London School of Economics and Political Science

Writing, Drawing, Building:
The Architecture of Mexico City, 1938-1964

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Declaration

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Abstract

This thesis evaluates textual, visual and material legacies of modern architecture and urbanism in Mexico City between 1938 and 1964. There is a growing literature on the architects, architecture and urban development of Mexico City in the twentieth century, but few that provide an analysis of these material legacies beyond their claim as historical evidence.

My research attends in detail to writing, drawing and building through key moments in the work of the Mexican architect Mario Pani. I analyse an archive of material that moves from his co-founding of the journal *Arquitectura/México* in 1938, to the construction of the *Centro Urbano Presidente Alemán*, a modernist housing estate in Mexico City in 1949, to the work of his *Taller de Urbanismo* (Urban Studio) between 1946 and 1964.

I argue for an understanding of architectural and urban writing, building and drawing as ways of producing the world, rather than describing or responding to it. I demonstrate that latent geographical biases in the architectural writing of *Arquitectura/México* contributed to Mexican debates about architecture and the nation. A visual analysis of urban plans and research from the *Taller de Urbanismo* foregrounds their role in defining the problem of housing in Mexico City towards the legitimation of a specific genre of public housing. By examining the inauguration of the *Centro Urbano Presidente Alemán*, I uncover the materiality of the building as generative for the Revolutionary Mexican state.

Within the context of emerging scholarship that rearticulates colonial circulations of urban planning and architecture within a framework of multiple or alternative modernities, I emphasise an attention to the co-constitution of writing, drawing and building, and their role in assembling the urban.

To my family near and far.

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Nonoalco-Tlatelolco directly north, and to the bottom right a superimposition in blue of the new extension to Avenida Reforma as it cuts through the neighbourhood. Source: *Programa del C. Presidente Lic. Adolfo Lopez Mateos, de regeneración urbana y vivienda para trabajadores en la Ciudad de México* (1963), Uncatalogued, Archivo Mario Pani, Lino Picaseño Library, Faculty of Architecture, UNAM, Mexico City. 208

Introduction:
Encountering a building, or, a building comes into view

> It is a handle on something historical barely yet experienced. It used to matter, where you came from, because you felt akin to the other people who lived there, since they knew what you knew—the landscape that the highway skims and random facts associated with patriotism. But now the enmeshing of global power and ordinary life has turned the scenic route into a situation. (Berlant 2008b, p.9)

As you exit from Zapata station in Mexico City's metro, on the long avenue Universidad, the first thing you notice is the Walmart. Or maybe the Sam's Club. These two large retail stores and their parking lots take up a three block length going south on the opposite side of the road, with other, similarly large retail extending beyond them, peppered with the gleaming logos of globalised power. The rest of the immediate scene feels similar to other non-central spaces in Mexico City. The roads are wide and full of cars and mini-buses. The pedestrian areas are shared by small *taquerías* or other stalls selling shirts, socks, CDs or films, mobile phone accessories and toys, and shaded by the occasional tree. This area is located in Benito Juárez, one of Mexico City's sixteen administrative departments, or *delegaciones* established by the Revolutionary Party of Mexico in 1928 [Figure 0.1]. When its borders were shrunk to their near current shape in 1941, Benito Juárez was a sparsely populated region of farms and villages, until heavy urbanisation set upon many regions of the capital between 1950 and 1970. It lies just north of Coyoacán, and just over two kilometres from the modernist national university, Universidad Nacional Autónoma de México, a UNESCO World Heritage Site since 2007 [Figure 0.2].

The first time I went to encounter the building at the centre of this project, the *Centro Urbano Presidente Alemán* (CUPA), a modernist urban housing estate built by the architect Mario Pani between 1947 and 1949, my imagination was filled with black and white aerial photography. My mind could render the flat prairie-like sections of land, with the few one or two storey single-family homes, and in the middle of this flatness the soaring concrete thirteen-storey apartments [Figure 0.3]. I had half forgotten that a city had grown around it, and half imagined that I would pop out of the metro and find myself in 1949, or even as a cast member in Luis Buñel's *La ilusión viaja en tranvía* (1951), calling down the stolen streetcar 133 as it sailed down Félix Cuevas avenue, past the CUPA [Figure 0.4].

Figure 0.1: A map of Mexico City from 1929 overlaid on the same area in 2012 showing the difference in scale and density of an urban condition. Source: Google Earth Pro.

Figure 0.2: A close up aerial map of part of the Delegación Benito Juárez. The CUPA is identified by the black square in the centre of the image, and Zapata metro station by the black dot to the right. Scale: 1cm=100m. Source: Google Earth Pro, 2012.

Figure 0.3: Aerial view of the *Centro Urbano Presidente Alemán*, c.1949. Source: Courtesy of Mexicana Aerofoto, S.A.

Figure 0.4: Screenshot from Félix Cuevas avenue, from *La ilusión viaja en tranvía* (1951, dir. Luis Buñuel) with the *Centro Urbano Presidente Alemán* in the background. Courtesy of RLJ Entertainment.

In the opening scene to her documentary *Mi multi es mi multi: Historia oral del Multifamiliar Miguel Alemán* (1949-1999), Graciela de Garay quotes Rosa Zaragoza, one of the original inhabitants whose narratives make up the bulk of the film, 'Everything changes, for better or worse, but everything changes'.[1] Watching the film upon my return to London, this sentiment seemed to percolate in my mind. It seemed to sum up my encounter with the CUPA so well. An image I had of an untouched architectural photograph, or the social imaginaries I brought to the site from its architectural history, seemed completely fantastic compared to the glaring 30ºC, saturated one o'clock sunlight picking up the dust, the dirt and casting fiercely downward shadows. Felix Cuevas, the long, wide avenue to the north of the estate, was gutted, being transformed into *Linea* 12, the new 'golden' line of the metro. Construction blocked out the road, blocked out the sidewalk, and, upon my approach, blocked out the view. I hardly knew I had arrived when I did. So different from the recollection of Moisés Jiménez, resident and participant in Garay's oral history project, that 'every time we passed the corner of Coyoacán and Félix Cuevas the street-car had to stop, and the Multi Alemán always caught my attention, its size always caught my attention' (De Garay 2004).[2]

My encounter with this building some sixty-one years after it was built was one of near misrecognition, as much of the materiality of the complex – here it was in 'real life' colour, so different from black and white photography – as of the city that grew up around it [Figure 0.5]. I felt distinctly out of place and even, perhaps, out of time. Moisés's recollection about encounters with the CUPA was one of constant recognition, the buildings always catching one's attention, the building coming into view. But the building did not come into view. The building was reluctant. I felt as if I had 'a handle on something historical barely yet experienced' (Berlant 2008b, p.9).

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[1] Author's translation. Original in Spanish: 'Todo cambia, para bien o para mal, pero todo cambia'.

[2] Author's translation. Original in Spanish: 'cada vez que pasaba por la esquina de Coyoacán y Félix Cuevas siempre era obligada la parada del tranvía ahí, siempre me llamó la atención el edificio del Multi Alemán, siempre me llamó la atención el tamaño.'

Figure 0.5: Looking west down Félix Cuevas avenue, the CUPA building in the red brick upper left. Photo by author, April 2010.

As I walked up through the matured gardens of the CUPA for that very first time, I encountered what many do as you enter from the east on Avenida Coyoacán – a large and long mural of bold burgundy outlines and shapes filled with pastel green, the figure of a woman's body faintly visible. The artwork was commissioned by the architect of the CUPA, Mario Pani and was within a tradition of plastic integration, reminiscent of the collaborations betweenarchitects and the revolutionary muralists in Mexico, like Diego Rivera, in the 1920s and 1930s. The muralist José Clemente Orozco was chosen, and began working on his piece *La Primavera* (Spring) on 7 September 1949, just a few days after the inauguration, and months before the CUPA would be filled with its new residents [Figure 0.6]. That afternoon, Orozco died of a heart attack, leaving the work unfinished.

Further on, I came across the swimming pool, drained, that some decades back had been covered over by a structure to keep out the rain and the leaves. At this point, the building finally opened an eye and glanced in my direction. A man came up and introduced himself. He explained how half the elevators no longer work, so we'd have to climb the stairs. He mentioned that the garbage incinerator was shut down and that it was a lucky day, we could see the mountains. He showed me the cracks and repairs from the 1985 earthquake, and asked if I was hungry. When I asked him what he thought of the building, he shrugged. Neither here nor there, I gathered.

It was the image of the unfinished mural that kept returning to me, a mural whose name, the caption of the image – Spring – invites us to fill in the gaps, and through our imaginative work, allow it to come into view. Like Orozco's painting, the CUPA was made finished through a kind of repetitive encounter, a revolutionary affect, a circulation of double meanings and signs deployed on that inaugural day in 1949 – the idea of the future, the always already there of the Spring, of the revolution yet to come, barely visible in the clarity of its concrete structure.

Figure 0.6: La Primavera, 1949, José Clemente Orozco, Mexico City
(unfinished). Source: Photo by author, August 2010.

Chapter 1:
Modern Architecture and Mexico

THE LANDSCAPE OF MODERNITY IN MEXICO CITY

The City of Mexico interpreted by its artists

On Sunday 9 October 1949, the *Excelsior*, the largest daily newspaper in Mexico City at the time, announced a painting contest called 'The City of Mexico Interpreted by its Artists' (Editorial 1949a). A team of well-established cultural bureaucrats from the National Institute of Anthropology and History, the National Institute of Fine Arts, and UNAM, the largest university in the country sat on the jury.[3] The competition was organised jointly by Margarita Torres de Ponce from the *Excelsior* and Inés Amor, the director of the well-established and influential Gallery of Mexican Art, and funded by the Department of the Federal District[4] and the Bank of Mexico (Pérez Gavilán 2005, p.71). The competition aimed to produce representations of the city that refer to 'the physical aspects of the City of Mexico; to its customs and character, …, and to aspects that speak to the evolution of the city through history' (Editorial 1949a).

On 10 December, 257 artworks from over 150 artists were exhibited in collaboration with the Flora and Fauna Museum in Chapultepec Park, representative of, as the *Excelsior* editorial put it, 'an immortal Mexico…her past, her present and the outline of her future' (Editorial 1949b).[5] There were four winners of the contest. I am going to focus on two of them as a way to introduce the architecture and urbanism of Mexico City. Juan O'Gorman, the architect[6] and painter, won first prize and 5,000 pesos for his painting *Paisaje de la Ciudad de México* (Landscape of the City of Mexico) [Figure 1.1]. Third place, and 1,000

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[3] Though the jury is meant to be objective in their selection, Fernando Gamboa, Director of the Department and Museum of Plastic Arts at the National Institute of Fine Arts, was also newly appointed, in 1949, head of the 'Plastic Integration Studio' only after it was created by eventual second place winner of the contest José Chávez Morado (Pérez Gavilán 2005, p.71).

[4] The Distrito Federal is the administrative body for the City of Mexico as a national 'state'. Something like Washington D.C.. However, the City of Mexico also has a municipal government.

[5] All of the four winners were men, and out of the twenty honourable mentions, only two were women, both of whom were foreigners (Pérez Gavilán 2005, p.75)

[6] O'Gorman's most famous building remains the twinned house of Frida Kahlo and Diego Rivera, 1931. He also built the murals for the iconic central library at the Ciudad Universitaria in Mexico City, 1950-52 (Burian 1997, pp.136-42).

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http://jorgalbrtotranseunte.files.wordpress.com/2009/05/dsc02129.jpg

Figure 1.1: Juan O'Gorman, *La ciudad de México*, tempera on agglomerate, 1942-49, Museo de Arte Moderno, México D.F. / INBA

pesos, went to José Chávez Morado for his work *Rio Revuelto* (Turbulent River) [Figure 1.2].[7] The commentary in the *Excelsior* about O'Gorman's work ran as follows: 'the symbolic elements conjoined the idea of yesterday, of today and of always … The humble image of the anonymous but effective builder of the city, gave the painting a positive meaning, and secured for it a place among the great vistas of the city' (Zavala 2007, p.491).

O'Gorman's painting has been analysed as one depicting the rational and progressive evolution of Mexico City from its mythical Aztec past (the stone wall on the right, and the symbolic serpent God Quetzalcoatl in the air), through its colonial history (the sixteenth century map in the viewer's/architect's 'Spanish' hands), to its present becoming modern (the paved roads, tall buildings and in the near-middle of the foreground, is a stark international-style building, the Corcuera Building [1934]), to its destined modernity (the skeletal steel structures of skyscrapers and the blue print in the mestizo construction worker's hand) (Ramírez 1995; Pérez Gavilán 2005). While this neat history is productive for an industrialising nation, Zavala argues that scholars have been 'seduced by the orderly vista' (2007, p.495), and goes on to allude to the symbolic apprehension O'Gorman evokes in his painting towards 'the transformations underway by 1949' (2007, p.494).

If O'Gorman's vista of Mexico City maintains a visual order, José Chávez Morado's *Rio revuelto*, operates in a dramatically different rhetorical register. One way to read this image is from the ground up. A similar palimpsest operates here that moves across temporalities and geographies of representation within the city, from a subterranean floor of Mesoamerica to the heights of an as yet unfinished steel frame, framing a non-existent modern skyscraper in the background beside the central cathedral of Mexico City, and industrial smoke-stacks in the distance. On the ground, Chávez Morado depicts the serpent God Quetzalcoatl as a bas

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[7] The winner could not have been too much of a surprise. On the 27 November 1949, in the run up to the contest announcement, the *Excelsior* printed an editorial by Roberto Furia tempting readers with a sneak preview, '[t]he works coming in for the *Excelsior*'s competition 'Mexico City interpreted by its artists', could not be more fantastic!' He goes on to name both Chávez Morado and O'Gorman, 'I see the painting that Chávez Morado submitted, painted after his return from Europe…It seems to me, though, that the guy who has his sights on first prize is Juan O'Gorman…You have got to see these all with your own eyes, I won't say another word!' (Furia 1949).

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Figure 1.2: José Chávez Morado, Rio revuelto, 1949, oil/canvas, 106 x 135 cm. Source: http://finalabiertoweb.com.ar/imagenes/latinoamerica/ mex_Chavez_Morado008.jpg

relief at the base of what seems an Aztec pyramid, or Mesoamerican structure. Paired on this level are corn plants, and agricultural workers, sewage tunnels and scavenging dogs. One floor up, a level we recognise as 'the city' for its ground is not the dirt of the corn fields, but the asphalt of the street, with cars, busses, and shops, we uncover a new urban mass. The further up we move the more embedded the relation of capital, consumerism, and corruption until we find both a bloated business man, or politician, and a bloated revolutionary, pistol in hand, depicted as bursted piñatas, anchored by the ropes of the proletariat to the scaffolding of a new city.

I begin this thesis with these views of Mexico City for two reasons. First, these paintings from 1949, offer a snapshot of the city midway through my project's timeframe of 1938-1964. The year 1949 also is the year in which the key protagonist of this thesis, the architect Mario Pani, completes the first high-rise urban housing estate in Mexico, inaugurated on the 2 September by then-President Alemán. In what will become a narrowed focus on the textual, visual and materials artefacts of the city, I find it important to be reminded of the multiple ways that city was being made to appear. That Juan O'Gorman's painting won the competition is, perhaps, not surprising. What is illuminating is the holding together of these and many more images of Mexico City, the visual doing work to represent, what might be unrepresentable.

This thesis evaluates textual, visual and material legacies of modern architecture and urbanism in Mexico City between 1938 and 1964. It takes as its starting point the decentring of the architectural object towards a focus on the multiple practices of architecture (Rendell 2007). That is, it follows literatures that are opening the object of architecture up in innovative ways, in order to analyse the ways in which the object is made to cohere (Jacobs 2006). That is to say, it examines the practices of architecture, here deployed as writing, drawing and building, as a method to interrogate the claims being made on and of architecture and urbanism. It locates itself within Mexico City, between 1938 and 1964, and focuses on the career of the architect Mario Pani as a way to assemble its textual, visual and built artefacts of analysis.

This chapter sets up both the site and the frame of my research. I begin by situating my analysis within the political economy of rapid urbanisation largely attributed to President Miguel Alemán (Davis 1994, p.115). From there, I introduce a key character, Mario Pani, whose biography does the work of binding the multiple conjectures of this thesis. The materials I analyse in each of the three substantive chapters come from the professional legacies of the architect Mario Pani (1911-1993). After a short introduction, I move to consider the literature about modern architecture in Mexico. I demonstrate that its concern to date has been assembling historical narratives that bring to light the complex and nuanced modernities at play in the architecture and urbanism of Mexico City. I suggest that this project adds to these literatures through its attention to the textual, visual and built legacies of modern architecture as objects of analysis beyond their historical content. I then turn to two broader theoretical considerations that frame this work. The first, considers the relationship of architecture and the archive to unsettle the distinction between the materiality of the built architectural object, and that of the archival document. The second places this project within contemporary post-colonial moves to reframe and reconsider the histories of modernity as they play out through circulations of architectural and urban ideas. The thrust of my argument leads toward an understanding of architectural and urban writing, building and drawing as ways of producing the world, rather than describing or responding to it. I start now, then, with an introduction to Mexico City in the 1940s and 1950s.

Mexico City transforming

At the time of the painting competition, President Miguel Alemán (1946-1952), was three years into his six-year term. Alemán's terms was commonly referred to as the beginning of the 'Mexican Miracle' (Aguilar Camín 1993, p.167). Alemán was also the first non-military President of Mexico. His administration began the international posturing of Mexico, opened up the economy to foreign investment, and, with state subsidies, enabled heavy industrialisation based on manufacturing. It was also during this term that urbanisation began to increase dramatically.

From the end of the 1930s to the beginning of the 1960s, Mexico City transformed. Manufacturing as a percentage of the Mexican economy rose from

16.9 per cent to 20.5 per cent between 1939 and 1950 (ibid.). During Alemán's presidency, industry grew at an annual rate of between 5.9 and 7.3 percent (ibid.). And between 1940 and 1952, foreign direct investment grew from US$450 to US$729 million (ibid., p.168). From 1939 to 1964, the country as a whole saw GDP grow from 46 billion pesos to 199 billion pesos. Beyond the economic boom, however lingered an urban effect. Between 1910 and 1940, the population of Mexico grew by fifty per cent from 13.6 million to 20.2 million people, its urban population from 28.68 per cent to 35.09 per cent (Scott 1982, p.47). Between 1940 and 1960, the population of Mexico City grew by 286 per cent from 1.8 million to 5.2 million (Scott 1982, p.124). While the population of the country was growing, Mexico City received a concentrated spurt. Between 1940 and 1950, 847,197 migrants made their home in Mexico City, 49 per cent of the total migratory growth of the country (ibid., p.128). This trend continued for another decade, though slowing slightly. Between 1950 and 1960, 739,053 people moved into Mexico City, accounting for 42 per cent of all migration in Mexico (ibid.).

As Diane Davis points out, '[n]o presidential administration better symbolizes the official party's commitment to urbanization-led industrialization than that of Miguel Alemán' (1994, p.115). Davis makes clear that from 1945 onwards a 'pact' between capital and labour emerged meaning that Mexico's corporatist governance was aligned between the public and private sectors (ibid.). So what did this change look like in the city? Davis points us part of the way exposing how the government's efforts to facilitate a growing industrial class meant 'the government financed massive amounts of new urban infrastructure between 1945 and 1955', including housing (ibid., p.119). Within President Alemán's six-year term, from 1946 to 1952, the *Dirección de Pensiones Civiles*, the department responsible for public pensions, but also for public workers' housing, spent more on building and financing homes than the previous twenty-one years combined (Pani 1952, p.16). Some 9,687 homes were built in just six years. Of those, 7,461 were financed through secured mortgages by the state, and the remaining 2,226 were built by the Mexican government. Of those 2,226 homes built and paid for by the government, 2,106 of them, at a cost of $71,003,998.63 pesos, were the result of one architect: Mario Pani.

Mario Pani was imbricated in the architectural and urban professions of Mexico City from his return from studying in Paris in 1934, through to his death in 1993. He founded the longest running architectural magazine in the country, *Arquitectura/México* that ran from 1938 – 1978. His work on housing in Mexico City is unsurpassed, as evidenced by the proportion of state building he completed between 1946 and 1952. After Alemán's presidency, he would go on to lead the development of the *Ciudad Universitaria*, the masterplan for the new national university in the south-west of Mexico City, as well as the *Nonoalco-Tlatelolco* urban housing estate for some 100,000 people in 1964, bookending the timeframe of this thesis. I introduce Pani below in the section about the structure of the thesis because, as will be made clear, the artefacts of analysis are based on his professional working life. Although Pani is a character in the narrative of this thesis, it is not a thesis about Mario Pani. Nor does it conform to traditional monograph histories, nor to the histories of architecture. Rather it adopts textual, visual and material artefacts from his legacy to conduct a detailed analysis of the practices of architecture. In the sections that follow, I situate this thesis within larger theoretical frameworks.

LOCATING MODERN ARCHITECTURE IN MEXICO

There are many works of Mexican scholarship relevant to my research areas that deploy archival and historical analyses in the areas. While some of these will be explored in greater detail in the substantive chapters, they can be considered under the broad categories of Mexican modern architecture (Burian 1997; De Garay 2002; De Garay 2004b; De Garay 2004a; De Garay 2008; Fraser 2000; Noelle Merles 1997; Noelle 2008), the urbanisation of a political economy in Mexico City in the 20th Century (Davis 1994; Davis 2004), the Mexican nation and the project of state formation (Joseph et al. 2001b; Joseph & Nugent 1994; Vaughan 2001), the relationship of the built environment to revolutionary state and national production and reproduction (Carranza 2010; De Anda Alanís 2008a; Olsen 2008), and the transnationalism of Mexican modernity (Gallo 2005; Gallo 2007; Gallo 2010a; Trillo 1996). While the scholarship on Mexican modernity is important, and peppers this thesis throughout, the core engagement lies with those works on the architecture of modernity.

The history of the Mexican Revolution and the political climate of Mexico in the twentieth century have been routinely and extensively made the question of countless volumes of study. The revolution itself has been defined and redefined primarily as an economic crisis, a mass socialist uprising for agrarian reform, and a political battle for elite control of Mexico (Benjamin 2000). The causes and effectiveness of the revolutionary movement in Mexico, notably the first of the twentieth-century revolutions, are continually being scrutinised, particularly in light of the last decade of political reform that saw Vicente Fox lead the *Partido Acción Nacional* (National Action Party, or PAN) to victory over the seventy-year democratic dictatorship of the *Partido Revolucionario Institucional* (Institutional Revolutionary Party, or PRI) (Chand 2001).

Alternatively, Macario Schettino postulates that no 'real' revolution took place. In his book *Cien años de confusion* Schettino argues that, to the detriment of Mexico's 'progress' as a modern nation, the revolution is a series of myths created to rationalise the power of unions, farmers and the business elites (Schettino 2007). A continued historiographical account of the revolution by Ilene V. O'Malley articulates the productive nature of what she calls the mystification of Francisco Madero's uprising in 1910, and the capital 'R' Revolution that followed:

> Mystification is central to the official ideology of the Mexican regime as well as to the political culture which supports and is supported by it. My use of 'mystification' is related to Roland Barthes' concept of myth as 'a type of speech . . . not defined by the object of its message, but by the way it utters this message.' Mystification produces myth, which here is not the same as 'story' or 'fable,' as in "there are many myths about Zapata's ghost riding in the hills'; nor does it mean a direct lie. Instead it is a confusion, not so much of facts as the way one thinks about facts. (1986, pp.4–5)

O'Malley offers an entry into the investigation of the institutions of history to think about how myths are used to create legitimacy, power and stability. Though my project will not enter a discussion of the academic literature surrounding the Mexican Revolution and its continued historiography, the transformations that it put in motion socially and economically, and the official 'institutionalized' revolutionary party that held government thereafter, their policies and projects, are key to understanding the spatio-political atmosphere in Mexico City during the early twentieth century. However, that the myths of the revolution, 'the way

one thinks about facts' (O'Malley 1986, p.5), become crystallized in the temporal perspective of the production of space, is an important context to articulating the relationship between the practices of architecture, modernity, built form, and their political effects.

The Mexican Revolution of 1910 left the ruling party with a 1917 Constitution full of promises: the universal right to state housing, education and healthcare. These promises necessitated large scale building projects to meet the needs of a changing nation and new ministerial buildings for a new regime. A project of renewed nation building began at this time largely attributed to José Vasconcelos (the Minister of Education from 1921-24) and his idea of the 'raza cósmica'. The 'cosmic race' was an almost spiritual belief that the world's population is mixing and that Mexico, half way between Europe and Asia, Africa and South America, was in the perfect position to create this cosmic race (Vasconcelos & Jaén 1997). The project of 'la raza cósmica' was initially pursued through educational works and artistic endeavours as Vasconcelos believed this was the best way to change and mould a people. It is within this context that artists José Orozco, Diego Rivera and David Alfaro Siqueiros, the famous Mexican Muralists, created publicly commissioned works that adorn many state buildings. For many of the early architects including José Villagrán García and Carlos Obregón Santacilia, building projects were centred on creating structures large enough to hold these new nation-building murals. Many were built in the new, planned, Mexico City suburb of Colonia Roma including García's National Stadium in 1924 and Santacilia's Benito Juárez School.

Whereas Vasconcelos imagined architecture primarily as a functional object, in the 1930s a new generation of architects, Juan O'Gorman, Mario Pani and Luis Barragán, aware of the circulating ideas of the Bauhaus and of Le Corbusier, began to think of the radical potential of architecture in and of itself to confront the tensions emerging within the newly institutionalised state. Given the relative 'newness' of the post-revolutionary Mexican state, the spread of modernism has been historicised in particular ways that link it to state patronage and the importing of best practice from Europe. As such, the early twentieth century in Mexico is framed as a time when the leading politicians and intellectuals

'cannibalised' the international ideas about modernist architecture and urbanism, and incorporated them into their cities and urban spaces as part of a national dialogue about Mexican architecture, and national identity more generally. As Eggener relates:

> Even in a period of intense speculation on the national character, forms and ideas from outside a nation's boundaries can be bound up with its most self-consciously nationalistic cultural productions. National beings, in other words, quite often bear traces of a foreign accent. (Eggener 2000, p.41)

There is a consistent movement in Mexico, however, a back and forth swing – what Antonio Méndez-Vigatá calls the movement in architecture from the search for national identity to the desire to be part of the international avant-garde (2007, p.62). Arguing from a state centred approach to power, that architects were usually, willingly or unwillingly, instruments of the government, Méndez-Vigatá draws causalities between the ruling party's ethos, and the built environment it produced (2007, p.63). Alternatively, there has been a host of recent historiography that locates power in Mexico in the masses and destabalises certain tropes of an eternal Mexican nation. As Alan Knight puts it, before the 1910 revolution Mexico appeared 'less as a nation than a geographical expression, a mosaic of regions and communities, introverted and jealous, ethnically and physically fragmented, and lacking common national sentiments (1986, p.2). As such, Knight and others argue that the revolution's unleashing of popular forces was such that state-formation would, of necessity, require an unprecedented degree of 'negotiation from below' (Joseph & Nugent 1994; Knight 1994a; Knight 1994b; Rubin 1996; Scott 1976; 1985).

Recent scholarship on Mexico criticizes the historians that have centralised the power of the state in Mexican history, something that has influenced the way it has been studied ever since (Bannister 2007). Jeff Bannister demands a reconfiguration of our understanding of the Mexican state as more fragmented, created by subjectivities and not just as a centralised authority. In terms of a spatial analysis, Bannister argues, referencing David Harvey and Henri Lefebvre, that

> so-called spaces of rule and ruling are far more than simply contexts for social relationships; rather, they are themselves constantly refashioned 'or altered by the subjects whose everyday practices constitute their production, [they take shape] where state and society converge.'

Understood thus, space becomes a much more integral dimension of hegemony, a critical stake in the contest between differently positioned actors and groups to construct a discursive and material terrain of rule (2007, p.462, quoting [Marston 2004, 7]).

Beyond the geography of the Mexican state, then, lies a contested site of actors and power, practices and debates, in which my focus of study is situated. These must be the site of careful study beyond a state-production centred approach, but nonetheless well in line with notions of the construction of nation. Weary of the centrality of the state in so much Mexican scholarship, yet wrestling with the fugitive nature of power, John Allen offers a spatial imperative: the need to understand the 'whereabouts of power' (Allen 2004). Where Bannister's concerns lie with developing rigorous scholarship into the 'whereabouts' of the state in the post-revolutionary scene in Mexico, I aim to investigate the 'whereabouts' of the modern by turning away from the solidity of the architectural object central to many of the architectural histories of modern Mexico, and focussing on the practices of architecture themselves. This move to consider architecture beyond their buildings, that is beyond their object, is the focus of the next section.

ARCHITECTURE BEYOND BUILDINGS

While many studies seem to privilege the qualities of the physically built structure as representative of 'architecture', this study builds on a growing body of literature that aims to dissolve this materialist hierarchy, and expose the architectures of modernity by looking at media discourses, professional debates, and the international circulations of ideas internal to an architect's own drawings, plans and presentation boards (Colomina 1994; Nasr & Volait 2003).

In 1999, the architectural historian and media theorist Beatriz Colomina argued that 'writing is a form of architecture practice' (Colomina 1999, pp.32–33). Colomina's work, in my reading, is an attempt to reorient architecture itself from a reliance on the privileged materiality of the built form, to one that understands the complex interdependencies of multiple mediums to create the experience of modern architecture. Colomina argues that far from relying on the materiality of the built environment as the sole purveyor of the qualifier 'architecture', rather 'the architecture of this century is produced in the space of photographs, publications, exhibitions, congresses (CIAMs, etc.), fairs, magazines, museums,

art galleries, competitions, advertising' (1995, p.56). Delving further, Colomina adds the realms of film, television, advertising and department stores to the list of technologies that combine to create contemporary architectural experiences. In order to examine this claim, Colomina analyses the most famed modern architect of the twentieth-century, Le Corbusier's relationship to photography. Early on in his career, Le Corbusier was frustrated by the flattening of the architectural encounter to a mere photographic representation explaining that 'the effect of photographs is always distorted and offensive to the eyes of those who have seen the originals' (qtd in Colomina 1987, p.10). However, Le Corbusier soon found that the photograph could better represent his ideas about architecture than could the built object from which the photograph was taken. Le Corbusier used photography to create a more pure architecture – air-brushing the photograph – editing it, to create an architecture more 'real' than its physical manifestation. At times he went so far as to erase all elements of context or geography, making 'architecture into an object relatively independent of place' (Colomina 1987, p.12). For Le Corbusier, 'photography and layout construct another architecture in the space of the page' (Colomina 1987, p.14). The relationship between mass media and architecture has been extensively researched (Colomina 1987; Colomina 1994; Colomina 1995; Gallo 2005; McQuire 2008; Rattenbury 2002; Schwarzer 2004); and Colomina (1994) makes the claim that modern architecture is not just transformed and experienced through media representations, but is itself the culmination of these multiple media networks, including the material media of the building itself. Researching questions about legitimate discourses in Mexican modern architecture and the politics of design depend, then, on an expansion of focus from the object most considered architecture, the built form, to other objects, events and spaces like speeches, fairs, television advertisements, presentation boards, magazines and plans as idioms of 'architecture' in their own right.

ARCHITECTURE AS DOCUMENT

Drawing primarily on materials from the archive, the study also takes stock of Kent Kleinman's (2001; 2007) distinction between 'building' and 'document'. Kleinman sets out to argue that there exists a useful distinction between 'first, the built artefact and second, representations of that artefact' insofar as it allows

architectural archives to collect and catalogue an architect's legacy 'without having to deal with the messy,' and we could add expensive, 'business of built work' (Kleinman 2001, p.321). Kleinman develops his argument through an examination of the recent restoration of the Villa Müller (1930) in Prague by architect Adolf Loos, restored by the City of Prague with funds from the Government of the Czech Republic and reopened as a museum in 2000. Kleinman's contention is twofold. First, he aims to deal with that 'useful distinction' by way of uncovering what he terms a Lacanian 'lack' between intention and fruition; that is, between the desired object contemplated, drawn and planned by the architect or architectural office on the one hand, and the object made physically manifest through the negotiations of physics, engineering, finance and politics on the other. The space this gap creates at the moment of initial completion is only heightened by time. Kleinman argues that there exists a separate temporal discourse for each of the archive and the built environment, such that the effect of time is meant to be arrested in the archive, but valued (for example, the weathered building) in the built environment (2001, p.323). The correction for this lack emerges, at times, in discourses around architectural or urban reconstruction or preservation, and Kleinman reminds us that decisions around the archiving of architecture are as 'deeply implicated in the fabrication of national, local, and discipline-specific mythologies' as they are decisions about entering into a global tourism circuit of cultural economies (2001, p.325). And so in preserving architectural heritage, the unfulfilled architectural object is worked upon, giving primacy to the archived documents (plans, drawings, photographs, writings, publications, newspaper cuttings, etc.) – surrounding it to close the gap between the imagined and the real so as to create a condition of mirroring – the one, the built artefact, mirrors the other, the document. Kleinman concludes with a quotation from the markedly prescient Viollet-le-Duc, writing in the nineteenth century, and self-proclaimed as one of the first restoration architects, that 'To restore a building is not to preserve it, to repair it, or rebuild it; it is to reinstate it in a condition of completeness that could never have existed at any given time' (qtd in Kleinman 2001, p.327).

And so, within this context of architectural restoration, Kleinman argues that the routine privileged meaning often given to buildings themselves is misplaced and,

in so doing, argues against the idea that a building can ever be restored to its original state. Kleinman claims that the building document, or architectural plan is, in fact, the original, and built form, simply one of potentially many built 'imitations' (2007, p.54). To Kleinman, 'the (unbuilt) document is architecture; architecture is a (built) document' (2007, p.55). Building on Kleinman, then, demands a recognition of the work of the architectural archive, of national and regional narratives and myths surrounding architectural artefacts, and the confrontational implication that architecture is not captured either in material form or in document form, but rather it is in their confluence, and perhaps gaps, that architecture exists. Reflecting on the multiple sources and case studies in this thesis, then, is to examine Mexico City's modern housing not solely from the point of view of the building itself, nor from an ethnographic extension of interviews or testimonies of residents living in those spaces, but also through the work of creating a new archive specific to the questions being asked, and made up of physical form in terms of brick, glass, paper and film. Going further, combining the work of Kleinman with Colomina helps to reconceptualise architecture from a fixed physical site to a multifaceted circulation that acts both across time and through space and at the interface between materials and discourse. Indeed, Kleinman writes, 'This was the central message and mission of "architects" such as Buckminster Fuller, John McHale, and the Archigram Group, who famously argued that the telephone, the space suit, and networks of all kinds are central to the work of the architect' (2001, p.324).

Kleinman is particularly useful for archival studies of urbanism and architecture because we move from the study of a building *through* the documents and discourses that surround it, to the study of a building *as* documents and discourses. This way of conceptualising the built environment allows us not to simply connect archival materials like plans, newspapers, architectural journals, personal letters and Presidential statements to a built form, but to argue that built form is only one part of an intelligible meaning to such circulations of material and discourse.

Where Kleinman is less useful, perhaps, is in discussing the notion of authorship in architectural practice, an idea that looms central to the practice itself as the

'anxiety of influence' (from Bloom 1973; Nesbitt 1996, p.35; Marcinkiewicz 2009, pp.51–64), and is echoed in the broader theoretical approaches of this study in conceptions of originality and mimesis in current post-colonial frameworks. Accepting Kleinman's assertion of an architectural 'original' in the authorship of the architect's plan would amount to confirming the work of the architect as author. If the building is simply a copy of the plan, and 'the (unbuilt) document is architecture' (Kleinman 2007, p.54), then authorship must reside with the named practice or person behind the plan. Indeed, Kleinman argues for the irony of styling Adolf Loos as 'author' in relation to the restoration of his 1930s Villa Müller in Prague. Adolf Loos was vehemently anti-authorial, and intended, through his writings, to 'divorce architecture and art, absolutely' (2001, p.329), arguing that originality could only occur in art, and because proximity could be established with the architectural object, it could not, according to aesthetic theories of absorptive contemplation at the time, be considered 'art'. By creating an 'original' Loos building, the Czech government had indeed created a building that would be antithetical to Loos' own architectural position, and therefore, according to Kleinman, could not be considered in any way 'authentic.' However, by attributing the 'last word' to Loos as the ironic architectural auteur, Kleinman unwittingly reinforces the notion of authorship, and precisely the connection between original intention and eventual fruition (2001, p.320). The lack, or gap, between the desired and the real here, is not filled in a restoration effort, but surprisingly in the re-inscription of authorial intention as that which could, if let to follow its true course, bind the space between document and form. And yet, while Kleinman enacts the presumption of knowing a 'truer' intention of Loos by examining his writings and theoretical publications, and lamenting the petty narratives burdening the building in national and economic tropes, intentionality is no less lost to history, and the mirroring, even of an ironic Loos with an ironically 'original' Villa, cannot create the mirror we end up desiring between the archive and the architecture.

MODERNITY'S UNEASY ORIGINS

Any attempy to destabalise the trope of intention, and the legitimacy of authorship, demands working between plan, built form and discourse. A traditional concept of authorship no longer holds, and what remains is not the

authority of authorship, but rather a consideration of *scales of influence* that act within a circulating sphere of possible actions and materials towards some sort of political effect. The multifaceted landscape of urbanism and architecture that this study builds upon does double work in both opening the concept of urbanism and architecture beyond the materiality of form, and in reconceptualising the primacy of authorship into the circulation of scales of influence. This builds upon a question that lies at the heart of this study – one not just concerned with originality and authorship in architectural practice, but also the mirrored 'origins' of modernity in Europe, the construction of its 'mimetic' offspring, and the continued urban effects of this legacy on the theorising of cities (Bhabha 1994; Chakrabarty 2000; Jacobs 1996; Robinson 2003; 2006; 2008).

An historical study of urban debates and discourses is important because it can be tied to larger processes of historical social and political constraint and national and post-colonial power relationships, particularly in relation to contemporary 'worlding cities' debates (McCann et al. 2013; Roy 2009; Anon 2011) and growing bodies of literature on multiple modernities (Gaonkar 1999) that work to displace, or reconsider, Europe as the privileged geography of modernity's origin (Chakrabarty 2000; Mitchell 2000; Robinson 2006). It also necessarily sits within a field of historiography about the built environment and therefore becomes not only of interest to the concerns of the past, but raises specific questions about present means of interpreting, discussing and enabling (or not) meaningful and divergent discourses about the built environment. The ways in which these discourses are interpreted, in fact the importance given to discourse itself, allows us to raise questions about the present political and economic climate surrounding the built environment professions, and the use of built form as a politically discursive tool in sustaining and expanding social and political power relationships (Rabinow 1989; Wright 1991; Vale 2008). In what remains of this introductory chapter, I will outline the literature framing this study followed by the structure of the thesis. First, however, I will explore in more detail recent scholarship whose aim is what Robinson has termed 'dislocating modernity' (2006, p.13), a dislocation from its assumed privileged European centre.

Robinson's work urbanises, in part, a larger intellectual project that emerges from subaltern studies of an Anglo-Indian postcolonial tradition that Prakesh Chakrabarty has termed *Provincializing Europe* (2000). Chakrabarty's project does not seek to usurp or disregard what can be termed 'Western' theoretical tools, but rather to explicitly recognise two 'conceptual gifts of nineteenth-century Europe' (2000, p.6): 'historicism' and the 'political'. Historicism, for Chakrabarty, is a tool that, in his words, 'make[s] modernity or capitalism look not simply global but rather as something that became global *over time*, by originating in one place (Europe) and then spreading outside it' (2000, p.7).

Following on from the calls in scholarship to reconceptualise the modern, I then go on to situate this study within an expanding field of intellectual labour uncovering 'alternative modernities' within histories of urbanism and architecture. This field seeks to 'rewrite' the often colonial histories of national urban and architectural projects to recover instances of originality within the colonial subject, or instances of inverse flow; that is, instances within the relationship between what is traditionally understood as colonised and coloniser whereby the coloniser, the traditional holder of power in the dialectical relationship, becomes influenced by the colony. This is a history that rediscovers innovation in colonial spaces, and one that reinterprets the 'centre' as decidedly post-colonial itself (Jacobs 1996).

Finally, the study accounts specifically for the ways in which the modern architecture of Mexico City has been discussed, interpreted and historicised within the discipline of architectural history, and the history of modern architecture more generally. This last move illustrates how some of the literature about the architecture and urbanism of Mexico City itself falls within complicit historical conceits about the origin and spread of modernity, and beyond uncovering a gap in the literature within which this study sits, demonstrates the politics of discourse and its legacy effect on the ways in which it is possible to imagine Mexico City, its social and urban problems, and the legitimate possible limits of architecture and urban intervention.

MODERNISM WITHOUT MODERNITY[8]

One of the more common means by which cultural theorists and historians have described the development of modern forms in art, literature and architecture in Mexico City, is that while modernism enjoyed a sustained and active development through the international circulation of intellectual movements that landed in Mexico City, and the patronage by the state of modernist muralists, film makers and architects as combined elements of a loose national project, the institutions of a modern 'political' – democracy, human rights, advanced capitalism – were not to develop, as was thought the norm, alongside. Argentinian sociologist Néstor García Canclini put it as follows,

> The most-reiterated hypothesis in the literature on Latin American modernity may be summarized as follows: we have had an exuberant modernism with a deficient modernization. (1995, p.41)

Rather than prove the hypothesis, Canclini examines the contradictions of distinguishing the –ism from the –ity, at least in a Latin American context, and argues that modernism in Latin America 'is not the expression of socioeconomic modernization but *the means by which the elites take charge of the intersection of different historical temporalities and try to elaborate a global project with them*' (1995, p.46, italics in original). He goes on to relate that this manipulation of temporality is what hinders 'the emancipating, expansive, renovating, and democratizing projects of modernity' (ibid.). What Canclini leaves us with then is not modernism without modernity, but a kind of modernism that through its own manipulation of historicism leads to a 'deficient modernization', and exposes, in contraposition, the other, the 'European' as the inevitable 'modern' of comparison.

In light of this, Ananya Roy (2009) offers a concise, three-way overview of recent scholarship to expand the historicity of modernity away from the inevitable end of a developmental timeline in her discussion of new geographies of theory. First, following from Nuttall and Mbembe (2008) is 'the argument that modernity (and its violences) is everywhere' (Roy 2009, p.828). This is the idea that modernity as a universal project operates across global geographies today, and operates on

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8 This is borrowed from the title of Mauro F. Guillén's 'Modernism Without Modernity: The Rise of Modernist Architecture in Mexico, Brazil, and Argentina, 1890-1940', and a phrase that he further attributes to Ramón Gutiérrez in his influencial survey Arquitectura latinoamericana en el siglo XX. Guillén approaches the question of why modernist architecture took off so quickly in Latin America in the post-war period, coming to the conclusion that 'As in Europe, Modernism dispersed throughout Latin America thanks to state patronage and the professionalization of architects following an engineering model' (Guillén 2004: 1).

both the social and physical worlds with equal, if differentiated, effect. Second is the argument there are many alternative modernities, as described by Gaonkar (1999). This is the idea of multiple modernities. Many studies in architectural history, aim to uncover the modern agents within colonial spaces – that is to say, to reclaim a 'modern' project in many parts in the world, but operated through contextual particularities of time and place. In this way we could speak about a Mexican modernity. Indeed, Ruben Gallo (2005) has published a book of the same title that organises itself around the technologies of the radio, the typewriter, concrete and the stadium that produced a particular, if familiar, modernity in that country, as much as a French, Indian, or Canadian 'modern'. However, unless identified, the word 'modern' itself remains as a European original, and the alternative or multiple modernities occur within a constellation of comparison, always to the original referent. Third, arguments that attempt to dislocate 'the very production of modernity', and in doing so 'call into question the Western origins of modernity' itself (Roy 2009, p.828). This is the more critical, and for the purposes of this study, useful, of the three projects, each of which have produced strong and thoughtful scholarship. The end game is not to dislocate 'modernity' from Europe, or from its 'Western origins' to somewhere else, but rather to undermine the conception of a centre and periphery, to undo the metaphor of original and mimetic that has constrained the critical possibility of historiography of the modern. While many of the reconsiderations of colonial urbanism and twentieth century circulations of modern architecture activate Roy's first and second arguments, this study aims to consider the third argument by way of an historical investigation of specific modern architecture in Mexico.

In line with the last of Roy's typologies of argument, several recent works help to situate this attempt to examine the discourse of the built environment and architecture in post-revolutionary Mexico with regards to its effect in upholding dominant understandings of the circulation of 'modernity', and in so doing, making political use of a legitimated relationship with that 'origin'. Prakesh Chakrabarty identifies the work 'historicism' does in terms of ordering the modern world through distinctions in time – precisely 'the denial of co-evalness' (2000, p.8), as anthropologist Johannes Fabian (1983) would put it. This distinction in time became 'a measure of the cultural distance (at least in

institutional development) that was assumed to exist between the West and the non-West' (Chakrabarty 2000, p.7). Chakrabarty describes how the construction of historicism came to non-Europeans 'as somebody's way of saying "not yet" to somebody else' (2000, p.8) but also is careful to make clear that this 'waiting room of history', a waiting room in-so-far as the illusion of becoming modern is necessarily a purgatorial one, is a model that gets reproduced at multiple scales of local centres and peripheries. This becomes central to understanding not just architectural production in Mexico City vis-à-vis Europe, but also vis-à-vis other parts, rural and urban, of Mexico.

Jennifer Robinson, in her book *Ordinary Cities*, urbanises Chakrabarty's 'provincialisation of Europe', by aiming to dislocate the primacy of Western urban theory as the model through which to theorise contemporary cities and therefore city processes. Robinson demands that the complicity of policy makers, practitioners and academics alike in Western modernity and its effects on urban theory needs to be challenged by carefully exposing how it 'allies the emergence of certain historically specific social formations with the idea of progress; and [how] it aligns this sense of progress with certain places' (2006, p.14). Robinson echoes Chakrabarty in arguing against the origins of modernity being tied to 'any fixed geographical referents' (2006, p.18). She reminds us that 'western modernity's projection of itself as the generative source of creativity relies on forgetting these circulations and borrowings' (2006, p.19). In an effort to reorient the study of modern artefacts, cities in the twentieth century in her particular case, from the mythic site of origin in the West, she concludes that:

> The very promiscuity of Western modernity itself thus proposes a different, cosmopolitan cartography of modernity, one in which origins are dispersed, outcomes differentiated and multiple and the spatial logics those of circulation and interaction. (ibid.)

What Robinson provokes is a rearticulation of the 'appearance' of modernity in those geographies of the primitive, developing, non-modern, from that of a referent mimetic or hybridic or cannibalising or appropriating of some origin in the mythical modern West, towards 'seeing all cities as occupying the same historical time, open to new kinds of futures, contributing to the inventive modernities of the present' (2006, p.39).This is a line of thinking with direct and purposeful traces again to Fabian's notion of co-evalness, and invokes the

political effects, or violences, of failing to perceive the co-evalness of the world. It also provokes what Robinson would describe as 'a deeply colonial move' (2006, p.13). Robinson continues: 'it is the West that has been seen as the site of modernity and other places that have been entrained as not-modern or less modern through the transformation of historical time into geographical difference' (2006, pp.13–14).

The remainder of the chapter focuses on presenting the structure of the thesis. Below, I defined the time frame of the project, and follow with a detailed description of the three substantive chapters.

THE TIME FRAME: MEXICO CITY, 1938–1964

There are many important dates for Mexico in the early twentieth century: the centennial of Mexican independence from Spain in 1910 (Gonzales 2007; Trillo 1996), the Mexican Revolution from 1910 to 1920[9], the constitution of 1917 (Ulloa 2000, pp.808–821). Then there comes the death of the Constitutional military leader of the revolution Venustiano Carranza in 1920, and the various presidents in and out of power (Aguilar Camín 1993, pp.36–70; Meyer 2008, pp.826–834). Beyond Mexico at an international scale, there is the Spanish Civil War from 1936-39, WWI and WWII, and the infamous Mexican Olympics of 1968 (Zolov 2004), just before which, Mexico City faced the student uprising and massacre on 2 October 1968 at the *Plaza de las Tres Culturas* in Nonoalco-Tlatelolco (Poniatowska 1998). Given the problematics of times and dates, most histories of Mexico partition it, focussing on the revolution alone (1910-1920), the post-revolution time from 1920-1940, the import-substitution industrialisation of the 1940s and 50s up until the student massacre of October 1968, the internationalised Mexico, embedded within the financial crises in the 70s, 80s and 90s, ending with the signing of the North American Free Trade Agreement (NAFTA) between Canada, the United States of America and Mexico in 1994, followed by the 'new' Mexico, reoriented once again by the PAN party's

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9 As with any historical event, the dates of the Mexican Revolution are contested. Most agree that its beginnings can be traced to uprisings in November and December of 1910. However, its end date is variably argued to be anywhere between the election of Francisco Madero to President on 1 October 1911, the constitution of 1917, and the assassination of Venustiano Carranza in 1920. Indeed, the revolution was a series of multiple uprisings, insurgencies and movements with little or none in common, and often in violent dissensus with each other. See Aguilar Camín and Meyer (1993) *In the Shadow of the Mexican Revolution: Contemporary Mexican History 1910-1989*, pp. 17-21 and pp. 36-70.

historic ending of the PRI's long rule by then President Vicente Fox in 2000 (Joseph et al. 2001a, pp.3–4), and finally in our contemporary moment, a Mexico emblazoned by deepening inequality, the insecurity of drug wars, hyper-tourism and migration (Brenner 2005; Brenner & Aguilar 2002; Morales et al. 2013).

Recent writing suggests the failure of much post-revolutionary investigations to cross these convenient and conventional barriers (Joseph et al. 2001b). The dates I have chosen are as simple and arbitrary as any chosen for the study of modern Mexico, but rather than focussing on events in the country itself, I frame my study around key moments in the professional architectural career of Mario Pani, a character who links the three typological case studies of this thesis. Mario Pani was a co-founder of the architectural journal *Arquitectura/México* in 1938, which forms the basis of the first case study. In 1945, with José Luis Cuevas, he founded the *Taller de Urbanismo*, an urban research institute in Mexico City. Visual artefacts from urban projects developed by Pani's urban studio between 1946 and 1964 make up the second case study. Finally, Pani was the lead architect behind the CUPA, the modernist estate built between 1947 and 1949. Bookending the time frame for this study is the inauguration of the *Conjunto Urbano Nonoalco Tlatelolco* on 20 November 1964 by then President Adolfo López Mateos. Nonoalco-Tlatelolco was the largest urban housing project in Latin America at the time, housing over 100,000 people. It is widely seen as an urban project to which the large majority of Pani's prior work culminates. Shortly after the inauguration, a new President of Mexico Gustavo Díaz Ordaz was sworn in. In an interview with De Garay, Pani relates the following about 1964 and the new President: 'I stopped getting along with President Díaz Ordaz, and he told me, "how is it possible that we give so much work to Pani? I don't want him to get even one more job"' (De Garay 1990a, p.12). The majority of the materials, newspaper articles, architectural journals, drawings, maps and plans figure from this period, while the oral history materials used make reference to this period.

THE STRUCTURE OF THE THESIS

The thesis is divided into a prologue and six chapters. Following the introduction, Chapter 2 considers the methods for this project. I describe the research process, the collection and analysis of materials, and conclude with a discussion about the

relationship of architecture to the archive and the archive to architecture. Chapters 3, 4 and 5 make up the core substantive chapters, discussed below. Each one takes as its point of departure a different practice of architecture: writing, drawing and building. The thesis ends with a concluding chapter that considers key themes that emerged from across the discussions in the substantive chapters.

Writing: Arquitectura/México

The first substantive chapter of the thesis explores the place of the architectural journal in Mexico City's modern architecture. Mario Pani (1911-1993) grew up abroad. His father was a diplomat, and as such he moved at the age of eight to Belgium. In 1919 they moved to Itlay, and in 1925 they arrived in Paris where they stayed until returning to Mexico in 1934 (De Garay 2004a, p.9). After several unsuccessful applications Pani was accepted and educated at the *École des Beaux Arts* in Paris where he studied architecture between 1928 and 1934 (Noelle 2008, p.8). Upon his return to Mexico City in 1934, he was given the commission for the *Hotel Reforma* by his uncle, Alberto J. Pani, a commission that had already been awarded to the well known Mexican architect Carlos Obregón Santacilia, and a building whose concrete foundations had already been laid (De Garay 2004a). Usurping the construction of Mexico City's first luxury hotel from one of its most cherished architects immediately placed the 23-year-old Pani into a national spotlight, with architectural scandal erupting, articles in daily newspapers, confrontations from Obregón Santacilia himself, and interventions from the president of the *Sociedad de Arquitectura Mexicana*.[10] Returning to a city whose architects worked primarily in neo-colonial styles, Pani worked tirelessly to promote the modernist techniques and aesthetics of the International Style. According to De Garay, in Latin America 'one of the most important legacies of a Le Corbusian inheritance is the city of Brasilia, and, in Mexico, one could mention the social housing projects and urban planning of Mario Pani' (2004a, p.25). It was in this context that Mario Pani co-founded *Arquitectura/México* in 1938 with the financial support of his father, the engineer Arturo Pani [Figure

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10 For a full discussion of the scandal of this commission, and a discussion of it as a symbol of the embedded familial relationships Pani was privilege to, and their positions within local and national political spaces, see de Garay (2009) 'La profesionalización de la arquitectura en el estado posrevolucionario Mexicano: Mario pani, un ejemplo de arquitecto moderno, 1911-1993', pp. 280-288.

1.3] (De Garay 2009, pp.289–327). *Arquitectura/México* ran for forty years, closing in 1978 after a continuous run of 119 issues (De Garay 2004a, p.71).

There is wide debate about the extent to which Pani used the journal as a personal and professional networking tool. The journal was used at times to proliferate the biography of Pani, to run and publicise his firm's work, but then also to shape the aesthetic and political debates about architecture and urbanism in Mexico City towards one based on the tenets of a 'European' modernism, specifically rooted in the urban and social planning aspirations of Le Corbusier (De Garay 1991; De Garay 2009; Noelle 2008).

The architectural journal can be seen as part of the production of architecture in as much as it consolidates, shifts, embeds and transforms the norms of professional practice. Further, as Colomina (1994) argues, architecture needs to be understood in relation to developments in mass media production and therefore, while not abandoning the architectural object, architecture expands into photography, print media, film and image. It is not just that architectural media influence architectural aesthetics or preference – or in the case of the professional journal, architectural practice – but that architecture as a multiplicity of practices only becomes legible through the circulation between diverse media, forms and discourses. This study examines one such medium, the architectural journal.

As a mode of architectural practice, this chapter examines 'writing' by turning to two of its issues published twenty-five years apart. The first issue is the inaugural one from December 1938. The second issue is the twenty-fifth anniversary edition, issue number eighty-three, from September 1963. These two issues present the role of the architectural journal in dramatically different ways. In 1938, the architectural journal looked outwards, internationally. It described a 'shrinking' world, one whose population was becoming more alike day by day. The goal, then, was to 'internationalise' architecture in order to develop a platform for the comparative circulation of best practice. In 1963, *Arquitectura/México* announced that Mexican architecture had arrived.

Figure 1.3: Issue one front cover of *Arquitectura/México* from December 1938.

The issue was structured as a genealogy of the development of a national school of architecture in tandem with the history of the journal. In comparing the diametrically themed issues, I demonstrate the ways in which writing does not simply reflect or respond to an external world, but rather how writing is a practice of architecture, producing architecture, and in particular through its appearance in the modernist binary of national and international.

Drawing: Taller de Urbanismo of Mario Pani

The second practice of architecture I turn to are the visual artefacts of architectural and urban research. This forms the basis of Chapter 4. If architectural analysis moves outward, beyond the built structure to incorporate discourses, images, and publications, then it must also move inward, towards the representations of method and research, and in so doing, analyse the visual research methods, plans, and presentation boards of architectural practices. This second case study site moves to analyse the visual artefacts of the urban research studio *Taller de Urbanismo* co-founded in Mexico City by Mario Pani in 1945 with the urbanist José Luis Cuevas.

In 1945, Mario Pani set up his *Taller de Urbanismo* (Urbanism Studio) with fellow architect José Luis Cuevas (Adrià 2005, p.15).[11] Together, the studio would produce a number of masterplans and projects over the years, spreading the urban thinking from Mexico City to cities in other parts of the country. Their work included, among others, an industrial-port masterplan for Mazatlán, along with masterplan for the new tourist destination of Acapulco and a regional masterplan for the Yucatán.[12] Beyond masterplans, they also worked tirelessly in

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11 José Luis Cuevas was the lead architect in arguably Mexico City's first sub-division in 1922, Chapultepec Heights, later known as Lomas de Chapultepec, in the west of the city. It was the first modern urban development in Mexico City to forgo a grid system of roads in favour of routes that followed local topography. He also project-led the creation of the neighbourhood Insurgentes-Hipódromo in 1926, today part of the area known as La Condesa, after the private race-track (hipódromo) run by the Sociedad del Jockey Club Mexicano, was abandoned. It was the first 'integrated urban design' that not only managed the subdivision of the land into lots, but also the design of urban infrastructure and street furniture, unifying a design style for the neighbourhood. See Enrique Ayala Alonso (2003) 'La ciudad y la vivienda en la obra de Carlos Contreras', pp. 35-37.

12 For primary sources of a selection of Mario Pani's urban plans see the following published in Arquitectura/México: Mario Pani et al. (1953) 'Estudios de Planificación sobre Yucatán'; Mario Pani et al. (1953) 'Proyectos de Planificación de Guaymas-Empalme, Son.'; Mario Pani (1954b) 'Plano Regulador de la Ciudad y Puerto de Mazatlán, Sin.'; Mario Pani (1954a) 'Plano Regulador de Culiacán, Sinaloa'; Mario Pani et al. (1960) 'Plano Regulador de la H. Ciudad de Matamoros, Tamaulipas-México'. For a contemporary discussion of Mario Pani's urban planning, see Enrique Urzaiz Lares (2008) 'Mario Pani y Yucatán. Análisis de sus estudios de planeamiento para Mérida y la región henequenera'; Manuel Sánchez de Carmona (2008) 'Los planos reguladores'.

consideration of the 'urban problem' of Mexico City, a problem defined by Mario Pani in an article of the same name as connected to the fast demographic growth of the city, its resultant anarchic spatial form, and the resulting decrease in living conditions for an emerging urban labour force (Mayorga 1949a).

The documents discussed in Chapter 4 can be grouped in two sets. The first two are plans for new transport interchanges along two of Mexico City's most important thoroughfares, the east-west transect of Avenida Reforma, and the north-south Insurgentes. The second set contains three documents. The first is an urban research project on Mexico City. The second is a presentation of research and planning for the Nonoalco-Tlatelolco housing estate, and the third is a research programme on urban regeneration in Mexico City's historic core. Details of the documents are as follows: '*Un Nuevo Centro de la Ciudad de México Crucero Reforma-Insurgentes: Proyecto de Planificación y Zonificación*' (1946), an early project to transform the intersection of the two most important avenues in Mexico City at the time*,* Reforma and Insurgentes through improved transport infrastructure and the densification of offices, housing and commercial space creating a new 'centre' for Mexico City to replace the 'historic centre' at the Zócalo; *Anteproyecto para la Plaza de los Insurgentes* (1969), a similar proposal for densification of offices and commercial space at the intersection of Insurgentes and Chapultepec; *Estudios Urbanisticos en la Ciudad de México* (1951), a research project form Mario Pani and José Luis Cuevas' *Taller de Urbanismo* (Urban Studio) that proposes the 'decanting' of 'declining' or 'slum' neighbourhoods in the centre of the city to newly planned *unidad vecinales* (neighbourhood units), along the lines of Le Corbusier's 'Ville Radieuse', in the then under-urbanised south-east of the city; the material from the *Estudios Urbanisticos* were previously published in *Arquitectura/México* by Cuevas in May of 1950; *Conjunto Urbano Nonoalco-Tlaltelolco: Regeneración urbanística de la ciudad de México* (1960), visualising research, development and planning for the Nonoalco-Tlatelolco site in Mexico City, along with early justifications of the extension of the Reforma, set within a context of a larger project of urban regeneration of the 'Central Hovel Area', an identified set of neighbourhoods surrounding the historic centre of Mexico City; *Programa del C. Presidente Lic. Adolfo López Mateos, de Regeneración Urbana y Vivienda para trabajadores en la Ciudad de México* (1963), a diverse set of documents forming

part of the broader urban regeneration programme established by then President López Mateos, one whose aim was the resettlement of populations living in zones of central Mexico City classified as 'declining' (*decadentes*) or 'slums' (*tugurios*) into new modern developments, freeing up central land for further, dense real-estate development.

