



www.planum.net
The European Journal of Planning

On the Diffusion of Modernist Urban Models: An Overview of Mexico City's Planning and Urban Design Projects (1921-1952)

Fernando N. Winfield Reyes¹

by *Planum*, January 2010
(ISSN 1723-0993)

¹ Fernando N. Winfield Reyes
Faculty of Architecture, Universidad Veracruzana (UV), Mexico
Email: carpediem33mx@yahoo.com.mx

Abstract

This paper identifies critical international sources for conceptual and practical inspiration followed and assimilated by Mexican urbanists during the first half of the twentieth century. It focuses on the diffusion of Modernist urban models and their progressive incorporation and adaptation at the scales of city planning and urban design.

The way in which Modernist urban models were known, interpreted and adapted to practice to meet social needs also enticed attempts to construct a cultural identity, regarded both as 'modern' and as 'Mexican'. In particular, this issue is crucial to an understanding of some of the most relevant urban projects designed in Mexico during the post-revolutionary period (1921-1952), a time of great expectations for social change, for growing nationalism and confidence in progress.

During the period reviewed, the diffusion of Modernist urban models provided solutions which were followed and tested against Mexican circumstances. However, unlike scientific or technological experiences developed in other fields of knowledge, which were normally transposed to generate patterns of use without further cultural criticism, those related to urbanism required adaptation to local customs, climatic conditions, economic, geographic and environmental situations, as well as social and political visions. Thus, the use of Modernist urban models generated in the end different outcomes when compared to the outcomes of more developed countries (such as France, United States and Britain).

In this respect, it can be argued that diffusion and interpretation of Modernist ideas regarding city planning and urban design involved dynamic interactions that were often not unidirectional. This multidirectional diffusion thus provides grounds for discussion on the transferral process of theoretical concepts and practical planning techniques. This is a discussion that appears charged in terms of cultural response.

This paper reviews several influential urban models that were proposed and intended to solve Mexican urban and social problems, following previous experiences with European and American models. Some of them were assimilated and reinterpreted in often creative, innovative ways, as observed in key examples of city planning and urban design projects focused on Mexico City between the late 1920s and the early 1950s.

Such urban models were not only absorbed, but also developed in practice. Later, these models have been considered to have enriched the urban experience and urban design practice in Mexico. This view provides an interesting perspective on the evolution of urban and city planning ideas from international levels to local levels. Given that Mexico's urban design exemplifies urban design models as responsive to local and regional concerns, thus broadening and enriching the meaning of the international models. Ultimately Mexico's recent urban design history provides evidence for planning theory as an evolving process and conduit for the exchange of cultural experiences and practices.

Introduction

Urban models for city planning and urban design: basic clues for analysis

For the purpose of this paper, an *urban model* is considered a *conceptual object*, represented either by drawing, graphic convention, written description, or a combination of all of these to convey objective ideas and feasible solutions in order to be used in practice for the various social needs that occur in a city. Under these broad terms, however, the idea of an urban model that is particularly useful here with regard to city planning and urban design encompasses a means of transmission, a coherent theoretical body used to develop and test its solutions, and the possibility of a flexible or adaptable use of such solutions in practical projects.

Rather than a rigid conceptual construct, urban models can, therefore, be explored as adaptive and responsive solutions, dealing with a variety of scenarios and cultural circumstances, and thus open to some extent to interpretation, to revision and to variation in results, whilst recognizing essential, basic aims.

An urban model as is commonly understood, relates to its appropriate time, place and culture. It can be seen as a set of indications or valid prescription, subject to tests, and to solve social problems identified within the constraints and limits of the urban realm. A solution becomes a model in as much as it is learnt, assessed, followed, developed and built to conform to certain social-spatial needs. Thus, an urban model integrates a series of concepts and values for designing or in explanation of a city.

The *urban models* that have been tested against and, to some extent applied, to Mexico City can be classified at two scales. The first scale relates to the understanding of the city as a whole, breaking it into smaller components. This is called *city planning*. On the other hand, the second scale relates to the understanding of the city as a fragment or urban part related to a greater container which can be a larger area or the city itself, also referred to as *urban design*. Although both scales are intertwined it is of great use to consider both in isolation for the purposes of analysis and design. The examples reviewed in this work reveal a significant emphasis on one of the two scales.

To exemplify the relationship these notions of urban models, the instruments for analysis can be referred to as description, image and plan. For the first scale, which deals with *city planning* examples, the street plan at a certain historical point or the master plan as a blueprint of the city, are the basic elements for analysis. These are then compared with a certain urban model or a combination of urban models. For the second scale, which deals with urban design examples, the layout and other descriptive spatial aspects, such as the relation between buildings and public spaces, will be of great use in explaining the way urban models were taken into account.

Historical Background

México-Tenochtitlán, the former capital of the Aztec empire, was founded on several islands within a lake that used to exist in the central plain of present day Mexico. The basic morphological urban structure was a gridiron system. When the Spanish arrived in 1519, the city population was nearly 500,000 inhabitants.

After the conquest, the Spanish followed a policy of destruction of all pre-hispanic buildings and rebuilt the capital for the Viceroy of New Spain. This proved to be a bad decision, due to severe problems with earthquakes, continuous sinking, flooding, and poor terrain resistance for high-rise buildings (Opher & Sánchez Valladares, 2000). By the late eighteenth century, Mexico was perhaps one of the most populous peripheral capitals.

During the nineteenth century, Mexico City was shaped by foreign investment, industrialisation and demographic trends that led the way for urban transformation. At the same time civil wars and foreign invasions provided an increasing awareness of the way the new nation had to deal with and relate to the world, both internally and externally, and not always harmoniously given the sometimes contradictory feelings towards foreign and local influences. The urban population was accommodated either in traditional inner city areas or in newly expanded ones, particularly from the 1890s. The poor occupied overcrowded colonial buildings, which were transformed into multi-family rental housing, whereas the middle and upper classes began to leave inner city areas and moved to well sanitized and embellished modern neighbourhoods.

Such social trends showed the inextricable relationship between housing and the city as being one of the main sources of urban conflict and social contradiction, this area becoming a battlefield in the consideration of urban models as solutions. Some were to be studied in great detail and later implemented in coding ordinances and design.

Although the problems of sanitation and poverty associated with inner city areas were clearly known by the professionals and practitioners of the built environment (i.e. government officials, architects, engineers, contractors and builders), these concerns were not necessarily considered a priority. 'Fashionable' urbanistic solutions or Modernist housing interventions, for example, often occurred in the new areas of expansion where the elite groups were meant to live. However, important public works and improvements in infrastructure, redesigning of open spaces, and opening or enlargement of streets to meet the needs for mobility, commerce, urban linkage and means of transportation, were implemented to modernise the nation's capital. Such emblematic or large urban projects introduced as models the solutions and technological developments that had been in use in France, England and the United States. The development relied strongly on foreign methods of practice, especially when such solutions were a desired novelty in Mexico.

