



Karl Ehn, Karl Marx-Hof, Vienna, Austria, 1927-1930. © Ana Tostões, 2015.

Housing for the greatest number

in memory of Paulo Mendes da Rocha (1928-2021)

This is the third journal dedicated to the housing question. In 2014, **docomomo Journal** 51 discussed modern Housing as “*Patrimonio Vivo*”, considering the modern home to explore topics of public and private life, intimacy, exposure, and gender. The house, whether at the level of a cell, a module, a system, or expanded across an entire city, has always been a fundamental subject for debate within the architecture of the Modern Movement addressing the “magic formula”: light, air and openness. **docomomo Journal** 54 “Housing Reloaded” was published, two years after, focused on the strategies used and challenges faced by those attempting to preserve post WWII collective housing in Europe.

In 2021, on the occasion of the last journal edited by me, it was decided to reaffirm **docomomo**’s acknowledgement of the major relevance of reflecting the housing question and explore the subject once again. I wish to thank and acknowledge the commitment of Zara Ferreira, who acted as guest editor for this **docomomo Journal** 65. Her work and perseverance were emulated by the authors who contributed generously with their knowledge and research.

Addressing a broader vision, entitled “Housing for All”, this issue is dedicated to the welfare era, when governments across the world established ambitious housing programs to provide housing for the greatest number and improve the citizens’ living conditions, as a symbol of a modern and democratic society. This bold course of action involved radical changes in the built environment, through new approaches to architectural design and experiments in the use of materials and techniques, the creation of space, and social transformation. Nowadays, understanding how to deal with this legacy presents a major challenge, in a continuously changing context, from the technical obsolescence of buildings that no longer meet today’s demanding standards, or fast-moving sociocultural, political and economic values. The aim of this **docomomo Journal** 65 is to outline how these vast cultural and political ambitions were materialized in various countries, and to analyze the contemporary challenges they face. More than five decades later, are these buildings and neighborhoods resilient or obsolete? In addition to the changes that postmodern society has brought in ways of living, issues such as the demand for spatial and functional transformation, and the updating of regulations on fire, seismic stability, user safety and energy

efficiency, are now part of the contemporary agenda. How can these sites be kept alive while satisfying sustainability and contemporary ideas of comfort?

This is the 24th **docomomo Journal** I have edited. It marks the end of a mandate that has lasted 12 years, serving **docomomo** International as Chair. Under my presidency, **docomomo** International was first based at the Mies van der Rohe Foundation, Barcelona (2010–2013), and since 2014, at the Instituto Superior Técnico – University of Lisbon. Pursuing a program based on the concepts of “other territories”, “other times” and “other viewpoints”, and more than a decade of action, it has helped broaden perspectives and fields of study on Modern Movement architecture and landscapes. Breaking with the euro-centric and westernized globalization of knowledge, 30 new chapters have been created, with particular emphasis on Latin American, Asian, and African countries. While maintaining the values of friendliness and trustworthiness that befit a great family, as a global organization, we have welcomed hundreds of new partners and institutional members, contributing to significant growth in our international network, and providing irrefutable evidence of **docomomo**’s continued vigor. In 2014, the updating of the Eindhoven-Statement (1990) with the Eindhoven-Seoul Statement marked a shift in **docomomo**’s mission, scope, and work, to more fully address the topics of reuse and sustainability. Among the six **docomomo** International Conferences held during my mandate, I would highlight the motto “adaptive reuse”, which has become a hegemonic issue for the **docomomo Journal**, and ultimately, formed the conceptual framework of the **docomomo** Award. The importance given to education has been demonstrated by the vitality of **docomomo** workshops and participation in various research projects worldwide. Further steps have been taken in the area of digital development, particularly evident in the **docomomo** virtual exhibition (MoMoVe) and the transformation of the **docomomo Journal** to open source, embracing open science as an important step towards the future. Next year, in 2022, **docomomo** International’s headquarters will be transferred to TUDelft. I am delighted to be able to hand over the reins of an organization in such robust health, and I wish continued vitality and every success to Uta Pottgiesser, the new Chair, and to Wido Quist, the Secretary-General.

INTRODUCTION

The right to comfort in the century of the self

BY ZARA FERREIRA

— If happiness consists of accumulating household appliances and not giving a damn about anything else, then yes, they are happy, Frédéric shouted. And during this time the manufacturers spin their junk with great publicity and credit, and everything is fine for the best of all worlds...
 — Capitalists, said the father.
 — Comfort is not happiness! said Frédéric.
 — What is happiness? said Ethel.
 — I don't know, growled Frédéric.
 — But tell me, the fact that we manage to ask ourselves this kind of question instead of wondering what to cook for dinner, does not prove that we advanced a little already? said Mr. Lefranc.
 — Perhaps, said Frederick. Yes, in fact, maybe.
 — To discover that comfort does not make you happy, you have to have experienced it, right? It's a question of time...
 When everyone has access to it, we will stop asking the question. We need to look a little further. I may not get to see that moment, but you will do.

Christiane Rochefort, *Les Petits Enfants du Siècle*, 1961¹

Jean Fourastié called *invisible*² the revolution that took place in the three decades since the end of WWII to the first oil crisis – *les trente glorieuses* [the glorious thirty]. It was invisible because it happened inside people's homes, the main stage where the well-being revolution took place on a larger scale.

After the war, the world was divided between two main powers, a Western capitalist bloc led by the USA, and an Eastern communist bloc, driven by the USSR. Even if the second³ is not addressed in this publication, it must be said that both regions sharing the front lines of the Cold War (1947-1991) believed in the need for, and the virtues of, mass housing, and respective governments committed themselves to providing housing for the masses. From Japan to Mexico, the post-war years were ones of prosperous economic growth and profound social transformation. It was the time of re-housing families split apart and of rebuilding destroyed cities, but it was also the time of democratic rebirth, the definition of individual and collective freedoms and rights, and of belief in the *open society* envisaged by Karl Popper.⁴ Simultaneously, it was the time of the biggest migrations from the countryside, revealing a large faith in the city, and of baby booms, revealing a new hope in humanity. A new Man – whose freedom Jean-Paul Sartre⁵ places as an intrinsic condition of the *self* – emerges and develops itself over these years, with confidence in modernity and progress. Whether for the proletariat from Engels's *Housing Question* (1872),⁶ or for the mass-men of Garcia y Ortey (1930),⁷ comfort will be the basis of the search for, and production of, collective housing, in accordance with the new embraced paradigm evidenced in the 1948 *Universal Declaration of Human Rights*.

Whether through welfare state systems, as mainly evidenced in Western Europe, under the prospects launched by the Plan Marshall (1947), or through the establishment of local housing authorities funded or semi-funded by the government, or through the support of private companies, civil organizations or associations, the time had come for the large-scale application of the principles of modern architecture and engineering developed before the war. From the Spanish *polígonos residenciales* to the German *großsiedlungen*, ambitious housing programs were established in order to improve the citizens' living conditions and health standards, as an answer to the housing shortage, and as a symbol of a new egalitarian society: comfort would no longer only be found in bourgeois houses. The contributions on this issue from Portugal and Spain reveal that, even under dictatorial regimes, a new standard eventually arrived, via enlightened architects who were able to design quality architecture for a Man of universal rights.

Despite the Larousse Dictionary having defined, in 1929, "modern comfort" as "the ensemble of provisions intended to make an apartment building more comfortable, such as central heating, a bathroom, an elevator, electricity, etc.," it was only in 1946 that the French census first inquired about the presence of these "elements of comfort" in dwellings across the country. For a person, such as myself, born at the end of the 20th century it is astonishing to realize that, 75 years ago, in an *avant-garde* country like France, only 5% of dwellings had a private shower or bathtub. The introduction of the distinction between hot and cold running water reveals that, in 1962, a hot shower was not available to the

majority of the population – only 39.6% of dwellings had it. Answering the lack of such basic needs was the first stage of comfort that was sought to be assured: sanitary housing equipped with indoor plumbing and central heating would protect health and offer security.

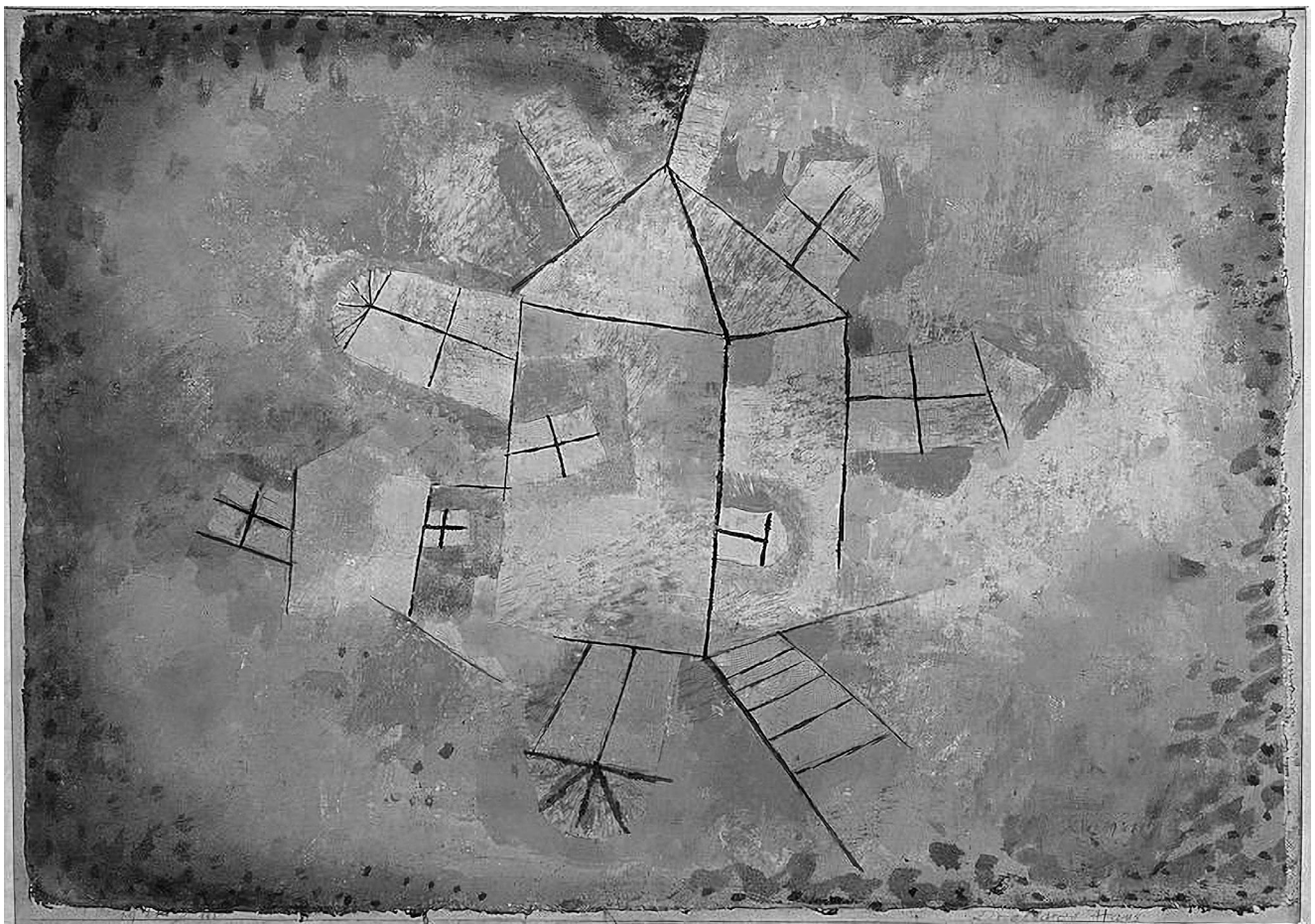
On a second level, rational, functional and well-lit flats layouts would offer tranquility and conditions to develop people's minds and passions. Built to the proportions of adults, children and their needs, with the separation of functions and filled with the features that would guarantee the physiological and psychological comfort of the inhabitants, the modern home should allow the average person the opportunity to explore and achieve their full potential. Soon it was understood that it was not enough to settle the inhabitants in apartments; it was also necessary to create their everyday environment, exploring the role of their individualization within the collective, as Henri Lefavre evidenced in his *Right to the city* (1968).⁸ The neighborhood unit, explored in Sangeeta Bagga's text about the Chandigarh Sector, is one of the primary concepts establishing socially sustainable neighborhoods. Rosalia Vittorini shows us how the INA-Casa program in Italy encouraged community relationships by the inclusion of collective spaces traditional in Mediterranean countries, such as streets, courts, gardens. Claes Caldenby lectures about the concept of co-housing, a Swedish tradition in existence from early modernism. Answering to the phenomenon of uncontrolled urban growth, Louise Noelle presents us the case of *Centro Urbano Presidente Alemán* (1947-1949), in Mexico, while from Japan, Tatsuyuki Maeda and Yuka Yoshida call attention to the threatened future of the Nakagin Capsule Tower (1972), a built example of Metabolist theory which suggested that buildings and cities should be designed to propagate in the same way as the material substance of a natural organism. *Avanchet-Parc* (1969-1977), in Switzerland, explored by Franz Graf and Giulia Marino, and *Torres Blancas* (1958-1972), in Spain, presented by Alberto Sanz, are other examples of how the Modern Movement included a self-reflection or a self-critical capacity of evolving into diverse and flexible answers, distancing itself from orthodox doctrines.