This chapter also makes links between Mario Pani's urban research studio and one of the most influential modernist organisations of the twentieth century: the *Congrès internationaux d'architecture moderne* (CIAM). Begun in 1928, CIAM held regular congresses on the future of urbanism, on modern architecture, and on themes related to developing research methods and architectural and urban theory appropriate to the changing conditions in the 1930s. The group was dominated in its public personae by large personalities like Le Corbusier and Sigfried Gideon, two of the central shapers of twentieth century architectural thinking. While CIAM was primarily made up of European professionals, its extension was global, primarily through colonial, and later post-colonial, ties. CIAM could be seen as one of the first 'global' architectural movements, and one of the first to prioritise research methods for understanding urban change – a fundamental turning point marking modern architecture's unique and intentional response to changing demographic, economic and social conditions (Mumford 2000). One of the linking figures between CIAM and Mexico is Hannes Meyer, the Swiss architect who led the Bauhaus between 1928 and 1930. Between 1939 and 1949, Meyer lived in Mexico where he led the Urbanism and Planning Institute. A discussion of Meyer's April 1943 article 'Mexico City: Fragments of an urban study' in *Arquitectura/México* prefaces the discussion of the visual materials [Figure 1.4].

By examining documents in Mario Pani's archive related to both built and un-built projects between 1946 and 1964, this chapter's aims are twofold. First, to examine the visual devices developed by Pani's office in presentation boards, plans, and urban and architectural research projects towards several urban projects, specifically two major transport interchanges producing densification, and urban regeneration research leading to the *Conjunto Urbano Nonoalco Tlatelolco*.
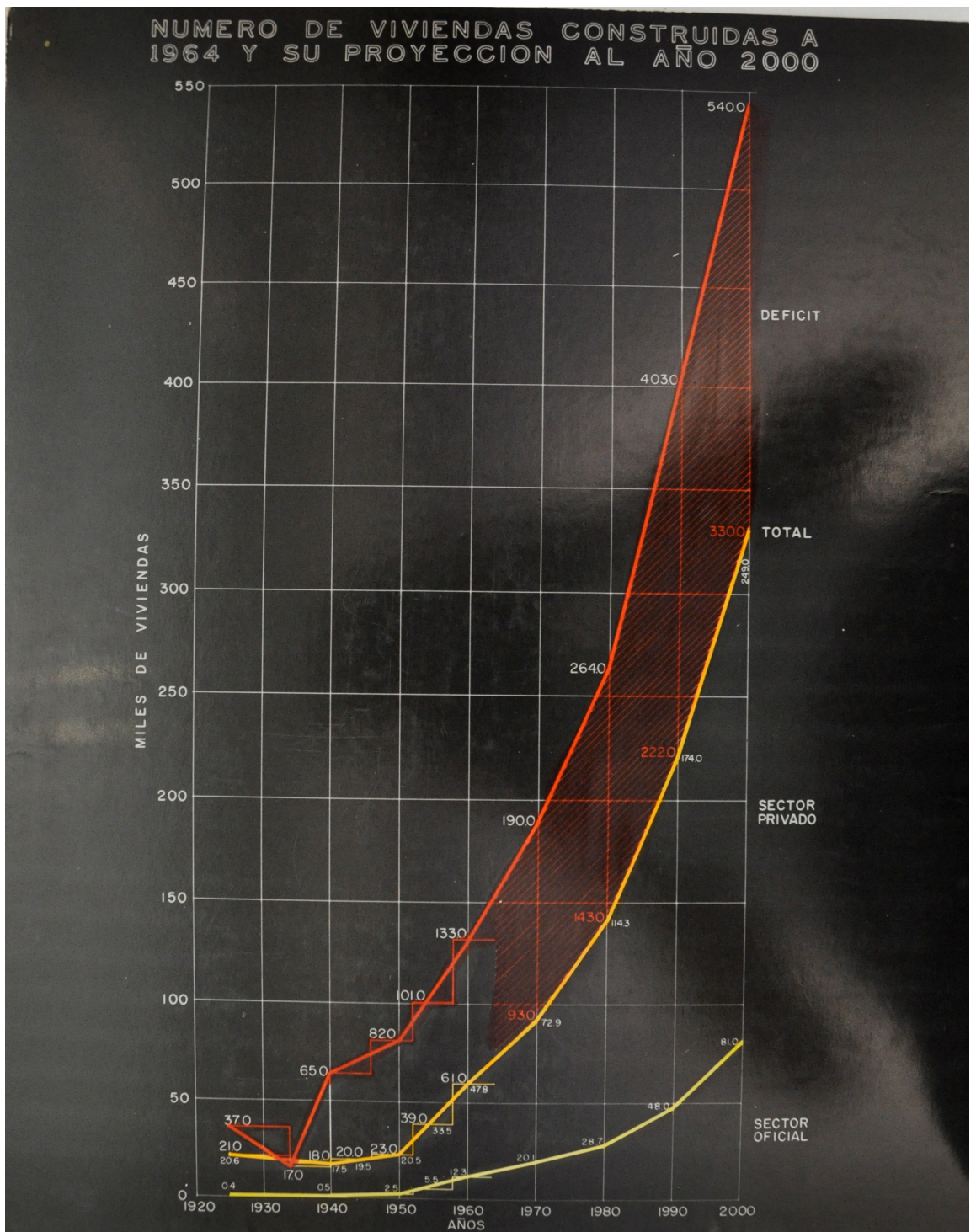
Figure 1.4: Number of housing built in 1964 and projection to the year 2000. This projection exposes a future gap between housing built through public and private means, and the demand, within a report suggesting the densification of Avenida Reforma by Mario Pani. Source: Uncatalogued, Archivo Mario Pani, Lino Picaseño Library, Faculty of Architecture, UNAM, Mexico City.

Second, to investigate possible relationships between the methods of researching the urban in Pani's office, and the globally circulating architectural and urban research methods developed more broadly through modernist institutions like the CIAM. The aim is to complement architectural histories that posit Pani's urban research in relation to ideas from Le Corbusier (see a detailed discussion of this in Chapter 5), through an analysis of the visual artefacts of that relationship.

Building: Centro Urbano Presidente Alemán (CUPA)

Chapter 5 turns to a portrait of materiality in Mexico City. The subject of this portrait is the CUPA. On 2 September 1949, in Colonia del Valle, just south-west of Mexico City's centre, the President of Mexico, Miguel Alemán inaugurated the first state sponsored multi-family apartment complex in Mexico, and one of the first in Latin America. Mario Pani, the chief architect of this and many other large projects in Mexico City including *Nonalco-Tlatelolco* (1964) and *Ciudad Satélite* (1957), built the complex in partnership with a young engineering firm *Ingenieros Civiles Asociados* (ICA) in just two years creating 1080 apartment units on a site that was originally meant to house just 200 single family homes. CUPA was built for public service workers in the state bureaucracy in adherence to the *Ley de Pensiones Civiles* (Civil Pension Law) passed on 12 August 1925. This law created the *Dirección General de Pensiones Civiles de Retiro* that solidified rights for state workers and their families – including pensions, healthcare, social services and disability care and, importantly, housing – within the post-revolutionary government, rights that span a continuity of transformations and institutions from the first public worker union formed under the regime of Porfirio Diaz in 1875 (the Asociación Mutualista de Empleados Públicos), through the revolution (Cruz 2000). The law was an antecedent of Article 123 of the 1917 Constitution that required any company with more than 100 workers to guarantee housing for them (Davis 1994, p.32). In the face of a growing bureaucracy and an increasing pace of urbanisation, the *Dirección General de Pensiones Civiles*, under the leadership of Esteban García de Alba commissioned what would become the CUPA.

The CUPA comprises nine towers configured in a zigzag soaring thirteen storeys each using modern construction methods in reinforced concrete and with pilotis supports: 'the strategy was to adopt a system of architecture and urbanism of tall

buildings distributed in a manner that left the ground plane free for gardens and areas of relaxation' (Noelle Merles 1997, p.180) [Figure 1.5]. Alongside these high-rise buildings, six three-storey apartment blocks rounded off the grounds that also contained educational facilities, a swimming pool, a library, a community centre, a laundrette, landscaped parks and multiple retail units at ground floor providing a wide range of services, 'a city within the city' (Noelle Merles 1997, pp.180–181). Not entirely unique in its design, CUPA straddled what I.E. Myers, in his polemical book *Mexico's Modern Architecture* published in 1952, would call the national architectural style and its international heritage. Myers quotes Lewis Mumford, one of the early urban sociologists: 'the main problem of architecture today is to reconcile the universal and the regional, the mechanical and the human, the cosmopolitan and the indigenous' (Myers 1952, p.45). There are often explicit links made to modernist architecture simultaneously burgeoning in many parts of the world, which are routinely explained in part by Pani's education in Europe and his close study of Le Corbusier (Noelle Merles 1997, p.182; De Garay 2004a, pp.21–26).

Despite the influence from and links to European modernist architectural institutions and thinkers, Pani completed CUPA three years before one of Le Corbusier's more well-known tall housing projects, the *Unité d'Habitation* in Marseilles (1947-1952). The links, however, to Le Corbusier remain, as the L-shaped zigzagging nature of the CUPA apartment blocks are very reminiscent of Le Corbusier's never realised slum clearance project in the east of Paris (an ever so slightly more nuanced reading than his 1925 Plan Voisin) – the *ilot insalubre, no. 6*. Pani would go on to improve his design of modernist housing complexes and construct the *Centro Urbano Benito Juárez* between 1950 and 1952 and the *Conjunto Urbano Nonoalco-Tlatelolco* housing complex between 1949 and 1964 – the site of the 2 October 1968 Olympics massacre in the *Plaza de las tres culturas* – transforming the urban form of Mexico City, and in so doing, constructing and negotiating a transnational professional discourse about modern architecture.

The aims of Chapter 5 are twofold. I begin with an overview of the building itself, move to a discussion of the 'idea' of the building as a citation, or mimetic

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Figure 1.5: An original plan of the CUPA from September 1949. Source: Adrià 2005, p.78.

interpretation of Le Corbusier, and then move to an analysis of its funding by the *Pensiones Civiles*. Second, I use the inauguration of the CUPA in 1949 to think about the materiality of architecture and specifically to consider Rose and Tolia-Kelly's concept of the co-constitution of the visual and the material (2012, p.4), along side Lawrence Vale's (2013) 'design politics'. The result is a journey that begins and ends in 1949, with an interlude at the sixty-first anniversary celebrations of the CUPA on 2 September 2010, demonstrating the ways in which the materiality of the CUPA becomes generative for the Revolutionary state.

CONCLUSION

In this chapter, I introduced the key concerns of this thesis. I opened with an introduction to the particularities of Mexico City between 1938 and 1964. This time period in Mexico City's history was one of extraordinary economic growth, of mass internal migration to urban centres, particularly to Mexico City, and of substantial, and unprecedented, public investment in urban infrastructure. I introduced the architect-planner, Mario Pani, whose professional practice forms a thread through the thesis. His architectural journal, *Arquitectura/México*, his urban research studio co-founded with José Luis Cuevas, the *Taller de Urbanismo*, and his *Centro Urbano Presidente Alemán*, a modernist housing estate completed in 1949, provide the textual, visual and material artefacts that I analyse in the three substantive chapters. The three broad literatures within which this thesis sits are the architectural histories of modern architecture in Mexico, the multiple mediums of architecture, and alternative modernities. I ended by describing the structure of the thesis. The next chapter outlines the methods for this project.

Chapter 2
Practices of Architecture: Methods for an Archival Project

This project is a scholarly work based on archival research of documents related to the architect Mario Pani. While the focus of analysis in Chapters 3, 4 and 5, considers the practices of architecture, writing, drawing, building, with specific reference to a limited number of materials, the wider project involved a much broader process of archival research in Mexico and the United Kingdom. While my aim is to partially locate the discussion emerging from an analysis of these documents within a broader context of the history of modern architecture in Mexico, it 'is best understood as neither a priori centred nor decentred, but rather much more historical in its geometries, something to be assessed empirically, through careful archival sleuth-work' (Bannister 2007, p.463).

CRITICAL ARCHITECTURE

The 'sleuth-work' I decided to follow emerged out of an engagement with the work of Jane Rendell (2007). I was interested by Rendell's commitment to developing a 'critical architecture' that would confront 'a world that currently remains in the grips of an unjust corporate and imperialistic capitalism' (2007, p.7). In particular Rendell's project to reinvigorate the relationship between critical theory and architectural practice offered a method, one that I identified as appropriate for the materials I was beginning to gather. Rendell suggests 'exploring modes of critical practice that operate in architecture through buildings, drawings, texts and actions' (2007, p.6). Within Rendell's call to search for 'modes of critical practice', was a methodological signal. Whereas 'architecture' as described in much of the architectural histories I was engaging with conflated the term with a building, here, Rendell suggests that architecture as an object (the building) is just one of its modes, alongside drawing and texts. As discussed in Chapter 1, the thesis adopts the perspective offered through the work of Colomina (1994) that interprets architecture as constituted by and of mass media forms. Rendell's work, then, confirmed a methodological approach based on the multimedia of architecture, but divided into three distinct (though slippery and overlapping) 'practices': writing, drawing, and building. While I hold many affinities with the fourth practice, action, I consider it only insofar as the

visual *in action*, or the material *in action*, and not, as is Rendell's case, in relation to people. As an archival project, I maintained a considered decision not to combine an ethnography of these practices, so as to give full attention to these three practices themselves.

While moves in critical architecture have produced several important edited volumes (Crysler et al. 2012; Rendell et al. 2007), not everyone is convinced that architecture is up to the task. Ole Fischer (2012), for example, doubts the possibility of a project of critical architecture because of its entanglement with capitalism. Fischer asks, is a critical architecture possible, given architecture's consistent, necessary even, imbrication in the structures of capitalism (2012, p.59)? The core of the argument is that architecture is a practice that straddles theory, history and art, but also commerce, finance, construction and engineering. To build architecture, Fischer is reminding us, is to engage with structures of capitalism, and that any move towards a 'critical' architecture runs the risk of being subsumed within that pre-existing relationship.

On the question of architecture's broader political implications, Paul Jones (2011, p.166) suggests that

> A shift away from the architectural object at the centre of critique, to be replaced with engagement with the social function of architecture – including its wider politics and economy – would pave the way for a more critical architecture that, connected to wider social and political realities, could contribute to social action that challenges existing social relations rather than assisting in the legitimation of their reproduction.

I find affinities with Jones's project, and in bringing it to bear on Rendell's operationalisation of the three practices of architecture, writing, drawing, and building. However, rather than a shift 'away' from the architectural object, I propose a decentring from its material connotations to the tripartite assemblage of texts and visualistations and materialities. As Fyfe and Law (1988, p.1) argue, '[t]o understand a visualisation is thus to enquire into its provenance and into the social work that it does'. Therefore, rather than a turning away from the object to think about its effects, this thesis adopts a consideration of the practices of architecture as a way to better investigate the political effects of architectural production.

My project lies between various methodological traditions, moving from textual analysis, to visual methodologies. John Scott's introduction to documentary analysis lists a set of frameworks and standards used by many scholars engaging in the analysis of documents arrived at through archival work. Every piece of archival evidence encountered must, according to Scott, be weighed in light of its authenticity, its credibility, its representativeness and finally, in terms of its meaning (Scott 1990). Scott's four-part criteria for evaluating archival materials is more useful where those documents are put to work in the construction of an historical narrative. For example, in assembling research materials from one of the archives that hosts a partial collection of Mario Pani visual work, I would need to establish a consistent standard of criteria to determine the material's authenticity, credibility and representativeness before deploying them within a narrative about the development of Mario Pani's practice. Together, these four indicators offer a measure of validity to the archival process. In terms of the documents I rely on for my substantive chapters, most come from the architecture journal of *Arquitectura/México*, which was used as a cross reference for loose 'unpublished' research materials, some from historical newspapers in Mexico City, with very few from the Mexican Presidential folios at the *Archivo General de la Nación,* Mexico.

Though certainly not exhaustive, the majority of the archival documents this project depends on come from archives in Mexico City, including primarily the *Archivo General de la Nación* (the National Archives of Mexico), while the archives of the Royal Institute of British Architects (RIBA) and the newspaper collections of the British Library at Colindale, both in London, proved essential for access to architectural journal archives from France and the United States and newspapers from the time period. Many of the government plans and documents are publicly available, and many of the speeches and correspondence of public officials, or architects and engineers working with the government, are included therein. Maps and drawings of the city of Mexico and other geographically contextual supplementary materials are also in wide abundance at the public archives. Many of the estates of the Mexican architects and urbanists involved are held in private collections, however access for historical study is routinely granted, and in my case, the large archive of Mario Pani's architectural plans, maps, drawings most

relevant to this study is held and organised by the Lino Picaseño Library in the Faculty of Architecture at the *Universidad Nacional Autónoma de México* (UNAM) in Mexico City. Some of the larger archives and sites I have identified are listed below. An initial list of archival resources expanded and contracted in various ways throughout an iterative relationship between defining research questions, exploring research materials, and negotiating theoretical concerns.

THEORETICAL SAMPLING

This project engages with three different kinds of archival materials to create sets of data through which to consider an account of the professional discourses around modern architecture in Mexico City. As discussed earlier, these materials emerged from an engagement with the practices of architecture as defined by Rendell (2007): writing, drawing and building. Before listing the materials and documents used for this project, I will discuss the decision making process and choices made with regards to how I narrowed the scope of my archival research in a process that aligned with certain elements of theoretical sampling (Glaser & Strauss 1967).

Theoretical sampling comes out of grounded theory approaches to qualitative data analysis, 'whereby the analyst jointly collects, codes, and analyses his data and decided what data to collect next and where to find them, in order to develop [their] theory as it emerges' (Glaser & Strauss 1967, p.45). In grounded theory, theoretical concepts are uncovered and developed through a process of analysing data for patterns. The patterns are fitted with concepts and categories, themselves subjected to a continual comparative testing across new data, until a point of theoretical saturation. Glaser writes that a 'pattern is named by constantly trying to fit words to it to best capture its imageric meaning', and goes on to state that '[s]ome reification cannot be avoided' (Glaser 2002, p.24). Writing in an overview of his work, and in its defence, Glaser notes that this process is an attempt to counter the dominance of what he calls 'theoretical capitalism', that is, the dominance of conjectured concepts tied to prominent work without rigorous empirical research, by creating a method whereby theory could be trusted and based on data, understood by laymen, and accountable to the observable world (2002, p.32). Grounded theory, then, stands in contraposition to what Glaser terms the emergence of conceptual thinking that was 'viewed as very "airy", too

abstract, too reified, irrelevant and not workable in the 1960s' (2002, p.31) and lies in support of Loftland's critique of 'undisciplined abstraction leading to concepts which bear little relation to the social world that they are supposed to refer to, either because they are not apparently based in any empirical research or are wondrous elaborate edifices of theory based on very little empirical research' (Loftland qtd in Glaser 2002, pp.31–32).

This study sympathises with the project of grounded theory, and the ethnographic turn it supported, however, it does not follow in a formal sense the specific processes of the grounded theory method that includes, among other elements, coding indices, 'the constant comparative method, interchangeability of indices, theoretical saturation, theoretical sampling, sorting, memos, delimiting' (Glaser 2002, p.28). In the provocation discussed above, we are reminded of the formative tenet of grounded theory: that conceptual and theoretical work should start from a rigorous engagement with data from the social and physical world. Furthermore, the work of archival theory suggests we challenge precisely the assumption that data from the social and physical world is valid and interesting without considering the politics behind their production, appearance, and reproduction.

As a means to engage seriously with this challenge, the process of narrowing the scope of materials to analyse from a wide range of available archival and documentary sources, proved very difficult, and yet depended on some form of what Glaser would denounce as 'conceptual conjecture' (2002, p.31). That is, conceptual in the need to begin from somewhere, from the initial effort of aligning certain ideas, hunches, researched hypothesis or interests, and conjecture, for Glaser, because these hunches are not grounded in empirical materials. For the purposes of navigating archives, it cannot be that we can gather or elucidate forms of data, however broad we consider this category to be, from a non-referent. Grounded theory depends, to a certain extent, on the assumption that data is for analysis only, and that we are not practicing some form of conceptual work in the act of gathering itself, that data itself is not already a conceptual starting point, that data itself is free from politics or presumption, and that there is any purity of relationship between the researcher and ostensibly empirical

materials, nor that conceptual work is being performed upon us. An assumption not shared by this project.

In order to navigate this tension between the procedural work of narrowing down the field of data gathering to certain archival sources, and the political aim to work from these sources to a conceptual understanding of them, I turned to the idea of 'conceptual ordering' (Strauss 1998, p.1). A process of theoretical sampling was used to consider the work of moving between concepts and ideas to define target archival materials, and then through the work of gathering and sorting materials back to reconsider the concepts and ideas framing the work. This back and forth relationship allowed the framework and the selection of archival sources to develop concurrently.

Originally, the framing of the thesis was concerned with a comparison of three built sites in Mexico City between 1946 and 1956 that varied by scale (from the house, to the apartment block, to the suburb) and by programme (from public to semi-public, to private): the *Centro Urbano Presidente Alemán*, the *Ciudad Satélite*, and *El Pedregal*. I began my research looking for documents related to the first case study, the CUPA. As I worked through some of the Presidential archives at the *Archivo General de la Nación* and the *Archivo Mario Pani* at the library of the Faculty of Architecture at UNAM, certain recurring types of documents began to emerge. The most common were letters to the president requesting an appearance, or recounting an event, like the Congress of Panamerican Architects discussed in Chapter 4; architectural journals; and materials from the architectural practice in the form of presentation boards, research pamphlets and books, maps, and photography. I had originally intended to create an historical account of the production of these case studies through contracts and finance agreements, and Presidential commissions and found myself reading articles about the site in the architectural journal founded by its architect, Mario Pani. I was reminded here that research employing 'theoretical sampling cannot know in advance precisely what to sample for and where it will lead' (Glaser 1978, p.37). As I began to review the materials, it struck me that each typology of material could actually be considered a 'site' in and of itself, a kind of lens through which certain aspects of the production of modernity in Mexico was recorded. This work brought forward

a choice. I could either use a comparison of three built sites in Mexico City to make an account of the intersections of modern architecture with certain political processes at the time, or I could use the materials themselves as sites within the production of modern architecture in Mexico City and use each one to try to develop an understanding of the politics of the built environment in post-revolutionary Mexico City. Having already read and considered the theoretical contributions from Colomina (1994) and Kleinman's (2001) about media in relation to the production of modern architecture, I understood it as important to address collections of materials as sites themselves, rather than simply as evidence about sites somewhere else. Once I engaged with Rendell (2007), the categories of these sites began to coalesce around writing, drawing and building.

ARCHIVES VISITED AND MATERIALS COLLECTED

Materials for all three sites emerged concurrently. I did not set out on specific days to gather materials intentionally for considering as part of one practice of architecture or another. In fact, the semiotic division between these three practices are incredibly liminal. Visuals are often accompanied by textual elements of some sort, captioning the image. The materiality of the building is interpreted through having read its floorplans, or financing. The articles in *Arquitectura/México* are in written form, but usually in relation to both the visual and material. While none of the division holds absolutely, I adopted Heyes's (2000) concept of the 'line drawing' to engage a tension between the productive category, without bordering on essentialising them.

In 2010, I was able to make two five-week field visits to Mexico City. The first in March and April, and the second in August and September. The timing of the trips were aligned with the annual celebration of the anniversary of CUPA on 2 September. Working backwards to enable enough time between trips to consider the materials gathered, reformulate approaches, and identify gaps needing to be filled, I organised the first trip five months earlier. The timing was also intentionally built around the working life of a university, such that teaching loads were reduced over the summer, allowing me time with my data.

On my first trip, I planned to visit archives whose information I could access from abroad in order to prepare before arriving. The learning curve of navigating

the archive was steep. I visited the *Archivo General de la Nación* over the first five-week period in April-May 2010, working through the Presidential folios of Miguel Alemán. Miguel Alemán was the President of Mexico from 1946 – 1952, and was involved in the commissioning process of the CUPA. The Presidential archive was catalogued chronologically by President, and then by keyword. I used a snowball method to create a list of keywords through which to search for boxes including: Arquitectura, Centro Urbano, Cines D.F., Ciudad, Colegio Nacional de Arquitectos de Mexico, Comision Nacional de Urbanismo, Congreso Panamericano de Arquitectos, Instituto Nacional de Bellas Artes, Multifamiliar D.F., Obligaciones Sr. Pdte. D.F., Obras Publicas Republica, Pani, Publicaciones, Sociedad de Arquitectos Mexicanos, Urbano, Vasconcelos, Vivienda. The search produced 63 boxes which I went through, read, took notes and photographed relevant documents for further analysis. The majority of the documentation was letters to the President with requests about events, or descriptions of events relating to institutionalised forms of professional organisation in the architectural and urban planning spheres.

One of the letters was from a group of angry architects directed to Mario Pani, the founder of *Arquitectura/México*. I discuss this letter in Chapter 3, however finding it at the Presidential archives led me to approach staff at the Lino Picaseño Library in the Faculty of Architecture at UNAM, who were helpful in directing to a print collection of the architectural magazine, the *Archivo Pani* which housed plans, architectural drawings, and research reports. Staff also informed me that in 2008, *Arquitectura/México* was digitised and that I could purchase a copy of the full record at the store. I bought it that day, and it became the central source of data in this thesis. It must be noted the journal does not have OCR (optical character resolution) text, meaning that while digitised, it is not searchable. Thankfully, as part of the project to digitise the journal, Louise Noelle created indexes organised in three ways: by issue, by author and by theme. These general categories made the thought of the journal a much more accessible source of data. Not only was it a source of historical context, but equally I used it as a site of analysis. It became the referent point for my consideration of the practice of writing.

While in Mexico City, I attended conferences on architecture at the Instituto de Investigaciones Esteticas (Institute of Aesthetic Investigations) at UNAM, as well as the Instituto Mora. It was here that I was able to meet Graciela de Garay and Louise Noelle, two of the foremost architectural historians with regards the modern architecture of Mexico. Both directed me to large swathes of Spanish literature that was unavailable at libraries in the London. I bought several dozens of books, and those that were out of print, I either photocopied relevant parts, or, when possible, visited other libraries in the UK to access them, like for example, the University of Essex. Two other key documents emerged from meeting these scholars. The first was the history doctorate thesis of De Garay which also broadened my sources about modern architecture in Mexico. The second was access to the transcripts from the nine-part interview that De Garay conducted with Mario Pani as part of an oral history project on the leading architects from the modern architectural movements in Mexico. As well as contextually important information, both documents are integral to the arguments set forth in the thesis.

My encounter with the *Archivo Pani*, however, was slightly more disorganised. The collection had been maintained, but was not catalogued. A research student was in the process of cataloguing the collection, but was not quite mid-way through an initial survey of the holdings. As such, the archives were not open to the public. After explaining my project, and my genuine interests not only in Mario Pani's work, but also the work of 'archiving architecture', I asked if I might be able to spend an afternoon with the research student while they archived. One afternoon in late August 2010, I arrived at the archives. I had spent the summer familiarising myself with the architectural journal and the host of other materials I had assembled in the spring, and so had a sense of the materials I hoped to find. I was interested, at the time, in any kind of preparatory research that might have gone into the development of the CUPA. At the time, I had not understood the history of the building well enough to know that it was a very quick competition, a fifteen day turn around for the architectural plans, and that building began within a few months. While Pani might have been prepared in the idea or the concept of the CUPA, the speed of the project meant there were not several studio research projects about it. The building that bookends the project,

Nonoalco-Tlatelolco, it would turn out, had several. As the archive was not catalogued, some of the materials were simply loose, other material was bound in hard card stock, as if prepared for a presentation, and still others were rolled up, folded up and stacked.

My tactic for being able to make use of these materials in a legible way was to try and cross-reference them with published visual materials in the journal, of which I had a full digital copy. I started by working my way through the all the articles by Mario Pani, or about Mario Pani's work, and all the articles that were identified by Noelle under the theme urbanism, as well as some I added by hand based on that same category. Through this method, I was able to identify three sets of visual research materials that I detail and analyse in Chapter 5.

As explained above, my second research trip to Mexico City was in August-September 2010, organised to coincide with the sixty-first anniversary of the CUPA. On 2 and 3 September I attended the public events held on the grounds of the CUPA. I describe that moment in more detail in Chapter 5, however I wanted to use it to make two points. The first point is that at the celebrations, there was also a photography and newspaper clipping exhibition about the CUPA's inauguration on 2 September 1949. At that point I had not considered collecting data about the inauguration. Upon returning to London, I made my way to the Colindale branch of the British Museum in London where a microfilm copy of the Mexican daily newspaper *El Excelsior* was available for the dates I was interested in. I scanned the newspaper editions with dates aligning to a one week period on either side of 2 September 1947, the announcement of the CUPA, and 2 September 1949, the inauguration, for articles to do with the CUPA. The second point is that the inauguration provided me an opportunity to speak to people, hear stories, and take part in what was a tradition going back to the very first anniversary celebration in 1950. The tone of the event and the narratives about the building, evoked almost as kindred as one's neighbours, convinced me that a chapter about the practice of the 'building' could not be confined to an architectural description of it. As the months went on, I began to engage with literature on the geographies of architecture, and of affect as new ways of thinking the 'material'. These modes of thought enabled the reorientation my

research on the CUPA such that it became much more about the relationship between the material structure and its inhabitants, and guided in equal part by their nostalgic gaze towards its inauguration. This turn, combined with the articles I found in *El Excelsior* , the majority of which concerned the inauguration, make up the bulk of the discussion in Chapter 5.

Finally, I had originally planned to compare the presentation of Mexican architecture across three national contexts: Mexico, France and the United States. As such I assembled an archive of articles from the French architectural journal *L'Architecture d'Aujourd'hui*, and the *Architectural Record* from the United States. Back issues of *L'Architecture d'Aujourd'hui* were accessed over several visits to the library of the Royal Institute of British Architects in London. No digitisation exists of back issues, and so keywords were established and kept present while working through eighteen years of the publication. To narrow the comparison, the keywords initially included any reference to Mexico, Mexican Architecture, or to Latin America more generally. Founded in 1891 in the United States, *Architectural Record* remains the most widely distributed architectural journal in the world, reaching 159 countries. Print archives held at the library of the Royal Institute of British Architects in London were consulted using the same keywords as per the selection from *L'Architecture d'Aujourd'hui*. As the project developed I abandoned the comparative element, choosing to focus only on the practices of architecture in Mexico. However, the archive may come in useful in future iterations of this work.

ANALYSING THE MATERIALS

By the time I had returned from my second research trip to Mexico, I had amassed a large amount of archival materials, and they were of multiple kinds. I had text, I had images, and I had a building. While possibly unconventional, I decided to approach all three using a similar method: the critical visual methodology as espoused by Gillian Rose (Rose 2012, pp.19–40). I did so because I had already established that I was not approaching my archive with the intention of narrating an architectural history. Nor was my main organising principle to intervene in the architectural histories written by others about Mario Pani, or Mexican modern architecture more broadly, in order to complement then with new historical evidence. Instead, I was adopting a framework from

Rendell (2007) to consider the practices of architecture in writing, drawing and building through their legacies. That is, while the architectural journal provides a number of important historical references in this study, I approach it as an object of analysis in its own right. The same holds for my treatment of visual artefacts from the *Archivo Pani*, and my consideration of the materiality of the CUPA.

I suggest that a critical visual methodology is appropriate here for at least two reasons. First, there is a tendency, even and perhaps especially, in visual and material culture studies to 'read' objects or images like a text. Indeed one of the most important publications in the post-colonial literature of Latin America, *The Lettered City* by Angel Rama (1996) traces the act of writing, from a Foucauldian framework, to the development of the colonial city. I wanted to withhold the presumption about the primacy of language in my analysis to make space for other ways of thinking the world.

Gillian Rose's (2012) critical visual methodology, enables that withholding (to a point). The critical visual methodology is organised around sites, and modalities. Sites are defined as the 'sites at which the meaning of an image are made' (Rose 2012, p.19) and divided into three: the site of production, the site of audiencing and the site of the image itself (ibid., p.21). The site of production concerns with those spaces and agents making the image – the studio, the photographer, etc. The site of audiencing is that where meanings are interpreted, negotiated, rejected, even, by an audience. For my work, the final site was most appropriate – the site of the image itself. The modalities are divided in three as well: the technological, the compositional, and the social (ibid., p.20). The technological concerns how an image is made and circulated. The social assembles the political, economic and social institutions that gather around an image. For my project the compositional was most reticent – the 'specific material qualities of an image or visual object… content, colour, and spatial organisation' (ibid.). Combining the site of the image and the modality of composition enables an approach to my materials that is concerned primarily with questions of structure (composition). However, Rose's model is meant to be flexible such that at the site of the image, by shifting modalities, one could consider visual effects, and visual meanings. As

a framework of analysis, then, I deploy Heyes's (2000) line drawing to maintain an openness to the necessary shifts of methodology as the project emerges.

In gathering materials that I consider to be representative of practices of architecture – writing, drawing and building – I have created an archive. An archive of architecture. In the final section, I want to return once more to an instructive anecdote about the relationship of architecture and the archive.

THE ARCHITECTURE OF THE ARCHIVE

> He ordered that we stop working and took us out of H, leaving behind the brooms and mopping rags. The pack of guards led us along a corridor that opened on the left to a wider one, divided in the middle by a planter that extended all the way to the so-called Redondel or ring, a hallway that circled around the high central watch tower that symbolized Lecumberri. At the base of the tower was the control station known as the Polygon. The central tower and the Redondel allowed for the surveillance and guarding of seven cellblocks: A, B, C, D, E, F and G. (Bornemann et al. 2007, p.133)

I seemed to be concerned with the relationship, more generally between architecture as documents and documents as architecture, when, upon leaving the archive in Mexico City, I noticed a small exhibition announcing the new *Centro-Cultural Lecumberri.* The present site of the national archives being unable to provide the correct humidity for preservation, the Federal Government of Mexico was building a new building on site to hold the National Archives, and then refashioning the present building into a cultural centre to be designed by architecture firm *at103.*

The *Archivo General de la Nación* (National Archives of Mexico), has a long history. In 1790, Juan Vicente Güemes Pacheco y Padilla proposed to the Ministry of Grace and Justice in Spain to create a general archive for the Viceroyalty of New Spain. In 1823, shortly after the period of transition following independence, the Archive of the Viceroyalty became the National Public Archive. Briefly relocated during the French intervention in Mexico between 1861 and 1867, the archives then returned to the capital and were housed in the *Palacio Nacional* (National Palace) which is located on the large central square in Mexico City, *Plaza de la Constitución,* commonly known as *el zócalo*, and is home to the offices of the executive branch of the government.

By 1977, however, the archives had far exceeded the capacity of the *Palacio Nacional*. With outposts in Tacubaya and the *Palacio de Comunicaciones*, space for the growing archives was beginning to strain. In May of that year, the Mexican government announced it had found a new home for the nation's historical memory, the *Palacio de Lecumberri*, otherwise known as the old penitentiary of Mexico City, or the 'Black Palace'. The penitentiary was particularly run down, decrepit, and over populated, and was infamous in its inmate history of political prisoners, dissidents, and the majority of the youth arrested and held during the student movement in 1968. It held Leon Trotsky's assassin, one of the Mexican muralists David Alfaro Siqueiros, and revolutionary hero Pancho Villa, whose body now lies in the mausoleum at Carlos Obregón Santacilia's Monument to the Revolution (1938). Over a period of five years, the government decided to reconstruct the prison rather than demolish it and make use of the large footprint it has in the north-east of the city. The layout and structure of the prison, with a central Bentham-ian atrium and seven arterial wings, proved particularly useful in the storage and categorisation of the national archives.

Originally put forward in 1850 by the architect Lorenzo de la Hidalga, the jail was to have a strict cruciform layout with a rotunda in the middle. That is a central atrium with four wings containing the cells. While I am not attempting to recount the modernisation of the concept of the prison in the nineteenth century, Hidalga's concept does relate clearly to ideas of surveillance and control developed by Jeremy Bentham in the late eighteenth century. Bentham's design creates a circular prison, whereby the inmates' cells are located on the peripheral circumference of the structure, with a guard tower situated in the middle. This was to have the effect of instilling a sense of being watched in the inmates, without them being able to see the one who watches. A sense of always already being under the view of the institution was physically built into the psychology of the space, a development traced by Michel Foucault in *Discipline and Punish* (1979, pp.195–230). Bentham equally proposed this architectural intervention to schools, madhouses and hospitals. Near a century on from Bentham's initial Panopticon, the penitentiary of Mexico City was eventually revived as an infrastructural project in 1882, with building works begun in 1885, and the

inauguration on the 29 September 1900 by then President Porfirio Diaz [Figures 2.1, 2.2, 2.3, and 2.4].

And it is here that I sat looking through boxes of papers and files in the National Archives of Mexico, a former prison, an institutional participant in the political violences and disappearances of Mexico's recent past. It is here in the cells, still marked and with the original doors intact, cement floors and brick, that the Presidential archives are kept [Figures 2.5 and 2.6]. If, as Derrida suggests, 'the archivization process produces as much as it records', then we could put forward the equally provocative notion that the architecture of the archive produces, as much as it contains, the record, and therefore the narrativisation of the event. The limits here between what the archive is – the building, the document, the process between the two – becomes blurred in a similar way to the limits that define the object of 'architecture' has transformed through other modern processes of representation, as discussed in Chapter 1 through the contributions of Beatriz Colomina and Kent Kleinman.

CONCLUSION

> There are five shelves for each of the hexagon's walls; each shelf contains thirty-five books of uniform format; each book is of four hundred and ten pages; each page, of forty lines, each line, of some eighty letters which are black in color. (Borges 1964, p.81)

In Jorge Luis Borges' short story 'The Library of Babel', the universe is an infinite library made up of hexagonal rooms. The quote above references what each room contains, and the conceit is that out of a written language with 25 symbols (22 letters, the comma, the period and the space), there exists every imaginable permutation and combination, such that the entirety of the possible is contained within it. This means that every possible philosophical idea that ever was or ever could be produced by words combined from the symbols, is already contained in a book somewhere in the library. There is also already a book explaining what the library is, and, it follows, one or multiple permutations would have produced an index. With a structured book length, however, and a limitation of 25 possible symbols, the product, as Borges' narrator goes on to decipher, would not be infinite. One could imagine that every book under that condition could be completed. In fact,
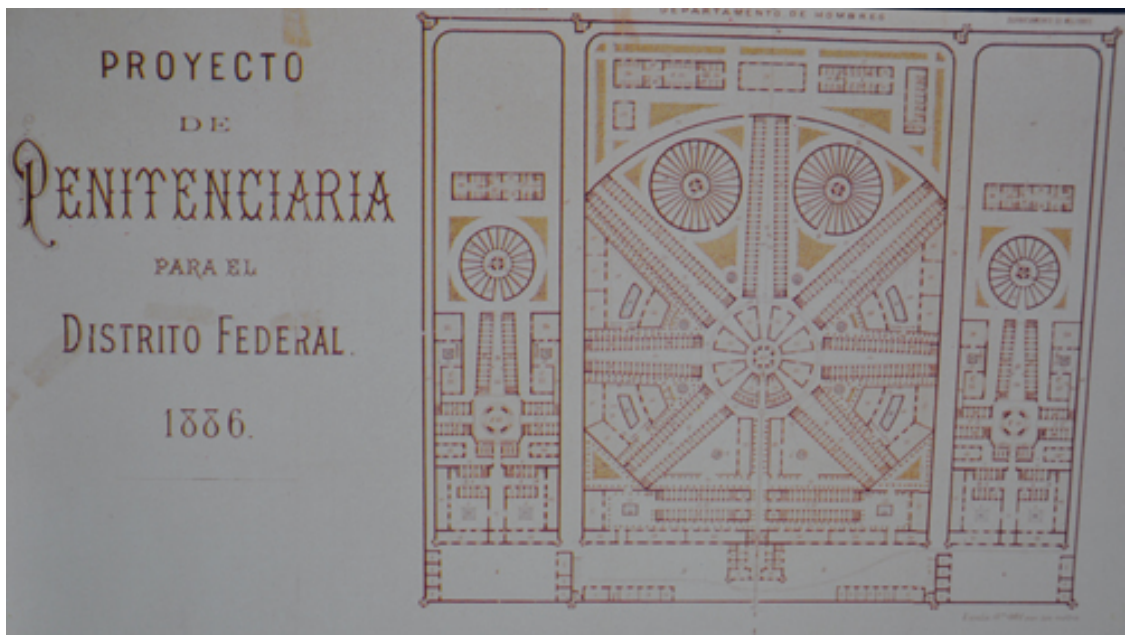
Figure 2.1: Original plan for the penitentiary of Mexico City, 1886. Source: Photo by Author, Courtesy of Archivo General de la Nación, Public Exhibition on Lecumberri, April 2010.

Figure 2.2: Aerial view of the former prison, now transformed into the National Archives. Source: Photo by Author, Courtesy of Archivo General de la Nación, Public Exhibition on Lecumberri, April 2010.

Figure 2.3: View of the central tower for the prison. Source: Photo by Author, Courtesy of Archivo General de la Nación, Public Exhibition on Lecumberri, April 2010.

Figure 2.4: Prison wing prior to reconstruction. Source: Photo by Author, Courtesy of Archivo General de la Nación, Exhibition on Lecumberri, April 2010.

Figure 2.5: The Presidential Archives reading room, Archivo General de la Nación, Mexico City. Source: Photo by author. April 2010

Figure 2.6: Detail of the old prison cell doors, currently housing the Presidential Archives of Mexico, Archivo General de la Nación, Mexico City. Source: Photo by Author. April 2010.

> When it was proclaimed that the Library contained all books, the first impression was one of extravagant happiness. All men felt themselves to be the masters of an intact and secret treasure. There was no personal or world problem whose eloquent solution did not exist in some hexagon. (Borges 1964, p.84)

And yet, in the presence of this barely conceivable totality, where even the pasts, the archives, and the 'future arcana' of every living being is already written, the trick is to find them.

Borges' image of the library is useful in helping to think through Rose and Tolia-Kelly's (2012) concept of the co-constitution of the visual and material in relation to our discussion of the limits around what we conceive as 'architecture'. In the story, the relationship of the space of the library to the production of knowledge, to its storage, and to the desires for that knowledge are co-constituting elements, meaning their meaning arises through the work that each does on the other. Here then, Borges' library holds a surface metaphor of an endless set of texts among texts signalling the kind of referential discussion that Colomina's (1994) work deploys. For Colomina (1994) elucidating the relationships of media and other representational forms that shape our understanding, perception, and construction of architecture, involves questioning the reliance on the notion of the author or creator as independent from, rather than one part of, a system of referential power. Similarly, Kleinman's (2001) insistence that the document is architecture, and the built form just one of many possible iterations (could we imagine Borges' library full of built projects rather than books?), helps us to think through the implications of conservation and the archivization of architecture, but ends up privileging the document, the text. Whereas Rose and Tolia-Kelly (2012) end up privileging the visual and material.

One difficulty this thesis poses for a methodology to study the built environment, if we are to take the built environment as a site, and not only study the documents that refer to it, is how create a structuration of equals that allows an intertextuality between material form and textual discourse and visual culture. It is not enough to declare a building a text that can be read, a city a palimpsest with layering to uncover, or a document as architecture. The story of a modern architecture in Mexico City needs somehow to develop a means to set in relation 119 issues of an architectural journal, with a nineteenth century Panopticon, the

concrete pillars and red tile of the CUPA, with the visual rhetoric of architectural drawings, and visualisations of statiscics.

The productive limits set by this project do not make the claim to solve or sort this methodological challenge. It cannot bridge the relations of visual rhetoric to the material assemblage of a tower block. But, in the intellectual spirit of taking the difficult seriously, it does hope that the tensions arising from reorienting the study of architecture from the object to it practices – writing, drawing and building – set a conversation in motion about architecture and the way in which it is constituted and constituting. I approached the archival materials through an iterative relationship between the data collected, the conceptual and theoretical concerns of the project, and the final sites and data gathered for analysis. The materials gathered over several visits to archives in Mexico City and London have created a field of data within which to interrogate and add to an account of the history of modern architecture and urbanism in Mexico City between 1938 and 1964, and the intersections of these discourses with the politics of nationalism and modernity, locally and internationally.

Chapter 3
Writing the national: the journal *Arquitectura/México*

There is a significant recent literature on the production of nationalism in post-revolutionary Mexico through popular culture (Adler 1992; Joseph et al. 2001b; Knight 1994a). Scholars have examined such cultural media as the radio (Gallo 2005; Hayes 1993; Hayes 2000), film, visual culture and literature (Dever 2003; Doremus 2001; Mraz 2009). As Mraz (2009, p11) put it, 'the modern visual culture of photographs, films, illustrated magazines, and picture histories has been a powerful agent in the construction of Mexico's national identity since 1847, perhaps even the dominant one after around 1920'. Benedict Anderson's (2006, p.37) concept of nationalism as an 'imagined community' and specifically his focus on print capitalism has played a significant role in shaping recent historiographies of nationalism in Latin America (Miller 2006) and nationalism in Mexico (Lomnitz-Adler 2001, pp.3–34), though not without its critics. One of the many criticisms levelled at Anderson's thesis was its overreliance on the print medium as causative factor in the emergence of national imaginaries to the exclusion of visual and spatial ones (Castro-Klarén & Chasteen 2003).

Recently, however, a large number of studies, primarily historical and architectural historical, have produced a rich interpretation of the relationships between modern architecture and the Mexican revolution (Carranza 2010; De Anda Alanís 2008a; Olsen 2008) and architecture and Mexican nationalism more generally (Burian 1997; Burian 2003; Del Real & Gyger 2012; Eggener 2000; Eggener 2001; Eggener 2002; Eggener 2003; Fraser 2000; Méndez-Vigatá 2007). These histories are incredibly valuable sources, and their recent and growing numbers point to an understanding of the built environment as both shaped by but also shaping national imaginaries, and the state. And yet, as explored in chapter one, I became increasingly interested in the shared assumptions about the definition of the architectural object itself: primarily buildings, monuments, and occasionally urban infrastructure. Most of the studies point to other media like the architectural journal, however they do so as a source of

evidence for claims they make about the relationship of architecture to the state, or the nation. Few consider writing, itself, as an architectural practice.

In this chapter, I start with the point of view that 'writing is a form of architecture practice' (Colomina 1999, pp.32–33). I look to the oft-cited *Arquitectura/México*[13] founded by Mario Pani in 1938, and examine it as an object of architecture – focussing on the text on the page.[14] I begin the chapter by exploring the journal itself, examining its material production, cost, frequency, and layout. As I was gathering data on about the journal itself, I was presented with an opportunity to focus my investigation: mid-way through its run, the editors changed its name from *Arquitectura* to *Arquitectura/México*, a change that I explore in more detail below. Semantically, this change in title suggested a shift in the orientation of the journal from one, perhaps, concerned about architecture in general, to one whose interest was the production of architecture in Mexico. A cursory examination of articles around the moment in the journal's history when this name change occurred did not bring up any noticeable change in register, or a shift in wholesale orientation away from concepts of the universal to the particular, form the international to the national, in this case. However, upon reaching the eighty-third issue from 1963, a declarative shift appeared in written form, a shift that self-referentially announced that 'Mexican' architecture had arrived.

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13 The title of Arquitectura/México was variable throughout the journal's existence. I detail these changes below, however for the sake of clarity, I follow Flaherty's (2012) use of the general title Arquitectura/México throughout, even when referring to early issues.

14 The medium of the architectural journal is extremely complex. Attempting to understand how it might work as a technique in the production of architectural legitimacy on several scales, and through different times, is, no doubt, an exercise in reducing complexity and focussing on certain key factors while obfuscating others. For example, Noelle notes that each issue of the journal begins and ends with several pages of advertisements from suppliers of materials, expertise or development finance to the architectural profession. As such, Noelle calls for 'an analysis of the techniques of the market and advertising during the corresponding period' (Noelle 2007, p.22). An analysis of the relationship between the value chains of new technologies, engineering expertise and the development and promotion of new building materials would be key to thinking a broad set of questions about market and financial actors with influence in the production of legitimacy, and yet remains beyond the particular scope of interest of the present study. Equally, the subtitle of *Arquitectura/México* for the first twenty-six issues was *Selección de arquitectura, urbanismo y decoración* (A Selection of Architecture, Urbanism and Decoration). The focus of interest here resides with the first two listed elements in the subtitle – architecture and urbanism – and will not deal in any great detail with interior design or decoration. Though it is instructive to note that one of the designers who featured widely in this section was Arturo Pani Jr., the brother of Mario Pani, and that it also played a role in the career of the famed Cuban designer Clara Porset (Noelle 2007, p.24).

What follows is an examination of two issues of *Arquitectura/México*, twenty-five years apart (issue 1, 1938; issue 83, 1963) to consider the ways in which architects were writing architecture. Specifically, I centre on the shift from an international orientation to a national one. In doing so, I foreground an emphasis in the way that writing *produces* an architectural imaginary rather than acts as a reflection an architectural 'real'. First, I turn to a description of the magazine itself.

WHAT AND WHERE IS *ARQUITECTURA/MÉXICO*

In 1938, the Mexican architect Mario Pani founded the architectural journal *Arquitectura/México* with his father, the engineer Arturo Pani. Returning to Mexico from his studies in Paris in June 1934, founding an architectural journal was among the first professional moves that Mario Pani set to doing at the beginning of his career, and from the outset it was operationalised as an instrument to showcase and define a new kind of architectural production – decidedly modern.

Arquitectura/México was not the first journal focussing on the built environment in Mexico, but it was unique in that it was not founded on behalf of an organisation or society group, but by two individual professionals. Among its antecedents were the journal *Cemento* running from 1925 – 1930, with 38 editions, focussing primarily on the cement industry and its role in Mexican construction. The *Sociedad de Arquitectos Mexicanos* (Mexican Architectural Society) had several journals. From 1923-1924 it ran *El Arquitecto,* from 1937-1941 *Arquitectura y Decoración* and from 1957-1958 the *Boletin de La Sociedad de Arquitectos Mexicanos* (see Appendix 1 for full list). No other independent architectural journal lasted as long as *Arquitectura/Méxcio.*

Between 1938 and 1978, *Arquitectura/México* went to press 119 times (see Appendix 2 for a list of issues with dates). It averages at 2.975 issues/year, with between two and three a year from 1938-1950, four per year consistently from 1951-1965 and then slowing down with just twenty-seven issues published in the final twelve years from 1966-1978, and no issue in the whole of 1975. From the beginning, *Arquitectura/México* was positioned for sale both internally and internationally, listing

prices for domestic and foreign consumption. In 1938, an issue would cost $3.00 pesos in Mexico or US$0.75 internationally, with a subscription (stated as four issues/year) at $10.00 pesos or US$2.50 respectively. In 1978, an issue was priced at $50.00 pesos domestically, or US$4.00 internationally, and an annual subscription (stated as six issues/year) was $250.00 pesos, or US$20.00 respectively. In terms of distribution, Noelle (2007, p.36) relates that the majority of Mexican architects, as well as every national educational centre in Mexico, and several of the leading universities in Latin America, Europe and the United States of America held subscriptions. With respect to the international readers, Noelle writes that 'for a long time, these collections [of *Arquitectura/México*] were almost exclusively their source of information about the Mexican architectural scene' (ibid., pp.36–37).

Aesthetically, the magazine was of a standard size (8x10 inches) and printed in portrait position. The issues varied greatly in length from a low of just 56 pages in issue 110 from December 1974 to some 300 pages on the Nonoalco-Tlatelolco housing estate in the combined issue 94/95 from June/September 1966. The front and back covers were printed in colour, as were some of the advertisements that both opened and bookended every issue. A summary page followed with information on the director, editor in chief, and variously lists of writers, correspondents, and editorial committees. The front covers maintained a consistent layout featuring full bleed colours and simple geometry for the first twenty issues, then changing to more dynamic shapes and typography. In February 1950, issue 30 featured the first cover including creative treatment of graphics, typography, colour and photography, a tendency that would carry through the remainder of the publication.

The title of the magazine changed several times in forty years. There is a generalised agreement that somewhere between issue 29 (October 1949) and 30 (February 1950) the title changed from simply the '*Arquitectura*' to the regional variant of '*Arquitectura México*' (De Garay 2004a, p.71; De Garay 2009, p.291; Flaherty 2012, p.251; Noelle 2008, p.321). Many scholars suggest this change of title as a change in the direction of focus for the magazine – a symptom of a shifting priority to cover architecture in Mexico rather than persist in presenting an international collection of work (De

Garay 2009, pp.291–292; Flaherty 2012, p.252; Noelle 2008, p.323). A closer analysis of the front cover and summary pages, however, complicates this reading (Noelle 2007, p.23). The inaugural issue opens with the title *Arquitectura: Selección de arquitectura, urbanismo y decoración*. In issue 21, the title on the front page became simply *Arquitectura* with the word *México* at the bottom of the page. On the summary page, the official title remained *Arquitectura: Selección de arquitectura, urbanismo y decoración*. In issue 26, the front cover changed such that the subtitle *México* appeared right below the main title of *Arquitectura*. In April 1949, issue 27, the title on the front cover remained the same while on the inside summary page, the subtitle '*Selección de arquitectura, urbanismo y decoración*' was removed. In June of 1951, issue 34, the title on the summary page caught up with the title on the front cover, reading *Arquitectura México*. The title would remain the same for the remainder of the print life, with various logos and variations introduced over time [Figure 3.1].

Articles in *Arquitectura/México* featured the history of architecture, architectural theory, debate and criticism, architectural and urban projects, built and not, from Mexico and around the world. Various series emerged like a five part piece by the architect José Villagrán García on the objective of architecture between July 1939 and April 1943. A series called 'Crítica de ideas arquitectónicas' (Criticism of architectural ideas) ran thirteen times between issues 57 (March 1957) and 71 (September 1960) and brought together professionals to pen personal opinions around contemporary architectural debates like the crisis of architecture, and the regeneration of the historic centre of Mexico City. Significantly, a section dedicated to modern art in Mexico by Mathias Goeritz (and later joined by Louise Noelle and Ida Rodríguez Prampolini) ran forty-seven times from issue 65 (March 1959) through 119 (November/December 1978). While a detailed synopsis of *Arquitectura/México* is beyond the scope of this research, this short introduction demonstrates that it was a magazine constantly in evolution with changing scope, style and focus.

Figure 3.1: Front covers of *Arquitectura/México* issues 1, 21, 35, 81, 85, 93, 100, 101, 111.

Documenting or Proselytising

The architectural journal, or any specialised magazine according to Louise Noelle (2008) presents two faces. On the one hand, its role is to actively, and without prejudice, document the architectural production in a given time and place (2008, p.317). On the other hand, its role, and the role of constructing an editors board, a distribution mechanism, the projects chosen to showcase, the choice of topics for writers, the writers themselves, as well as the format, length, typography and style of the journal, is, Noelle argues, one of 'proselytising' (2008, p.317). With regards *Arquitectura/México*, Noelle argues that 'we could say that both of these meanings are valid'[15] (2008, p.317). In arguing for an understanding of the architectural journal that is both documentarian and editorial, Noelle brings to light the two sides of the specialist journal.

The argument that *Arquitectura/México* made use of documentation as an objective method for producing a record of information both textual and visual about the architectural object belies the intentional and rigorous selection of projects and architects by the editorial board, and in many cases overseen by the director of the journal, Mario Pani himself. Pani remained the director of the journal through its last issue in November/December 1978. In so doing, some argue that Pani manifested alliances with those architects in line with his articulation of where architectural production should be moving, and therefore privileged momentum for certain architectural styles over others (Flaherty 2012). By way of its inflection towards the scientific catalogue, but also in the particular instance of the architectural journal the predilection towards photography as the medium of documentation, a medium whose history is equally fraught between the possibility of representational truth and manipulation, the intentional and rigorous editorial decisions about which architectural projects to present, and equally their presentation under the universalising rubric of 'Architecture' as a whole (note the original title – *Arquitectura*) work together to construct the sense of objectivity.

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15 Original 'Para el caso que nos occupa, el de la revista Arquitectura/México, podemos decir que estas dos acepciones son válidas.'

In the inaugural issue, as part of a larger set of interviews about the role of architecture and architects, four European architects were asked a directly self-reflexive question: 'what would you want to see in a new architectural publication?' (Kaspé 1938, p.5). Each of the four has slightly different responses, but together they combine to create a kind of mantra, positioning the 'publication', if not specifically *this* publication, as a possible space for confronting some of the problems facing the architectural profession. Georges Gromort thought it should be 'eclectic and documentarian'[16] to allow the widest possible readership (qtd. in Kaspé 1938, p.9). Michel Roux Spitz cautioned that it should 'avoid the error committed by the large majority of existing publications which is to follow the fashions of the day which give them more influence to create a doctrine … A new architectural publication should be independent' (qtd. in Kaspé 1938, p.13).[17] For Auguste Perret, it should '[t]each the architect to first and foremost understand language…what will follow is lyricism' (qtd. in Kaspé 1938, p.17).[18] And for Le Corbusier, a new architectural publication should 'reveal innovation; awaken the creative spirit; bring a sense of harmony, of the biology of things…volumes, lines, colours…' (qtd. in Kaspé 1938, p.20).[19] These edited imaginaries about the purpose and place of the architectural publication give insight into its perceived power and influence, and its role as a vessel of ideas (to document, to be eclectic, to reveal innovation), as an objective tool of professional reflexivity (to avoid following trends or doctrine), and as a didactic, almost spiritual resource (to teach a language, to awaken creativity). These understandings of the architectural publication find their way equally into the editorial of *Arquitectura/México*

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16 Translation by author. Original in Spanish, Gromort (9): 'Una revista de arquitectura debería ser ecléctica y documentaria para permitir a arquitectos de tendencias diferentes sacar partido de ella de acuerdo con sus aspiraciones.'

17 Translation by author. Original in Spanish, Roux-Spitz (13) 'Una nueva revista de arquitectura debería evitar caer en el error de la mayor parte de las revistas existentes, que siguen la moda del día para darse ínfulas de poseer una doctrina, y que acumulan elementos sin elección, propios para sembrar la anarquía en los cerebros jóvenes. En Francia, según la situación de las empresas, hay revistas con tendencias correspondientes. Una nueva revista de arquitectura…que sea independiente y que vea las cosas de más alto.'

18 Translation by author. Original in Spanish, Perret (17): 'Una revista de arquitectura, ante todo, debe ser "estructural". Enseñar que el arquitecto debe primero conocer su lengua, pensar como constructor y no, como a menudo pasa, con recuerdos que los contratistas ejecutan en cemento armado. Enseñar el empleo de su ciencia diferentemente, según las latitudes. En seguida vendrá el lirismo que cada uno guarda en su corazón.'

19 Translation by author. Original in Spanish, Le Corbusier (20): 'La de revelar todas las invenciones; despertar el espíritu creador; dar el sentido de la armonía, la biología de las cosas; exalter el acontecimiento plastic, volúmenes, líneas, colores…'

and further position this specific publication as a possible space for the solutions, innovations and orientations of architecture, in Mexico and in the 'universal'.

This chapter, then, addresses the question of how the editorial decisions of Mario Pani and his team worked, in part, to create a platform of legitimacy for the architectural and urban interventions core to Pani's own practice and those working closely with and around him – mainly modernist architecture drawing on functionalist techniques. I am not arguing towards a causal mechanism that posits the production of architecture 'within the journal' followed by the production of architecture 'in the city'. It would be difficult to prove any direct impact of one architectural form (writing) to the other (building). Instead, I aim to demonstrate editorial patterns that show a kind of 'proselytising' of new modern architectures by *Arquitectura/México* within a contested terrain. What emerges is the argument that the 'making' of space is not something aligned solely with the brute physical properties at the moment building happens, but rather a non-linear co-constitution of both the site of inquiry and architectonic responses to it. That is to say, I aim to demonstrate how writing, routinely relegated as architectural discourse, the thinking, the contesting, the enabling, the defining may be all of these things, but it also, or additionally, and I will argue importantly, 'makes' the spaces it pretends to define. Or writing as assembling.

There existed contestation over what kind of architectural production, what form and style, should be produced in Mexico. In 1934, upon Mario Pani's return to Mexico following his studies in Paris he was embroiled in a series of confrontations with established figures in the architectural and engineering professions. One such confrontation was so fierce that it landed headlines in the daily newspapers of Mexico City. Pani was brought on by his uncle Alberto Pani, to construct the city's first modern hotel, Hotel Reforma [Figure 3.2]. The Hotel Reforma was going to be 'the first in the capital with more than 200 rooms, with a new and revolutionary spirit, and would allow Mexico to invest in modern tourism' (González Franco 2008, p.56),[20] with a bathroom in every room, and air-conditioning throughout. Besides the kind of

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20 Translation by author. Original in Spanish: 'primero en la capital de más de 200 cuartos, con un espíritu novedosa y revolucionario, que permitiría a México ingresar al turismo moderno.'