Early Modernism and foreign influences during the late nineteenth and early twentieth centuries

The ideas on which newly expanded areas were designed are an important source for understanding how city planning and urban design models were interpreted in light of the changing Mexican reality. It is also important to know where they originated, through what processes they arrived and became known in Mexico, and how they were diffused..

When considering these aspects, it is necessary to take into account that the professions of city planner or urban designer, as are known today, were practically non-existent in the country previously. Instead Mexican architects and, to a certain extent, engineers were often commissioned to produce urban layouts, to re-design city areas and to carry out the proposals of public works.² In some cases, nationals worked in association with foreigners.

Some of the leading Mexican architects from that time had been trained in Europe or the United States. Foreign architects, civil engineers and builders were also invited to work in Mexico, especially in the last decade of the nineteenth century. Adamo Boari, Emile Benard and Maxime Roisin arrived in 1897 for the International Competition for the Palace of Congress, and later, went into academic teaching and studio practice, tutoring and spreading knowledge among new generations of Mexican architects. Among these were some of the predecessors of the early Modern period. In this regard, new construction materials and technology, built forms, architectural ideas and urban models were ‘renewed and modernised’³, but also tested and contested against conditions, needs and visions of the local context.

The academic schemes on which architects and engineers, as professionals of the built environment, were educated relied to a large extent on a tradition not of ‘liberal’, but of ‘academic’ knowledge as had been established in some of the leading European schools of fine arts. These schemes were greatly concerned with the aesthetics of form and decoration, and, to a lesser extent, with the technical notions of industrial development and function.

The opening of certain streets within the colonial urban structure and the extension of avenues were the basic elements for change. Inspired by the royal

² This distinction between the professions of architecture and engineering was broadened when in 1867, President Benito Juárez issued a decree to separate the studies of civil engineering from architecture (Lira Vásquez, 1990, 133). The teaching of architecture remained at the Academy of San Carlos, and civil engineering passed to the College of Mining.

³ The Italian architect Adamo Boari developed an Art-Nouveau which incorporated indigenous Mexican elements in the project for the National Theatre (commenced in 1904 and successively modified in style until 1934, known nowadays as the Palace of Fine Arts). One of most accomplished buildings in Mexico City, situated in the centre, it shows associations with the Opera of Paris by Garnier, delivering a prime example of the eclectic approaches followed during the years of early modernism of Porfirio Díaz’s ruling (see also Lira Vásquez, 1990, 142-144).

promenades in Europe, a project which linked the city centre⁴ with the western castle in the Forest of Chapultepec, called *Paseo de la Reforma*, was completed in Díaz's era, having been begun in the early 1860s. Alongside this axis, which was conveniently segregated from low-income neighbourhoods, a privileged zone, with newly planned exclusive suburban subdivisions, was promoted by the regime, in association with foreign investment, to convey an image of progress and modernity aimed at the rich, both nationals and foreigners (Segurajáuregui, 1990, 41).

The city design was heavily influenced by European ideas, especially French architecture and urbanism. By the second half of the nineteenth century, new urban axes were planned and urban interventions took shape, following some of the principles on which the plans for Paris, Vienna, and industrialised London, were designed. According to these new ideas, several main boulevards and avenues radiating from the city centre were designed and landscaped. These boulevards and avenues led to developing areas in the southern portion of the city. They encouraged the subsequent suburbanisation trends and the exodus of upper and middle classes from the central areas.

Foreign investment and partnerships were promoted by Porfirio Díaz's dictatorship during the last quarter of the nineteenth century and more intensively in the first decade of the twentieth century in an attempt to modernise the city. This included electrical power, street lighting and a sewage system contracted to the British. By the early twentieth century the first trams and donkey-pulled trains were introduced to connect the existing grid with the growing middle and lower class neighbourhoods and small rural towns. These areas were eventually swallowed by the city's subsequent expansion.

The apparent stability of Porfirio Díaz's rule brought changes and new perspectives through the cultural exchange with Europe and the United States. The development of train lines, from the eastern Port of Veracruz to Mexico City (connecting regular maritime routes to Europe and the United States) and from the north through Ciudad Juárez (on the United States border) provided links to international networks. Such train lines served to increase trade but also cultural innovations due to the contact foreigners established with the locals.

The introduction of street lighting increased the opportunities for social life, as did other technological developments: bicycles, trams and cars were introduced, allowing people greater urban mobility (Lira Vásquez, 1990, 151-154). In parallel with all of these urban transformations, different housing typologies were also

⁴ Rykwert (2000, 86) describes the main square and its relations of symbolic power and urban linkage in the following terms: 'The Zocalo or Plaza de la Constitución [...] at 269 yards square it is the second-largest public paved space in the world; only Red Square in Moscow is larger. It is laid over the market of the Aztec capital and a section of its temple precinct, Tenochtitlán. The Palacio Nacional, the Presidential Palace, was built originally for Hernán Cortés, the conqueror of Mexico, from the stone of the ruined palace of the last Aztec sovereign, Montezuma. It became the residence of the Spanish viceroys as well as of the unfortunate Habsburg Emperor of Mexico, Maximilian. Despite the amorphous growth of the city, the Zocalo, the Cathedral, and the Palace remain the center of the city, together with the town hall and the Supreme Court'.

designed with new layouts. This resulted in ‘a newly distinctive Mexican urbanism with regard to previous examples’ (Ayala Alonso, 1996, 15). A similar process had already taken place, but on a greater scale, in the first industrial countries such as Britain and France, where cities which were driven to accommodate housing needs and growing retail uses following the capitalist trend (Bentley, 2002, 93).

Different approaches in architectural and urban design were taken towards an integration of the early modernist and the traditional ideas. These were based upon the ‘revivals’ and *art-nouveau* styles, or even the fusion of nationalist symbols seen as a synthesis of material progress and cultural development and supported by the upper classes. For those wealthy groups, Mexico City expanded in a planned way, especially under the auspices of the central government.