A third level of comfort respected a comfort of use associated with the eventual possession of objects for facilitating daily life. The democratization of electrical appliances would allow the saving of time and the reduction of fatigue associated with household tasks. Through the regular consumption of comfort goods, a certain luxurious comfort is replaced by a comfort understood as useful and liberating. In the framework of an emerging consumerist society, objects of desire⁹ – which extended to household occupation – was a method of self-assertion and expression. Linked to progress – of which it is a “natural consequence” – and to the notion of happiness explored by the *Les Petits Enfants du Siècle* quotation, comfort became a central concept within society's evolution and housing production, having become a symbol of modernity. As comfort developed and established itself in everyday life, it tended to become one of the emblems of the advanced state of development of modern

societies as a guarantee of a better life, giving rise to one of the current definitions of comfort by the Larousse dictionary: “psychological, intellectual and moral tranquility obtained by the rejection of all preoccupations.” This definition epitomizes the comfort of the *self*.

docomomo International, with its inclusive, pluralist and interdisciplinary nature, in exploring a wide perspective of the Modern Movement's chronological and territorial scope, has been clairvoyant in revealing that modern production is wide and diverse and that it took on interpretations and forms as different as the diversity of cultures where it was implemented. There was a huge variety of approaches to post-war housing whose representation would never be balanced in a single publication. From towers in the center of a big metropolis to low-rise high density developments in small towns, from serpentine mega blocks in the suburbs to entire new towns, some are still splendid today, others have been declared as failures. Giving continuity to **docomomo Journal** 51 (2014/02) and **docomomo Journal** 54 (2016/01), the contributions selected for this issue, in addition to geographic diversity and their original innovative approach, present a wide spectrum of challenges when it comes to its implementation or contemporary preservation or adaptation.

Widely referred to as “dormitory cities,” “concentration camps,”¹⁰ “rabbit hutches”¹¹ or “slums in the sky” promoting “walls in the head,”¹² many post-war housing estates have come to be considered a major focus of problems in urban areas, and have been blamed for high rates of crime and psychological and social ills. Even if urbanism and architecture are often accused of this situation, it must be admitted that it results from a complex equation of different issues. As Joseph Abram states in his essay about the French *grands ensembles*, the task of producing housing for all was “titanic”, not allowing governments to produce the best of the worlds for all. Many had to be built quickly and cheaply, usually on the outskirts of cities, disconnected from basic infrastructure and services. Entities funding and managing the construction of housing and complementary facilities were often distinct, promoting disconnection among different urban needs. Often facilities were not even built, leaving the heart of neighborhoods without a program, as Umberto Bonono reveals happened in *Portales* (1958-1968). The so-called “failure” was often usually political and administrative. The common physical deterioration that buildings suffer after some decades of use are strongly aggravated by poor housing policies not investing in regular maintenance as, according to Flávia Brito do Nascimento, has been the case for decades in *Pedregulho* (1948-1960) in Brazil. Furthermore, from WWII until nowadays, the world has gone through enormous and rapid transformations in almost every field of life. Consumerism and individualism growing as new paradigmatic lifestyles, women's independence, increasingly diverse ways of working and types of households, globalization, new systems of communication and household technology may have led many previous formulas into obsolescence. As Tim Nagtegaal explains in his essay about *Bakemabuur* (1953-1957) in The Netherlands, it has been common that original inhabitants,



01 Paul Klee, *Revolving House*, 1921.

within the development of a middle-class with purchasing power, gradually moved to other places. Often in the remaining housing stock have been left, the ones unable to acquire their own house: low-income households, the unemployed, senior people and people from ethnic minorities. Immigrant inhabitants are a segment of society whose degree of satisfaction is sensitive to analysis, since they are living in a place alien to their habitat, culture and ways of life. If, on one hand, those are inhabitants not able to appreciate their new neighborhoods, it is common that society and decision makers stigmatize them. Although some housing estates have been receiving a “second chance,”¹³ this architectural product is still often threatened by demolition, as Noni Boyd and Theodore Prudon draw international attention in their essays about the cases of Australia and the USA, respectively. The Pritzker Prize recently attributed to Anne Lacaton and Jean-Philippe Vassal gives us renewed hope in the future: their strategy of adapting post-war housing schemes built in France, in response to demolition policies, have been an example of how the flexibility of the dwelling space can be increased in order to suit different lifestyles, while improving energy performance. It is expected that, with this award, governments across the world may be aware of the statement they have been highlighting with their work: renovation can be more affordable than demolition.

The oil crisis, beginning in 1973, not only weakened many economies but it has also dissipated the optimism in the idea of progress of earlier decades. Radically changing the socio-economic paradigm, the Keynesian economic values of the post-war years were replaced by free-market policies. John Allan's essay evidences the power of such a phenomenon: while in the Barbican Estate (1956-1982) and the Golden Lane Estate (1952-1962), the Listed Building Management Guidelines have been contributing to a sustainable process of maintenance through a symbiotic relationship between community and heritage, the Conservation Plan for the Balfron Tower (1965-1970) did not prevent forthcoming unrecognizable transformation. Following the transfer of the council housing estate to Poplar HARCA in 2007, the Balfron dwellings allocated for rented social housing were replaced by luxury properties for sale on the private market. Within the framework of the current neoliberal economic model, architecture ceased to be seen as a social instrument. Private and individual values gained preference over public and collective ones, leading to a growing crisis in affordable housing, even for the middle classes, and increasing homelessness. 150 million people are homeless worldwide, and according to *Habitat for Humanity*, 1.6 billion people lack adequate housing, with about 15 million forcibly evicted every year. Within the current pandemic, these numbers will increase. As in any other crisis, the COVID-19 pandemic

is accentuating and evidencing social inequalities. Perhaps it is a naive to hope that, because the crisis we are living through is a world-wide one, it would be possible to shorten distances between states and work together to find a well-fare vision that, more than ever since WWII, would seem to be necessary.

Before COVID-19, within the paradigm that Byung-Chul Han uses to call the *burnout society* (2015),¹⁴ home was the shelter where we returned to at the end of the day, to rest. After Covid, the five main functions around which the *Athens Charter* proclaimed the organization of cities are now concentrated in one single place, surrounded by walls. The term *burnout* takes on a whole new dimension. The *self* is now in danger: either because it is isolated, not evolving with the community, due to the hard compatibilization with other *selves* in the same time and space. The challenge launched by the *Venice Biennale Architettura 2021* – “how will we live together?” is accurate both in the context of the private life taking place in the interior of the housing space, as well as in the dimension of a collective life, related to the community, and understood as occurring in an “exterior” that is now being re-defined. Nevertheless, the health standards and dignified housing principles that the Modern Movement brought to the world allows that the impact of a pandemic is substantially lower than what it could have been – which it has been – in earlier times. The *self* will be transformed into something else, but *housing* is here to stay as our most precious good.

Notes

The title of this text is borrowed from the BBC documentary series *The Century of the Self* (Adam Curtis, 2002).

- 1 Free translation from Christiane Rochefort, *Les Petits Enfants du Siècle*, Paris, Éditions Bernard Grasset, 1961, 135. Original: — Si le bonheur consiste à accumuler des appareils ménagers et à se foutre pas mal du reste, ils sont heureux, ouï! éclata Frédéric. Et pendant ce temps-là les fabricants filent leur camelote à grands coups de publicité et de crédit, et tout va pour le mieux dans le meilleur des mondes... — Capitalistes, dit le père. — Le confort c'est pas

le bonheur! dit Frédéric, lancé. — Qu'est-ce que c'est le bonheur? dit Etbel. — Je sais pas, grogna Frédéric. — Mais dites-moi, qu'on arrive à se poser ce genre de question au lieu de comment bouffer, ça ne prouve pas qu'on a tout de même un peu avancé? dit M. Lefranc. — Peut-être, dit Frédéric. Peut-être bien, dans le fond. — Pour découvrir que le confort ne fait pas le bonheur, il faut y avoir goûté, non? C'est une question de temps... Quand tout le monde l'aura, on finira bien par se poser la question. Ce qu'il faut c'est regarder un peu loin. Moi je ne verrai sans doute pas ça, mais vous, vous le verrez.

- 2 Jean Fourastié, *Les trente glorieuses ou la révolution invisible de 1946 à 1975*, Paris, Pluriel, 2010 [1979].
- 3 See Philipp Meuser, Dimtrij Zadorin, *Towards a Typology of Soviet Mass Housing*, Berlin, DOM Publishers, 2015.
- 4 Karl Popper, *The Open Society and its Enemies*, London, Routledge, 2011 [1945].
- 5 Jean-Paul Sartre, *L'être et le néant: Essai d'ontologie phénoménologique*, Paris, Librairie Gallimard, 1943.
- 6 Friedrich Engels, *The Housing Question*, Michigan, Lawrence and Wishart, Ltd., 1942 [1872].
- 7 Ortega y Garcia, *A Rebelião das Massas*, Lisboa, Relógio de Água, 2019 [1930].
- 8 Henri Lefebvre, *Le droit à la ville*, Paris, Anthropos, 1968.
- 9 Adrian Forty, *Objects of Desire: Design and Society Since 1750*, London, Thames and Hudson, 1986.
- 10 Camille Canteux, “Sarcelles, ville rêvée, ville introuvable”, *Sociétés & Représentations*, No. 17, 2004, 343-359.
- 11 Françoise Choay, “Cités jardins ou cages à lapins?”, *France Observateur*, No. 474, 1959, 12-13.
- 12 Lynsey Hanley, *Estates. An Intimate History*, London, Granta Books, 2017 [2007].
- 13 John Allan, “MOMO'S Second Chance – the Revaluation of the Urban Housing”, in Ana Tostões and Liu Kecheng (ed.), *docomomo International 1988-2012: Key Papers in Modern Architectural Heritage*, Xian, **docomomo** International/**docomomo** China/China Architecture & Building Press, 2014, 16-21.
- 14 Byung-Chul Han, *The Burnout Society*, Stanford, Stanford Briefs, 2015.

Zara Ferreira

(Portugal, 1988). Architect, MSc in Architecture (2012, Técnico – University of Lisbon, thesis: *The modern and the climate in the Lusophone Africa. School buildings in Mozambique: the Fernando Mesquita concept (1955–1975)*). She was the secretary general of **docomomo** International and co-editor of **docomomo** Journal (2014–2018). She is currently undertaking a PhD focused on post-WWII European housing estates (Técnico – University of Lisbon), with the support of the Portuguese Foundation for Science and Technology (SFRH/BD/115196/2016).



Bernard Zehruss, Le Haut-du-Lièvre, Nancy, France, 1958-1962. © Joseph Abram, 1976.

Modernity and housing production in France after WWII

BY JOSEPH ABRAM

After the collapse of 1940 and Occupation (1940-1944), France experienced a remarkable renewal after Liberation in 1944. Through reconstruction and intensive efforts to bring the country out of the housing crisis, the State set up a powerful production system, which based the expansion of the building sector on the concentration of investment in large companies. It was the era of the *grands ensembles*, of heavy prefabrication and giant construction sites. Initially well received by their inhabitants, these large housing complexes rapidly deteriorated and became ghettos. Despite the social difficulties that beset these neighborhoods, how can this important heritage of modernity be preserved today?

An Industrial housing policy

France was confronted, during the 1950s, with a serious housing crisis. Since 1945, the State had dealt with this emergency. Reconstruction, despite its exceptional dynamism, was unable to stem the mechanisms of a chronic shortage, which, already worrying during the 1930s, had been amplified by the destruction caused by WWII and the demographic surge of Liberation. The increase of population (41.6 million inhabitants in 1950 / 44.5 million in 1958) turned this situation into a nightmare. A real speed race began between the scale of the needs and the national construction effort. The post-war economic policies, based on a powerful interventionism by the State, had fostered investment in basic sectors (industry and transport), in order to create conditions for long-term economic growth, but postponing the massive production of housing. Reconstruction of war-destroyed towns had provided high-quality modern apartment buildings, but the French housing stock (14 million housing units) was generally dilapidated. Only 50% of dwellings had running water, 25% toilets, 10% a bathroom. It was estimated that three million housing units needed to be built immediately. The task was titanic. Since its creation in November 1944, the Ministry of Reconstruction and Urbanism (MRU) had encouraged architects, through a series of technical competitions, to orient their research towards the standardization of construction. What remained to be done was to organize large-scale public procurement in the field of housing. Launched in 1950, the competition of the *Cité Rotterdam* in Strasbourg (800 housing units) was a decisive step. The competition's rules required the integration of architects into teams made up of engineers, contractors, and industrialists, in order to ensure complete control of cost and production deadline. Twenty-nine teams were admitted to compete. The jury, chaired by Minister Eugène Claudius-Petit (1907-1989), included renowned architects – among others, Auguste Perret (1874-1954), André Lurçat (1894-1970), and Georges-Henry Pingusson (1894-1978) –, builders – namely Jean Prouvé (1901-1984) – and representatives of the State. The first prize was awarded to Eugène Beaudouin (1898-1983), associated

with the companies Boussiron and Froment-Clavier. The second prize was awarded to Bernard Zehruss (1911-1996), the third went to Jean-Louis Fayeton (1908-1968), and the fourth to Le Corbusier (1887-1965), who responded to the program by dividing the 800 housing units into two *unités d'habitation* comparable to the one in Marseille (1947-1952, and so then still under construction) and a 50 meter (m) high tower. The winner of the competition, Eugène Beaudouin – who before WWII, together with Marcel Lods (1891-1978) and the engineers Vladimir Bodiansky (1894-1966) and Eugène Mopin (1898-1983), had built the *Cité de la Muette* (1929-1939/1946) in Drancy – had organized his project in a sort of irregular crown around a green area. The standardization of the elements (a single type of slab, a single type of wall, a single type of window, etc.) facilitated the implementation of prefabrication, so that the operation could be delivered in 18 months. Cost and deadline were strictly adhered to. Eugène Beaudouin's rational architecture, with its functional and bright apartments, perfectly matched the quality of housing expected by the MRU.