Figure 3.2: The Hotel Reforma, Mario Pani, 1938. Source: *Arquitectura/México*, 83, (1963), p.172.

leg up Pani received from having a wealthy uncle commission this hotel (and many more projects throughout his career), the controversy came because one of Mexico's most lauded architects at the time, Carlos Obregón Santacilia, the architect of the Monument to the Revolution (1938), had already begun the project. Obregón Santacilia's *Hotel Reforma* was well underway with the designs completely finished, and the concrete foundations laid. He was fired by Pani's uncle, and Pani was brought on to finish the job. Mario Pani took all the credit for the design and success of the build, and was immediately, as a 23 year old, thrown to the front of architectural debates. Graciela de Garay makes visible this controversy by tracing the debate in the newspapers of Mexico City.[21] Other writers have glossed over this moment, narrating it as a transformative and positive moment for Pani. Writing the chapter 'Los hotels para un México moderno' (Hotels for a modern Mexico) for the lengthy catalogue *Mario Pani*, edited by Louise Noelle for a retrospective exhibition on Pani in 2008 at the Palacio de Bellas Artes in Mexico City, Lourdes Cruz González Franco writes that:

> To realise the project and direct the building works, [Alberto Pani] initially contracted Carlos Obregón Santacilia, but finally chose to hire his nephew, the architect Mario Pani, the young graduate of the École de Beaux Arts in Paris, who, with a vanguard spirit, resolved the challenge confided to him. Finishing this project was transformative for the architect Pani, on the one hand it was his first important work and on the other it cemented him at the forefront of large-scale hotel construction.[22] (González Franco 2008, p.56)

While the project did bring publicity and fame to Pani, who went on to build countless more hotel and tourism projects, De Garay makes it clear that the original plans for the hotel were Obregón Santacilia's, and by the time Pani was brought on board, the foundations had been laid, and much of the structure built. The young architect 'could only modify the original project, primarily the tezontle added to the façade and the interior design'[23] (De Garay 2009, p.282). At times, then, architectural

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21 For a full description of the scandal, including details of the newspaper articles, and letter to the editor from Santacilia, see Graciela de Garay (2010) 'La profesionalización de la arquitectura en el estado posrevolucionario mexicano: Mario Pani, un ejemplo de arquitecto modern, 1911-1993', pp.280-290.

22 Translation by author. Original in Spanish: 'Para la realización del proyecto y la dirección de la obra contrató inicialmente a Carlos Obregón Santacilia, pero finalmente eligió a su sobrino, el arquitecto Mario Pani, joven egresado de la escuela de Beaux Arts de París, quien, con un espíritu vanguardista, supo resolver atinadamente el reto que se le confiaba. La realización de este proyecto fue transcendental para el arquitecto Pani, pues por un lado era su primera obra importante y por el otro se consagraba como el pionero en la construcción de hotels a gran escala.'

23 Translation by author. Original in Spanish: 'sólo pudo modificar el proyecto original, el acabado de tezontle de la fachada y la decoración interior.'

history has a way of 'cementing' in place certain narratives about the provenance of architectural styles and biographies, while flattening the tensions that may have elided. De Garay exposes one such narrative by examining closely newspaper records and autobiographies, and through a series of interviews with architects who were contemporaries at the time.

In a similar vein, the record of *Arquitectura/México* is historicised as one that, yes, employs editorial decisions about what to include or not to include as part of the journal's mission, but in the end is championed as an important record of twentieth-century architecture in Mexico. As Noelle argues,

> It is fundamental to remember that Mario Pani worked hard to recognise in his pages the most important works and architectural thinking, in what was one of the most fecund epochs of [Mexico's] contemporary architecture; the debt owed to him for this collection of Mexican culture is immense.[24] (Noelle 2008, p.328)

The protégé of Pani, Abraham Zabludovsky, notes that Pani 'had a huge desire to disseminate architecture…and to open doors to anyone he considered of value in the world of architecture' (qtd in De Garay 2009, p.293). The generosity of spirit afforded in retrospect to Pani works to de-historicise the journal as an agent, and flattens the judgement of 'value' from a normative to a documentarian role. To this effect, while Noelle and De Garay highlight the 'proselytising' possibility of *Arquitetura/México*, both defer an analysis of the form this took through deference to the 'intentions' of the editorial team led by Pani. In the inaugural issue, Pani writes that

> Removed of all exclusive doctrine, of all sectarianism, [the journal's] principle role will be selection; a rigorous selection, to give preference in its limited pages only to real architecture; … It does not pretend to signal a direction; impose a trend, but to document. Its intention is not to show models so they can be copied, but to show … the best works the world has to offer on issues so important to humanity.[25] (qtd in Noelle 2008, p.318)

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24 Translation by author. Original in Spanish: 'Es fundamental recordar que Mario Pani se pudo preciar de haber recogido en sus páginas lo más importante de las obras y el pensamiento arquitectónico, en lo que fuera una de las épocas más fecundas de nuestra arquitectura contemporánea; por ello la deuda con este abanderado de la cultura mexicana es inmensa.'

25 Translation by author. Original in Spanish: 'Desprendiéndose de toda doctrina exclusiva, de todo sectarismo, su tarea principal será la de selección; la de una selección rigurosa, para dar cabida dentro de sus estrechos límites solo a la verdadera arquitectura; […] No pretende señalar un camino; imponer una tendencia, sino documentar. No es su intención la de poner modelos para que se copien, sino la de mostrar […] lo major que en el mundo se hace sobre ramas tan interesantes para la humanidad.'

From these depictions, it would seem that the intent of the publication and its reception were objective and neutral. However, tensions existed. On the 18 July 1952, a letter was sent to Mario Pani in his capacity as the director of *Arquitectura/México* [Figure 3.3]. It was a letter of protest. The signatories declared they would no longer allow Mario Pani to publish images of their built works, plans, drawings, photographs or writing without their prior permission. They accused him of directing a magazine that was commercialised and claimed that he was using it for his own self promotion. This letter offers a fracture behind the demure publication pages, allowing us to imagine the possible tensions within the architectural community.

Mapping the Journal

The opening editorial of *Arquitectura/México* was an effort by the editors to frame the purpose of this journal in two ways. First, as a response to what was described as an internationalising world that was somehow flattened in terms of shared urban lived experiences and shared social problems. Second, and in this globalised context, to document. That is, to objectively collect the best examples of architecture from around the world, comment on them and present them to spatial practitioners, governments and readers in the public – but not to inform trends, or models to be copied. It is important to note that in its opening editorial, this journal does not claim to be a regional publication. It does not set out to be, for example, a reflection of a national debate in Mexico, nor a professional guide to the latest developments in the Mexican architectural or urban design worlds. It is, in its own words, a journal looking both outwards and inwards to find the best of the world's best practice, and to share it so that the architectural profession, both in terms of buildings and ideas, can continue to evolve.

In the opening lines, the editors of the new journal write that '[t]he extraordinary developments that have recently transformed communication technologies, shrinking the world, have moved people closer to one another' (Anon 1938a, p.3).[26] It is an apt opening discussion, one whose rhetoric creates the context wherein 'we' – and this

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26 Translation by author. Original in Spanish: 'El extraordinario desarrollo que en los últimos tiempos han alcanzado las comunicaciones, empequeñeciendo al mundo, ha acercado los pueblos los unos a los otros.'
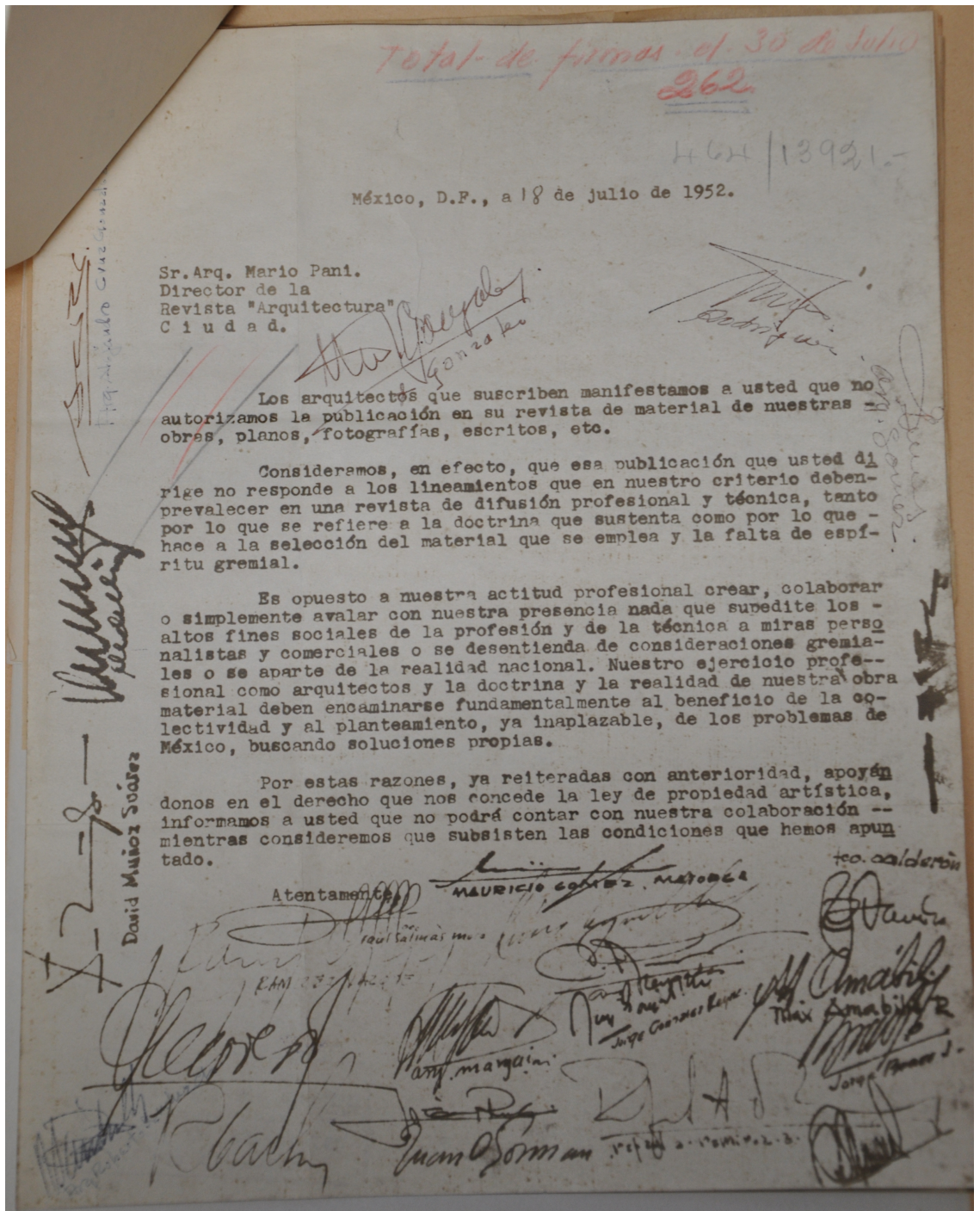
Figure 3.3: Letter of protest to Mario Pani, 1952. Source: Folio Presidente Miguel
Alemán Valdes, 464/13921, Courtesy of Archivo General de la Nación, Mexico.

was a globalised constituency of the 'we' of humanity – rather than the 'we' of the nation state, or those who claim power to speak on behalf of the 'national' – are more similar than different, that 'we' are simultaneously existing in a kind of planetary urbanism, that 'we', therefore, have common ground from which to share, learn and exchange about our urban condition. The globalised 'we' however, denies the multitude, and is a universal with a decidedly European voice. Writing in *Empire* (2000, p.116), and in the context of Latin American coloniality, Hardt and Negri relate that this kind of discourse, despite the possible argument on its intentions, 'recognizes that humankind is one, but cannot see that it is also simultaneously many'. The creation of a globalised context within which *Arquitectura/México* was going to sit, could be considered a decision rather than a fact. Thinking about the geographic orientation as a decision confirmed in writing goes some way to understanding the abrupt change of tone towards the national architectural narrative in the twenty-fifth anniversary issue described later in the chapter.

The opening editorial gives no references to substantiate its claims of a new globalising order, but rather depends on a tacit agreement that this is so. They neither mentioned which technologies of communication were transformational, nor motion to which bodies of evidence demonstrate that the people of the world were moving 'closer to one another'. The editors continue that, '[o]ne lives in the same way, with the same prejudices and the same requirements, in Cape Town and in London, in Mexico City and in Shanghai' (Anon 1938a, p.3).[27] We are reminded of the infectious lyrics and tune of the moving track ride 'It's a Small World', originally a co-creation with Pepsi Co. for the 1964 World's Fair in New York, and opened at the Disneyland Theme Park 28 May 1966 (Brode 2005, pp.1–19). While this ride operates within a United Nations post-war era of multiple nations, one world, the addition of 'after all' from the lyric 'it's a small world after all', naturalises a condition that could be seen less as an historical, natural, political, or even geographic fact than as a consensus. The 'after all' consensus building, and naturalised assumption that it really is a 'small world' mirrors the rhetoric from the opening editorial.

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27 Translation by author. Original in Spanish: 'Se vive ahora de la misma manera, con los mismos prejucios y con las mismas exigencias, en la Ciudad del Cabo y en Londres, en México y en Shangai.'

From an initial consideration of the increasing global connections between people in cities around the world, the editors in this inaugural issue conclude that the result is increased unity, standardisation and homogeneity, particularly in their built environments. The editors write that '[t]he housing of man is standardising' and that therefore the '"architectonic result" obtained anywhere in the world is useful for everyone, and can be made available for the benefit of all. Architecture is internationalising. From this fact comes the idea for this journal' (ibid.).[28] If the world is globalising, then so too must architecture. Therefore, the editors put forth, ideas, forms, structures and solutions created anywhere in the world, that they imagine have the possibility to inform, share, shape and be of beneficial use to others. This, they argue, is the reason for *Arquitectura/México*. To be the broker, the facilitator of exchange, the editor and compiler of an international conversation about architectural examples that can help, in his words, 'to show, with as wide a view as possible, works from every country, such that the latest progress, the most recent outcomes, is within the scope of all those who are interested in architecture' (ibid.).[29]

The role of the collator, or assembling projects and best practice was central to the modern urban project, one that flattened difference globally, and could then conduct a kind of comparative urbanism across like-for-like regions. Perhaps the most famous and enduring example was from CIAM 7, the seventh meeting of the *Congrès Internationaux d'Architecture Moderne* in Bergamo, Italy in 1949. There, organisers suggested participants present materials in the *Grille CIAM d'Urbanisme* (CIAM Urban Grid) [Figure 3.4]. As Eric Mumford relates,

> The Grid, proposed by Le Corbusier at CIAM 6 … was a system for graphically organizing information about town planning projects on 21 x 33 cm (about 8½ x 13 inch) panels, which could then be assembled into larger screens of up to 120 panels. The panels, coded by theme and function, could be assembled in different ways for comparative purposes … . (Mumford 2000, pp.180–181)

28 Translation by author. Original in Spanish: 'el "resultado arquitectónico" obtenido en cualquier lugar del mundo es útil para todos, susceptible de aprovecharse por todos. La arquitectura se internacionaliza. De ahí la idea de esta Revista.'
29 Translation by author. Original in Spanish: 'de mostrar, con una visión lo más amplia posible, obras de todos los países, para que el último progreso, el resultado más reciente, esté al alcance de los que se interesen por la arquitectura.'

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Please see image in original publication or by writing the author.

Figure 3.4: 'ASCORAL (Le Corbusier, Dr. Pierre Winter, André Sive, Pierre Jeanneret, Vladimir Bodiansky, André Wogenscky, Georges Candilis, et al.), CIAM Grid, 1947'. From Eric Mumford (2000), *The CIAM Discourse on Urbanism, 1928-1960*, (Cambridge, MA: MIT Press), p.181.

The grid was a move from 'large-scale urban reconstruction to what Le Corbusier called "the poetry of classification"' (Mumford 2000, p.182). It was a comparative visual method assembling the multiple into the singular, into a discernable structure 'as a conceptual tool for urbanism' (ibid.), and as such depended in equal measure on the notion of the global as plural, and yet the urban as singular. As an earlier evocation of this modernist move, the editors of *Arquitectura/México* created the possibility of a fiercely comparative urban and architectural practice in identifying an internationalising world and inferring that the result of this trend was the standardisation of urban life – a comparative urbanism that looks not for difference, but presumes similarity.

The tone of these opening paragraphs is infectious. It signals to the reader a kind of curated selflessness – a means to present itself as devoid of the politics that stick to questions of the built environment through its internationalisation. As discussed earlier, Mario Pani's return to Mexico just a few years earlier in June 1934, and his rise to prominence within the architectural community at such a young age were certainly not without political consequence. He usurped hierarchical seniority within the field by displacing Carlos Obregón Santacilia on the *Hotel Reforma* project, and did so through family connection – not by merit. His family's connections to the political establishment, central government and industry continued to benefit Pani throughout his emerging career (De Garay 1991, pp.12, 14). Therefore, the flattening, not only of the 'global' and the 'human', but also of 'architecture' as a consistent debate, and an objective one, is also part of the rhetorical work of this editorial. In a way, the work of the journal was to work against the criticisms levelled at Pani in the early years, and as an apotheosis to emerging dissensus on which way forward for a 'truly Mexican architecture', by positing universal internationalism and humanism as above and beyond the regional squabbles of egos, trends and history. And yet, we are reminded in scanning the credits page, this seeming universal as an early guiding principle of *Arquitectura/México* was still a print publication directed by Mario Pani for all forty years of its run.

Pani purposefully did not move to create an antagonistic publishing platform from which he and his architectural allies could shape a conversation. Explicit and transparent platforms can become divisive and easy targets by an opposition. Instead, with considerable effect, he operated under the aegis of a broad community interested in the global exchange of information, in understanding the 'big problems of humanity' and their 'solutions obtained in different countries' (Anon 1938a, pp.3–4).[30] The object was, he put it, to 'bring awareness, to disseminate between all those who are interested in them, the most important, the most characteristic and the most original architectural works, urbanism and design that is going to be made in the world' (ibid., p.4).[31] The goal was to confront issues like housing by reversing the narrative of insular national development, and instead by opening up to a kind of international debate. Even before *Arquitectura/México* could be countered as a 'proselytising' publication, whose intention was to shape professional and public opinion towards architectural styles, solutions, and techniques firmly rooted in a specific modernist camp, Pani opined that the journal's role is not 'to impose a trend, but to document' (ibid.).[32] This tension between the documentary and the editorial remained throughout the publication's run. In the following section I examine the premise of the opening editorial's intentions to 'show works … from every country' against the actual printed material over 119 issues between 1938 and 1978. The result is a cartography of *Arquitectura/México* that, like any map is a particular and limited visualisation, and yet the 'global' that emerges is much more specific than, perhaps, Mario Pani has envisioned.

The geography of *Arquitectura/México* discussed in the chapter, certainly suggests there were particular points of reference in the world that were more drawn on than others, and in particular countries from Europe. Indeed a cursory search throughout the forty years of publication devoted to illustrating the best of 'international' architecture from 'Cape Town and London, Mexico City and Shanghai' (Anon 1938a,

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30 Translation by author. Original in Spanish: 'los grandes problemas de la humanidad'; 'las soluciones obtenidas en los diferentes países'

31 Translation by author. Original in Spanish: 'de dar a conocer, divulgar entre todos los que se interesen por ellas, las obras de arquitectura, urbanismo y decoración más importantes, más características, más originales que se van haciendo en el mundo.'

32 Translation by author. Original in Spanish: 'No pretende señalar un camino, imponer una tendencia, sino documentar.'

p.3) finds its geography skewed. Cape Town is featured once in issue 78, June of 1962, while London is featured at least twelve times, and Paris in each of the first five issues (a period that spans from 1938-1940), and twenty-seven times in total – including in the fortieth anniversary issue in the journal's final year, 1978.[33] By contrast, Shanghai, listed as part of the fast 'shrinking' and globalised context to which the editorial manifesto was directed, never featured; China as a whole, according to forty years of *Arquitectura/México*, was an architectural and urban vacuum. While a simple count of frequency tells us little of the content of the articles, images, reviews or essays focused on works, architects, buildings, controversies, publications, urban plans, histories or theories (among others) in or related to these cities, it does point, like the map, to a geopolitics of focus. What emerges is a kind of international gaze with striking privilege given to those international spaces in Europe, and later to the United States of America, with clear areas figuratively off the map of recognition.

This section worked to introduce the architectural magazine *Arquitectura/México*. I first introduced the magazine format, publication dates, length, and characteristic articles and series. I introduced complexity into what could be interpreted as a smooth process of production by examining in detail the subtle changes in frequency over the forty-year period, as well as the changes in the title. Reading the small literature produced to date specifically on the magazine, I understood it to be generally congratulatory to the role that *Arquitectura/México* played in the documentation of Mexican architecture in the twentieth century. However, I emphasised the tension that persists between the documentary and the proselytising role of the medium. Finally, I examined the 'geography' of *Arquitectura/México* through an examination of the internationalist perspective in its inaugural editorial, and through a cursory overview of its international alignment over the years. In the

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33 Ciudad del Cabo (Issue [date]): 78 (Jun/62);
Londres: 1 (Dec/38), 2 (Apr/39), 6 (July/40), 11 (Dec/42), 17 (Jan/45), 50 (June/55), 51 (Sept/55), 75 (Sept/61), 76 (Dec/61), 77 (Mar/62), 78 (Jun/62), 93 (Mar/66);
París: 1 (Dec/38), 2 (Apr/39), 3 (Jul/39), 4 (Jan/40), 5 (Apr/40), 12 (Apr/43), 13 (Jul/43), 14 (Nov/43), 24 (Mar/48), 32 (Oct/50), 33 (Mar/51), 38 (Jun/52), 47 (Sept/54), 51 (Sept/55), 54 (June/56), 57 (Mar/57), 67 (Sept/59), 74 (June/61), 75 (Sept/61), 77 (Mar/62), 78 (June/62), 79 (Sept/62), 90 (Jun/65), 93 (Mar/66), 108 (Dec/73), 112 (Dec/76), 117 (1978).

remainder of the chapter, I examine the relationship between the claim to an 'international' or a 'national' architecture by examining in detail writing from the inaugural issue in 1938 and comparing it to the twenty-fifth anniversary issue in 1963 in order to evaluate the shift in ethos from one that looks outward, to one looking in.

LA ARQUITECTURA SE INTERNACIONALIZA: THE INAUGURAL ISSUE, 1938

The cover of the first issue of *Arquitectura/México* was an austere blue, a flat, full bleed treatment of the title page with the journal's title in large white font *Arquitectura: Selección de arquitectura, urbanismo y decoración* [see Figure 1.4]. In a white-bordered square on the bottom right of the cover is the number '1'. If on the front of the journal we do not have a sense of what kind of architectural journal this is, an answer arrives as we turn to the opening editorial.

A large black and white image on the left hand side of the double page spread not only opens this issue of the journal, but also marks the inauguration of an entire publication. The image is a cropped close up of a Grecian column, visibly a ruin, against a clear, grainy sky [Figure 3.5]. There is likely no image, nor any structure so historically bound to the Western tradition in architecture, as the column. Where many commentators on Mexican architecture were quick to link contemporary structures and movements with, or in contrast to, a renewed sense of Mesoamerican architectural history (Evans 2004, pp.153–162), Pani opens with the Grecian column.[34] Insofar as a recognisable symbol of 'architecture' writ large, the classical column establishes Pani's credentials as having been classically trained, and on the surface, marks the journal as non-regional, but decidedly global – interested in showcasing architecture as a global phenomenon, and not just recording Mexican projects. And yet, the column as a global referent locates the global within a particular European tradition of building. As a false universal, then, the political weight of the

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34 A clear example was the disjuncture between the Mexican pavilions at World Fairs and concurrent architecture within the nation's territory. Mauricio Tenorio-Trillo presents the case of the Mexican pavilion at the Exhibition Universelle of Paris in 1889, in Rio de Janeiro in 1922 and in Seville in 1929. In particular, the Mayan themed 'temple' pavilion by Manuel Amabilis at the Ibero-American Exposition in 1929 projected a nation steeped in Mesoamerican culture and mysticism was built at the same time that Juan O'Gorman began work on the famous functionalist paired houses of Diego Rivera and Frida Kahlo in San Angel, Mexico City. See Mauricio Tenorio-Trillo (1996), Mexico at the World's Fairs: Crafting a Modern Nation, pp.220–240.
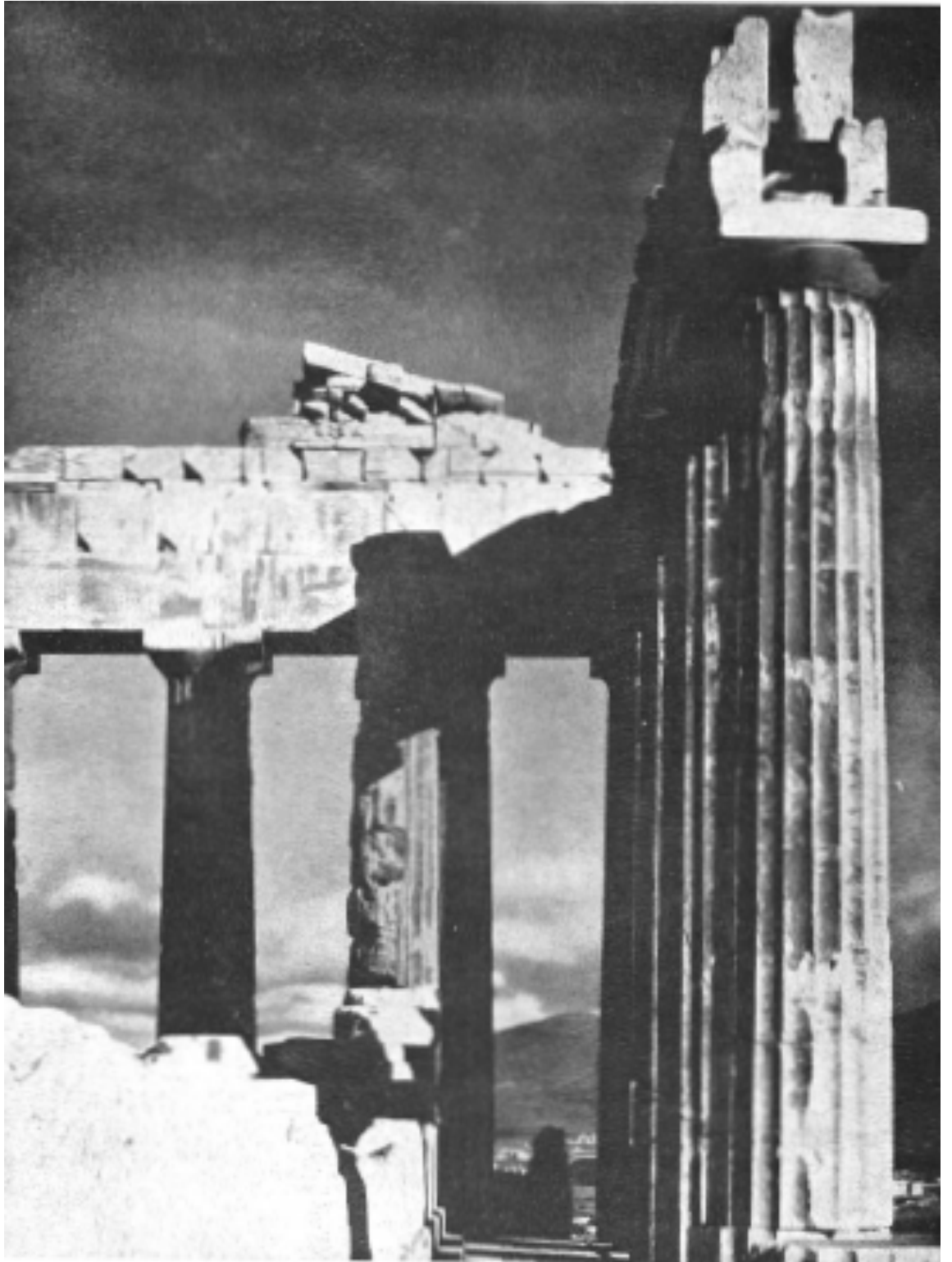
Figure 3.5: Image of a column. From *Arquitectura/México* 1, December 1938, p. 2.

classical trope lends political effect to *Arquitectura/México* in aligning it with a particular kind of architectural tradition – one that at the same time as being recognisable to an international audience denudes the kind of local specificity that is, at the same time, being conditioned as 'truly Mexican'.

Textually, Pani gives voice to the publication in a similar way. He does not begin with his own words, or the words of an unsigned editorial piece, but rather he gives deference to the words of Paul Valéry, a French poet. Pani became professionally obsessive about Valéry and set to translating Valéry's book *Eupalinos ou l'architecte* (1921) into Spanish. Pani's translation was published in Mexico in 1938, the same year as the inaugural issue of *Arquitectura/México* [Figure 3.6]. The first words of the publication are as follows:

> Tell me (you who know so well the effects of Architecture) have you ever observed, walking through this city, that among the buildings that make it up, some are *mute*, others *talk*, and still others, the most rare of them all, *sing*?[35] (Valéry qtd in Anon 1938a, p.3)

The first two referents to the semiotics of architecture that one comes across in *Arquitectura/México*, then – the visual homage to classical architecture in the form of the images of the column, as the forbearer of innovation, quality, and progress, as well as the enabling, through the muse of the European poetic invocation, of an aesthetic *voice* to architecture – compel the tone and orientation of the publication to one interested in showcasing contemporary global architecture firmly rooted in the Western tradition, and specifically those 'rare' examples that 'sing'. In so doing, one could argue that it qualifies 'architecture' (perhaps even the capital 'A' 'Architecture' mirroring the title of the journal '*Arquitectura*') as decidedly European. The architectural and urban project that fill the first issue reinforce this geographic orientation.

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35 Translation by author. Original in Spanish: 'Dime (ya que era tan sensible a los efectos de la Arquitectura) ¿no has observado, al pasearte por esta ciudad, que entre los edificios que la componen algunos son mudos, los otros hablan y otros, en fin, los más raros, cantan?'
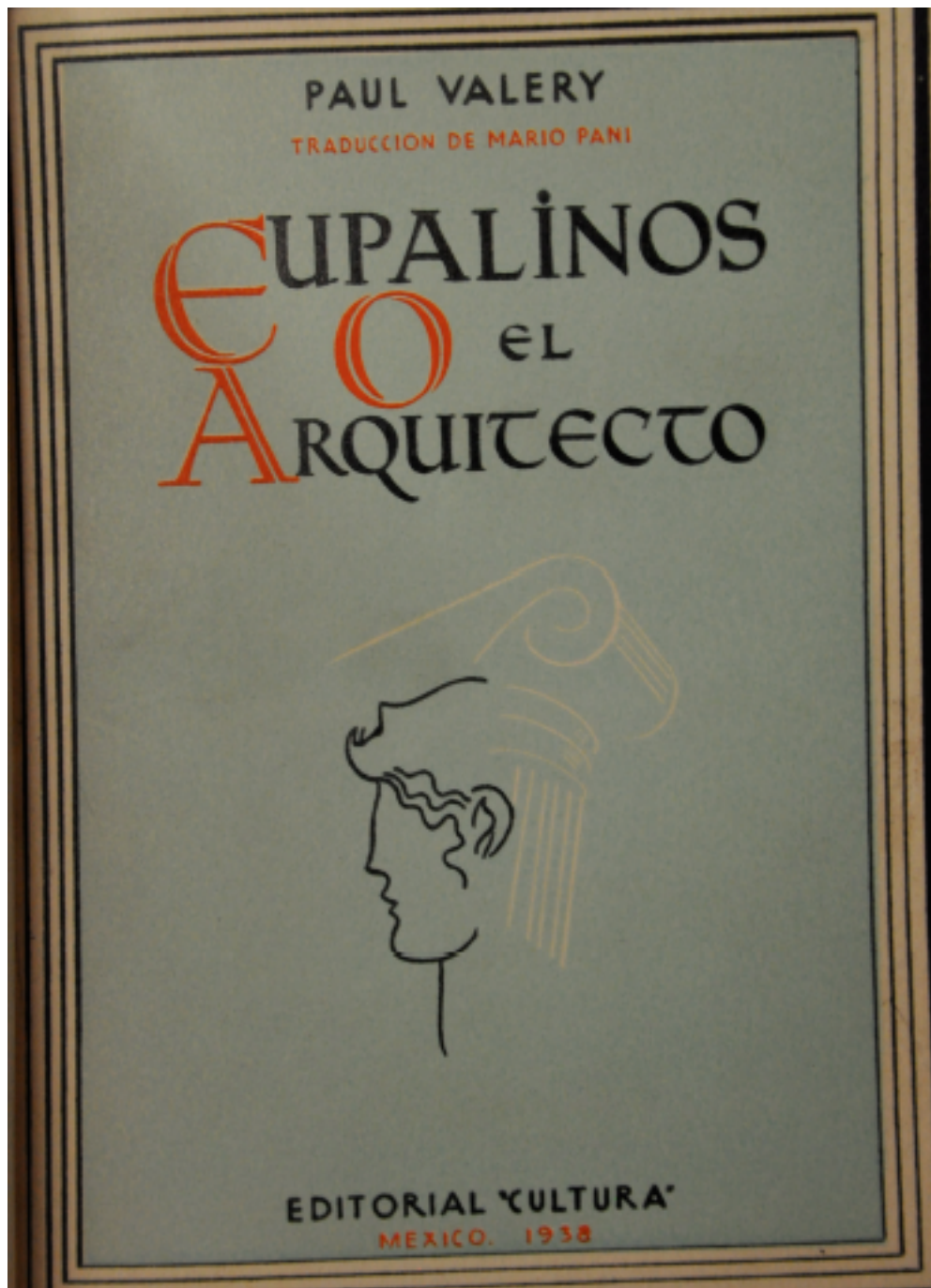
Figure 3.6: Cover of Paul Valery (1938) *Eupalinos o el Arquitecto* (Editorial 'Cultura': Mexico), translated by Mario Pani.

The first architectural projects

In the inaugural issue, *Arquitectura/México* showcases fourteen buildings – eleven from Europe and three from Mexico. The majority of the architectural projects were houses (Rome and Mexico City) or apartment blocks (Paris, London, Drancy, Stockholm and Rome), with the others being a cinema (Chatham, England), two hospices for children (Riccione and Vercelli, Italy), an exhibition space (Zurich), a crematorium (Graz), and a cardiology institute (Mexico City). It is not my intention to provide a judgement on why the editorial team chose these projects, nor to offer an opinion about their merit as architectural exemplars of their time. Rather, by examining the text, the writing, that accompanies these projects, I aim to demonstrate a tone that creates implicit, rather than objective, relationships. I argue that the writing of these projects functioned as a way to support the organising thesis of *Arquitectura/México* as a publication interested in an internationalising architecture, one grounded in the premises of a universal functionalist style.

The opening image of the first architectural case is of *La casa de las armas* in the Foro Mussolini in Rome by the architect Luigi Moretti [Figure 3.7]. The Foro Mussolini (later Foro Italico) was built between 1928 and 1938 comprising several educational training academies and sporting facilities, including an Olympic stadium, and was the centre of the 1960 Olympics in Rome.[36] The *Casa de las armas* was an academic building for 300 people with a large library, teaching spaces, and offices. The opening photograph of this building formed of two white rectangular volumes aligned at right angles to each other, places it in its landscape. We see it from a distance, among white stone plazas, and fresh cut grass in the foreground, and dark pine trees in the back. Its linear form occupies just one-fifth of the photograph, and yet the composition draws our eye to it, as if to the horizon line. Erected in the foreground is a statue of a male figure – several dozen of which are scattered throughout the Foro

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[36] There is no mention in the inaugural issue of the Folo Mussolini as an example of Fascist architecture, nor of the political party that commissioned it, Mussolini's National Fascist Party (Partito Nazionale Fascista; PNF) of Italy. It is striking then that this should be the first international example of architecture to guide a new generation of architects. Striking because it reflects, in print, a deafening silence around the relationship between national governments and modern architecture, precisely at the same time that Mario Pani gains substantially from public investment in architecture. While there is not the scope to develop further the specific relationship of modern architecture and fascism, a good introduction can be found here: Roger Griffin (2007) *Modernism and Fascism: The Sense of a Beginning Under Mussolini and Hitler.*

LA CASA DE LAS ARMAS
EN EL
FORO MUSOLINI EN ROMA
ARQUITECTO LUIGI MORETTI

Figure 3.7: The house of arms in the Mussolini Forum in Rome by the architect
Luigi Moretti (1928-1938). Source: *Arquitectura/México*, 1, 1938, p.21.

in direct visual referent to Roman sculpture of the male form. Though the image is in black and white, we are told in the description that the building is in fact primarily white stucco, with white marble floors.

After the typically 'objective' architectural description of what exists on site, its programme, materials and cost per square metre (30,000 square metres at just ninety-four liras per square metre including all marble, decorations and interiors), the text turns to an analysis of the building. Different in tone and purpose, the text is also visually distinguished in that it is in italics rather than roman type font. We read this in a different way, perhaps in another voice – one giving us a *truer* sense of the building, or an insider's perspective, as italics often suggest. The opening sentence here is clear: '*This is, surely, one of the buildings worthy of the greatest merit and superbly achieved that has been built in recent years*' (Anon 1938f, p.22).[37] The text continues to laud this building – not because of its 'style' per se, but because of the '*freedom and care with which it resolved its [programmatic] problem*', and because in approaching the design and articulation for the project, '*it did not use any accepted architectural solution*' (ibid.). The presentation of this building as a refusal of architectural dictates and trends squares the project within the premise of an objective *Arquitectura/México*. And yet it has a style: functionalism.

The *Casa de las armas* was the lead architectural project in the inaugural issue of *Arquitectura/México*. As such, the editors were rationalising their choice based on its newness and freedom – to not accept any previous architectural solutions – but also on its description as the perfect marriage between form and function. The textual artifice of ascribing this building such accolades lands us further from the role of the documentarian, and more to the side of the proselytiser:

> It is a work of "great architecture". The plastic effect achieved responds perfectly to the function required of the building and deduces, to put it in

37 Translation by author. Original in Spanish: 'Esta es, seguramente, una de las obras de mayor merito y major logradas que se han construido en los últimos años.'

this way, the logical solution to the particular conditions of the programme.[38] (ibid.)

The most important detail here becomes, editorially, the function, or better its form as a 'logical' response to the particular functional needs of the programme it is being designed or built for – its 'functionalism'. Following this italicised text are more pages of photography, floor plans of the lower and first floor, and a section diagram of the building. In reading these images, however, we are, perhaps, already structuring our interpretations given the introduction the building receives. We are instructed that this building *is* a great representation of current contemporary architecture and one that demonstrates the power between aligning form and function. The images, then, interpretable in a multitude of ways, instead become evidence for the 'functionalism' of the building.

The normative good

The interpretation of 'functionalism' as a normative good by the editorial team of *Arquitectura/México* is evidenced by its ubiquity in form and description in this inaugural issue. In describing an apartment block in Paris by the architects J. Ginsberg and F. Heep, an article states that despite the 'lamentable' state of new construction in Paris, due to 'entirely inappropriate, antiquated even, urban construction regulations', Ginsberg and Heep succeed because of their 'great persistence and talent in being aware of the most insignificant details of comfort: details that any public would appreciate' (Anon 1938e, p.30) [Figure 3.8]. If homes are as much about an efficient space to live in as a comfortable one, then the description of Ginsberg and Heep's apartment block in Paris is one, perhaps, of fastidious functionalism.

The inaugural issue moves quickly from the typology of the apartment block to that of the house, with a section called *Casas de Roma Moderna* [Houses in Modern Rome]. Photography, once again, foregrounds the article about a house built by Mario Paniconi and Giulio Pediconi on the Parioli hills in Rome – the building shot in

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38 Translation by author. Original in Spanish: 'Es una obra de "gran arquitectura". El efecto plástico obtenido responde perfectamente a la función que tiene que llenar el edificio y se deduce, por decirlo así, de la solución lógica de las condiciones especiales del programa.'

Figure 3.8: Apartment in Paris by J. Ginsberg and F. Heep. Source:
Arquitectura/México, 1, 1938, p.29.

Figure 3.9: House built by Mario Paniconi and Giulio Pediconi on the Parioli hills in Rome. Source: *Arquitectura/México*, 1, 1938, p.38.

profile as an angular white cubic mass with deep rectilinear shadows as balconies, and black pilotis [Figure 3.9]. The article praises the house as an example of the 'plastic possibilities of functionalist architecture, or, put simply modern architecture, when as in this rare case, the clients, after having expressed their requirements, did not bother the architect again, nor try to muddle in their creative process' (Anon 1938b, p.38).[39]

The article sets up this house as a successful response to the needs of the family, precisely because the architects as professionals were left to translate the function to the form. This home shows, according to the authors, that 'no matter what your architectural stance'[40] (ibid.) the best architectural outcome is one where the architect listens to the needs of the clients, and then is free to interpret. Functionalism, in architecture, the authors suggest, is the outcome of the skilled architect responding specifically to their client context.

Finally, remaining within the issue of housing, which is the one specific social problem that is named as an issue facing all of humanity in the opening editorial, we move to a large urban housing estate, the *Centro de la Muette* proposed for Drancy in France by the architects Beaudouin and Lods [Figure 3.10]. The lead photograph this time is less a building than a concept – and one that, we can imagine, is meant to remind us of Le Corbusier's *Plan Voisin* for 1925 Paris [Figure 3.11]. Here, in Drancy, a suburb of Paris, the photography is an aerial shot of the drab, grey, urban expanse, with five 'L'-shaped white towers photomontaged into the centre of the image. The aerial shot of abstraction (this could really be anywhere *but* Drancy) centred on a decontextualized and somehow universal figure of functionalist architecture. The colour of white on striated grey marks a kind of fresh start, an urban renewal, the future, the modern. The article begins by setting the condition of the norm, a condition it will then define itself against:

> Usually the small row-houses in affordable housing projects are monotonous and sad; above all, in order to waste no space and to create profits, the

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39 Translation by author. Original in Spanish: 'Esta construcción demuestra, más claramente que cualquier polémica, la posibilidad plástica de la arquitectura funcional, o, más sencillamente, de la arquitectura moderna, cuando como eneste caso raro, los clientes, después de exponer sus exigencias de vida, no molestan al arquitecto ni lo embrollan en su obra de creador.'
40 'que cualquier polémica'

Figure 3.10: *Centre de la Muette* housing estate proposed for Drancy, France by the architects Beaudouin and Lods. Source: *Arquitectura/México*, 1, 1938, p.42.

Due to copyright protection, this image cannot be shown.
Please see image in original publication or see online at:
http://meganrolph.files.wordpress.com/2011/02/plan_voison_paris
.jpg

Figure 3.11: Le Corbusier's *Plan Voisin de Paris*, 1925. Source: Le Corbusier (1959) *L'Urbanisme de Trois Établissements Humains* (Cahiers Forces Vives Editions de Minuit: Paris), p.181.

houses are grouped together so that they nearly erase any possible green space, or spaces for children to play, who end up, then, playing in the streets, or on the freeways, without supervision and subject to all kinds of danger.[41] (Anon 1938c, p.42)

Five fifteen-storey buildings each with two buildings of two or three storeys attached at their base make up this scheme. As antidote to the 'monotony' and 'sad' living conditions of traditional low-income housing, to which there is no specific example, simply the opening anecdote, '[i]n Drancy,' the article continues, 'the plan in the form of a 'comb' creates garden-patios of 20-25 metres in width and 75 metres in length…the North-South orientation of the teeth of the comb, permits, also, the most sun exposure possible to the inhabitants' (Anon 1938c, p.42).[42] The key element here, then, is the validation for an architecture whose programme is not simply to house people in the most efficient way – housing that covers all the ground, and so efficient in the number of people housed, as well as maximising profits – but one whose 'function' is to provide 'modern' living conditions, as espoused most didactically by Le Corbusier as maximising access to light, air and green space (Le Corbusier 1959, p.30). Indeed, almost as if to cite Le Corbusier, the paragraph ends with manifesto-like energy: 'Everything in this plan is new; everything is studied to bring the maximum amount of air and light to the rooms' (Anon 1938c, p.42).[43] Functionalism, then, moves just from the notion of the 'perfect' or most appropriate translation of function to form, to defining what the modern function of the modern house should be – a function that then finds its legible (and legitimate) solution in the kinds of urban housing projects like the one featured in issue 1 of *Arquitectura/México*.

While the opening editorial of *Arquitectura/México* stresses its objectivity, the final paragraph of the article describing the mass housing project in Drancy betrays this good intention, just forty pages into its forty-year career.

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41 Translation by author. Original in Spanish: 'Habitualmente, son monótonas y tristes las casitas en serie de los centros de habitaciones baratas; sobre todo, porque para no perder terreno y para que el negocio resulte productivo, se juntan de tal manera, que casi en su totalidad se suprimen los jardines y espacios libres para los niños, los que van entonces a jugar a las calles o a las carreteras, sin vigilancia alguna y con todos los peligros.'

42 Translation by author. Original in Spanish: 'En Drancy, el plano en forma de "peine" crea jardines-patios de 20 a 25 metros de ancho y de 75 metros de largo…la orientacíon Norte-Sur de los dientes del peine, permite, también, darles la mayor exposición al sol posible.'

43 Translation by author. Original in Spanish: 'Todo en este plano es nuevo; todo está estudiado para dar a las habitaciones el máximo de aire y de luz.'

> This is not just construction, but Architecture, and an architecture that we do not see much of. The stunningly beautiful [*hermosísima*] work by the architects Beaudouin and Lods, of which they have the right to be very proud, should serve as an example to all those who are entrusted large projects but who do not have the capacity to study and find for themselves new concepts for these new programs.[44] (Anon 1938c, p.44)

Within the 500 or so words of the article on the housing project in Drancy, there simply is not any detail or evidence of how and why this kind of housing project should be an international model to confront the future housing of people around the world. And yet the normative language including calling this project capital 'A' 'Architecture' and using the Spanish linguistic superlative intimacy of the '*ísima*' (*hermosa* translates to beautiful; its superlative *hermosísima* as 'very beautiful') demonstrates a clear and normatively positive orientation towards this project. In a circular logic, it starts from the assumption that the international style of building form emerging from Le Corbusian tenets of what modern housing should provide, is legitimate. Considered 'ahead of its time', and suggested as 'the "direction" that many architects should follow' (ibid.),[45] the essay closes with a direct link to Le Corbusier: 'We could consider the building works of la Muette like a small realisation of one part of the wonderful "vision" of Le Corbusier' (ibid.).[46] Here we have the authority of the textual 'unauthored' voice of *Arquitectura* not so much demonstrating that Le Corbusier's principles are valid, but stating that this project is a demonstration that they are, in fact 'wonderful'.

Silence and implicit functionalism

The inaugural issue of *Arquitectura/México* makes use primarily of text, or writing, to underscore the functionalism all of the projects it presents without specifically defining what it takes functionalism to be. Without a didactic essay on the work or theory of Le Corbusier, without listing tenets of modern urbanism as extolled through CIAM, or international style architecture, the discourses and explanations

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44 Translation by author. Original in Spanish: 'Esto no es sólo construcción, sino Arquitectura, y arquitectura de la que no se ve mucho. La hermosísima obra realizada por los arquitectos Beaudouin y Lods, de la que tienen el derecho de enorgullecerse, debería servir de ejemplo a tantos a quienes se les confían grandes trabajos y que no tienen la capacidad necesaria para encontrar por sí mismos los conceptos nuevoes que deben adaptarse a los programas nuevos.'
45 'se anticipa a su tiempo'; 'la "dirección" que muchos arquitectos deberían seguir.'
46 Translation by author. Original in Spanish: 'Pueden considerarse las construcciones de la Muette como la realización, en pequeño, de una parte de la maravillosa "visión" de Le Corbusier.'

offered in conjunction with the projects selected as the first batch of 'international' architecture from which to learn and share as per *Arquitectura/México*'s opening editorial, naturalise certain discourses. For example, the centrality of 'light and air' and 'greenspace' in the study, design and implementation of modern mass housing projects, arguments that we later find are central to the legitimation process of Pani's multiple *multifamiliar* projects in Mexico City. Or the argument that form in architecture and urbanism should follow function, specifically and directly without recourse to history or habit. Or further still, the notion of the efficiency of economy, resource and space as central to the production of a new architecture. These become implicit norms aligned in the opening issue with the visual definition of projects that best meet those norms. Similarly, rather than explicitly deriding other theories, methods and practices, *Arquitectura/México* simply omits them from its pages (Flaherty 2012, pp.262–263). The editors do not attempt to substantiate the normative claim to discourses of functionalism within their writing, nor their emergence in physical form. Rather, the perceived self-evidence of the image, aligned with confident text constructs the legitimacy of the claim.

At times the inaugural issue published images and floor plans without any accompanying caption or text, leading us to infer an 'implicit functionalism' and to assign the project's success by way of its inclusion in the journal. While the architectural project had no introduction or explanation, it still sat within a set of other projects defined and applauded for their functionalism. A striking example is the third project featured, simply titled '*Departamentos en Londres*' ('Apartments in London'), and with the architects listed as 'B. Lubetkin y Tecton' [Figure 3.12].[47] Spread over two pages, there is a black and white image of an apartment block in profile, and one at a distance. Separating the images are two sets of plans, one of the apartment block (ground floor and typical floor), and one of the apartments (type A,

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47 Berthold Lubetkin was born in Russia in 1901, travelled to study in Paris in 1922 and moved to London in 1932. He joined the Tecton partnership, an architectural group founded by graduates from London's Architectural Association. His most notable works include the Penguin Pool at the London Zoo (1934), Highpoint 1 (1935), Highpoint 2 (1938) and the Finsbury Health Centre (1938). Commenting on his work, Anthony Jackson wrote 'The attractiveness of this analytical method lay in its ostensible disregard of aesthetic considerations and its adherence to the point of view that anything that worked economically and well was automatically visually pleasing.' (Jackson 1970, p.46). See Anthony Jackson (1970) The Politics of Architecture: A history of modern architecture in Britain (The Architectural Press: London) pp.44–50.

Figure 3.12: Highpoint One, Hampstead, London. Architect Berthold Lubetkin (1935). Source: *Arquitectura/México*, 1, (Anon 1938d), p.34.

a three-bedroom, and type B, a two bedroom). There was no explanatory or opinionated description or analysis of the Lubetkin apartment blocks in London. Unlike the *Casa de las armas* or *La muette* in Drancy, here the reader was not told how to interpret this design. Though in the absence of any text, the reader is left to the purely functional analysis of the floor plan. The only other projects without an accompanied textual device in the inaugural issue were the three black and white photographs of modern housing in Mexico City, featured on one of the two pages devoted to Mexican architecture. The photos are only captioned with the architect or engineer's name: Enrique Yáñez, Arq.; Francisco Martínez Negrete, Ing.; Luis Martínez Negrete, Arq.. And in a sense, whether or not these projects are the most functionalist of architectures among the projects presented, this is where the journal itself is at its most functional – set to be read as 'simply' a documenting device, the editorial 'voice', silent.

Whether accompanied by text or not, it is notable that in the inaugural issue, one claiming to show the best architecture from around the world, none of the projects throughout the entire first issue was given a date, a specific name, nor an address. This lack of context can be read to function in some way like what Mies van der Rohe termed 'beinahe nichts' or 'almost nothing' (Frampton 1992, p.10). Speaking to the role of industrial productions of scale to modern built environments, Frampton (1992, p.10) characterises Mies's concept as 'a well-serviced, well-packaged, non-rhetorical functionalism whose glazed "invisibility" reduces form to silence'. So while we know the Lubetkin apartment block featured as 'Apartments in London' to be the Highpoint One from 1935 (Jackson 1970, p.93), its presentation in *Arquitectura/México* sits outside of both a spatial and temporal geography. As do the Mexican examples, the buildings in Italy, Switzerland or France. Though we arguably have broad city references like Paris, London or Mexico City, we do not have the specific street addresses, nor the urban or historical contexts within which these forms sit.

Without context, the architecture presented in the first issue of *Arquitectura/México* becomes almost abstracted from specificity, devolved, somehow, from the paranoid

obsession of the local and offered as figurative 'floating signifiers', flattened and comparable across spaces and across times. In a sense it figures as an early comparative, though linear, grid: the repetitive use of photography, cropping the building from the city in which it sits, followed the scientific empiricism of the plan – the visual cue of rational order and topographical narrative. This repetition and contextual equivalence allow these buildings, these images, to circulate. Their circulation, even within the relatively fixed medium of the architectural journal, starts to create a kind of field of knowledge performed both through their physical proximity in the pages next to one another, and their editorial propinquity in the inaugural issue, but also by their implicit functionalism. Denuded of a biographical geography, these architectures take on the language of universalism.

UN ESPÍRITU: THE 25ᵀᴴ ANNIVERSARY ISSUE, 1963

Mexican architecture arrives

Abstract concrete towers grace the black and white cover. At the bottom of the page reads '*Arquitectura México 83*', a new logo to the left, all in muted pink [Figure 3.13]. It was, perhaps, a brave cover, one whose intentions were to present a mature and confident architectural nationalism in what was the twenty-fifth anniversary issue. The cover image was of the *Torres de Satélite* (1957) by Mathias Goeritz, five triangular concrete towers painted in bright primary colours of blue, red, yellow and white. They stand in the middle of the *Eje Central* highway leading northwest out of Mexico City to the suburb of *Ciudad Satélite* (Satellite City). Satellite City was a subdivision project developed and managed by Mario Pani fourteen kilometres to the northwest of Mexico City, and opened in 1957. Presenting the project at a conference of the *Sociedad de Arquitectos Mexicanos* (Society of Mexican Architects) on 12 September of that year, Pani stated,

> Without false modesty, we claim as original in plan and project the fact that [Ciudad Satélite] is a Mexican solution, a solution *for Mexico*, thought of, conceived and planned for our environment, and removed of all foreign tendencies. (1957b, p.215)
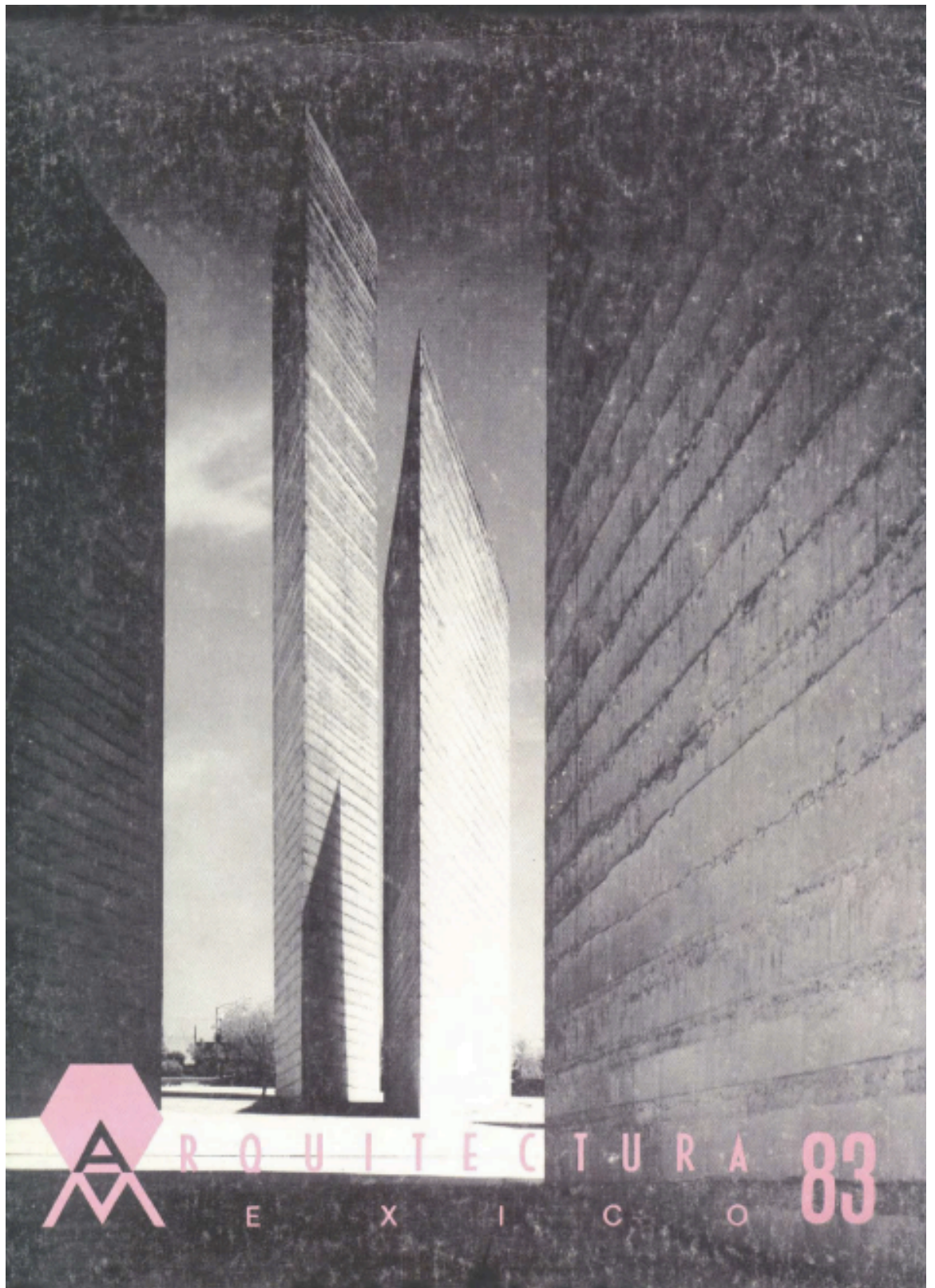
Figure 3.13: The 25th Anniversary cover for *Arquitectura/México* featuring the *Torres de Satélite* by Mathias Goeritz, September 1963. Source: *Arquitectura/México*, 83, (1963), front cover.

The project was the first of its kind in Mexico City. And while subdivisions both preceded and followed Satellite City, none were presented as a 'City outside the City' – that is, as a planned city unit, comprehensive in its urban services, and yet conceived within an integrated regional plan. [48] Whether or not Satellite City was or is indeed devoid of foreign influence is a question of great interest, but not central to the discussion that follows. What is of interest is the *statement* that it is of, for and by Mexicans – that this urban solution, this suburban subdivision, has a nationality: Mexican.

In March 1963, *Arquitectura/México* launched an ambitious four-part series of issues to run throughout the year and turn the lens inward on Mexico. The March (81) issue would cover urban regeneration, the June (82) issue would focus on emerging and young architects, September (83) was the twenty-fifth anniversary issues looking back over the past quarter-century, and December (84) would showcase religious architecture in Mexico. The series coincided with a new logo for the journal, and issue 81 opened with an editorial titled in bold letters: 'UNA NUEVA ETAPA' ('A New Stage'). In it, the editors layed claim to the idea that it was time to focus much more on Mexican architecture within the pages of the journal after, they noted, 'having begun exclusively exhibiting foreign work at the expense of our own'[49] (Anon 1963, p.3). They argue that when the journal started in 1938 architecture in Mexico had an 'incipient life' (ibid.), now blossoming. The editors continue

> As a reflection of our architectural maturity, *Arquitectura* intends to launch A
> NEW STAGE in which a CRITICAL AND SELECTIVE

48 In an article directly preceding 'Satélite: La ciudad fuera de la ciudad', Pani writes about the 'state of the question' and creates a lineage through Haussmann in Paris, Camilo Sitte and Otto Wagner in Vienna, the Garden City of Ebenezer Howard, Henry Wright, Clarence Stein and Frank Lloyd Wright in the USA, and ends (back in Paris) with Le Corbusier and the Radiant City. See Mario Pani (1957a) 'México: Un Problema, Una Solución' Arquitectura/México 60, pp.205–209.
49 Translation by author. Original in Spanish: 'Habiéndose iniciado exponiendo exclusivamente la obra extranjera a falta de la propia'.

EXAMINATION will show the highest values of our architectural production.[50] (Anon 1963, p.4)

The editors pronounce an architectural community and profession ready to be displayed to the world, a 'mature' Mexican architecture.

This is not, however, the first time Mexican architecture featured in the magazine. Though hardly a driving force in the early issues, Mexican writers, thinkers and architects were present within their pages. Already in issue five (April 1940) there was a substantial portion given over to a contest to design the Casa de España in Mexico. Issue fifteen (April 1944) was entirely dedicated to showcasing hospital architecture in Mexico, issue thirty-nine was devoted to a presentation of the new *Ciudad Universitaria* (University City), issue forty (December 1952) was primarily related to Mario Pani's *Centro Urbano Presidente Juárez*, issue fifty-five (September 1956) outlined the life and work of the architect José Villagrán García, and issue seventy-two (December 1960) explored the plans for the Nonoalco-Tlatelolco housing estate. Added to these themed issues was number sixty-seven in September of 1957, an entire magazine on the work of Mario Pani. By 1963, it was no longer the case that *Arquitectura/México* was looking primarily outside of the territory of the state for architectural and urban influences, and yet the twenty-fifth issue called for a step change, announcing that Mexican architecture had arrived: 'Aqui estamos' ('Here we are'), Pani opens his lead editorial (1963, p.133).

'Our people and our homeland'

In the foreword to the celebratory issue, the architect José Villagrán Garcia congratulated those involved in the magazine's production, and described the publication as a testament to the development of a particularly 'Mexican school' of architecture (Villagrán García 1963, p.132). Alongside the textbook articles and European architectural history lessons of the first few years, the journal turned to Villagrán García, Mexico's most well-regarded architect, and head of the School of

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50 Translation by author. Original in Spanish: 'Como reflejo de nuestra propia madurez arquitectónica, la revista "Arquitectura" se propone iniciar UNA NUEVA ETAPA en la que un EXAMEN CRITICO Y SELECTIVO muestre los valores más positivos de nuestra producción arquitectónica. La Revista "Arquitectura" se propone mostrar el movimiento arquitectónico mexicano actual, en el lugar que le corresponde por su calidad técnico-estética y darle DIFUSION NACIONAL E INTERNACIONAL.'