This spatial growth occurred in the new peripheries of progress for the Mexican and foreign bourgeoisie, under the development of *colonias* (colonies, refers to the new settlements for foreigners that had been fostered as a national policy of development and cultural advancement) and *fraccionamientos* (exclusive subdivisions). The underlying assumption for these patterns of urban development was the aspiration to transform Mexico City into a great capital, following the European models such as Paris, London or Vienna. Yet, Mexico City stood in direct contrast to these cities given its densely populated poor areas, with living quarters in derelict *vecindades* (frequently unhealthy, a type of multi-housing) in inner city districts,⁵ or in the then increasingly growing *arrabales* (slums) on the periphery of poverty.⁶

Middle and upper classes moved towards the new housing developments that offered the possibilities for and commodities of a more modern life. Also, new housing areas were needed to house the foreign investors and their families (American, British, French and Italian) who shared these neighbourhoods with the Mexican bourgeoisie. Given these conditions, it is difficult to distinguish a comprehensive city plan during this time. This is apparent in the evidence of survey maps showing avenues, boulevards and streets, and to some detail, defining main open spaces, squares, parks and large public buildings, without a holistic idea for its understanding and future growth.⁷

At the urban design scale, from then onwards the new developments added to the city grid resulted in an enormous willingness to be free from the traditional grid-iron layout. This was often manifested in new and contradictory morphological ways: ‘Mexican town planners and urbanists [...] continued expanding the city [...] using the urban grid as a basic morphological pattern. Each new addition,

⁵ In 1900, one third of urban population lived in this typology of housing; one block, for instance, could accommodate between six to eight hundred people (Segurajáuregui, 1990, 47).

⁶ After 1884, many slums were formed, some of them allocated to the popular and working classes in a sort of informal occupancy of land subject to speculation.

⁷ As such, the first Master Plan for Mexico City would not be developed until 1935 by Carlos Contreras (López Rangel, 1993; Eggener, 1999, 126), although he was influential in promoting modernist urban models for regional and city planning among government officials, scholars and professionals of the built environment since 1928 (González Pozo, 1996, 311).

however, was designed to reflect topographic infrastructure potential resulting [...] in a collage of grids' (Bentley and Butina Watson, 2003).

In other words, the lack of a master plan for Mexico City during the early Modernist years limited what we now consider the imperative for understanding the city as a whole. Recognising the city's planning contradictions and other severe problems and forming a focused integrated vision corresponded to the provision of public works. Yet, as outlined in these examples, , Mexico City during those years, and until 1928, lacked a comprehensive notion of regional or city planning that was not clear among the professionals of the built environment. The professionals focused rather on their practical endeavours, that is, on the designing of urban fragments and other disjointed extensions to the existing city.⁸

Housing and the city: urban models for the new

Development of the first planned and designed exclusive subdivision was started in 1859 by Francisco Somera, the *Colonia de Arquitectos*. The underlying idea was to design and develop a neighbourhood for architects and students of the Academy of San Carlos to live in. Other planned and designed neighbourhoods followed, such as *Colonia Santa María de la Ribera* (formerly founded in 1861), *Guerrero* (1874), *San Rafael* (1882), *Cuanabámoc* (1890), *Juárez* (1898), *Roma* and *Condesa* (1902). These are the most significant examples of the newly distinctive Mexican urbanism produced as a result of the early diffusion and local interpretation of foreign urban models.⁹

Following the fashion of the times for the European way of life, some of these newly planned neighbourhoods incorporated 'modern' infrastructure, wide avenues and landscaped footpaths, as they tried to convey a character of some famous European capitals, idealised communities and built representations of symbols of desires, status, distinction and modernity (Lira, 1990, 141). Not only did architecture and its relationship with public space change through the incorporation of large gardens and pavilion buildings, but the urban pattern of growth for the city in such newly planned areas also changed, producing a more extensive use of land (González Pozo, 1996, 303).

Gradually, the bourgeoisie migrated towards these exclusive subdivisions, looking for areas far from commercial movement and crowds. As in the *Colonia de los*

⁸ It is interesting, for example, to compare the earlier development of city planning in Buenos Aires, where, since 1909 an all encompassing plan (The *Nuevo Plano* or New Plan, commissioned by the French planner Bouvard) was a public instrument to address the need of plans, the housing shortage, and the rational organisation of production and urban growth of the city in its region (Novick, 2003, 267-275).

⁹ The Colonia Condesa was designed by Emilio Dondé. According to González Pozo (1996, 301-306) in 1903 the first urban coding for subdivisions was issued in Mexico City. Each developer had to sign a contract with the Municipality, which enforced the designing of 20 meter-width streets. 'The developer had to plant trees in the streets and provide land in an amount of not less than one tenth of the area to develop, in order to: design and landscape a park, set one block for an open market and two plots of regular size to accommodate future public schools' (Segurajauregui, 1990, 49).

Arquitectos mentioned above, in the earlier stages, these subdivisions had a suburban character. But sometimes this type of development took several decades to consolidate as the creation of new subdivisions largely occurred independently of demand. This revealed inefficient economic planning mechanisms and changed the city's original urban character.

The beginning of the Mexican Revolution in 1910 and its seemingly endless civil battles among the various military factions produced desolation and a decline in national population until the late 1910s. In 1911 Díaz and his family fled Mexico, making way for the national aspirations of a new democratic government, headed by Francisco I. Madero, who in the short run, was overthrown as a result of a coup-d'état led by the military. An American invasion in 1914 seemed to epitomise social discontent. By 1917, however, as it appeared that the fighting would end and conditions for change were appropriate, a national congress was appointed to write new constitution to address new civil rights. This movement was successful under the leadership of Venustiano Carranza, but only for a few months. Although 1917 is sometimes mentioned as the end of the Revolutionary era, several military and social uprisings continued until 1920, when a former general, Alvaro Obregón, was elected President of Mexico, ending a time of turbulent historic events.¹⁰

The 1920s:

Recognising emergent social needs as opportunities for change

From 1921 onwards, an ambitious programme of social reconstruction was aimed at meeting the ideals of progress towards land distribution, education, housing, and health plans, as evident in the works of the several federal agencies and ministries. One of the most significant ideological figures from that time, José Vasconcelos, former rector of the National Autonomous University of Mexico, was appointed Secretary of Education. Vasconcelos realised the importance of developing a national identity on the premises of traditional and modern sources. As a result of this, and of the evolution of the cultural and social ideas, during the following thirty years famous artists and architects were invited to produce the new post-Revolutionary expression for modern Mexico. This cultural evolution often

¹⁰ Obregón was assassinated some years later. His successor, President Plutarco E. Calles dominated national politics, even imposing several presidents. A later year of 1934, is also considered by some historians as the very end of revolutionary times, when different social strands and political groups were somehow channeled towards the integration of a revolutionary nationalism, increasingly supported by the United States financially, in spite of the open Mexican backing to foreign socialist ideologies and the directed effort towards a left-wing national state policy. These political complexities are important to explain and to bear in mind when referring to the diffusion of foreign urban models, its interpretation within the framework of the national policies and the great expectations placed on them to solve social needs (as in the case of this work, the city planning and urban design issues). And, of course, in the way such urban models were aimed, promoted, fostered by the central government or the hegemonic groups, and, ultimately, implemented in the context of modern Mexico (to broaden the discussion of these ideas, see also Aldrete-Haas, 1991; Krauze, 1997; and Gutiérrez Vivó, 1999).

provided the conditions for the return of important figures to work in Mexico, as is the case with the painter Diego Rivera (Hurlburt, 1986). Arts, and especially architecture and urbanism, would play a role in the construction of the identity of a new nation.