At the same time, Jean Dubuisson (1914-2011) obtained a commission for 263 housing units in Saint-Germain-en-Laye. Carried out in less than ten months in the garden of a castle, this operation offered a dazzling demonstration of the potential of heavy prefabrication. It consisted of two parts: one of 100 housing units (built in concrete by Félix Dumail (1883-1955) using traditional techniques), the other of 163 housing units (built by Jean Dubuisson using the Camus industrial system that had just been tested in *Quartier du Perrey* (1949-1950), part of the reconstruction plan of Le Havre (1945-1964), by Auguste Perret). Jean Dubuisson redesigned the construction system, eliminating the load-bearing facades and replacing them by load-bearing cross-walls in order to completely open up the interior of the apartments through large bay-windows towards the park. The comparative analysis of the two parts of the operation made it possible to concretely measure productivity gains generated by prefabrication. With this achievement, Jean Dubuisson set the new values for mass housing in



01 Pierre Vivien (architect) and Eugène Mopin (engineer), *Tours du Quai Gambetta*, Boulogne-sur-Mer, France, 1951-1955. Built during the reconstruction of this city. © Joseph Abram, 2020.

France. In a later text, he evoked the hopes of the period:

We had the strong desire to change the construction. The dwellings had to meet new requirements and a new way of life, they had to offer more comfort and more contact with the surrounding nature. A satisfactory solution could only be given on two conditions: to significantly improve productivity in the building industry and to free up large areas intended to be planted with trees.¹

Jean Dubuisson succeeded in clarify the new conditions of housing, articulating in a coherent way, the requirements of heavy prefabrication (with concrete slabs) and the standards of modern domesticity: simple volumes, rigorous plan, generous light, large views to the outside, etc. Other architects, like Jean Ginsberg (1905-1983), developed with talent, the theme of the inhabited park, as can be seen in his works of 200 to 300 flats near Paris, in Palaiseau, Poissy, Garches and Meudon in the 1950s. The *Cité Les Buffets* built in Fontenay-aux-Roses (1958-1959) by LWD studio (Guy Lagneau (1915-1996), Michel Weill (1914-2001) and Jean Dimitrijevic (1926-2010)) or *Château de Louveciennes* (1957-1960), designed by Paul Herbé (1903-1963) and Jean Le Couteur (1916-2010) show the attention paid, during this period, to the high quality of apartments. For *Cité Les Bleuets* (560 flats) in Créteil (1959-1962), Paul Bossard (1928-1998) distributed the housing on the site of a former stone quarry. The interest of this operation lies as much in the comfort offered to the inhabitants (well-equipped kitchen, electric oven, serving hatch, built-in cupboards, forced air heating...), as in the cyclopean aesthetic resulting from constraints of the heavy prefabrication techniques. 3000 drawings were necessary to ensure the construction definition of this housing complex inspired by the last works of Frank Lloyd Wright (1867-1959).

Large-scale operations

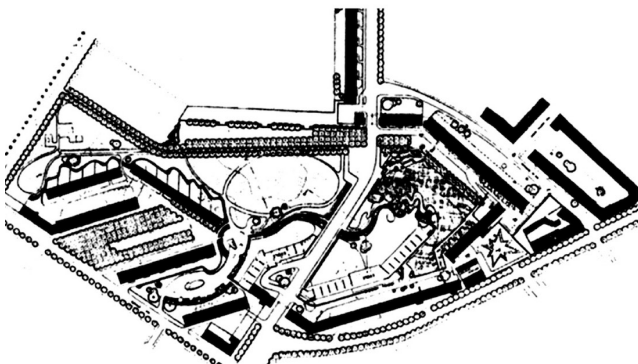
In summer 1953, the French Parliament passed a series of legal measures aimed, on the one hand, at directing massive flows of capital towards the building sector and, on the other hand, at providing the land necessary for construction of large housing programs. Production rose

in a few years from 100,000 housing units per year (1953) to 300,000 (1958), reaching 445,000 in 1968 to the record of 542,000 in 1973. The increase in the size of operations (1,000/2,000/5,000 flats) and the extreme rationalization of construction made it possible to obtain spectacular productivity gains, while maintaining a high quality of housing. The *Les Grandes Terres* housing complex in Marly-le-Roi (1955-1958), with 1,500 housing units, built by Marcel Lods, Jean-Jacques Honegger (1903-1985), Xavier Arsène-Henry (1919-2009) and Luc Arsène-Henry (1923-1998) appears exemplary from this point of view. Located on a *plateau* overlooking the Seine river, it consists of five-story buildings using prefabricated elements (facade panels, slab with integrated heating...) to form an excellent neighborhood unit with well-articulated public spaces. In just a few years, the State had acquired a powerful production system, which based the expansion of the building sector on the concentration of investments in big companies (through the heavy prefabrication and giant construction sites) and on the efficient control of land for building. It was the period of the *grands ensembles*. Large scale operations multiplied throughout the country: 1,000 housing units in Marseille, by Georges Candilis (1913-1995), Alexis Josic (1921-2011) and Shadrach Woods (1923-1973); 1,100 housing units in Bayonne, by Marcel Breuer (1902-1981) and Robert Gatje (1927-2018); 1,200 housing units in Chevilly, by Jean-Louis Fayeton; 1,600 housing units in Villiers-le-Bel, by Daniel Badani (1914-2006) and Pierre Roux-Dorlut (1919-1995); 2,600 housing units in Bron-Parilly, by Pierre Bourdeix (1906-1987), Franck Grimal (1912-2003) and René Gagès (1921-2008); 3,800 housing units in Créteil, by Gustave Stoskopf (1907-2004); 4,000 housing units in Aubervilliers, by Henri Delacroix (1907-1974) and Clément Tambuté (1905-1992); and 10,000 housing units in Sarcelles, by Roger Boileau (1909-1989) and Jacques-Henry Labourdette (1915-2003).

For Haut-du-Lièvre (1958-1962) in Nancy, Bernard Zehruss built two gigantic buildings, one 400 m long with 15 floors, the other 300 m long with 17 floors, three large perpendicular buildings and two big towers, with a total of 3,500 housing units. A few standard elements (slab, walls, facade panels, staircase, etc.) prefabricated in large series were enough to build the entire district. The local newspapers were enthusiastic about this grandiose project, which made it possible to “reduce industrial costs,”² and it was with pride that people were talking at that time about “the longest housing buildings in Europe.”³ In Pantin, for the *Cité des Courtillères* (1955-1960) with 1,600 flats, Émile Aillaud (1902-1988) designed a huge green space, planted with tall trees, surrounded by a 1500 m long building, flanked by groups of 13-story towers. In Meudon-la-Forêt (1955-1962), with 2,600 flats, Fernand Pouillon (1912-1986) used stone (combining it with concrete) to build solid residential buildings. Despite the scale of the program, this operation demonstrated perfect architectural mastery. The outdoor spaces, organized in classic sequences (alleys, basins, gardens), have acquired their strength and identity through this rigorous geometry. Unlike many large housing complexes of that time, Meudon-la-Forêt has aged well, thanks to the durability of the materials. Fernand



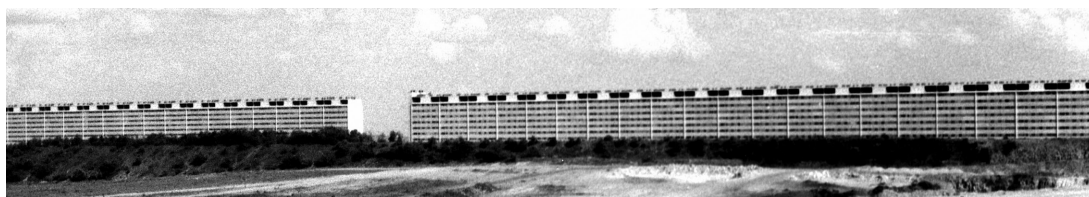
02 Jean Dubuisson, Shape Village, Saint-Germain-en-Laye (Île-de-France), France, 1951-1952. © Joseph Abram, 1997.



03 Eugène Beaudouin, Cité Rotterdam, Strasbourg (Grand Est), France, 1951-1953. © Joseph Abram, 1996.



04 Fernand Pouillon, *Grand Ensemble* of Meudon-la-Forêt, Meudon-la-Forêt (Île-de-France), France, 1955-1962. © Joseph Abram, 1996.



05 Bernard Zehruss, *Le Haut-du-Lièvre*, Nancy, France, 1958-1962. © Joseph Abram, 1976.

Pouillon had understood very early that modernity resided neither in particular formal stylistics, nor in pre-established spatial models. He managed to prove that traditional materials were not disqualified by modern architecture as rational production processes could make their costs acceptable.

Debates and controversies – Cultural values

The vigorous policy undertaken by the State to resolve the housing crisis was at the origin of the very large operations of the 1960s. At first well received by the French population, satisfied to have access to modern and comfortable houses, these operations gradually became the subject of diffuse criticism and finally sparked violent controversies. The most famous is the one that broke out about the 10,000 housing units complex built by Roger Boileau and Jacques-Henry Labourdette in Sarcelles. This *grand ensemble*, with its rectangular grid made up of five-story buildings, punctuated here and there with 16-story towers, was amongst the best of this period. “What made life difficult for the first inhabitants of Sarcelles was the lack, for many years, of the most basic facilities. There was no school, no shop, no bus.”⁴ Television and major newspapers echoed the residents’ dissatisfaction. But instead of blaming the organizational problems of this city still under construction, they condemned modern architecture as monotonous and unlivable for the inhabitants. The media reported in 1960 about a strange disease of *grands ensembles*, which they ironically called “*sarcellite*.” The eminent town planner Raymond Lopez (1904-1966) tried to respond with humor to these virulent criticisms “disseminated by the press to a public opinion with prefabricated reactions” ready to believe “that to live in a high-rise building exposes you to be asthmatic from the eighth floor, anemic from the twelfth, hypochondriac from the fifteenth, and a candidate for suicide above.”⁵ Not only did the controversy of large housing complexes persist in the media during the 1970s, they intensified. At the same time, the debate became clearer among specialists (architects, sociologists, city planners) to the point of focusing on an important problem: the lack of a regional planning policy in France. Already in 1950, Minister Eugène Claudius-Petit, at the very moment he launched the production of the large housing complexes, warned against the pragmatic temptation of building them “anywhere”. Influenced by his friend Le Corbusier, he advocated that housing policy should be part of an overall restructuring of the national territory, in order to improve the quality of life and well-being of the French population. These humanist concerns were soon swept away in the productionist whirlwind that gripped the country, destroying any political will for town planning in its path. The sociologist Henri Lefebvre (1901-1991) spoke, 30 years later, about the large housing complexes of the Parisian suburbs “established without a global project” as a “disaster.”⁶ This negative judgment anticipated that of the architects most directly involved in the massive housing production of the post-war period. As André Gutton (1904-2002) said, “large amounts of dwellings had to be built where land was not expensive. There was no town planning.”⁷ Jean Dubuisson, who built



06 Marcel Lods, Jean-Jacques Honegger, Xavier and Luc Arsène Henry, *Les Grandes Terres*, Marly-Le-Roi (Île-de-France), France, 1952-1960. © Joseph Abram, 1997.

20,000 homes during his career, confirmed it: “If, each year, we built an increasing number of homes, we had to realize that the problem had been badly posed in France. We were not building new towns, not even new neighborhoods, but only *grands ensembles* in which life did not develop.”⁸ Bernard Zehruss deplored the same failure: “At that time, we were mainly looking to reduce costs. We had to build quickly. What was missing was a real town planning program.”⁹ The modern quarter he had built in Nancy had become, in his own words, “a dormitory town.” Like many other French suburbs, it was soon to turn into a “ghetto.”

Far from implying the quality of their architecture, the failure of the *grands ensembles* was primarily political and administrative. Their disastrous fate played out in the 1970s. Their population, which was initially socially diverse, quickly became uniform. The middle classes, attracted by the purchase of single-family houses (financially encouraged by a law passed in 1977), have left these districts, which were beginning to deteriorate. Only the poorest classes (endlessly increased by the inflow of immigrants) remained “captive”. The social pyramid collapsed. To these difficulties, have been added, since the 1980s, other plagues such as drug trafficking, religious fanaticism, crime... Despite State policies to improve these urban areas, the situation has constantly worsened. To speak of architectural heritage under such conditions may seem incongruous. And yet, beyond all these social ills, the *grands ensembles* represent a remarkable testimony to the post-war period. They have contributed, in full economic growth, to the deployment of modern culture. While nothing, in theory, should hinder the preservation of this heritage of recent history, in practice everything, in fact, stands in the way. The negative image attached to these districts, their continuous degradation despite the colossal means allocated to their transformation, the predatory effects of these transformations (which most often result in their disfigurement or even destruction) constitute obstacles to an eventual protection.



07 Bernard Zehruss, *Le Haut-du-Lièvre*, Nancy, France, 1958-1962. © L'Est Républicain, 1966.



08 Roger Boileau and Jacques-Henry Labourdette, *grand ensemble* of Sarcelles, France, 1955-1970. © Le Parisien, 1980.

The extent of the housing stock raises questions of method. From the neighborhood unit of Saint-Germain-en-Laye to the huge housing complex of Sarcelles, the cases are very different. The list of sites to be protected must be understood as a coherent landscape able to offer collective memory: a selective, but relevant medium in relation to the immensity of the heritage of the 1950s and 1960s. Any patrimonialization supposes a broad awareness of the general public. Large-scale cultural actions (prestigious exhibitions, publications, films, etc.) could be organized for this purpose. Likewise, an ambitious campaign to award “20th century heritage” labels (created by the Ministry of Culture in 1999) to the best housing complexes of this period could contribute to the symbolic rehabilitation of all this devalued architecture. The award of this label to the *grands ensembles* of Sarcelles (Roger Boileau and Jacques-Henry Labourdette), Meudon-la-Forêt (Fernand Pouillon), Grigny (Émile Aillaud), Saint-Étienne (Henri Gouyon (1902-1975) and Edouard Hur (1903-1974)), Firminy-Vert (André Sive (1899-1958), Marcel Roux (1909-1993), Charles Delfante (1926-2012) and Jean Kling (1925-2001)) are very encouraging signs. In recent years, a change in attitude towards the large housing complexes can be observed, in particular among the architects in charge of their rehabilitation. As the work of Lacaton & Vassal – Anne Lacaton (1955-) and Jean-Philippe Vassal (1954-) –, Frédéric Druot (1958-) and Christophe Hutin (1974-) shows, apartment buildings from the 1950s and 1960s offer excellent potential for adaptation to current comfort and environmental requirements. The transformation of 530 housing units that they have carried out in the *Grand Parc* district in Bordeaux (2014-2017) offers a remarkable demonstration of this. A development of historical research on the architecture of the *grands ensembles*, much richer and more diversified than it seems at first glance, is necessary to give these new rehabilitation practices a real cultural depth.