Architecture at the time, to offer a set of reflections about the purpose of architecture. He was also one of four Mexican architects featured in the inaugural issue, his National Institute of Cardiology in Mexico City written up on a full page, even though it would not be inaugurated until 1944.[51] In the opening of his five-part series, published between July 1939 and April 1943, Villagrán García stated that the 'highest purpose for the architect in all societies and times, is to substitute the empirical and sentimental for the technical and conscientious' (Villagrán García 1939, p.13). In so doing, he argued that that purpose must be driven by the 'study', and that architecture's purpose is primarily to empirically divine society's problems. Villagrán García intimated that there are fundamental and ahistorical issues for humanity that are made contextual by culture and historical time. Issues like 'the biological-man and the psychosocial man, dimensions, air, light, as much as social tendencies, science, morals and aesthetics: these make up the deep human sense of architecture' (ibid., p.16). And so Villagrán García landed within a camp of architectural historians and theorists that universalised the needs of the human, and understood architecture as a response to that need. As such, for him the purpose of architecture was to respond to fundamental human biological and social requirements, and these according to one's specific time and culture. Emphatically, he wrote:

> Architecture that builds man's dwelling, in the widest possible sense of that word, should depend on each and every one of the sciences in one or another aspect, to consider the *problem to resolve* before intuiting a solution. (Villagrán García 1939, p.16; emphasis mine)

Villagrán García was explicit about the premise that architecture should not just be about resolving a problem, but equally, about considering what the problem is in the first place. Villagrán García, like for others at the time including Le Corbusier (1931) and Giedion (1942), believed architecture was a response to the human; and therefore, understanding modern men and women, modern relationships of people, the economy and the state, would allow for architecture to succeed. If architecture is conceived as a response mechanism to the human, then, for Villagrán García, its

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51 Forty years later in the final issue of Arquitectura/México, number 119 from November/December 1978, José Villagrán García was featured again – for an update of the very same project: the 'new' National Institute of Cardiology in Mexico City. The project was featured as the cover image as well. See José Villagrán García (1978) 'Instituto Nacional de Cardiología' Arquitectura/México 119 pp.149-153.

main purpose should be to find out as much about 'the man of today' (1940, p.23), to define the 'problem to resolve'.

The editors of *Arquitectura/México* presented these early writings of Villagrán García within the broader scope of an internationalising functionalist approach to architecture, as discussed earlier in this chapter. Twenty-five years later, the idea of a functionalist approach to meeting the needs of people was offered by Villagrán García as the central tenet and definition of Mexican architecture. Villagrán García writes that the twenty-five years of *Arquitectura/México* created a 'Mexican school' of architecture that is decidedly Mexican because, Villagrán García continues, it is 'a part of the solution to the enormous problems facing our people and our homeland' (Villagrán García 1963, p.132). Architecture in Mexico, according to this logic, is Mexican in so far as it responds to the particular needs of the Mexican people. Architecture as a responsive medium was used both to champion its internationalism, and to announce its particular Mexican form.

An article in the final issue of *Arquitectura/México* by Villagrán García (1978) exploring his plans for a new National Institute of Cardiology in Mexico City, highlights this finding. In it, Villagrán García suggests that

> The character of our epoch is change that manifests in all aspects of our life; and so time, distance, the family, art, etc., have changed, and perhaps we can almost assure that what is changing is the very concept of what we understand to be 'man'. Architecture, a discipline tasked with constructing the dwelling of man, naturally suffers the ravages of this situation and offers the challenge to architects to confront new necessities and new architectural possibilities, and to search for trends with respect to dwelling and serving, always contemplating the essence of architecture. We now have an idea of the crisis affecting architecture the world over. (Villagrán García 1978, p.149)

Echoing the architectural treatise he penned some forty years earlier, Villagrán García remains committed to the notion that architecture is a dialectic relationship of response to the condition of the human. The question of its 'nationalism', he leaves

us to intimate, would rest on its conditionality with regards a specific response to regional conditions of people dwelling within certain territorial constraints – like the borders of Mexico. It follows that an architecture that responds to the changing concepts of the human, of time, distance and art *in* Mexico would result in a particularly 'Mexican' architecture. By tracing the idea of a functional architecture responsive to the needs of people in Villagrán García's writing across forty years, it comes to read as an architectural ideology. As such it has been used to claim an outward and an inward gaze. The question of a national architecture, then, becomes, in part, one of articulating it as such.

Writing a genealogy of Mexican architecture

Those who claim Mario Pani was not present in *Arquitectura/México* and suggest that the publication remains an objective documentation of architectural discourse in twentieth-century Mexico, if in failing to account for the number of special issues devoted to his architectural and urban projects[52], will find him present in issue eighty-three. Following Villagrán García's foreword, Pani wrote a short genealogy of Mexican architecture, introducing the second-longest issue[53] in the print run of the magazine. The article is titled 'Anniversario: 25 años' (Anniversary: 25 years). It becomes less and less clear, however, if the anniversary is one solely for a print publication, or if indeed the publication's run comes to stand for Mexican architecture itself. This ambiguity holds from the beginning where Pani opens his brief history with the invocation of a muse:

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52 In one account, the articles based on architectural and urban projects by Mario Pani and his studio number 71 (Noelle 2007, p.27). Of interest would be to track the number of pages devoted to these projects versus those of other architects.

53 The twenty-fifth anniversary issue ran to 298 pages, second in length only to the special combined issue 94/95 from June/September 1966 that was entirely devoted to Mario Pani's urban housing project Nonoalco-Tlaltelolco. It ran to 300 pages.

> Like everything that fuels human warmth, there are in these twenty-five years big fights, discouragements, disappointments and shortcomings, but also successes, hopes, progress, and in all this, like a burning heart, a spirit – the spirit of Mexican architecture – in a perpetual process of artistic creation and social service. (Pani 1963, p.133)

This burning heart, this spirit of Mexican architecture, lingers with the reader, as, perhaps, a potentiality waiting to materialise. Indeed, Pani begins his history in 1937 just before *Arquitectura/México* would launch with reference to an article he wrote in the Mexican daily newspaper *El Excelsior*. A question emerging from the Mexican Pavilion in the 1937 *Exposition Internationale des Arts et Techniques dans la Vie Moderne* in Paris asked if Mexico had its own character within an internationalising modern life. Pani responded that '[y]es we have [character]: and if in our judgement we have not had an architect to date who has known how to express it, we must look forward' (Pani 1963, p.134). Within a few short sentences, Pani figures 'Mexican architecture' as an always already present potentiality, and one whose development we can trace through the history of *Arquitectura/México*.

A cursory overview of the special issue exposes its chronology. It is broken down into two sets of materials that intersect: one textual and one visual. The visual materials are photographs of built work divided by years (1920-1938; 1938-1950; 1950-1960; 1960-1963) and assembling a large and diverse range of architects. Significantly, while opening his editorial introduction by placing himself at the figurative beginning, and as a defender of a 'Mexican' architecture, he equally inserts himself into each of the four time periods – the only architect to do so. While most architectural historians would agree that Pani's work is prominent between 1938 and 1963, none have placed him in a direct conversation with the early functionalist architects of the post-revolution: Villagrán García, Obregon Santacilia, Juan O'Gorman. Even though these architects continued making works and even collaborated with Pani in later years, they are traditionally described as forming an

antecedent school, a generation prior to the contemporaries of Pani. Pani opens the issue with a short history of *Arquitectura/México* creating an argument about its contribution to showcasing architectural history and theory, architectural competitions, art and plastic integration, and built projects from hospitals to schools, the 'great contribution' of the University City, and housing. In the latter case, the genealogy follows Pani's professional footsteps directly as he gives as examples a linear progression from the CUPA (issue 30) to the Centro Urbano Presidente Juárez (issue 40), to the Unidad de Habitación Santa Fe (issue 59) to the Nonoalco Tlatelolco housing estate (issue 72) figured by Pani as 'a fundamental step in the solution of the problem of housing in our country' (Pani 1963, p.136). Finally, Pani ends his introductory essay by thanking colleagues and in particular his co-founder, and father, Arturo Pani: 'A publication that began through family came to constitute an expression, always current, of the Mexican architectural movement' (1963, p.136). In his editorial introduction to the celebratory twenty-fifth anniversary edition of *Arquitectura/México*, Pani creates not only the possibility for the conflation of twenty-five years of *Arquitectura/México* with the development of 'Mexican' architecture, but perhaps that, if we connect the dots Pani leaves for us, the spirit of Mexican architecture has materialised – in the body and architecture of Mario Pani himself.

As a means to, perhaps, characterise Mexican architecture beyond the confines of the pages of *Arquitectura/México*, the editors commissioned a twenty-nine page essay by the architect Ricardo de Robina organised along three sections: assumptions, achievements, and new directives.[54] Pairing a set of juxtaposed images with each subsection, De Robina created a brisk manifesto in an attempt to provide definition

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54 Ricardo de Robina was an architect, but primarily an archaeologist, and contributed to the production of Pedro Ramírez Vázquez book *4000 Años de Arquitectura Mexicana* (1956) and an unbuilt proposal for a church on the University City site in Mexico City (see *Arquitectura/México* (1951) 36, pp.29-32). For more on de Robina see Xavier Cortés Rocha (2011) 'Ricardo de Robina: arquitecto, arquéologo y académico' *Bitácora Arquitectura* 10, pp.14-19.
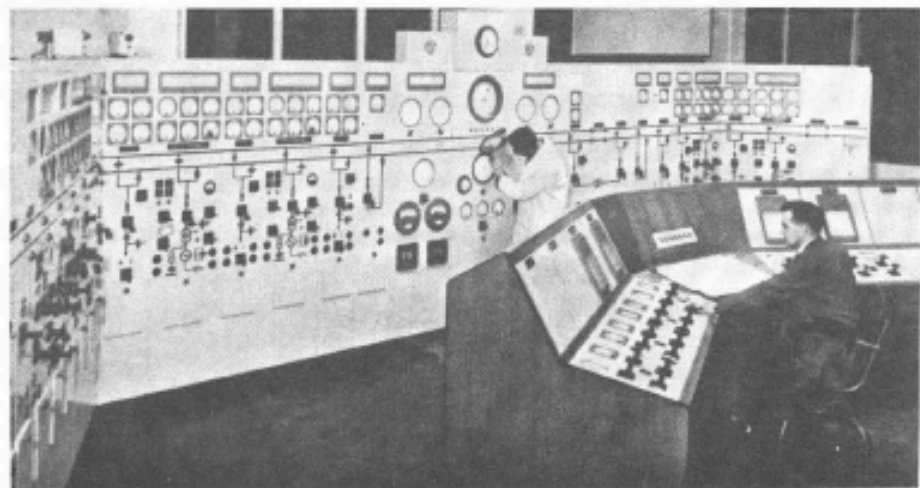
Figure 3.14: Example page spread or two juxtaposing images accompanying Ricardo de Robina's essay '25 Años de Arquitectura Mexicana'. Source: *Arquitectura/México*, 83, (1963), p.140.

to what was being referred to as 'arquitectura mexicana' [Figure 3.14]. Under assumptions, he considers 'complexity and multiplicity', 'primordial justice', 'ancestral presence', 'craftsmanship and industrialism', and 'the creative force of destruction' (De Robina 1963, pp.141–149). Throughout this section, the core conceit that surfaces is what he describes as 'a sense of internal struggle between two different worlds, whose constant antagonism, works like a catalyst, bringing forth the creation of new elements' (ibid., p.149). These two different worlds emerge in nearly every account of Mexican nationalism: the indigenous and the European, and the creative 'mix' of the *mestizo*. Under 'achievements', De Robina lists the 'objective vision of form', 'truth and functional knowledge', 'volume, colour and light', 'technique and rigidity', and 'curiosity and liberation' (ibid., pp.151–159). The internal struggle continues, but here De Robina suggests moments where Mexican architecture shows the 'possession of consciousness' (ibid., p.139). For example in the Mexican pursuit of a 'social functionalism' as opposed to a 'formal functionalism' of Europe (ibid., p.153); the play of light and colour in response to historical architectures and topography (ibid., p.155)[55]; or the 'delinking from the more or less abstract inspirations' of an international architecture, allowing for 'spontaneous form' among younger architects (ibid., p.159). Finally in 'new directives' De Robina focuses on 'mechanisation and craft', 'professionalisation', and 'boredom and renewal' (ibid., pp.161–165). The key concern here is the mechanisation and standardisation of contemporary architecture, and in the face of those challenges, De Robina ends with a call echoing Pani's opening editorial that

> From this sense of the sterile chaos of art and the feeling of crisis in our architecture, I return to the always present need to search for forms that intimately respond to our true psychological and spiritual self. (ibid., p.167).

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55 Villagrán García would reference this point later. In the Foreword to Clive Bamford Smiths' *Builders in the Sun*, Villagrán García states: 'Our use of light, even in the glass cubes which resemble the uncounted thousands of their counterparts elsewhere, are unmistakably Mexican, emphasizing brilliant colors and contrasting tones such as those which typify our monuments and the small towns.' See Smith (1967) *Builders in the Sun*, pp.13–14.

As an example of writing the nation, the twenty-fifth anniversary issue presents both the idea that a national architecture has (finally) arrived – 'Here we are!' – but also that it has always been there, in spirit, waiting to be translated into built form. The recourse to the national spirit by both Pani and De Robina, both texts that frame the presentation of built work in the pages that followed, presented the development of a national culture as equivalent to the search for truth, or bringing forth the ideal of a spirit, the invocation of an essence: making national spirit visible, material, architectural.

CONCLUSION

In this chapter, I suggest that the magazine *Arquitectura/México* demonstrates moments where architecture has been produced as international and national at different times. Specifically, I turned to two issues from the magazine to consider the process of looking out, and looking in: the inaugural issue from 1938 and the twenty-fifth issue of 1963. In the opening editorial of the inaugural issue, the world was characterised as a shrinking one, with people living in more and more like-conditions the globe over. Humanity was considered to be converging, and its problems figured as universal. As such, architecture, it was argued, was internationalising. Removed of culturally and historically particular adornments, the editorial argued that a new functionalist architecture responding to need, needs that were seen as homogenising, should be pursued. Equally, an internationalising architecture meant that comparative urbanism was not hampered by regional or national differences of style, but instead could be bolstered by the differences in creative ingenuity within a flattened functionalism.

Contrastingly, in the opening editorial of the twenty-fifth anniversary issue in 1963, Mexican architecture is described as a style, 'in fashion' all over the world and 'known for its important contribution to world architecture' (Pani 1963, p.135).[56] Mexican architecture was configured primarily in bureaucratic and state-led projects like

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[56] Translation by author. Original in Spanish: '…pone a la arquitectura Mexicana de "moda" en todo el mundo y la dá a conocer como contribución de gran importancia a la arquitectura mudial.'

hospitals, schools, the question of housing and the largest single project to date at the time, the University City. The question of an international comparison had diminished, and rather the place of Mexican architecture in the international scene, became more important. The twenty-fifth anniversary issue was the first of only five issues of *Arquitectura/México* that included a translated digest in both English and French – a move to increase the international readership and bring awareness of the 'maturity' of Mexican architecture, or at least gesture towards the possibility of an international readership.[57]

Printed and distributed in September 1963, the twenty-fifth anniversary issue of *Arquitectura/México* announcing the arrival of Mexican architecture to the world, predated an equally boisterous announcement. On 18 October 1963, the 60th session of the International Olympic Committee announced the successful bid of Mexico City to host the 1968 Olympics ahead of Detroit, Buenos Aires and Lyon (Witherspoon 2008).[58] While Pani himself articulates a kind of genealogy of the development of Mexican architecture as documented in the pages of *Arquitectura/México*, the anniversary becomes a moment to both celebrate the achievement of twenty-five years of publishing, but also to write Mexican architecture into being.

In both the case of the inaugural issue and the twenty-fifth anniversary issue, writing played a role in the production of international or national narratives. In issue one, the editors' texts accompanying a selection of architectural projects from Europe, actively defined them within prescribed and affirmative terms with regards to functionalism. The writing of the projects in this particular way had the effect of aligning the architectural projects, which were defined by virtue of the opening editorial as 'the most original architectural works' (Anon 1938a, p.4), with the premise

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57 Five issues of Arquitectura/México included a translated digest in English and French: 83 (September 1963); 84 (December 1963); 86 (June 1964); 94/95 (combined issue for June/September 1966); and 99 (fourth trimester [sic] 1967).

58 These were the first Olympic games in Latin America and the first to be held in a Spanish-speaking country. Ten days before the opening, on 2 October 1968, a government-led massacre killed hundreds at the Plaza de las tres culturas, in the heart of Mario Pani's newly minted Nonoalco-Tlatelolco housing estate. See Rubén Gallo (2010) 'Tlatelolco: Mexico City's Urban Dystopia' in ed. Gyan Prakash *Noir Urbanisms: Dystopic Images of the Modern City* (Princeton: Princeton University Press), pp.53–72.

of the journal itself, and therefore strengthening the claim that architecture is and should be internationalising. In issue eighty-three, the textual pronouncements of both Villagrán García and Mario Pani mark that a Mexican school of architecture has arrived. The entire issue is devoted to drafting a textual genealogy of architectural production in Mexico, and as documented through *Arquitectura/México*. While not contesting the idea that a Mexican architecture exists, existed, or came into being in 1963, I argue for a consideration of the ways in which the writing of it adds to its legitimation.

This chapter should not be read as an attempt to argue against the presence or absence of national schools of architecture. It does not present case studies of buildings within or without a national 'Mexican' school of architecture, nor does it trace or make claims about the genealogy of such a national architectural genre. Nor, it must be made clear, does it deny such histories of practice. Rather, I argue in this chapter, that one of the conditions of conferring the nationality of a building, of an urban design, or of an architectural school of thought is that it be articulated as such. That is to say, for a building to be included in a genre one might call 'Mexican architecture', it must, as part of a broader set of cultural and political processes, be called, described, named, defined, indeed *written*, as Mexican.

The creation of an architectural journal in Mexico in 1938 could be seen as a process of professionalising a discourse, a process that standardises and consolidates multiple competing ideas about what architecture is for (De Garay 2009). Part of that process in Mexico involved considering the extent of the orientation of the discipline outside the nation, and the extent it considered its architecture to be national. Looking out and looking in, I argue are orientations that depend on writing as part of a legitimising process. Analysing the writing about architecture in Mexico in 1938 and writing about it in 1963 made visible different narratives with regards the national and the international. In doing so, I argue that these texts play an active role in producing architecture in Mexico as national, rather than act as evidence of either a 'truly Mexican' or 'international' style.

Alongside many of the texts in *Arquitectura/México* were architectural drawings, as well as maps, plans and visualised statistical research. In considering the architectural projects in the inaugural issue, I focussed on the ways in which writing formed a caption for the image, how the text framed the image such that it was read in a particular way, a legitimate way. I read writing as a productive architectural practice in so far as it conditioned the interpretation of built projects within a consideration of the Mexican nation. However, looming large in *Arquitectura/México*, and indeed in the architectural and urban practice of twentieth-century Mexico more broadly is the visual. If the writing into being of a national architecture was in part made evident through an analysis of texts in *Arquitectura/México*, then what could be said of the visual materials that make up the bulk of these spatial practices? I turn to this question in the following chapter.

Chapter 4
Drawing Relationships: the *Taller de Urbanismo*

> In time Santiago de Tlatelolco lost more and more of its importance until it became a dirty and unattractive suburb, the seat of army barracks, prisons, store-houses and factories. Today, like the old gods, technicians are going to create a new Cosmogonic Sun with the buried remains of the past and the blood of the new nation. (González Rul 1960, p.228)

Of all the urban projects Mario Pani completed in his life, perhaps the largest single exercise that combined the restructuring of urban spaces, transportation infrastructure, housing and services was the *Conjunto Urbano Nonoalco Tlatelolco* (Nonoalco-Tlatelolco) developed as an idea and built between 1949-1964 [Figure 4.1]. The project was internationally renowned in architecture and urban planning discourse, and in 1962 was featured in a comparative article in the French architectural journal *L'Architecture d'Aujourd'hui* alongside the new cities of Brasilia, Brazil by Lucio Costa and Chandigarh, India by Le Corbusier (Jácome Moreno 2009, p.94). The development of Nonoalco Tlatelolco, its history in Mexico City, its impact on planning, its role as the setting of a massacre of students and other demonstrators on 2 October 1968, and its present day status are all well researched and documented.[59] At its opening on 20 November 1964[60], some saw this collection of 102 buildings capable of housing 100,000 people as the future made present, a gleaming testament to rational order and 'social functionalism' – a particular trope in the development of 'Mexican' modern architecture. Others marked it a horror – a

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59 The following is a non-exhaustive list of literature on Nonoalco Tlatelolco, but rather an introduction. For the architectural and urban planning history of Nonoalco Tlatelolco, see Mario Pani (1961) Nonoalco Tlaltelolco Urban Development Scheme: The Urban Regeneration of Mexico City (discussed in this chapter); see the special issue of Arquitectura/México (1966) June/September, number 94/95; Rubén Cantú Chapa (2001) Tlatelolco: la autoadministración en unidades habitacionales : gestión urbana y planificación; Miquel Adrià (2005) Mario Pani: La construcción de la modernidad. For the place of Nonoalco Tlatelolco in international debates, see Peter Krieger (2008) 'Nonoalco-Tlatelolco: Renovación urbana y supermanzanas modernas en el debate internacional'. For the place of Nonoalco Tlatelolco within the wider career of Mario Pani, see Graciela de Garay (2004a) Mario Pani: Vida y Obra, especially pp. 50-53; Graciela de Garay (2008) 'Presencia de Mario Pani en la cultura mexicana del siglo xx (1911-1993)'; Louise Noelle Merles (1997) 'The Architecture and Urbanism of Mario Pani: Creativity and Compromise'; Manuel Larrosa (1985) Mario Pani: Arquitecto de su época. For a history of Mesoamerican Tlatelolco, and specifically the plaza, see Logan Wagner et al. (2013) Ancient Origins of the Mexican Plaza: From Primordial Sea to Public Space. For a history of the indigenous populations in Tenotchtitlán and Tlatelolco in the nineteenth-century, see Andrés Lira González (1983) Comunidades indígenas frente a la ciudad de México: Tenochtitlan y Tlatelolco, sus pueblos y barrios, 1812-1919. For Tlatelolco in relation to the 1968 massacre see Elena Poniatowska (1998) La Noche de Tlatelolco: testimonios de historia oral; Rubén Gallo (2010b) 'Tlatelolco: Mexico City's Urban Dystopia'; Julia Preston and Samuel Dillon (2005) Opening Mexico: The Making of a Democracy, pp. 63-94; Raúl Alvarez Garín (2002) La estela de Tlatelolco : una reconstrucción histórica del Movimiento estudiantil del 68; Dolly J. Young (1985) 'Mexican Literary Reactions to Tlatelolco 1968'; and Julio Scherer García et al. (1999) Parte de guerra, Tlatelolco 1968 : documentos del general Marcelino García Barragán : los hechos y la historia.
60 The 20 November in Mexico is el día de la revolución (the day of the revolution), commemorating the 20 November 1910, regarded as the start of the Mexican Revolution.

Figure 4.1: Above: Nonoalco-Tlatelolco before it was built. Below: After it was built – Nonoalco-Tlatelolco visible in the upper left corner. Source: *Arquitectura/México*, 94/95, (1966), pp.86–89.

homogenous set of prescriptive urban design and social engineering built on the most inhuman of scales [Figure 4.2]. Mario Pani was, to put it lightly, in the former of the two categories. Years after the 1968 Olympic massacre and the devastating destruction of the 1985 earthquakes that left some thirteen buildings demolished and several hundred dead, in an interview with De Garay in 1991, Pani would say:

> We wanted to continue with more projects, to expel all those who were living in poor neighborhoods, we wanted to build more and more housing complexes. I was planning on building five or six Tlatelolcos, with an extension of over 3 million square meters, two million square meters of gardens, and a capacity for 66,000 families. (Pani qtd. in Gallo 2010b, p.57)

Though planned, Pani was never able to complete the subsequent phases of his urban regeneration in what was commonly referred to as the *zona de tugurios* (or 'slum area'), a region identified as to the north and east of the historic centre.

I would like to return to the quotation that opened this chapter, for though it is poetic in its reference to the repeated trope of national time extending from the present back to Mesoamerica, I have chosen it to illustrate a separate concern, one that forms the focus of this chapter. 'Today, like the old gods,' González Rul writes, '*technicians* are going to create a new Cosmogonic Sun' (González Rul 1960, p.228, emphasis added). Not politicians, nor the business elite, nor banks, nor foreign intellectual prowess would transform the site of Tlatelolco, rather, according to González Rul, the technician. While a definitive history of the development of the Nonoalco-Tlatelolco site has yet to be written, particularly one that brings together its social, political, architectural, material and visual manifestations, this chapter turns to the productions of a specific set of technicians operating out of the *Taller de Urbanismo*, founded by Mario Pani, to offer a small gesture in its direction.

In the following sections I work through a set of urban studies and publications from the archives of Mario Pani (some published in *Arquitectura/México*, others not) examining the visual materials (architectural drawings, maps, visualisation of statistical or research material, and urban plans). Nonoalco-Tlatelolco was the last major project of Pani, and it is one in which many of his ideas about solving the urban problem, in most cases defined as housing a growing population effectively, can be

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http://25.media.tumblr.com/tumblr_mdwhgjvvSj1qg7a6mo1_500.jpg

Figure 4.2: Photograph of the Nonoalco-Tlatelolco estate. Source: Miquel Adrìa (2005) *Mario Pani: La construcción de la modernindad*, p.133.

found (Jácome Moreno 2009). I turn, then, to these antecedents that demonstrate some of the visual materials used in the production of a legitimate plan for, to this date, Mexico's largest urban development project that created housing for over 100,000 people. I follow Gillian Rose's argument that in visual analysis one needs to choose a site (production, image, reception) and a modality (technological, compositional, social) (2012, p.17). My analysis of these visual artefacts resets primarily at the site of the image, and concerned with the modality of the compositional. However, at times I consider their production, the impact, the technologies at play in their construction and dissemination, as well as the social and material consequences.

The documents analysed in this chapter were discussed in Chapter 1, however I list them here again: '*Un Nuevo Centro de la Ciudad de México Crucero Reforma-Insurgentes: Proyecto de Planificación y Zonificación*' (1946), an early project to transform the intersection of the two most important avenues in Mexico City at the time*,* Reforma and Insurgentes through improved transport infrastructure and the densification of offices, housing and commercial space creating a new 'centre' for Mexico City to replace the 'historic centre' at the Zócalo; *Anteproyecto para la Plaza de los Insurgentes* (1969), a similar proposal for densification of offices and commercial space at the intersection of Insurgentes and Chapultepec; *Estudios Urbanisticos en la Ciudad de México* (1951), a research project from Mario Pani and José Luis Cuevas' *Taller de Urbanismo* (Urban Studio) that proposes the 'decanting' of 'declining' or 'slum' neighbourhoods in the centre of the city to newly planned *unidad vecinales* (neighbourhood units), along the lines of Le Corbusier's 'Ville Radieuse', in the then under-urbanised south-east of the city; *Conjunto Urbano Nonoalco-Tlaltelolco: Regeneración urbanística de la ciudad de México* (1960), visualising research, development and planning for the Nonoalco-Tlatelolco site in Mexico City, along with early justifications of the extension of the Reforma, set within a context of a larger project of urban regeneration of the 'Central Hovel Area', an identified set of neighbourhoods surrounding the historic centre of Mexico City; *Programa del C. Presidente Lic. Adolfo López Mateos, de Regeneración Urbana y Vivienda para trabajadores en la Ciudad de México* (1963), a diverse set of documents forming part of the broader urban regeneration programme established by then President López

Mateos, one whose aim was the resettlement of populations living in zones of central Mexico City classified as 'declining' (*decadentes*) or 'slums' (*tugurios*) into new modern developments, freeing up central land for further, dense real-estate development.

The contents of the documents can be described as follows: there are two urban proposals for major new transport intersections, one at the intersection of Reforma and Insurgentes from 1946 that acts as a precedent for one at the intersection of Insurgentes and Cuauhtémoc from 1969; there is an early 'urbanistic' study of Mexico City from 1951; and there are three studies between 1958 and 1964 all concerned with the project of rehousing Mexico City's 'slum' dwellers, and dealing with the perpetual problem of housing, an urban argument about urban housing. The problem of housing, framed in a particularly strong modernist tradition, was the frame through which Pani constructed the urban. Of the documents, two were published in *Arquitectura/México*: The article '*Un Nuevo Centro de la Ciudad de México Crucero Reforma-Insurgentes: Proyecto de Planificación y Zonificación*' in issue 20 (April 1946, pp. 258–268), and *Conjunto Urbano Nonoalco-Tlaltelolco: Regeneración urbanística de la ciudad de México* in issue 72 (December 1960, pp.183–228). The other materials form sets of research and presentation materials bound on hard card, from the Mario Pani Archive at the Lino Picaseño Library in the Faculty of Architecture at the UNAM (Universidad Nacional Autónoma de México).

The decision to focus on these documents, and certain visual materials within them came after reviewing a large number of visual materials related to the projects of Mario Pani, and particularly through their visual representations as published in *Arquitectura/México*. As a set, these documents are in no way exhaustive nor attempt to be a representative sample of urban planning and architectural visual materials from the various archives and publications related to Mario Pani's career. Pani's Urban Studio completed complex masterplans for cities in other parts of Mexico. My aim, then, is not to use these visual materials to trace the narrative logic of Pani's urban thinking. In articulating a method for listening to the visual, and paraphrasing Walter Benjamin, Les Back suggests that in the visual, 'it is not what they *say*, it is what they *show* that is important' (Back 2004, p.145). Here, I add that we need to

observe how the visual goes about showing what they say. I focus on the question of what the visual is *doing*, rather than what it is 'saying' – with the understanding that to separate these two elements poses a methodological limit to their generalisability or historical contribution.

Still, it is an important contribution to make to a field that, while demonstrating the centrality of representation to the production of architectural and urban knowledge, has not, in the case of modern architecture in Mexico City, substantially investigated their visual structure (Emmison 2000, p.63). As such, the aim of this chapter is not to conduct a content analysis of visual materials from Pani's archive, arriving at some generalisations about the use of visual materials throughout his professional life. Nor will I attempt 'to trace the development of the instruments and practices of urban planners in genealogical terms' (Söderström 1996, p.254) so as to produce an archaeological footnote to accompany an interpretation of the visual. While Söderström's overview history of the visual tools deployed in urban planning today is an important contribution to a field that is at times blinded by the urgency of the present and its colonisation of the future, still, it tells an origin story of which the deeper and wider one digs – or in Söderström's words '[drills] boreholes' (1996, p.252) – the further and broader the influences one finds.

This is not to argue that the genealogy of urban planning tools is a futile effort. On the contrary, Söderström, and other planning historians expertly demonstrate the complexity of social, economic, political and colonial exigencies that both brought about, and were brought about by, these urban visual methods and technologies. These are histories that are often occluded, masked even, by the very same visuals that brought them into being. And so while Söderström and other researchers investigating the instruments and practices of the contemporary urban planner uncover new genealogies that work to 'provide the necessary keys for interpretation of ethnographic work by unpacking the sedimented histories that such instruments and practices contain' (1996, p.254), this chapter works in a slightly different direction. This chapter aims to produce an understanding of the way in which a set of visual tools in the so-called urban laboratory 'work'.

What emerged from an analysis of these visual materials were patterns that I have organised in three categories pertaining broadly to the way the visual creates relationships. That is to say, I became interested in the ways in which the visual works to create seemingly unambiguous relationships between otherwise diverse elements. In some ways, this echoes the definition of 'assemblage' offered by Anderson and McFarlane (2011, p.125) as 'a *descriptor* for some sort of provisional unity across difference'. And so I began to think of the work the visual does in terms of 'assembling'. By unambiguous, I aim to show how the visual can engender the sense of, or the ability to work with, relationality in three ways. First in terms of relationships of *time*, I explore the ways in which the visual makes the future, present. Second, in terms of relationships of *the urban object*, I examine the ways in which the concept of the part (apartment room or the neighbourhood unit) comes to stand for the whole (Mexico City) by looking at how they are visualised through the combination of images of the urban, primarily through scale. Third in terms of relationships of *causality* I suggest examples where the complexity of an argument, and in this case an argument at the centre of Pani's urban regeneration plans, came to be flattened into a simple visual diagram.

I must step back here, and make it clear that I do not pretend to make the claim that it is precisely these visual structures that shaped the particular urban environments and agents of Mexico City towards legitimising the urban development schemes of Mario Pani, and specifically that of Nonoalco-Tlatelolco. Within the context of the *image* of massive urban transformation with which I began the chapter – a project whose legitimacy, it would seem, emerges in part through the visualisation of not only the building itself, but of the urban demographic, economic and political analysis used to justify it – and in the context of the oft historicised genealogy of Pani's work that reaches their climax at the point in which this project, Nonoalco-Tlatelolco, gets built, I turned precisely to the cited antecedent documents as my site of inquiry. I did so not to prove or disprove a narrative of causation, but rather to interrogate the work of the visual.

Before addressing the question of the visual and the relational, the first part of this chapter turns to an important influence in the development of urbanism in Mexico City in the 1940s, Hannes Meyer. His article about the 'urban problem' in Mexico is the first one published in *Arquitectura/México* to connect an empirically based urban research agenda to the justification of an architectonic solution. As a demonstration of the translation required to move from urban socio-spatial analysis to the question of architecture, it frames the context within which I approach the visual materials from Pani's work.

THE URBAN PROBLEM OF MEXICO

Global antecedents to the study of urbanism in Mexico

Urbanism is very present in the issues of *Arquitectura/México*. Eighty-one articles were written on the broad subject of 'urbanism', and while the subject is not always explicitly framed as a 'problem', the question of *how* to build the city lay at the heart of some of the journal's longer and more theoretical articles. Articles exploring masterplans from Detroit, Marseilles, Ottawa, Philadelphia, new towns of the United Kingdom, Salt Lake City, Paris, and cities in Russia were presented along side new detailed master plans for cities in Mexico by Mario Pani and his collaborators – Merida in the Yucatán in March of 1953, Guaymas-Empalme in Sonora in September of 1953, an entire issue dedicated to Acapulco in June of 1954,[61] Mazatlan in September of 1954, Culiacán in December 1954. Besides masterplans, articles on the history of the city, and theories of urbanism began to appear from 1943 onwards. A two part series by Gaston Bardet, then head of technical projects at the Institute of Urbanism in Paris, from issues 21 (November 1946) and 22 (April 1947) explored the history of urban planning as a scientific endeavour from antiquity to the first use of the term 'urbanism' in 1910 'in an article by Paul Clerger in the Newsletter of the Geographic Society of Neufchatel' (Bardet 1946, p.22). Bardet compares Paris, Berlin, London and Moscow's urban plans, introduces the theories of the Garden

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61 Mario Pani, along with Enrique del Moral, were the architects in charge of the Comisión de Planificación Regional de Acapulco (Commission for the Regional Plan of Acapulco), and built, among other things, the airport of Acapulco, the yacht club of Acapulco, and the first condominium in the port city, along with several private homes and villas. He was central in transforming this fishing village 3 hours from Mexico City, into the tourist resort it is today.

City, and ends with the series of laws brought into place that made it a legal necessity to have a plan.[62]

This invocation of the globalisation of urbanisation echoes the opening concern of *Arquitectura/México*, a concern with the internationalisation of architecture, and the comparative impetus of a rigorous search for the best examples of architecture around the world dealing with the common problems of humanity. Equally, it signals the reference of arguably the most prolific, if not influential, of the protagonists working towards a globalised approach to urbanism, urban planning, and architecture at the time: the *Congrès International d'Architecture Moderne*, or CIAM. Founded by 28 European architects in Switzerland in 1928 at a meeting organised by Le Corbusier, CIAM hosted a series of eleven conferences until its dissolution by an off shoot of younger dissenters, Team 10, in 1959. In the thirty-one years it survived, CIAM and its members published manifestoes and worked to promote, through the various fields of architectural production and urban planning, a modern approach to architecture as a social phenomenon. Among the most widely cited publication was the Athens Charter, an edited volume compiled by Le Corbusier of the discussions originating during CIAM IV in 1933 on the Functional City (and published in 1943). Equally important publications emerged like Sigfried Giedion's (1942) *Space, Time and Architecture: The growth of a new tradition* and José Luis Sert's (1942) *Can our cities survive? An ABC of Urban Problems, Their Analyses, Their Solutions: Based on the Proposals Formulated by CIAM*, both published by Harvard University Press

Though the presence of CIAM in Mexico, and of Mexican participants in the discussions of CIAM are relatively under-researched, it is generally considered that CIAM had influence in Mexican architecture and urban planning. Hannes Meyer, a Swiss architect who would emigrate to Mexico and figure in its urban planning, was present at the inaugural 1928 meeting, and co-drafter of the Declaration of La Sarraz

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62 'Switzerland was the first who in the Law of 1874 declared that every city had to have a plan for its extension' followed by the Netherlands in 1901, Prussia in 1904, and the Town Planning Act of England in 1909 (Bardet 1946, p.23). Considering the teaching of urbanism and its innovations during the first half of the twentieth century, Bardet surmises that far from simply a consideration of the spatial distribution of the local, 'they have forged since 1930, the components of rural urbanism, regional urbanism, national urbanism and … it will reach global urbanism' (1947, p.82).

(Mumford 2000, p.24).[63] Texts by CIAM authors also appear in *Arquitectura/México*. The first article on urbanism and Mexico City to appear in the journal is from 1943 by Meyer. A full reprint of Giedion's introduction appears as an edited translation by Alonso Mariscal in issue 20 (1946). In issue 29 of *Arquitectura/México* from October 1949, one month after the Presidential inauguration of the CUPA in Mexico City, a short extract of Sert's book appeared as a quasi-editorial. Titled '*Los Problemas Urbanos y el Hombre*' ('Urban Problems and Man'), the polemical article outlined clearly – and importantly for *Arquitectura/México* in the politically brokered words of a third party author – the central concern that would guide much of the thinking behind Mario Pani's architectural and urban planning work in the years to come. The editorial proposed two tenets. First, that '[i]n the large centres of population around the world, man is a victim of urban chaos'; and second, that there is a misconception that 'cities have to continue being made in the same way' (Sert 1949, p.193).[64] According to Eric Mumford, Sert's *Can our cities survive?* was a co-production with CIAM in an effort to 'promote its urbanistic agenda in the United States' (Mumford 2000, p.131), but also to 'greatly increase [Sert's] chances of securing an academic post in the United States' (ibid., p.132).[65] Generally heralded as a mild success, and adopted by planning departments across the United States of America, *Can Our Cities Survive?* was criticised by Lewis Mumford, whom Sert had asked to write the foreword, arguing that

> [t]he four functions of the city do not seem to me to adequately to [sic] cover the ground of city planning: dwelling, work, recreation and transportation are all important. But what of the political, educational, and cultural functions of the city: what of the part played by the disposition and plan of the buildings concerned with these functions in the whole evolution of the city design. … The organs of political and cultural association are, from my standpoint, the *distinguishing* marks of the city: without them, there is only an urban mass. (qtd. in Mumford 2000, p.133)

Lewis Mumford eventually declined to write the foreword to the book for reasons that the view of what the city is and was could not be reduced to categories of function, and even if it could, that the four functions highlighted in Sert's book –

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63 The Declaration of La Sarraz was the founding document of CIAM. See Eric Mumford (2000) *The CIAM Discourse on Urbanism, 1928-1960* (The MIT Press: Cambridge, MA), pp.24–27.

64 Author's translation. Original in Spanish: 'En los grandes centros de población del mundo de la actualidad, el hombre es una víctima del caos urbano' and 'La gente cree que las ciudades tienen que continuar siendo como son.'

65 The original title of the book was to be *Should our cities survive?*, and was changed by then director of Harvard University Press Dumas Malone (Mumford 2002: p133).

'Housing, Recreation, Transportation, and Industry' (Mumford 2000, p.133) – are insufficient to the role of urban planning as a 'social art'. For his part, Sert defended the book, and its accessible tone commenting that 'although the book is based on analysis it must nonetheless contain a general line of action to make it interesting and useful, otherwise it would only be one research work more, in a country where they will soon have too many of this type' (qtd. in Mumford 2000, p.133). The 'general line' Sert refers to was, in part, alluded to in the foreword to the book by then Dean of Harvard's Graduate School of Design Joseph Hudnut 'to link urban planning and design to "those processes by which material things are shaped and assembled for civic use"' (qtd. in Mumford 2000, p.136).

Fragments of an urban studio

Just one year after Sert's publication appeared in the United States of America, one of the founding members of CIAM, Hannes Meyer, the Swiss architect who was the second director of the Bauhaus between 1928-30, emigrated to the Soviet Union in 1930, Geneva in 1936 and eventually came to Mexico from 1939-1949 to lead the *Instituto de Urbanismo y Planificación* (Institute of Urbanism and Planning) in Mexico City, wrote the article '*La ciudad de México. Fragmentos de un studio urbanístico*' (Mexico City: Fragments of an urban studio). In issue 12 of *Arquitectura/México* from April 1943, the architect-planner concerned himself with typical housing blocks in Mexico City, the problems of land speculation and private interests, and ended with a detailed proposal for a neighbourhood of workers' housing – *la Colonia Obrera de las Lomas de Becerra*. Plans for the neighbourhood were drawn up in 1942 by the office of the *Sección de Habitación Obrera* (Division for Workers Housing) of the *Secretario de Trabajo y Previsión Social* (Ministry of Work and Social Welfare), under his direction and in accordance to the '*Plano Regulador*' (city plan) drawn up by the engineer Salvador Arroyo the year before (Meyer 1943, p.105).

Echoing Hudnut's 'processes by which material things are shaped' (qtd. in Mumford 2000, p.136), Meyer's argument was that the material form of subdivisions in Mexico City created a 'disorder of architectural elements that correspond to the anarchism in

the intentions of individuals and property owners' (Meyer 1943, p.102).[66] Linking architectural and urban form to larger social processes and ills, Meyer opens his article arguing that

> The system of leasing land and the private speculation that it causes provokes within the socio-economic system a series of ailments for the population, such as the intensification of social ills (tuberculosis, etc.); the development of immorality (prostitution, crimes); the destruction of the family … and greater misery in housing. (1943, p.96)[67]

Throughout the piece, Meyer continues to expose the 'frenzied speculation' and the 'racket of private interests' (ibid.) that plague urban development in Mexico City. He identifies within Mexico City, and in contraposition to city plans of Paris, London and Moscow, three key issues: transportation, the shift of the city centre, and population density in relation to urban form.

First, to demonstrate the contradictions of Mexico City's transportation problems, Meyer illustrates that for a city of 1,464,556 people, its footprint is extremely large. Comparing Mexico City to Paris (roughly 3.6 million people), and Moscow (roughly 4.0 million people), he notes that while both of those cities have a diameter of about 20km, Avenida Insurgentes, the major north-south corridor in Mexico City, runs 23km – making it one of the longest in the Americas (ibid.). However, even though it has so much space, there are continual traffic jams – a fact that he attributes to 'the lack of coordination between residential and work zones' (ibid.), a lack he further attributes as an effect of land speculation. Meyer shows part of a larger study of families and their weekly commuting patterns in Mexico City to demonstrate that on average, a family of five would travel 350km a week, or 70km/person/week for work, school, or the market (the figures do not include leisure activities). In so doing, he highlights the importance of transportation for families in terms of time, but also money – the cost of transport ranging anywhere from 2-17% of monthly incomes – and therefore that changes to the urban structures of the city, by bringing housing

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66 Translation by author. Original in Spanish: '…el desorden de elementos arquitectónicos que corresponde al anarquismo en las intenciones individualistas de sus propietarios.'

67 Translation by author. Original in Spanish: 'El sistema del arrendamiento de la tierra y la especulación privada que él entraña provoca dentro del sistema social-económico actual una serie de males para la población, como intensificación de las enfermedades sociales (tuberculosis, etc.); desarrollo de la immoralidad (prostitución, crimenes); destrucción de la familia, como consecuencia de la enorme concentración que trae consigo la promiscuidad y una miseria mayor en la vivienda.'

and work opportunities closer to each other for example, could have material effect on the lives of people in the city (ibid.).

The second issue facing Mexico City, according to Meyer, was the shift of the 'centre' of the city to the west. The traditional historic, and for some time geographic, centre of Mexico City had always been the zócalo, the large central square flanked by the cathedral to the north and the Presidential offices of the Palacio Nacional to the east. In Mesoamerican times, the site was also home to Templo Mayor, it was the square at the heart of Technochtitlán, the capital of the Aztec empire. However, as the city expanded, it did so primarily along to the south-west, such that 'the Zócalo is situated 6km from the eastern periphery, 7km from the north, 11km from the west and 13 km from the south' (Meyer 1943, p.99). And while the religious and political centre remains in the zócalo, Meyer argues that a new centre arose out of 'a zone where big businesses that were expanding to the states and overseas, and the press were situated, both representative elements of the extension of modern life' (ibid.).[68] The old historic centre, perhaps, was a modern palimpsest connecting the Mesoamerican empire through the Spanish colonial, to Mexican independence and the modern revolutionary state. Tenochtitlán was the political and religious centre of a network of city-states spanning much of central Mexico, and the central-square and market around Templo Mayor was its epicentre. Similarly, as the seat of the Viceroyalty of New Spain, Mexico City, and specifically the zócalo, was the centre of political and religious power. Following the Mexican revolution, the square was renamed Plaza de la Constitución, and continued to be the seat of executive and religious power. However Meyer turns to modern technologies of the corporation and the press as two new agents in the modern extension of the state – and therefore determines a shift in the centre of power in the city geographically west. This question of the shifting centre becomes the organising principle for an architectural intervention in Mexico City by Mario Pani in 1946, discussed later in the chapter. There, Pani argues for the densification and planning for offices, hotels and apartment blocks, as well as

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68 Translation by author. Original in Spanish: 'pasa a ser el centro de una zona en la que se sitúan el gran comercio que se expande hacia los estados y hacia el extranjero y la prensa, elementos ambos representativos de la extensión de la vida moderna'

major transport infrastructure development, at the intersection of Reforma and Insurgentes. As such, he proposes a new 'centre' for Mexico City.

The third feature of Mexico City according to Meyer is that there is a disjoint between building typology and population density, such that the densest areas are not necessarily those areas that have the most high-rises. Instead he finds the opposite. Meyer explains that density is found 'to the east and north of the Zócalo close to Balbuena Park around the market of Merced and in Peralvillo, where the old Spanish colonial structure survive, with buildings of 1, 2 and 3 floors, inherited forms from an earlier society' (ibid.).[69] Meyer includes a large map of population density in Mexico City, clearly marking areas of intense density [Figure 4.3]. These are primarily located to the north and east of the city centre – areas that are also traditionally the geographies of the poor and the working class. It is here that Meyer's larger thesis is most clear: 'The housing block is to the urbanist what the brick is to the house. Its diverse structures are the classic expression of socio-economic states' (ibid.).[70] The influence of the typology of the neighbourhood unit and the housing block from CIAM's 'Functional City' is clear.

It is here that Meyer makes the leap from diagnosing to curing. Having identified the housing block and the basic tool of the urbanist, Meyer proposes a solution to these three 'issues' of Mexico City in the form of a purpose built workers' housing site for some 11,000 people. Here, however, the politics behind his understanding of the 'Functional City' are made more clear: the city is chaotic due to 'frenzied' land speculation, leading to an unequal distribution of density, living and work patterns, whose architectural forms are demonstrative of socio-economic states. Or in other words, that the form of the city and its architecture both belies and embodies social and economic inequalities – and therefore the role of the architect-planner should be

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69 Translation by author. Original in Spanish: '..sino que se encuentran al este y norte de Zócalo cerca del Parque de Balbuena en los alrededores del Mercado de la Merced y en Peralvillo, donde subsiste la vieja estructura colonial española, con edificios de 1, 2 y 3 pisos, formas hereditarias de una sociedad anterior.'
70 Translation by author. Original in Spanish: 'La manzana es al urbanista lo que el ladrillo a la casa. Sus diversas estructuras son la expresión clásica de estados económico-sociales.'
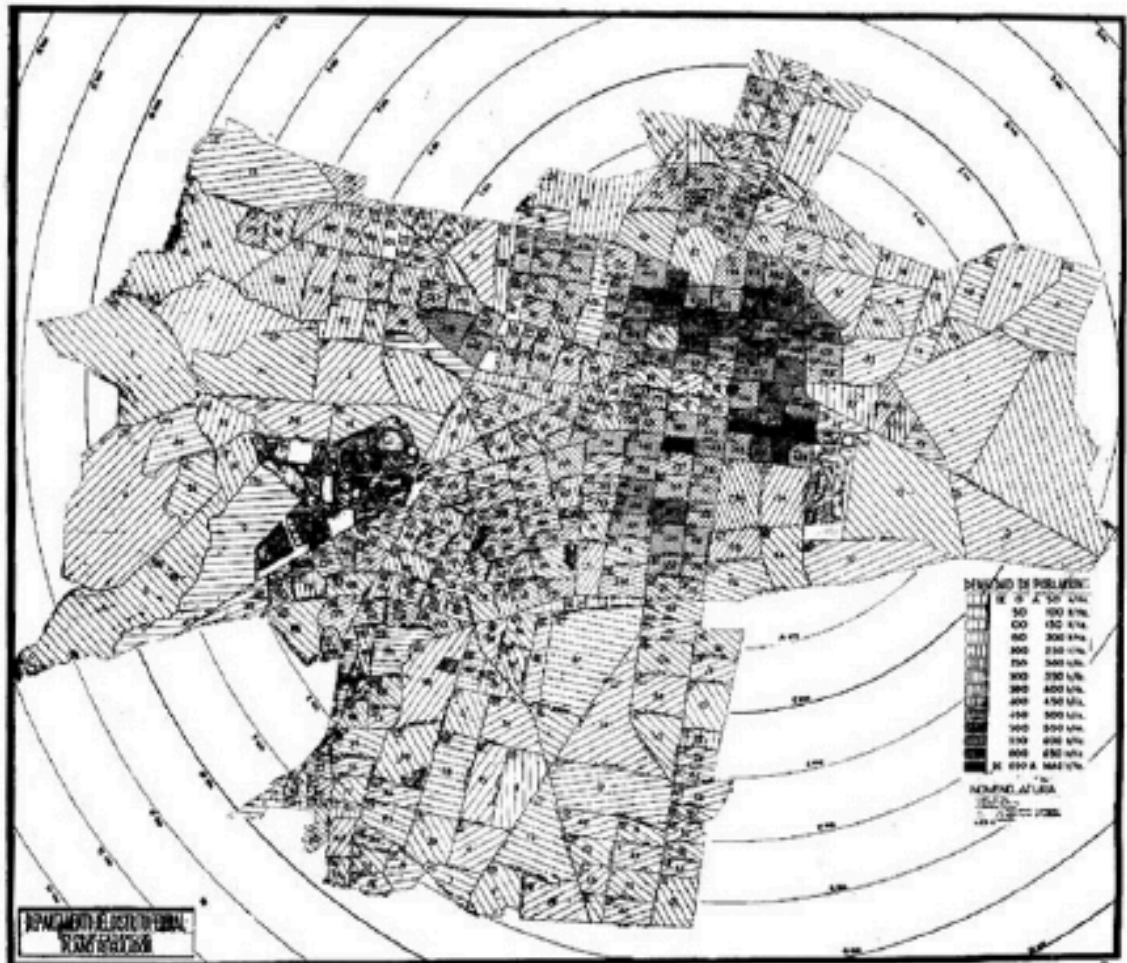
(Cortesía del Arq. Ricardo Rivas, Oficina del Plano Regulador.)

Ciudad de México: Plano de la densidad de población

Elaborado a base del censo del 1940.

La densidad de población varia entre °/50 y 700 hab./ha.

Se destaca la más baja densidad en la zona residencial de las Lomas de Chapultepec. Mientras que los barrios más densamente poblados por los trabajadores (con 600 a 691 hab./ha.) se encuentran al Este, Noreste y Norte del centro de la ciudad (Balbuena y Peralvillo).

No son los barrios con manzanas de 4 y 5 pisos los más densos. Sino los antiguos barrios de estructura colonial de uno y dos pisos como el de la Merced, zona típica de entrada y alojamiento de los campesinos que luego se transforman en trabajadores urbanos.

Figure 4.3: Map of population density in Mexico City, based on the 1940 Census. Source: *Arquitectura/México*, 12, (1943), p.100.

a socialist one; that is, to recognise these inequalities and implement formal planning changes to alleviate them.[71]

This article by Meyer is just one of many within the full scope of *Arquitectura/México*, but important because of its polemical argument, and because it is the first such study in the publication. Within it we have urban demographic statistics, innovative visualisations of density in Mexico City, as well as visual comparative urbanism between Mexico, Paris, London and Moscow. Meyer presents the results of in-depth surveys and ethnographies from the Institute of Urbanism and Planning detailing household incomes, daily activities and commuting patterns. The evidence he compiles, however, is put to use; it is interpreted and analysed to give context to the core political problem Meyer identifies: social and spatial inequality due to land speculation and private interests. Insofar as this article 'constructs' an urban problem, it might be similar to, if not innovative of, any number of evidence-led urban studies at the time, and indeed finds similarities with the method of producing evidence in contemporary urban research. While the historical contextualisation of visual methodologies in urban research is important, and no doubt finds itself enmeshed in global circulations of epistemologies, of interest here is the corollary presented by Meyer in the form of an architectural solution.

The solution to the urban problems of Mexico that Meyer presents is the *Colonia Obrera de las Lomas de Becerra* (Workers' Neighbourhood in las Lomas de Becerra) [Figure 4.4]. Meyer argues that the future population of the Colonia, which would have anywhere from 1,800-2,200 homes, or 9,000-11,000 people, will be made up of primarily of workers from nearby factories, thus reducing the commuting time, and urban problem number one - transportation. The site is located where there is ample existing road infrastructure to deal with this kind of growth, and responds in equal measure to Article 123 of the 1917 Constitution that required any company with more than 100 workers to guarantee housing for them (Davis 1994, p.32). Companies

71 The 'La Sarraz Declaration' from the first meeting of CIAM in 1928, co-drafted by Meyer makes clear the original socialist intentions of the organization, and their urban propositions. The first point reads, 'The idea of modern architecture includes the link between the phenomenon of architecture and that of the general economic system'; the second reads, 'The idea of "economic efficiency" does not imply production furnishing maximum commercial profit, but production demanding a minimum working effort' (Frampton 1992, p.269).
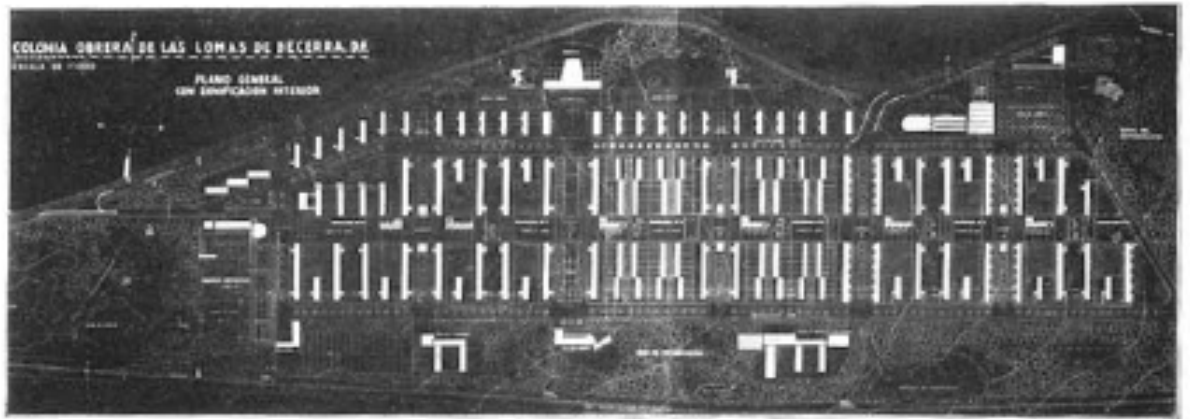
· *Plano General de la Colonia Obrera de las Lomas de Becerra, México, D.*
Autor: Arq. Hannes Meyer, en colaboración con la Sección de Habitación Obrera de la S.T.P.S.

Figure 4.4: General plan of the *Colonia Obrera de las Lomas de Becerra*, Mexico City.
Source: *Arquitectura/México*, 12, (1943), p.109.

in the industrial zone of Tacubaya like the cement firms 'La Tolteca' or 'Eureka' would benefit in that this kind of urban development could support their need for workers' housing. And yet, Meyer gets much more specific outlining that the plan would be for six housing blocks, each one with its own kindergarten and playground located in the forty metre wide green fringe between each block, and a commercial centre for every two blocks. At the south end of the blocks would be a series of institutional buildings like primary and secondary schools, medical and dental centres. At the north would be the civic centre for political gatherings and union meetings, surrounded by recreational parks (Meyer 1943, pp.106–107). This move from the generalised scale of the urban problem to the proposed intervention of housing, to the level of architectural detail of the housing estate itself, is a demonstration of what I opened the chapter interrogating. That is, the justifications of an urban or architectural intervention requires a set of logical leaps.

Meyer's article is made up of two separate functions. First, evidence of the problem: the description of three urban issues in Mexico City (transport, shifting of the centre, and density), and an underlying political problem (inequality) associated with planning law (land speculation and private interests). Work is done to bring evidence to this line of argument from Meyer's urban institute through statistics, and curated photography. Second, Meyer describes a plan for a new workers' colony of housing located near an industrial zone in Mexico City. Meyer fails, in retrospect, to create a convincing link between the specific context of Mexico City he outlines, and the specific spatial intervention he proposes. As such, it opens up an interpretive space that belies the political work his argument makes in favour of urban planning proposals along the 'Functional City' model. For example, Meyer maintains the Functional City ethos to remove the 'street' (calle) from his proposed plan:

> When our project demolishes the concept of the street, with its rows of houses, it allows us to double the space between housing blocks achieving an average space of 30-50m even within a population density of 185pp/ha in the neighbourhood and 415pp/ha in the block.[72] (Meyer 1943, p.107)

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72 Translation by author. Original in Spanish: 'Al demolir en nuestro proyecto el concepto de la calle con sus hileras de casa, nos permite doblar el espacio entre los bloques, consiguiéndose una separación normal de 30,0m o 50,0m aún en los casos de una densidad máxima de población de 185 hab./ha. en la colonia y de 415 hab./ha. en la manzana.'

The car city and the domestic city should exist in separate zones, according to Meyer. The zoning of functions in Meyer's *Colonia Obrera de las Lomas Becerra*, from the macro separation of spaces for living, and spaces for working, along with the consideration of the preplanning for social, cultural, civic, medical and educational facilities within the neighbourhood, and the separation of the car from the home demonstrates his allegiance to CIAM's functional city paradigms. Even the diagnosis of real estate speculation in Mexico City as a core issue derives in part from the original declaration of aims of CIAM in 1928 (Benton et al. 1975, p.199).

If, as Meyer set out in the early pages of his argument, the primary problem of the modern city was private land speculation, of which problems with transportation, sprawl and density were but symptoms, then any form of large-scale state funded planning and control of urban development might suffice. Zoning and regulating lot sizes, or, perhaps, maintaining state control of housing and public institutional infrastructure could possibly prevent the kind of 'anarchic' city growth to which Meyer refers earlier in his piece, and from which he finds evidence of unequal densities, 'miserable' housing situations and health inequality. However, the specific urban planning proposal he lays out is more Le Corbusier's 'Ville Radieuse', with spaces of living surrounded by green, to the expulsion of the street, than anything else. This is to say there is no argument linking the specific 'form' of the architectural solution to the conditions of the problem. Perhaps the workers' housing will solve some of these problems, but just because it might does not mean it is the only way to do so, programmatically or architectonically. The work of the article, of the connection of urban research to an architectural proposal is propositional. Its task is to identify a problem and also to create the conditions of its possible solution – in other words, to legitimise the architectural proposal.

However, to suggest that Meyer's argument is flawed does not mean it is not convincing. Structurally, visual materials occupy ten of the thirteen pages. An analysis of the visual, then is essential in thinking through the ways in which ideas are translated into form. This is precisely what I turn to in the next section.

THE URBAN STUDIO

As discussed in Chapter 1, Mario Pani set up the *Taller de Urbanismo* (Urbanism Studio) with fellow architect José Luis Cuevas (Adrià 2005, p.15).[73] Over the years, the studio engaged in a number of masterplanning exercises in Mexico including in Acapulco, Mazatlán and the Yucatán. The focus of the section below, however, is on the visual materials prepared during research on the 'urban problem' of Mexico City, a problem defined by Mario Pani in an article of the same name as connected to the fast demographic growth of the city, its resultant anarchic spatial form, and the resulting decrease in living conditions for an emerging urban labour force (Mayorga 1949a).

I begin the first part of this section by examining two projects that mark the emergence of the Urban Studio in 1946 and 1969 – two transport interchange projects led by Mario Pani – to consider the visual and the relationship of the future in the present. In the second part, I look to four sets of documents spanning 1950-1964, all on the question of the urban problem of housing in Mexico to interrogate how the visual plays a role in assembling the urban object from the part to the whole and in producing the image of causality.

