and most of them were outside the imperial palace. From this, we know that the functions of the imperial palace were divided to some degree and the imperial palace was more for daily life.

B) Court. The court system was formed after the reign of Emperor Xuan of Western Han and the court became the place where ministers discussed state affairs: “Though Weiyang Palace was the main palace in the Western Han Dynasty, its court meeting was recorded to be held in the Mansion of Minister of the Masses. The emperor discussed important state affairs in Palace for Ministers Morning Meeting in the mansion which was equivalently an external court as recorded in “Rites of Zhou”. But palaces were mainly used for dealing with state affairs and daily life without being an external court in the Western Han Dynasty.” At that time, “political affairs were dealt with in conferences of various levels such as court meetings, minister meetings, officials meetings, Three Lords’ meetings and others.” Therefore, we can say that court was the real political center at that time.

C) Two Mansions (二府). Two Mansions was different from ordinary official mansion system in shape and structure. Since the chancellor’s power was great in the Han Dynasty,

13 Literary Selections of Xiao Tong. Volume Three.
Two Mansions shared the same structure with the imperial palace: “The chancellor attended to numerous affairs every day and governed various aspects. The emperor didn’t handle state affairs in person and the chancellor made decisions on political affairs alone. So his status was the most honorable and he was the most powerful. The chancellor’s seat was set under the imperial seat when he visited the emperor. When the chancellor fell ill, the emperor would go to visit him in person. Just like the imperial city, the chancellor’s mansion was built with 4 gates. This was an exception in the regular officials’ mansion system.”

The specific shape and structure of Two Mansions had a high level: “In Mansion of the Chancellor… There was a house which was used as a parking lot. There was a Palace for Ministers Morning Meeting. Once there was an important event in the state, the emperor would take his carriage and go to the palace in person to discuss the state affairs with all officials. Ying Shao said that it was an external court, which was quite correct. In the Early Western Dynasty, the capital was determined to be Chang’an. Xiao He followed the system of the Qin Dynasty and built the front hall only which was designed for the New Year’s Meeting, meeting all officials, weddings and funerals. Various political affairs were assigned to the chancellor. When there were great policies to carry forward in the state, the emperor would handle it in Two Mansions. There was a changing room for those people below princes and marquises in a place where they had their having internship in the government. It proved that they had participated in discussing political affairs with the emperor. Yellow Pavilion where chancellors dealt with state affairs got its name because its door was painted yellow… In the Yellow Pavilion, the room where chancellors and ministers dealt with state affairs was huge and majestic and was also called hall. Like entering the imperial palace, they should take off their shoes before entering the hall. …Official mansions in the Western Han and Eastern Han Dynasties all had official residences and houses to accommodate their families. They were known simply as official rooms and chancellors’ rooms. Their rooms were quite spacious consisting of corridor, courtyard, hall and officials’ residences to accommodate chancellors’ subordinate followers. There were also guest houses, stables and rooms for slaves and maid-servants. According to the name of the Eastern Corridor, it was possibly located in the east of the mansion. …Imperial censors’ mansion which was located in Sima Door in Weiyang Palace was also called censors’ office… Same with chancellor’s mansion, we can’t know its internal hall and room structures with the passing of time. （署曰丞相府……门内有驻架庑，停车处也。有百官朝会殿，国每有大事，天子车驾亲幸其殿，与丞相百官决事，应劭谓为外朝之存者，其说甚当。盖西汉初营长安，萧何袭秦制，仅制前殿，供元会大朝婚丧之用，而庶政委诸丞相，国有大政，天子就府决之，观政西有王侯以下更衣所，足为会朝议政之证。至若丞相听事之门，以黄涂之，曰黄阁……

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D）Ordinary official mansions. Official mansions in the Western Han and Eastern Han Dynasties were scattered both inside and outside the imperial place. Some were with official residences and houses to accommodate their families and some government offices or residence were scattered among the civilian houses outside the imperial palace, possibly related to characters of official positions and official rank.

In the Eastern Han Dynasty, the great chancellor’s power was changed again. “Emperors began not to attend the meetings.” 18 At the beginning of the Eastern Han Dynasty, Southern Palace became the main palace. Emperor Ming of Han had Northern Palace overhauled and also built Deyang Hall, a place for holding large meetings, thus replacing the external court with the imperial palace again. Moreover, the imperial palace pattern consisting of internal and external courts was passed down to the later generations: “After that, imperial palace became a place combining the external court on behalf of state power and the internal court featured in imperial family and power till the Ming and Qing Dynasties.” 19

To sum up, in the Western Han and Eastern Han Dynasties, when monarchical power and chancellor’s power contested and matched against each other intensely, the central official system developed greatly compared with that in the Qin Dynasty. The imperial palace kept the functions of the external court. The central government office system was separated from the front hall system and 3 kinds of independent architectural types outside the imperial palace, namely the court where emperors and ministers discussed state affairs, chancellors’ mansions and ordinary official mansions were formed then, which showed that military power, chancellor’s power, internal organization and division methods of the chancellor’s power became more and more complicated and delicate.

(4) The Six Dynasties

In the Six Dynasties, the Department of Secretariat gradually mastered the real power. During that period, the Department of Chancellery, the Department of State Affairs, etc also mastered the real power. Followed by many later dynasties, it became a common way to divide the chancellor’s power by new positions. There were representative cities, such as Ye in Cao Wei, Luoyang in the Western Jin Dynasty, Jiankang in the Eastern Jin Dynasty,

Pingcheng in the Northern Wei Dynasty and Luoyang in the Northern Wei Dynasty in that period of “Ye System”.

Ye in Cao Wei created a system of the eastern hall juxtaposed with the western hall. Moreover, organizations of the central government office system concentrated on both sides of the imperial roads before the palace, which was followed by the later generations. Jiankang Palace (Terrace Citadel) in the Eastern Jin Dynasty was also adopted the pattern of the eastern hall juxtaposed with the western hall, which was a unique system different from the previous dynasties.

(5) The Sui and Tang Dynasties

In the Sui Dynasty, a rather stable system of Three Departments and Six Ministries based on the central official system in the Six Dynasties came into being. On this basis, Twenty-four Departments, Nine Courts and Five Directorates were added in the Tang Dynasty.

As to the capital space, Daxing City in the Sui Dynasty initiated the imperial city system and “adopted a combined form of imperial palace, imperial city and large city surrounding ring upon ring”20. Central government offices and imperial palace were unified by the space of the imperial city, which also gradually controlled the land proportion of palace, government and people. Unlike the Qin and Han Dynasties, imperial city took the city land properly. Both the central official system and the capital city system were completely perfect.

The central government offices centered in the front of the imperial palace: “‘Only official mansions should be built in the imperial city where only the officials lived together. As a result, the bad custom was corrected…’ Therefore, civilian residences were far away from the imperial palace and imperial palaces where emperors lived were also separated from mansions of many big or small governors, which greatly strengthened the safeguard of the imperial palace. 21

Prime minister governmental affairs discussion place ---the functions and shape and structure of Governmental Affair Hall were changed as well. In the Tang Dynasty, the chiefs of the Department of Secretariat, the Department of Chancellery, and the Department of State Affairs treated the Governmental Affair Hall under the Department of Chancellery as governmental affairs discussion place, but later moved Governmental Affair Hall to the Department of Secretariat. Emperor Xuanzong of Tang changed Governmental Affair Hall into Secretariat-chancellery in the 11th year of Kaiyuan Period (723). Later, Governmental Affair Hall gradually became the yamen where prime minister handled official business from prime minister governmental affairs discussion place because the prime minister changed the way they went to court. Before Kaiyuan Period, prime ministers served other posts and owned their offices respectively, while the court was the place where officials discussed governmental affairs, namely, “Discuss governmental affairs in the court in the morning and handle them in the government office in the afternoon”. After Kaiyuan Period, prime


ministers were demoted to ordinary official, focusing on sole post. The court became the institution where prime ministers handled governmental affairs. “In order to meet the prime minister’s needs for handling governmental affairs, Ministries of Personnel, Helm, Military Affairs, Taxation and Law Enforcement and Rites were established for handling all kinds of affairs. They actually were 5 secretariats for prime ministers.”

(6) The Northern Song and Southern Song Dynasties

In the early Northern Song Dynasty, the authority of powerful institution to discuss and determine governmental affairs was cancelled in the same way: “Secretariat-chancellery Institution was established inside the palace and Three Departments and Six Ministries were established outside the palace; chiefs of Three Departments had no access to Governmental Affair Hall unless they were prime ministers, which actually deprived Three Departments of discussion and determination of governmental affairs.”

The official system reform of the Northern Song and Southern Song Dynasties led to the further division of central government structure functions: institutionalization, decentralization and smaller scale. In other words, the central government institutions before the Tang Dynasty had been allowed to discuss governmental affairs, but those in the Song Dynasty and later dynasties were reduced to the institutions where officials handled governmental affairs only. Discussion governmental affairs space shifted to palace interior. The official began to make full use of chances to express their own opinions to the emperor directly, which was more effective and advantageous to the emperor.

Hence, in the end of the Tang Dynasty, the second-level decision-making institution with prime minister at its core was gone gradually among central government offices. In Kaifeng, the capital of the Northern Song Dynasty, the Department of Secretariat, the Department of Chancellery, the Bureau of Military Affairs, general office of the Secretariat, the later-secretariat and later-chancellery which had been established in the Tang Dynasty were in external court in the palace, but they had no power: “The activities of the emperor were mainly launched in internal court.”

In the 2nd year of Chongning Period (1103) in the Northern Song Dynasty, the Department of State Affairs was moved outside the palace with the general office of the Secretariat, meeting room and Six Ministries Government, combining discussion affairs and institution. In Lin’an in the Southern Song Dynasty, the above-mentioned buildings were established outside the palace. Certainly such a trend of the chancellor’s power reduction didn’t remain unchangeable in the history. In the Southern Song Dynasty, presenting senior officials with private mansions enjoyed popularity. Sometimes private mansions of the prime minister became the places where people made political decisions as well as one of significant political spaces in the early Southern Song Dynasty.

(7) Brief Introduction of the history after Song Dynasty


Affected by Kaifeng City of the Northern Song Dynasty and Central Capital of Jin, the Great Capital of the Yuan Dynasty created a political space sequence of State Bridge of Thousand-Step Gallery before Palace. “The Great Capital’s central government offices mainly include the Department of Secretariat, the Bureau of Military Affairs, the Censorate and its affiliated institutions. Compared with the administrative central institutions of dynasties in the Central Plains, the official system of the Yuan Dynasty was extremely messy, with a large number of new royal institutions and Kheshig known as fifteen bureaus, ten courts, twelve directorates, three departments, five mansions.”