Notes

- 1 See Jean Dubuisson, “Ces ensembles qu’on voulait grands”, in *Les années 1950*, Centre Pompidou, Paris, 1988, 530-534.
- 2 *L’Est Républicain*, Nancy, 3rd March 1957, 7th January 1959 and 20th March 1959.
- 3 *Idem*.
- 4 Henry Canacos, conversation with the author, Sarcelles Town Hall, Summer 1980.
- 5 See Raymond Lopez, *L’avenir des villes*, Paris, Robert Laffont, 1964.
- 6 See Henri Lefebvre, “Autour de deux dates”, in *Paris-Paris. 1937-1957*, Centre Pompidou, Paris, 1981, 617-625.
- 7 See André Gutton, *De l’aurore à la nuit*, Zodiaque, Paris, 1985, Vol. 1, 240.
- 8 See Jean Dubuisson, *op. cit.*
- 9 Bernard Zehrfuss, conversation with the author, Paris, Summer 1980.

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Mario Pani, Centro Urbano Presidente Alemán, Mexico City, Mexico, 1947-1949. © Guillermo Zamora, Archive Louise Noelle.

President Alemán Urban Housing Project

BY LOUISE NOELLE

The *Centro Urbano Presidente Alemán*, inaugurated in 1949, was a pioneer in more ways than one and can be considered as one of the most transcendent works of Mario Pani. It is the first Mexican high-rise housing complex, where many of the ideals of the European masters, especially Le Corbusier, are gathered together but with a design suited to its place and time. Mario Pani shattered the scheme of the single unit dwelling and proposed a density that allowed the presence of garden areas and integrated diverse services. Moreover, he invited the artist José Clemente Orozco to paint a mural, which he commenced on an undulating wall designed by him.

6th September 1949 is a date marked by a photograph where architect Mario Pani (1911-1993) and painter José Clemente Orozco (1883-1949) are shown together, alongside other prominent personalities. A few days earlier, on 2nd September, the Mexican president, Miguel Alemán (1900-1983), had inaugurated the first high-rise urban housing block that coincidentally was christened with his name: *Centro Urbano Presidente Alemán* [President Alemán Urban Housing Project]. The multitudinous inaugural event had reverberated in the press and other media, as the building presented a new architectural proposal. That is why the meeting of a few people at the entrance of the complex could have passed unnoticed were it not because of that fateful day, José Clemente Orozco would have begun the painting of his last mural. Alas, he passed away the following dawn.

Mario Pani, visionary architect

The whole complex was also known as “Multifamiliar Alemán”, or CUPA.¹ It was designed by Mario Pani,² who studied at the *École des Beaux-Arts* in Paris in the 1930s, having also the chance to become familiar with the *avant-garde* proposals of Le Corbusier (1887-1965). Upon returning to Mexico, his native country, he approached the original ideals of a socially engaged architecture,³ and contemplated solutions that combined the benefits of both disciplines. In this sense, it can be deciphered that he was looking for suitable solutions to the problems of the country, proposing new paths, from technical to material, going all the way to the very concept of the buildings and their purpose. That is why the core of his efforts was concentrated in working on certain architectural typologies, like hospitals, schools, and housing.

Mario Pani is among the most prolific and original Mexican contemporary architects. From 1944 to 1946, he worked, alongside José Villagrán García (1901-1982), José Luis Cuevas (1881-1952) and Enrique Yáñez (1908-1990) in the first stages of the *Comité Administrador del Programa Federal de Construcción de Escuelas* [Administrative Committee for the Federal Schools Construction Program, Capfce].

With this group, and in the same period, he collaborated on the *Programa Nacional de Hospitales* [National Hospital Program]. Not only did he plan important public and private works, but he also undertook urban studies in his *Taller de Urbanismo*, a workshop that produced a number of regional and master plans in different parts of the country.⁴

Likewise, as a professor he had a very productive period in the National Architecture School at the *Universidad Nacional Autónoma de México* [National Autonomous University of Mexico, UNAM], from 1940 until 1948. Furthermore, the creation of the magazine *Arquitectura/México* is of note, as he was editor-in-chief for 40 years (1938-1979), enhancing his role as leader and promoter of the national architecture.

President Alemán Urban Housing Project

Within the housing typology the early undertaking of the CUPA can be considered as one of the most significant and innovative works of Mario Pani. It is the first high-rise housing project, where Mario Pani gathered the ideals of the European masters, in particular those of Le Corbusier, but with a result that was especially suited to the place and time. On one hand, Mario Pani buried the idea of the single unit house, and favored a complex where the concentration of the *habitat* allowed the expansion of the landscaped and sporting areas and offered integrated diverse amenities. On the other hand, he drafted a concept of urban densification that would allow the restriction of excessive expansion, as well as the increase of facilities and transportation. The diverse offshoots of this concept, both in subsequent works by this architect and in official stances, that still nowadays house workers speak of the suitable nature of the proposal and the benefits of its implementation.⁵

This urban center project was the result of a contest launched in July 1947 by the *Dirección de Pensiones Civiles* [Civil Pensions Directorate],⁶ under Esteban García de Alba (1887-1959). Mario Pani came out as the winner with a proposal that combined “the optimal use of the land; the biggest population capacity; and the conditions of spaciousness, comfort and size of the dwellings”⁷ in

relation to the costs and quality of the construction. In this case, he counted on the collaboration of Salvador Ortega Flores (1920-1972), José de Jesús Gómez Gutiérrez and Jenaro de Rosenzweig and for the urbanism on José Luis Cuevas, Domingo García Ramos (1911-1978) and Homero Martínez de Hoyos (1917-1998). Additionally, to complete the construction of this unprecedented complex, engineer Bernardo Quintana (1919-1984) established the construction company *Ingenieros Civiles y Asociados* (ICA) that, from then on, had a prominent presence in the Mexican construction field.⁸

The complex occupied a so-called super block, encompassing an area of 40,000 square meters (m²), within an urban low-density context in the southern part of Mexico City, with a total of 1,080 apartments for rent. The plot needed few perimeter parking spaces, as it was well connected by public transport, flanked on the western side by *Avenida Coyoacán*, an important route to the center of the city with a streetcar service.

The housing complex included six buildings with a ground floor and 12 apartment floors, north-south facing, and six more buildings with the same orientation but with only three floors. It must be noted that the ground floor of the tallest buildings, in spite of being supported by a *pilotis* structure that could allow transparency, was used to house businesses that catered to its inhabitants. Furthermore, the ensemble included a nursery, a kindergarten, a pool and public spaces for sports, gardens, and administrative offices. All in all, a small town that provided its inhabitants with all the services that modern life had to offer at the time. Regarding the urban aspect, the building “pointed the true way that modern cities must follow. With this system, Mexico City could be five times smaller (...) significantly improving its hygienic conditions with the prevalence of green areas over built ones.”⁹

The organization of the taller buildings was inspired in the system designed by Le Corbusier for the *immeubles à redent* at the *Ville Radieuse* (1930, not realized). In this case, the apartments offer an interesting proposal for Mexico, being developed with two stories, an idea that also had its roots in Le Corbusier’s projects, eminently in Marseille’s *Cité Radieuse* (*Unité d’Habitation de Marseille*), which was planned in 1945 but only completed in 1953. Mario Pani borrowed from the Swiss architect the idea of having two apartments that occupy three floors, but with a slight variation, so that the street or hallway access was exterior; the Mexican weather permitted this change, offering, in addition, a *jardinière* [planter] to decorate the passageway. The main area of two apartments is on the access level, where the dining place and kitchen can be found, using the upper or lower level for the bedrooms set around a living room, all in 48 m². Four of these dwellings were gathered around a central light shaft, two looking towards the east and two to the west. For the endings of the towers, where the elevators were located, smaller apartments were designed, as well as in the segments that join the four buildings, with windows facing south.

In every instance, the project represents “a generous attempt for the solution of the problems of family

housing,”¹⁰ as all the apartments had electricity, phone and radio systems, as well as cold and hot water, in addition to chutes that discharged the trash into an incinerator. The precise solution of the structural design of the buildings – that was accompanied by an unquestionable quality in its construction – must be highlighted; it has enabled the complex to come out unscathed through time and several earthquakes. Likewise, the exterior finishes were designed with the idea of reducing maintenance costs to a minimum, favoring exposed concrete and bricks, which have facilitated its adequate conservation.

As for the three-story buildings, they are gathered in two groups of three parallel buildings each, with the same type of finishes. These were planned for simpler apartments with only one bedroom. Here, as in the tall buildings, the dwellings did not have a laundry space: that is why it was indispensable to set up a modern launderette that offered a complete service at a low price for the inhabitants of CUPA.

Other key contributions:

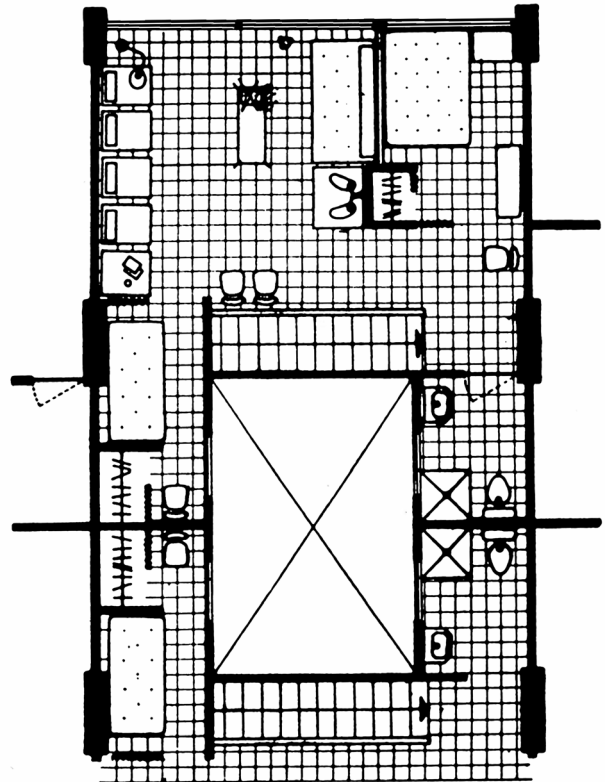
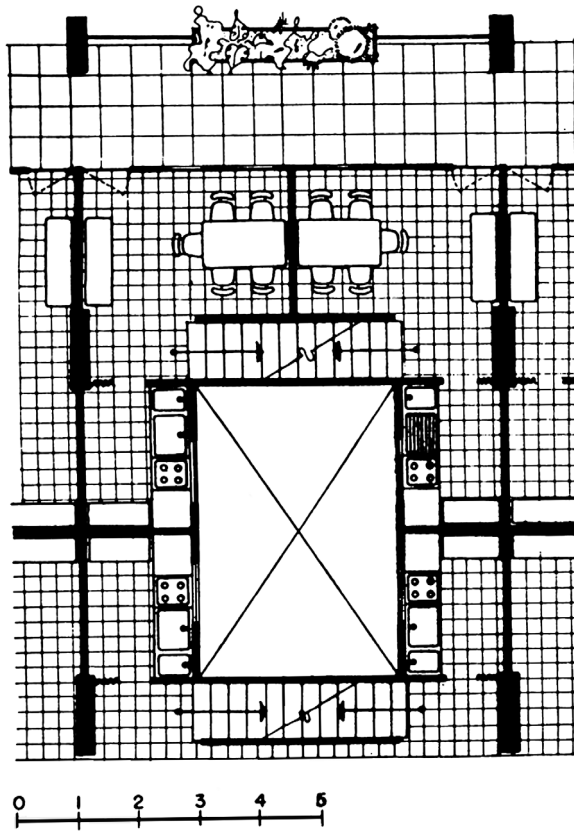
Clara Porset and José Clemente Orozco

It is essential to point out other participants that added value to the complex, not only because of the scope of their contributions, but by showing Mario Pani as the person who inspired them.

Firstly, the Cuban-born designer Clara Porset (1895-1981),¹¹ who often worked with her husband, the Mexican painter Xavier Guerrero (1896-1974), must be singled out. As a team, they entered the design contest sponsored by the Museum of Modern Art (MOMA) “Latin American Competition for Organic Design in Home Furnishings,” in which they garnered an award for a collection they had named *Rural furniture*. In a way, these very furnishings were a precedent for the ones Clara Porset designed, later, for the housing ensemble. Clara Porset was an important presence in Mexico, where she lived for most of her professional life. Not only did she undertake the design of industrially produced office furnishings at DM Nacional, she worked



01 Mario Pani, *Centro Urbano Presidente Alemán*, Mexico City, Mexico, 1947-1949. Entrance to the administrative offices. © Guillermo Zamora, Archive Louise Noelle.



03 Mario Pani, *Centro Urbano Presidente Alemán*, Mexico City, Mexico, 1947-1949. Floor plan of the apartments: left central level; right upper or lower level. © Mario Pani, *Los multifamiliares de Pensiones*, Mexico, Editorial Arquitectura, 1953, 26-27.