In April 1946, Mario Pani's *Arquitectura/México* published a planning proposal for the complex intersection of *Avenida Paseo de la Reforma* (Reforma) and *Avenida Insurgentes* (Insurgentes). The project emerged out of an unsuccessful bid in a competition to design the *Monumento a la Madre* in 1945. The victor was José Villagrán García, but Pani's entry integrated significant reorganisation of the transport interchange.[74] The intersection lies just a short distance south and west along Reforma from where it

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73 José Luis Cuevas was the lead architect in arguably Mexico City's first sub-division in 1922, Chapultepec Heights, later known as Lomas de Chapultepec, in the west of the city. It was the first modern urban development in Mexico City to forgo a grid system of roads in favour of routes that followed local topography. He also project-led the creation of the neighbourhood Insurgentes-Hipódromo in 1926, today part of the area known as La Condesa, after the private race-track (hipódromo) run by the Sociedad del Jockey Club Mexicano, was abandoned. It was the first 'integrated urban design' that not only managed the subdivision of the land into lots, but also the design of urban infrastructure and street furniture, unifying a design style for the neighbourhood. See Enrique Ayala Alonso (2003) 'La ciudad y la vivienda en la obra de Carlos Contreras', pp. 35-37.

74 Pani's plan remained, for the large part, unbuilt. Only one building, the Hotel Plaza (1945-46) was ever constructed (De Garay 2004a, p.55). For an account of the competition and the subsequent unsuccessful planning bid, see Graciela de Garay (1990) 'Arquitecto Mario Pani PHO 11/4-2' in Proyecto de Historia Oral de la Ciudad de México: Testimonios Orales de sus Arquitectos 1940-1990, pp.11–13.

intersects with *Calle de la República* leading west to the newly built *Monumento a la Revolución* (Monument to the Revolution), and *Calle Juárez* that runs along the south side of the *Alameda Central* and ends at *Eje Central Lázaro Cárdenas*, just in front of the *Palacio de Bellas Artes*. A year later, in 1946, Pani produces a project for the Glorieta. At the heart of this propositional project are striking visuals of the future built space from a number of different perspectives. In the section that follows, I look to the visual materials themselves to think through the ways in which the temporal nature of planning, of the future propositional gets translated, and appears in the present.

The oblique angle of Reforma was not an intentional planning decision, but an imperial decree. On 10 April 1864, after two years of searching for an appropriate European and Catholic prince by the imperial government of Napoleon III, Maximiliano I was crowned Emperor of Mexico. The Emperor took residence in the *Castillo de Chapultepec* atop the highest point in Mexico City at the time. Originally built for the Viceroy of New Spain, it remained unfinished until the city government bought it in 1806, then post-independence it became a military college. The Emperor transformed it into an imperial residential palace, and, needing quick and direct access to the Imperial Palace (now the *Palacio Nacional* or National Palace on the east flank of the Zócalo, housing the offices of federal executive branch of the Mexican government), ordered the construction of a European-style boulevard to connect the two. As such, *Reforma* cuts diagonally across an older urban plan, resulting in complicated intersections, resolved primarily through the technology of large and monumental roundabouts. The boulevard was originally called *Paseo de la Emperatriz* (Way of the Empress), in honour of Maximiliano I's wife, but following the fall of the imperial rule, and the execution of Maximiliano I on the 19 June 1867, the reinstated President Benito Juárez renamed the Paseo, *Paseo de la Reforma*.[75]

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75 After the Mexican Revolution, a further shifting of the naming of streets and monuments along Reforma took place. See Seth Dixon (2009) 'Symbolic Landscapes of Identity: Monumentality, Modernity and Memory on Mexico City's Paseo de la Reforma'. See Patrice Olsen (2008) *Artifacts of Revolution: Architecture, Society, and Politics in Mexico City, 1920-1940* (Rowman & Littlefield, Plymouth); Patrice Olsen (1998) 'Revolution in the Streets, Changing Nomenclature, Changing Form in Mexico City's Centro Histórico and the Revision of Public Memory', Conference Paper delivered at meeting of Latin American Studies Association, Chicago; and Diane Davis (2004) 'Whither the Public Sphere: Local, National, and International Influences on the Planning of Downtown Mexico City, 1910-1950', Space and Culture 7(2), 193-222.

While you could not describe post-revolution Mexico as an *imperial* political space, the grand state ambitions for the modernisation and reorganisations of urban, domestic, scholarly and public space is reminiscent of the scale of imperial projects. At times, this ambition is directed by the government, however, as introduced in the previous chapter on *Arquitectura/México*, many of the changes in the urban environment can be seen as propositional projects, architectural or urban competitions, architectural studios partnered with national universities, and reports by private practices or research studios independently funded about the future of Mexico City. The article *'Un Nuevo Centro de la Ciudad de México: Crucero Reforma-Insurgentes, Proyecto de Planificación y Zonificación'*[76] from 1946, in Pani's influential journal, falls within this latter category of a propositional plan by a private practice, in this case by the architect Mario Pani. The article and the plan it describes make an argument to transform the *Glorieta Monumental* (Monumental Roundabout), presently marking the intersection of *Reforma* and *Insurgentes* into a large public plaza, integrating cutting edge transportation design to align and improve the traffic circulation of this intersection that has ten streets converging on this one spot. The plan also argues for a densification and ordering of hotel, residential, commercial and office space integrated into the circular plan – creating, as the title suggests, a 'new' centre for Mexico City. The argument for a 'new' centre hinges on the production of the official centre of Mexico City, the Zócalo with the Metropolitan Cathedral, archeological ruins of the Templo Mayor, and the National Palace, as, in Vladimir Kaspé's words, 'day by day becoming an archaeological centre, whose future is that of an open air museum' (Kaspé in Pani 1946, p 259).[77] The argument, therefore, is to supplement the importance of what would later be termed the 'historic centre' (the origins of which are already foretold in Kaspé's pronouncement of it as an 'open air museum'), with a business centre, a modern centre for commerce, and spatially to 'give it its real significance as a grand boulevard' (ibid.).[78]

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76 'A New Centre for the City of Mexico: The Reforma-Insurgentes Intersection, a Planning and Zoning Project' (translation mine).

77 Author's translation. Original in Spanish: 'de dia en dia viene a ser más un centro arqueológico, su prevenir es el de un museo al aire libre.'

78 Author's translation. Original in Spanish: 'le dará su verdadera significación de gran eje'

The aspirations of the article, and the project it describes to be read and taken as a serious intervention in the urban planning debates of Mexico City at the time are made clear within its ten pages, not only through the introductory essay by then Editor in Chief of *Arquitectura/México* Vladimir Kaspé, the accompanying essay by the architect of the plan and, incidentally, the Director of *Arquitectura/México* Mario Pani, nor simply by its placement as the lead article in this issue, but also through the rhetoric emerging in the visualisation of the plan. These visuals comprise the following: a transect of Reforma from the Zócalo to Chapultepec[79]; a small one-ninth page inlayed hand-drawn map diagrammatically showing the existing road layout with an abstracted and propositional large roundabout in the form of concentric circles faintly overlaid; two black and white aerial photographs taking up two-thirds of the page, one showing the actual site as it was in 1946, and the second modified and edited by Pani's office to show the proposition within its context; two full-page map diagrams, one illustrating land use divided into hotels, residential units and offices and commercial space, the other mapping the transportation circulation of the new road services; four half-page architectural drawings demonstrating the various 'on the ground' perspectives of the proposal; three photographs of architectural models, one aerial shot of the newly aligned ground level transport infrastructure, one aerial shot of a model illustrating the new underground tunnel infrastructures, and one perspective shot of a model illustrating the architectural building interventions on the site, their mass, orientation and number; finally one small one-ninth page table of comparative statistics before and after the project, primarily showing the increase in square metres of commercial and office space, as well as the increase in residents and traffic capacity. Surprisingly, and unlike similar project proposals, there are no photographic renderings of the site from the ground, as it existed. The only photographs are the aerial shots, map-like from above. Therefore we do not get, necessarily, the emotive before and after suggestions of progress, but rather progress

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79 The transect show a linear road from the icon of the Metropolitan Cathedral to Chapultepec park, but Reforma does not reach the Zócalo. Rather the transect represents something more like the line of power decreed by Maximiliano I in the route from the Castillo Chapultepec to the Palacio Nacional along Reforma to Juárez and then due east to the central square. Reforma in fact continues on its diagonal to the north east of Mexico City, past what would become Mario Pani's largest housing project Nonoalco Tlatelolco (discussed in part further in this Chapter), ending at the Eje 2 Norte (Manuel González) where it turns into Calzada de Guadalupe heading north and Calzado de los Misterios heading south.

through the guise of prosperity and function, and indeed through metaphors of the city to biological life and to the Mexican nation.

The opening essay by Kaspé connects the city of Mexico to a biological organism, whose protection and support must be held by the nation, by the aspirations of Mexico. The analogy of life to the city is the biology of growth, but growth tied to another prospect aligned with 'progress', that of evolution. Kaspé relates that '[i]f on one side it cannot grow, this enormous body will try and grow on the other. If it is constrained on all sides, the organism dies' (Kaspé in Pani 1946, p.259).[80] Kaspé is quick to argue that the city is much more complex a living organism than, say, a house plant, and that what might help growth in one part of it, could hinder growth in another, and yet, he argues that understanding the evolution of the city to date, and its future evolution is fundamental to the alignment of urban and architectural propositions that will be of benefit to the city (ibid.).[81] It is here that he first legitimizes the proposition of an intervention in the intersection of *Reforma* and *Insurgentes*, the *Glorieta Monumental*. First, he argues that this intersection is a 'natural fruit' (ibid.) of Mexico City, a formation of spaces from centuries of diverse interventions and city plans. Second, because it is the intersection of the two most important roads in the city, he furthers the propositional argument that even if it is not yet today the 'new' centre of Mexico City, it inevitably will be. 'The future centre will be there,' Kaspé asserts, 'in the intersection of these two avenues' (ibid.).[82] Aligning once again the biological metaphor of the city, and its future growth and well being, Kaspé analogises that '[t]o give to this future centre all the importance it deserves is, functionally, making flow the blood that cannot yet flow in arteries as large as the new and wide arteries' (ibid.).[83] The city as an organism, here, is somehow transformed into the city as a cyborg – one whose blood flows through the present

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80 Author's translation. Original in Spanish: 'Si por un lado no puede crecer, este enorme cuerpo trata de hacerlo por otro. Si se encierra por todas partes, el organismo se muere.'

81 Throughout the text by Kaspé, it is unclear what the 'benefit' would be or should be for Mexico City, but the opening lines privileging 'growth' give some clue, and specifically an 'evolutionary' progressive growth, rather than a haphazard one.

82 Author's translation. Original in Spanish: 'El centro futuro está, pues, ahí: en la intersección de estes dos avenidas.'

83 Author's translation. Original in Spanish: 'Dar a este futuro centro toda la importancia que merece es, functionalmente, hacer afluir la sangre que no puede ya circular en arterias demasiado estrechas hacia las arterias nuevas y amplias'

small arterial ways, but whose future we can engineer by creating larger infrastructural arteries, greater circulation, and an interventional evolutionary growth.

These interventions in the 'body' of Mexico City are not simply, it is argued, the prescience of one author, Mario Pani, but rather representative of a national aspiration. Kaspé ends his opening praise and argumentative groundwork to legitimize the diagrams, text and architectural drawings that follow as securely within the evolution of another body – the national body of Mexico. I quote at length below the end of the essay by Kaspé to allow for the full rhetorical flow of argument, passion and effervescent persuasion to come through:

> What we want to make known in this proposition is that Mexico can resolve in [this project's] realisation, that to which aspire, for it necessities and for its elevated spiritual desires, the large cities of the world: a real urban project, that, in the case of Mexico, will be at the scale of the prodigious efforts that it makes everyday in its intellectual, artistic, industrial and commercial development. So many countries of grand culture have waited decades to comprehend at last the importance of an architectural scale for our century: Mexico is on the verge of converting these aspirations into a reality! (ibid.)[84]

There are two important registers to note in the final exaltations of Kaspé with regards his flourishing introduction to the planning proposal of Mario Pani. First, that he aligns Mexico City, and specifically the scale, urban necessity and spiritual desires embedded within this project, with the aspirations of all major cities around the world. The construction of a comparative universal, such that Mexico City becomes one of a number of unspecified 'large cities of the world', with the same, universal desires, figures the city, and those who align with this specific, universal project, within the temporality of progress. The biological reductionism of traffic in streets to blood through arteries does the analogic work of the global reduction of diverse city environments to a set of common universals about 'life', and 'life in the city'. Traffic in Mexico is like traffic in New York, in Paris, in London, and perhaps – though less likely at the time given the historically skewed outlook of

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84 Author's translation. Original in Spanish: 'Lo que nos interese hacer notar en este anteproyecto es que México puede resolver con su realización, aquello a lo que aspiran, por sus necesidades y por los deseos de espíritus elevados, las grandes ciudades del mundo entero: un verdadero proyecto de urbanismo, que, en el caso de México, está a la talla de los prodigiosos esfuerzos que realizan cada día su enorme desarrollo intelectual, artístico, industrial y commercial. ¡Tantos paises de gran cultura han esperado décadas para comprender en fín la importancia de una arquitectura a la escala de nuestro siglo: México está en vísperas de convertir en realidad estas aspiraciones!'

Arquitectura/México towards certain privileged geographies that make up the 'international' (read Europe and North America) while obfuscating others that are equally part of the world – traffic in Shanghai or Mumbai, in the same way that blood flows through the human body in Mexico, New York, Paris, London, Shanghai or Mumbai. Or even more extreme as blood circulates in all animals, and nutrients circulate in all plants – a simple and reductive, if not biologically flawed, analogy. But Kaspé does not stop at an alignment of Mexico City within a world of universally evolving large cities. Instead he positions Mexico City squarely in the future by exposing the temporality of modernity ('waiting for decades') as it emerged in 'so many countries of great culture', compared to the possibility for Mexico, through this project, to leap forward and command 'an architecture at the scale of our century.' In this sense, Kaspé also positions Mexico, perhaps, both within discourses of developmentalism – its aspirational position of progress and growth – but also beyond the temporality of development in its ability to avoid the 'waiting of decades', to bypass, in Chakrabarty's terms, the 'waiting room of history' (2000), by bounding into the future through large, ambitious, and in Kaspé's words typically 'Mexican,' urban projects like this new centre at Reforma-Insurgentes.

Mario Pani's article that follows makes the case for the project in two ways. First that this intersection is *the* intersection of Mexico City, and second that it will increase the value of the land by near 400%. First, Pani outlines that the old centre of Mexico City, the Zócalo, was the centre for Tenochtitlán because two of the main arteries crossing the lake converged on the square. It was also the centre during the Spanish colonization of Mexico with the Metropolitan Cathedral and Palacio Nacionál. However, he argues that '[t]he city, in general, has not been able to transform itself with the same rhythm as that which man has changed his way of life'[85] (Pani 1946, p.260), and so making the argument that while this 'old centre' was meaningful for previous generations and centuries, and remains meaningful in some sense today, it does not represent the 'centre' of the city. Citing Le Corbusier's *Ville Radieuse* as an example of an urban form that recognises the modernity of the automobile as central

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85 Author's translation. Original in Spanish: 'La ciudad, en general, no ha podido transformarse con el mismo ritmo con el que el hombre ha cambiado su manera de vivir.'

to new ways of living, particularly in the way in which Le Corbusier does away with the street in favour of raised highways, Pani laments the old centre whose 'streets were made for the circulation of pedestrians, a few men on horses and horse-drawn carts, in reduced numbers, and wherein now thousands and thousands of cars try to circulate at high speeds' (1946, p.261).[86] Centralising the car as the centre of modern life, Pani turns to the intersection of two avenues as the new centre, two avenues whose paths traced the development of Mexico City, Reforma to the west, and Insurgentes to the north and south – such that Pani argues the Zócalo no longer even sits geographically in the centre of this new city, its closest edge just two kilometres away, while the south edge of the city lies a distant seventeen kilometres. Finally, Pani maps the geographies of the car, and the connections afforded by it through highway systems emerging from the Reforma-Insurgentes nexus, from New York to Acapulco, the Panamerican Highway, to Veracruz in the Gulf of Mexico, and north to Guadalajara and the western United States (Pani 1946, p.266). The car as the centre of modern life, the importance of Reforma and Insurgentes in the growth and development of Mexico City, and the connections from it through the infrastructural extensions of the car reimagine this as, argues Pani, the new centre.

Even if one is to forgo the proposed logic of centring the car as *the* modern in the modern city, Pani's second rationale is, perhaps, both persuasive, and instructive. Persuasive insofar as within the rubric of an economic rationale, this project should get the go ahead precisely, if only, because it is extraordinarily profitable. Instructive insofar as the centrality of Pani's argument on the real-estate value of the land post-project belies the normative morality in Kaspé's introduction about the life and death of the city. While Pani seems to be moralising in some sense the capacity for a city to support the aspirations of the modern human – aspirations Pani articulates as the value of time, circulation and money, such that a good city is one that privileges circulation, especially that of the car, and maximises the possible value of land through large-scale urban and infrastructural investment – Kaspé was more opaque through his biological and national normative imperatives of keeping the city 'alive' at

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86 Author's translation. Original in Spanish: 'calles fueron hechas para la circulación de peatones, de algunos hombres a caballo y de vehículos de tracción animal, en número todo muy reducido, y ahora tratan de circular por ellas a gran velocidad … miles y miles de automóviles.'

one level, and sustaining the desires of the nation vis-à-vis a universal international comparison on the other.

Pani's straightforwardness acts as a productive foil to Kaspé's romanticism of the city as body. Pani shows that this new body will be four-times as profitable, support four times the number of cars from 4-5,000 at the then present time, up to a possible 20,000 within the new project, go from 9,000m² to 50,000m² of commercial space, from 1,820m² to 100,000m² of office space, and from 304 linear metres of store front to over 2,000 linear metres (1946, p.267). The blood in this new organism will be flowing, from cars, to businesses, and most importantly, money. If the old arteries were slowing the flow from what might be possible, Pani has ensured that his area plan not only meets the current pressing circulation, but opens up a hyperbolic extrapolation of demand such that the city can meet its full future potential. And, in a nod to the nationalistic trope central to Kaspé's final paragraph, Pani celebrates that 'this centre because of its location and because of the importance bestowed upon it from this project, will be worthy of Mexico City that for several centuries was the first capital of the Continent' (ibid.).[87]

There is no critical reflection in this proposition, nor self-doubt. It is an absolutely confident, embellished proposition made to figure as a solution for an ailing city, but with little or no evidence to sustain its claims. Instead, the entire proposal is based on rhetoric: the constrained organism wanting to grow, the national rhetoric of development vis-à-vis an international (competitive) community of large cities, modern 'man' and the car, and then the assertion of mass and scale (number of cars, square footage), as if mass and scale were arguments in and of themselves. There is no research evidence arguing that there is a *need* for growth, or that there is a demand for a quintupling of office space in that part of Mexico City. Instead, growth is the justification, and mass is the evidence provided for it. I should step back, however, because to say there is *no* evidence in this essay could, perhaps, be missing an important tool: the visual. As listed above, of these ten pages, just two and a half are

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87 Author's translation. Original in Spanish: 'este centro que por su ubicación y por la importancia que se le asigna en el proyecto, será digno de la ciudad de México que por varios siglos fué la primera capital del Continente.'

filled with text. The remaining three-quarters are visual material. The visual materials do not just accompany the text as visual referents of the textual. I want to suggest that they also work to translate the temporality of what is a future project, the propositional, into a legitimate present.

Perspective

The opening image is a horizontal linear representation of streets from the Zócalo to Chapultepec [Figure 4.5]. It is not an accurate representation in map-like form, as the orientation of the streets from end to end does not form a straight line. However, the diagram uses map-like renderings of the streets in outline to intimate if not a geographic straight line, then a topological one. Above the outline of the streets are graphical representations of buildings at each of the major intersections: on the far right at the Zócalo is the Metropolitan Cathedral (1571-1813), moving then along the imagined boulevard from right to left we come to the Palacio de Bellas Artes (1904-1934)[88], the Hemiciclo a Benito Juárez (1910)[89], the Caballo de Carlos IV (1803)[90], the Monument to Christopher Columbus (1877)[91], the Monument to Cuauhtémoc (1887), the Monument to Independence (1910), and finally the Castillo de Chapultepec.[92]

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88 For a short history of the Palacio de Bellas Artes, see Patrice Olsen (2008) Artifacts of Revolution: Architecture, Society, and Politics in Mexico City, 1920-1940 (Rowman & Littlefield, Plymouth), pp. 103-106. For its contemporary production see Alberto J. Pani and Frederico E. Mariscal (1934) El Palacio de Bellas Artes (Cultura, Mexico City).

89 This monument to the nineteenth-century president Benito Juárez was inaugurated during the Centenary celebrations of independence from Spain in 1910. Its construction was ordered by then president Porfirio Diaz. For more on the centenary celebrations and their effects on Mexico City see Mauricio Tenorio Trillo (1996) '1910 Mexico City: Space and Nation in the City of the Centenario', Journal of Latin American Studies, 28(1), 75-104.

90 The sculpture of the Caballo de Carlos IV has a rich history, and while it was finished in 1803, its placement at the intersection of what is now Paseo Reforma and Avenida Juárez was its fourth location in 1852. In 1979 it was moved to its present day location at La Plaza Manuel Tolsá. For an excellent overview of the history of the sculpture and its five locations, see Manuel Aguirre Botello (2004) "'El Caballito' Historia y Sitios Que Ocupó. La estatua ecuestre de Carlos IV' accessible online here: http://www.mexicomaxico.org/Caballito/caballito.htm.

91 Originally intended as a gift from King Leopold I of Belgium as a gift to his son in law Maximiliano I, the Emperor of Mexico, but fell through when the French rule of Mexico subsided in 1867 and Maximiliano I was executed. It was later built under the President Sebastián Lerdo de Tejada, with money from the magnate Antonio Escandón in the original location intended by Maximiliano I. The statue comprises a romantic sculpture of Christopher Columbus with a statue of each of the four first missionaries to Latin America, Friar Antonio de Marchena, Friar Pedro de Gante, Friar Diego de Ordaz and Friar Bartolomé de las Casas on each of the four sides of the pedestal.

92 For a history of Mexican national identity and the Paseo Reforma see Carlos Martínez Assad (2005) *La Patria en el Paseo de la Reforma* (México: FCE – UNAM).

Figure 4.5: Transect diagram of Avenida Reforma. Source: *Arquitectura/México*, 20, (1946), p.259.

The transect of the route from the Zócalo to Chapultepec, steeped in the historic power of Europe, given it was laid out during French occupation by Maximiliano I, is also, somehow an allegorised transect of the Valley of Mexico, and similar to the famous Valley Section by the sociologist and planner Patrick Geddes from 1909. Geddes' transect aimed to demonstrate the relationship between geographies along a valley floor from the lake through fields, to forests, and then hills or mountains, and how being located in one or the other geography would create the universe of possible tasks – such that people situated near a lake might become fishers, while those higher up the valley might be shepherds, or if in the forests, a hunter (Grant 2012, p.11).[93] Applying this to the city, in 1999 Andrew Duany created an urban to rural transect and argued that different planning methods and rules needed to heed to the varied urban geographies along its line from dense urban centre to nature (ibid.).

The reduction of the city to a particular transect does two pieces of work, provides two pieces of evidence. First, in the selection of this specific route, the diagram naturalises it, creates it as fact. The visual obfuscates its own coming into being and presents itself as representative of what exists, a truth image, rather than representative of choices and decisions by the visual author. Second, the transect places the traditional centre of Mexico City at the far right of the transect – it starts from there, and ends at the park of Chapultepec – therefore the visual centre of the transect is precisely the new centre Mario Pani is arguing for – the intersection of Reforma-Insurgentes. In a similar way to Geddes and Duany, Pani articulates different functions for each stop along the route through a graphic representation of building form from religious (the Metropolitan Cathedral), to the arts (the *Palacio de Bellas Artes*), to historical monuments (Carlos IV, Columbus and the Monument to Independence), to the business centre. However Pani also moves further, suggesting that these spaces also represent the city in time. Each outlined building or monument reminding the reader of a moment in Mexico's history. Around the Monument to Cuauhtémoc, Pani has graphically inserted dense urban buildings, offices, tower blocks, such that visually at the centre of the transect, and in terms of the number

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93 For more on Patrick Geddes and the development of the valley transect, see: Goist (1974); Meller (1994); Osborne and Rose (2004); Tyrwhitt (1967) and Welter and Whyte (2003). For the urban to rural transect, see the Center for Applied Transect Studies, http://www.transect.org/.

and density of buildings represented, this becomes imaged as *the* centre. Similarly, in creating an image of a decidedly modern centre through the image of the skyscraper, this centre becomes a representation of the modern, of the future. The visual sets up Pani's proposition, then, as less a necessary act of clandestine persuasion and more a visual uncovering of what already *is* the centre: it just happens not to be built up yet.

Among the most interesting visuals in this short proposition is a before and after set of two aerial photographs [Figure 4.6]. I consider these two photographs precisely because Pani edits the second to demonstrate his plan in action. It is a hybrid visual of an aerial photograph of Reforma cropped and positioned such that the intersection of Reforma-Insurgentes lies at its centre. Reforma runs from the top to bottom of the page, artificially altering the cardinal position of North at the top of the page so that it becomes a more powerful image visually. The organic, tangled mess of ten streets intersecting at diagonals positions disorder against the ordered strong visual line of Reforma. In contrast, the after image has Pani's proposition overlaid, a large, majestic classical geometry of radial circles couched within a broad square. Whereas the photograph as is makes it near impossible to actually identify the centre of this multiple intersection – even the monument to Cuauhtémoc at the centre of a partial roundabout cannot hold our visual attention – the altered photograph quite literally creates a visual order that centralises it among the palimpsestual city that surrounds it. Like the transect, this before and after photographic rendering shows less the realm of possible imagination, what could be, and instead, through its use of photographic 'reality' as opposed to a line drawing diagram, demonstrates the propositional as already almost there. The future possible of this new centre for Mexico City exists in situ to be carved out, made visible, like the body of David trapped in the slab of marble before Michelangelo's hands.

The perspective from above, skewed in the sense that every point below is altered as if it was being viewed from directly above, rather than at the angled perspective of the eye, flattens space such that its geometry becomes symmetrical. Circles, squares, and lines, become oblong, curved and angled when tracked through the experiential eye. But when fixed by a photograph, or diagrammed in two-dimensions on paper, it
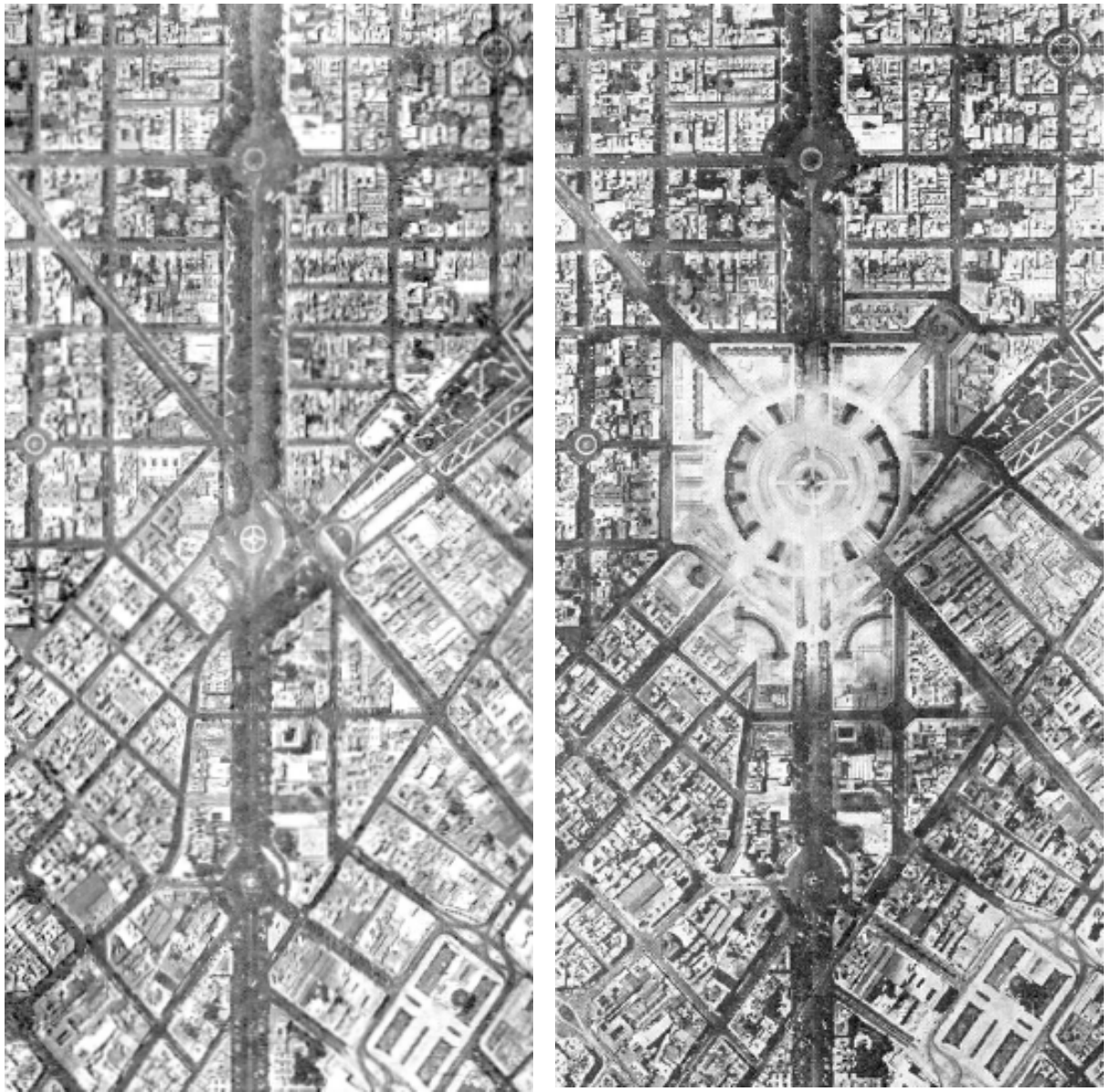
Figure 4.6: Aerial photographs of Avenida Reforma. Source: *Arquitectura/México*, 20, (1946), pp.260–261.

becomes possible to fix in form a relationality impossible to experience, but seductive to the view. Perkins and Dodge argue that '[a]rchitectural drawing has comprised three different traditions: the orthographic, the axonometric and the perspective' (2010, 28). Of these three, the perspective architectural drawing is used to a wide extent in this article. The pairing of top-down map-like diagrammatic interpretations of the space, here imaginatively and persuasively edited on top of aerial photography, with a ground level perspective emotively hand drawn has the effect of allowing the reader to 'know' the space and 'feel' the space. Speaking to these two levels of perspective, De Certeau reminds us of their connection to temporality '[p]erspective vision and prospective vision constitute the twofold projection of an opaque past and an uncertain future onto a surface that can be dealt with' (Certeau 1984, pp.93–94). De Certeau offers the distinction between knowing the space in terms of imprinting the, effectively unknowable, flattened geometric map of the site, and feeling the space in terms of creating near cinematic perspectives, themselves slightly outside the realm of the perspective of the eye.

In the article, four architectural perspectives are shown. The first shows a view from the inside of the central plaza, the Monument to Cuauhtémoc visible, a circle of office towers guiding the view down Reforma towards, the caption tells us, Chapultepec [Figure 4.7]. The second is a similar view but in reverse. This time the perspective is from inside the central plaza, Cuauhtémoc in the centre with a view towards, the caption says, Columbus – to the north-east along Reforma [Figure 4.8]. The third perspective positions the viewer under a concrete marquee or canopy extending from the curvelinear set of buildings, above the ground floor shop fronts [Figure 4.9]. Whereas the previous two perspectives privileged the broad landscape view, here we get details of cars parked, people walking, people in the square, as well as the sense of the streetscape produced by these sets of tall buildings. The caption also alerts us that this is the view not just under the canopy, but 'under the canopy of the luxury shops' (Pani 1946, p.265).[94] The final perspective is from outside the group of buildings, from the boulevard of trees running down the centre of Reforma looking at the newly constructed intersection ahead [Figure 4.10]. These perspectives

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94 Author's translation. Original in Spanish: 'Vista bajo la marquesina de los comercios de lujo.'
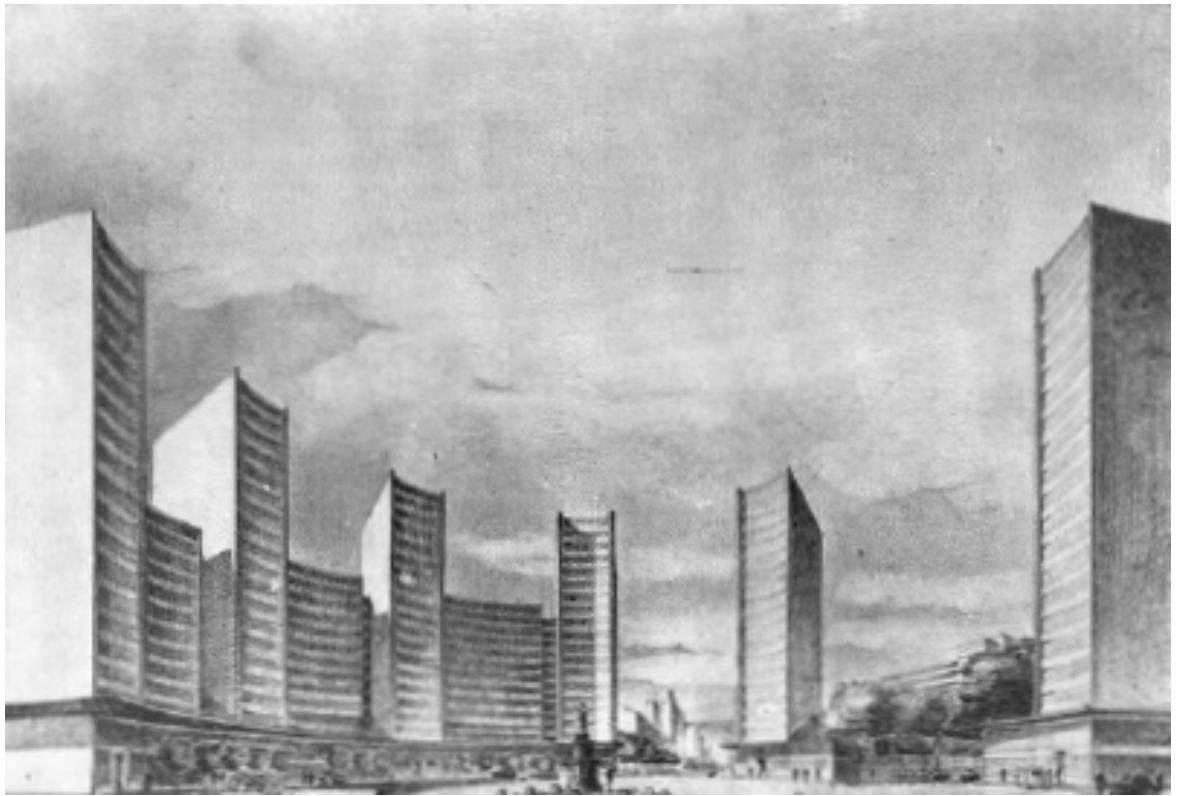
Figure 4.7: Perspective of Mario Pani's proposed Reforma/Insurgentes from the inside towards Chapultepec Park. Source: *Arquitectura/México*, 20, (1946), pp.264.
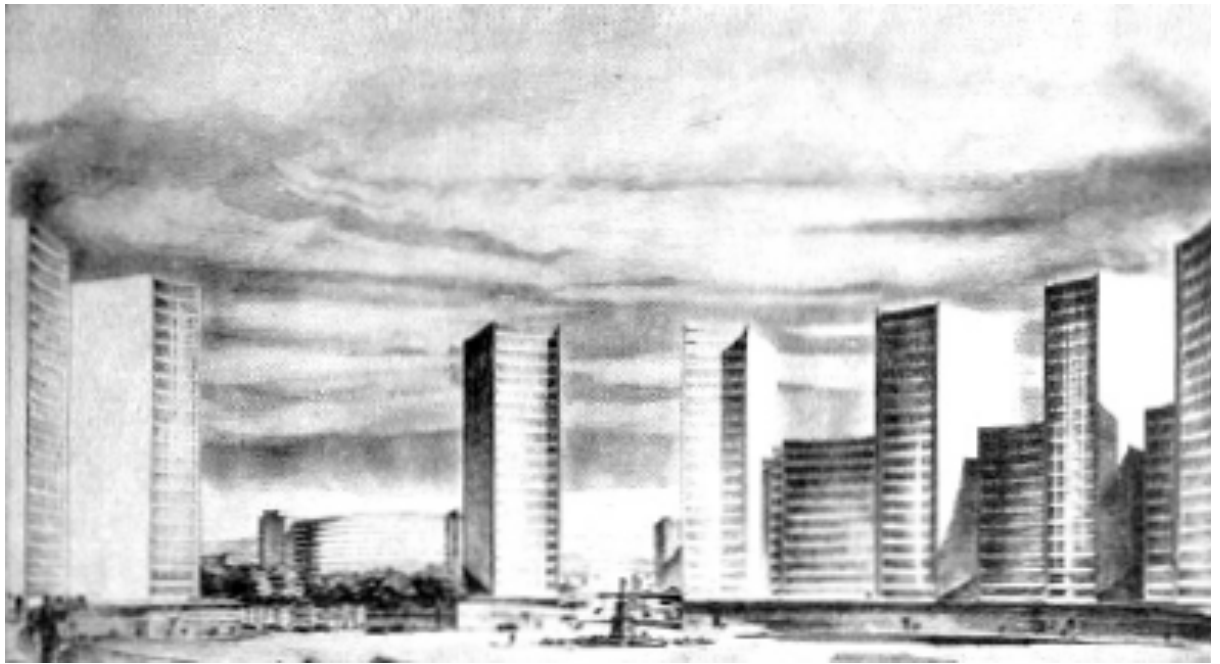
Figure 4.8: Perspective of Mario Pani's proposed Reforma/Insurgentes from the inside towards statue of Columbus. Source*: Arquitectura/México*, 20, (1946), pp.264.
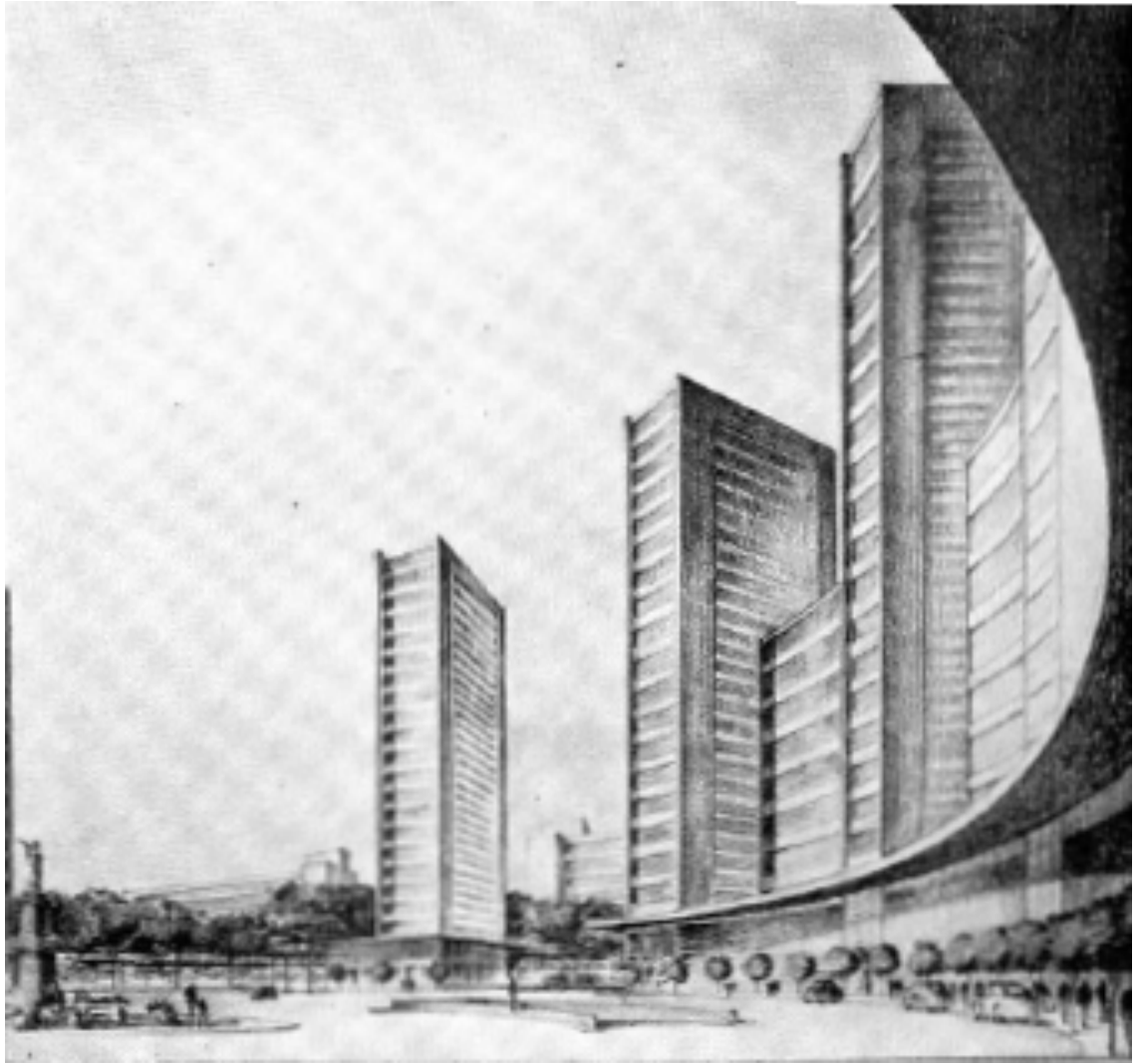
Figure 4.9: Perspective of Mario Pani's proposed Reforma/Insurgentes from the inside, up towards the buildings. Source: *Arquitectura/México*, 20, (1946), pp.265.

Figure 4.10: Perspective of Mario Pani's proposed Reforma/Insurgentes from the outside. Source: *Arquitectura/México*, 20, (1946), pp.265.

give a sense of what the new central plaza, surrounded by major traffic arteries, and encased with twelve seventy-metre tall towers, alternated with shorter forty-five-metre ones looks like. For the reader at the time, the roundabout just northeast of Reforma-Insurgentes with the Monument to Christopher Columbus had several large buildings surrounding it. The latest one, the Torre Contigo, was built by architect Juan Sordo Madaleno and topped out in 1946 – the same year as Pani's proposal – at twenty-four storeys, and ninety-metres tall (or one hundred and twenty-five metres with the antenna). It was to be the tallest building built that year in the entire world.

Pani's proposal for twenty-four buildings to surround his 'new' centre for Mexico City could be seen as a competitive drive against the individualist architecture springing up throughout the city, the kind emblemised by the Torre Contigo and later Torre Latinoamericana by Augusto H. Alvarez (1956), but also as an assertion of rational planning, aggregation and centralisation of urban resources for, as they argued, greater economic good. Both Kaspé and Pani in the textual arguments figure this draft project as for the good of Mexico City, the creation of a physical and social good, a new psychological and material centre for the city, and growth. Far from a monolithic singularly authored Pani project, the architect notes in an accompanying caption for the four perspectives that '[i]t is evident that this draft only presents the mass and height of these buildings. The definite projects would be made up of … the variety that corresponds to each of the personalities of the project architects' (Pani 1946, p.265).[95] Within his own masterplan for this new centre, Pani already envisages multiple architects working on individual building plans, within the remit and conditions of the overarching scheme. While confident and authoritative, there is room within this proposition, according to Pani, for the talents and individuality of architects – working towards a common purpose identified by the plan – to converge for the good of the city.

Even without a deep reading of this proposal, without unpacking its modernity in the nationalist, biological tropes aligned with progress and growth of the city, one

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95 Author's translation. Original in Spanish: 'Es evidente qu el anteproyecto no presenta sino la masa y la altura de estos edificios. Los proyectos definitivos comprenderán … la variedad que corresponda aún a la personalidad de los arquitectos proyectistas.'

consistent element emerges: that this is about value, and value is about money and power. It is a provocative move to propose a new centre that deviates from traditional centres of power, like the Presidential residence or Castillo in Chapultec, or the heart of the city, the Zócalo steeped with Mesoamerican importance, the Metropolitan Church and the National Palace, the seat of the Federal Executive. But while possibly positioning itself as avant-garde in the movement away from traditional hierarchies of power and the spaces that represent them, the draft proposal cements a hierarchy in another form: capital. While the proposal does have residential units in it, the number of people living in the area after the proposal is finished will just more than double, from 2,859 to 7,000 people. But the number of commercial space will quintuple, the office space will increase by over fifty times, and the storefront space on the ground floor increases by a factor of seven. All of this while prioritising the time of capital figured in the speed of the car, mobility and access. While the sites along the imaginary transect of Mexico City are primarily monuments from the nineteenth century, Pani's 'new' centre is an unabashed monument to the twentieth, and to the faith that planning for capital and its growth will assure capital and its growth – a circular argument, as geometrically sound as the plan for this site.

The visual rhetoric among the fourteen visual elements does important work in creating the sense of this plan as an objective rendering of the possible city. The allusion to Michelangelo's sculpture above may be slightly romantic, but was chosen specifically because of the way it allows us to think of ways in which the city is presented to us as 'already there'. That is, that the visual production of the future city creates how we think about the present. The city in front of us becomes underachieving because we are shown the possible future perfect of a site. While the title of the article belies that this is a propositional plan, as does the position of it as the first article in the issue, introduced by the Editor in Chief, and a project of the Director of the journal Mario Pani, as does the tone of both Kaspé and Pani in their texts, Perkins and Dodge remind us of visual materials that 'their power lies in this apparently neutral depiction of *things*' (2010, p.26). That is, the visual has the capacity to orient the imagined spaces we live in to feel defective with regards the possible

future spaces depicted as 'things' in and of themselves, 'things' that could be, or in fact are already, if only waiting to be uncovered, built, brought to life. As Perkins and Dodge continue, '[p]lanning maps of the city become statements of fact, instead of authored, positioned opinions about potential futures, produced by a governing civic class' (ibid.). This short ten page article in *Arquitectura/México* demonstrates how left to the textual element, this proposal sounds like an essay of persuasion: little evidence, broad stroke metaphors and a reliance on the play of a fragile national consciousness, particularly in relation to those nations in Europe and the United States. However, the addition of visual materials creates the implication of objectivity. The visual mask as an 'apparently neutral depiction of *things*' (ibid.) in Perkins and Dodge's words, works to realise, in some way, the possible project as legitimate, to create it as a thing in the world, existing in the realm of the possible, waiting to be carved out of space.

Realism

Some twenty years later, in 1969, Mario Pani Arquitectos y Asociados published a presentation document called *'Anteproyecto para la Plaza de los Insurgentes'* (Proposal for the Plaza of the Insurgents). Located just 800 metres to the south-west of the Reforma-Insurgentes intersection, the *Plaza de los Insurgentes* was a major intersection between two major roads, Insurgentes and Avenida Chapultepec, and five other streets [Figure 4.11]. Existing on site was a lowered plaza with entrance to the Insurgentes metro stop, and a raised circular road acting as a kind of roundabout. A through tunnel was constructed under the plaza for those travelling on Avenida Chapultepec. While the site has many similarities to the site of the 'new' centre for Mexico discussed above, the existing roundabout intersection at the *Plaza de los Insurgentes* already had a strong infrastructural layout for the car. Pani's first central idea about modern living, the need for raised roads to allow the fast and continuous circulation of the car was already achieved here, in part through the raised road of Insurgentes and the tunnel for Chapultepec. As such, the 1969 proposal does not purport to change the transport infrastructure. Nor does it mark itself within a narrative of its place within the city at large, or indeed, as did Kaspé in the introduction of the 1946 article in

Figure 4.11: Photograph of the Plaza de los Insurgentes, Mexico City, 1969. Source: '*Anteproyecto para la Plaza de los Insurgentes',* Uncatalogued. Courtesy of the Archivo Mario Pani, Lino Picaseño Library, Faculty of Architecture, UNAM, Mexico City.

Arquitectura/México, within a world of cities. Rather, this proposal presents itself through a predominantly visual narrative. [96]

In the previous section, I argued that the 1946 proposal for Reforma-Insurgentes by Pani should be interpreted as one of a series of constructions of a future possible for Mexico City, specifically in terms of possible value creation. Pani and Kaspé, in their textual remarks, position the project within a larger frame of growth, progress, and as a moral good for the metaphorical body of the city and of the nation. Where I interpret the visual rhetoric as a near colonisation of the realm of the possible by presenting seemingly factual 'things', as the method of the visual and specifically the diagrammatic and map form, even though they remain 'as yet' things, Pani argues that he is only upgrading a space in the city so that is it 'worthy of … the first capital of the continent' (Pani 1946, p.267).

The 1969 proposal, in contrast, is predominantly visual, and therefore produces itself as a seemingly neutral and objective depiction of what should be on the site. The draft proposal is seventeen pages long consisting of six black and white photographs, nine architectural drawings, three map-like diagrams of the proposed layout, and one section of the architectural intervention. Put simply, Pani proposed two curving twenty-something-storey office buildings floating on pilotis over the raised roundabout, with commercial shops taking over the space below the raised freeway. The openings between the two buildings at either end would line up with the opening to Avenida Chapultepec, such that the buildings frame that view [Figure 4.12].

The first three double-page spreads each have on the upper left of the left hand page a small black and white photograph of a view of the plaza [Figures 4.13, 4.14 and 4.15]. On the lower right of the left hand page, a hand drawn rendering of the photograph. And on the opposite page, a full page drawing of the proposal. One of the views looks down Chapultepec Avenue, one is a view from the undercroft of the raised road in the plaza, looking up, and the third is a view from just beyond the outside of the raised roundabout. The difference in scale between the images is

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96 The only text in the proposal document is the title, and place name captions for the images.
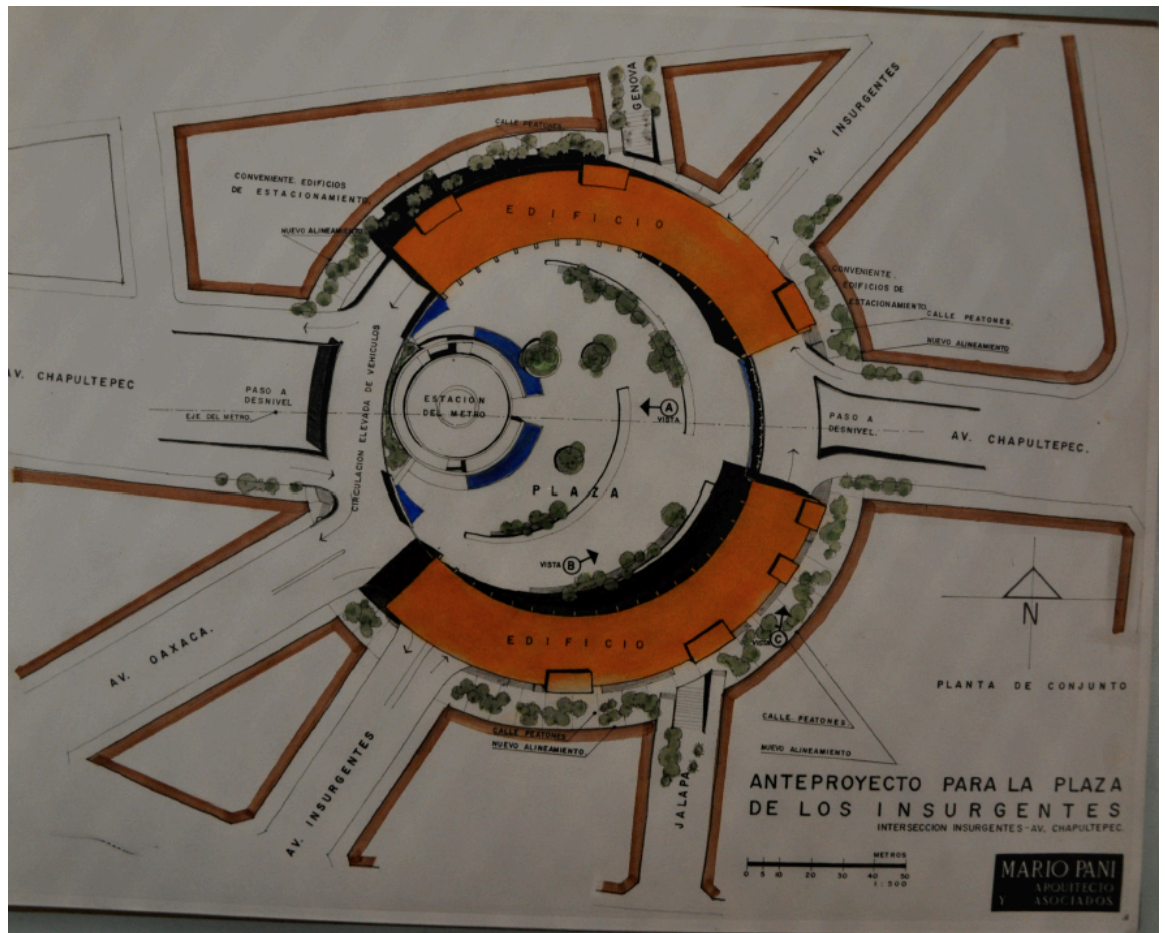
Figure 4.12: Plan of Mario Pani's proposed changes for the Plaza de los Insurgentes, Mexico City, 1969. Source: '*Anteproyecto para la Plaza de los Insurgentes',* Uncatalogued. Courtesy of the Archivo Mario Pani, Lino Picaseño Library, Faculty of Architecture, UNAM, Mexico City.
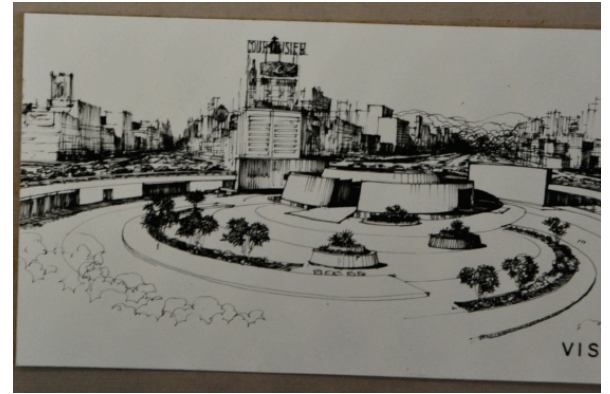
Figure 4.13: Vista A, images from Mario Pani's proposed changes for the Plaza de los Insurgentes, Mexico City, 1969. Source: '*Anteproyecto para la Plaza de los Insurgentes'*, Uncatalogued. Courtesy of the Archivo Mario Pani, Lino Picaseño Library, Faculty of Architecture, UNAM, Mexico City.
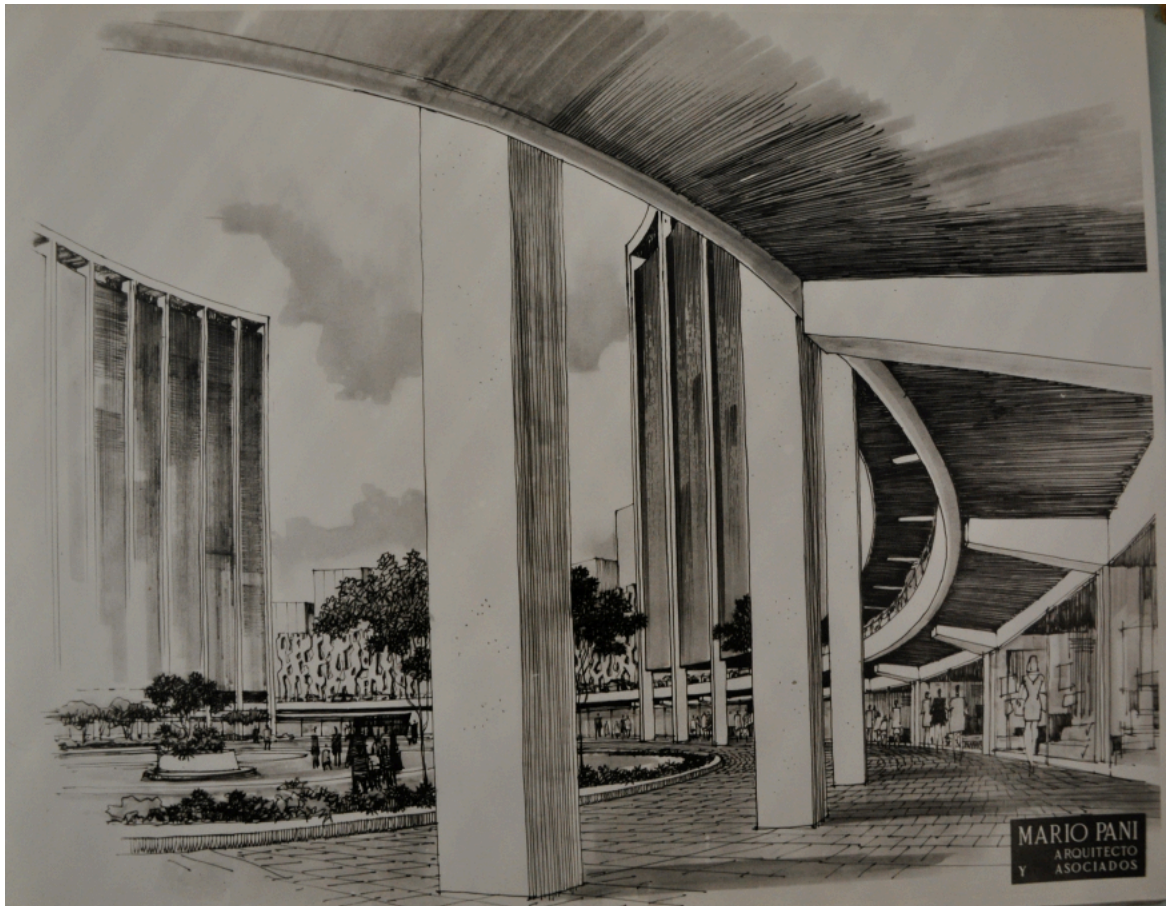
Figure 4.14: Vista B, images from Mario Pani's proposed changes for the Plaza de los Insurgentes, Mexico City, 1969. Source: '*Anteproyecto para la Plaza de los Insurgentes',* Uncatalogued. Courtesy of the Archivo Mario Pani, Lino Picaseño Library, Faculty of Architecture, UNAM, Mexico City.
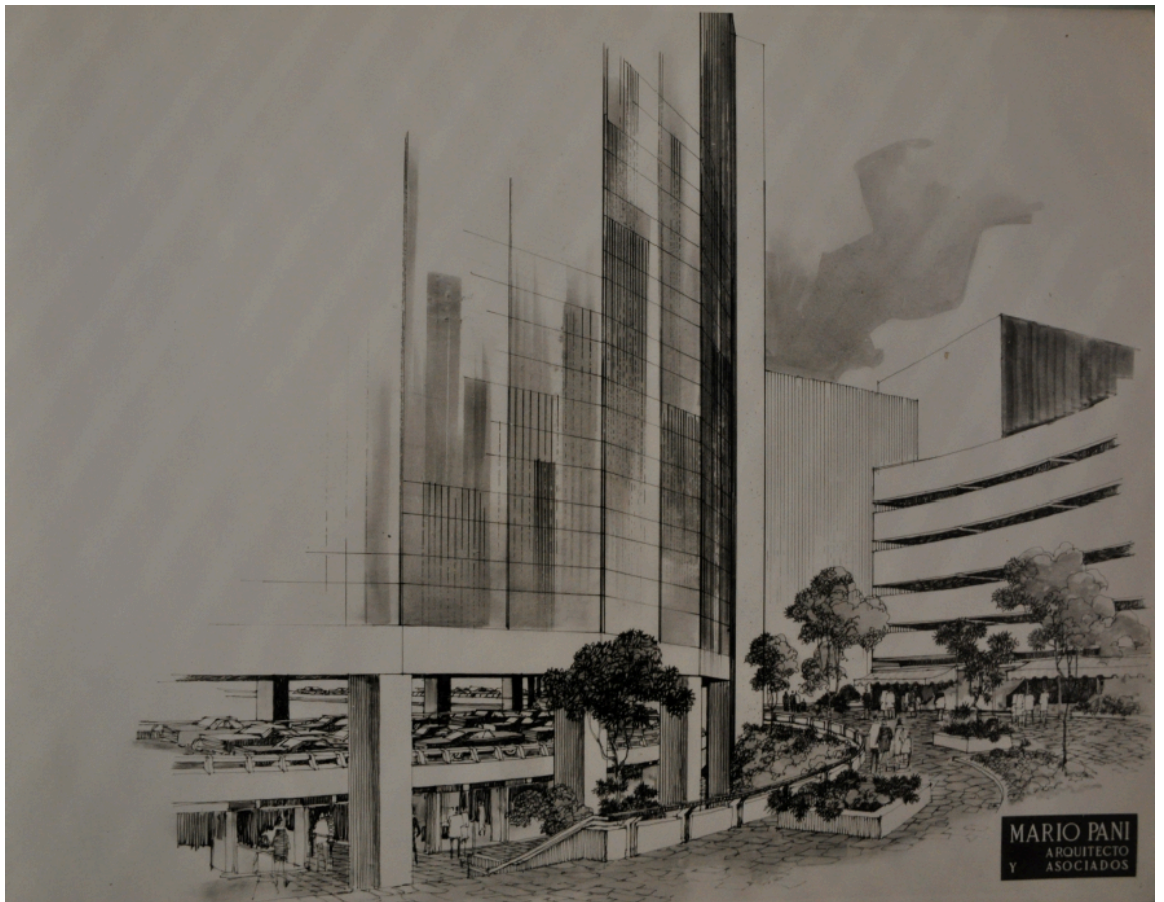
Figure 4.15: Vista C, images from Mario Pani's proposed changes for the Plaza de los Insurgentes, Mexico City, 1969. Source: '*Anteproyecto para la Plaza de los Insurgentes'*, Uncatalogued. Courtesy of the Archivo Mario Pani, Lino Picaseño Library, Faculty of Architecture, UNAM, Mexico City.

particularly effective, the photograph and its rendering on the left of the spread so small compared to the grand architectural drawing deployed on a full page. What is unique about this layout, and what I will now focus on for the remainder of this section, is the production of visual authority by creating a succession of images that moves from the present of the site to its future and aligning those temporalities with representational media that move from documentary to emotive, from the photograph to the ink drawing. Of interest here is the insertion of a third image – a line drawing that copies the photograph – as a means of translation between the mediums. That is, this act of translation allows the authority of the photograph to bleed through to the ink drawing.