Some of the most important national problems during this time of reconstruction and of increasing social needs were identified and connected with issues about city planning and urban design. Yet these were still encompassed within specialised disciplines or approaches within the architectural and engineering domain. In other words, they were limited to the professions of the built environment and construction.

Nevertheless, what is significant is the way in which such theoretical ideas were presented and assimilated by professional bodies, academics and professionals of architecture and civil engineering as being techniques suitable for solving the problems of planning Mexico's cities and especially of Mexico City itself. Such models were introduced as an impetus to promote the newest solutions for housing,¹¹ and to ensure, at least in the examples produced, good standards for city infrastructure, industry, education and health.

From the 1920s onwards, the middle and upper classes developed in large Mexican cities as a result of the progressive social and economic conditions. As these classes became wealthier, to some extent their tastes and expectations were shifted towards new ideas of 'modern'. The modern was usually identified as different from, if not actually opposed to, traditional. Urban lifestyles evolved and had an effect on the way certain areas were designed in Mexico City.

In a similar way to what had happened in *Colonia Juárez* during the previous years of the Revolution, new exclusive subdivisions were designed to meet the needs and desires of these emerging social groups, although using new stylistic architectural considerations and urban layouts which followed the new images of status and social prestige as depicted in the residential areas developed in California during the 1910s and early 1920s, and where some hints of European influences can be traced.¹² In accordance with these new modernist urban design models, José A. Cuevas produced the layout for *Chapultepec Heights*¹³ (*Colonia Lomas de Chapultepec*) in 1925, which was soon followed by *Colonia Hipódromo-Condesa* (González Pozo, 1996, 304). The emerging Mexican bourgeoisie, as depicted in the literature and the media of the 1920s, was shifting in preference from European to American lifestyle. The sources for inspiration of these urban design projects were the

¹¹ Housing was considered a social right in the 1917 Constitution but it was not until 1925 that the first federal agency was appointed to provide funding for what was from then onwards called 'social-interest' housing or housing for the workers.

¹² For example, the treatises of French, Austrian and English urban designers and landscape architects.

¹³ Originally named in English.

idealistic scenario of suburban life, an American cultural product, and whose principles were widely diffused in the first years of the twentieth century.¹⁴

The *Colonia Condesa*, which had been designed by Emilio Dondé in 1902, reinforced the residential use thanks to the skill of José A. Cuevas, who designed and integrated the *Colonia Hipódromo* with it. For the layout of the *Colonia Hipódromo*, Cuevas took advantage of the site for horse races that once were held there, providing generous green spaces for this exclusive subdivision, which can be seen as an interesting example of urbanism that linked with some architectural art-decò and Californian neo-Spanish tendencies. Similarly although with greater constraints in topography, the *Chapultepec Heights* was a proposal that followed the slopes of the site, generating a more organic layout. This was conceived exclusively for detached housing, occupying large plots, and showing a new urban trend in the relationship of the housing with the city centre and other areas, which greatly relied on car mobility (González Pozo, 1996, 304).

But the questions concerning a holistic city planning strategy and housing shortage were still in the air, conditions of urban life that were increasingly occupying among officials, the working classes and the professionals of the built environment. Previous experiences and foreign ideas would progressively be assimilated and adapted to design and test a range of different solutions for the various scales of urban problems in Mexico, in one attempt amongst others to try to cope with emerging social problems.

The role of the media and the cultural exchange of ideas and experiences are crucial to understanding how different sources of influence and inspiration were taken into account by leading officials and the professionals working at the different scales of the built environment. Among these: international conferences, journals¹⁵ which were published during this time in Mexico and overseas,¹⁶ visits and stays either of Mexicans overseas or famous or influential foreign figures in the country, as well as some key references to foreign experiences highly regarded as successful which come to acquire the status of theoretical bodies or 'urban models' which were followed in teaching and practice in Mexico (among which, for example, can be cited Le Corbusier's *Vers une Architecture*, originally published in

¹⁴ On the flows and 'transactions in international trade in planning ideas and practices' among the United States, Britain and other European countries during the end of nineteenth century and the first half of the twentieth (see Ward, 2003, 84-87).

¹⁵ Noelle (1996, 2004) comments on the existence of at least three journals, *El Arte y la Ciencia* (1899-1911), *El Arquitecto* (1923-1934) and *Cemento* (1925-1930), in which collaborations sent from overseas were published to keep up with the latest developments of building techniques and materials, ideas and projects carried out in Europe and the United States, informing on various issues on the built environment, architecture, city planning and urban design, the avant-garde and other theoretical aspects. According to Méndez-Vigatá (1998, 67), in the second half of the 1920s there was a renewed interest in modernist architecture, when 'a great number of articles both in national and international publications, including works by Le Corbusier, Emil Farenkampff, Walter Gropius, J.J.P. Oud, were read by Mexican architects'.

¹⁶ For instance, the First International Congress of Urbanism held in Madrid in November of 1926 was reviewed and mentioned by Galindo Pimentel in a newspaper section in 1927 (as quoted by López Rangel, 1993).

French in 1923;¹⁷ and *Urbanisme*, originally published in 1925¹⁸ which were spread and discussed in Mexico by José Villagrán García, Juan O’Gorman, Juan Legarreta, Mario Pani, among others since the 1920s and increasingly during the 1930s), and whose contribution can also be mentioned in the development of a technical language with new concepts for the built environment (Hiernaux, 2004, 1-3).

The first CIAM (*Congrès Internationaux d’Architecture Moderne*) congress was conceived as an international forum for the exchange of ideas, but also became a conduit for providing new theoretical ideas to Mexicans in relevant fields. Financially supported by Hélène de Mandrot and with a leading role played by Le Corbusier, this forum considered the various aspects of architecture and town planning. It provided an important source during the following thirty years for issues on housing, town planning, new towns, social centres, urban renewal and principles of urbanism. The ideas discussed in the various CIAM congresses were widely disseminated and published.

After 1928 urban problems, especially those related to the growth of the cities, were addressed by forming a development commission called the National Association for the Planning of the Mexican Republic. Experts from all over the developed world were appointed to advise the Mexican government. This is considered the first official commission for planning in modern Mexico, following the initiative and advice of a Mexican architect, trained at Columbia University, Carlos Contreras (Eggener, 1999, 126).