However, the subsequent Forbidden City in the Ming and Qing Dynasties followed and developed this sequence to form a new system.

IV. Conclusion

According to the above study, we can conclude that the central government offices space system in all dynasties is a process that central political space was detached from the imperial power and imperial palace as well as the process that prime minister’s power and central government offices was gradually divided, fragmented and institutionalized by imperial power. The space system since the Han Dynasty is as shown below.


*26* Fu Xinian and other scholars. *Volume of Architecture, Landscape Architecture and Urban Planning, Encyclopedia of China*. [http://ecph.cnki.net](http://ecph.cnki.net): “The main hall of central government offices is divided into five Z-shape halls with several courtyards built on both sides. Take the Ministry of Personnel as an example. Its general layout is rectangular, divided into front and rear ministries. The front ministry has three front gates with three corridors. The middle corridor is the main courtyard with five Z-shape halls as the center. The front ministry has three gates with 16 verandas in the east and west respectively. The main hall has two small halls on both right and left sides. On the right and left sides are six courtyards. They are separated with the middle corridor by roadway. It’s the common place of various departments. The rear ministry is the warehouse.”
Figure 2 Simplified Diagram of Some Central Government Offices Space Systems of Various Dynasties

Note: the black part indicates government office building, the dark grey part indicates imperial palace, the imaginary line indicates city wall while the light grey part indicates roads and river system.27

V. Further Analysis Based on the Song Dynasty

Most of the central government agencies were scattered in the imperial city of the Song dynasty, and some others were scattered outside the imperial city. They were not concentrated, but scattered around the residential areas and commercial areas. This was completely different from that of Chang’an and Luoyang during the Sui and Tang dynasties, because at that time central government agencies were clustered in the southern part of the imperial city.

During the Northern Song (960–1127), the central government agencies were not concentrated in one area, but scattered in the Imperial Palace (in front of the Wende Hall), and beyond (in front of the Imperial Palace, around the Imperial Street and elsewhere). However, it was still possible to see the close relationship between the Imperial Palace and government buildings. According to The Eastern Capital: A Dream of Splendor (Dongjing meng Hua lu), the central government agencies were scattered mainly in the following four areas: the area outside the place where subjects went to court in the Imperial Palace, the Northeastern area in the Imperial Palace, the concentrated area in front of the Xuande Tower, and the area beyond the Imperial Palace:

A). The area outside the place where subjects went to court in the Imperial Palace. Many important central government agencies were located in this area, including the Privy Council, Central Secretariat (Chung-shu Sheng), Central Office of the Department of State Affairs, Sub-branches of the Central Secretariat, National History Center (including the Tianzhang Hall and so on). The chancellor and other top leaders went to work in those above mentioned agencies. It is worth noting that compared with Outer Court of the Forbidden City of Ming and Qing dynasties, the Outer Court of the Imperial Palace of Northern Song was open to officials most of the time, and officials were even allowed to enjoy the cool in the Daqing Hall during summer days.

B). The Northeastern area in the Imperial Palace. The Palace Administration (dianzhongsheng), Six Bureaus of Administration of Royal Affairs, the Imperial Kitchen, the Administration of Tea and Alcohol etc., were located in this area. When the Imperial Palace was constructed, this area was firstly expanded, the function of which was to provide supplies to the Imperial Palace. A bustling market was established outside the Donghua Gate of the Imperial Palace;

C). The concentrated area in front of the Xuande Tower. There were two administrations and eight bureaus, the Department of State Affairs, the Great Brilliance Bureau(dashengfu, the bureau in charge of music), Taichang Temple, The Administration of Kaifeng, etc. They were scattered in front of Xuande Tower and around the Imperial Street. The thousand-step corridor of Ming and Qing dynasties could trace their origin back to such a layout.

D). the area beyond the Imperial Palace. Many other government agencies were scattered around the city, with no concentration.

_Xinian’s Proceedings of Architectural History._ (Beijing: Cultural Relics Press, 1988.)
Central bureaucracy of Southern Song followed that of the Northern Song. On the one hand, all the government agencies were moved outside the Imperial Palace due to the limited space in the Palace. Most of them were located in the north to the Hening Gate and around the Imperial Street; On the other hand, with the development of paper communication technology (the papermaking technology and the art of printing), written documents played an increasingly important role in the communication between the Emperor and his subjects. Therefore, no conference venues were established within the Imperial Palace. The layout of central government agencies scattered around the Imperial Street outside the Imperial Palace was formed.

The central government agencies were not established at an early period in history. They were not essential institutions at the capitals of Pre-Qin Period. Only when the central bureaucracy evolved into a mature stage and the power of the prime ministers could check the power of the Emperor did the central government agencies develop by being separated from the Outer Court of the Imperial Palace (the Front Hall). During the Han dynasty, they evolved into the form of the court. Even the emperor had to come to the court to discuss the affairs of the nation with his subjects. This was the golden age of the central government agencies as they served as the venues where national affairs were discussed and handled. However, this state was not stable.

The essence of central bureaucracy was the way of dividing the power among the emperor, the relatives of the empress, eunuchs, the prime ministers, and the local military governors. With the fierce and repeated struggles between the imperial power of the emperors and those small groups longing for power along different dynasties, the later emperors gradually accumulated a wealth of experience and the central bureaucracy became mature. The central bureaucracy of Song dynasty reached the most complicated level in history, and the imperial power of the emperor was also the most stable one. The Song dynasty came to an end by foreign invasion whereas there was virtually not “domestic problems and threat” toward the imperial power. Hence, it was concluded that central bureaucracy was very successful.

Although the arrangement and layout of central government agencies of Song dynasty could trace their origins back to earlier institutions, there were gradual changes in the nature of the functions of central government agencies, from the Court and the Hall of Discussing National Affairs into public administrative bodies and offices. They were no longer the symbol of the power of prime ministers. Instead of the gathering together mode adopted by earlier emperors for discussing national affairs with officials, the emperor began to meet his subjects in random combinations through various ways, so as to achieve the maximization of imperial power.
Ancient Governance Experience of Dujiang Weir Irrigation Area Water System and Its Inspiration to Contemporary Ecological Infrastructure Construction in Urban and Rural Areas

Yuan Lin, Yuan Lin

1. Introduction

During the process of the humanized environment construction in ancient China, the system of artificial nature had been established, especially the use and transformation of water system. Environmental Historian John R. McNeill once said that, “designed by the vast and rich land, China’s water system is the one that none of the inland water systems in the world can match. By virtue of the water system, the Chinese government has been able to make the huge and diverse ecological zones under control and integrate a series of useful natural resources in most of the time since the Song Dynasty.”[1] Ji Zhaoding believed that these water system-controlled residential zones formed China's “basic economic zones” in the history, and played a significant role in the ancient China’s economic development and social stability. Xu Zhenming, a water conservancy expert in the Ming Dynasty, pointed out “14 advantages”[2] in the overall development of water conservancy areas, and illustrated a variety of purposes of the establishment of regional water systems, including promoting agricultural production, disaster prevention and reduction, social management, environmental improvement, cultural prosperity, residential construction and other functions. From this aspect, the ancient China’s advanced artificial water systems (artificial and natural systems) and the contemporary “ecological infrastructure” have something in common – the system integrates many kinds of ecological processes, gives a variety of ecological service functions, and supports the development of urban and rural living environment.

The traditional Dujiang Weir irrigation area is one of the most important basic economic zones in China’s history, with the irrigation canal network having been gradually expanded since the Qin Kingdom governed the Shu Kingdom. It was developed in the Song Dynasty and was completed in the Qing Dynasty. During that period, covering 14 counties (a total of 17 counties including 3 ones in the downstream Tongji Weir irrigation area), it became a fan-shaped artificial water network measuring an area of around 6,000 square kilometers. The water network was composed of main canal, branch canals, lateral canals, field ditches and sublateral canals, while the riverway was divided into two, two into four, and four into eight, with thousands of tributaries around the region. Featuring various waterways densely distributed on the plains, the scene was described by a poem that “although the woman weaver has leisure needle and thread, she is hardly to embroider 100-mile landscapes”[3] (see Photo 1). The formation, maintenance and development of the advanced fan-shaped water system were not only attributed to the ancients’ exquisite water technologies, but also based on and guaranteed by the necessary social governance system. This article takes the ancient Dujiang Weir irrigation area as an example, probes the relationship among the water system construction, maintenance and regional society construction based on scattered historical materials and records, to restore the ancients’ overview of effective governance on the
developed water system, in a bid to inspire the ecological infrastructure construction in contemporary China.

Photo 1: Overview of Dujiang Weir waterway in Sichuan Province\[^{[4]}\]

Photo 2: Pictures of 14 counties in Dujiang Weir area\[^{[5]}\]

2. Governance levels reflected by official system in ancient Dujiang Weir irrigation area
Since the beginning of the Qin Dynasty, the corresponding official system has been set up in the Dujiang Weir irrigation area. It featured a top-down management structure and maintained normal operation of the water system and its development over past dynasties. From the official system of past dynasties in the Dujiang Weir area, it shows that the basic regional water system management can be divided into two parts: first, the state's overall supervision over regions. Since the irrigation area water system played a vital role in the national economic development, the local people's livelihood and the regional human settlement construction, the state was the key to the overall administration across the region. From the Tang and Song Dynasty, it also gradually formed regional regulatory agencies to carry out the regional plans and schemes; second, cooperation, management and autonomy based on the unit of county. Affected by the county system, since the Qing Dynasty, the management of irrigation area water system has been formed as separated units in all counties. The magistrate of a county had always played a fatal role in the water system construction and maintenance. Although a specialized agency for the administration of Dujiang Weir – water conservancy department – was separated in the Qing Dynasty, its function was restricted to the “official weir” (irrigation inlet and main riverway), so that the regional water system was still interrupted by the magistrates, and needed cooperation of many counties and their internal effective management.

3. Multi-level governance and maintenance of water systems in ancient Dujiang Weir irrigation area
Specifically, in addition to the state’s governance over regions, the county level can also be recognized from aspects like multi-county collaboration, county regional management and village self-governance under the county administration. All levels of governance were
different in terms of duties and ways, and their coordination maintained operations of the whole regional water systems.