04 Mario Pani, *Centro Urbano Presidente Alemán*, Mexico City, Mexico, 1947-1949. Furniture for the apartments designed by Clara Porset. © Photo Archive Clara Porset, UNAM.



05 Mario Pani, *Centro Urbano Presidente Alemán*, Mexico City, Mexico, 1947-1949. José Clemente Orozco on the scaffolding, talking to José Villagrán García and José Luis Cuevas, and Mario Pani looking towards the camera, 6th September 1949, at the entrance of the complex. © Archive Louise Noelle.

on various projects with Mario Pani,¹² as well with noted architects like Enrique del Moral (1905-1987) and Luis Barragán (1902-1988), for interior design and furniture. This *oeuvre*, as well as her presence in university lecture halls, has bestowed on her a leading position in Mexico's industrial design field.

This pioneering woman designed a series of furnishings for CUPA. Her proposal was to undertake "in Mexico the transcendent realization to make the dwelling a living unit (...) they are essential elements to the achievements in attaining the goal of (...) the art of everyday life."¹³ 108 units were furnished, 10 % of the total number, seeking to make "the interiors of the apartments lively, cozy and flexible."¹⁴ The design consisted of low cost furniture, resistant, flexible and versatile, and at the same time modern, comfortable and pleasant to the eye.

Furthermore, the transcendence of the movement known as Plastic Integration,¹⁵ of which Mario Pani was one of the chief exponents, must be recalled here. He had already worked with Diego Rivera (1886-1957) at the Hotel Reforma (1934-1936) and with David Alfaro Siqueiros (1896-1974) at the *Rectoría* [Dean's Tower] (1952) of *Ciudad Universitaria*, the main campus of UNAM. This is why it seems logical that at CUPA he invited the Guatemalan painter and muralist Carlos Mérida (1891-1984) for a frieze and some decorations in the kindergarten, which have since then been lost.¹⁶

In particular, the presence of José Clemente Orozco, artist born in Jalisco, seems relevant as he had a longstanding professional relationship with Mario Pani. The painter had participated in the first development of the muralist movement in Mexico, with a set of *frescoes* in the former Colegio de San Ildefonso, but he set out for the United States in 1927, where he undertook several murals, coming back to his home country in 1934.¹⁷ By 1945 he began a professional relationship with Mario Pani, carrying out two murals at the *Escuela Nacional de Maestros* [National Teacher's School] and the *Conservatorio Nacional de Música* [National Music Conservatory]. In the first instance, in 1947, José Clemente Orozco painted "on the parabolic wall of the outdoor

theatre (...) [an] enormous work of 340 square meters" the mural *Alegoría Nacional* [National Allegory], "where he applied silicate mineral paint directly on the concrete."¹⁸ In the second, he painted on concrete on the walls framing the stage of the auditorium.

It was around this time, in the pioneering urban complex, that José Clemente Orozco was supposed to paint an exterior mural, *La Primavera* [Spring], on an undulating and fragmented concrete wall designed by him. "Orozco had never been so busy and with more plans of work than during the summer of 1949 (...) On September 6th he sketched the outlines for a figure (...) for the Multifamiliar Alemán (...) The next morning (...) his family found him dead from a heart attack."¹⁹ Mario Pani narrated this event stating: "That day the maestro found the texture of the wall exceeding in roughness and (...) [he said] if the wall was not covered with a less coarse surface he would not go on painting."²⁰ Of this mural, only the first strokes remain, but a photograph caught the event to preserve it for history: José Clemente Orozco is on top of a scaffolding and is talking to José Villagrán García and José Luis Cuevas, while Mario Pani, looking at the camera, talks to other architects. One image that, seven decades later, shows indubitably the importance of this single architectural fact where the main actors sought to achieve the best they had to give.

As an epilogue

Today, *Centro Urbano Presidente Alemán* continues to be a milestone in the urban culture of the capital city. Since the end of the 1980s, the rent regime changed to a condominium system that started by favoring the original tenants. In this way, the complex was revitalized and nowadays the apartments are in great demand because the area offers many advantages. Moreover, it must be mentioned that, even if some of the conditions have changed, the quality of the construction and of the materials have favored an adequate maintenance. In short, it is a very attractive Modern Movement example in which to live.

Notes

- 1 The word “multifamiliar” was coined by the inhabitants of Mexico City, originally with a certain sense of disdain towards a building that is occupied by an elevated number of families.
- 2 For more information on this architect, see Louise Noelle (comp.), *Mario Pani*, Mexico, UNAM, 2008.
- 3 In this sense, the Architecture Theory of José Villagrán García must be noted, where he adds “social value” to the three original values: the useful, the true and the aesthetic. José Villagrán García, *Teoría de la Arquitectura*, Mexico, INBA, 1963.
- 4 Amongst these the Master Plan for Ciudad Universitaria of UNAM, in collaboration with Enrique del Moral, which was declared a World Heritage Site by UNESCO in 2007.
- 5 Other housing complexes by Mario Pani are: *Centro Urbano Presidente Juárez*, 1950-1952; No. 9 and 7 Neighboring Units, 1950-1951; *Centro Urbano Santa Fe*, 1953; Nonoalco-Tlatelolco Housing City, 1962-1964; *Centro Urbano John F. Kennedy*, 1965; *Centro Urbano Lindavista-Vallejo*, 1965-1966.
- 6 The *Dirección de Pensiones Civiles* became the *Instituto de Seguridad y Servicios Sociales de los Trabajadores del Estado* [Civil Service Social Security and Services Institute, ISSSTE], on December 1959, in order to cover health services and pensions of government workers.
- 7 Mario Pani, *Los multifamiliares de Pensiones*, Mexico, Editorial Arquitectura, 1953, 22.
- 8 Juan José Kochen (ed.), *El primer multifamiliar Moderno: Centro Urbano Presidente Alemán*, Mexico, Fundación ICA, Fundación Miguel Alemán, 2017.
- 9 “Centro Urbano ‘Presidente Alemán’”, *Arquitectura/México*, No. 30, Mexico, Editorial Arquitectura, February 1950, 269.
- 10 Mario Pani, *op. cit.*, 39.
- 11 Louise Noelle, “Clara Porset, a Modern Designer for Mexico”, *docomomo Journal* 46 – “Designing Modern Life”, Barcelona, **docomomo** International, 2012, 54-59.
- 12 In 1953, Clara Porset designed the furniture and decoration for Mario Pani’s own home in Acapulco.
- 13 Clara Porset, “El Centro Urbano ‘Miguel Alemán’ y el espacio interior para vivir”, *Arquitectura/México*, No. 32, Mexico, Editorial Arquitectura, October 1950, 118.
- 14 *Idem.*, 119.
- 15 Louise Noelle, “La integración plástica: confluencia, superposición o

nostalgia”, in Lucero Enriquez (ed.), *(In)Disciplinas: Estética e historia del arte en el cruce de los discursos*, Mexico, UNAM, 1999.

- 16 Louise Noelle, *The Murals of Carlos Mérida, Chronicle of a Disaster*, San Antonio, UNAM San Antonio, 2019.
- 17 Louise Noelle, “José Clemente Orozco y la arquitectura”, *José Clemente Orozco: otras claves nuevas lecturas*, Guadalajara, El Colegio de Jalisco, 2011.
- 18 Alma Reed, Orozco, México, FCE, 1983, 322
- 19 *Idem.*, 329.
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06 Mario Pani, *Centro Urbano Presidente Alemán*, Mexico City, Mexico, 1947-1949. Pool. © Archive Louise Noelle.



07 Mario Pani, *Centro Urbano Presidente Alemán*, Mexico City, Mexico, 1947-1949. Day care and kindergarten. © Guillermo Zamora, Archive Louise Noelle.



Bresciani Valdés Castillo y Huidobro, *Unidad Vecinal Portales*, Santiago, Chile, 1958-1968. Pedestrian square contained between the buildings and houses. © René Combeau, 1960, Archivo de Originales SIGM. FADEU PUC

Housing explorations. *Unidad Vecinal Portales* in Santiago

BY UMBERTO BONOMO

This article explores the contribution of *Unidad Vecinal Portales* – built in Santiago de Chile by the studio Bresciani, Valdés, Castillo y Huidobro – to the debates on social housing in Chile between the 1940s and 1960s. A series of radical decisions, put into action in the complex, demonstrate a deep exploration at the urban, typological, and aesthetic levels. This exploration has given life to an important case study in Chile and Latin-America, where urban and architectural challenges of the second half of the 20th century blend harmoniously.

Santiago de Chile, 1950: metropolitanization and institutional modernization

After WWII, housing development in Latin America played an important role in facing the dwelling deficit, increased by the great migration from the countryside to the city that took place in the 1940s and 1950s. This transfer meant a profound transformation of Latin American cities, which were experiencing intense metropolitanization processes.

Throughout the 20th century, Chile had been a pioneer country in the experimentation on mass housing.¹ Since the first decade of the century, a series of laws and public institutions lead to profound changes in urban planning, in models of affordable housing projects, and ultimately in the way lower and middle-class Chileans were beginning to live together in the cities.

This is the case in Santiago. Between 1940 and 1950, the city was already considered a metropolis, having exceeded one million inhabitants and having a large housing deficit that increased at very high rates year after year.

At the time, the State was also facing a strong modernizing momentum. A fundamental institutional, political, and administrative maturation process was taking place, which allowed the government to carry out large and ambitious residential projects.

To fully comprehend Chilean housing production in the 1950s and 1960s, it is necessary to reconstruct the figure, and role of the main institutional actors who were part of this heroic moment of modern Chilean architecture and urbanism.

An institution called *Caja de Previsión de Empleados Particulares*² [Private Employees' Pension Fund] had been created in 1924 and, like many other pension funds, it was in charge of building houses for those affiliated with the institution.

In 1948, to encourage private participation in the low-cost housing business, the well-known *Ley Pereira* (Law No. 9135) was passed. This legislative instrument considered relevant tax exemptions to encourage the real estate business, and thereby promote the creation of economical houses for the middle and lower sectors of the population. The approval

of *Ley Pereira* implied the formation of EMPART (private employees) Societies. These organizations were companies made up of 90% of public capital from *Caja de Previsión de Empleados Particulares* and the remaining 10% was capital from the most important Chilean construction companies of the time.

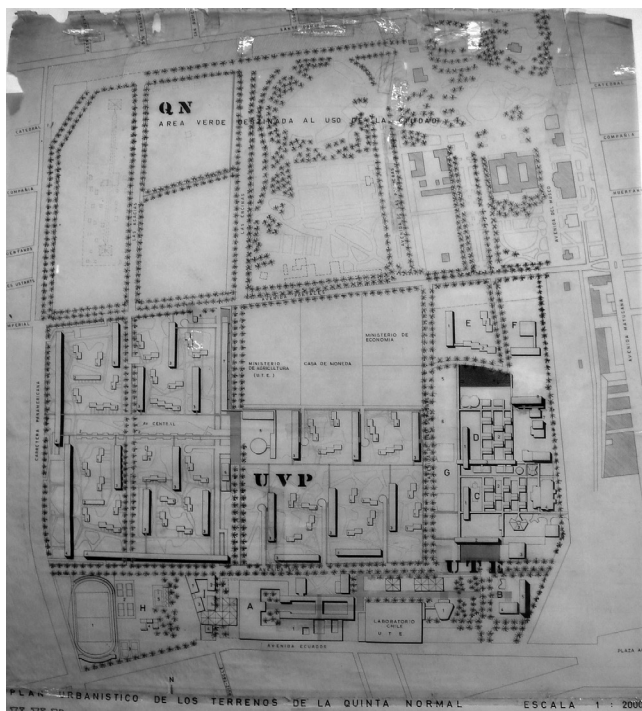
The second fundamental and decisive action to understand the performance of the State in the construction of affordable housing is the creation in 1953 of *Corporación de la Vivienda*³ [Housing Corporation, CORVI]. This entity was a public institution created through the combination of two previous agencies: *Caja de la Habitación Popular*⁴ [Popular Housing Fund], created in 1936, and *Corporación de Auxilio y Reconstrucción* [Corporation for Relief and Reconstruction], founded in 1939. Between 1953 and 1965, CORVI had the mandate to build low-cost housing in the main cities of Chile, thereby contributing to the country's urban and residential modernization process.

The project: a field for disciplinary exploration

Probably the most emblematic neighborhood units built in Santiago from 1954 onwards are *Unidad Vecinal Providencia* [Providencia Neighborhood Unit] and *Unidad Vecinal Portales* [Portales Neighborhood Unit]. The first one was located in the center of Providencia, in an affluent sector of the city of Santiago. The second one was developed in the old sectors of *Quinta Normal de Agricultura*, an old urban park that had been consolidated on the western side of the city since the second half of the 19th century.

The architectural commission for the *Unidad Vecinal Portales* project was awarded to the architecture studio Bresciani Valdés Castillo y Huidobro. This group of young architects, who graduated from Pontifical Catholic University of Chile, was probably one of the most important studios of the 20th century in Chile. In a plot of 31 hectares (ha), they were able to materialize a very radical urban and architectural model, in a project that took the concept of the "neighborhood unit" to extreme conditions.

In the old urban park of *Quinta Normal de Agricultura*,



01 Bresciani Valdés Castillo y Huidobro, *Unidad Vecinal Portales*, Santiago, Chile, 1958-1968. Plan of *Unidad Vecinal Portales* inserted in the *Quinta Normal de Agricultura*, 1954. © Archivo de Originales SLGM. FADEU PUC

the architects created a residential complex for more than 11,000 people. The project consisted of 19 residential blocks of five and seven floors, and more than 300 single-family houses with one and two floors, arranged between the housing blocks.