The National Association for the Planning of the Mexican Republic encompassed famous planners, architects, civil and road engineers, as well as urban designers with the newest urban ideas, theories, plans and experiences, among those were: Ebenezer Howard, Raymond Unwin, Patrick Geddes, Arturo Soria y Mata, Jacques H. Lambert and Edward H. Bennet.¹⁹

Some years later, in 1935, when the city’s population had reached nearly one million people, the first modern Development Plan was provided by Carlos Contreras, who forecast that, fifty years later, Mexico City’s population would double (López Rangel, 1993).²⁰

¹⁷ Published in English as *Towards a New Architecture* in 1927 (Jenger, 2000, 154).

¹⁸ Published in English as *The City of Tomorrow and its Planning* in 1929 (Jenger 2000, 154).

¹⁹ From the names involved in this commission, it can be inferred that some urban models were, by this time, known in Mexico (the Garden City Movement, the Linear City, and the American City Efficient). Although it is difficult to establish to what extent, and how well knowledge of these names was spreading among the professional bodies and the officials at a deeper level of knowledge, as to effectively challenge the urban practice.

²⁰ By 1980 the population was more than 13.7 million inhabitants in the Mexico City metropolitan area (Suárez Pareyón, 2002, 107).

The 1930s and early 1940s:

Local ways of interpretation and experimentation

During the Second World War a second industrialisation period began in order to produce goods for the United States market,²¹ attracting people from rural areas to live and work in the city. The level of economic and population growth that several leading Latin American nations such as Brazil, Mexico, Venezuela and Argentina experienced during the 1940s became a point of reference overseas and, increasingly, in the United States' interests. This era was important for the experimentation and consolidation of urban models, as pointed out by Fraser (2000: 8), since:

In Latin America during the years 1930 to 1960 the interests of idealistic architects and ambitious governments broadly coincided over the possibilities offered by the new architecture, even if their priorities were slightly different: the largely left-leaning practitioners believed that modern architecture could improve a lot the fast-growing and acutely underprivileged masses, while governments of both left and right patronized these young men in the belief that modern architecture could serve the interrelated purposes of promoting an image of national progress (and, for those governments which cared about such things, this included improvements in social welfare), and, more importantly, stimulate industrial development.

It is important to note that by the early 1940s some of these national and regional experiences travelled and were presented as evidence of the assimilation and experimentation of architectural ideas and urban models beyond their original interpretation, with innovative use of materials, techniques and integration of the landscape, the diversity of climates and the mixture of symbolic forms.

The birth of the Modern style in the Americas is often related to the influence of three European architects: Le Corbusier was influential in Brazil, Argentina and Mexico whereas Mies van der Rohe and Walter Gropius were so in the United States. In Brazil, as in Mexico and other Latin American countries (i.e. Argentina, Venezuela), the French style had been dominant since the early nineteenth century. As in Mexico — and even before in Argentina — in its early stages, Brazilian Modern architecture had a French accent. Le Corbusier travelled to Brazil in 1929 and was later a consultant for the Ministry of Education building in Rio de Janeiro, designed between 1937 and 1943 by Lucio Costa, Oscar Niemeyer, Affonso Reidy, Carlos Leão, Jorge Moreira and Ernani Vasconcelos. Additionally, certain exchanges between Brazil and the United States became important as a result of the 1943 *Brazil Builds* exhibition held at the Museum of Modern Art in New York, and in the Brazilian case, for internal consolidation of the modern style, as referred to by Cavalcanti (2004, 51), 'for its development vis-à-vis the initial European models, and for its worldwide diffusion.' Considering a triangulation among the United States and Latin American countries such as Brazil, Argentina or Mexico,

²¹ In 1942 Mexico joined the Allies and declared war on Germany and the Axis Powers after German submarines sank two Mexican tankers (the 'Potrero del Llano' and 'Faja de Oro') in the territorial waters of the Gulf of Mexico.

and Europe, can also provide interesting clues in the study of the relationship between architecture, art, culture and political institutions. Also, evidence of this fusion can be traced to the city planning and housing models developed during the late 1940s in Mexico City by Mario Pani and his associates (see also González Pozo, 1996, 309).

It has been said that Modern architecture and urbanism had been envisaged during the 1920s and the 1930s not only as a means for theoretical, technical and practical ways of solving the increasing urban problems, but also as options to give strong support and viability to the political agendas, in an era of continuous ideological movements which produced strong biases in the key social actors in Mexico.

Foreign ideas on housing were also an important feature of urban design. Political ideology was not absent from the initial steps which the federal government provided as a means for taking care of the housing problem. In this respect, several groups, though not the overall population, were subject to special attention specifically, those sectors crucial to ensure the stabilization of the new post-revolutionary regime such as the union workers, the military and the bureaucracy (Winfield-Reyes, 2004).

In architecture, for example, the diffusion of the ideas of the European avant-garde became relevant for a young generation of architects who defied the cannons of academic teachings and the tastes of the establishment by putting forward a new aesthetic. They did so by placing value on functionalism in the designing of buildings with the incorporation of new materials and simpler forms addressing chiefly social concerns such as housing for the poor, access to educational spaces and better health facilities.

In a country where architecture and all the visual arts, were called upon in the mission of building a new society, the utopian task of 'building new worlds'. Form, function and content were therefore aimed at supporting this new role. This set the possibilities for exploring later the idea of 'total art' by putting all artistic disciplines together. Or, in the Mexican case, the so called 'integration of the arts' — an effort also relevant in other Latin American countries such as Argentina, Brazil and Venezuela during the same period.

An interesting example of the local reinterpretation of the European avant-garde during the early post-revolutionary times is the work of Juan O'Gorman, a young Mexican architect who, in the late 1920s, was commissioned by the painters Diego Rivera and Frida Kahlo to design their home and studio in one of Mexico City's most traditional neighbourhoods. Some parallels can be traced between the Swiss born architect Le Corbusier and O'Gorman. Both were interested in painting, design and architecture. In the case of O'Gorman, he read Le Corbusier's *Vers une architecture* (1923)²² four times, as he himself would reckon it (Burian, 1998, 131).

²² Among the written works of Le Corbusier, this book, published in 1927 as *Towards a New Architecture*, translated by Frederick Etchells (Jenger, 2000, 152) was of great influence worldwide.

It is by no coincidence, then, that the shapes in Rivera and Kahlo's project bear such a resemblance to Modern forms when compared with Le Corbusier's Ozenfant Studio built in Paris some years before. However, the setting is carefully conveyed as 'modern' and as 'Mexican', and some local features such as indigenous vegetation and colour are integrated as part of its expression.