The production of a visual authority by having the illustrator 'copy' a photograph to demonstrate their skill, and therefore to persuade the viewer that the third propositional image in the series is an accurate representation of the possible future, as accurate as, say, a photograph, is an important gesture. One could not create a photographic image of the future possible given this was before digital photography, digital editing programmes or computer renderings of architectural or urban interventions. And unlike the edited aerial photograph of Reforma-Insurgentes which was a diagrammatic insertion into a map-like photograph, a photo montage or collage mixing photography and ink drawings would likely not be as convincing. Therefore the solution presented was intended to prove the visual acuity of the illustrator by having them copy a photograph of the *before* image, and placing that visual proof along side the image of the site *after* the intervention. It is the visual equivalent of saying that the image you are about to see is as close to a photograph of the future as you can get. This visual transfer of the 'truth' of the documentary technology of the camera to the 'truth' of the documentary capacity of the illustrator to capture the future, is a visual rhetorical process of legitimating the architectural drawing as a 'real', rather than as a romanticised, view of what might be.[97]

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97 I use the term documentary 'truth' here in inverted commas to demonstrate the ways in which the history of photography has been strewn between the dichotomies of representative truth, documentation, and fiction. See Liz Wells (1997) *Photography: a critical introduction*, p.17.

Looking closely at one set of images, however, we begin to see slight shifts in perspective that grant the image of the future a finer eye, a more dramatic perspective. For example, the photograph of 'Vista A' [Figure 4.13] can be judged as having been taken standing within the plaza at the north-eastern edge, directed in an ever so slight south-westerly direction. The circular building in the centre of the photograph can be recognised as the entrance to the metro station. By contrast, the hand-drawn facsimile of the photograph has the point of view raised, such that the photographer would have to have been floating at a height above the raised roundabout to enable the perspective. Already, then, while a striking resemblance to the original, the drawing takes creative licence for dramatic effect. If we then look at the image of the future, the point of view has floated up even further, and the position has shifted such that it is now looking due west, straight at the entrance of the metro station, and down Avenida Chapultepec. There is another set of differences between the three – their quality of image, and the materiality of their drawing. Of course, the photograph is a photograph, and so a print on photographic paper, clear shades of grey and crisp detail. The facsimile of the photograph is a black ink line-drawing, using cross hatching for shading where necessary. The final image, however, uses ink line-drawing and charcoal watercolour to create details like the clouds, reflection on the glass curtain wall of the office towers, movement of cars and people, and the blurred edges of our natural human peripheral vision. This change in the materiality of the visual, from photographic grain, to ink, to watercolour, creates the propositional future as a different tone, as a different register. The lines are softer, the peripheral details greater, and the emotional intent stronger. It bears the resemblance of photography through association, and yet fulfils the duty of a prophesising image, imploring our imagination to take over where photography falls short. In presenting these three images together the representational 'truth' element of the photograph bleeds through to lend representational 'confidence' to the watercolour. This visual gesture smoothens the transition from documentation to proposition, allowing the future a place in the present.

Similar to the 1946 proposal for the intersection of *Reforma-Insurgentes*, the 1969 proposal for the *Plaza de los Insurgentes* was never implemented. In fact, contrary to the

1946 proposal which was published in *Arquitectura/México*, the 1969 proposal was never published, nor mentioned in the forty year run of *Arquitectura/México*.[98] While I am unable at this time to say to whom this project was positioned, for whom it was created, in the absence of a textual brief, its visual narrative suggests the opportunity to create value in the city. As mentioned earlier, the 1969 proposal confirms in some way the consistent image of Pani as an urban explorer, constantly seeking spaces in the city to mine for value, transforming centres, or floating buildings over existing infrastructure – creating, or carving out, space. The visual rhetoric visible in the tripartite of the photograph, the line drawing and the water-colour works to position the vision of the proposal as an honest one. The medium of photography continues to hold a privileged relationship to 'truth' or 'reality' (Mraz 2009, p.3), and its use alongside the architectural drawings could be seen as a brokering agent, creating relationship between the present probable and the future possible, anchoring that future vision as a more honest, or truthful depiction not of what could be, but of what is already there, its potential waiting for the decision to build. In short, the visual materials of the 1969 proposal, in a different but complementary way to the 1946 proposal, legitimate by way of presenting the future of the urban and architectural space as objective facts of vision – things beyond their author.

I would like to suggest that the visuals in both of these proposals mask the circulating impetus to create value in the city, to carve out a certain future, safe for investment by presenting the propositional future as a fait accompli. As Rose argues, '[v]isual images mobilize certain ways of seeing' (Rose 2012, p.14). In so doing, they also mobilise the seeing of the urban *as is* in the present. In analysing the visuals of the 1946 proposal I sought to demonstrate not just the way in which a future urban intervention was proposed, but how the urban was produced through the visual the intersection of *Reforma-Insurgentes* as *the* centre of Mexico. In the 1969 proposal, I worked to illustrate how the urban present was propositional through the use of the

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[98] In searching for references about or to the 1969 Plaza de los Insurgentes project by Mario Pani, I have, to date, found none. Alternatively, the 1946 *Crucero Reforma* project is referenced in his most cited biographies including by Graciela de Garay (2000) *Mario Pani: Vida y Obra*, pp.54–56; Manul Llarosa (1985) *Mario Pani: arquitecto de su época*, pp.75–79; and in a chapter by Ernesto Alba Martínez (2008) 'Mario Pani: Utopista o visionario. Hipótesis para una relectura' in ed. Louise Noelle *Mario Pani*, pp. 225–228.

technology of photography as a recourse to showing the 'truth' of a place, displacing the ideology of documentation long associated with photography onto the production of the future (hand-drawn) possible, and therefore reifying the photograph, by comparison, as an object, an urban fact. Both of these early studies on transport interchanges demonstrate the double propositional of urban planning at work, and how it can be masked by visual materials, such that the urban appears, is made visible, and therefore articulable as a 'thing' in the present, to be worked on.

In the following section I turn to four urban studies, the earliest of which emerges from an urbanism studio Pani set up in 1945. These studies consider the 'urban problem of Mexico, and focus on housing, moving from a presentation at a Congress meeting in Havana in 1950, to the construction of the largest urban housing project in Mexico in 1964.

The urban object

In preparation for the VII Panamerican Congress of Architects in Havana from 10-16 April, 1950, the *Taller de Urbanismo* centred on the development of an idea that would form the core of an urban approach to housing the urban poor in Mexico City, and used to justify the approach and logic of Nonoalco-Tlatelolco. On 6 March 1950, then president of the Society of Mexican Architects and of the Colegio Nacional de Arquitectos de México Guillermo Zárraga wrote to President Miguel Alemán informing him of the upcoming congress, and given that several high ranking diplomats and governmental representatives from across the Americas would be in attendance, he requested to be an official representative of the Mexican state. Zárraga also announced that the VIII Congress was elected to take place in Mexico City in 1952.[99] On the 27 March 1950, Zárraga was officially granted permission to represent

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[99] Box 433/622, Folio Presidente Miguel Alemán Valdes, Archivo General de la Nación. The Mexican edition of the Panamerican Congress of Architects in 1952 centred around previews of the newly constructed University City, and provoked the comment from the US-based architect Richard Neutra that 'The epoch of the prima donna is, perhaps forever, gone. If architects want to accomplish the mission they have claimed in our time they should do as the Mexican architects: work in teams and understand that a common mission can only be realized collectively' (Neutra qtd. in Flaherty 2012, p.258).

Mexico at the Congress.[100] The Mexican delegation included Guillermo Zárraga, José Luis Cuevas, Mario Pani, Carlos Contreras, Raúl Cacho, Héctor Mestre, and Alonso Mariscal.[101]

The title of their presentation in Havana gives a good description of its intentions: *Experimentos concretos de dispersión organizada y de concentración vertical para el mejoramiento de la habitación de la clase trabajadora en la capital de la República Mexicana* (Concrete experiments of organised dispersion and vertical concentration for the improvement of the housing of the working class in the capital of the Mexican Republic). Pani and Cuevas's study marks a distinct shift from the decade earlier of Meyer. Theirs turns to a theory connecting working class housing with the regeneration of what they termed the 'central hovel areas'. In short, the argument presented in Havana was as follows: as people move into new housing units, they vacate their older homes, which are then occupied by people from even lower classes, who vacate their homes. This housing ladder continues until the lowest common denominator is vacated, allowing 'the authorities to liberally dispose of these slums, once evicted, transforming them, for example, into magnificent fields for sports' (Cuevas 1950, p.21). On 15 April 1950, the office of the President received a letter of praise from Benito Coquet, the ambassador of Mexico to Cuba, about the Mexican participation in the congress, noting the extraordinary press coverage in Havana, with one paper commenting on the relationship between modern architecture, and the revolutionary movement in Mexico.[102]

The visual materials that I analyse in the two sections below span from the presentation at the VII Panamerican Congress of Architects in Havana, as published

[100] It is interesting to note that on 16 March 1950, nine days before granting Zárraga permission to represent Mexico at the congress, Rogerio de la Selva, the President's consul, received a letter from Mario Pani, in his capacity as *El Vocal Pro-Cultura* at the Society of Mexican Architects, confirming the status of Guillermo Zárraga as both president of the Society of Mexican Architects and of the Colegio Nacional de Arquitectos de México. Both letters from Box 433/622, Folio Presidente Miguel Alemán Valdes, Archivo General de la Nación.

[101] Carlos Contreras is widely heralded as the most important urban planner in post-revolutionary Mexico, responsible for the 1933 'Plano Regulador del Distrito Federal' (Contreras 2003).

[102] Box 433/622, Folio Presidente Miguel Alemán Valdes, Archivo General de la Nación.

in *Arquitectura/México* (Cuevas 1950), original presentation boards based on the study for the Congress from the Archivo Pani in the Faculty of Architecture at the National Autonomous University of Mexico (UNAM) [Figure 4.16],[103] materials on Nonoalco-Tlaltelolco published in *Arquitectura/México* (Pani 1960), and archival materials on *Programa del C. Presidente Lic. Adolfo López Mateos, de regeneración urbana y vivienda para trabajadores en la Ciudad de México* (1963), also from the Archivo Pani [Figure 4.17]. In the first section, I examine the visual in terms of how it allows the translation of scale from the whole (city) to the part (apartment). Scale as a geographical and urban concept has a long history as does the relationship of the whole to the part. Recently, Latour (2012) suggested that the whole should be considered less than its parts, and explores the implications this could have for theorising the aggregate in social and physical relations. In some ways, the 'operational concept' (1984, p.94), to use De Certeau's words, worked to create a whole (Mexico City in the 1950s and 1960s) that privileged a new understanding of the parts. That is to say, in working to confront the urban problem of Mexico City as a whole, they first needed to legitimise the scale of the intervention – one which worked between the apartment block and the neighbourhood unit. In what follows, I look at some of the visual representation of Mexico City from the part to the whole, to try and uncover ways in which the visual itself contributes to the legitimacy of its scalar concept.

In 1961, Mario Pani's Urban Studio published a diagram showing the city of Mexico from whole to part as it *is*, and as it *should be* [Figure 4.18]. On the right, Pani's Studio interprets Mexico City as it is, moving from the scale of the metropolis, to the city, to the quarter, to the sector, to *barrio*, the block, and to the house. On the left, they propose a new order that starts from the urban community, to the neighbourhood unit, to the super block, the group, and then the house. Arrows draw us down from the large

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[103] The study from the archives is multi-authored by the architects Mario Pani, José Luis Cuevas, Dominguez García Ramos, H. Martinez de Hoyos and the engineer Victor Vila, the publication is twenty-seven pages long and primarily visual. Some of the images were subsequently published in *Arquitectura/México*. See, for example, the following published in Arquitectura/México: Mauricio Gomez Mayorga (1949a) 'El Problema de la Habitación en México: Realidad de su Solución'; José Luis Cuevas (1950) 'Raiz, Contenido y Alcance de una Ponencia'; Domingo García Ramos (1959) 'Tesis sustentadas en los trabajos del Taller de Urbanismo del Arq. Pani.
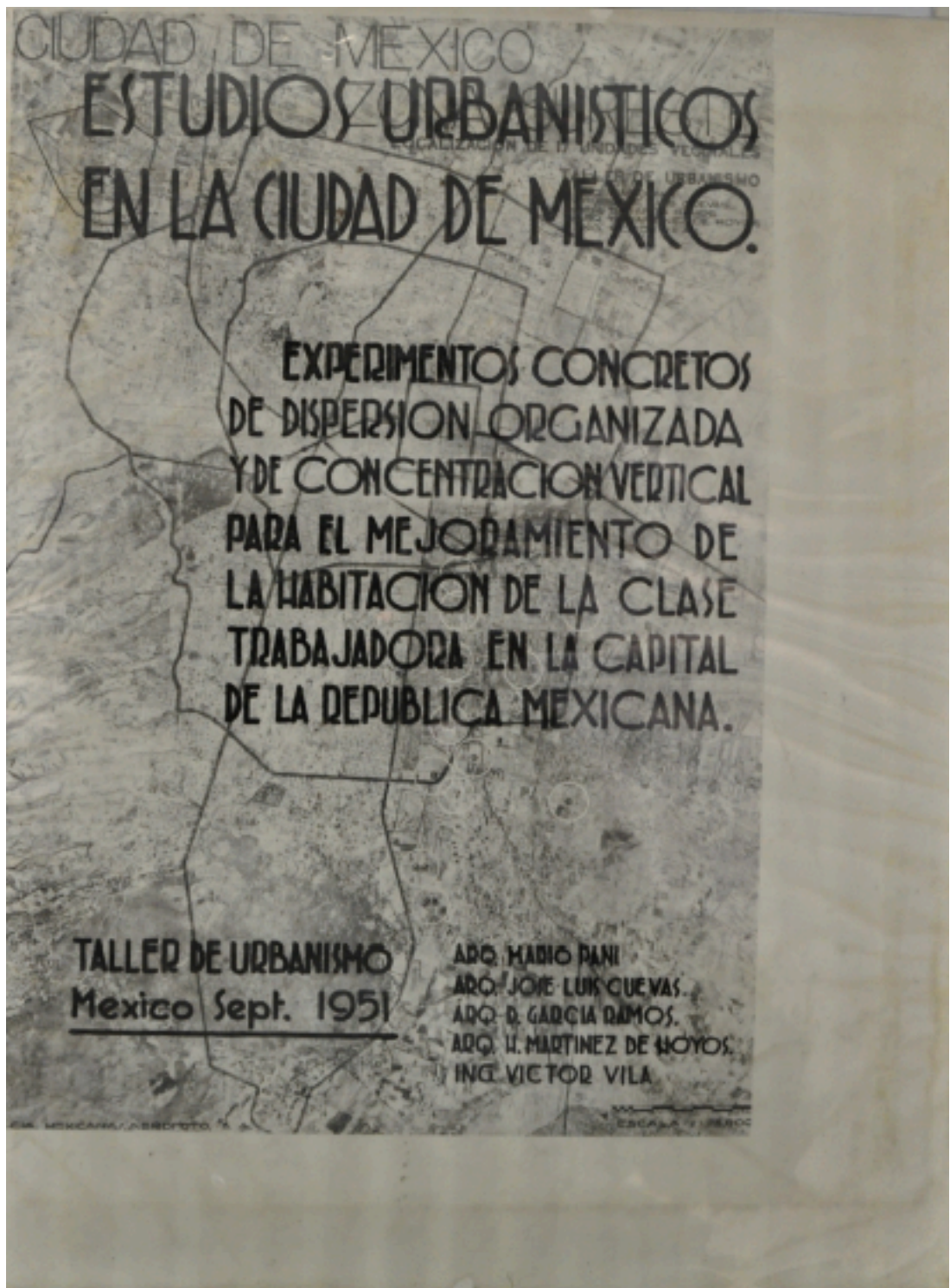
Figure 4.16: Cover page of document from *Taller de Urbanismo*, mounted on card. Source: *Estudios Urbanisticos en la Ciudad de México* (1951), Uncatalogued. Courtesy of the Archivo Mario Pani, Lino Picaseño Library, Faculty of Architecture, UNAM, Mexico City.

Figure 4.17: Cover page of *Programa del C. Presidente Lic. Adolfo López Mateos, de regeneración urbana y vivienda para trabajadores en la Ciudad de México* (1963), mounted on card. Source: Uncatalogued. Courtesy of the Archivo Mario Pani, Lino Picaseño Library, Faculty of Architecture, UNAM, Mexico City.

Figure 4.18: Diagram of the changes in scale from the 'whole' to the 'part', from Mexico City, to the apartment unit. Source: *Arquitectura/México*, 71, (1960), pp.129.
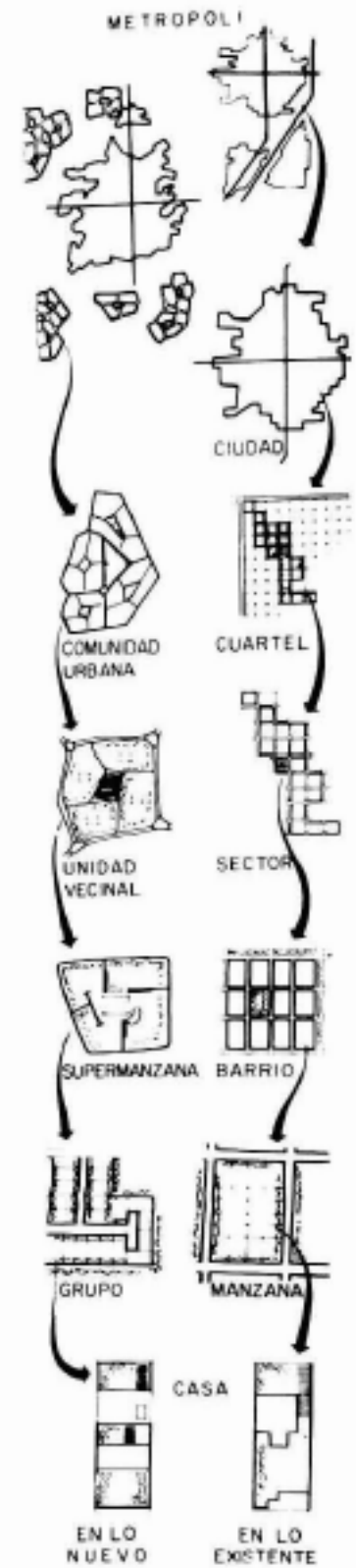
scale of the urban to the small scale of the home. By identifying scales of relationship between parts of the city and their aggregates, this diagram creates the justification for intervening in them. By constructing the city from house to group to superblock to neighbourhood unit, this last one becomes a legible and legitimate scale of intervention. The Nonoalco-Tlatelolco project was defined at precisely this level.

The work presented at the Congress in Havana gives evidence of how visualisations of these scales can create links that do the work of assembling the parts into the whole. The research studio was using the terminology of the 'neighbourhood unit' or *unidad vecinal* as the organising principle for the city. That is, that the neighbourhood should be a unique and self-sustaining part of the city as a whole, and therefore needs to consider in its planning more than just housing. The neighbourhood unit should contain other public, commercial and social services – a micro-city within the city.[104] The first thing one notices in a cursory overview of the document is that the visual allows it to jump scales very quickly. The visual allows mental leaps of scale whose connection is not at all clear by way of being able to contain the whole, the map of Mexico City, on one page for example, and a part of that whole, a neighbourhood unit, on another. It moves, like many of these reports, from broad statistical information and mapping of the entire city of Mexico, to smaller models of a neighbourhood unit, to the individual house, complete with architectural drawings of interior rooms including details like house plants, and a man cross-legged reading a book [Figure 4.19]. To the contemporary reader used to Google Earth flyovers, popular images of satellite photography zooming in to smaller and smaller parts, this may seem of second nature. However, the implication of the ability of the visual to produce such convincing scalar representations *produces* relationship between the various scales, such that things that may or may not be related, relate. A living room and a map of Mexico City, by way of their being within the logic of zooming-in

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[104] For a history of the concept including the argument that the 'neighbourhood unit' has its genesis not with an influential paper written by the sociologist from the United States Clarence Perry ([1929] 1998), but rather in earlier professional debates in Chicago between 1898-1916, see Donald Leslie Johnson (2002) 'Origin of the Neighbourhood Unit'. For more on the neighbourhood unit in practice, see Lewis Mumford (1954) 'The Neighbourhood and the Neighbourhood Unit'.
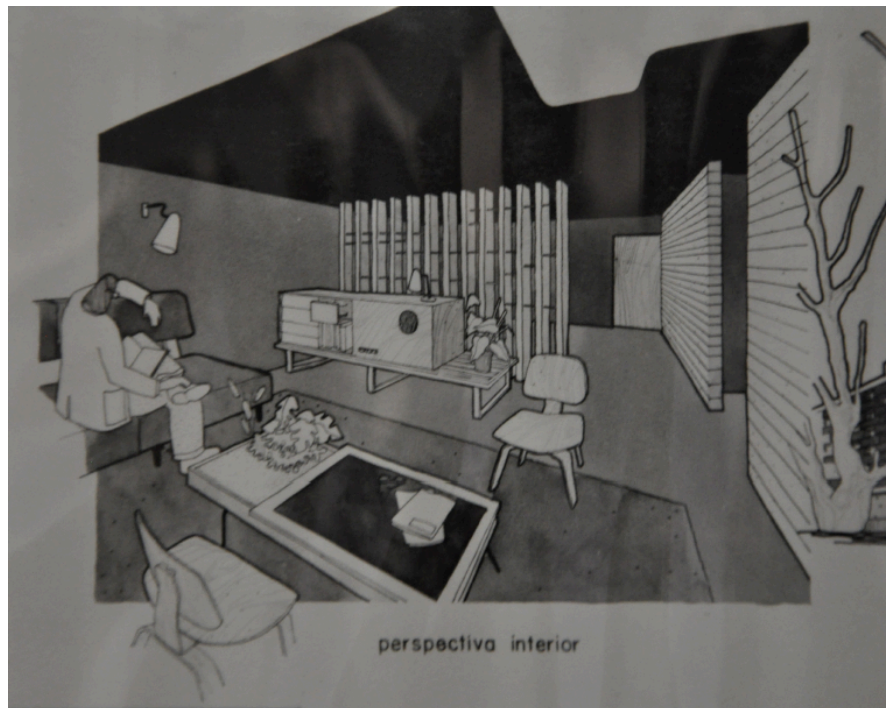
Figure 4.19: Three images show the visualisation of scale: Mexico City, the neighbourhood unit, and the home. Source: *Estudios Urbanísticos en la Ciudad de México*, Uncatalogued. Courtesy of the Archivo Mario Pani, Lino Picaseño Library, Faculty of Architecture, UNAM, Mexico City.

become, not just relational, but subject to a logic of aggregation. A change to the parts, will, therefore, have an effect on the whole.

In the studies by the Urban Studio, the living room is the house, is the unit, is the neighbourhood, is the zone of the city, *is* the city itself, not because they appear in the same publication, but because they are represented through the same visual logic. They become analogically related through their shared method of visual representation. The notion of scale in the urban, as reproduced through the visual exemplars examined is meaningful precisely at the movement between two or three or four scales, a movement that produces the city as a fluid assemblage of aggregates made visible and articulable at certain distances to and from the object of the urban itself. The city is made to appear to the viewer only at certain intelligible scales, such that the question of what does the city look like *between* scales – for example, the question what does the city look like *between* the neighbourhood unit and the housing unit, between the visual script of the flow of pages in our document? – becomes an impossibility, a non-representational movement between representable figures of the city.

It is important for Mario Pani and his colleagues at the Urban Studio that Mexico City is produced as such, as both a whole in and of itself, a thing that can be defined, has boundaries, exists, as it were, and as an assemblage of parts, each interconnected and related. Important because then one could justify thinking about the layout of a home, of a block or neighbourhood based on structural or demographic information about the city as a whole. The visual construction of a relationship of scale constructs the mobility of content. The requirements of the neighbourhood unit in terms of services, for example, could provide legitimation for potential changes to city-wide transport, sewage, water or other infrastructures. Equally, having defined an urban problem, one could consider a solution that intervenes at a part, with a desired effect scaling up to the whole.

While the move from the very large of the city to the very small of the room is not in any way an innovation in this publication, it does allow us to think about the

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arbitrariness of the zoom. First, the arbitrary levels of the scaling. What is the next appropriate scale after one has arbitrarily produced a visualisation of the scale of 'the city'? Is it the 'neighbourhood'? How big is the neighbourhood unit and why? How much peripheral context do we show, and what detail of the particular? We do not get the choice of asking this question in the document examined here as published. Rather it asserts that the five spatial scales are: the city, the cardinal zone, the neighbourhood unit, the unit (apartment or home) and the room. The confidence of this scalar flow as a visual argument masks the debate, controversy and finally decision or professional understanding that the 'neighbourhood unit' would be an agreed, legible and legitimate unit in planning the city. Equally, it presumes that the final scale is that of the single-family home – a modern invention at the time with its own contextually produced histories.[105]

In analysing the visual presentation of scale in Mexico City from the publications of the Urban Studio in preparation for the Panamerican Congress of Architects in 1950, it seems that one of the many strategies of the visual is that it allows the representation of an assemblage as an object. That is to say, it is a strategy to flatten the complexity of a myriad assemblage like a city. Turning to the presentation of the Nonoalco-Tlatelolco project a decade later, the organisational structure is equivalent. It opens with the city, shifts to the neighbourhood unit, and finally ends with details of the apartment blocks themselves [Figure 4.20]. Without the 'map' of the city, and without the scales of this entity such that work can be broken down, divided, and reassembled into a whole, the presumed objective methods of urban research could not function. A research method requires an object – and the visual method, is as much research in and of itself, as it is the technology that produces the object it is researching. Equally, the legitimacy of the specific architectural interventions of Nonoalco-Tlatelolco depend on the relationships of scale created through the visual narrative from part to whole, such that the two bedroom floorplan becomes an intelligible solution to the rapid urban growth of Mexico City.

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105 For a history of the home in Mexico, see Verna Shipway and Warren Shipway (1960) The Mexican house, old & new. For modernist ideals of the future of the home in Mexico see Hannes Meyer (1982) 'El espacio vital de familia'. For a contemporary reading of the space of the home in Mexico see Ellen J. Pader (1993) 'Spatiality and social change: domestic space use in Mexico and the United States'. For a history of modernity and changes to the single detached home in the US, see Clifford Edward Clark (1986) The American Family Home, 1800-1960, pp. 131-170.
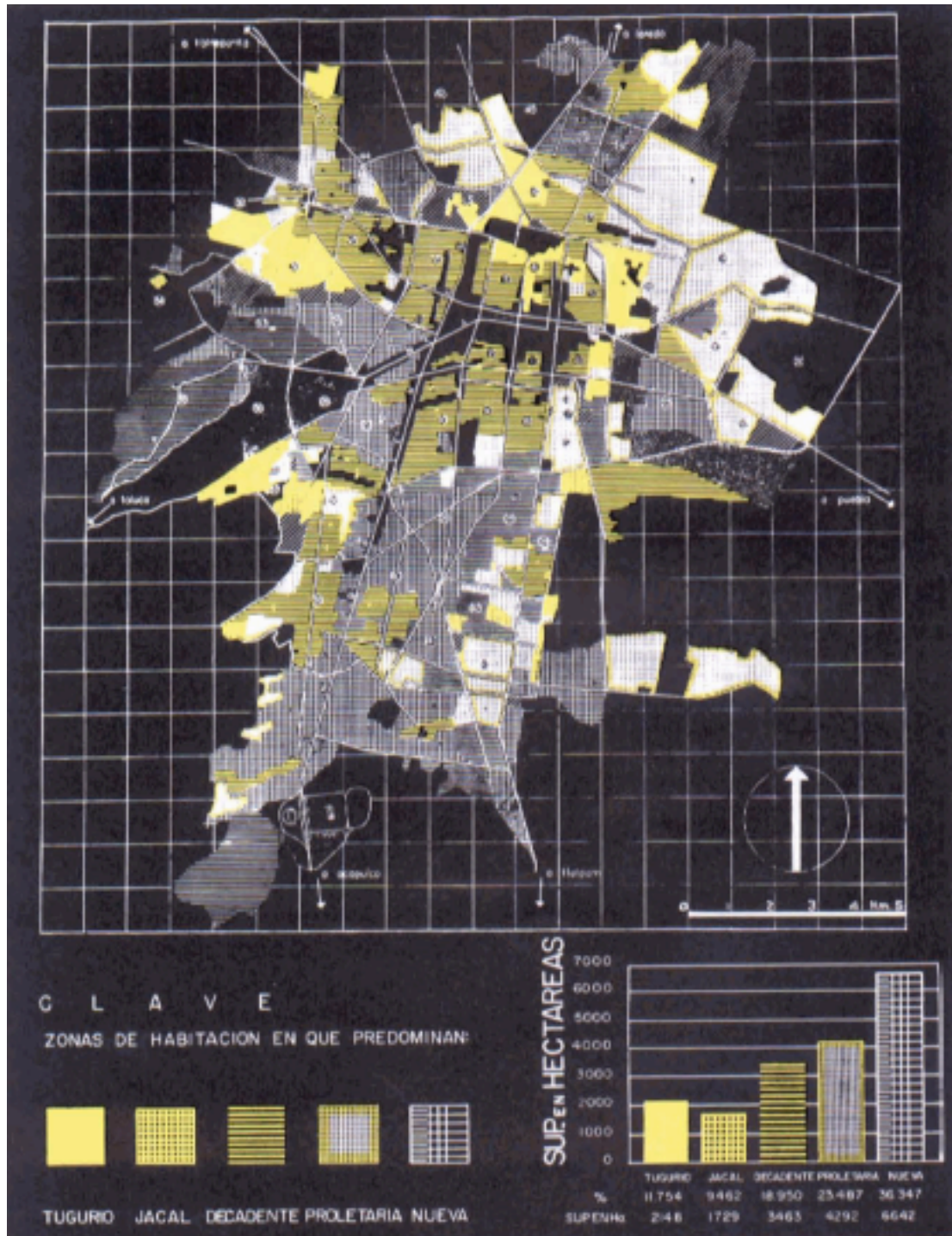
Figure 4.20: Map of the greater metropolitan region of Mexico City; diagram of Nonoalco-Tlatelolco; architectural drawing of building A. Source: *Arquitectura/México*, 72, (1960), pp.188, 213, 219. (continues on page 196)

Figure 4.20 (continued from page 195): Map of the greater metropolitan region of Mexico City; diagram of Nonoalco-Tlatelolco; architectural drawing of building A. Source: *Arquitectura/México*, 72, (1960), pp.188, 213, 219.

Causality

As discussed above, the normative argument framing much of Mario Pani's focus on housing from the CUPA (1949), to the Centro Urbano Presidente Juárez (1952), to Ciudad Satélite (1956), to Nonoalco-Tlatelolco (1964), and through proliferation of his urban research, was creating a better standard of life for the urban poor. His argument remained consistent even through an interview just a few short years before his death, that creating dense housing blocks surrounded by gardens and green space, in neighbourhood units, would start a chain reaction. People moving in would vacate their homes. Those worse off would fill them, and then their houses would be filled, and so on, until we reach the point where those people occupying fragile and precarious dwellings in what was categorised as the 'central hovel area' move on and 'up'. The slums could be demolished, and in their place more modernist tower blocks. And on, and on. This was Pani's model for urban regeneration supported through the research from his Urban Studio.

The presentation boards for the Congress in Havana open with a four-part montage visualising this chain reaction narrative. The first page is a full-page aerial photograph of the Valley of Mexico, major transportation corridors overlaid in thick black lines [Figure 4.21]. Near the centre of the image, the square form of the Zócalo marks the suggested centre of the city, the radial nature of the street layouts remind one of the Burgess maps of concentric circles emanating from the centre of Chicago (Tonkiss 2006, pp.32–40). The entire city is visibly built up, save for the southeast quadrant, where instead we see twelve circles in white outline. Atop the map, the title *Ciudad de México Zona Sureste: Localización de 12 Unidades Vecinales* captions what we see: Mexico City and the twelve white circles suggesting the location on the map of the twelve neighbourhood units this study focuses on. The page that follows is a full page hand drawn map of the exact same view – Mexico City from above, fully annotated with multiple street names, neighbourhoods, rivers, lakes, railway lines, the airport, all listed, the area of the southeast illustrated as a giant field, a non-urban quadrant of the city [Figure 4.22]. The twelve neighbourhood units are outlined here again and numbered, but not in perfect circular form, rather their approximate globular

Figure 4.21: *Ciudad de México Zona Sureste: Localización de 12 Unidades Vecinales* (Map of Mexico City showing location of 12 neighbourhood units). Source: *Estudios Urbanisticos en la Ciudad de México*, Uncatalogued. Courtesy of the Archivo Mario Pani, Lino Picaseño Library, Faculty of Architecture, UNAM, Mexico City.

Figure 4.22: Hand-drawn map of Mexico City. Source: *Estudios Urbanisticos en la Ciudad de México*, Uncatalogued. Courtesy of the Archivo Mario Pani, Lino Picaseño Library, Faculty of Architecture, UNAM, Mexico City.

formation. An arrow appears pointing to the Zócalo – reference again to the centre of the city. The third page in the montage is an abstracted map of Mexico City, the extent of its urbanised form line-drawn and cross hatched, such that the non-urban areas of the Valley of Mexico appear empty, represented by dots [Figure 4.23].[106] We can divine this to be Mexico City because of the adherence to the shape, adapted from the aerial photograph, to a hand-drawn facsimile of the map, to this abstracted shape. The title of the image also relates 'Ciudad de Mexico'. There are now two sets of circular representations of what we might assume to be neighbourhood units. There are the twelve, or so, recognisable forms we have come to understand as the object of the plan again, represented as forms in the southeast quadrant of the city. And there are seven others, less defined, more abstracted, scattered primarily to the north of the city map.

The defining and most prominent feature of the third map is the arrow. There are two sets of arrows. The first set creates a visual link to the arrow pointing to the Zócalo on the previous page, except this time the arrows point away from the central plaza along major avenues in thin black lines, one along the *Calzada Tlalpan*, and the other along the *Zaragoza*, effectively creating a visible demarcation of the southeastern quadrant. The second set of arrows are larger, curvilinear, denoting movement. There are seven arrows in this set. Their tails are in the circles to the north of Mexico City, the thick arrow heads all converging in the southeast, their endpoints are the neighbourhood units. Without a caption or a word we recognise that something or someone is moving from point A to point B. The speed and scale of the flow intimates a kind of mass migration. The caption at the bottom of the page reads 'Regeneration of the slums through their decentralisation to the neighbourhood units.'[107]

The final page of this four-part opening montage is no longer a map of the city, but rather a map of the *process* of regeneration, the chain reaction from Pani's

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106 This is the only signed drawing in the study 'HMH', allowing us to argue it was drawn by H. Martínez de Hoyos, though sole proprietary authorship in an urban studio would be impossible to convey, and unnecessary for this analysis.

107 Author's translation. Original in Spanish: 'Regeneración de los tugurios por su descentración a las unidades vecinales.'

Figure 4.23: Abstracted map of Mexico City with arrows showing the 'decantation' of populations towards the new neighbourhood units in the southeast. Source: *Estudios Urbanisticos en la Ciudad de México*, Uncatalogued. Courtesy of the Archivo Mario Pani, Lino Picaseño Library, Faculty of Architecture, UNAM, Mexico City.

regeneration model [Figure 4.24]. The page is split into two parts. The bottom third is a statistical visualisation of data from the 1940 census for Mexico City in bar chart form comparing the percentages of family size (32 % of 1-2 people, 30% of 3-4 people, 29% of 5-7 people, 9% of 8 or more) with the type of dwellings (46% studio, 27% 1 bedroom, 21% 2 bedroom, 6% 3 bedroom). Whereas just under a third of the population lives in families of 1 or 2 people, just under half of the houses are one-room studios. More clearly, 78% of families are made up of 3 or more people, but 73% of homes are 1 bedroom or less. The chart is meant to highlight that even the average of family size and housing type across Mexico City uncovers a housing problem of overcrowding. The implication, then, is that this being an average, the actual overcrowding is exacerbated in certain, likely poorer areas. The presentation of a situation of overcrowding in the city is, perhaps, an effort to use demographic statistics to justify the proposition of decanting populations from areas considered as 'slums' to new, planned, modernist neighbourhood units in the as yet non-urbanised southeast of the city.

The top two thirds of the page are left to typography and graphics. One of the visual motifs at use again is the arrow. On the left are three words: 'Dynamic', 'Tenants', 'Upward'. Each word is placed slightly above and to the right of the other, and the end of each word linked to the beginning of the next with a dynamic, curved white arrow, as if each leads to the other. Underneath we read 'For the regeneration of the slums.' To the right, a series of images set up as a ladder. We begin a representation of what could be suggestive of a crowded slum living. Then up and to the right a series of four boxes, undefined, an arrow leading to each one, up and up and up, until we reach the last graphic: a single-family modernist home. Along the side of the ladder-like set of images, the image of a moving van intersects a diagonal arrow as it climbs up from the slum to the single-family home. At the bottom of the image, the original 'slum' is crossed out, and in its place, trees. This graphic is a visual representation of the normative project behind urban regeneration. It was printed in *Arquitectura/México* in May of 1950, a month after being presented in Havana (Cuevas 1950, p.22).
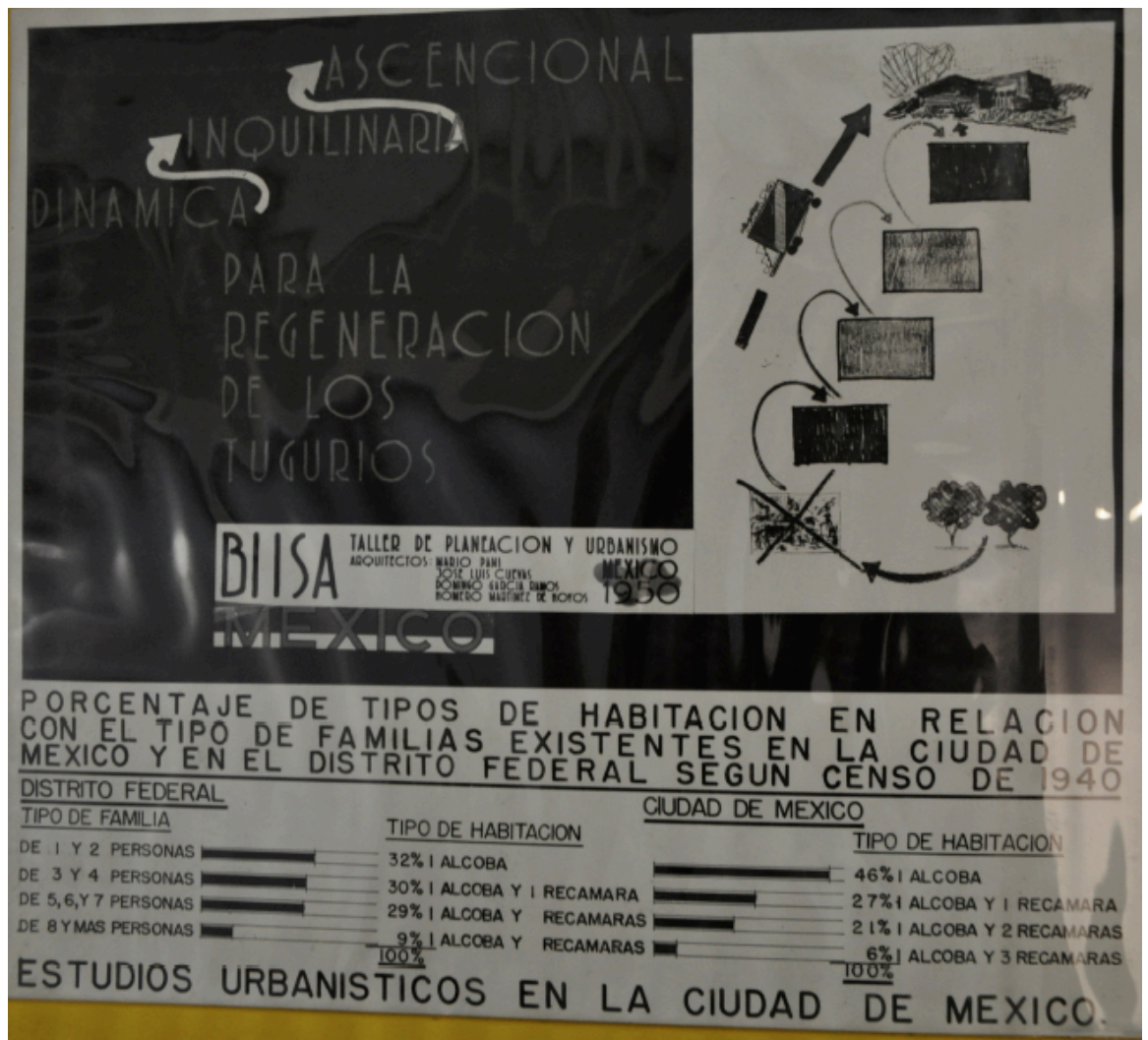
Figure 4.24: Above, diagram in two parts of the abstracted programme rationale for the decantation of 'slum' zones. Below, visualisation of the percentages of the types of dwellings (studio, 1 bedroom, etc…) compared with family sizes in Mexico City according to the 1940 census. Source: *Estudios Urbanisticos en la Ciudad de México*, Uncatalogued. Courtesy of the Archivo Mario Pani, Lino Picaseño Library, Faculty of Architecture, UNAM, Mexico City.

This four-part opening montage acts as a visual argument for moving populations from one part of the city to another. The typography of '*tugurios*' or 'slum' figures prominently, and the repetitive form of the arrow enables leaps of causal logic necessary for the argument to succeed. First, that there exists a city, with a large undeveloped quadrant. Second that people will move, or can be moved from one part of the city to new neighbourhood units. And third, the arrows link that movement across the city to the idea of progress – to words like 'dynamic' and 'upward' or 'aspirational', and to the visually upwardly climb from slum dwelling to a modernist home. When one stops to think about the plan to remove tens of thousands of people from locations with perhaps socio-cultural networks, and community economies, to newly built unrecognizable neighbourhood units on the opposite side of the city, the task unfurls to be decidedly complex, and fraught with ethical, political, moral and socio-economic concerns – not least the question as to whether or not the architectural and urban proposals for the new neighbourhoods are in fact appropriate. The visual narrative, however, contains that complexity within the gestural curve of an arrow moving confidently and with charm from one part of the map to another. The repetitive form of the arrow as a linking force across multiple scales of argument (from the spatial, to the demographic, to the developmental) holds the space wide and long enough for the narrative to be convincing.

Ostensibly, this argument was convincing. The only element the argument required was the first step – a site big enough, and empty enough, to build a large neighbourhood unit to begin the chain reaction of urban regeneration. A decade later, it arrived in what would be Nonoalco-Tlatelolco. In 1963, with the Nonoalco-Tlatelolco just a year away from its inauguration, Pani's worked on the *Programa del C. Presidente Lic. Adolfo Lopez Mateos, de regeneración urbana y vivienda para trabajadores en la Ciudad de México* (Programme of President Adolfo López Mateos for urban regeneration and workers housing in Mexico City). The proposal is the story for what can happen next now that a population can move out of their homes and into Nonoalco-Tlatelolco. The plan not only adopts the terminology and narrative logic of Pani's early solution to the 'urban problem' of Mexico, but also the visual logic. The third map in visualises the decantation of central Mexico City to newly built housing

projects [Figure 4.25]. A future plan for the 'central hovel area' of Mexico city, a horseshoe shape surrounding the zócalo to the north is shown later in the proposal [Figure 4.26]. Nonoalco-Tlatelolco is visible in the plan as just one small part – located above 'Guerrero' [Figure 4.27]. Its scale within the overall plan provides a concept for the ambition of the regeneration project. Finally, on a page titled 'Dynamics of Regeneration', we have a carbon copy from the Urban Studio project – large arrows flowing from one Guerrero into the newly built housing units of Nonoalco-Tlatelolco, visualising the flow of people 'decanting' from their homes, leaving a vacated space, and emptiness in the heart of the city, ready to be developed anew [Figure 4.28].

The construction of a system of scaling the city, and the repetitive form of the arrow act as visual components legitimising and naturalising the normative claims about regeneration in Mexico City. As Perkins and Dodge argue, 'visual illustrations communicate specific information about the vision, but at the same time these images reinforce and reify the policy detail that will bring about the transformation' (2010, 23). The idea of the scale creates the object of the city as much as the neighbourhood unit. The form of the arrow works to link the narrative thrust of the argument through these scales, creating a flattened causality. Both enable the delivery of an argument to decant several areas termed 'slums' in urban research publications spanning thirteen years between 1950 and 1963 – an argument that was central to the justification for Nonoalco-Tlatelolco (Pani 1966, p.106).

CONCLUSION

> The history and status of the architect are interwoven with those of design, a term which comes from the Italian *disegno*, meaning drawing, suggesting both the drawing of lines on paper and the drawing forth of ideas. (Rendell 2007, p.6)

If as Jane Rendell argued, drawing in architecture is about the 'drawing forth of ideas', I hope to have shown through the examples analysed above that it is also about the drawing forth of relationships: of the part to the whole, of causality and of time. While Rendell's metaphor rests on the image of the architect to draw the idea
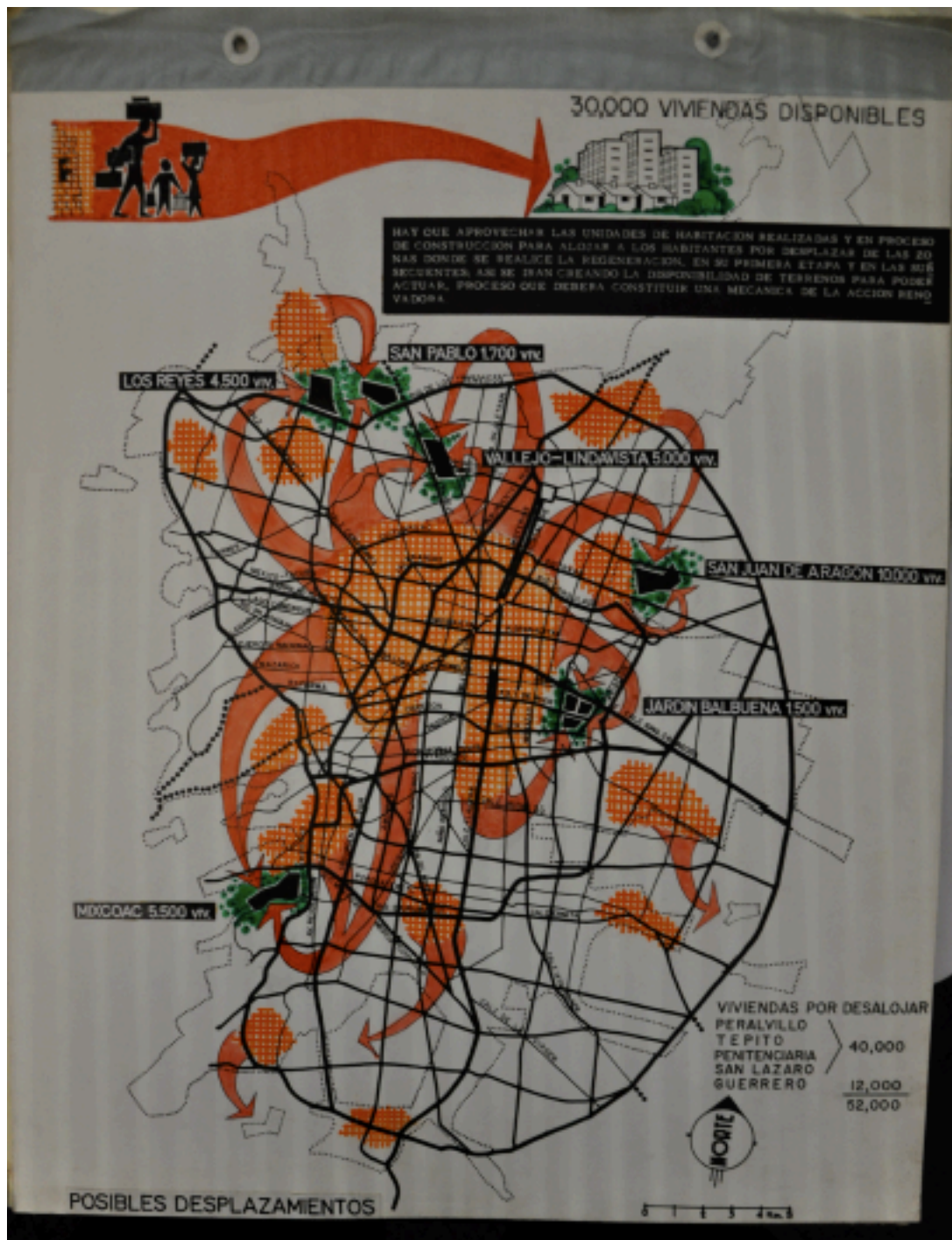
Figure 4.25: Map of the possible decantation of central slum areas in Mexico City.
Source: *Programa del C. Presidente Lic. Adolfo Lopez Mateos, de regeneración urbana y vivienda para trabajadores en la Ciudad de México* (1963), Uncatalogued. Courtesy of the Archivo Mario Pani, Lino Picaseño Library, Faculty of Architecture, UNAM, Mexico City.

Figure 4.26: 'Central Hovel Area'. Source: *Programa del C. Presidente Lic. Adolfo Lopez Mateos, de regeneración urbana y vivienda para trabajadores en la Ciudad de México* (1963), Uncatalogued. Courtesy of the Archivo Mario Pani, Lino Picaseño Library, Faculty of Architecture, UNAM, Mexico City.

Figure 4.27: Aerial photograph of Guerrero, one of the neighbourhoods identified in the 'central hovel area'. The neighbourhood is shown in colour, Nonoalco-Tlatelolco directly north, and to the bottom right a superimposition in blue of the new extension to Avenida Reforma as it cuts through the neighbourhood. Source: *Programa del C. Presidente Lic. Adolfo Lopez Mateos, de regeneración urbana y vivienda para trabajadores en la Ciudad de México* (1963)*,* Uncatalogued. Courtesy of the Archivo Mario Pani, Lino Picaseño Library, Faculty of Architecture, UNAM, Mexico City.
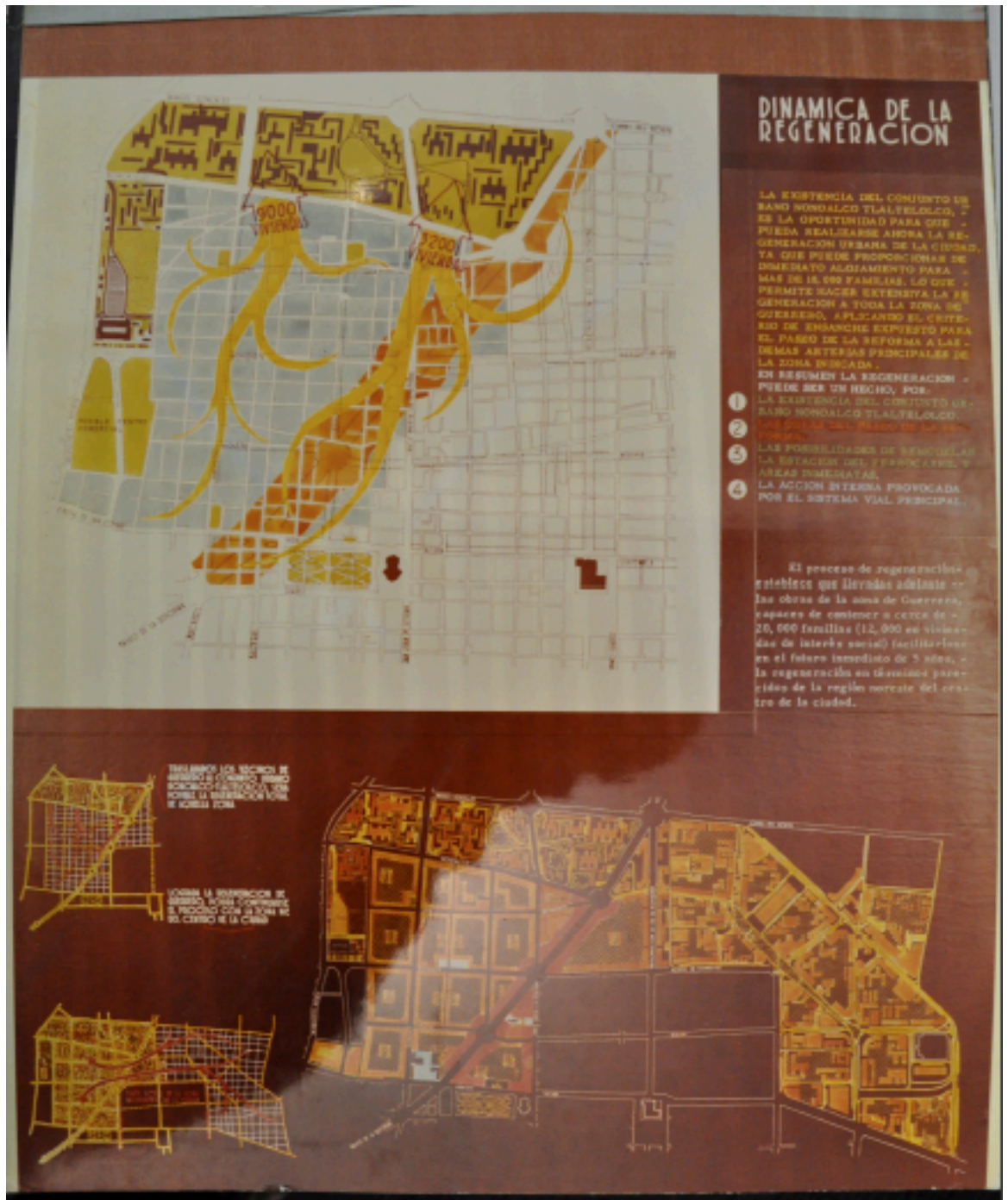
Figure 4.28: 'Dynamics of Regeneration'. Source: *Programa del C. Presidente Lic. Adolfo Lopez Mateos, de regeneración urbana y vivienda para trabajadores en la Ciudad de México* (1963), Uncatalogued. Courtesy of the Archivo Mario Pani, Lino Picaseño Library, Faculty of Architecture, UNAM, Mexico City.

forth, in this chapter, I follow Rose's (2012, p.15) call to take images seriously, that the image is not reducible to its context, nor to its content. The image is not simply representational; it produces the social (Fyfe and Law, 1988).

I started the chapter by examining the first urban research project published in *Arquitectura/México* in 1943. I demonstrated that Hannes Meyer's conception of the urban problem of Mexico, while based on statistical evidence, was layered with normative prescriptions aligned with his role in the development of CIAM. I opened with this discussion in order to think about the uses of research, particularly urban research, in architectural production. The structure of many urban development projects in Mexico City through the 1950s and 1960s would adopt this strategy of conducting in depth urban demographic, economic and spatial research as a means of providing legitimacy to proposed architectural interventions. Meyer's study demonstrates the latent arbitrariness in the translation of an urban 'problem' to the appropriateness of an architectural solution, and points to the ideologies at work behind the production of the urban 'problem' itself. Marking the visual as key in this translation, I then turned to consider the role the visual played in mobilising 'certain ways of seeing' (Rose 2012, p.14).

The first visual artefacts I examined were from two urban projects by Mario Pani to redesign major traffic intersections in Mexico City. The *Crucero Reforma* (1946) project employed an urban transect, aerial photomontage and perspectival architectural drawings to create a visual relationship with an unbuilt project. The second set of visuals came from Pani's *Plaza de los Insurgentes* (1969) proposal. Here, I turned to a technique of incorporating photography of the site in the present, line drawn copies of the photograph, and then large format line drawings of the proposed project. In both, I argued that the visual produced an intimate relationship with the temporal, negotiating the time of the future project, with the time of the present.

The second set of visual artefacts I analysed emerged through an overview of urban research projects by the *Taller de Urbanismo* and Mario Pani between 1945 and 1964. Having traced a normative argument about the dynamics of slum regeneration in

Mexico City at the core of Mario Pani's urban projects throughout his career, I turned to examine its production as a visual cue. In the analysis of research materials prepared for a presentation and exhibition at the VII Panamerican Congress of Architects in April of 1950 I argued that the visual produced relationships between the part and the whole, that is the production of a coherent scalar urban object, and relationships of causality. Both structures of the visual were identified in publications and reports a decade later that legitimised the construction of the Nonoalco-Tlatelolco estate, and an urban regeneration programme.

I have specifically not aimed to produce a comprehensive planning history of post-war Mexico City, nor of the specific projects and archival materials I have chosen to work with. However, in linking the visual artefacts through the Nonoalco-Tlatelolco project, I was attempting to be mindful of 'the site(s) of the production of an image, the site of the image itself, and the site(s) where it is seen by various audiences' (Rose 2012, p.16). The visual artefacts I examined were presented in conferences, published in architectural journals, exhibited, and part of governmental regeneration projects. But beyond their content and their dissemination, the purpose of the chapter was to consider their structure. In approaching the visual materials in this way, I came to interpret their relational rather than their representational effects.

In articulating a method for listening to the visual, and paraphrasing Walter Benjamin, Les Back suggests that in the visual, 'it is not what they *say*, it is what they *show* that is important' (Back 2004, p.145). Perhaps another way to phrase this is that I am interested not just what the diagrams, maps, charts and other visual materials among the documents I have assembled from a multitude of possible archival materials say, but rather how they go about showing what they say, and perhaps most importantly, to add a proposition to Back's conjecture, how they go about hiding what they are not saying. Urban planning and architecture are, after all, fundamentally visual disciplines perplexed with the constant challenge of translating information from textual, to visual, to material form.

Donna Haraway argues that vision is only available to the few, that 'vision is always a question of the power to see – and perhaps the violence implicit in our visualizing practices' (Haraway 1988, p.585). From a decolonial perspective, colonised ontologies and epistemologies pre-exist and persist through historical agents, such that to read archival documents as the traces of simply this or that person, institution or private practice, and to overstate the influence of that agent outside or beyond the structuration of their time and place is, perhaps, to depoliticise larger histories of political knowledge economies, including the one in which the researcher sits. And yet if there is something at stake in a method to take seriously the visual artefacts produced in Mexico City between 1945 and 1964, not for their role in the continued construction of an architectural history, but for their relationships to power, searching for power in the networks of architects, politicians and agencies that produce the visual is, perhaps, a futile gesture. As Perkins and Dodge elicit, visual materials 'carry out their social work in part by masking the interests that bring them into being, and present the world as scientific statements of fact, carrying fixed messages of externalized control into new terrain, and, used as a practical tool, are part of modernist governance' (2010, p.25). In performing a visual reading of these traces, these documents, I remained mindful of the ways in which the assumptions embedded within the 'apparently neutral depiction of things' (Perkins & Dodge 2010, p.26) on the page cannot simply be attributed post-haste to the work of one architect, or one architectural office. As noted by Porter (2006, p.393) 'what remains absent from current critical theory is recognition of the colonial cultural roots of planning's epistemological and ontological position'.