3.1 Overall supervision of the state
The governance of the state and regional administrative organizations included annual repairs regulation, interest coordination, mergers prevention and patents, etc. The ancients believed that there were two key factors in the overall management of plain water network: “one is man-made calamity, such as the slip in upstream areas, while the other is soil collapse, such as the burst on river embankments. If the two disasters are not removed, the water system will not be managed smoothly.”[7] Since the Song Dynasty, with the formation of complete water system, the state had gradually formed a relatively mature water system management mechanism.[8] According to the “Treatise on Rivers and Canals of the History of Song Dynasty”, “during the Yuanyou period, the list of officers and prefectural governors, data about the height, depth, width, irrigation area, labors and materials, as well as prison officers, were all recorded. At the end of a year, rewards would be granted in line with rules and regulations.”[9] In the Ming Dynasty, Emperor Jing (temple name Xiaozong) once sent out an imperial decree[10] to prevent private use of water system, and dispatched Ji Dangpu, an assistant to the Sichuan anti-corruption department, to inspect. The ancients called for equal and harmonious use of regional resources, requiring that “do not make private profits, nor do harm to neighbors”[11]. All levels of governments should be investigated, along with the people’s livelihoods. It should prevent monopoly for self enrichment. “Rivers and weirs which are not well constructed will be rebuilt under planning and supervision; people who cannot distinguish the right and false things will be guided by education.”[12] In addition to the administrative measures, another way to prevent uneven use of resources in the Chengdu Plain is to balance the water resources. It referred to the layout of waterway, for example, Gao Jian, commander in chief in the Tang Dynasty made efforts on the equalized utilization of regional water resources. During his service term, land prices in the surrounding areas of Minjiang River hiked dramatically and it was worth a thousand pieces of gold[13] due to irrigation advantages. However, the land was occupied and scrambled by the local rich “in many ways”[14]. With the aim to solve the problems of uneven resource allocation as well as despotic monopoly, “Gao Jian built branches for the original canals”[15] to ensure the even allocation of water resources which benefited the plain residents at large. The move that had realized the equalized use of resources to improve people’s livelihoods via even allocation of water system in irrigation areas was a representative case. It played a significant role in the human settlement construction thanks to “even water resources” and it can also explain the phenomenon of plain waterway even distribution.

3.2 Overall collaboration by counties
Since the unification by the Qin State, the Chengdu Plain has implemented the province-and-county system. Because of the large population, counties were densely laid out with small units.[16] During the period of Qing Emperor Shunzhi reign, the Dujiang Weir water system covered nine counties including Chengdu, Huayang, Shuangliu, Wenjiang, Xinjin and Jintang.[17] When it came to later Qing Dynasty, the Dujiang Weir water diversion was expanded to 14 counties across the plain.[18] (See Photo 2) The annual repair and maintenance of Dujiang Weir head works and different drainage systems on the plain were carried out under the collaboration of all the counties. Before the Song Dynasty, the costs of head works
repair and labor force were provided by residents of the counties, according to the “Treatise on Rivers and Canals of the History of Song Dynasty”. In early Ming Dynasty, expenditures and labor force were shared by water users in counties according to how much land they owned. In the ninth year of Chenhua during the Ming Dynasty, it changed a little, specifically, the labor force came from Guanxian and Pixian County near head works, while other counties only supplied materials. To the Qing Dynasty, in the fifth year of Yongzheng reign, the emperor made a renovation for the administrative measures on annual repairs. He incorporated all the annual repair costs for important hydraulic engineering into the state’s treasury funds, and deducted them from the taxes paid by the provinces. The central government would earmark special funds to the annual repairs of Dujiang Weir. However, the costs for civilian weir annual repairs and the shortage of labor force and funds should still be shared by water users in counties on the plain together. The labor force and costs “were collected by Guanxian County from all prefectures and counties that used water resources”, and all the counties “submitted silvers calculated by mu every year”. The wood materials used in annual repairs “were shared by all counties based on the area of land fields they owned.” In the detailed rules and regulations for contributions by counties in the Qing Dynasty, the ancients had equalized and elaborate ideas, and made an overall arrangement for regional administration. For instance, in the seventh year of the Yongzheng reign, Inspector General Xian De measured the irrigation area, and collected costs by a unit of mu rather than piece as previous. Unit prices were fixed in accordance with geographical conditions and water using sequence. Guanxian, Pixian and Chongxian County located close to Guankou saw higher unit price (2 li silver per mu), while Wenjiang, Xinfan, Xindu, Jintang, Chengdu, Huayang and other remote places saw lower price (1 li and 5 hao silver per mu), taking into consideration the profit unbalance from resources. In line with this rule and on the basis of balanced interests of counties in the whole basin, the superior regional institutions worked out a list for counties to pay annual repair funds. It depended on land areas and also determined the labor force assignation from all counties. (See Table 2). The maintenance of Dujiang Weir artificial basin embodied the collaboration among the counties, as well as the mutual deployment and maneuver in finance, materials and manpower. “All counties should make donations based on how much grains they had, and share the workload.” Counties might have fund surplus in annual repairs, which could be used to cope with emergencies (e.g., dam collapse and damage), or used for daily construction of other water system projects in the region. In the Qing Dynasty, the Jinshui River of Chengdu City built a regular dredging system, and set up professional management personnel, with the needed costs all coming from balances of Dujiang Weir annual repairs. It took the regional and urban water systems into an overall consideration.

<table>
<thead>
<tr>
<th>County</th>
<th>Irrigation area (mu)</th>
<th>Amount of distributed silver (per mu)</th>
<th>Labor force dispatched for heavy repair (Population per county)</th>
<th>Labor force dispatched for minor repair (Population per county)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>County</td>
<td>Population</td>
<td>Silver</td>
<td>Cooperating with Guanxian County</td>
<td></td>
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<tr>
<td>---------------</td>
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<td></td>
</tr>
<tr>
<td>Guanxian</td>
<td>116,198</td>
<td>2 li silver 232 liang 3 qian 9 fen 6 li</td>
<td>69 23</td>
<td></td>
</tr>
<tr>
<td>Pixian</td>
<td>191,625</td>
<td>2 li silver 383 liang 2 qian 5 fen</td>
<td>339 113</td>
<td></td>
</tr>
<tr>
<td>Chongning</td>
<td></td>
<td>69 23</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wenjiang</td>
<td>1,294</td>
<td>1 li 5 hao silver 1 liang 9 qian 4 fen 1 li</td>
<td>180 60</td>
<td></td>
</tr>
<tr>
<td>Xinfan</td>
<td>46,753</td>
<td>1 li 5 hao silver 70 liang 1 qian 2 fen 9 li 5 hao</td>
<td>90 30</td>
<td></td>
</tr>
<tr>
<td>Xindu</td>
<td>76,971</td>
<td>1 li 5 hao silver 115 liang 4 qian 5 fen 6 li</td>
<td>36 12</td>
<td></td>
</tr>
<tr>
<td>Jintang</td>
<td>55,357</td>
<td>1 li 5 hao silver 83 liang 3 fen 5 li</td>
<td>90 30</td>
<td></td>
</tr>
<tr>
<td>Chengdu</td>
<td>192,726</td>
<td>1 li 5 hao silver 289 liang 8 fen 9 li</td>
<td>135 45</td>
<td></td>
</tr>
<tr>
<td>Huayang</td>
<td>54,639 (irrigation field nearby)</td>
<td>1 li 5 hao silver 81 liang 9 qian 5 fen 8 li</td>
<td>135 45</td>
<td></td>
</tr>
<tr>
<td></td>
<td>24,975 (irrigation field far away)</td>
<td>1 li silver 24 liang 9 qian 7 fen 5 li</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

In addition to overall organization, the regional counties also had inter-cooperation on the river basin management on the plain. For example, according to a political topic on cooperation between two counties collected in the “Literature Collection for Annals of Guanxian County” in the Republic of China period: sheep and houses, sand ditch, Xuyan Weir, Blackstone four rivers in Chongqing County were all once repaired due to silt deposit and riverway obstruction. After investigation, Guanxian County’s Liyutuo, Chaijiakan, Xingengzi, Heishidang, Tangjiawan and other places “were all related to riverway in Chongqing County”. It said “all rivers in Chongqing and Guanxian County were compatible with each other originally; if only building dredges for the damage, the efforts would be in vain as the source had not been repaired”. Afterwards, the magistrates of Chongqing and Guanxian County reached an agreement in motivating their squires to repair both the damaged riverway and the source “at the same time”. The costs required in riverway repairs were shared based on “how much area of irrigation fields and how many weirs in a county”. Besides, the county government also rolled out specifications on funds that should be shared by the residents living alongside the rivers. “The residents should make contributions to support the governmental affairs”. This move reflected not only Chengdu Plain counties’ knowledge about artificial basin system, but also county officials’ active partnership. Under the mobilization of all counties’ squires, the residents all joined forces to carry out the minor
repairs, from which we can see the daily cooperation in managing the artificial river basin among counties on the plain.

3.3 Governance of water systems in counties

The counties within the irrigation area all connected branches of Dujiang Weir. In addition to the overall management in a region, the counties carried out internal water system management independently. The county magistrate in the history always played a key role in the management of Dujiang Weir, as well as the maintenance of Dujiang Weir water system, so that their performances were always listed as a primary item of government examination. On the Chengdu Plain, all counties “were recorded with their contributions in opening new channels or weirs”. Taking Xindu County as an example, the county’s water system covered riverway, dam, Guihu Lake of Xindu County (well-renowned West Sichuan Garden), etc.. The funds for water system annual repairs were from residents living in the county, with “some calculated by mu, some by grains and some by the number of irrigation fields.” The materials required in annual repairs would also be transported from other counties: "there were Jintang Gorge’s stone, Minjiang River’s bamboo arrows, and Guankou’s pines and cypresses". As for the daily administration of water systems, “there were governors and officials, labor force and contracts”. Weirs in a county were further divided into big and small ones, in which, “the big ones were supervised by governors, while the small ones were repaired by residents annually.” The annual repairs should be coordinated with the giant Dujiang Weir, and all waterways in the county must have their repairs completed before the giant weir drew off the water. Officials and residents collaborated together on repair projects. When the county’s waterway annual repairs came, “some were drawing, some were dragging, some were hammering, while others were binding, sitting or standing, old or young … but no one was indolent”. It was a magnificent sight.

In the process of water system management, the county magistrate also used the method of “equalized allocation of water resources” to solve the problem of uneven distribution of resources. For instance, in the years of Daoguang reign, some residents living alongside the river made profits by cliquing and fought against each other during the spring ploughing period. Pengxian County Magistrate Mao Huifeng, an honest and upright man during his service term, made use of the method of “equalized allocation of water resources” to solve the disputes. He “divided the river into five parts and into Pingliang, with equalized allocation”. From then on, the controversy between the two cliques was solved, and Mao was honored as a famous governor by county residents. Another instance said that in a bid to solve the problem, Xinfan County Magistrate Liang repaired the weir for “equalized allocation of grains and prevented water disasters”, so that he was also praised by county residents who specially set up a “merits memorial tablet” to memorize his permanent glory. It proved the close relationship between the even water resource allocation and the water equalization governance on the plain.