Artistic and cultural exchanges were fundamental to understanding the ideology of society and the arts in Mexico's post-revolutionary era. Important for the development of the arts was the exposure that several Mexican artists and intellectuals had when travelling, living and working in Europe and the United States. In the case of Diego Rivera, he lived, worked and travelled to study different painting techniques and became aware of the latest developments in France, the Soviet Union, Spain and Italy. People were also coming to Mexico. The influx of immigrants from Spain, France, Britain, Germany, and the former Soviet Union, who arrived and chose Mexico City making universities and other such institutions dynamic cultural centres to live and work in. Members of the Bauhaus movement, founders of Surrealism, photographers, philosophers and even prominent figures in exile from authoritarian regimes of the time, found refuge in an environment of artistic and cultural development. In this way, the foreign became a strong influence upon the Mexican Modern as well as other avant-garde aspects of the national culture.

The late 1940s and early 1950s: Integration and local response

Probably one of the greatest achievements in urban design as evidence of maturity and a careful integration of urban models in local conditions is the *Jardines del Pedregal de San Ángel* subdivision (1945-1953) by Luis Barragán, Carlos Contreras and Max Cetto.

During the 1940s and 1950s key large-scale projects were commissioned to develop, amongst others, the first multi-storey housing projects: the *Centro Urbano Presidente Alemán*, *Unidad Modelo* and the *Ciudad Universitaria* (University City). The National Autonomous University (UNAM) in the south of Mexico City built between 1948 and 1952, was a campus design to incorporate ideas of foreign influences whilst recognising and drawing upon the strong identity of pre-Columbian large ceremonial centres.

Two ring roads, the *Circuito Interior* and the *Periférico*, were devised in the late 1940s as alternative solutions for movement within the grid without going through inner city areas.

Growing population and scarce budgets hindered the aim of fulfilling the social agenda, providing greater social contrasts. Poverty was increasingly recognised in the late 1940s as endemic. Squatter settlements and slums were the social logic for provision of cheap and immediate housing for the large numbers of urban newcomers.

During the 1920s, 1930s and 1940s, the European avant-garde was assimilated and reinterpreted in the Mexican visual arts, according to key social and political agendas. Architectural Modernism, for instance, was explored in its potential of ideas and its new rationality that enable strong symbols for expressing social progress. These technical and artistic developments provided a new way of looking at and re-thinking the work of art in relation to its context, predominantly urban, through the diversity of regional and local experiences. Testing and making use of models and ideas from abroad was also an attempt to join the international avant-garde, often with new creative ways and counter-influences.²³

The 'integration of the arts' was one of the climaxes of artistic developments and convictions carried out by leading artists and intellectuals in Mexico demonstrating its maturity. This is best exemplified by the University City for the National Autonomous University in Mexico City. Here, by the end of the 1940s and through the early 1950s, the most awarded painters, sculptors, designers and architects were appointed by the Mexican government to work together, and to encourage the participation of younger generations.

The result, showing the relationship between art and ideology, political content, space and meaning, is one of most significant endeavours in providing a 'Modern' and simultaneously 'Mexican' expression of the arts as an integral concept of identity, whilst serving a social function, the formation of future professionals.

The efforts carried out in Mexico towards a cultural assimilation of the avant-garde and Modern streams to the Mexican way of life during these thirty years, strongly engaged with architecture and murals, Rivera's support of an art for the masses, and with O'Gorman's arguments for a radical functionalism favouring a "strictly functional, minimalist form of modern architecture sat awkwardly with his belief in the importance of beauty and art" (Fraser, 2000, 19). O'Gorman's ideas regarding the synthesis of architecture as both functionalist and expressive, was brought to fruition with his perhaps most famous work: the University City in Mexico where O'Gorman was involved with both the architecture and the visual arts in creating a vast mosaic mural to cover the façades of the Central Library (Aldrete-Haas, 2004).

This central space designed and constructed in simple abstract prismatic forms, is situated in one of the most desired locations in the city. The space overlooks the university complex where dozens of other buildings speak to the vast open spaces. Here, architecture becomes the canvas for deploying the most important meanings and symbols of the Mexican: the old and new assemble as an exploration of the Mexican essence; the technological, cultural and social developments are presented in rich and varied ways, reinterpreting the traditional painting techniques and the use of raw materials in a modern expression to convey the complexity of a culture. Supported by a formal structure thought of as undoubtedly modern, painting, sculpture and architecture, are integrated as a whole piece of what was meant by

²³ As, for example, the painting of Diego Rivera in the United States or the architecture of the Brazilian architect Oscar Niemeyer in Le Corbusier's late works (see also Frampton, 2004).

significant, social art, establishing a strong connection with the city, its history, its natural landscape. It was a vision in which the arts provide interesting clues for understanding the past, the present and even the future.

Urban models as paradigmatic sources incorporated into Mexico's Modern planning and urban design

Three considerations can be helpful in addressing the evolution of city planning and urban design in Mexico during the second quarter of the twentieth century. First, is the need for social reconstruction that came after the Revolutionary movement. The political agenda at the time tried to implement, although with great limitations, the recognition of social rights to education, housing and health conveyed in the 1917 Constitution, but these could not, in fact, be put into practice until 1921. Secondly, the increasing number of newcomers into Mexico City and other major cities as a result of the improvement of living conditions in major urban areas put great strain on the city. This was largely due to the fact that manufacturing and other services continued to be concentrated in the city, producing greater demographic pressure on the city and its surrounding region. This period indeed experienced a very impressive population growth in only three decades. Thirdly, the new Mexican state was eager to develop and provide continuity for the ideological project of the post-Revolutionary era, by undertaking urban transformations. The state did so in a rather pragmatic way, encompassing political, economic and cultural challenges, which in fact were integrated in the process of building a Modern, nationalist and steady society. These three considerations bring to question the urban models for city planning and urban design. Because, even by mixing different sources for these models, given that they could be adapted to some of the most relevant of national problems as solutions within the framework of the Mexican situation. Among these urban models were:

1. *The Art of Building Cities* and the *City Beautiful Movement* (as for example, explained by Camillo Sitte in his book *City Planning According to Artistic Principles* which was probably a source of early modernist inspiration. Perhaps other French authors may have been connected to the development of urban design codes and infrastructure regulations in Mexico City, as introduced in 1903, according to González Pozo, 1996, 305; see also Ward, 2003).
2. *The Garden City* (in the 1925 *Chapultepec Heights* and the *Colonia Hipódromo Condesa* layouts by José A. Cuevas; in the 1945-1953 Luis Barragán, Carlos Contreras and Max Cetto's *Jardines del Pedregal de San Angel*; and also in the 1949 Mario Pani, José A. Cuevas and Domingo García Ramos' *Unidad Modelo*).
3. *The American 'City Efficient'* (whose ideas were developed in the Chicago Planning Commission and the Regional Planning Works for New York City, were a dominant strand of planning thought and action, and probably greatly influential in the 1935 Carlos Contreras' Master Plan, as he was trained at Columbia University).