This detailed, albeit limited, analysis of visual artefacts of the architectural and urban production linked to Mario Pani's urban research studio has been instructive in that the very terms of engagement – the urban, the city, the housing problem, the slum, growth, development, progress – along with the methods of interpreting those terms' worlds – surveys and population statistics, demography, economic models, architectural education – and the methods to make visible those interpretations – mapping, cartography, diagrams, charts, typography, architectural drawings, photography – are already produced within and are producing the limits of the

possible, aligned within certain histories and hierarchies of power, power that has been, as Robinson (2006) points out, subsumed as the natural starting point of urbanism.

I began this chapter with a quote from González Rul about the creation of a new 'Cosmogonic Sun' by the technicians of the modern on the site of Nonoalco-Tlatelolco. I end here with a quote from its inauguration on the 20 November 1964. The speaker was introduced by Guillermo H. Viramontes, the President of the financers of the project, the Banco Nacional Hipotecario Urbano y de Obras Públicas (BNHUOPSA, today known as BANOBRAS). President Adolfo López Mateos took to the microphone and began:

> At a distance of 443 years, you have given new life to Tlatelolco by creating this impressive city inside the great capital, next to the same venerable stone of our ancestors, enhancing the dignity and heroism of our race. This monumental urban estate aspires to be a symbol of the greatness of Mexico. (Vivir en Tlatelolco 2012)

As I narrowed into the visual artefacts produced in urban research studios and projects of Mario Pani and his *Taller de Urbanismo*, at times, I lost sight of their materiality. This inaugural moment brings the materiality of Tlatelolco back to the foreground. It opens our thinking not only in thinking the monumentality of the project, nor the link the materiality of antiquity (the venerable stone whose ambiguous reference could point to either the temples of the ancient Aztec city, or to the sixteenth-century cathedral built on their ruins), but also to the relationship between architecture and the materiality of the Mexican state. In Chapter 5, I turn to another inauguration, an earlier one, to consider the project of building, the materiality of architecture, and its relationship with the state.

Chapter 5
Making Things Visible: Building and Inaugurating the *Centro Urbano Presidente Alemán*

This chapter contributes to a growing literature on the geographies of architecture (Jacobs 2006; Kraftl & Adey 2008; Kraftl 2010; Lees 2001; Lees & Baxter 2011) that concerns itself with what Lees and Baxter (2011) term 'building events' – moments of lived encounter with a building that make visible certain conditions of the co-constitution of materiality, affect and the political. It takes on the challenge that 'new critical geographies of architecture need to attend to the theoretical, conceptual and methodological intricacies of affect/emotion, materiality, immateriality and human subjectivity' (2011, pp.108–109) by attending to one key moment: the inauguration of the *Centro Urbano Presidente Alemán* (CUPA) in 1949. First, this chapter relates the narratives of the CUPA and how it was built. Second, I argue that the inauguration was a key event in the legitimation process of making the CUPA visible as a building event. In particular, I argue that the CUPA becomes rhetorically produced as a *double revolutionary* – that is revolutionary in both the sense of an adjective and a noun – by connecting its materiality to the political narrative of the Mexican Revolution and the State.[108]

The inauguration of the CUPA itself was not, perhaps, unique as a relatively simple celebratory piece of political theatre. I show below that the tone of the event was one of joy, happiness and gratitude. The event, recreated on the pages of the national daily newspaper, marked the construction of a very large set of buildings – the largest communal housing project in Latin America (Mayorga 1949b). I am not interested in recreating the affect of that moment for the reader of this text, nor to try and pinpoint precisely what affects were brought into being. Nor am I going to argue that we can read out of or into the CUPA a political economy of the built environment – as if the political intentions of the architects and politicians were stable things in themselves massified into the concrete structures of this towering set of housing

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[108] A note of clarification on the use of 'revolution' and 'Revolution' in the chapter that follows. I use 'Revolution' in reference to the Mexican Revolution. I use 'revolution' in terms of the noun and verb. However, the use of the word at the inauguration that I will detail below creates slippage, and so such a strict separation of use does not hold throughout.

blocks. Rather, my aim is to trace through the records of the events and spoken word of that day. I am interested in the official words and newspaper reports that reproduced this 'building event' such that we, sixty-four years later, can come to reflect on it.

I turn to Gillian Rose and Divya Tolia-Kelly's (2012) work *Visuality/ Materiality: Images, Objects and Practices* to analyse the inauguration as a key event in the legitimation process. Rose and Tolia-Kelly develop the argument that the visual is not just about things we 'see', nor is material the constitution of the 'thing', matter or object, but rather how these co-constitute each other. Rose and Tolia-Kelly argue that

> Making things visible is just one of the effects of a practice approach to the co-constitution of visuality and materiality: of not thinking 'visuality' as simply observation, nor considering the 'material' purely as 'solid matter'. The question of *what* is made visible is critical to analysing using this approach. (Rose & Tolia-Kelly 2012, p.4)

If in Chapter 4 I narrowed down my focus to the visual artefact in terms of maps, photographs and drawings, in this chapter I examine how the CUPA comes to appear through the invocation of its materiality. With reference to destruction of public housing in the United States Vale (Vale 2013, p.30) suggests that 'urban renewal and public housing renewal are not just about clearing sites, but about clearing sights', that is, about both the visual and the material. I find Vale's concept of 'design politics' useful as a frame to think the co-constitution of visuality and materiality of the CUPA beyond its aesthetic dimensions. He argues that

> The role of design should not be delimited by aesthetics, seen merely as a matter of what a particular development *looks* like – even though such symbolic dimensions also matter mightily. Design also enters into the construction of meaning through basic decisions about how many units of what size gets built in which particular configuration. (ibid., p.31)

One of the challenges Vale poses then, is to look beyond the envelope, or perhaps the aesthetic conditions of a mimetic modernism. Rather, to investigate the building as a number of parts, some of which are brick and mortar, glass and steel. Still others are programmatic, like the layout of a room, the number of three bedroom apartments in the scheme, or the inclusion of elevators. Part of the methodological challenge is not to reduce either material or visual, but as Rose and Tolia-Kelly

suggest to theorise their co-constitution. If in the last chapter I relied on assumptions about the representational element of visual architectural artefacts, in what follows I turn to recent literatures in non-representational thinking to help guide an encounter with the building.

Several geographers of architecture are specifically interested in the 'capacities of architectural spaces to engender particular modes of inhabitation' (Kraftl & Adey 2008, p.215). That is, they want to know if it is possible for architecture to be designed to elicit a specific affect, a specific mode of existence. To consider the limits of this question – and it is always a question of the limits of design, and not whether or not design can or cannot achieve or deploy an original intention – Kraftl and Adey look first to the role of affect in relation to architectural design, and second to what they term the 'material operation of affect' (ibid., pp.214–215) through a close reading of two case studies – a school and an airport. Inhabitation, for Kraftl and Adey, is 'a material, bodily connection with architecture and the evocation of place' (ibid., p.214), and they relate this to Nigel Thrift's notion of affect as 'a sense of push in the world' (Thrift 2004, p.64). They are thinking the relation of affects like authenticity and placelessness in relation to the school and the airport. In particular, are turning to architecture to consider specificity and exactitude of 'architectural affect' in a world where, in Kraftl and Adey's words, there are 'almost limitless possibilities of relationality, which can be expressed in almost infinite ways and can engender almost limitless forms and exemplars of affect' (2008, p.215). In other words, they are interested in how and why certain buildings create much more specific affects than has otherwise been described in the literature before. According to Kraftl and Adey, 'the potential of buildings to invoke affect is as much a political as material power' (ibid., p.226). Kraftl and Adey's invocation of affect as a form of political power moves us in a similar vein to Nigel Thrift's argument that

> Increasingly, urban spaces and times are being designed to invoke affective response according to … formal theoretical backgrounds such as psychoanalysis or practical theoretical backgrounds like performance … design, lighting, event management, logistics, music, … and the enormous diversity of available cues that are able to be worked with in the shape of the profusion of images and other signs, the wide spectrum of available technologies, and the more general archive of events. The result is that affective response can be designed into spaces, often out of what seems like very little at all. (Thrift 2004, pp.67–68)

Where Kraftl and Adey are concerned with affective modes of inhabitation, and trying to understand from the reverse how certain spaces lead certain people to 'feel' in a certain way, Thrift warns of the possibility for the design of affective response. Through the history of political theatre and propagandist violence, Thrift writes, that '[p]articular affects such as anger, fear, happiness and joy are continually on the boil, rising here, subsiding there, and these affects continually manifest themselves in events which take place either at a grand scale or simply as part of continuing everyday life' (ibid., p.57).

However, Kraftl and Adey do not bring us beyond the embedded assumption in their work that there is some 'thing' about spaces that create 'architectural affect', and one of our roles as researchers might be to uncover that 'thing.' Equally, Thrift's argument of an affective environment 'pulling itself into existence' works against the non-coincidence of design and response central to much affect theory, particularly his claim that 'affective response … is no longer a random process' (ibid., p.68). Contrastingly, as Berlant states, '[i]t is hard for thought to abandon its desire to intensify the thingness of its thing and thus its value' (Berlant 2004, p.448). This chapter works with and against Kraftl and Adey (2008) and Thrift (2004), taking cues from Kraflt (2010) and Jacobs (2006) who see architecture not for its 'thingness', as a thing to be uncovered or decoded either as referent or as bearer of affect, but rather as a 'claim to the idea of being architecture or a building' (Jacobs 2006, p.22). That is, the architectural object as an incoherent assemblage with work being done to create its 'thingness' and to 'sustain that claim materially' (ibid.).

It might be argued that 'thinking about feeling historical,' of presenting affect within a kind of architectural history is an impossibility. Affect cannot reside outside of the gift of the present, structured in the circulations of signs, bodies and feelings (Ahmed 2004b), and in the autonomy of the nervous system itself (Massumi 2002). To this end, I take a cue from Lauren Berlant's claim 'that affect, the body's active presence to the intensities of the present, embeds the subject in an historical field, and that its scholarly pursuit can communicate the conditions of an historical moment's production as a visceral moment' (Berlant 2008a, p.846). As such, what follows is an analysis of the coming into being of a 'building event' in Jacobs' (2006) terms, the

inauguration of the CUPA by President Miguel Alemán on Friday 2 September 1949 in Mexico City. By examining the inauguration of the CUPA, I uncover the materiality of the building as generative for the 'Revolutionary' Mexican state.

The Centro Urbano Presidente Alemán

The building

A few miles to the southwest of the zócalo in the centre of Mexico City, is the CUPA [Figure 5.1]. The CUPA is a housing estate that covers an area of 40,000 square metres, planned by the architect Mario Pani and the engineering firm ICA, and built in two years, between 1947 and 1949. It takes up an entire city block, between Avenida Félix Cuevas to the north and Calle de la Parroquia to the south, and Avenida Coyoacán to the east and Calle de Mayorazgo to the west [Figure 5.2]. At its inauguration, the estate was made up primarily of housing stock, but also comprised administration buildings for the management of the estate, and other institutional, recreational and commercial facilities. Central to the idea behind the design was to leave the majority of the ground surface to gardens. According to Pani (1952, p.27), the buildings occupy just roughly twenty per cent of the total area. The 'fundamental lines and characteristics' of the CUPA project are, in Pani's words:

> The adoption of an urbanistic-architectonic system of tall buildings, distributed in such a way to leave a considerable land surface to open spaces for use as gardens; the establishment of spaces for stores, laundrette, a day care, a medical centre, etc; complementing the block with a school. (1952, pp.22, 26)

The estate consists of fifteen apartment buildings, with a total of 1080 apartments (ibid., p.31). All but three of the buildings are rectangular and oriented lengthwise from north to south. There are nine three-storey buildings, three at the north of the block, and three at the south [Figure 5.3]. There are nine thirteen-storey buildings, one at each of the north-east and south-west corners, and four making a diagonal from south-east to north-west. The remaining three buildings are also thirteen-storeys tall and stand horizontally to the others, connecting the four diagonals such that they create a zig-zag form. In the thirteen-storey buildings, the twelve upper floors are dedicated to apartments and the bottom floor is for commercial use and open circulation.

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Figure 5.1: Centro Urbano Presidente Alemán by Mario Pani (c.1949). Source: Miquel Adrià (2005) *Mario Pani: La construcción de la modernindad*, p.79.

Figure 5.2: Plan for Centro Urbano Presidente Alemán from September 1949.
Source: Miquel Adrià (2005) *Mario Pani: La construcción de la modernindad*, p.78.

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Figure 5.3: Photograph of the CUPA with the three-storey buildings in the foreground. Source: Miquel Adrià (2005) *Mario Pani: La construcción de la modernindad*, p.84.

Circulation was a key organiser of the architectural form of CUPA. The buildings are raised on pilotis, and while there is not complete open flow (with some of the ground floor slated for commercial and institutional use), there is substantial openness on the grounds, such that the zig-zag diagonal does not become a fortress wall cutting one side of the estate off from the other. Circulation within the buildings themselves functioned through stairwells for the three-storey buildings and for the tall buildings there were twenty elevators, spaced throughout the complex such that the distance from an elevator to any apartment door was never more than thirty metres (Pani 1952, p.30). The elevators only stopped every three floors, which would open onto an exterior corridor. On the detached tall buildings, there are corridors running the length of each side. On the zig-zag section, the corridors are attached to one another, meaning one could walk the entire length of the complex from north to south, and around each of the buildings from east to west while remaining on one floor [Figure 5.4]. Unlike some large apartment blocks whose corridors are inside the building for security or climatic reasons, the corridors of the CUPA are on the outside, connecting the apartments to the grounds surrounding them, and set with built in flower boxes. The elevators only stop on every three floors because the majority of the apartment blocks are duplexes, meaning one would enter on one floor, with a kitchen and sitting area, and then proceed either upstairs or downstairs to a larger space with bedroom(s), a living room and a bathroom. This kind of modernist 'efficiency' is echoed in Le Corbusier's *Unité d'Habitation* in Marseilles where the elevators stop every two floors, with similar duplex apartments.

The 1080 apartments are arranged into five types – A, B, C, D and E [Figure 5.5]. The six three-storey buildings each have twenty-four identical one-bedroom apartments of 57 square metres, and no external walkways. These rooms are type 'E' and contain a kitchen, bathroom, living room and bedroom, all on one floor [Figure 5.6]. The remaining 936 apartments are arranged in four types (A, B, C and D). The most prevalent is type A, with 672 apartments. Type A apartments are 48 square metres over two floors [Figures 5.7 and 5.8]. Entering from one of the external corridors brings one into the dining room and kitchen. A staircase that goes alternately up or down brings one to the living room, bathroom and two bedrooms.

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Figure 5.4: Photograph of the external walkways featured in the CUPA. Source: Miquel Adrià (2005) *Mario Pani: La construcción de la modernindad*, p.89.

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Figure 5.5: Document with apartment types, their sizes and their rents. Source: Graciela de Garay (2002) *Rumores y retratos de un lugar de modernidad*, p.131.

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Figure 5.6: Floorplan for the apartment type E from the CUPA. Source: Mario Pani (1952) *Los Multifamiliares de Pensiones*, p.34.

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Figure 5.7: Floorplan for the middle level of apartment type A from the CUPA.
Source: Mario Pani (1952) *Los Multifamiliares de Pensiones*, p.26–27.

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Figure 5.8: Floorplan for the upper or lower level of apartment type A from the CUPA. Source: Mario Pani (1952) *Los Multifamiliares de Pensiones*, p.26–27.

There are 192 type B and C apartments, located where the buildings intersect [Figures 5.9, 5.10, 5.11, 5.12]. Upon entering, one immediately goes up or down one storey to a two or three-bed (respectively) apartment, all on one floor. Finally, there are 72 type 'D' apartments located on the east-west buildings that connect to form the zig-zag [Figures 5.13 and 5.14]. These apartments are the largest, on two floors, and with three bedrooms. These apartments benefit from windows on both the north and the south face, as the second floor (upper or lower depending on the apartment) spans the entire width of the block. Despite five 'types' of apartments, Pani relates that there are really only three distinct versions with A and D similar, but differing sizes, and equally B and C the same concept, but one has two while the other three bedrooms.

In terms of the population of the housing estate, it lies somewhere between 4,000-6,000 people. Martínez Omaña relates that approximately 6,000 people lived in the CUPA (De Garay 2004b, p.82), De Anda Analís argues it's closer to 5,400, if one considers the average family size to be five people (De Anda Alanís 2008b, p.366). Still De Garay argues it's a 'community of 5,000' (De Garay 2004a, p.37). Miquel Adrià (2005, p.17) argued even slightly less, quoting a population density at around 1,000 people/hectare, or roughly 4,000 people.[109] And Mario Pani himself wavered between 4,000-5,000 people (Pani 1952, p.32; De Garay 1990a, p.2). As a design principle, the main living spaces in each type of apartment were flexible. None of the internal walls were structural – a modernist innovation – and so the lower (or upper) level of the apartment 'were roughly 50-60 square metres, open so that they could be subdivided into two rooms, three rooms, or one large studio' (De Garay 1990a, p.3).[110] This meant that the organisation of apartment by number of bedrooms in the CUPA was flexible, and thus so was its possible total population. Regardless of the definite number of inhabitants, as it would be variable over time, at between 4,000-6,000 people the CUPA was likened to a city unto itself (De Garay 2004b, p.36). Indeed, as Pani said some years later in an interview with Graciela de Garay, the

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109 A hectare is equal to 10,000 square metres, and the total area for the CUPA is 40,000 square metres, or 4 hectares. Therefore at 1000 people/hectare, the total population estimated by Pani and Adrià would be 4000.
110 Translation by author. Original in Spanish: 'alrededor de 50 o 60 metros cuadrados libres para que se pudieran subdividir en dos alcobitas, tres alcobitas, o una alcoba'

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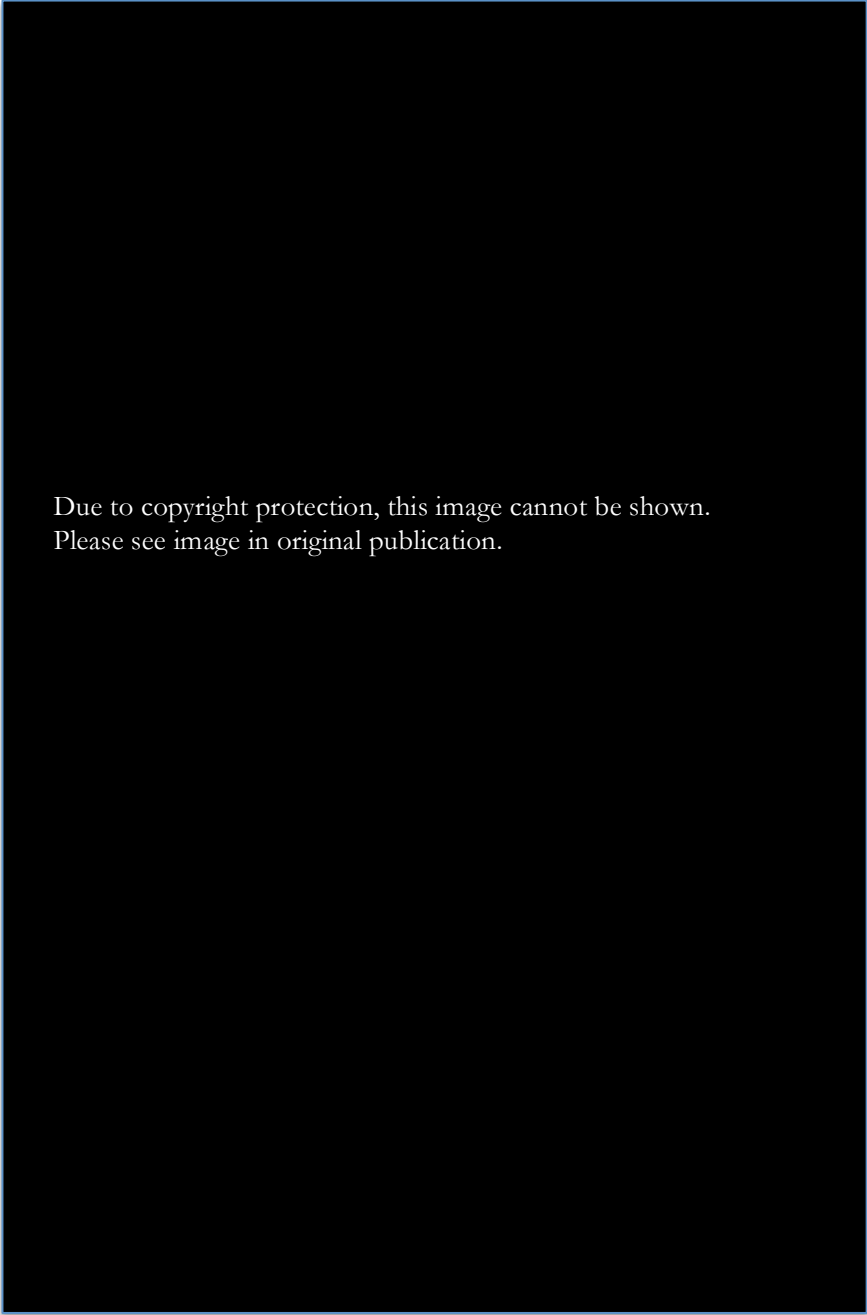
Figure 5.9: Floorplan for the middle level of apartment type B from the CUPA.
Source: Mario Pani (1952) *Los Multifamiliares de Pensiones*, p.28–29.

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Figure 5.10: Floorplan for the upper or lower level of apartment type B from the CUPA. Source: Mario Pani (1952) *Los Multifamiliares de Pensiones*, p.28–29.
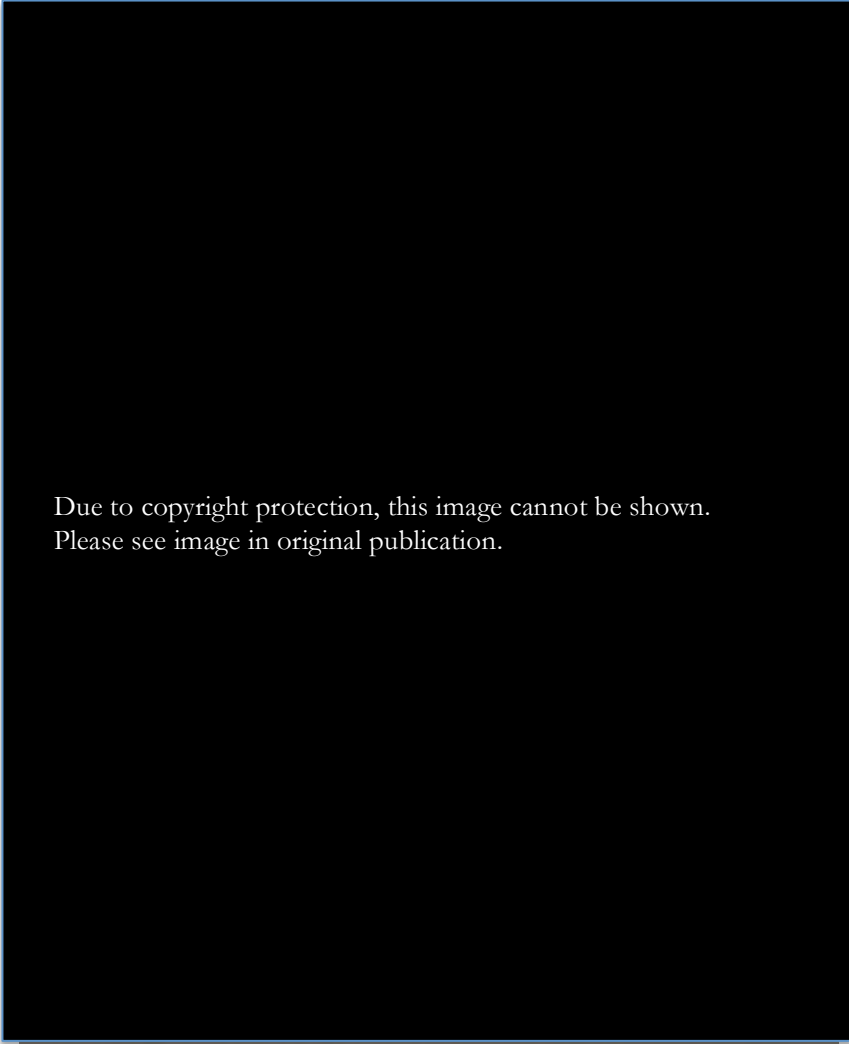
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Figure 5.11: Floorplan for the middle level of apartment type C from the CUPA. Source: Mario Pani (1952) *Los Multifamiliares de Pensiones*, p.30–31.
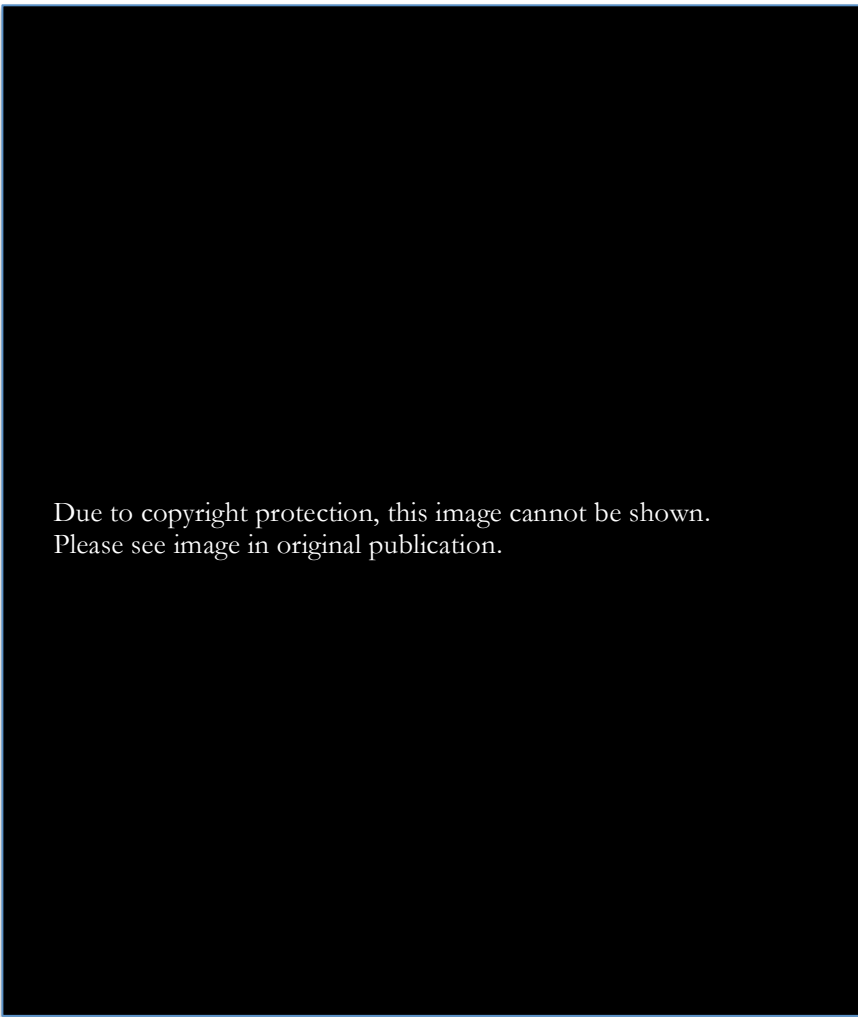
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Figure 5.12: Floorplan for the upper or lower level of apartment type C from the CUPA. Source: Mario Pani (1952) *Los Multifamiliares de Pensiones*, p.30–31.

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Figure 5.13: Floorplan for the middle level of apartment type D from the CUPA.
Source: Mario Pani (1952) *Los Multifamiliares de Pensiones*, p.32–33.

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Figure 5.14: Floorplan for the upper or lower level of apartment type D from the CUPA. Source: Mario Pani (1952) *Los Multifamiliares de Pensiones*, p.32–33.

CUPA is 'a community of 5000 people, and that already is a small village, a relatively important one' (De Garay 1990a, p.2).[111] Flexible apartment sizes and spaces, coupled with building vertically meant not only a large population, but a dense one. At over 1000 people/hectare, the CUPA was at least four times more dense than the original concept for 200 homes, and therefore could justify the novel mix-use concept of creating the commercial, community and institutional infrastructure to service the CUPA residents on the site itself.

The CUPA was a prototype of mixing uses such that housing sat alongside commercial and public institutions, all within the same block (Adrià 2005, p.17). With the CUPA, Pani was testing ideas about the benefits or limits to population density, about building vertically, about changing ideas and aspirations regarding housing, about the relationship of life to the street, and about the possibility of recreation and leisure space as a priority – over eighty per cent of the CUPA's land is dedicated to green spaces. As discussed above, the commissioning body *Pensiones Civiles* had an original brief for the 40,000 square metre lot that would see 200 single-family homes built – no other institutions or services, let alone parks or green spaces were originally intended for the site. Pani's proposition could not have veered further from the original suggestion, and followed on from previous efforts in Mexico City to implement a version of the 'neighbourhood unit', a theoretical model of the scale at which 'community' can be efficiently planned (see discussion in Chapter 4). Equally, the CUPA was designed with social and commercial services for its residents such that they were not isolated from access to necessities. This was intended to have the added effect of reducing residents' need to travel or commute in and out of the city centre on a daily basis to satisfy daily food and service needs. Scaled up, Pani imagined this could help to ease congestion on roads and public transport (De Garay 2004, p. 36).

As a village unto itself, the CUPA had a number of innovative services. An advertisement put out by the *Pensiones Civiles*, shows a nuclear family – husband, wife

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111 Translation by author. Original in Spanish: 'una comunidad de 5000 personas, y eso ya es un pueblito, relativamente importante.'

and two children – staring slightly upwards at a list services and amenities included in the design of the project [Figure 5.15]. The services read:

> Medical health unit. Post and Telegraph. Police. Schools. Playground. Nursery. Hot water. Elevators. Telephones. Swimming Pool. Radio. Central gas system. Electricity substation. Gardens. Waste incineration. Shops. Laundromats. (De Garay 2002, p.197)

In the advertisement, the list of amenities stands out visually against a backdrop of a stylised CUPA housing block, and an image of the ever-present paternal 'hand' of the State, delivering these innovative services to its deserving workers. Among the services mentioned by various authors (De Anda Alanís 2008b, pp.250–251; De Garay 2004b, pp.30–31; Marinez Omaña 2002; Noelle Merles 1997, p.180) there were twenty elevators, there were telephones, integrated radio systems, and integrated cooking gas in every apartment. There were boilers and water purifiers. The pool was a semi-Olympic size, with changing rooms. The playground was fitted out with slides and swings. There were sporting grounds to play football and basketball. There was a theatre, a gymnasium, and a radio station. There was a building for administration, the post office and telegraph. There were food markets, cafes, a bank, shoe stores (*Zapateria "Francia"*) and hairdressers.[112]

In the Athens Charter, published in 1943 and based on the discussions at the CIAM IV in 1933, Le Corbusier relates this new vision of dense collective housing in vertical towers surrounded by gardens (Mumford 2000, p.89). As a version of the outcomes of the CIAM discussions, the CUPA was at the forefront of experiments in modern housing in Mexico, and indeed in Latin America, and as such was routinely described as a 'revolutionary' building, a descriptor that emerges at the inauguration, and to which I will return below. The building is also routinely referenced to Le Corbusier's *Ville Radieuse*, an unrealised urban masterplan presented in 1924 and published in 1931, extolling a city-scale plan of intense zoning, the division of cars from pedestrians, and the proposal of tower-block residential patterns throughout a garden landscape, with communal services ([1931] 1987) [Figure 5.16]. As William Curtis put

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112 For a detailed description of resident recollections of the commercial and other services, based on interviews with residents, see María Concepción Martinez Omaña (2002) 'Acceso, uso y gestión de servicios urbanos en el Centro Urbano Presidente Alemán. Una trayectoria de medio siglo' in ed. Graciela de Garay *Rumores y retratos* (Mexico City: Instituto Mora), pp. 75-105.

Figure 5.15: Advertisement from the *Direción de Pensiones Civiles*, shows a family staring slightly upwards at a list services and amenities included in the design of the CUPA. The services read: Medical health unit. Post and Telegraph. Police. Schools. Playground. Nursery. Hot water. Elevators. Telephones. Swimming Pool. Radio. Central gas system. Electricity substation. Gardens. Waste incineration. Shops. Laundromats. Source: Graciela de Garay (2002) *Rumores y retratos de un lugar de modernidad*, p.131.

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Figure 5.16: Le Corbusier photographed with a model for his Radiant City in 1930, compared with an aerial photography of the completed CUPA in 1949. Source for Le Corbusier image: Miquel Adrià (2005) *Mario Pani: La construcción de la modernindad*, p.16. Source for aerial photography of CUPA: Graciela de Garay (2002) *Rumores y retratos de un lugar de modernidad*, p.82.

it, '[t]he Charter of Athens was nothing more than the philosophical affirmation of the *Ville Radieuse* but deprived of its original poetry' (1996, p.325). Equally, the CUPA is referenced along side Le Corbusier's first incarnation of his housing philosophy in the *Unité d'Habitation* in Marseilles, built between 1946 and 1952, during the same years as the CUPA [Figure 5.17]. These references were both made at the time, and can be traced with historical references, and have been made in the contemporary architectural histories and biographies of Mario Pani and the CUPA. In the section that follows, I explore the relationship between the ideas of Le Corbusier and Mario Pani's design for the CUPA in Mexico City. I do so in order to contextualise the paradox of the legitimation process demanding the architectural project to be at once innovative, aligned with an international avant-garde, on the one hand, and, on the other, to be reflective of the ever-present rhetoric of Mexican nationalism, and the question of Mexican architecture. The materiality of the CUPA, I will demonstrate, comes to be described as both aligning with the ideals, philosophies and architectonics of Le Corbusier's *Ville Radieuse*, and defiantly 'original' in its details. Therefore it is able to straddle the orientation of a gaze towards the modern aesthetics of a European Le Corbusier, while being appropriated within nationalist histories of architecture, and incorporated into the narratives of the on-going 'revolutionary' project of the Mexican state.

The idea of the building

In Rubén Gallo's *Mexican Modernity* (2005), he works to understand the relationship of new media forms brought about by modern technologies in Mexico (the camera, typewriter, radio, cement, and the stadium), and the way these media were produced by, and were productive of, modernity. Nestled within the expert and nuanced accounts of these mediums of modernity is a short line related to Mario Pani – and a line representative of an ongoing historicity with respect to that architect-planner. This line is the comparison of Mario Pani to the modernist architect Le Corbusier. Gallo, who is not dealing with architectural history in detail, but has one chapter on the role of stadiums in Mexico City, offhandedly notes in a section about the 1924

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Figure 5.17: Le Corbusier's Unité d'Habitation (1952) in Marseilles. Source:
http://25.media.tumblr.com/tumblr_lgprxkjtai1qh7k5ko1_1280.jpg, accessed June 9,
2013.

National Stadium commissioned by José Vasconcelos and built by architect José Villagrán García, that:

> The building that Vasconcelos had envisioned as eternal stood for a mere twenty-six years: in 1950, during the presidency of Miguel Alemán, the stadium was demolished to make way for the Multifamiliar Presidente Juárez, Mexico's first Corbusier-inspired housing project, designed by Mario Pani. (Gallo 2005, p.205)

References of Mario Pani in relation to Le Corbusier are nearly ubiquitous, coming from architectural historians, sociologists, architects, and even from the words of Mario Pani himself. They appear at times, like this one from Gallo does, without reference or citation – a reference in this case that wrongly attributes the Multifamiliar Juárez as Mexico's first Le Corbusian housing project when in fact it is usually argued that this title rests with his 1949 housing project, the CUPA (Adrià 2005, p.22; De Garay 2004a, p.35). Olsen equally attributes post-revolutionary shifts in architectural production to Le Corbusier arguing that '[t]hese architects followed Le Corbusier's urging that architecture provide solutions to socio-economic inequities' (2008, p.50), and that the nation 'sought the essence of *Mexicanidad* … choosing to borrow again from exotic sources, from … Le Corbusier' (2008, p.234). In his tome tracing the architecture of the Mexican revolution throughout the 1920s, architectural historian De Anda Alanís traces what he calls 'the image of Western modern architecture in Mexico' (2008, p. 159), centring on the early presence of Le Corbusier in the professional press like the journals *Cemento* and *Tolteca* between 1924 and 1931 (ibid., pp.168–176).[113] De Anda Alanís includes what he purports to be the earliest record of a publication on Le Corbusier present in Mexico, an article from *Excélsior* on the 15 July 1926, titled 'Un tipo de casa ultraísta', authored by Le Corbusier's cousin and business partner Pierre Jeanneret, two years after Le Corbusier's *Vers une Architecture* (published in France in 1923) arrived in Mexico (ibid., p.170). Ida Rodríguez Prampolini suggests that 'while we cannot credit Le Corbusier with the architectural theories of functionalism, the repercussions of his book *Vers*

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113 Both Cemento and Tolteca were journals connected to the cement industry, and used to promote the use of the material in contemporary buildings. See Rubén Gallo's (2005) chapter 'Cement' in *Mexican Modernity: The Avant-Garde and the Technological Revolution* (Cambridge MA: MIT Press), pp. 169-200. De Anda Alanís also lists articles appearing in these two journals and the Mexican daily newspapers *El Universal* and *Excélsior* that show modern architecture from Europe divided into countries. Countries represented at the time were Germany, Austria, Spain, the United States of America, France, Netherlands, Sweden, Italy, Hungary, and Belgium. He also mentions two references to modern buildings in Latin America, one from Uruguay and the other from Cuba. See full list on De Anda Alanís (2005) pp. 160-161.

une Architecture contributed in large part to the development and consolidation of this new style of architecture' (1982, p.20). De Garay devotes a chapter in the book *Mario Pani* to the theories of Le Corbusier and his influence on Mario Pani (2004a, pp.21–25), but the chapter is primarily a description of Le Corbusier's ideas. De Garay only links Le Corbusier to Pani by arguing that while studying at the *École des Beaux Arts* in Paris 'Pani heard in parallel and in a critical manner the ideas of Le Corbusier' (2004a, p.21) and that 'One of the great testimonies to Le Corbusian influence is the city of Brasilia and, in Mexico, one could mention the social housing projects and urban plans of the architect Mario Pani' (2004a, p.25).[114] Throughout the book, De Garay continues to present the argument that Mario Pani was influenced by Le Corbusier. On the houses Pani built, De Garay argues they were 'probably derived from projects for apartments in the *Ville Radieuse* (1932)' (2004a, p.30). In the first paragraph of a chapter on Pani's social housing projects between 1947 and 1964, De Garay writes that 'In 1947…Mario Pani began, based on the Le Corbusian proposals for the *Ville Radieuse*, materialised in the *Unité d'Habitation de Marseilles* (1947-52), the construction of the *multifamiliar* Alemán, the first of its kind in Mexico and in Latin America' (2004a, p.35). In a section of De Garay's (2004b, pp.25–30) book *Modernidad habitada: Multifamiliar Miguel Alemán ciudad de México, 1949-1999* titled 'Pani and the ideas of Le Corbusier, 1947-1952', she is more explicit, quoting Mario Pani in reference to Le Corbusian ideas about housing as arguing that 'this is how Mexicans should live' (ibid., p.25). Equally, Noelle Merles argues in reference to Mario Pani's CUPA that '[i]t is important to consider this project in relation to Le Corbusier's proposals for housing' (1997, p.182). Felipe Leal makes a similar connection arguing that '[d]espite having knowledge of the principals of Le Corbusier from his stay in Paris, it was not until years later … that he initiated an architecture more akin to the Modern Movement' (Leal in Adrià 2005, p.8). And while Miquel Adrià refutes the tenuous connection that many biographers of Pani make about his family's move to Paris in 1925, the same year Le Corbusier and Kostantin Melnikov's pavilion of *l'Esprit Nouveau* made architectural waves at the International Exposition of Modern

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114 See also Graciela de Garay (2004b) 'Pani, Le Corbusier y el Multifamiliar Miguel Alemán (1947-1949)' in Modernidad habitada: Multifamiliar Miguel Alemán ciudad de México, 1949-1999 ed. Graciela de Garay, pp. 22-37; Enrique X. de Anda Analís (1987) Le Corbusier y su influencia en la arquitectura moderna mexicana; and Enrique X. de Anda Analís (2008b) Vivienda Colectiva de la Modernidad en México: Los Multifamiliares durante el periodo presidencial de Miguel Alemán (1946-1952)

Industrial and Decorative Arts arguing that 'this coincidence, so celebrated by some biographers of Pani, surely passed unawares for the young adolescent' (2005, p.11), he connects Pani and Le Corbusier at other points. In the preamble to a section on Pani's social housing, Adrìa opines opaquely that '[t]he urban design postulated by Le Corbusier's Radiant City took its toll on Mario Pani' (ibid., p.17).

At other times, the references are more explicit. Mario Pani is introduced as 'the Mexican interpreter of the ideas of the Swiss architect Le Corbusier' (De Garay 2002, p.7), whose work is 'supported by the modern *Ville Radieuse* of Le Corbusier' (ibid., p.16). Pani's Nonoalco Tlatelolco project is defined as 'the first time that a city was made in Mexico with the broad application of the theories of the Radiant City or *Ville Radieuse* of Le Corbusier' (De Garay 2004a, p.51) and is compared to a 'surgery that removes sick cells, as recommended by Le Corbusier in his *Plan Voisin* (1925) for Paris' (ibid., p.51). Gallo, in a book chapter in *Noir Urbanisms* (2010) argues that 'Pani's ambitious building projects illustrate the influence Le Corbusier's urbanism had in Mexico' and that 'when compared to Pani, the French architect, who only got to build one, relatively modest, *Unité d'Habitation* in Marseilles, appears like a humble planner' (2010b, p.57). In terms of his urban planning studio, Manuel Larrosa argues that Pani adhered to the considerations of transportation, zones for work, recreation and housing, as stipulated in the influential Athens Charter, compiled by Le Corbusier, from 1933 (1985, pp.99–100). De Anda Alanís equally reflects on the urban planning and 'slum' regeneration programmes of Pani extolling that 'the work that was implemented had the same messianic scale as that which the architects of European modernity did. … "architecture or revolution" was the threat pushed by Le Corbusier in 1923' (2008b, p.125).

In his own words, Mario Pani would reference the influence of Le Corbusier on his work throughout his career. For example, when discussing his collective housing projects in an interview conducted by Louise Noelle for the catalogue of an exhibition on Mario Pani at the Palacio de Bellas Artes in Mexico City in 2000, Pani stated that '[t]he origin of the matter is the theory of Le Corbusier on the Radiant City, that is, tall buildings that allowed green spaces to be freed up, with all the

services necessary on the ground floor' (2000, p.25). In an interview as part of an oral history project in 1990, Pani himself mentions that in proposing the dramatic shift for the CUPA site from 200 homes to over 1000 apartments, 'clearly, I was thinking about the radial city, the *Ville Radieuse*, that was then being proposed and evangelised by Le Corbusier' (De Garay 1990a, p.2).[115] Later in reference to Le Corbusier while discussing his own participation on the Jury for the 1952 Sao Paulo Biennale,[116] Pani mentions that 'I was also in favour of what Le Corbusier was doing. I made the multifamiliar Aléman based on his theories' (De Garay 1990b, p.2). He continued, recollecting that he 'believed the city should be made like the *Ville Radieuse* of Le Corbusier, and I tried to accomplish this through the *multifamiliares*, particularly in the Miguel Aléman' (ibid.). Besides interviews, Pani paid homage to Le Corbusier in his architectural journal *Arquitectura/México*. Beyond showcasing an interview with Le Corbusier in the inaugural issue, his theories and built work featured prominently in issues 1 (December 1938), 2 (April 1939), 21 (November 1946), 32 (October 1950), 37 (March 1952), 45 (March 1954), 56 (December 1956), 74 (June 1961), 76 (December 1961), 78 (June 1962), 79 (September 1962), 82 (June 1963), 90 (June 1965), 91 (September 1965) and 92 (December 1965), while references to his work in other articles abound (See Appendix 3 for detailed list of articles featuring Le Corbusier). Of special interest were an essay from issue 82 in June 1963 by Raul Henríquez titled '*Arquitectura moderna en México*' ('Modern architecture in Mexico') that demonstrated the influence of Le Corbuiser on architecture in Mexico, and a special issue (no. 92, December 1965) dedicated to Le Corbusier following his death in 1965. After that special issue, between 1965 and 1978 Le Corbusier was not profiled in the journal.

While this relationship of influence between Le Corbusier and Mario Pani is seemingly made clear by all who encounter and write about Mario Pani's work, and by Mario Pani himself, the same authors move to distance him from the Swiss-French architect, to carve out an original impetus, to present an alternative modern

115 Translation by author. Original in Spanish: 'Claro, estaba pensando en la ciudad radial, la Ville Radieuse, que entonces estaba pregonando y evangelizando Le Corbusier.'
116 The two other jury members were Siegfried Gideon, business partner, friend and promoter of Le Corbusier, and Junzo Sakakura, a disciple of Le Corbusier.

architecture, a Mexican modernity. De Garay argues that '[f]rom an architectonic point of view, the *multifamiliar* Alemán, while following Le Corbusian principles (high density and building height) is original' (2004a, p.37) because it has external walkways 'in the open air… illuminated and ventilated' (De Garay 2002, p.20), circulation happens every third floor,[117] and it is substantially bigger at 1080 apartments to Le Corbusier's 337. Noelle Merles, after confirming the influence of Le Corbusier on Mario Pani's housing scheme, suggests that 'it should be emphasized that Pani's project did not merely copy Le Corbusier's scheme but was instead based on his own ideas for denser urbanism and took special account of the *modus vivendi* of Mexicans' (1997, p.182). The differences, Noelle Merles argues, can be found in that 'techniques and materials were adapted to local conditions' and 'the floor plans responded to the necessities of a family in the city' (1997, p.182). Felipe Leal argues that Pani's work on housing 'was not limited to the densities and grouping planned by Le Corbusier' (Leal in Adrià 2005, p.9), implying the sense of innovation and creativity. De Garay, Noelle Merles and Leal's defence of the originality of Mario Pani's work within the contemporary field of rethinking the historiography of the modern to include 'modernisms' beyond Europe (Nasr & Volait 2003).

In equal measure, Pani himself defends against a superficial reading of a mimetic trope between his work, and the theories of Le Corbusier. Speaking about the *Unité d'Habitation* by Le Corbusier in Marseilles built between 1946-1952, and the built project by Le Corbusier most compared to Pani's CUPA, Pani suggests that 'Le Corbusier's had, for me, the error that the circulatory hallways were interior' (De Garay 1990a, p.3), and that in a building of 300 apartments the smells of the kitchens and bathrooms would be oppressive, whereas in his CUPA, with exterior walkways 'open to the gardens, you would not notice a thing' (ibid., p.4). In an interview crediting Le Corbusier's theoretical influence on his work, Pani reminds the listener that at the time he was building the CUPA, 'this idea had not been realised anywhere', and that

> At the same moment that I decided to make the first, the *Multifamiliar* Miguel Aléman, Le Corbusier was making the Unité in Marseilles, a building of only

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117 Le Corbusier's Unité d'Habitation in Marseilles had circulation every two floors.

three hundred apartments, but it was finished after I finished my unit with more than one thousand apartments. (Pani qtd. in Adrià 2005, p.17)

According to Pani, the originality emerges from the fact his was the first to be materially realised, and that his CUPA was at a much larger scale than Le Corbusier's *Unité d'Habitation*. Details, evidenced by Pani, but also above by de Garay and Noelle Merles, of the exterior walkways, the elevator circulating every three rather than two floors, and the internal distribution of the apartments themselves add themselves to arguments of originality.

While this section does not attempt to argue one way or the other in terms of if Mario Pani copied Le Corbusier's ideas, interpreted them, or was an original thinker himself, the continuous reference to Le Corbusier by all authors arguing both positions does demonstrate the paradox of influence. There is a benefit to be compared to internationally renowned figures in the architectural and planning worlds; adopting, favouring and proselytizing popular ideas can create legitimacy. Equally, the question of the origin of an architectural or urban 'idea' can turn from one regarding the global circulations of knowledge to a fierce and protective debate on the 'nationalism' of a building or an idea – particularly where these debates are projected to a national and international audience. This section contextualises the 'idea' of the building by placing the question of influence and origin at the heart of a discussion about the CUPA. Later in the chapter, I examine how the question of origin is answered by analysing the nationalistic rhetoric deployed at the inauguration of the CUPA as one instance that complicates the global circulation of ideas. I do this in part by focussing on the ways in which the materialities of the CUPA and of the people who made it were nationalised by official state representatives at the inauguration, conflating their material presence within a territory, and/or their citizenship with the national authorship of their labour. In the section that follows, I examine the finances of the *Dirección de Pensiones Civiles* during the six-year presidency of Miguel Aléman compared to its previous twenty-five-year history. I do this to make explicit the change of pace of spending on housing and land as a way of contextualising the inauguration of the CUPA which occurred in the middle of the Aléman presidential term, and was then the most ambitious building project by the *Dirección de Pensiones Civiles* to date.

Financing the building

The CUPA was not the first time the *Dirección de Pensiones Civiles* was interested in housing. From its inception in October 1925, the *Dirección de Pensiones* was responsible for providing pensions for public sector employees, but also provided access to unsecured loans, reduced rate mortgages to incentivise home ownership, and built housing to rent at reduced rates (Pani 1952, pp.9–16). In 1942, the federal department began to invest in housing for public sector employees outside of the *Districto Federal*, bringing social housing to places around the country (ibid., p.12). The *Dirección de Pensiones* experienced substantial growth during the sexeño of Alemán (1946-1952), in which they bought land to develop housing at a later date in Monterrey, Chilpancingo, Matamoros, Colima, Mérida, Tuxtla Gutiérrez, San Luis Potosí, Guadalajara, Veracruz and Comitán, spending a total of $21,127,337.40 pesos. During the same years, the *Dirección de Pensiones* provided low-cost mortgages for 7,461 houses at a cost of $147,411,404.80 pesos, and built some 2,226 homes (houses and apartments) in and around Mexico City at a cost of $77,089,425.99 pesos, or 54.93 per cent of the total spend on buildings and land (ibid., p.13).[118] The importance of the *Dirección de Pensiones* grew at an increasing pace throughout the early post-war period such that a comparison of the amount spent by the department over its first twenty-one years of operation pales in comparison to the six years of Alemán's presidency [see Table 1].

	21 years (1925-1946)[119] in pesos	6 years (1946-1952)[120] in pesos	Increase in pesos	Per cent of increase
Pension payments	23,897,790.45	71,315,577.22	47,417,786.77	198.415
Unsecured	534,004,283.27	611,863,131.00	77,358,847.73	14.487

118 After the third year of Miguel Aléman's presidency (1946-1952), the Dirección de Pensiones introduced state owned hotels at reduced rates in Veracruz, Popo Park and Acapulco. Heralded as a 'new social service' and a 'magnificent innovation to attend to the physical wellbeing of employees', the service offered 'relaxing hotels for their recuperation, in which, for a modest fee, they could enjoy all the benefits, comforts and distractions offered at similar first class establishments' (see Pani 1952, pp. 13-14). At the same time, Mario Pani was involved in building the airport for Acapulco, its urban masterplan, the first condominium – Los Cocos –, and the yacht club, along with private residences in the burgeoning seaside resort. See Arquitectura/México June 1954, number 46.

119 The years refer specifically to October 1925 to 30 November 1946.

120 The years refer specifically to 1 December 1946 to 30 November 1952, coinciding with the exact six-year term of President Miguel Alemán. The new President is sworn into office every six years in Mexico on the 1 December.

loans				
Mortgage loans	89,447,702.73	147,411,404.80	57,963,702.07	64.802
State securities investments	8,204,000.00	11,205,000.00	3,001,000.00	36.579
Buildings and land	21,698,713.01	140,348,170.93	118,649,457.92	546.850
Furniture and equipment	1,978,260.51	4,947,390.05	2,969,129.54	150.087
Assets of the department	121,551,793.03	406,000,000.00	284,448,206.97	234.014

Table 1: The amount spent by the *Dirección de Pensiones Civiles* between 1925-1946 compared with the amount spent between 1946-1952. Source: Mario Pani (1952) *Los Multifamiliares de Pensiones*, p. 16.

Across the board there are substantial increases in funding by the *Dirección de Pensiones*, increases made all the more impressive since the comparator is not the previous sexeño, but the entire twenty-one year history of the department's spending. In the six-year term, pension payments rose roughly 198 per cent, the assets of the department rose 234 per cent, and mortgage loans by 65 per cent. The largest single increase, however, was in the area of buildings and land build and owned by the department, growing by a factor of over six to one, or some 547 per cent. Between 1946 and 1952 there were a total of 9,687 homes built or financed by the department. Of these, 7,461 were funded through mortgage loans provided by the department totalling $147,411,404.80 pesos, and 2,226 units were built and rented out at a total of $77,089,425.99 pesos. By the end of a six-year presidential cycle, it was clear from the spending of the *Dirección de Pensiones*, that even more-so than pensions for retired workers, housing was now the prime focus. In that short period, more than two and a half times more money was spent on financing or building homes than had been spent on the same in the previous twenty-one years combined. Under these circumstances, we could understand this as a housing boom in Mexico City. And at the heart of this boom, responsible for building 2,106 of the 2,226 units built by the *Dirección de Pensiones* or some $71,003,998.63 pesos, was Mario Pani Associated Architects: 42 apartments at the new University City (1952), 984 apartments at the *Centro Urbano Presidente Juárez* (1952), and 1080 at the CUPA (1949).

The importance of these numbers, their dramatic change, tells us something about what happened during years now described as the 'Mexican Miracle', a sense of growth in spending, of public provision, and the expansion of the delivery of services into the building housing units, and the expansion of services across the nation. But the figures alone do not give us a sense of *how*. One place to start this investigation, then, is to look at one of the places in which these statistics were published. Table 1 was published in a book authored by Mario Pani in 1952 titled *Los Multifamiliares de Pensiones*, a book which introduces the idea of multifamily housing as part of a rational and economic solution to the 'problem of housing' (Pani 1952, p.38). The problem of housing in Mexico would be an issue that Mario Pani would confront his entire career, indeed it perhaps was 'the' issue for Pani. At the beginning of *Los Multifamiliares*, Pani writes, 'Regardless of their prosperity or pauperism, all the nations equally face, in these times and to a greater or lesser extent, the problem of housing. … Mexico is no different' (ibid., p.7). Louise Noelle Merles concurs when she writes that 'Pani was also interested in the rationaliation of urban growth. The densification of new construction could potentially provide beneficial services to the user as well as be cost-effective in terms of the utilization of the infrastructure of the city' (Noelle Merles 1997, p.179). In the following section, I aim to disaggregate the staggering financial statistics presented in Table 1, and attempt to understand what lies behind the ever-angled upward line of statistical progress. What were some of the rationales behind the *Dirección de Pensiones'* decision to spend 547 per cent more on housing than it had over the previous twenty-one years? What legitimated this dramatic growth? Core to understanding the *Dirección de Pensiones'* dramatic increase in spending on housing units, and the scale of the number of units themselves between 1946 and 1952, involves understanding the architecture behind it, and how this architecture was, in Jacobs' (2006) terms a 'building event'. That is, how architecture was co-constituted and constituting of an assemblage of visuality and materiality that produced itself as legitimate, and in turn, legitimated the productive ideal of the State.

One of the first of the building projects in those years was the CUPA. Understanding the building of this building, and, as will be detailed below, its inauguration, leads us to think about this growth in three ways. First, the 40,000 square metres of land on

which the CUPA now lies, was originally slated by the *Dirección de Pensiones* for 200 single family homes (Noelles Merles, 1997, 179). Pani built 1080. The CUPA is a moment of massification. Second, Pani and the engineers he hired to build the CUPA, Ingenieros Civiles Asociados (ICA), were able to build the 1080 apartments for the same budget as the original plan for 200 homes. The CUPA is a moment of economic efficiency. Third, the CUPA was planned, designed, and built in just two years. The CUPA is a moment of speed. These three characteristics, massification, efficiency and speed come to be represented in the form, descriptions and rationale of the CUPA. They are characteristics of modernity. Through them, the CUPA is confirmed as a success, and it is as a legitimate success that the *Dirección de Pensiones* is able to move forward with the ambitious follow-up project, also by Pani, of the *Centro Urbano Presidente Juárez*, and other building projects in Mexico City (Larralde 1999, p.13). In the section that follows, I trace the official moment the building becomes visible, that is, the moment of the inauguration – not as the presentation of a final building, but itself a piece of work in the production of the CUPA as such. The inauguration allows a discussion of architecture as an assemblage with work being done to make it cohere.

THE INAUGURATION

The Mexico of tomorrow

On Friday the 2 September 1949, President Miguel Alemán and Esteban García de Alba, the Director of the *Dirección de Pensiones Civiles*, unveiled a plaque to christen the 1080 new apartments. After a series of speeches, the festivities were marked by a presentation of the national ballet, and the Mexican Olympic swimming team. The CUPA was, according to the architect Mauricio Gómes Mayorgama writing in the Mexico City daily newspaper *Excelsior* two days later, 'a building built from a better Mexico, of the only Mexico that should be of interest to living men: the Mexico of tomorrow' (Mayorga 1949b). Three images of the inauguration splashed across the front page of the *Excelsior* on Saturday 3 September 1949 with the headline 'An Urban Centre, Ready to Receive One Thousand and Eighty Bureaucrat Families' (Editorial 1949d) [Figure 5.18]. The first of the quasi triptych shows a huge crowd at

the opening ceremony, bodies on the ground, bodies in the stairwells, and bodies all along the 'streets in the sky', the innovation of horizontal walkways connecting the nine thirteen-storey buildings in zig-zag form, a banner hung from the top storey in the background, illegible, but celebratory. The second, the middle panel, is a close up of Alemán walking and shaking hands with a woman – hands outstretched – moving towards the camera, and, we are told in the caption, 'surrounded by government functionaries' (Editorial 1949d). The third photograph, marks 'the moment in which the President of the Republic uncovers the plaque to officially inaugurate the Centro Urbano Presidente Alemán' (Editorial 1949d). The images work to showcase the inauguration of the CUPA as a celebration of public works, mediated through the building as the frame of modernity.

Anyone present that day could not possibly miss the building. Its mass alone commanded attention, particularly in that space at that time, surrounded as it was with farmland, and a sprinkling of low-rise development. With a sense of 'awe' a given, much of the inauguratory remarks focused more on the details of what could not be seen, bringing the assemblage into view. In his official capacity as the representative of the State, García de Alba equated the need of housing to the need for food, adding that in the first two years and nine months of the Alemán administration, they 'invested more than 90 million pesos into solving the problem of housing public servants' (Lomelí 1949). He begins by outlining the detailed statistics of the building, impressing its mass and scale on the already awed audience. 'The estate,' he begins,

> is formed by nine buildings of thirteen storeys with 936 apartments serviced by twenty elevators and 3,400m² of ground floor space for commercial use. Six buildings of three storeys with 144 apartments. Total of 1,080 apartments, with 98,987m² of construction. … The total cost of the construction – not counting the cost of the land – is $18,800,000.00, equal to a cost per square metre of $189.92.[121] (Lomelí 1949)

Addressing the crowd outside the buildings, the power of these numbers fuse with the material image of the modern housing block, appearing remarkable even as they

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121 The currency here is Mexican pesos.

Figure 5.18: 'An Urban Centre, Ready to Receive One Thousand and Eighty Bureaucrat Families', newspaper clipping from the inauguration of the CUPA, 2 September 1949. Source: *Excelsior*, 3 September 1949, second section, p.17.

sit without comparison. In the difference between seeing and knowing, the audience saw its mass, the image of modernity, but now they knew its details. Elements like square footage and cost are the unseen details as important to the mass of brick and mortar funnelling the attention of those present at its inauguration. Modernity here is as much about what is made to appear, the image of the modern city, and those equally modern unseen details: the efficiency, for example, of the building technique and materials through mass standardisation.

Considerable time is spent explaining the modern amenities of the CUPA at the inauguration, a systematic representation of the CUPA as a building 'from tomorrow'. García de Alba mentions 'hot and cold water, a deep well, telephones, electric light, garbage incinerators, central gas and a swimming pool' (Lomelí 1949) [Figure 5.19]. Besides the individual 'luxuries' of the housing block, García de Alba also highlights the communal services constructed into the development –

> On top of all this, there are additional buildings for annexes and special services: two schools, one for boys and one for girls, with twelve classrooms and an auditorium, gardens, toys for children, etc., with a capacity of 1,200 students … A furnished nursery. A fully equipped playground. A general services building for administration, the police, a fully equipped medical unit, and spaces for the post and telegraph offices. A theatre space and gymnasium. A laundrette equipped with individual automatic machines and drying rooms. … As well, the swimming pool has changing rooms, water purification, a heater and other related services. The building has modern automatic boilers to provide hot water through a central system, including a water softener … The adjacent streets are illuminated, and two of them are now paved. There is an electric substation providing high and low tension. Lamps and buttresses in every one of the apartments and corridors of the building and lighting in the gardens. Fire-fighting equipment. Each apartment is equipped with radio and sound systems. The ground floor is prepared for commercial services. (Lomelí 1949)

I quote this passage at length to demonstrate the number and variety of details that were described about the building, its services and amenities both technological and social, at the CUPA's inauguration.[122] The narrative was not just about the revolutionary wonder of the building itself – a building that was worked on every day for two years by over 1800 workers (Pani 1952, p.8) – but of the details. The revolution is not only in the scale and mass, but in the intricate and hidden systems of

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122 For more details, see Mario Pani (1952) Los Multifamiliares de Pensiones, pp. 17-38.