Three major explorations explain this project and illustrate its radicalism and experimental nature. The first one is an intense urban exploration, which explains the relationship of the complex with the pre-existing park. The second one is a typological search of apartment models and types. And the third one is an aesthetic exploration, which provides the project a particular meaning, and social and cultural significance. These design explorations make *Unidad Vecinal Portales* a unique neighborhood: since 1960, it became a national and international reference, and was widely published in the most important architecture magazines in Latin America, Europe, and North America.

Urban exploration: the project in the park

Villa Portales, as its inhabitants know it, was built within the productive sectors of the park of *Quinta Normal de Agricultura*. This area – which at its peak had an extension of more than 100 ha – was composed of an ornamental park, productive sectors, orchards, vineyards, large tree-lined streets, museums, and pavilions of cultural infrastructure. The area was a frequent destination for Sunday walks for the Chilean upper class which, since the middle of the 19th century, began to populate the adjacent Yungay neighborhood.

In the area corresponding to the productive sectors, vineyards, and orchards of *Quinta Normal de Agricultura*,⁵ *Caja de Empleados Particulares* bought a site in 1954, that belonged

to the Faculty of Agronomy of the University of Chile and built a large housing complex for the institution's members.

The residential complex is divided into 4 quarters, divided by two main axis forming a cross. The north-south and east-west arms of the cross structure the large pedestrian walkways of the metropolitan area of the complex. The center should have become the true civic center of this new residential neighborhood, being supposed to include a church, a supermarket, commercial stores, and corporate headquarters. Unfortunately, this infrastructure was never built, leaving the “heart” of the neighborhood without a program.

Another important urban structure that configured the whole complex is a system of 15 pedestrian squares, whose names come from the ancient species of fruit trees present in *Quinta Normal de Agricultura*. The urban idea that was at the origin of the project was the will to maintain all existing trees, to provide this new urban environment with mature and lush vegetation, between which residential blocks and houses could be arranged.

The pedestrian squares are “contained” between one block and the other. The blocks are arranged in a north-south direction to receive double sunlight, and apartments are arranged along both sides of the “bars”, so residential spaces get perfect cross ventilation. Each of the residential blocks is 100 meters (m) long, except for those that are located in the extreme south and west of the complex, which had the function of containing the residential space. The separation between one block and the other is also 100 m. The architects decided to use these dimensions to generate an explicit act of physical and cultural continuity between the historic city outside the park (where blocks are 100 x 100 m) and the new modern residential neighborhood.

The traditional city block – compact, densely built, and with continuous boundaries – is reversed. It is here configured by air, light, and emptiness. This explicit decision adds a new layer of complexity to certain rash judgments, which have traditionally referred to these architectural and urban experiences as projects of ideological rupture and *tabula rasa* urbanism.

In the empty urban space contained between the “bars” and around the pedestrian squares, single-family houses with one and two floors are arranged. The houses have the function of reducing the metropolitan space to a domestic scale, suitable for the surveillance of children's recreational activities.

Each component of this complex urban system has an articulated role in *Unidad Vecinal Portales*, but is, at the same time, clear and easy to understand. The urban exploration and solutions put into action here continue to be a study model for new generations of architects who walk through *Villa Portales*, being usually amazed by the fact that the construction of a project like this was possible.

Typological exploration: standards and family types

Unidad Vecinal Portales was built in two phases. The first phase was developed by the *Caja de Empleados Particulares* between 1958 and 1961, and the second phase by CORVI

from 1961 to 1968. The change of institutions meant an important transformation in the residential standards of the departments of the complex, and in the type of families that would inhabit the buildings.

During the first phase, 10 blocks were built, using 24 different types of apartments with dimensions between 52 and 140 square meters (m²). This area of *Unidad Vecinal Portales* is the best known and most characteristic of the project. It has been extensively published since 1961, usually with photos taken by the photographer René Combeau (1921-2011). In the residential blocks of this sector, transparency prevails, and an articulated system of balconies, *loggias*, and *brise soleils*, made up of yellow and blue plastic sliding shutters, gives dynamism to the facades. The idea of the architects was to build a transparent building, through which one could see from east to west the Andes and Cordillera de la Costa.

This first area is also characterized by a peculiar system of elevated pathways, which crosses the central area of the complex towards the west. These elevated pathways pass over the roofs of one- and two-story houses and enter the corridors of residential buildings.⁶ This elevated circulation system had the function of evading a restriction established by a law in force at the time, which limited the height of low-income housing buildings to 4 stories. For this reason, the architects decided to build a real vehicular street on the third floor of the western blocks. By doing so, they were able to build a seven-story building composed of a three-story

block superimposed on a four-story one. Therefore, they could increase the density at the edges of the plot and free up the ground in the center for common spaces.

CORVI was in charge of building the second phase of the complex. This larger public institution had the mandate to build houses throughout Chile and applied new standards to the departments of the complex. To build the nine remaining blocks of the project, only nine different types of apartments were used, with a surface area between 60 and 90 m². Balconies, *loggias*, floor-to-ceiling windows, and sliding shutter systems disappeared. These decisions reflect the need of CORVI to rationalize the construction process by repeating the types of apartments and living spaces in a more systematic way, reducing costs and construction times.

The difference between sectors one and two of *Villa Portales* is perceived by walking through the complex. The change also makes a difference in the type of family that inhabited the place. The first inhabitants were members of *Caja de Previsión de Empleados Particulares*, with shared social networks and circles, while the latter were not.

The intense formal and typological exploration carried out during a decade in *Unidad Vecinal Portales*, reveals the administrative and logistical tensions of pioneering work in the Chilean architectural scenario. More than 30 different types of departments were used, thus demonstrating the complex machinery required to form 200 m long blocks (which is the case of blocks 1 and 2), with a vehicular street on the third floor.



02 Bresciani Valdés Castilla y Huidobro, *Unidad Vecinal Portales*, Santiago, Chile, 1958-1968. Elevated pathway system included in the western part of the complex. © René Combeau, 1960, Archivo de Originales SIGM. FADEU PUC



03 Bresciani Valdés Castillo y Huidobro, *Unidad Vecinal Portales*, Santiago, Chile, 1958-1968. Children playing in the common gardens. © René Combeau, 1960, Archivo de Originales SLM. FADEU PUC



04 Bresciani Valdés Castillo y Huidobro, *Unidad Vecinal Portales*, Santiago, Chile, 1958-1968. Existing tree included inside an elevated pathway. © René Combeau, 1960, Archivo de Originales SLM. FADEU PUC



05 Bresciani Valdés Castillo y Huidobro, *Unidad Vecinal Portales*, Santiago, Chile, 1958-1968. The Peumo Square restored in 2015 by the governmental program *Quiero mi Barrio*. © Umberto Bonomo, 2017.

Aesthetical exploration: the beauty of construction

The third layer of exploration implemented by the Bresciani Valdés Castillo y Huidobro studio in *Unidad Vecinal Portales* is related to a deep aesthetic search and experimentation. The morphological and urban conditions described above were the basis for the configuration of a residential environment full of expressive intensity and spatial density.

In line with the postulates that had been introduced by Sigfried Giedeon (1888-1968) in the book *Architecture and Community*,⁷ where the Swiss author highlights the role of architecture in the educational process of the community, murals and *bas-reliefs* by the Chilean plastic sculptor Ricardo Irarrázaval (1931-) were included in *Unidad Vecinal Portales*. The abstract figures proposed in the large structural walls of the complex had an educational role: they articulated the constructive dimension with the natural conditions, defined by the trees and vegetation present in *Quinta Normal de Agricultura*. This plastic and artistic richness, along with the radicality of shapes and sizes, the materials implemented, the system of elevated walkways, the vehicular street on a third floor, the roof gardens and the generous spaces to socialize, gave this neighborhood a fundamental imprint. Its unique nature has strengthened the sense of belonging and identity of its inhabitants, who – aware of the architectural and urban values consolidated here – have been a fundamental part of the heritage of this place since its creation.

Conclusions

Since 2006, Chile has implemented a neighborhood recovery program entitled *Quiero mi barrio* [I love my neighborhood]. This program developed during the first government (2006-2010) of President Michele Bachelet (1951-) has recovered more than 200 emblematic neighborhoods in Chile; one of these neighborhoods being *Unidad Vecinal Portales*. The program has recovered the common spaces contained between blocks and houses and, after the highly destructive earthquake of 2010, also worked on the restoration of part of the residential blocks damaged by the disaster.

In the 14 years of the program, the facades of blocks 1, 2 and 4 and the 15 community squares have been recovered, giving new life and program to the spaces that are the center of the social life of the complex. Although it must be admitted that, due to new projects and interventions, the squares lost part of their original natural character, these new interventions have considerably improved the habitat of the residential environment.

Today, *Unidad Vecinal Portales* is a renovated neighborhood with recovered common spaces, with a central location in the urban area of Santiago, connected with urban motorways and metro stations. Its area of green spaces per inhabitant is much higher than the standards proposed by the World Health Organization (WHO), and higher than the average area of green spaces for all inhabitants of the city.

By comparing the pandemic life of an average inhabitant of the center of Santiago with that of an inhabitant of one of these large modern housing complexes – with 80% of the site free for green spaces – the validity and currency of these large urban and social projects can be understood. These projects aimed to improve the quality of life of people, by providing them with not only residential, modern, healthy, and well-lit built houses, but also spaces to make the great dream of community life possible.

Notes

- 1 For more information about housing in Chile, see Rodrigo Hidalgo, *La vivienda social en Chile: y la construcción del espacio urbano en el Santiago del siglo xx*, Santiago, Pontificia Universidad Católica de Chile, Centro de Investigaciones Diego Barros Arana, 2005.
- 2 Umberto Bonomo, *Las dimensiones de la vivienda moderna: la Unidad Vecinal Portales y la producción de viviendas económicas en Chile, 1948-1970*, Santiago, PhD Thesis, Pontificia Universidad Católica de Chile, 2009.
- 3 One of the most exhaustive works about CORVI was developed by Alfonso Raposo, Max Aguirre, *Espacio urbano e ideología: el paradigma de la Corporación de Vivienda en la arquitectura habitacional chilena: 1953-1976*, Santiago, Universidad Central, Centro de Estudios de la Vivienda, 2001.
- 4 Luis Valenzuela studied all the production of the Popular Housing Fund. This study resulted in Luis Valenzuela, *Mass housing and urbanization on the road to modernization in Santiago of Chile, 1930-1960*, Cambridge, Harvard University Press, 2005.
- 5 María, Angélica Apey, *Historia de la sociedad nacional de Agricultura*, Santiago, Sociedad Nacional de Agricultura, 1998.
- 6 Francisco Chateau, *El Espesor del Suelo Moderno: el problema de articular verticalmente grandes estratos horizontales en la UVP*, Santiago, Master Thesis, Pontificia Universidad Católica de Chile, 2002.
- 7 Sigfried Giedion, *Arquitectura y comunidad*, 2nd Ed., Buenos Aires, Nueva Visión, 1958.

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Afonso E. Reidy, Carmen Portinho, Pedregulho Housing Complex, Rio de Janeiro, Brazil, 1948-1960.
Alfredo Brito, restoration, 2005-2015. © César Barreto, 2015

Preserving a modern housing model: the restoration of Pedregulho Housing Neighborhood

BY FLÁVIA BRITO DO NASCIMENTO

This paper examines the history of Pedregulho Housing Neighborhood, built between 1948 and 1960 by the Department of Popular Housing in Rio de Janeiro, Brazil, from the first concepts to the restoration in 2015. Conceived by the urbanists Carmen Portinho and Affonso E. Reidy, it became one of the most emblematic works of modern Brazilian architecture. After years of neglect, in 2015 housing Block A of the neighborhood underwent restoration, one of the only such projects on social housing complexes in Latin America. The paper discusses the housing complex's history, focusing on the intervention and restoration project, its criteria and challenges, and also the aims and demands by the residents during the works.

Introduction

In September 2015, restoration began in Pedregulho Housing Neighborhood, a major accomplishment in Brazil's architectural history. Built between 1948 and 1960 by a partnership between the feminist and urbanist Carmen Portinho (1903-2001) and the architect Affonso E. Reidy (1909-1964)¹ under the Department of Popular Housing (DHP) of the city of Rio de Janeiro, the complex embodied the canonical ideas of modern Brazilian architecture of the 1940s and 1950s, such as plasticity, integration between the arts, constructive rigor and modernist urban planning.

The Department of Popular Housing was founded in 1946 with the goal of building residential estates for city employees.² The feminist Carmen Portinho took on the role of director and gave priority to collective buildings. A town planner by training, she shared the ideals of the Modern Movement and became involved in social housing after an internship in England in 1945, where she studied post-war reconstruction.³ Upon her return to Brazil, she supported the construction of autonomous neighborhood units. Aware of the growing impact of modern Brazilian architecture abroad, the DHP witnessed the spread of the Rio de Janeiro metropolis and the rapid spread of the city's shantytowns, the *favelas*. Its answer to these problems was to build public housing estates.⁴

From 1948 to 1960, four neighborhood units were built along these lines, but none of them as originally designed.⁵ The DHP's initiative was part of a series of efforts to solve Rio de Janeiro's housing crisis, such as the housing policies of the Institute of Retirements and Pensions.⁶ Pedregulho – whose official name is “Prefeito Mendes de Moraes Residential Complex” but is also known as “Minhocão” [big worm] – was the most recognizable of such attempts, receiving great attention from experts in the field, starting in 1950,⁷ when it was first delivered, through to the present, after its restoration.

As designed by modernist architect and urban planner Affonso E. Reidy⁸ – who was also the Director of Urbanism for the city of Rio de Janeiro – the complex was conceived as an “autonomous neighborhood unit” featuring social, medical and educational services; collective vertical blocks, with large open spaces; separation of pedestrian from vehicular traffic; social services directed towards educating residents on a new way of living; and access to the housing units through lease agreements, with the rent calculated as a percentage of salary and deducted from their paychecks. The formal repertoire of Brazilian modern architecture⁹ is easily recognized in the use of various elements such as *brises soleils*, *cobogós* [perforated breeze block screens], *pilotis*, free plan, and the association with fine arts (works by Roberto Burle Marx (1909-1994) and Anísio Medeiros (1922-2003) were featured on the exterior and interior murals).