4. *The Principles of the CLAMs* (since 1928, and its later incorporation and development in the *Charter of Athens* of 1931, as published in 1943, to investigate in the Carlos Contreras' 1935 First Plan for Mexico City, and in the 1948-1952 urban plan for the University City).
5. *European Experiences with Workers' Housing* (as interpreted in the 1930s Juan Legarreta's housing projects for the workers, and summed up in the 1942 Hannes Meyer's *Siedlungen* proposal or *Barrio Obrero* in Lomas de Bacteria, Tacubaya, Mexico, probably encompassing a series of proposals and experiences known and developed since the 1920s and during the 1930s, among whose promoters were the Bauhaus, Ernst May, the Russian and The Red Vienna Housing Movement). References to this project by Meyer can be found in Camberos Garibi (1996) and González Pozo (1996). Further references to examples in Europe can be read in Koshalek and Smith (1999).
6. *The Radiant City* (as proposed by Le Corbusier in 1935, and adapted in 1947-1949 Mario Pani's *Centro Urbano Presidente Alemán* with José A. Cuevas and Domingo García Ramos).
7. *The Radburn Model* and *The Neighborhood Planning Unit* (as developed by Stein in the United States in the late 1920s, as possibly known by José A. Cuevas, Carlos Contreras and considered in the 1949 *Unidad Modelo* by Pani and associates).
8. *The Organic Urbanism* (as interpreted from Frank Lloyd Wright's architecture, who later also devised his ideas for an urban scale and regional planning in his *Broadacre City*; the understanding of site planning according to Wright's works, was praised and discussed by Juan O'Gorman, among other Mexican architects and urban designers, since 1938, according to Eggener (1999), and somehow were influential in the 1945-1953 Luis Barragán's *Pedregal de San Ángel*, and the 1948-1952 University City).

Conclusion

Understanding urbanism in Modern Mexico:

Reflections on the diffusion of urban models and their translation into practice

The early twentieth century city was a period of political, economic and cultural revolution, which began in Europe, and later spread to other parts of the world. The avant-garde movements in the sciences and the arts often responded to these new challenges in addressing and expressing the new urban relations in diverse, innovative ways. Due to their complexity and diversity, and their tendency to concentrate wealth, population and power, large cities were often the place where major social, intellectual, technological and artistic developments occurred, being also the setting for intense exchange of ideas and practices (Bentley, 2002, 95-121; Subirats, 2003, 17-22; Timms, 1985, 1-3).

The original sources were not directly adopted and reproduced in city planning and urban design practice in Mexico, but rather interpreted and mixed with other ideas. The use of city planning and urban design models was tried out with various understandings with regard to local culture and put into practice. The ideas for integrating knowledge from various sources and models can be read as an attempt to assert that the best possible result was aimed at in design, whilst being responsive to cultural and social issues.

It can be inferred that an integration of the most advanced planning techniques and approaches from Anglo-American sources and the strong planning tradition from France would produce the ultimate combination for best and modern results into practical projects. It was also a way to leapfrog underdevelopment and to avoid what was perceived as undesirable side effects of planning experiences in the countries of inspiration.

Mexican urbanism, encompassing a wide range of scales and projects (ranging from the urban design of housing states to regional and national planning), can therefore be judged as an eclectic practice of concepts in evolution. Mexican professionals were in contact with the newest innovations of planning techniques thanks to the diffusion of theoretical ideas that occurred in magazines and journals during the early Modern period.

The discussion of these developments in teaching and their progressive use in projects sometimes called upon the idea of a 'social experiment' (Pani, 1952) through design proposals and provided the framework for its incorporation into the national design culture. An immediate proof of the success of implementation of the foreign models then domesticated was its rapid diffusion and adoption in other Mexican cities. Ultimately, perhaps the best proof of the relative success (or failure) of these theoretical developments and their corresponding practical spatial solutions, can be traced to the social response to the resulting built environments.

Are urban models social engineering paradigms? One constant idea in the interpretation of urban models in the cases discussed, showed evidence of a deterministic way to understand planning and urban design principles as ways to provide spatial solutions which could modify substantially the way people lived in urban areas. With specific regard to urban design proposals, it can be observed that the assumptions for design, related to Modern housing, changed in recognition of the need of greater densification. This need posed two main problems to urban designers: first, to provide high standard housing with an economic reduction in building costs; and second, to ensure privacy, although using minimal spaces, and yet accomplish a greater sense of community identity. The first problem was addressed through new building techniques and spatial patterns, such as high-rise buildings, whereas the second combined the study of minimal functionalist spaces within cultural experiences, as well as the provision of large open spaces, community facilities and innovations in the coverage of social services.

References

- Aldrete-Haas, José Antonio (1991): *La deconstrucción del Estado mexicano. Políticas de vivienda, 1917-1988*. Colección Estudios. Mexico: Alianza Editorial + Editorial Patria.
- Aldrete-Haas, José Antonio (2004): 'The search for roots in Mexican Modernism' in Brillembourg, Carlos, editor: *Latin American Architecture 1929-1960. Contemporary Reflections*. New York: The Monacelli Press, pp 100-115.
- Ayala Alonso, Enrique (1996): *La casa de la Ciudad de México. Evolución y transformaciones*. Mexico: Consejo Nacional para la Cultura y las Artes.
- Bentley, Ian (2002, reprinted): *Urban Transformations. Power, people and urban design*. London and New York: Routledge + Taylor & Francis Group.
- Bentley, Ian & Georgia Butina Watson (2003): *Identity by Design*. 'Chapter Three: Mexico: Complexity of Culture and Landscape'. London: Architectural Press.
- Burian, Edward R. ed. (1998): *Modernidad y Arquitectura en México*. Mexico: Gustavo Gili.
- Camberos Garibi, Jorge (1996): 'Hannes Meyer, su etapa en México' in González Gortázar, Fernando ed.: *La Arquitectura Mexicana del Siglo XX*. Cuarta Serie, Lecturas Mexicanas. Mexico: Consejo Nacional para la Cultura y las Artes, pp 124-140.
- Cavalcanti, Lauro (2004): 'Architecture, Urbanism and the Good Neighbor Policy: Brazil and the United States' in Brillembourg, Carlos, editor: *Latin American Architecture 1929-1960. Contemporary Reflections*. New York: The Monacelli Press, pp 50-59.
- Del Moral, Enrique (1966) *El Estilo. La integración plástica*. Seminario de Cultura Mexicana. Mexico: Editorial Libros de México.
- Dussel, Susanne (2004) 'The "Own" and the "Foreign". Cultural Identity in Contemporary Architecture in Mexico (1980-2000)'. Research Paper on Architecture and Identity sponsored by VolkswagenStiftung & Berlin University of Technology. Source in the Internet: <http://www.architecture-identity.de>
- Eggenger, Keith (1999): 'Postwar Modernism in Mexico. Luis Barragán's Jardines del Pedregal and the International Discourse on Architecture and Place' in *JSAH/ Journal of the Society of Architectural Historians*. Chicago, Illinois. Issue 58: 2, June, pp 122-145.