In general, the maintenance of water system in a county focused on “favorable climatic, geographical and human conditions”, and the systematic and holistic maintenance of the regional water system embodied the government’s supervision on the public, and the interaction between the government and the public. The local officers played a key role in mobilization, and give attention to the uniform distribution of resources. The annual repair
activities launched by counties coordinated with the giant Dujiang Weir repairs, and they were carried out in right time to make the whole basin complete and unimpeded.

3.4 Rural autonomous governance

Linpan Village in the irrigation area featured a uniform distribution with multiple-surname groups living together, and there were few big clans. According to the “Annals of Xinfan County” of the Republic of China, “families in Sichuan Province saw a scattered distribution, with no clans, nor Zang race.”\textsuperscript{[40]} According to the “Annals of Chongning County” of the Jiaqing reign, “the natives living in a clan were rare, and there were few ancestral shrines.”\textsuperscript{[41]} The statistics of surnames in all the counties made by Tan Hong in the “Immigration History of Bashu” also showed Chengdu Plain’s Linpan was scattered with small- and medium-sized families which were not rich.\textsuperscript{[42]} The same conclusion can also be seen from deeds of the farmland. From the signatures of title deeds in Xindu County, we found that Yue, Zu, Zhong, Zheng, Lin and other names almost had different surnames, such as Qiao, Zhou, Yang, Xie and Huang inscribed in a deed in the 34\textsuperscript{th} year of Guangxu reign (the year 1908), and Chen, Yi and Wang in a deed in the first year of Xuantong reign (1909). It showed from the land trading that the surrounding areas were living with families with different surnames, and the plain settlement was given priority to cohabitation, with few big clans.\textsuperscript{[43]} Therefore, in the vast countryside, the management of water system (branches of irrigation and water conservancy) presented a state of spontaneous management and independent cooperation by multi-surname neighbors in the unit of small family and village.

This situation was described with details in the county annals. Also taking Xindu County as an example, there were high land and deep water in the southeast of the county. Although the deep water won’t flood the farmland and houses, it usually suffered insufficient irrigation. So the residents spontaneously set up weirs and complete sets of equipment to make “all water system facilities prepared”.\textsuperscript{[44]} In addition, according to the “Annals of Chongning County” by Liu Tan in the Qing Dynasty, “the costs of annual repairs for Huajia Weir were funded by the residents based on irrigation area they owned.”\textsuperscript{[45]} The residents also selected the weir governor to take responsibilities for the administration of waterway, such as reports on changing weir governors for small weir in Xingyi Country, Xinjin County. (See Photo 3)

Besides, many families would also be responsible for the weir maintenance. For example, the construction of Changtong Weir, Guanxian County was undertaken by several families of Wang, Ai, Liu and Zhang, which showed that local families worked together on the repair and maintenance of weir. The descendants built a “stele for the establishment of Changtong Weir”\textsuperscript{[46]} to memorize their predecessors’ merits, and passed it on from generation to generation.

From the Qing Dynasty’s land deeds, constraints on the administration of water system can also be seen. The terms of title deeds for Linpan land mostly paid the respect for the “ancient law” of water system management. Buying a house to settle down in Linpan and farming must follow the existing water use and management methods to carry out the production for living. The water system cannot be arbitrarily change but must be managed in accordance with the customs. For instance, according to “the contract of Wenbao-surnamed mother and son’s selling paddy field” in Xindu County, “all the irrigation water affairs should be in line with the existing rules”.\textsuperscript{[47]} “The contract on Qiulu-surnamed mother and son’s selling paddy field” in Xindu County regulated that “all the ditches and canals in the region should flow
alongside the ancient channels";[48] and “the contract on Xu Guiyuan’s selling property” regulated that “water within the region should flow over the ditches and fields in accordance with the existing rules”. All of the above showed a respect for the plain water systems and the using methods, as well as the villagers’ autonomous management of the water systems. (See Photo 4)

Photo 3: Report of weir governor of Xinjin County in the Guangxu region of Qing Dynasty[49]

Photo 4: A contract in Xindu County in the 34th year of Guangxu region (1908)[50]

According to the existing data, it focused on the even allocation of water resources, rather than the monopoly in the history, so the management and utilization of water system based on large-scale clans cannot be the mainstream, while the diversified and independent cooperation and coordination among plain residents based on scattered small settlements and connected by systematic water network became the normalcy of the whole plain society that carried out the systematic management for artificial river basins. In contrast, in eastern Chengdu’s Dongshan District[51], affected by comprehensive factors like hilly terrain and Hakka immigrants, the management of water system presented a form on the basis of large-scale clans. For example, according to the stone inscriptions recorded by the Liu-surnamed clan in Baosheng Village, Luodai Town, Dongshan District, there were 17 families surnamed Liu in the clan, and they entered into an agreement on clan rules, which were known as the “19 rules”[52] for management of water system and settlement environment. It helped coordinate interests of all families and map out punitive measures to ensure the fair use of water system within the clan. The contrast reflected the difference of water conservancy management in the hilly terrain where residents settled in the unit of clan and abiding by clan rules, from the self-management of water system in plain villages. Besides, it highlighted the characteristics of multi-surnamed residents’ independent management and cooperation on water systems in Linpan in a small unit of the plain irrigation area.

4 Social consensus and regional collaboration reflected by governance of water systems in the ancient Dujiang Weir irrigation area

The ancients always stressed the integrity and the importance of overall operation in the Dujiang Weir irrigation area. According to Wang Laitong’s “Study and references to Guanjiang River – on water system”, “Baopingkou is the throat of water system for eleven counties, and it is just like a man’s breathing trachea and main veins; if the water system goes smoothly like a man full of vigor, the grains and annual harvests will flourish. Besides, the
water of a canal can be divided into thousands of branches, so that it is able to irrigate the 11 counties’ grains ... A little bit mistakes can cause harm to the people's livelihood."[53] The Dujiang Weir water system was typical regional “public works”, and featured the contemporary “ecological infrastructure” thanks to its crucial multi-functions in services. Its construction and maintenance embodied prominent features as follows:

4.1 Principles of “equalization” construction and governance
The governance of Dujiang Weir irrigation area water system aimed fundamentally to maintain good operation of the whole water system and meanwhile bring extensive welfare to all residents of the region, so it focused on “equalization” in the construction process. The Chinese character “Jun” means “equalization”, while “He” represents “harmonization”[54]. The ancients said, “Sichuan is a fertile place, as the region’s water resources and irrigation fields are distributed evenly”[55]. The equalization and harmonization prompted the formation of uniform water network and Linpan pattern, as well as the establishment of a balanced human living and natural structure in the Chengdu Plain.

In order to maintain operation of the whole structure, all levels of governance fully embodied harmonization and unification from the central government to various prefectures and counties. Summaries on overall governance of artificial river basins by Zhao Shiming in the “Records for Dujiang Weir engineering defects”[56] in the Qing Dynasty pointed out: first, coordination between officials and residents. Only if the coordination was made by the labor force and officials, the overall maintenance can take effects; second, upstream and downstream coordination. If the downstream river canal cannot be dredged systematically, the upstream official weir was impassable no matter how well it was repaired; thirdly, coordination between professional management institutions and prefectural governors. In the Qing Dynasty, the water conservancy department was set up for the repairs of official weir, but it targeted only on the official weir; repairs of the downstream civil channels were still under the governance of all county magistrates. Therefore, the overall management of artificial river basins was kicked off by county magistrates who raised funds, organized labor force, and supported the upstream and downstream collaboration. “Only the labor force teams up with officials”,[57] “the connection between downstream and upstream can be unobstructed”[58]. It fully reflected the importance of multi-level and overall coordination in the management of large-scale water system.

4.2 Governance form based on regional consensus
The governance of Dujiang Weir irrigation area water systems went smoothly based on wide social consensus. Linpan Village in the irrigation area self-organized the water system maintenance, counties made overall arrangement for the annual repairs of official and civil weirs, and various counties in the region maintained operation of the giant weir and the main water systems, in which, the regional organizations and the state had all played a coordinating role in regional supervision. The whole area launched the mutual ritual activities such as Chuanzhu Temple sacrifice, which enhanced the folk belief system’s enlightenment on water system management. People combined water and land resources together or made equalized allocation, and rolled out rules and regulations, to jointly maintain the regional water system operation, reflecting widespread benefits for local residents brought by regional water systems, as well as local residents’ careful maintenance of natural systems at the same time. In this process, though the official and resident structure existed, the integrality and
cooperativity of the regional social structure were more obvious. All levels of officials and squires performed actively in the organization and mobilization, while residents sponsored perfectly in the regional natural system maintenance. It presented the integration of the public self-organization and officials’ overall coordination, and reflected the harmonization and unification of regional social governance and natural system.

5. Conclusion: inspiration to contemporary ecological infrastructure in urban and rural areas

The contemporary ecological infrastructure in urban and rural areas is committed to upgrading the ecological service functions and improving the living environment quality, and its principle and ways of construction can be learned from the historical experience in the construction of artificial natural system. The governance of ancient Dujiang Weir irrigation area water system embodies the harmonization and unification between artificial natural system construction and regional social system construction, as well as the extensive welfares to local residents from the regional natural system construction. The “equalization” in construction and the wide “social consensus” in management provide a new view angle for us to understand contemporary ecological infrastructure construction. In contemporary China, if regional communities and residents can be more directly connected with the construction and management of water systems, forests, parks and other ecological infrastructures, and the natural system can be urged to be rebuilt in line with the public interests via social mobilization, it will be conducive to promote the development of human and natural harmonious humanized environment, and push the construction of ecological civilization.

Notes:
2 (Ming Dynasty) By Xu Zhenming: “Talks About Road and Water”
3 (Ming Dynasty) By Du Yingfang: “Continuation of Literature Collection for Sichuan. Volume 54. Instrument and Material Records”, a copy in the Wanli reign period of the Ming Dynasty
5 Picture presented by: self-production based on “Overview of Riverway of Dujiang Weir, Sichuan”
6 “Treatise on Rivers and Canals of the History of Ming Dynasty”
9 “History of Song Dynasty. Volume 95. Chapter 48 of Treatise on Rivers and Canals” (a copy of Wuying Palace in the years of Qianlong reign in the Qing Dynasty)
10 Quoted from: Editor-in-Chief Feng Guanghong. Literature Collection of Dujiang Weir.
History Literature Volume (from the pre-Qin period to Qing Dynasty). Chengdu: Bashu Press, 2007


14 The same as above

15 The same as above

16 (Song Dynasty) By Lv Tao. Ten lawsuits presented to emperor // Editor-in-Chief Feng Guanghong. Literature Collection of Dujiang Weir. History Literature Volume (from the pre-Qin period to Qing Dynasty). Chengdu: Bashu Press, 2007:135


19 “History of Song Dynasty. Treatise on Rivers and Canals”


24 References from Xian De in the Qing Dynasty: “Memorial of Labor Force and Expenditure for Dujiang Weir”, “General Annals of Sichuan. Volume 12 part 1. Water conservancy”, the Imperial Collection of Four in Wenyuan Chamber in the Qing Dynasty.