The combination of Pedregulho's social purpose and unique architectural solution, and Carmen Portinho's political involvement, caused the complex to be highlighted in several international magazines, drawing interest from Brazilian and international architects.¹⁰ However, the construction process was rather tumultuous, as the project came under heavy criticism for its high costs and sophistication level, and was considered an impractical solution for Rio de Janeiro's worker housing problem. The first buildings, the gardens and the pool were delivered in 1950-1951, while the rest of the buildings and facilities took another decade to be completed. The large, meandering housing block – Block A – was built in the 1950s, and by the time it was delivered the DHP was nearly defunct and the city of Rio de Janeiro's housing policies had taken other directions.¹¹

Despite the difficulties associated with construction and maintenance, the residential buildings were occupied and managed by social workers from the DHP and Carmen Portinho throughout the 1950s.¹² Problems with managing the communal laundry area, the pool, the cleaning of

shared spaces and resident admission were present from the beginning, at the same time that the building received extensive coverage in the specialized media.¹³ These problems became even more pronounced in 1962, when the DHP became defunct and residents began managing these facilities, even though the State retained the ownership of the apartments. The lack of maintenance of the common spaces and the deterioration or closing of the shared facilities (laundry, market and health clinic), combined with the lack of centralized management, led to the physical deterioration of the building complex. All of this led to increasing the demand for renovation, often driven by an idealized image of the complex featured in the media shortly after its completion, and denial of its present-day uses and contradictions.

Restoring the icon: criteria and challenges for intervening in a social housing project

Aging, unplanned uses and maintenance issues affected several buildings from the mid-20th century.¹⁴ In many cases, critics argued that these buildings were inadequate or that the Modern Movement had failed. Social housing projects are part of this perceived frustration with the modern construction experience. In addition to the physical wear and tear, the buildings were also subject to the failure narrative and misuse.¹⁵ Pedregulho Housing Complex is very representative of this process, as it reached the 1980s with the marks of time acquired through years of lack of maintenance and neglect by public authorities. But in Brazil, unlike many European countries, modern architecture has not been the target of explicit criticism. On the contrary, the legacy of the great masters of Brazilian architecture was developed in the 1980s, and their achievements celebrated. Criticism of the Modern Movement was faint, and the idea that it had run its course lived side-by-side with the exaltation of the great masters of Brazilian architecture, many of whom were still alive, and were subjects of countless tributes and publications.¹⁶

Despite being neglected by the government, residents appropriated the buildings over the years – even though they did not have title to the property – and made renovations and internal improvements. In the 2000s, about 50% of the residents had arrived during the first waves of occupation in the 1960s, and consisted mostly of service providers, industry workers and government employees.¹⁷ They were mainly from a working class that experienced upward mobility during Brazil's period of economic stability, with access to consumer goods symbolizing the country's recent social transformations.¹⁸ Since the properties belong to the Rio de Janeiro State Government, which has never managed the occupation of the apartments, the units were transferred or sold through contracts between the parties. In this scenario, in which residents were faced with the government's inaction and were visited by many different architects, expectations grew for the restoration.

Even though it is listed as a Rio de Janeiro heritage site,¹⁹ there has not been adequate conservation of the buildings

and the decision to carry out the restoration project resulted from inadequate works performed by public authorities in Block A, the curvilinear emblematic housing building. From this moment on, a movement to properly renew the building grew stronger. What sets Pedregulho's renovation project apart in the context of some of the other post-war housing projects is that it was listed as a cultural heritage site and, therefore, worthy of restoration. The effort to have it recognized as a cultural asset was led by the architect and Professor Alfredo Britto (1935-2015), who played a key role in the entire process. Along with the residents' association of the complex, represented by its director Hamilton Marinho (1957-), they involved class entities and public authorities, pushing for the owner of the building to hire contractors and carry out the necessary works.²⁰

In 2005, a Strategic Plan for the works was developed by Alfredo Britto's architectural firm, describing the architectural problems of each building in the residential complex, as well as the main demands of the community. This plan was the basis of the preliminary project for the recovery and restoration of the housing complex between 2009 and 2010. The conceptual and architectural complexity of the original design and the implications of intervening in a building from the modern period, plus the poor state and the various forms of occupation of the residential and non-residential buildings, required a cautious and carefully planned approach.²¹ In the challenge of restoring Pedregulho, the methods and criteria for the recovery and restoration of monuments produced by the Modern Movement did not essentially differ from those applied to buildings from earlier historical periods.

In December 2010, works finally began on Block A, including emergency structural restoration works on the first-floor slab, removal of garbage that had been accumulating for decades on the ground floor, overhaul of the plumbing and roof, and an attempt at enclosing the complex. It is important to note that residents remained in their homes throughout the entire project, keeping a close eye on the entire process and dealing with the inconveniences. After so many years of abandonment, expectations surrounding the restoration were enormous.

The work lasted through 2015, at a total cost of 45 million reais. The size of the project presented all sorts of challenges to the architects' team, residents and workers. The two most difficult aspects, both technically and socially, were replacing the west-facing window frames and the *cobogós*. Both elements were emblematic of "modern carioca architecture" and its relationship with the tropical climate. Constant use and lack of maintenance led to the progressive replacement of the original wooden frames, whose complex design featuring articulating shutters and glass panels were impractical and offered poor thermal efficiency. When the project began, only 8 of the 272 original frames were still in place. After long negotiations with the residents, who viewed their replacement frames as a right and an improvement, both sides agreed to installing new aluminum windows, painted in the same shade of blue as the original ones. This solution, widely debated among experts, was aimed at rescuing the original design of the project, while, at the

01 Alfonso E. Reidy, Carmen Portinho, Pedregulho Housing Complex, Rio de Janeiro, Brazil, 1948-1960.
© Henry-Russell Hitchcock, *Latin American Architecture since 1945*, New York, Museum of Modern Art, 1955, 130.



02 Alfonso E. Reidy, Carmen Portinho, Pedregulho Housing Complex, Rio de Janeiro, Brazil, 1948-1960.
© Grupo de Pesquisa Pioneiros da Habitação Social no Brasil, c. 1950.

same time, ensuring the longevity of the historic buildings by using more durable materials.

The windows episode shows how the appropriations and uses of residents in residential buildings over time gave new meaning to modern design paradigms, such as the concern with thermal comfort in the “carioca school” of architecture. The windows were a very special element in the composition of the Pedregulho Housing Complex, which, together with *brise soleils*, were used in almost all buildings of the complex to enclose circulation areas or passages.

In Block A, *cobogós* were installed in the corridors leading to the housing units. Its long winding corridors had been widely photographed and publicized. But by the time the restoration project began, they had been degraded due to heavy usage and decay over time. Since the original ceramic pieces were no longer available on the market, they were replaced by currently manufactured pieces of different formats. An important perception of the uniqueness and language of the work, as the residents sought to keep the building’s unique features intact as much as possible. The “patchwork” aspect caused by panels with missing or randomly replaced parts was one of the aspects that bothered visitors the most. Faced with the enormous difficulty of finding suppliers to make new parts (a process that took two years), the restoration team chose to replace most of the *cobogó* panels.

The restoration works had a direct impact on the daily lives of residents. According to reports by Hamilton Marinho,²² nearly all units had some type of renovation work done during the restoration project – that affected only the external parts –, especially in the spaces that were deemed most fragile: the kitchen and the bathroom. The extensive renovations did not increase the real estate value significantly, since the residents do not yet have a legal title to the apartments. It is believed that once the ownership issue is solved, the apartments will increase in value, and be worth about as much as similar apartments in the neighborhood. Even though the increase in value coincided with the start of the renovation project, it did not lead to significant changes. These transformations occurred as residents began to age and accessibility to the building became an issue. Because Pedregulho is located atop a steep mountain, with no elevators and an internal staircase in the duplex apartments, accessibility to and around the apartments has become an increasing concern for those who have lived there since the 1960s.

Here lies one of the major contradictions of the housing project: the collapse of the public housing project, mainly due to government’s inaction. Residents had to take on all the complex building management tasks, and the neighborhood unit never functioned as planned. Without proper



03 Afonso E. Reidy, Carmen Portinho, Pedregulho Housing Complex, Rio de Janeiro, Brazil, 1948-1960. Alfredo Britto, restoration, 2005-2015, Block A, North facade under work, 2014. © Alfredo Britto, 2015.

management, the apartments fell into the hands of the private market, albeit not entirely. Apart from the affection and appreciation that residents have for the complex, there are basically two aspects that contributed to keeping the original residents, in a way, to maintaining the project's social nature: its geographical location in Rio de Janeiro – while generally considered a good area, it is an industrial neighborhood, far from being coveted by the middle class –, and the lack of ownership.

Although it is still a workers housing building, the increase in property value is a reality waiting to happen. There is no risk that the residents will be evicted, given the continuous use and occupation over these years, but the feeling of insecurity and the expectation of ownership are evident. Demand for ownership remains a constant concern, and residents expect to have legal title to the properties at some point in the future. This will likely happen in the form of an official condominium with building fees, proper administration, and management of the newly restored building. The pending work and the need for maintenance are already real. Currently, residents pay nothing to the state and about half of them make voluntary contributions to the residents' association, which, despite its unofficial status, provides residents with trash removal and mail distribution services. Alfredo Britto, who oversaw the restoration project, suggested the formation of a permanent building committee after the works are completed to provide the necessary maintenance that the buildings never had.

In the challenge to restore the Pedregulho Housing Complex, the team supervised by Alfredo Britto restored respecting the methods and criteria that were historically established by the disciplinary field of restoration.²³ Seeking theoretical and technical rigor in the study stages and during execution of the works, the team faced unprecedented and very complex human, financial and technical challenges. Restoring a building of social housing, an icon of modern Brazilian architecture, but with a history of neglect by the government, meant having to weave restoration practice and theory. Even though the criteria for restoring modern architecture is not different from those of works from other periods, the conservation problems faced (as is typical of works of this magnitude) were very unique. Only with a thorough knowledge of the building, its construction and history, was it possible to propose solutions that would update the building as 21st century social housing and respect it as a cultural asset.

There were major technical and economic difficulties, and, in some situations, they dictated the solutions used, as in the case of the *cobogós* and the floors in common areas that needed to be replaced entirely. The stakeholders involved in the process (residents, Residents Association of the Pedregulho Housing Complex, CEHAB-Rio and Concrejato, a construction company) demanded solutions which were, at the same time, demanded by the restoration team as they sought viable solutions and commitment to the problems faced. Therefore, the Block A restoration project resulted in both the search for an ideal image of an icon

04 Alfonso E. Reidy, Carmen Portinho, Pedregulho Housing Complex, Rio de Janeiro, Brazil, 1948-1960. Alfredo Britto, restoration, 2005-2015, Block A, New *cobogó* panels viewed from the interior. © Alfredo Britto, 2015.



of Brazilian modern architecture and, at the same time, in updating the social housing nature of this building, in line with present-day demands.

The restored complex and challenges for the near future

Throughout its history, the Pedregulho Housing Complex suffered excessively from government neglect and the administrative separation of the residential units from the facilities. The restoration of Block A was the first major challenge faced on the road to recovery for the residential complex. The gardens designed by Roberto Burle Marx still have not yet received proper conservation. The identified problems include the change of use or the abandonment of the other buildings of the “neighborhood unit”, such as the laundry, the health clinic and the day care center and the separation of the school from the rest of the complex.

Other issues still need to be addressed, either through renovation or in the management phase of the complex after the Block A works are completed, such as the deactivation of the laundry, garbage management, the increase in the number of cars, security (which may or may not involve installing a fence around the complex), recovery and new use of abandoned buildings (health clinic, laundry and market). For Alfredo Britto,²⁴ the urgent task of the post-renovation period was to create a Permanent Maintenance Committee for the building to handle any repairs and new interventions, which has not yet happened.

The challenges that arise from now on are those of a building that is perpetuated for future generations both as housing and cultural heritage, and which must adapt to the reality of the 21st century, either through the private actions of its residents or through the works carried out by the State. The pioneering nature of the restoration of a social housing project in Brazil does not allow us to infer what shapes this cultural asset will take in the future, as a living and inhabited organism. It seems to us that the management and administration of the public asset should reiterate its popular housing character, providing conditions for it to remain a testimony to the history of social housing in Brazil



05 Affonso E. Reidy, Carmen Portinho, Pedregulho Housing Complex, Rio de Janeiro, Brazil, 1948-1960. Block A, Southwest facade before the restoration. © Flávia Brito do Nascimento, 2000.

and to be recognized for its social, historical, symbolic, cognitive and cultural attributes, as well as for its use.