- Frampton, Kenneth (2004): 'Le Corbusier and Oscar Niemeyer: Influence and Counter-Influence, 1929-1965' in Brillembourg, Carlos, editor: *Latin American Architecture 1929-1960. Contemporary Reflections*. New York: The Monacelli Press, pp 34-49.
- Fraser, Valerie (2000) *Building the New World. Studies in the Modern Architecture of Latin America 1930-1960*. London and New York: Verso.
- Galindo Pimentel (1927): "Los progresos del urbanismo" en *Excelsior*, 2 of January (transcription by López Rangel, 1993), Mexico.
- González Pozo, Alberto (1996): 'Las Ciudades y el Olvido' in González Gortázar, Fernando coord.: *La Arquitectura Mexicana del Siglo XX. Cuarta Serie, Lecturas Mexicanas*. Mexico: Consejo Nacional para la Cultura y las Artes, pp 301-329.
- Gutiérrez Vivó, José coord. (1999): *El mexicano y su siglo. Las transformaciones de un país y sus habitantes a lo largo de cien años*. Mexico: Info Red + Océano.
- Hiernaux, Daniel (2004): 'Les mots de la planification du territoire au Mexique' in *Amérique latine: Les discours techniques et savants de la ville dans la politique urbaine*. Document de discussion de MOST No. 37. Universidad Autónoma Metropolitana Xochimilco and UNESCO. Source in the Internet: <http://www.unesco.org/most/dsp37hie.htm>
- Hurlburt, Laurance P. (1986): 'Diego Rivera (1886-1957): A Chronology of His Art, Life and Times' in Downs, Linda & Ellen Sharp: *Diego Rivera. A Retrospective*. New York & London: Founders Society Detroit Institute of Arts and Hayward Gallery in association with W.W. Norton & Company, pp 22-115.
- Jenger, Jean (2000, reprinted): *Le Corbusier. Architect of a New Age*. Translated by Caroline Beamish. New Horizons. London: Thames & Hudson.
- Krauze, Enrique (1997): *La presidencia imperial*. Mexico: Tusquets Editores.
- Lira Vásquez, Carlos (1990): *Para una historia de la arquitectura mexicana*. Mexico: Universidad Autónoma Metropolitana Azcapotzalco + Tilde.
- López Rangel, Rafael (1993): *La planificación y la Ciudad de México 1900-1940*. Mexico: Universidad Autónoma Metropolitana Azcapotzalco.
- Méndez-Vigatá, Antonio E. (1998): 'Política y lenguaje arquitectónico. Los regímenes posrevolucionarios en México y su influencia en la arquitectura pública, 1920-1952' in Burian, Edward R. ed.: *Modernidad y Arquitectura en México*. Mexico: Gustavo Gili, pp 61-90.
- Nasr, Joe and Mercedes Volait ed. (2003): *Urbanism Imported or Exported? Native Aspirations and Foreign Plans*. Chichester: Wiley-Academy.

- Noelle, Louise (1996): 'Publicaciones Periódicas' and 'Bibliografía Analítica' in González Gortázar, Fernando, coordinación y prólogo: *La Arquitectura Mexicana del Siglo XX*. Lecturas Mexicanas, Cuarta Serie. Mexico: Consejo Nacional para la Cultura y las Artes, pp 480, 512-517.
- Noelle, Louise (2004): "La arquitectura mexicana en las publicaciones periódicas del siglo XX" in *Arquitectura y Humanidades*. Mexico: Facultad de Arquitectura, Universidad Nacional Autónoma de México. Source in the Internet:
<http://www.architecthum.edu.mx/Architecthumtemp/colaboradores/Noelle.htm>
- Novick, Alicia (2003): 'Foreign Hires: French Experts and the Urbanism of Buenos Aires, 1907-32' in Nasr, Joe and Mercedes Volait ed.: *Urbanism Imported or Exported? Native Aspirations and Foreign Plans*. Chichester: Wiley-Academy, pp 265-289.
- Opher, Philip & Sánchez Valladares, Xavier (2000): *Mexico City. A guide to recent architecture*. London: Ellipsis London Limited.
- Pani, Mario (1952): *Los Multifamiliares de Pensiones*. Mexico: Editorial Arquitectura.
- Parker, Simon (2004): *Urban Theory and the Urban Experience. Encountering the City*. London and New York: Routledge.
- Rykwert, Joseph (2000): *The Seduction of Place. The City in the Twenty-First Century*. London: Weidenfeld & Nicolson.
- Segurajáuregui, Elena (1990): *Arquitectura Porfirista. La Colonia Juárez*. Prologue by Ariel Rodríguez Kuri. Mexico: Universidad Autónoma Metropolitana + Tilde.
- Suárez Pareyón, Alejandro (2002): 'Mexico City' in Carmona, Marisa & Burgess, Rod: *Strategic Planning & Urban Projects. Responses to Globalisation from 15 Cities*. Transformations Series 4. Delft, The Netherlands: Delft University Press, pp. 103-111.
- Subirats, Eduardo (2003): *El reino de la belleza*. Cuadernos de la Cátedra Alfonso Reyes del Tecnológico de Monterrey. Mexico and Madrid: Instituto Tecnológico y de Estudios Superiores de Monterrey and Fondo de Cultura Económica de España.
- Timms, Edward (1985): 'Introduction: Unreal city —theme and variations' in Timms, Edward & David Kelley ed.: *Unreal City. Urban experience in modern European literature and art*. Manchester: Manchester University Press. Pages 1-12.
- Ward, Stephen V. (2003): 'Learning from the US: The Americanisation of Western Urban Planning' in Nasr, Joe and Mercedes Volait ed.: *Urbanism Imported or Exported? Native Aspirations and Foreign Plans*. Chichester: Wiley-Academy, pp 83-106.

Winfield-Reyes, Fernando N. (2004): 'Transformaciones urbanas y nuevas tendencias del habitar en México: el caso de la vivienda estatal planificada a partir de 1972' in *Cuadernos de Investigación Urbanística*. No. 37. Madrid: Departamento de Urbanística y Ordenación del Territorio, Universidad Politécnica de Madrid, pp 89-94.