26 (Qing Dynasty) By Xiang Cheng: “Issues on dredging Jinshui River of Chengdu”

28 (Qing Dynasty) “Memorial of Labor Force and Expenditure for Dujiang Weir”, total expenditure: 1,282 liang 2 qian 2 fen 9 li.


30 The same as above

31 This paragraph was quoted from Ye Jiong’s “Report on Dredging Heishi River” in the Qing Dynasty, “Literature Collection for Annals of Guanxian County. Volume 1. Political Topics” in the Public of China period

32 (Ming Dynasty) By Gu Yanwu: Notes on Daily Accumulation of Knowledge, volume 12, “water conservancy” section


34 The same as above

35 The same as above

36 The same as above


38 The two paragraphs were quoted from Qing Dynasty’s Yu Shen, Chen Yansheng. Local Annals of Xinfan County // Editor-in-Chief Feng Guanghong. Literature Collection of Dujiang Weir. History Literature Volume (from the pre-Qin period to Qing Dynasty). Chengdu: Bashu Press, 2007:445


40 “Annals of Xinfan County” in the Public of China period, volume 17, “Figure” 11, “Xiaoyi”

41 “Annals of Chongning County” in the Emperor Jiaqing reign period, volume 2, “Custom”


43 References from: Xiong Jingdu. Historical documents of land deeds in the Qing Dynasty (from Emperor Jiaqing reign to Emperor Xuantong reign period). Chengdu Xindu District Archives Bureau, Xindu District Archives, 1986


46 Quoted from: Editor-in-Chief Feng Guanghong. Literature Collection of Dujiang Weir.
History Literature Volume (from the pre-Qin period to Qing Dynasty). Chengdu: Bashu Press, 2007

47 Xiong Jingdu. Historical documents of land deeds in the Qing Dynasty (from Emperor Jiaqing reign to Emperor Xuantong reign period). Chengdu Xindu District Archives Bureau, Xindu District Archives, 1986:76

48 Xiong Jingdu. Historical documents of land deeds in the Qing Dynasty (from Emperor Jiaqing reign to Emperor Xuantong reign period). Chengdu Xindu District Archives Bureau, Xindu District Archives, 1986:80

49 Picture from: Sichuan Provincial Archives. Pictures of Bashu -- Photo Collections of Qing History in Sichuan Provincial Archives[M]. Beijing: China Renmin University Press, 2009: 49

50 Picture from: Xiong Jingdu. Historical documents of land deeds in the Qing Dynasty (from Emperor Jiaqing reign to Emperor Xuantong reign period). Chengdu Xindu District Archives Bureau, Xindu District Archives, 1986

51 Stretching through Huayang, Xindu, Jintang, Jianyang County, Dongshan District is a superficial hilly area and belongs to Hakka culture. According to the record in the history, it was an area without riverway and water irrigation, and it suffered severe natural conditions. A large number of big and small pools and weirs were formed on the low-lying land, so the local residents collected rain water for drinking and irrigating.

52 References from: Liu Pengchun. Dongshan Hakka’s “geomancy” practice and theory in the Qing Dynasty – taking the stone inscriptions recorded by the Liu-surnamed clan in Baosheng Village, Luodai Town, Dongshan District, as an example. Journal of Sichuan Normal University, 2008.6:117-118


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58 The same as above
On Arising and Evolution of Public Green Spaces in Modern Beijing  
Dandan Liu, Haiyi Yu, Fang Xu

[Abstract]
“Modern Times” (1840-1949) is an important period in which the public green spaces had come into appearance and developed and developed in Beijing. The paper aims to illustrate the background in which the public green spaces came into being in modern Beijing; the process of their spatial evolution; the influential factors; and tries to put up with the evolutionary pattern. The methods of literature review and field survey are carried out to collect the information of modern Beijing maps, planning regulations and historical figures. Comparative method is also adopted in this paper. The contents conclude the origin of public green space in Beijing, the evolution of public green spaces, the influential factors and evolutionary patterns of public green space.

It is found as following: there exist two types of patterns in the evolution of Modern Beijing public green spaces. One of them is rebuilt pattern, in which the forbidden gardens such as imperial gardens, private gardens, and temple gardens are transformed and opened to public green spaces. The other one is newly built pattern, in which the municipal authorities built up public green spaces such as small parks and street gardens in the bustling urban areas. The urban public green spaces in both patterns service the functions of rest differing in scale, function and landscape. 1) With respect to scale, public green spaces of the former pattern present larger scale, which have gradually become the key node of urban space structure and influenced the city form. The public green spaces of the latter one are always in smaller scale, which have limited influence on urban space structure. 2) With respect to function, public green spaces of the former one are not only the places for rest but also the places for education, exercises and aesthetic functions through varied activities. Of the latter one they mainly provide convenience for the nearby residents. 3 With respect to landscape, the former are always scenic spots combining with mountain, lake and historical relics, which are full of cultural significance. The latter are however planned according to existed conditions planting with trees and flowers.

Key Words
Modern times, Beijing, Public green space, Arising and evolution

1. Introduction
The construction of Beijing City embodies the principles and ideas of imperial supremacy because it had been functioning as the political center of Chinese feudal dynasty for several centuries and was heavily influenced by the autocratic regime, thus forming the enclosed and inward social space characteristics. Like the old Summer Palace, Chang Chun Yuan, Qing Yi Yuan in the western suburbs of Beijing (Fig.1), these open spaces are dedicated for the ruling class, and the general public is extremely lack of public open space, the feudal old customs basically followed to the early 20th century, until the disintegration of the feudal system was
the emergence of public green space, then the public green spaces have experienced the evolution from “private” to “public” along with the modernization process of Beijing.

2. Origins of public green space

Public green space originated in the New Deal, implemented by the Qing government, influenced by western culture, and the infiltration of new forms of socio-economic and urban spatial elements broke the traditional urban space.

After experiencing Hundred Days Reform (1898)\textsuperscript{119}, the Boxers’ Uprising (1900)\textsuperscript{120}, and Qing government recognized the need for reform, so implement the New Deal, enacted a series of regulations, after that, the elements of modern civilization gradually infiltrated the city, urban space sprouted, and the public green space for the ordinary civilian appeared. Since create a public space by ordinary people is very difficult at that time, therefore, the pioneer of public green spaces is rebuilt and opened. It is the “Yu Yuan” restored by the third son of Yehonda·Ruilin in 1903(29\textsuperscript{th} year of the reign of Qing Emperor Kuang-Hsu. He set up restaurant, tea house and studio and did

\textsuperscript{119} Reform Movement of 1898. launched by Kang Youwei and other reformers under the auspices of Emperor Kuang-Hsu and suppressed by the Empress Dowager Cixi.

\textsuperscript{120} An anti-imperialist armed struggle waged by north China peasants and handicraftsmen in 1900. known as Yihetuan Movement.
business in the garden, which is the first city public green space (Fig.2). After that, it belonged to scholar Lu Rong, then purchased by Shikai Yuan in Republic of China, finally used for office of Japanese Oriental culture.

3. The evolution of public green spaces

Evolution of public green spaces went through a transformation process from “private” to “public”; from “autocratic” to “open”; from “quantity” to “quality” in modern Beijing. According to the significant historical events and urban construction event, the evolution of public green spaces in modern Beijing is divided into the following three phases.

3.1 The initial phase of public green spaces (1900-1911)

Beijing public green space experienced the difficult initial phase from private garden the “Yu Yuan” to the “Beijing zoo”.

“Yu Yuan” opened for a period of time and closed in 1904, some pioneers affected by western advanced thoughts proposed the construction of the park in the Capital of China. In July 21st, 1905, the “Ta Kung Pao” 121 published “the capital of China should build parks”, which said: “Today’s Beijing, the prosperous market and density of residents is equal to those of western countries. However, the dirty street and the pollution of human and animals are beyond the western national capitals. If no construction of parks, how residents benefit and how our country compare with other countries?” On October 13rd, 1906, Fang Duan and Hongci, Dai came back from Europe to investigate, and memorialized the construction of public facilities. They proposed to build parks, libraries, museums and art galleries, meanwhile illustrated European benefit from park. But the feudal imperial rulers strongly opposed the proposal, they think it means encroachment on the feudal

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121 It is the longest newspaper in China with 105 years of history.
royal space, in order to protect the privileges, they find all sorts of reason to refuse. The facts prove that the interests of ordinary people is neglected, it’s difficult to build public space relying on private action in late Qing Empire, so the next public green space is the zoo which Empress Dowager gifted in 1908.

The zoo was a small Royal Park at the beginning of the Qing dynasty, but was destroyed by the British and French troops together with the Old Summer Palace in 1860. In the period of Emperor Kuang-Hsu, the Empress Dowager Cixi rebuilt it and gifted it to the Manchu Prince. However, the garden was too far, little use, desolated gradually, after becoming a part of agricultural experiment station. In 1906, the Qing government sent official delegations to study westernization abroad as a part of the new deal reform. The delegations brought back a variety of exotic animals as gifts to the Empress Dowager Cixi, and Cixi fed these animals in the garden of the East, and named “Million Livestock Park”. In 1907, the “Million Livestock Park” was allowed to open, the following year, the agricultural experiment field also officially opened, although the exhibition ticketed, as the first zoo in China, and the animals were from around the world, diverse, wonderful, so people rushed to view. The open of zoo laid the foundation for the future public green spaces construction.

3.2 The construction phase of public green spaces (1912-1928).

This phase, under the “park open movement” led by Qiqian Zhu, imperial gardens, private gardens, and temple gardens were transformed and opened to public green spaces, meanwhile, some street green space were built, public green space had been vigorously expanding.

After the founding of the Republic of China, the Municipal Guild\(^\text{122}\) was established in June 1914 under the initiative of Qiqian Zhu who was the chief of the House in the Republic of China and served on the supervision, he set “parks” forum on the Issue No.22 of “Municipal Notice”, It aimed to promote the park through the introduction of western park system and importance, to enhance public awareness and desire of building public green spaces in Beijing. One paper said: “So long as there are parks, the public spirit is lively, the public body is increasingly healthy, then achieve the purpose. So the importance of park for the private is nothing than for the whole city, briefly speaking, the park is an essential element in addition to basic necessities.”