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Please see image in original publication.

Figure 5.19: The swimming pool at the CUPA, 1949. Source: Miquel Adrià (2005) *Mario Pani: La construcción de la modernindad*, p.82.

modern life materially embedded in the structures of the building – the radios built into each apartment, the twenty elevators, the price per square metre, and the electric lights.

During the inaugural weekend of CUPA in 1949, the newspapers were awash with images of the housing estate – aerial photography showing off its zigzagging form, an eruption of modernity among a still quasi-rural landscape; images of the building under construction, the concrete skeletal form being enveloped in bricks, mortar and tezontle tile; images of celebration and officialdom cementing the relationship between the state and the built project, an image of modernity for both. The images rely on monumentality, mass, and the appearance of the 'whole'. Rare, however, is there a photograph of detail, of intimate space, or the image of a 'part'. One of these rare images appears on Sunday 4 September 1949, on the tenth page of the third section of *Excelsior*. The image is of one of the protruding stairwells on a thirteen-storey block, the staircases climbing in vertical diagonals, zigzagging up beside concrete rows of the thirteen floors, and alongside singularly straight concrete columns, lifting the building off the ground to allow 'free spaces for intercommunication between all the buildings' (Editorial 1949c) [Figure 5.20]. The caption by the stairwell reads, 'Note the clarity of expression in the concrete structure' (Editorial 1949c). A small caption, on a small image in the back section of a daily newspaper on a Sunday in 1949 in Mexico City, the idea of 'clarity' falls short. Indeed, the invocation of 'clarity', meaning at once coherent and intelligible, certain and definite, transparent and pure, belies the layers of inchoate and incoherent meaning embedded in the depth of this flat newsprint image.

A consideration of the image of the stairwell in some detail might lead to any number interpretations. Walter Benjamin's assertion that 'what is crucial in the observation of architecture is not seeing but rather the coming through of traces and structures' (Benjamin qtd in Frisby 2001, p.7), brings us some way back to Berlant's quote on the uncritical 'mirroring relation' invoked between 'affect activity and emotional states' (Berlant 2008b, p.4). Both are arguing that there is nothing 'clear' in that relationship, both using the metaphors of visuality in relation to the material: Berlant in the

PERSPECTIVA DE CONJUNTOS de escaleras en el edificio multifamiliar ya terminado. Nótese la claridad de expresión de la estructura de concreto. Hubiera sido de desearse que las circulaciones horizontales se hubieran destacado con mayor claridad en los edificios. Todas las plantas bajas descansan sobre postes, de tal manera que quedan espacios libres de intercomunicación entre todos los edificios. (Foto Zamora.)

Figure 5.20: Photograph of a stairwell at the CUPA, newspaper clipping from the inauguration of the CUPA, 2 September 1949. Caption reads: 'Notice the clarity of expression in the concrete structure'. Source: *Excelsior*, 4 September 1949, third section, p.10.

trickery of the mirror, and Benjamin on the gap between what we 'see' and what 'comes through', between seeing and knowing. In some way, Benjamin allows us to reconsider the effect of the built structures of modernity that were listed in detail by García de Alba at the inauguration. The boilers, the changing rooms of the swimming pool, the medical facility, the class rooms and auditoriums, the garbage incinerators, the radios and telephones: this is, perhaps, one superficial instance of the 'coming through of traces and structures'. The image of the stairwell paired with the caption of clarity leaves us to consider the inauguration less as a presentation of a building, of a finished and whole 'thing' and more as one of many pieces of work towards its production as a visible 'thing'.

Revolutionary Architecture

While the presentation of detail marks the building's modernity, there is another, equally modern, trace made manifest in that inaugural weekend in 1949: the trace of revolution. Several authors have traced the relationship between the Mexican state, the discourse of the Mexican revolution and the built environment in Mexico, and specifically in Mexico City (Carranza 2010; De Anda Alanís 2008a; Olsen 2008). Patrice Elizabeth Olsen's book *Artifacts of Revolution: Archtiecture, Society, and Politics in Mexico City, 1920-1940* begins from the assertion of Lewis Mumford that 'architecture never lies' (qtd. in Olsen 2008, p.xiii) and uncovers a new history of post-revolutionary Mexico through the traces of the built environment it produced. Like a modern day urban archaeologist, Olsen peels back the palimpsest, the layers of asphalt, brick and stone revealing the symbolic history of the revolution as written in the materiality of the city, concluding that 'by 1940 every action undertaken by the government and its representatives was labelled "revolutionary," regardless of whether the action was derived from the Constitution or defined as in the public good' (Olsen 2008, p. 248). Luis E. Carranza's book *Architecture as Revolution* examines the same post-revolutionary years as Olsen and argues that '[t]he multiple architectural variants produced should be seen, therefore, as legitimate articulations to grasp and address the direction that the nation was undertaking after this most momentous event' (Carranza 2010, pp.3–4). The 'event' Carranza refers to is the

Mexican Revolution, not so much an historical event, per se, as an historicised one. Both of these studies are extraordinarily thorough, and present a wide range of primary documentation not seen before in the architectural history of Mexico in the 1920s – 1940s. Both also begin from the assertion that architecture can be read and that a kind of representational 'truth' awaits to be uncovered or revealed, 'architecture never lies.' I have resisted the impulse to read a representation into or out of the CUPA, not because I do not think there is value in this pursuit, nor that following such a pursuit does not surface important questions. Indeed, I think these kinds of studies help to construct a political economy of architecture that lead to important questions being asked about its production and circulation, about certain forms of power. However, here I am specifically interested in looking at how CUPA was being made visible through its inauguration, and particularly through the role of specific powerful human agents, architects and clients like Mario Pani, Esteban García de Alba, and Presidente Alemán: who, I argue below, were represented as revolutionary, and of the (Mexican) revolution.

De Anda Alanís uncovers historic moments of connection between the built environment and the revolution that both predate, and therefore help contextualise, the inauguration remarks analysed below. He cites at length an article from 12 September 1926 by the architectural critic for the daily newspaper *Excélsior*, Alfonso Pallares, who argued that 'one of the essential missions an architect must accomplish is the pursuit of a sane and just nationalism' (De Anda Alanís 2008a, p.331). Pallares laments the individualist and monumental architecture presiding in the 1920s Mexico City – particularly those works to fix or expand existing architectural buildings, like the *Palacio Nacional*. Instead, he argues that the 'revolutionary labour and the labour of the revolutionaries' would 'create new transcendental cultural values … whose expression would be encountered in new architectonic buildings, in a new architecture' (ibid., pp.331–332).

The architectural context of the historic revolution and its consolidation into institutional politics in Mexico points in some way to the politics of hope that Anderson figures as addressing 'the question of what will come to be by dimly

outlining the contours of something better' (2006, p.749), a question central to the hopefulness of the nation-state itself, and the cyclical circulation of the home, the family and reproduction articulated by speakers at the inauguration. Useful here is a consideration of Lauren Berlant's work on 'cruel optimism' as 'a way of describing a certain futurism that implies continuity with the present' but that, she goes on, 'does not always *feel* good' (Berlant 2004, p.449). And yet, Berlant argues that '[t]he vague futurities of normative optimism produce small self-interruptions as the utopias of structural inequality' (Berlant 2006, p.35). In this sense, I wanted to suggest a kind of revolutionary affect circulating in Mexico, whose traces we just about sense, 'dimly outlining' the 'building event' of the inauguration of CUPA in 1949, keeping in mind the promises of proto-utopias stuck to the materiality of the CUPA and their eventual, perhaps necessary, refusal.

The Double Revolutionary

In describing the inaugural event, the editor of the *Excelsior* wrote that the inaugurated building 'represents a revolutionary idea in resolving the problem of a scarcity of rental units' (Lomelí 1949). Alfonso Martínez Dominguez, the head of the union of the workers for the *Departamento del Distrito Federal*, speaking at the inauguration on behalf of the 80,000 bureaucrats in that department, congratulated the President on delivering this building to the workers of the state, with so many amenities. He goes on, 'In effect, in no other country do the public servants benefit as much as we do from the judicial and social guarantees that the Mexican Revolution granted us' (Lomelí 1949). In his article 'The Biggest Material Realisation of Collective Housing, in Latin America,' the architect Gómes Mayorga wanted to underline in the 'most vigorous way possible the importance that realising a project like this holds for our city and our country, destined to revolutionise in our medium[123] the concept of housing even, to convert itself into the most important collective experiment carried out' (Mayorga 1949b).

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123 Here, Mayorga speaks on behalf of the architectural community. Our 'medium' being 'architecture'.

In the same Saturday 3 September 1949 edition of the *Excelsior*, the engineer Robles Martínez declared a 'magisterial joy' for the inaugurated building, defending its originality against housing projects in Vienna, Le Corbusier's then unfinished *Unité d'Habitation* in Marseilles, mass housing in the USSR, or tower blocks on the Hudson in New York (Martínez 1949). The article finishes, however, with a more general statement about the role of bureaucracy and the public servant in Mexico, public servants who were, we are reminded, responsible for the CUPA. He argues that bureaucrats are 'also a sector in the revolutionary movement that, without the loss of the right to criticize, have the duty to support the governments emerging from this movement, to fulfil the principles of the Mexican Revolution' (Martínez 1949).

We have, in these invocations of revolution, the 'revolution' in multiple forms. First, the notion of a revolution in terms of a transformation in thought or practice, in terms of newness. That the CUPA is deemed 'revolutionary' as a housing project is an attempt to mark it as distinct to what has come before. While the CUPA is indeed a prototype of massification (Frisby 2001, pp.161–162) – the original brief for the 40,000m² site was for 200 single family homes – Pani delivered 1080 apartments on 20% of the land[124] (De Garay 2004a, p.35; Pani 1952, p.27) – mass alone does not make a thing revolutionary: change does. As the commentary surrounding the inauguration insist, this was not simply a change in scale, but a change in kind. Martínez's defence of CUPA's revolutionary originality posits its 'advanced place in the resolution of the problem of popular housing, not only in Mexico City, but globally' (Martínez 1949). Martínez counts the Karl Marx housing estate in Vienna as too small a comparison, at only 200 apartments; the housing block in Marseilles by the 'famous and internationally renowned architect Le Corbuiser' as too small at only 300 apartments, and 'whose construction began before the [CUPA] and to this date is still not finished' (Martínez 1949); popular housing in the USSR 'has no parallel to the magnificent work by our architect Mario Pani' (Martínez 1949); and the tower blocks in New York City on the Hudson 'cannot resist being compared unfavourably to ours, neither from the point of view of volume, nor from the point of view that this

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124 Pani argues in his 1952 book on the Multifamiliar that if his dense typology of housing was rolled out across Mexico City, the city could be five times smaller with 80% of the land given to green space. See Pani (1952) Los Multifamiliares de Pensiones pp. 32-33.

Centro has a modern sense of housing in that it contains all the municipal services, schools, parks, gardens, playgrounds, etc.' (Martínez 1949). In 1952, Pani himself defended the originality of CUPA arguing that

> From an urbanistic point of view, the solution of the *Centro*, with a population density of more than 1,000 people per hectare, signals the true path that all major modern cities should follow. … Because of its dimensions and social importance, it is without doubt one of the largest and most important undertakings in Mexico. (Pani 1952, pp.32–33)

The creation of the CUPA as a kind of urban best practice, as a path to follow, not a building that followed others, is precisely what is at stake. The thrust in the inaugural invocation of the CUPA as a revolutionary architectural and urban object is evident in the descriptions of it as such, and in the efforts to demonstrate its originality in a field of modernist housing developments internationally.

The second sense of the word 'revolution' reveals why it is so important that the CUPA is seen as 'revolutionary' in the first sense. That is, revolution, in Mexico always already hosts the official reference to the Mexican Revolution (1910-1917/20), both as an event, but also as an on-going process of everyday governance (Joseph & Nugent 1994). Every speaker at the inauguration of the CUPA praised the government with direct or indirect gratitude for fulfilling 'the principles of the Mexican Revolution' (Martínez 1949). Martínez ends his long article about the CUPA in the *Excelsior* as follows:

> Speaking from the union, as workers of the State, we should remain independent from President Alemán, in his role as the leader of the organisation we work for, which is the Federal Public Administration. But politically speaking, as the revolutionaries we are, we should recognise Miguel Alemán as the actual leader of the Mexican Revolution in the flesh and we are obligated to conduct our political actions conforming to the line that the revolutionary movement follows in his government, in his leadership. (Martínez 1949)

This passage makes clear a division that Martínez holds between the bureaucracy of the political as a formal democratic institution, with checks and balances, the capacity for external and internal criticism, and the political spirit, a universal and teleological development from the Mexican Revolution of 1910 onwards. Both sets – the formal and the spiritual politics of Mexico – appear embodied in the President.

As a rhetorical trope, then, the 'revolutionary' acts as both an adjective – the CUPA is a revolutionary architectural object – and a noun, 'as the revolutionaries we are'. The framing of the CUPA in these terms admits the character of the *double revolutionary*. First, the architect, the engineer, the resident are depicted, and indeed depict themselves, as forward thinking innovators, as urban revolutionaries.[125] Second, in figuring CUPA in relation to the legacy of the capital 'R' Revolution, the character becomes embedded within a national imaginary linking the social progress of the Mexican Constitution of 1917 to the architectonic structure structuring a response to a then contemporary national housing crisis.

The 'work' that is needed to sustain a claim to 'architecture' is precisely the work of the everyday. I am arguing here, that this everydayness of the CUPA is inflected with the rhetorical circulations of revolution by double revolutionaries. It is signalled in the non-hierarchical list of modern amenities that posits the laundrette as as revolutionary a device as the paved road, the garbage incinerator, or the tons and tons of concrete soaring like magic in the air. The work of sustenance delivers this claim through the everyday movements of the body in this defiantly 'modernist' space. Washing clothes in a communal but automatic laundrette for example, and the rhetorical discernment of that movement as 'revolutionary' (in both senses), uncovers 'the precarious conditions of alliance that allow [the CUPA] to cohere (or not) into a built form, housing, architecture' (Jacobs 2006, p.22).

Through its adherence to modernist notions of functionality and circulation, the design of the CUPA preordains some of the 'terms' of living for low-level bureaucrats in Mexico City. If the washing was going to be done some way, it is precisely because it will be done *this* way that matters. If the radio would be switched on, or the post fetched, or the garbage taken out, or an afternoon spent in the playground any way, then it is the 'terms on which things *must* be done at the most everyday of levels' (Sayer 1994, p.375) that signals the location of power. These terms are not just the material limits of what is possible, but the political limits as well. This

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[125] De Garay (De Garay 2002, pp.25–6) relates residents memories of being some of the first to agree to live in the site, to the incredulity of friends, colleagues and family.

is, perhaps, Vale's 'design politics' in action, not the 'look' of the CUPA, but its 'particular configuration' (2013, p.31). The continual quotidian construction of the CUPA as architecture is, in this sense, entangled in the everyday construction of the state, and the architecture of nationalism. Architectural revolutionaries whose domestic bodies are being conditioned by the very limits and possibilities of material modernity stand in for the revolutionaries doing the *work* of producing the state as they hang their linens to dry [Figure 5.21].[126]

Here I want to turn Derek Sayer as a possible antidote to the seemingly hegemonic construction of the 'revolution' I masoned together from the historical traces of words spoken (or perhaps not spoken, but at least recorded as having been) some sixty-three years ago. Recent moves in the literature on the geographies of architecture allows us to move beyond the claim that 'architecture' is a 'thing' and instead that there are 'precarious conditions' that 'allow it to cohere' (Jacobs 2006). This approach lends itself to similarities with Philip Abrams (1988) whose ideas Sayer works through in the argument that '"the state" does not exist' (Sayer 1994, p.371). In a striking moment of covalence Sayer writes:

> Abrams distinguishes between the *practice* of politics – politically organized subjection, he calls it – and the *idea* of the state, and says that the idea of the state is a "collective misrepresentation." The state is not the reality behind the mask of political practice, the state *is* the mask. If so … we need to give the closest attention to how this idea of the state is constructed and sustained. (ibid.)

At this point, the methodologies of inquiry between Jacobs' 'geography of big things' and Sayer's '[e]veryday forms of state formation' seem to momentarily align. Architecture, as a concept that unifies a set of assemblages, could be read as a 'mask' in a similar way to Sayer's understanding of the state. In uncoupling the abstraction of the state as a cohesive agent, Sayer undercuts its oft-repeated hegemony. Rather than the hegemonic existing, as it were, in the Weberian calculation of 'authority as legitimate power' (1994, p.375), Sayer counters that

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[126] Residents could not, however, hang their linens to dry anywhere. Clause 15(a) of the Regulations of the CUPA states, 'To conserve order, tranquility and hygiene among the rental population and the look of the buildings, the following are prohibited for tenants and any family members living with them: Putting clothing out to dry in windows, hallways, stairwells or any other visible part of the building' (De Garay 2002, p.194).

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Figure 5.21: Details of the CUPA laundrette. A still from a film by the ICA '*Nace una ciudad*' ('A city is born'), 1950. Source: Graciela de Garay (2002) *Rumores y retratos de un lugar de modernidad*, p.197.

> [t]o a very considerable degree … it is the exercise of power pure and simple that itself authorizes and legitimates, and it does this less by the manipulation of beliefs than by defining the boundaries of the possible. Power enforces the terms on which things *must* be done at the most everyday of levels. (ibid.)

In light of Sayer's argument, the inauguration of the CUPA transforms into something other than the moment of political expediency, a moment where a President shows up for a few minutes to unveil a plaque before moving onto the next stop of an official itinerary. The 'allied' constellation of reinforced concrete, modern design, Mexican origin, and political theatre marked this building not just as an apartment building, not just some houses for low-level bureaucrats, but as a building event, to use Jacobs's (2006) term. It is a very modern building event in its adherence to Sombart's massification, and Wagner's monumentality, but because of its function – the home – this particular event conflates the ideals of modernity with the everyday bodily movements of people in the domestic spaces constructed for them and with the political rhetoric of the Revolution.

In reading the textual and visual legacies of the CUPA's first days, the inauguration becomes framed as a fiercely public alignment of the CUPA with the State, blanketing the precarious alliance of agents who produced the CUPA – not just the architect, but also the engineers, the bureaucrats, the politicians, the 1800 labourers, and the future inhabitants – all as 'double revolutionaries'. Their work, their movements, their sweat and their ingenuity, their inhabitation, their adaptation, their daily lived future circulations were being bound, that day, to an ongoing revolutionary project projected through concrete lines, and a particular shaping of collective domestic space. In the words of Dominguez, the head of the union for the *Departamiento del Distrito Federal* spoken at the inauguration:

> I declare that a hygienic and comfortable home elevates the quality of life of a family and is the most powerful bond between its members. No human being can be happy if he lives piled up with his wife and his children in a room. Because of this, your work [the CUPA], Mr. President, brings joy into our homes and, in unifying the family, it invigorates the sentiment of Mexican nationalism, because the family is the base of society and a clean home is the best cement for the Nation. (Lomelí 1949)

With these powerful words, the assemblage of the CUPA, its brick and mortar, its landscaping, its paved streets, shudders into view. The onlookers at this inaugural

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celebration are invited to create the image of the whole, sutured together by the allegory of the home. The home is figured as the 'most powerful bond' of the family, and the family is presented as the 'base of society,' leading to the appropriately material metaphor that the home is the 'cement' of the nation.[127] The inauguration of CUPA worked in some way by defining the 'boundaries of the possible' (Sayer 1994, p.375) squarely within the rhetorical power of the Revolution and the state, such that a 'revolutionary' affect circulated freely under the pilotis of these fifteen towers.

CUPA's role as an imperfect, rhetorical mirror is made all the more manifest as a nationalist reflection through the assertions and celebrations in several newspaper articles that the architect, the engineers, and the construction workers for the CUPA were all Mexican: no foreign technical or material support was used (see Lomelí 1949; Mayorga 1949b). In these brief but important descriptions we get a sense of the architecture of nationalism as constructed through the national 'provenance' of the CUPA. The building's nationality is figured as Mexican based on the embodied 'national' at work in each of the bodies that worked on the CUPA, rationalising the attempts to disentangle the intellectual provenance of CUPA from any traces of a foreign accent. However, Hannes Meyer, the planner living and working in Mexico between 1939-49, and in charge of the influential Urbanism and Planning Institute of Mexico City whose article on Mexico City urbanism I discussed in Chapter 4, argued that '[c]onstructive form is not peculiar to any country; it is cosmopolitan and the expression of an international philosophy of building' (Meyer qtd in Overy 2005, p.55). Equally, the architect Bruno Taut, having lived and worked in Germany, then exiled to Japan and Turkey in the early twentieth century demonstrated the particular paradox of modern architecture as both a cosmopolitan universal, and a deeply national force, writing that '[t]he more architectural forms correspond to the nature where the building is located, to the light and air, the more they are universal' (Akcan 2012, p.269). And yet CUPA, a self-referentially international modernist style housing block, *appears* original because we are told it is built by Mexican hands, with Mexican technical and architectural expertise. During the inauguration, work was being done

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127 There was the equivalent of 120 rail cars of concrete used in the construction of the CUPA, and a cumulative 195,000 days of labour. If one were to make a one metre squared tower with the concrete used, it would soar twenty kilometres high. See de Garay 2002, p186).

to cement the nationalism of the CUPA as Mexican and therefore, as part of the on-going Revolution. At the same time, work was being done to situate CUPA not just within a world of architectonic brethren, but at the forefront of innovation internationally. This very modern symbiosis between the use of the international and universal as precisely that which stands in so stalwart as national is summed up by Amanda Anderson:

> Cosmopolitanism has repeatedly emerged at times when the world has suddenly seemed to expand in unassimilable ways; it is at these moments that universalism needs the rhetoric of worldliness that cosmopolitanism provides. (Anderson 1998, p.272)

Perhaps in this sense, we might understand the Revolution too not just as a national event, but as a cosmopolitan construction itself, an assemblage manifesting the scaffold of the nation state. On the 2 September 1949, President Miguel Alemán was not just inaugurating an international style modernist housing block for 5,000 public servants in the south-centre of Mexico City, he was inaugurating the Revolution, again.

MAKING VISIBLE OUR BELOVED CUPA

The Anniversary

> To impute a mirroring relation between affective activity and emotional states under-describes the incoherence of subjects – their capacity to hold irreconcilable attachments and investments, the complexity of motives for disavowal and defense – and the work of the normative in apprehending, sensing, tracking and being with, the event. (Berlant 2008b, p.4)

For a few days every September since 1949, residents, government officials, musicians, and neighbours gather at CUPA. They gather to mark the anniversary of the inauguration of these towers by then President of Mexico Miguel Alemán (1946-1952). The inauguration brought together representatives from all levels of government and unions, and a huge crowd flowing through the landscaped gardens, up the stairwells and along the 'streets in the sky', hanging banners of congratulation and gratitude for this 'gift' of modernity. For the very first of these anniversaries, 2 September 1950, a committee was established, the *Comite Directivo Pro-Festividades de Aniversario del Centro Urbano Presidente Alemán* (Festival Management Committee of the

Anniversary of the CUPA). While President Alemán politely declined their invitation, the festivities included cultural activities, sports and dancing, and on the second day, the 3 September, a festival celebrating the typical food and dress of the States of Mexico was to be held.[128] A memorial was also held on the 7 September 1950 marking the anniversary of the death of the painter José Clemente Orozco, presided over by Esteban García de Alba, the president of the *Dirección de Pensiones Civiles*.[129] On the second anniversary, the Administration of the CUPA took over the organisation of the event, hosting a grand ball including the 'coronation' of 'Her Gracious Majesty Luz María I, Queen of the Celebrations of the Second Anniversary of the *Multifamiliar*, and her princesses, the ladies Carlota Ortiz Antuna and María Teresa Fuentes'.[130] Not one to miss a coronation, I planned the second of two research trips I made to Mexico City to coincide with one of these anniversaries, after meeting residents earlier in the year who let me know that they still come together to celebrate every September. I turn now to this moment, as the coming together of bodies within the CUPA to celebrate the CUPA had strange and wonderful resonances. Being present at a celebration whose gaze links back to 1949 invited me to consider the relationship of the bodily presence, affect and materiality.

For nine days in August and September 2010, the CUPA marked its sixty-first anniversary with a range of activities including a football tournament on its sporting grounds, the opening of the 'Photographic Exposition of the CUPA and Mexico City' by Ulises Moreno, a screening of the film *La illusion viaja en tranvía* (1953), which features the CUPA as an urban backdrop, and events for youth and retired alike. The week culminated on a Saturday full of official presentations, lingering into the night with music, dancing, food and drinks. Most of the events were well attended, and on this particular Saturday evening a multi-generational group of people from within and without the estate were dancing, sharing stories, giving toasts, and singing together. It

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[128] See 'Letter from Francisco A. Espinosa to Roberto Amorós 30 August 1950', Box 003.42/5837, Folio Presidente Miguel Alemán Valdes, Archivo General de la Nación, Mexico.

[129] See 'Invitation to Memorial, José Clemente Orozco', Box 003.42/5837, Folio Presidente Miguel Alemán Valdes, Archivo General de la Nación, Mexico.

[130] See 'Invitation to the second anniversary of the CUPA', Box 003.42/5837, Folio Presidente Miguel Alemán Valdes, Archivo General de la Nación, Mexico.

was, in all respects, an anniversary, but one whose central character was both absent and present in profound ways.

The CUPA was spoken about, memorialised, and brought to life that night as a cohesive object, as a community, as a place. Besides being the subject of the anniversary, it also hosted the celebration with events in the sporting grounds, community rooms and facilities at ground level. Listening to conversations, one overhears the oft repeated phrase '*mi multi es mi multi*' ('my estate is my estate'), the tag line for the 60th anniversary celebration in 2009, and a kind of invocation of pride, moving beyond a sense of ownership.[131] The poster outside advertising this weeklong celebration ended with the following invitation:

> Neighbours, let's participate with joy and peace in the Events for the 61st Anniversary of Our Beloved "*Multifamiliar Miguel Alemán*"!

Listening to the stories shared that night, I wondered first, how a community might sustain this annual celebration of a building over some sixty years and multiple generations? And second, how this celebration came to manifest itself through the language of love (*nuestro querido*)? There are similar housing estates in Mexico City, including others by Mario Pani, that do not evoke comparable reactions.[132] There is, equally, an overwhelming perception of the failure of the modernist housing block in other geographic contexts (Prudon 2009; Vale 2013). But here was a group of residents and neighbours who referred to their mass housing estate as 'Our Beloved'. As I reflected on the week's celebrations, it became increasingly unclear to me to what, or to whom, they were directing this love? On the surface, the answer seemed obvious: the CUPA. Still, I began to question whether or not I knew what the CUPA was, or indeed if it was any-'thing' at all.

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131 Mi multi es mi multi is also the title of a film by historian Graciela de Garay, a compilation of her oral history work with residents of the CUPA. Her oral history is presented in two written volumes: See Graciela de Garay (2004) *Modernidad habitada: Multifamiliar Miguel Alemán ciudad de México, 1949-1999* (Instituto Mora: Mexico City); Graciela de Garay (2002) *Rumores y retratos de un lugar de la modernidad: Historia oral del Multifamiliar Miguel Alemán, 1949-1999* (Instituto Mora: Mexico City); also see Othón Villela Larralde (1999) *Cincuentenario El Multi Alemán (1949-1999): Un Testimonio de la Provincia Urbana* (Mexico City).

132 See for example the discussion by Rubén Gallo (2010b) on the 'dystopia' of Nonoalco Tlatelolco, a 100,000 person housing estate in the north of Mexico City designed by Mario Pani and opened in 1964. On October 2 1968, a public square in the estate played host to a devastating show of state violence when student protesters were gunned down, beaten and arrested, just days before the city opened the Olympic Games.

I began to reconsider the location of this emotion given the name of 'love'. Where was it, and to what was it directed, if indeed it was directed at someone or some-'thing'. Useful as a starting point is Sara Ahmed's invocation of an affective economy, such that '[a]ffect does not reside in an object or sign, but is an affect of the circulation between objects and signs' (Ahmed 2004a, p.120). I was not necessarily surprised at the invocation of endearment for this building. De Garay's (2002; 2004b) oral history project of residents in the CUPA presents several narratives that evoke the excitement, joy and pride sustained through their lived experience. However, equal notes of anger, loss, and frustration pepper their accounts. I had visited the estate several times prior to the celebration, and met informally with residents who had complained that the pool had been temporarily closed due to insufficient maintenance, half-mentioned that some of the elevators no longer work, or despaired that the garbage incinerators have been malfunctioning for years, leading to accumulations of trash. I could not simply argue, then, that this 'love' was a quotidian response to a material object, that residents and neighbours of this estate simply 'love' the CUPA, or that somehow, embedded in the materiality of the brick and concrete, inhabiting the quiet 'streets in the sky', and curtain walls 'love' lies, silently whispering to those who live within its tender caress. Where 'love' erupts is at the anniversary, as if the coming together of bodies, the memorialization of the CUPA's narrative produces, or brings forth this 'love'. Turning again to Ahmed, love, in this case, does 'not positively inhabit any-body as well as any-thing' (Ahmed 2004a, p.121), but is an affect of its circulation, and that is, perhaps, before we begin to question the 'thing-ness' of the CUPA itself (Berlant 2004, p.448; Jacobs 2006). We are left then with two questions, which I will not properly address, but which act as guides to the comments below: How does 'love' erupt year upon year? and, Where does it go when the celebration ends?

The CUPA is, again and again, invoked as a 'thing'. The image of the estate, like most architecture, privileges its façade, and aerial photography highlights the shape of the towers from the sky creating a visual metonym for the CUPA itself. This visual form appears on the poster for the sixty-first anniversary, a black and white aerial image taken upon its completion in 1949. Equally, the exhibition about the CUPA

comprised photography and newspaper clippings from its inauguration. Rather than attempt to argue location in terms of space, I began to consider it in terms of time, positioning the anniversary week, the collection of bodies, bricks, photography and memories, as a kind of affective economy tied to the moment that an anniversary purports to celebrate: the beginning, the birth, the origin. If an affective economy emerged over the course of several days in August and September 2010, and if the circulations of these affects themselves resurfaced year after year, then perhaps a kind of circulatory system that beats once a year imbricates a multiplicity of subjects and objects into the response whose only response is '*mi multi es mi multi*'.

Affect, Modernity, Circulation

There seems to be a consensual mimetic trope among scholars of affect and affect theory, that affect is imbricated in movement, motion, circulation. Specific to the geographies of affect, Nigel Thrift suggests a mobile and oft-cited sense of affect as 'a sense of *push* in the world but the sense of push is slightly different in each case' (emphasis mine; Thrift 2004, p.64). Similarly, Deborah Thien, drawing on Eve Kosofsky Sedgwick, confers that 'affect is used to describe (in both the communicative and literal sense) the *motion* of emotion' (emphasis mine; Thien 2005, p.451). Affect does not dwell in situ, is not 'held' or 'owned' or 'carried' by bodies – it persists, rather, in movement, or in Ahmed's words, '[a]ffect does not reside in an object or sign, but is an affect of the circulation between objects and signs' (Ahmed 2004a, p.120; Ahmed 2004b). More specifically, affect exists only insofar as a *trace* of the circulating meanings, relations and reactions between bodies (Anderson 2006).

Equally, notions of modernity have historically aligned themselves with the trope motion. As figured by Otto Wagner in mid-nineteenth century Germany, modernity is a 'process of *abstraction, circulation and movement* and *monumentality*' (Frisby 2001, p.20), or, in Baudelaire's words, the 'ephemeral, the fugitive, the contingent' (Baudelaire 1995, p.13). Contemporary theorisation of affect as constituted in and through movement is, perhaps, a very 'modern' one. In this sense, the 'love' of the 'beloved' CUPA is necessarily the making sense of a spectral affect. The sign 'love' lingers, the

trace of a movement. And so perhaps emotion can be located precisely in times and spaces where people are left to configure their sense of the world through language, by encrypting affective economies into dialogic and reciprocal deployments of, in this case, love. Affect, then, cannot be pinned down, the talking about it brings it into language, and into space. Instead, affect is the beside-ness of making sense, the swirls circulating through watery relationship, whose motion we can only meaningfully trace.

In many ways, the CUPA, too, can be interpreted as constitutive of and by circulation. At its urban scale, it was designed, in part, as a systematic decantation of central city 'slums', considered the first of many attempts to move people within the city, opening up land for development and 'rational' urban planning. Equally, as a 'city' within the city, the idea was to reduce the number of long trips for daily services like education, health care, leisure and groceries, all amenities that were built into the complex as part of the original design. Here, in reducing unnecessary movement of people in and out of the city centre for basic services, the idea was to decongest the burdened roadways and improve circulation for others. Architectonically, CUPA demonstrates innovative attention to the way people would move through, in and around their apartments and the estate. The tall buildings were designed so that circulatory hallways were only necessary every three floors, meaning that the elevators on a thirteen-storey building would only make four stops. This innovation increased the efficiency of moving up and down buildings, and also meant that every apartment was a duplex, entering on one storey, usually into a small kitchen space, and then climbing up or down a flight of stairs to the private living and sleeping rooms, spanning the full width of the building. This organisation had the added effect of windows on either side of the apartment increasing the circulation of light and air, central tenets of international style modernism, and particularly that of the architect Le Corbusier, as discussed above. The ground floor was raised up on pilotis, column-like concrete structural pillars, allowing air, light, and people to flow and circulate on and through the landscaped gardens, the buildings not creating linear barriers to movement. Finally, the hallways themselves were placed on the outsides of the buildings, not in an interior core, such that the flow of people was likened to 'streets

in the sky', extending not just along one's own building, but connected along the full length of the zigzagging set of tower-blocks. As an early example of large-scale modernist housing, the CUPA was built around the circulating body, and the efficient rationale of circulation. One might be compelled to figure the CUPA as a particularly 'affective' building, given the circulatory nature of affect and the modernist building itself.

Revolution. Love.

In *On Revolution*, Hannah Arendt produces a genealogy of the concept trying to understand how it was 'that the idea of freedom and the experience of a new beginning should coincide' (1965, pp.21–22). Transplanting her project from one that considers the American (1776) and French Revolutions (1789) to one that considers the Mexican Revolution (1910) and its implications, modern architecture and urban planning become particularly adept at fulfilling the promise of that coincidence. The CUPA being one such promising object, newness radiating from its form and materials, and freedom promised (if not delivered) to its residents and, in equal measure, the nation. Early on in the genealogy, Arendt returns to etymology, reminding us that 'revolution' was a term whose original usage was in astronomy:

> In this scientific usage it retained its precise Latin meaning, designating the regular, lawfully revolving motion of the stars, which, since it was known to be beyond the influence of man and hence irresistible, was certainly characterized neither by newness nor by violence. On the contrary, the word clearly indicates a recurring, cyclical movement… (Arendt 1965, p.35)

Arendt marks the difference between two kinds of revolutionary 'movement' – the cyclical moment of (planetary) bodies, beyond the influence of the human, and the notion of revolution as movement of another kind – movement forward, rupture and progress – the precondition of the coincidence of newness and freedom. Returning to the consideration of the 'location' of the affective 'beloved' deployed and reconstituted throughout the present day anniversaries for the CUPA in Mexico City, I want to argue that it is precisely through movement that this affectivity persists. Here I do not necessarily want to rely on an image of 'movement' through space as the metaphor, but, perhaps, the movement, motion and 'irresistible' circulation of other intransient objects. It is not that there is somewhere, some inbetweenness of a

body and a building, the location where affect 'happens' and we, committing to that trace, call its spectre 'love'. But rather something more chaotic, non-linear, the image of the patient planets, but a trace of explosive chaos that pre and post-dates their present solar rotations. As an image metaphor, this location is perhaps not between, but beside. Affect is that which allows objects, bodies and signs – the speeches and exhibition, the glass and brick and concrete, the bodies and memories, the daily movements, the lingering state officialdom – to appear as 'beside' one another, to cohere like objects in a swirl of water, seemingly moving on their own, but for the circulation of the liquid revolving beside them.

Berlant reminds that

> [i]t seems hard to talk about the sociality of emotion without presuming the clarity and coherence both of it and the world in which it is intelligible. It is hard for thought to abandon its desire to intensify the thingness of its thing and thus its value' (Berlant 2004, p.448).

In the narrative of CUPA, there persists a desire for 'thingness' – both of the architectural object itself, and of the emotions narrated in and around it. This desire is perhaps emblemised by the caption accompanying the photograph of the stairwell of the CUPA in the newspaper reports of the inauguration: 'Notice the *clarity* of expression in the concrete structure' (Editorial 1949a, emphasis mine), it reads. The un-authored declarative voice allowing us to see what cannot be seen, telling us to 'notice the clarity', our brows furrowed, our eyes peeled, and finally our heads nodding slightly as if to convince ourselves of this collective fiction, the 'thingness' of the assemblage coming into view. Similarly, the inauguration acts as a kind of 'caption' to the building event declaring in more overt ways the coherence of meaning that ought to be interpreted, felt even, in the building: it was produced as a revolutionary building in physical and social design, built by revolutionary architects and engineers who, we are reminded, are all Mexican, and, we are further reminded, all of us Mexicans are co-revolutionaries in the Revolutionary movement.

CONLCUSION

This chapter focussed on one built architectural project in Mexico City from 1949, the CUPA by Mario Pani. I open by describing the project in detail, from its construction, layout, and services, to the way it has been compared to other project, and specifically Le Corbusier, and finally to its financing. I do this work to frame the second part of the chapter which requires a familiarity with some of the material details of the CUPA. In the second part, I turned to an ethnographic moment, where I 'encountered' the CUPA at a moment of celebration, memory and love. The form of this celebration led me back to consider the first official moment the CUPA 'appeared', that is, its inauguration. I was led to the inauguration by way of the contemporary celebration which included a photography exhibit and film screenings that predominantly focussed on the CUPA's inauguration. Following the logic of the title of this thesis, if the previous chapters, broadly understood, analysed 'architecture' through writing and drawing, then this chapter was about building, about materiality. And yet, I began to see the building not only as a solid block, as an object you can stub your toe on, but as a continual process of coming into view. As a repetitive process, the annual anniversary of the CUPA reconnected its elevators and stairwells, its swimming pool and walkways, its floorplans and gardens, with a narrative begun some sixty years before.

Following from Berlant (2008) and Jacobs (2006), I examined the ways in which the 'thingness' of the CUPA was made manifest through images and texts, through the deployment of national and international rhetoric, through the imbrication of financial details with the innovations for circulating the spaces of the building. It was an effort to at once turn to the material as a third site of inquiry, and yet just as soon as making that turn, to unsettle my own understanding of what it means to do so. Was I to study those 'materials' in architecture and urbanism that we associate so much with the word, things like concrete, brick, glass, or steel? Things that are heavy, opaque, strong? Jacobs's (2006) insistence that we investigate the claims from which a thing is made to appear as material, as an architectural object, opened a space for me to consider on the one hand, the spatial artefact designed by Mario Pani, and the material effect of 'love' shot through the invitation to the sixty-first anniversary.

Turning to the inauguration, then, was an attempt to think beside a moment when many claims were being made about the CUPA. Claims that were material in their gesture and their content. The long list of amenities delivered by García de Alba; the declarative caption to 'notice the clarity' of the concrete stairs by a small image in *Éxcelsior*; concrete again in the speech from Dominguez claiming the home as the best 'cement' for the nation. Beside the claims *about* the CUPA, were equally strident claims *to* the CUPA. What emerged in reading the many announcements and articles from the day was the claiming of it for the Revolution. The CUPA was presented as a 'revolutionary' building, its builders, architects and engineers, equally revolutionary. As a project for public workers, the CUPA was emboldened as a material symbol of the Mexican Revolution, that continual process that would make revolutionaries out of all the people of Mexico. These claims, I argued, could be read as efforts to engrain symbolic meaning in the matter of the building itself, its shape, form, and constitutive elements, such that the movements of everyday life, become 'revolutionary'. The materiality of the CUPA, then would seem generative for the Revolutionary Mexican State.

The desire for 'thingness', however, does not necessarily lead to the 'thing' – and yet we find ourselves appreciating the clarity of the lines, the structure, the landscape design and the concrete, grateful to 'the State' (that other 'thing') for its revolutionary clarity, and somehow able to articulate an emotion called 'love'. Affects like happiness and joy, pride and gratitude circulating at the time of the inauguration do the work of creating the appearance of unity, allowing us to link things that appear beside one another – the 'thingness' of the CUPA – the revolution – the 'cement of the Nation' and its cosmopolitical provenance. The repetitive circularity of the anniversary, the annual 'revolution' of the familial bonds of residents towards 'Our Beloved' *multifamilar* produces the conditions for an intergenerational affective economy, one tied in location and stuck to the assemblage of materiality made visible in Colonia del Valle. In looking at the details of one historical 'building event' – the inauguration of the CUPA in Mexico City in 1949 – and its re-inauguration each and every September, we start to see the way in which the perceived coherence between an

emotion and a location comes into view, a coherence as fragile as the building event itself, a co-constitution of the visual and the material. It is, then, moving through the curvilinear gardens, or under the buildings, along the streets in the sky, or gazing out towards the mountains in the distance, that we start to notice the objects in the swirl, traces of incoherence of a revolutionary affect, in the double sense of the word, as the caption for a revolutionary architecture and a revolutionary state.

And yet. And yet I return to Berlant's rhetorical mirror, the gesture of the incommensurability between affect and emotion. I return to it in order to undo my argument at the very moment that it makes its claim. As Lees (2001) made clear in her study of the Vancouver public library, official claims on building about their meaning, and their use, are as immaterial as, perhaps, the building itself. The performance of architecture through its use, through its inhabitation, through dwelling transform its meaning. I do not wish to add any more claims than there are already onto the CUPA. Instead, as a method to investigate the work of claiming architecture as an object, I emphasised an analysis of its first official 'appearance' – its inauguration. As, perhaps, a modest intervention in the thinking about one built object in Mexico City in 1949, my intentions were not to uncover a new historical 'truth' about it, but rather to think through the opening made by the affirmation of 'love' in the present, to consider the multiple ways we claim to, and are claimed by, the materialities around us.

Chapter 6
Conclusions

In this thesis, I analysed textual, visual and material artefacts from architectural and urban practice adding a layer of complexity to architectural and historical literatures of the modern in Mexico. This project depends on a wide range of typical archival materials for the study of architectural history, from the architectural journal, to the material built form of architecture, to urban and architectural research drawings, maps and statistical visualisations. It contributes to a growing literature on the histories of modern architecture in Mexico in the mid-twentieth century, and to contemporary theoretical moves that work to reframe the project of modernity by empirically accounting for its multiple spaces of origin, and its promiscuous circulatory trajectories (Robinson 2006, p.19), particularly those circulations among and between the colonial, and with specific reference to architectural and urban artefacts. However, both the history of modern architecture in Mexico and the historiography of the modern in relation to circulations of architecture and urbanism primarily deploy archival materials as evidence of a history, or against a history, but as evidence in and of themselves. These projects use archives, and produce new ones, to assemble artefacts that open up new ways of constituting the historical, and in so doing, our relationship to the present. Uncovering new letters, examining unpublished drawings, or canonising alternative sites producing epistemologies of the modern, are tactics employed in these projects. This thesis is indebted to the work of both these constituents, and yet moves to consider these same historical artefacts in their own right, as material, visual and textual agents beyond their calibration as the content of historical analysis. As such, I worked longer on, but with fewer, objects, thinking in detail about their structure.

The gambit of this methodological decision was not meant as a provocation against these literatures, but rather as a means to complement what I believe to be their important gestures. Surfacing the complex and nuanced histories of the built environment in twentieth-century Mexico, for example, guided by architectural historians like Louise Noelle (1997, 2008), Graciela de Garay (1991, 2002, 2004a,

2004b, 2008), Patrice Olsen (2008), Keith Eggener (2000, 2002, 2009) and Valerie Fraser (2000), work to destabalise grand theories of architecture, architectural practice, the relationship of architecture to the state and to its inhabitants, through their historical specificity. The archive is an ally, its authority issuing legitimate evidence to account for architectural difference. Equally scholars considering the history of the modern in Mexico (Burian 1997; Gallo 2005; Gallo 2010b), and those more broadly considering the question of modernity's circulations through the urban and architectural (Hosagrahar 2012; Jacobs 1996; Jacobs 2011; King 2003; Lu 2012; Nasr & Volait 2003; Robinson 2006; Simone 2012) are reframing the very concepts through which we articulate our sites of research: specifically the colonial histories embedded within concepts constructing the urban as a field of knowledge, and equally those circulating legitimacies that privilege certain architectural forms.

At the end of Chapter 5, I moved to destabilise my readings of the CUPA as an architectural object as 'readings', that is as contributions to historical debates about the politics of architecture. I did this in order to focus on the possibilities of their methodological contribution. My point throughout the thesis has been that, at least in the case of modern architecture in Mexico, the object of architecture is a claim made through multiple mediums; therefore any invocation of architecture as an object within broader histories, the history of modernity in Mexico for example, needs to register and analyse the artefacts that produce it as such. What I want to do in concluding this thesis is to revisit themes that support this suggestion, as they emerged across the discussions in the substantive chapters. I will organise these concluding themes into two broad categories: locating architecture, and co-constituting the visual and material.

Locating architecture

I began this thesis with the narrative of an encounter with the CUPA. I did so not only as an invitation for the reader to enter the site of my study, but also because this encounter with what had been in my mind a building, architecture, modern architecture, material, seemed to move away from me the closer I got. I mentioned

feeling not just out of place, but out of time. My mind moved from aerial photographs of the CUPA in 1949, to writings of Le Corbusier, to histories of public housing, to cinema, to the Mexican state, to the humidity in the air, to the construction in the road, and the colour of the grey concrete. Part of the unsettling nature of this encounter was that the CUPA has been historicised as an articulable object, defined within a professional trajectory of Mario Pani, situated within a national narrative about the development of modern architecture in Mexico, and fixed as a representation of the international circulations of modern architecture in the mid-twentieth century. When confronted with the built artefact in southwest Mexico City, I felt I no longer knew where architecture was. One of the main findings of this project has been that when you start looking for architecture, the object falls apart.

Early on in my research, I came across a volume by Jane Rendell (2007) that spoke at the intersection of critical theory and architectural practice. Rendell's volume was making an intervention with a call for critically engaged criticism that is committed to concerns about structural inequalities endemic to what she calls 'corporate capitalism' (2007, p.3). Methodologically, she suggests the need to explore 'modes of critical practice that operate in architecture through buildings, drawings, texts and actions' (ibid., p.6). This intervention allowed me to hold onto the building, while allowing the location of architecture to shift to include other visual and textual artefacts.

In Chapter 3, I compared two issues of *Arqutiectura/México*, one from 1938, the inaugural issue, and the other from 1963, the twenty-fifth anniversary issue. In 1938, Mario Pani and his collaborators located architecture within an internationalising world. They argued that urban realities were converging the world over, and that the problems facing humanity were, more and more, alike whether you were in Cape Town, London, Mexico City or Shanghai. Of the projects presented, the large majority were from abroad, principally from Europe, with only three projects shown from Mexico, one of which, José Villagrán García's National Institute for Cardiology, was unbuilt. By 1963, however, I showed that a national architecture has been written in the pages of the journal. Mario Pani's genealogy of the development of Mexican

architecture alongside the history of *Arquitectura/México* suggested that, at the time, Mexican architecture was being located within the nation state. As historical evidence, we might use either the 1938 issue or its progeny in 1963 as evidence of the early international influences within the development of Mexican architecture in the former, or as evidence of a growing national confidence with regards to architectural production in the latter. However, in analysing the writing within these magazines, I found them to be structurally similar. In both, a declarative tone persisted. It was as if the *writing of* architecture was enough to produce it as such. The *writing of* architecture as looking out to Europe, or the *writing of* architecture as looking in to the always-there 'spirit' of Mexican nationalism were both, I want to suggest, acts of production, rather than acts of representation. By paying close attention to the way architecture was located within textual mediums, I was able to argue that the historical object of *Arquitectura/México* should be considered an active source of architectural production within the history of modern architecture in Mexico, and not just a documentation of it.

In Chapter 4, I examined visual artefacts such as architectural drawings, maps, visualisations of statistical data, and photographs. If, as I argued, writing architecture is declarative, then, I propose, drawing architecture is propositional. What I found in looking carefully at the structure of visual materials in Mario Pani's archive, was that not only are they propositional, but the visual works to negotiate, or translate the propositional into a fact. Wittgenstein's note 115 provides an interpretive model for my findings:

> "The general form of propositions is: This is how things are."——That is the kind of proposition that one repeats to oneself countless times. One thinks that one is tracing the outline of the thing's nature over and over again, and one is merely tracing round the frame through which we look at it. (Wittgenstein 1968, n.115)

Urban planning and architecture are, if nothing else, the propositional. In line with the 'This is how things are' (Wittgenstein 1968, n.115) of Wittgenstein's reflection, I aimed to make visible the propositional frame latent throughout Mario Pani's career, and in particular the specific construction of the 'urban problem'. In Mexico City, it was decided that the urban problem was housing, particularly localised in slums

around the historic core that would come to be termed the 'central hovel area'. The solution was to build large modernist superblocks based on aesthetic cues from CIAM's functional city – vertical density paired with green space – and then 'decant' populations from the 'slums' into the new housing. As Pani and others argued throughout the 1940s and 50s, this would kick off a chain reaction of urban regeneration. However, for all the in depth research amassed and visualised by Pani's Urban Studio, the ideological core of their diagnosis, was perfectly consistent with that found in the Athens Charter of CIAM, drafted in 1933. That the city of Mexico could change so dramatically, as demonstrated in Chapter 1, but the diagnoses of its problem remain so stagnant demonstrates the ideological within the propositional: 'This is how things are…in Mexico'.

Working through the three, and understandably limited ways of thinking the visual *in action* – that is, the visual as relationships of time, relationships of scale and relationships of cause – I was struck by the way in which they consistently present a proposition in relation to an actual present condition. That is, they visualised urban space in Mexico City as it *is* followed by how it *will be*. In the *Crucero Reforma* project I showed how Pani edited aerial photography to create a before and after image of his transport infrastructure intervention. In the urban research materials, I showed how a presentation of the city as a 'whole' consistently preceded the scaling down to the neighbourhood unit, and then to the architectural intervention of the apartment block. In both of these cases the urban present was presented as a fact, with the urban future presented as a proposition. My major finding in this section, then, combining the ideological construction of the urban problem in Mexico with the architectural housing solutions, is that urban planning and architecture work together as double-propositions: they *propose* the urban present, and then *propose* an urban future. While I do not suggest that this finding can be generalised beyond the limitations of my case studies, still, it emphasises the productive role of a method that pays close attention to the structure of the visual in architectural and urban production.

In 1970, at a function celebrating thirty-five years of the professional life of Mario Pani, Mathías Goeritz gave a speech. In it, he characterises Pani not as a maker of forms, but as someone who assembles. 'I don't see Pani as a creator of new forms, but of new environmental sets. As the art of the moment consists in the *creation of environments*, Mario Pani is, among us, the most accomplished in this field' (Goeritz qtd. in Anon 1970, p.195). The idea that architecture is created by the singular architect is a well trodden narrative. Recent histories of modern architecture are often divided by architects (Frampton 1992), and much the history of modern architecture in Mexico rests on monographs of its architectural leaders. While the value of these studies is not in question, one of the core methodological concerns this thesis raises is the question of how architecture and the urban are assembled.

Gillian Rose and Divya P. Tolia-Kelly's recent 'manifesto' towards thinking the co-constitution of the visual and the material seems an apt metaphor to pursue, particularly with regards the built practices. In their edited volume many authors address questions of space and place, but only one approaches co-constitution through a relationship to architecture. In their chapter 'Materialising Vision', Jacobs et al. consider the materiality of the windows in a modernist high-rise in Glasgow, the Red Road estate. They draw on Cosgrove (2008) to argue that the high-rise is not just an object of vision, that is an architectural object one sees, but that the technologies assembling the window, for example, support 'vision in the sense of active seeing' (Jacobs et al. 2012, p.134). Where Jacobs et al. rely on the relationship of the ocular to the question of the visual, I turn to Rose and Tolia-Kelly's reminder that 'the politics of *doing* the visual are as material as matter is visual and that both are engaged beyond the ocular' (2012, p.3).

In Chapter 5, I outlined the ways in which the inauguration of the CUPA depended on making visible its materiality. For example, the head of the *Dirección de Pensiones Civiles,* Esteban García de Alba, used a large part of his speech to list the modern services built into the CUPA. The built in radios, the boiler system, the hot water, the electricity fixtures, the water purifier were visualised as part of the innovative urban

estate. Sixty years later, the anniversary event showcased photographs of the inauguration, aerial photography of the CUPA in 1950, and the CUPA in film. In each case, the visual had a role to play in constituting the material object of architecture. However the *doing* of the visual was also a material project. One of the projects analysed in Chapter 4 was the *Plaza de los Insurgentes*, and in particular a three-part construction of the visual proposal – from a photograph, to a line drawn copy of the photograph, to a full page architectural drawing of the future intervention. In analysing these images, their materiality became vitally important. That is to say, it 'mattered' that there was a physical photograph, black ink on paper, and charcoal watercolours. The materiality of these visual proposals lent themselves to a more intimate temporal relationship to the proposed project, by bleeding the authority of the photograph through to the architectural drawing. Both cases point to the importance of thinking the relationships between the material and the visual within practices of architecture and urban planning. One of the outcomes of considering the co-constitution of the visual and the material in this thesis has been the complication of a traditional linear relationship between the two. That is to say, the normative function of the visual as prior to a built project comes under question.

Architecture, as argued throughout this thesis, cannot be reduced to the possible, though perhaps rare, occasions where objects are assembled in a space to produce a material form, however permanent or impermanent it might be. In examining the textual, material and visual artefacts from a selection of Mario Pani's work in Mexico City, I conceived of architecture as produced through multiple practices ranging from the statistical methods used to identify family median income, and therefore the type and number of low-income housing that should be built in a housing project like, for example, Nonoalco-Tlatelolco, to the graphic design that produces the statistical argument of median income in a persuasive manner, to the 'paper cities', as Ola Söderström (1996) puts it, that exist only in two dimensional form, never to be built, but doing work in the legitimation of other, possibly future, built work, to the studies, studios and design charettes that brick by brick cement assumptions. Architecture is as much about producing those rare built projects, as it is a method of archiving itself as a tactic (and one not unique to the profession of architecture in this sense) of

producing its own legitimacy. The building itself, not so much an image of the whole, but a multiple assemblage of parts, labour, policies, financial instruments and urban infrastructure, comes to stand as a metaphor for architecture – itself an assemblage of writing, drawing, and building.

Appendices

APPENDIX 1
LIST OF ARCHITECTURAL MAGAZINES IN
MEXICO BETWEEN
1900 AND 2000

Source:
Revistas de Arquitectura de America Latina
1900-2000
Ramon Gutierrez, Patricia Mendez,
Florencia Barcino
CEDODAL 2001
Universidad Politecnica de Puerto Rico

Anales de Instituto de Investigaciones Esteticas
1937-1999
72 editions
Universidad Nacional Autonoma de Mexico, IIE
Mexico MX

Arquitecto
1954-55
11 editions
Estudiantes de la Facultad de Arquitectura, UAM
Mexico MX

Arquitectos de Mexico
1956-69
32 editions
Alberto Gonzalez Pozo
Mexico MX

Arquitectura Mexico
1938-80
119 editions
Editorial Arquitectura S.A.
Mexico MX

Arquitectura y Decoracion
1937-1941
20 editions
Sociedad de Arquitectos Mexicanos
Mexico MX

Arquitectura y Lo Demas
1945-46
12 Editions
Mexico MX

Artes de Mexico 1ª Epoca
1953-74
213 Editions
Mexico MX

Boletin de La Sociedad de Arquitectos Mexicanos.
1ª Epoca
1957-58
3 Editions
Sociedad de Arquitectos Mexicanos
Mexico MX

Boletin de La Sociedad de Arquitectos Mexicanos.
2ª Epoca
1964-67
19 Editions
Sociedad de Arquitectos Mexicanos
Mexico MX

Boletin de INAH. 1ª Epoca
1960-70
42 Editions
Instituto Nacional de Antropologia e Historia
Mexico MX

Calli Internacional: Revista Analitica de
Architectura Contemporanea
1960-76
67 Editions
Calli A. C.
Mexico MX

Cemento
1925-30
38 Editions
Mexico MX

Cuadernos de Arquitectura: Suplemento de
Cuadernos de Bellas Artes
1961-65
20 Editions
Secretaria de Educacion Publica
INBA Depto de Arquitectura
Mexico MX
Cuadernos de Bellas Artes

1960-64
60 Editions
Secretaria de Educacion Publica
Instituto Nacional de Bellas Artes
Mexico MX

Edificacion
1934-42
42 Editions
Escuela Superior de Construccion
San Jacinto, D.F. MX

El Arquitecto
1923-24
Sociedad de Arquitectos Mexicanos
Mexico MX

Concreto
1964-78
42 Editions
Mexico MX

ENA Revista de Arquitectura
1951-62
14 Editions
Escuela Nacional de Arquitectura
Mexico MX

Espacios: Revista Integral de Arquitectura,
Planificacion, Artes Plasticas e Inginiera
1948-58
43 Editions
Instituto de Planificacion
Mexico MX

KABAH: En Arquitectura Arte Construccion
1963-65
6 Editions
Editorial KABAH S. A.
Mexico MX

Mexico en el Arte. 1a Epoca
1948-1952
12 Editions
Secretaria de Educacion Publica
Instituto Nacional de Bellas Artes
Mexico MX

Obras Publicas
1930-1930
6 Editions
Direccion de Obras Publicas
Depto.
Distrito Federal
Mexico MX

Planificacion 1ª Epoca
1927-35
Asociacion Nacional para la Planificacion
Mexico MX

Planificacion 2ª Epoca
1933-34
6 Editions
Asociacion Nacional para la Planificacion
Mexico MX

Revista CAM-SAM
1968-69
3 Editions
Colegio de Arquitectos y Sociedad de Arquitectos
Mexicanos
Mexico MX

Revista de Arquitectura Social
1964-64
1 Edition
Mexico MX

Revista Mexicana de Ingenieria y Arquitectura
1923-80
59 Tomos
Asociacion de Ingenieros y Arquitectos de Mexico
Mexico MX

Revista San Carlos
1945-46
3 Editions
Escuela Nacional de Arquitectura
Mexico MX

1. December 1938
2. April 1939
3. July 1939
4. January 1940
5. April 1940
6. July 1940
7. April 1941
8. July 1941
9. January 1942
10. July 1942
11. December 1942
12. April 1943
13. July 1943
14. November 1943
15. April 1944
16. August 1944
17. January 1945
18. July 1945
19. November 1945
20. April 1946
21. November 1946
22. April 1947
23. September 1947
24. March 1948
25. June 1948
26. January 1949
27. April 1949
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29. October 1949
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35. September 1951
36. December 1951
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74. June 1961
75. September 1961
76. December 1961
77. March 1962
78. June 1962
79. September 1962
80. December 1962
81. March 1963
82. June 1963
83. September 1963
84. December 1963
85. March 1964
86. June 1964

APPENDIX 3
LIST OF ARTICLES FEATURING LE CORBUSIER PROMINENTLY IN
ARQUITECTURA/MÉXICO **(1938-1978)**

Argán, Giulio Carlo, and Ernesto N. Rogers. "Debate Sobre Argumentos Morales de La
Arquitectura." *Arquitectura/México* no. 56 (December 1956): 198–206.

Barragán, Rodolfo. "Le Corbusier." *Arquitectura/México* no. 92 (December 1965): 203–222.

D'aubarede, Gabriel. "Encuentro Con Le Corbusier." *Arquitectura/México* no. 45 (March 1954): 61–63.

Dada, Rolando J. "Presentación." *Arquitectura/México* no. 92 (December 1965): 201–202.

De Ibarrola, Antonio. "Homenajes." *Arquitectura/México* no. 92 (December 1965): 237–240.

———. "Le Corbusier. La Arquitectura Es Un Acto de Amor, No Una Puesta En Escena." *Arquitectura/México* no. 92 (December 1965): 241.

Editors. "Centro de Artes Plásticas de La Universidad de Harvard, Por Le Corbusier." *Arquitectura/México* no. 78 (June 1962): 106.

———. "La Bienal de Sao Paulo." *Arquitectura/México* no. 37 (March 1952): 70–82.

———. "Nota Luctuosa (murió Le Corbusier)." *Arquitectura/México* no. 91 (September 1965): 184.

———. "Nota Sobre Le Corbusier." *Arquitectura/México* no. 32 (October 1950): 126–128.

———. "Nueva Iglesia de Le Corbusier." *Arquitectura/México* no. 90 (June 1965): 129.

———. "Palacio de Las Asambleas En Chandigarh En Pendjab, Le Corbusier." *Arquitectura/México* no. 79 (September 1962): 195.

———. "Una Exposición de Le Corbusier En Brasil." *Arquitectura/México* no. 37 (March 1952): 115–116.

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