The Municipal Guild drawn up concrete plans to build parks soon, but when to implement, it encountered difficulties in land shortages and lack of funds. In order to save costs, Qiqian Zhu put forward the countermeasures of opening scenic spots, and submitted “Open the scenic spots” to President Yuan. Because the Infield Altar next to the Forbidden City and was wooded, so planned the Infield Altar first, the construction of the park got the support from all walks of life, they donated money positively and set up a management board on Central Park, the Infield Altar was rebuilt into the Central Park successfully, after renamed the “Zhongshan Park” for the commemoration of the Revolution. On October 10th, 1914, the Central Park opened to the public (Fig.3, Fig.4).

\(^{122}\) An organization that is responsible for urban planning and infrastructure construction.
Under the “park open movement” leaded by Qiqian Zhu, imperial gardens and private gardens were transformed and opened as public green spaces. On June 17th, 1915, the north wall of the Infield Altar opened as the Park of South City; in 1918, Changdian opened as the Neptune Village Park, the Temple of Heaven opened to the park; in 1924, the Imperial Ancestral Temple opened as the Peace Park; on August 1st, 1925, the Beihai opened to the Beihai Park(Fig.5); on August 2nd, 1925, the Temple of Earth opened to the Jingzhao Park(now the Public Park); on October 10th, 1925, the Forbidden City opened as the Palace Museum; on July 1st, 1928, the Summer Palace opened as the park; on September 18th, 1928, the Prospect Hill opened as the park. In addition, some private gardens also opened, and some opened as the teahouse; some opened as the restaurant, some opened as the theater, such as the Mu Garden in Li Po Byway and the Wang Garden.

The Municipal Guild led by Qiqian Zhu also built a number of small parks and street gardens in the bustling urban areas. “The street gardens are flexible; needn’t settings and preparation; planned on-site, and are prepared for visitors to rest. They are however planned according to existed conditions planting with trees and flowers.” In 1914, Qiqian Zhu presided over the construction of new urban area named “incense factory”, and built small gardens and squares at the corners; laid green space; planted trees on both sides of main roads. In 1924, The Imperial Rive was transformed into underground
drain, then was filled and planted trees. Meanwhile, they mended two roads on both sides of trees: "Justice Road" and "Rejuvenating Road". In 1928, the middle ground of two roads built into the garden.

In 1928, Wu Zhang Ph.D. returning from abroad put forward the “Governing Beijing Prospectus”. He said: “Park is the heart of city...... The area of parks should take a quarter of city area, in terms of per capita space, it should be three or four square meters green space per person...... We should build Beijing into a landscape garden city possessing large parks, small parks and the Children’s parks.”

A series of work implemented by the Municipal Guild, such as “park open movement”; the construction of libraries; museums; roads planning; the introduction of public transportation, and these greatly expanded the public space in Beijing, but also enriched people's life. Park is a multifunctional public green space setting leisure, entertainment, sports, culture, and education. Most of Beijing parks of the Republic of China furnished with monuments; history museums; national museums; the libraries; newspaper kiosks; even schools. Most of main public libraries are coexisted with parks (Fig.6). Such as the Central Park, the Basilica of the Infield Altar rebuilt to the central library of the Education Ministry, opened in 1916, is one of the earliest public libraries in China.

3.3 The stable phase of public green spaces (1929-1949)

Beijing's political status declined and political situation got turbulent with the national government moved to Nanjing, the Japanese army stationed in Beijing, at this stage, the destruction of garrison and shortage of funds led to the less people going to the park, increasingly depressed, the development of public green space untried sluggish state. After the government attached importance to urban planning and set up some related specifications, which involved the public green spaces.

In May 1929, the Sea Palaces opened as a park as tourism, but the warlords’ dispute brought disaster, municipal construction stagnated; buildings of the Sea Palaces were lack of maintenance and repair, the park presented a bleak picture. In 1934 the park closed, instead of the location of headquarter; it had been used as the seat of government offices.

<table>
<thead>
<tr>
<th>Name</th>
<th>Open time</th>
<th>Old name</th>
<th>Style</th>
<th>Pattern</th>
</tr>
</thead>
<tbody>
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<td>1903</td>
<td>Yi Yuan</td>
<td>private garden</td>
<td>rebuilt</td>
</tr>
<tr>
<td>Beijing zoo</td>
<td>1907</td>
<td>Million Livestock Park</td>
<td>imperial garden</td>
<td>rebuilt</td>
</tr>
<tr>
<td>Wang Yuan</td>
<td>1913</td>
<td>Wang Yuan</td>
<td>private garden</td>
<td>rebuilt</td>
</tr>
<tr>
<td>Central Park</td>
<td>1914</td>
<td>Infield Altar</td>
<td>temple garden</td>
<td>rebuilt</td>
</tr>
<tr>
<td>street greens</td>
<td>1914</td>
<td>Incense Factory Block</td>
<td>street</td>
<td>newly built</td>
</tr>
<tr>
<td>Park of Southern City</td>
<td>1915</td>
<td>Infield Altar</td>
<td>temple garden</td>
<td>rebuilt</td>
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<td>-----------------------</td>
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<tr>
<td>Neptune Village Park</td>
<td>1918</td>
<td>Chang Dian</td>
<td>temple garden</td>
<td>rebuilt</td>
</tr>
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<td>Temple of Heaven Park</td>
<td>1918</td>
<td>Temple of Heaven</td>
<td>temple garden</td>
<td>rebuilt</td>
</tr>
<tr>
<td>Peace Park</td>
<td>1924</td>
<td>Imperial Ancestral Temple</td>
<td>temple garden</td>
<td>rebuilt</td>
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<td>Beihai Park</td>
<td>1925</td>
<td>Beihai</td>
<td>imperial garden</td>
<td>rebuilt</td>
</tr>
<tr>
<td>Jingzhao Park</td>
<td>1925</td>
<td>Temple of Earth</td>
<td>temple garden</td>
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<tr>
<td>Imperial Rive Park</td>
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<td>River</td>
<td>newly built</td>
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<td>1928</td>
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<td>rebuilt</td>
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<td>Prospect Hill Park</td>
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</tr>
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<td>Sea Palaces Park</td>
<td>1929</td>
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</tr>
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<td>Mu Garden</td>
<td>unknown</td>
<td>Li Po Byway</td>
<td>private garden</td>
<td>rebuilt</td>
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</table>

In August 1937, the Pseudo-urban Planning Committee started to compile “Urban Planning Program of Beijing” after the Japanese occupied Beijing, completed in April 1938, which drew up the green areas: both sides of the railway line around the walls, the Western Hills area around the new markets in western suburbs, near the Summer Palace and the areas between the Summer Palace and the walls. Also proposed scenic areas: the areas including the Beihai, the Sea Palaces, the other three sides except south of Prospect Hill centered on the Forbidden City and surrounded by the walls. In addition, “Draft Urban Plan of Beijing” said in 1944: “We would build at least eight of small parks, one in each district except in-fifth and in-sixth areas, locations moderate ......”

After recovering lost territory, Beijing government took “urban planning” as the main task and promulgated regulations over twenty. In 1946, the planning method of green space drawn up in the “Planning Draft of Beijing” was the same to "Urban Planning Program of Beijing” compiled by pseudo construction administration. In 1947, Beijing Urban Planning Committee reported “the first episode of urban planning design of Beijing”, proposed “building green along the city walls; build park on the upper walls...... build the city's playgrounds, squares, children’s playgrounds and cemeteries”.

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4. Influence factors of arising and the evolution of public green spaces

The main influence factors of arising and the evolution of public green spaces are political and social factors.

4.1 The political factors

The ancient capital Beijing, as the national political center, every political situation change deeply influenced the city, which affected the urban public space. The New Deal implemented by the Qing government promoted the generation of public green spaces. After the Revolution, the reform of municipal management system and the importance
attached to the municipal work promoted the development of public green spaces with the disintegration of the feudal system and the injection of the western democratic ideology. Such as the “Municipal Guild”, the “Urban Planning Outline of Beijing” and “Urban Planning of Beijing and Program Outline”. The process of park from “private” to “public” just reflected the changes of political system from the feudal era to open era in China, public green space became political carrier.

4.2 The social factors

The people were in urgent demand of space for leisure and interaction, they strongly appealed to construction of public green space. In the construction process, the community encountered the problem of insufficient funds, social people from all walks of life including businessmen, lawyers, etc. donated large sums of money to help the construction public green spaces. At that time, the places that can carry out patriotic education, advocacy democratic ideas were needed, which also contributed to the construction of public green spaces.

**Summary**

It is found as following: there exist two types of patterns in the evolution of Modern Beijing public green spaces. One of them is rebuilt pattern, in which the forbidden gardens such as imperial gardens, private gardens, and temple gardens are transformed and opened to public green spaces. The other one is newly built pattern, in which the municipal authorities built up public green spaces such as small parks and street gardens in the bustling urban areas. The urban public green spaces in both patterns service the functions of rest differing in scale, function and landscape.

1) With respect to scale, public green spaces of the rebuilt pattern present larger scale, which have gradually become the key node of urban space structure and influenced the city form. The public green spaces built newly are always in smaller scale, which have limited influence on urban space structure.

2) With respect to function, public green spaces of the rebuilt ones are not only the places for rest but also the places for education, exercises and aesthetic functions through varied activities. The public green spaces built newly mainly provide convenience for the nearby residents.

3) With respect to landscape, the rebuilt ones are always scenic spots combining with mountain, lake and historical relics, which are full of cultural significance. The public green spaces built newly are however planned according to existed conditions planting with trees and flowers.

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The Structural Development of the British Concession in Tianjin (Tientsin), China

Yichen Liu, Masaki Fujikawa

ABSTRACT

In Tientsin, Concessions were developed by nine nations from the middle of the 19th century onwards. At any given point, there were a maximum of eight nations simultaneously existent. The British Concession was first established after the Arrow war in 1860, and extended three times thereafter. Following these extensions, it became the largest concession in Tientsin, existing for approximately 80 years. In the 2000’s, the area was assigned as a historical location, comprising of various culturally significant buildings.

This research considers the structural features of the British Concession, clarifying the development process of each of the areas; the original concession, first extension ‘British Municipal Extension’ and the third extension ‘British Extra Rural Extension’ (in the scale of the study conducted, the second extension ‘Southern Extension’, was sizeably insignificant and therefore removed from the study).

It was useful to analyze these areas using information detailing actual conditions present in the 1900’s. This paper depicts the overall image of the development plan of the British Concession of Tientsin and clearly clarifies who, when and how each area of the Concession was planned and developed.

Therefor, information collected indicates that the plans of the development projects were different between the original British Concession, the first and third extensions. Charles George Gordon, a British combat engineer, planned the first British Concession in the 1860s. The British Municipal Council planned the extensions developed after approximately 1900.

The plans of the extensions were formed taking into consideration the spatial relationship of the existing areas. In addition, it is thought that the formation of the plans was also influenced by designs from other Concessions. The Original British Concession was built lengthwise from North to South, parallel to the Hai He River (formerly Hai Ho River). Since the banks of the Hai Ho River were primarily used as a trading site, concentrations of banks were built along it, forming the financial district.

The British Municipal Extension was built after the construction of the original Concession. Since the Extension adjoined the original Concession where the financial district was, planning for it needed to take into consideration the use of the area as living quarters for workers and their families. Therefore, the Extension needed to include everyday living infrastructure.
In formation of the first plans for the British Extra Rural Extension in 1917⁸, structural changes were made from the layout of the existing Concession. Furthermore, the first construction layout in 1925⁹ differed from the 1917 plans for the area, which was constructed in the hope of attaining geometric beauty in addition to meeting conditions that would also label the city as fulfilling functionality purposes. In 1925, the town saw many structural changes, increasing its modernity. It can be said that this Extension was constructed from plans derived from human initiative as opposed to development by course of nature. The urban planning technique of the British Concession was one of the earliest recorded suburban sprawls. This pioneering initiative of the British concession might have had an impact on the planning in other parts of Tientsin.

**Keywords:** Tianjin; Tientsin; British concession; Municipal Council; Wudadao; Road plan; urban planning

**INTRODUCTION**

There are many historic cities and architectural ... in China, and it is said that 80% of those were built in contemporary times. After the Opium War in 1840, many concessions and leasehold lands were established in China, and those areas became a place of trade and conflict with Western countries. In those places, modernist city planning was conducted. In recent years, not only have numerous legal terms and ordinances been modified in China to better preserve and make use of these structures, but there has also been more interest in developing a better understanding of the creation of these areas. This research paper is focused on the urban structure of the concession areas of modern China in the Chinese modern times, explaining the techniques behind the design and construction of the areas.

Tianjin has a history of approximately 600 years, and it has played an important role as an import and export port for Beijing. Tianjin is a municipality directly governed by the central committee of the People’s Republic of China, covering an area of 11,760km² and a population of over 14 million in 2012¹⁰. Tianjin has one of the greatest ports in northern China that is open to foreigners, being the centre of economic activity of the Gulf of Bohai area. Tientsin is widely recognized as a special city of both immense cultural and historical

![Figure 1 – Tianjin (Tientsin) location (made from google map)](image-url)
richness.

The following nine nations developed concessions in Tientsin: Austria, Belgium, Britain, France, Germany, Italy, Japan, Russia and the United States of America. The British Concession was the first established after the Arrow war in 1860\textsuperscript{11}, and was extended three times thereafter (Figure 2). Following these extensions, it became and remained the largest concession in Tientsin for approximately 80 years\textsuperscript{12}. The British concession was located in the southeast of the Tientsin Native City and spread through the west of Hai Ho River. Table 1 illustrates the area covered by each extension. The concession area in Tientsin was on par with the size of Shanghai’s, and boasted being one of the largest in China. Until today, the state of preservation of the city structure including the buildings is satisfactory. The beautiful site of the financial district of Jie Fang Bei road and the Five Great Street’s (Wu Da Dao) resident area was protected and kept till today. In 2006 the State council of People’s Republic of China announced Tianjin as an Ecology City. From then on each district council in Tianjin promoted the development of Ecology residential areas. I believe the foundation was building during the concession age.

The purpose of my research is to clarify the development of the three stages of British Concession in Tientsin and how and why each area developed to what it was, and the characteristic each possessed.

The time in which these plans were made are very important moments in the modern urbanization of Tientsin, and I believe that it is indispensable in knowing and understanding this local historic context. In the past, there have been many different studies conducted on the formation of the settlements or concessions of modern China and the foreign settlement of Japan. However, there have been few studies on Tianjin. All the research completed on the history of Tientsin has the purpose of either analyzing the present conditions of the building, describing the designs of the buildings or discuss how to preserve and make good use of the buildings. This method of research is based on information derived from the present conditions of Tianjin. A master thesis published in 2010 at Tianjin University is the only study available that has similar findings with our research. Nevertheless, that thesis was heavily based on many assumptions, gaining credibility from the fact that it was supported by the social circumstances of the time. There is little information available about the designers and the builders of the concession. In other words, insufficient primary historical materials from the formation process of the British concession in Tianjin were analysed. To support this study, a range of historical material such as the records in which details of the concession era was initially recorded were analysed. These books were written in 1924 and 1925 by O. D. Rasmussen. Are important documents which help to explain the situation of Tianjin in previous times. In addition, The Reports of the British Municipal Councils opened to the public in recent years and proved a valuable historical material that explained the British’ plans and enforcement processes during the construction of the Concession. Furthermore, the level of accuracy of the information pertaining to the buildings and general area of the concession were confirmed by analyzing ancient maps and old photographs. Moreover, several fieldtrips were made the areas in consideration, which allowed me to collect first hand information about the present conditions of the area.
THE URBAN PLANNING OF THE ORIGINAL BRITISH CONCESSION AND THE BRITISH MUNICIPAL EXTENSION

After Arrow War, Qing dynasty and British Government signed the Convention of Peking on October 24, 1860, therefore British concession (Original British Concession) in Tientsin was established.

The first British Concession (Original British Concession) was planned by Charles George Gordon. He lived in Tientsin from September 1860 for two years as a British combat commander.
engineer. According to the British propagator John Innocent, it was stated “His brother records that he always rode to Taku, a distance of forty miles, and back on the same day; and that he had so ridden some twenty times. Yet with all this work on hand, the satisfactory quartering of 3,000 British troops, he would find time for other useful occupations, and that of mapping out the settlement was one.” Figure 3 is an illustration of Tientsin drawn by Gordon using the modern surveying technique.

The Original British Concession was established on the Southeast of the Tientsin Native City as the area between the Hai Ho River and the Taku road. The area which the Original British Concession was built originally was home to foul and noxious swamps surrounded by the graveyards of many generations 14. I confirmed that there were less than 30 foreigners living in Tientsin in the 1860s. Most of these foreigners were the propagators and merchants and their families. It was said that initially foreigners lived in both city centre and the areas just outside the eastern Gate of the Tientsin Native city. The map in Figure 4 confirms this to some extent, showing foreigners living in the central districts of the area, with a particular concentration of dwellings between the East Wall and the Hai Ho River (Figure 5) and offices on the “Kung Pei Cheih” (North Palace Street) 15.

“Most of the newly arriving foreign traders continued to have their places of business in the city between 1860 and 1870, and even those who built in the concessions, still maintained agents and godowns in the city suburb.” 16 In other words, the centre of management was still within the realms of the outskirts of Tientsin native City, however, there is evidence of a move to the concession having begun. In the concession, the merchants had contented themselves with staking off their land, building big godowns and erecting small temporary dwellings 17. Tientsin Massacre riot broke out in 1870, subsequently many foreigners moved to live in concession, which gave the development of the concession an opportunity to accelerate.

Gordon planned Victoria Road paralleled to the Bond along the Hai ho river and Taku Road on each side. He planned the rest of the smaller streets perpendicular to the direction of Victoria Road. The Band, Victoria and Taku Roads became the three main roads. With the
small streets constructed perpendiculars to the three main roads, the rectangular block were formed. On the 1888 map of Tientsin, the width of Taku Road and Victoria Road were both about 3.5m, however, the width of the Band was 6.5m. From this, it can be presumed that the center of development was the Band. It can be confirmed that there were many commercial facilities within the concession; Hangs (merchant houses), warehouses, lodging facilities and commercial facilities (Figure 6). Analyzing old visuals of the area, such as photographs, can identify the prosperity and development of the Original British Concession at this time. Judging from the evidence in Figure 6, many Hangs stood in the British Concession area. It is assumed that foreign merchants both lived and conducted businesses in these Hangs. Here is an example of how a foreigner came to Tientsin and established his business and built his residence. John Innocent lived in Tientsin from 1861, initially living near the Tientsin Native City. He purchased 6 mu (approximately 4,000 m²) of land with 600 silver Taels, based on a contract between the U.K. and the foreigners in the concession called Crown Lease. Innocent build a British one-storied house on the land, which he used as a hotel, warehouse and Hang; known as the mud house. The House was replaced by a three-story building with a five-story corner as a special fixture, which was named Astor house hotel in 1886. The building has been preserved well and kept as it was till now. During early period of the British Concession, Astor House Hotel financed the pavement of the road in 1887 and built Tientsin City's first rubble road. In other words, private enterprises had shared the responsibility of building and improving public facilities.

In addition, many other foreign facilities apart from U.K also confirmed to be running in the Original British Concession. The consulates of other commercial facilities of countries such as Russia, Germany and Japan can be found in Original British Concession (figure7). In other
words, at that time, the Original British Concession had multinational characteristics and formed the global community.

Additionally, the graveyards still spread out around the concession at this point in time, and the native footpath could be confirmed (Figure 6).

Futhermore, some western facilities existed on the outside of the concession area, with native people’s residencies and other traditional looking homes visible around the concession area. This indicates that the area was part of a mixed-residence quarter.

In 1895, the map shows that Russia and American consulates moved west (figure 8), coincidentally at this time, many new roads were built. In 1895, the British concession had yet expanded, but it was clear that development had already begun in the direction of the inland.

Around 1900, the concession was expanded not once, but three times. The British Municipal Extension was very well planned and developed as a whole.

Figure 7 – 1888 Tientsin map
(Source: made by the map included in Tianjin historical maps compile)

Figure 8 – 1895 Tientsin map (Source: made by the map included in Tianjin historical maps compile)
Figure 9 shows how there was public use space (in orange) and also public accommodation. For the original British concession, it can be said that the intention of the development was to establish more substantial publicity space and facilities in the British Municipal Extension. The population in the British concession increased from 16,800 to 35,200 between 1913 and 1925. The demand for a chunk of the residential suburb increased dramatically as well.

THE URBAN PLANNING OF BRITISH EXTRA RURAL EXTENSION

British Extra Rural Extension was expanded in 1903, but was not developed until the 1920s. British Municipal Council made the first development plans for the Extension in 1917, led by H. McClure Anderson, a Scottish engineer. He was born c.1877 in Edinburgh. The details of his training are not known but the 1901 Census indicates that he was working as a
draughtsman in an unspecified office in Edinburgh in that year.¹⁹
His design intended to fulfill five purposes.²⁰

I To secure direct access from every part of the settlement to every other part with ample provision for through traffic from all directions taking into concession not merely the whole of the British Concession but also the adjoining concessions and the general surroundings. The nearer a residential district, such as the E.M.A. is likely to become, can be brought to the business centres in this way the more readily it will be developed.

II To obtain by carefully planning the general direction of the minor streets, which the greater part of the residential property will face, the advantage of direct sunlight at some time of the day on each of the four sides of the buildings with the consequent gain in ventilation and healthy conditions. This consideration involves the avoidance of direct north and south or east and west in setting out the building blocks. Preference is given to the latter general direction of the roads to gain as much southerly aspect as possible for the prospective houses.

III To provide for adequate drainage and security from flooding. In the E.M.A. this is best done by raising the general level to at least 18.50 Taku Datum or six inches above the normal level of the Bund coping. This level is three feet above the flood level attained last autumn and it would secure natural drainage of the whole area into the Wei Tze Creek.

IV To adjust the widths of the roads to the traffic requirements. This is an economic point which calls for very careful consideration. It is suggested that, while, main thoroughfares should be wide and ample, unnecessary width in residential streets, where no through traffic has to be provided for, is wasteful and will retard development by increasing the rental of the property without giving a corresponding benefit. The economic loss is represented by increased municipal outlay for paving and maintenance and by the greater area withdrawn from the building land to supply the needless street space. Considerations of light, air and recreation can be satisfied more economically and to the greater benefit of the inhabitants by the provision of more open space about the houses and by public gardens. It is an essential part of this proposal that the space between the frontage lines of the houses be ample.

Figure 10 – 1917 plan (Source: included in REPORTS OF THE BRITISH MUNICIPAL COUNCILS 1917)
V To determine the exact road lines so as to give opportunity for architectural expression in the grouping and massing of buildings within the fairly wide limits which would satisfy the above practical considerations.

However, the plan which seen in a map of 1925 to have been carried out, and some changes were seen with the original plan in 1917 such as road planning (Figure 11).

Since the British Extra Rural Extension of the early 1900s was still a damp area, at first the British Municipal Council filled up the ground. The floods often engulfed Tientsin. There were talks of raising the ground level to 18.5 Taku Datum in 1917. This was the plan that was higher in 3 feet than the floodwater level that happened in 1917, but in 1918 plan, the highest level the ground would be lifted to was settled at 18.00T.D, with the height lowering towards the creeks of both sides of British Extra Rural Extension (Figure 12).

Actually, it was thought that construction was carried out according to the 1918 plan, with work beginning in 1919. The method of filling was: Firstly, block a certain area by building fence from ground level, then pump up the mud from the bottom of Hai Ho river, then transferred it to the fenced area through the underground pipes. After that, with the evaporation of the water from the mud, the mud sank in and became solid. As figure 13 showed, every year 250,000 m$^3$ to 400,000 m$^3$ of mud was used in the project of filling, and the project was almost completed by Mid 1930. The filling was almost completed by the mid-1930s (Figure 13). In addition to the completion of the filling, the drainage system was maintained in 1919. The drainage for household use was also designed to be able to drain away flooding water at the time of flood.

*Figure 11 – 1925 plan (Source: included in Tientsin: An Illustrated Outline History, 1925,)*
When the planning of British Extra Rural extension started, the Original British Concession had already very well established. Many banks and business offices were gathered, which formed the business district. And the British Municipal Extension was also developed to some extend between early 1900 to 1920. Roads and open space were built. Due to the fact that many public facilities such as churches and cinemas were already built in The British Municipal Extension, the British Extra Rural Extension was developed from across the Wei Tze Creek towards south east, and became the suburban area of The British concession. The planning of British Extra Rural Extension must take the consideration of the connection with
the British concession, so Anderson decided the priority of the development was to keep the flow of the traffic and provide the convenience of traveling.

As for the road planning, different road widths were planned for the original 1917 plan of the British Extra Rural Extension, as shown in Figure 14. Traffic road (①~⑥) was designed to be wide, and Non-Traffic road (⑦) was designed to be narrower. It can be interpreted that this plan was based on Purpose No. IV mentioned above. The roads in British Extra Rural Extension were different from those in other part of British Concession, there were not as many restrictions there. South west of Figure 14 the roads were developed equally towards different directions from center A and the roads were built crossing each other leading to every direction forming radial system road. Road ① with a width of 82 feet Passed road ② with a width of 72 feet then divided into different directions at Road ③ which had a width of 67 feet. It formed a Y shape road connection.

One of them is parallel with Race Course Road and the northwest border of French concession, which went through the center of British Extra Rural Extension. A traffic centre was panned at the northeast as Figure 14 shows. This area is roughly the centre of British concession. From this point roads were extended in a radiating shape to British Extra Rural Extension and connected with the existing roads there. Another road extended to the north border of French concession. In this way these two roads ③ secured the traffic to British Extra Rural Extension, the other parts of British concession and the French concession. At the same time the Race Course Road ④ in southeast with a width of 43 feet road ⑥ was used as the main road, within the residential area road ⑦ was built with a width of 33 feet.

*Figure 14 – 1917 plan (Source: made from the map included in REPORTS OF THE BRITISH MUNICIPAL COUNCILS 1918)*
As stated above, up to 1925, the designing plan of British Extra Rural Extension had been changed, which was also seen in the designing of roads. Comparing Figure 15 to Figure 14, we can see though they are very similar, the roads along Kuan SSu road in Figure 15, and the surrounding area of the Recreation Ground had been altered. Furthermore, according to the design of 1917, Cumberland Road, Dumbarton Road, Glasgow Road in Figure 15 were designed to run in an arch shape towards north west, however Figure 15 shows the three roads only run in an arch shape to Road 5 and stopped. The roads on the other side of Road became straight which were different from 1917’s design. Especially the Derby Road (Figure 15, 20m) from Hai Kuan ssu Road (27m) went into French concession in the north was altered to a very straight road. Because of the change we can assume that the convenience to travel to French concession was very much prioritized. Since the development of French concession it expanded step by step towards west. As the map shows that in the summer of 1916 a conflict occurred between Tientsin local residence and the French authority over the extension by force, as a result the extension had to stop temporarily. A few years later the extension started again, in 1931 the extension was completed. We can say that the extension of French concession was behind the change of British Extra Rural Extension’s plan (Figure 14,15).

As Figure 15 shows, the roads in British Extra Rural Extension are relatively wide, they were ranged from 18m, 20m to 27m. Derby Road and London Road with an inner width of 20m became the main roads and dividing British Extra Rural Extension into three parts. Most of the other roads were about 13m wide in figure 15. Comparing with figure 14, the roads became unified in width just like Road, it was equalized in width with its neighboring roads.

Apart from that, as Figure 14 shows, through the extension of the tram line in French concession it connected the British Municipal Extension and British Extra Rural Extension in British concession and resized the unity of the transport and secured the flow of traffic. The roads planned connected two markets and taking the convenience into consideration. The southern part of London Road was not included in the plan. The roads within residential areas were not wide to keep the quiet atmosphere of the place. This plan was not carried out in the end, the tram service was not provided. Again as Figure 14 shows, the places marked with circles on the roads appeared to have some special features which did not offer any
explanation as why and what they were for. Road ⑦ planed to force commuters to drive in a diamond shape or zigzag in some parts of the roads for certain specific reasons. I suspect these features were for tourists and for eye stop or even to slow down the traffic. From the Map of 1925 we can see that the plan was much simplified and the roads were straightened, the original plan was not carried out.

Corresponding to IV, four parks and a recreation ground were planned for the British Extra Rural Extension in the original plan of 1917. In the enforcement plan of 1925, only the Jubilee Park (Figure 15, ⅰ) was able to confirm, but, According to the historical materials, in the enforcement of the 1925 plan, there was construction for the Jubilee Park. We also know that maintenance of the Queen's Park (Figure 15, ⅱ) began in 1938. These are the only two parks discovered to be included in the plans of the area during that time. The number of parks actually constructed decreased in comparison with the number of parks included in the original plan of 1917, however, the acceptable minimum open space was secured in British Extra Rural Extension at the time when there was not yet the concept of park in native Tientsin.

In terms of block size, there were a total of 88 blocks in the original plan, but only 78 were included in the enforcement plan. As a result of this, the average area of one block grew larger. The sizeable rectangular blocks were built on the south side of British Extra Rural Extension in particular. Thus forming large individual blocks of houses. The direction of the blocks was long in the east-west directions and short in the north-south direction. Had southern face homes been more popular, many more additional houses could have been built. However, the people of the day were adamant on constructing and living in north-facing homes and sacrificed certain things for this amenity. Many believe that this area played a role in the formation of an upper-class residential area.

The above clarified the overall image of the development plans of Tientsin’s British Extra Rural Extension. In the formation of British Extra Rural Extension, we can see that 1917’s design was modified in 1925 and was carried out for the first time in the same year. The minimum intention of providing a comfortable life style by 1917’s design was maintained by 1925’s modification, which fulfilled the conditions required for a modern city. The initial plan presented a clear concentric circle-formed roads and radial pattern roads, which, at first, were reminiscent of European Baroque city planning, whilst subtly changing the width of the roads, incorporating it into the design of a block that explored the geometric beauty of the road formations. In the executed plan, the design was much more economical, and was going to present the functional beauty at the same time, bearing fruit to a modern design. It can be said that the difference between the two plans was the change from road pattern design to block space design.

CONCLUSION

The early arrivals of foreigners in Tientsin settled in the native city and the nearby area. Later with the development of the Original British concession, they migrated to those areas. The panning of the Original British concession was restricted by the existing layout of the city. However, Gordon proposed a very logical development, which took the bond as the centre street. From that we can see the initial planning of the concessions in Tientsin might have adopted some samples from British settlement in Shanghai.

The foreigners who came to the British concession of Tientsin demanded good living conditions and gradually migrated to inland from their old residing places in the original British concession, which lead to the suburbanization. In the British Municipal Extension, In
order to satisfy not only the business people and the officials, but also the family members’ need. Building public areas were emphasized. Therefore concert halls, restaurants etc, gathered in this district. It laid a foundation for a flourishing and busy area.

Targeting the desire to live in a high-grade residence area of the foreigners in Tientsin the British Extra Rural Extension provided them with a good opportunity with enough space. The designer used radial road system and also built rectangle blocks of residential areas. This type of modern city planning was also seen in Shanghai and Guangzhou. However, the design in British Extra Rural Extension was carried out from filling and leveling the land then built on an empty block, therefore the design was fulfilled to it’s best.

The city planning in the Concession or foreign settlement colonial areas could be seen in other cities in China, such as Shanghai and Guangzhou. Later on the local governments of these cities adopted the advanced methods of planning. Therefor it is assumed that the planning in the British Concession in Tientsin served as a pioneer in designing and building industry in Tientsin.

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