Notes

- 1 About the relationship between public and private works of Carmen Portinho and Affonso E. Reidy refer to Flávia Nascimento, "Da rede à BKF: a casa privada e o conjunto público de Carmen Portinho e Affonso Reidy", in Flávia Brito do Nascimento, Joana Mello de Carvalho e Silva; José Tavares Correia de Lira, Silvana Barbosa Rubino (ed.), *Domesticidade, gênero e cultura material*, São Paulo, Editora da Universidade de São Paulo, 2017. About the Department of Popular Housing see Flávia Nascimento, *Entre a estética e o hábito: o Departamento de Habitação Popular, Rio de Janeiro, 1946-1960*, Rio de Janeiro, Secretaria Geral das Culturas, 2008.
- 2 For the history of the Department of Popular Housing see Flávia Nascimento, *op. cit.*, and Flávia Nascimento, "Houses for Rio: City Hall's Department of Popular Housing (1946-1960)", in Alfredo Britto (ed.), *Pedregulho, um sonho pioneiro da habitação popular no Brasil*, Rio de Janeiro, Edições de Janeiro, 2015, 20-53.
- 3 Carmen Portinho's biography has been explored in Ana Luiza Nobre, *Carmen Portinho: o moderno em construção*, Rio de Janeiro, Relume Dumará/PCRJ, 1999; and Carmen Portinho, *Por toda a minha vida*, Rio de Janeiro, Eduerj, 1999.
- 4 On her return to Brazil, Carmen Portinho wrote a series of newspaper articles on social housing presenting what she had seen in England and also her ideas on the matter. Carmen Portinho, "Habitação Popular", *Correio da Manhã*, 17th March 1946.
- 5 The other housing complexes designed by DHP are Paquetá, Marquês de São Vicente and Vila Isabel, all partially built in Rio de Janeiro's North Zone.
- 6 Nabil Bonduki, Ana P. Koury (ed.), *Os pioneiros da habitação social*, São Paulo, Editora da Unesp/Sesc, 2014; Nilce Aravecchia-Botas, *Estado, arquitetura e desenvolvimento: a ação habitacional do Iapi*, São Paulo, Editora Fap Unifesp, 2016; Ana P. Koury, "Modern housing estates and the production of the Brazilian city (1937-1960)", *Planning Perspectives*, Vol. 24, 2019.
- 7 Brazilian modern architecture received international attention during WWII. MoMA's exhibition *Brazil Builds* and the Catalogue were important means of recognizing the works in the country. Zilah Quezadodecker, *Brazil built: the architecture of the modern movement in Brazil*, London, New York, Spon Press, 2001; Philip L. Goodwin, *Brazil Builds. Architecture New and Old 1652-1942*, New York, The Museum of Modern Art, 1943.
- 8 For the life and works of Affonso E. Reidy see Nabil Bonduki (ed.), *Affonso Eduardo Reidy*, Lisboa, São Paulo, Instituto Lina Bo e P. M. Bardi, 2000.
- 9 Carlos Martins, "Hay algo de irracional..." , *Block*, No. 4, December 1999, 8-22; Hugo Segawa, *Arquiteturas no Brasil: 1900-1990*, São Paulo, Edusp, 1997.
- 10 It was published in magazines such as *Architectural Forum* (1947), *Domus* (1948, 1951), *L'Architecture d'Aujourd'hui* (1949, 1954), *Architectural Record* (1950, 1952, 1958), *The Architectural Review* (1950, 1952, 1954), *Techniques et Architecture* (1951), *El Emara & Fonoun* (1952), *Werk* (1953), *Progressive Architecture* (1955), *Architect & Buildings News* (1956), *Arquitetura México* (1957/1958), *Aujourd'hui, art et architecture* (1955), *Zodiac* (1960). For the reception of Brazilian modern architecture abroad see Nelci Tinem, *O alvo do olhar estrangeiro: o Brasil na historiografia da arquitetura moderna*, João Pessoa, Universitária, 2006.
- 11 Flávia Nascimento, 2015, *op. cit.*, 20-53.
- 12 DHP, *Departamento de Habitação Popular – Relatório do Serviço Social*, Rio de Janeiro, DHP, 1961.
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- 15 Susan Macdonald, "Materiality, monumentality and modernism: continuing the challenges in conserving Twentieth-century places", (*Un*) *loved Modern. Conservation of 20th Century Heritage Conference. Identify. Manage. Conserve*, Sydney, Australia, 2009; M. Glendinning, "Ennobling the ordinary: Post War housing and the challenge of change", **docomomo Journal** 39, Paris, **docomomo** International, 2008, 18-22.
- 16 Flávia Nascimento, *Blocos de memórias: habitação social, arquitetura moderna e patrimônio cultural*, São Paulo, Edusp, 2016.
- 17 Helga Silva, *Arquitetura moderna para a habitação popular: a apropriação dos espaços no Conjunto Residencial Mendes de Moraes (Pedregulho)*, Rio de Janeiro, Master Thesis, PROARQ UFRJ, 2006.
- 18 Renato Lemos, "Pedregulho, a Human Landscape", in Alfredo Britto, *Pedregulho, o sonho pioneiro da habitação popular no Brasil*, Rio de Janeiro, Edições de Janeiro, 2015, 160-163.
- 19 Decree No. 6383/86, Rio de Janeiro's City Hall.
- 20 Alfredo Britto, *Pedregulho, o sonho pioneiro da habitação popular no Brasil*, Rio de Janeiro, Edições de Janeiro, 2015.
- 21 GAP/Grupo de Arquitetura e Planejamento, *Plano Estratégico – Projeto de Recuperação do Conjunto Residencial Prefeito Mendes de Moraes/Pedregulho*, Rio de Janeiro, GAP/CEHAB, 2004.
- 22 Interview with Hamilton Marinho on 25th July 2019, President of the Residents Association of the Mendes de Moraes Housing Complex.
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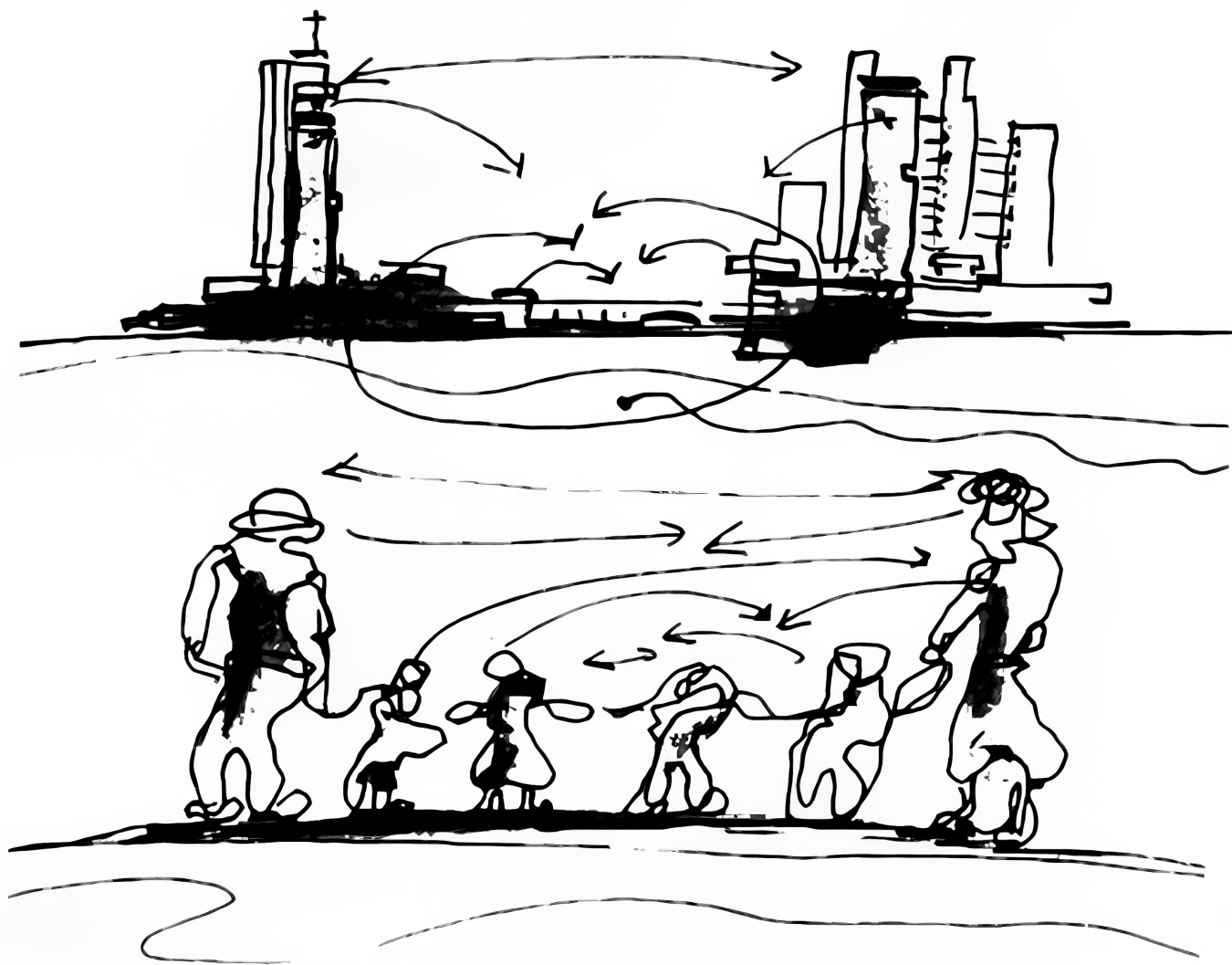
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The survival and resurrection of a “Bakema-experiment” in an Amsterdam garden city

BY TIM NAGTEGAAL

There is a hidden gem in the Amsterdam garden cities. Jaap Bakema was the founder of an experiment in the 1950s. A piece of “Rotterdam in Amsterdam.” Based on the philosophy of an open society and the human scale. Forty years after completion, there is a call for renewal. The architect’s heritage ends up on the demolition list. Due to the economic crisis, demolition has been postponed and there was time for reflection. The neighborhood seems to survive the test of time. The careful renewal proves to be a great success. This is a story about the resurrection of a Bakema experiment.

What is the future of postwar neighborhoods in the Netherlands? Can these neighborhoods survive the ravages of time due to a changing society, concentrated social problems and the changing planning of the city? And what is the tenability of the ideals of a makeable open society? The relatively unknown “Bakema experiment” in the Amsterdam garden city Geuzenveld (also known as: “*Bakemabuurt*”) is central to this essay in order to answer this.

Postwar housing shortage

After WWII, the housing shortage in the Netherlands was the greatest public enemy. Meanwhile, there was a large growth in the Dutch population through the baby boomer generation. At that time, the belief in progress with more prosperity was great and the Dutch were fully committed to building a new, ideal society. A huge housing shortage had also arisen in Amsterdam. The *General Expansion Plan* for the city of Amsterdam, adopted in 1935, offered a solution. The masterpiece of Cornelis van Eesteren (1897-1988) offered space for thousands of new homes in the city. Four new garden cities were planned on the west side of the city: Sloterveer, Geuzenveld, Osdorp and Slotervaart.

The ideals of Bakema

In the years after the war, some architects and urban planners wanted to contribute to shaping a new ideal society. Architect Bakema (1914-1981) was one of them as he was looking for a way in which architecture and urban development could lead to an inclusive and ideal society. He described the social responsibility of an architect and the way in which people could feel better in a good built environment. In addition to the rational and functional, he advocated the emotional experience as an essential aspect of architecture. With the magazine *Forum* Bakema and some colleagues reached a large audience with inspiring ideas. He was one of the first architects to write, in 1951, through CIAM (*Congrès Internationaux d'Architecture Moderne*), that

architecture is relational in order to build friendships. This is an important moment in architectural theory, modernism and also the urban development of CIAM.

According to Bakema, the individual’s living environment must be shaped as part of the community. He emphasized the importance of the transition and interweaving of the structure of the building with the structure of the city. The well-known “friendship model” symbolized this. Architecture, according to him, is a natural play of shapes and space art. The sequence of spaces, their mutual relationship and the relationship with buildings and their environment create an image in which form and space merge. The form frames space and social life takes place in that space. Bakema described this as the “function of the form.” For him, architecture and urban design are a form of expressed social idealism. He liked to experiment and he inspired people with it.

Bakema designed according to the principle of a residential unit in the landscape through a composition of high-rise buildings, low-rise buildings, gallery houses, *maisonnettes* and rows of single-family and retirement homes. Larger residential buildings formed the structure of a residential unit. Residents had the choice to live under the trees, between the trees, or above the trees. Bakema believed that all groups and lifestyles should be given a place in a diverse residential area. A housing unit consisted of an average of 500 homes. Within this, this residential unit could be switched or mirrored, creating larger neighborhoods.

A combative discussion

In 1952, the first urban design was published for the garden city Geuzenveld. From 1953, architects started working on their own part. For the part that is now called the *Bakemabuurt*, a good working relationship was emerging between the designers Bakema, Jan Stokla (1920-2016), Mien Ruys (1904-1999) and Jan Bijhouwer (1898-1974) as a landscape supervisor. The designers were given four months to

develop and present an initial plan. During the following consultation most of the architects adhered to the urban plan of the Amsterdam Urban Development Department. However, the stubborn Rotterdam architects produced an alternative plan.

Bakema's plan was not enthusiastically received by the "Commission for the New Town" because of the shabby, cheap-looking quality and the mixture of low-rise with high-rise. The *Bakemabuurt* was the source of discussion about the inappropriate use of financial resources. The distinct design of gates, galleries, drying attics, and separate stairwells were interesting, but on the other hand it increased costs enormously for the total construction plan. In order to be able to guarantee the quality of all blocks and to spread the financial resources between them, the committee did not consider it was justifiable to build the gates and separate stairwells. Bakema strongly disagreed with this judgment and adhered to the principle of his expressive details and his relational vision.

A clear quest was visible during Bakema's design process. Several variants were designed in the period between 1953 and 1955. The architect used the ingredients from the "Rotterdam stamp." In 1948, together with Lotte Stam-Beese (1903-1988), he had conducted the first studies on this. He experimented with a combination consisting of low (two levels) and medium to high residential buildings (four to five levels). In addition, it appeared from drawings that Bakema gave a plot, which was formally outside the brief, an interpretation utilizing high-rise buildings (ten stories). He apparently considered this necessary in order to create a spatial composition that matched his ideals. Unfortunately, Bakema had to abandon the plan for high-rise in the final plan. It may have been one of the reasons why he was not completely satisfied with this experiment in Geuzenveld. In October 1953 the architect presented the definitive plan for his neighborhood in Geuzenveld. After many discussions, this plan was finally approved and in 1954 incorporated into the final development plan for the garden city of Geuzenveld.

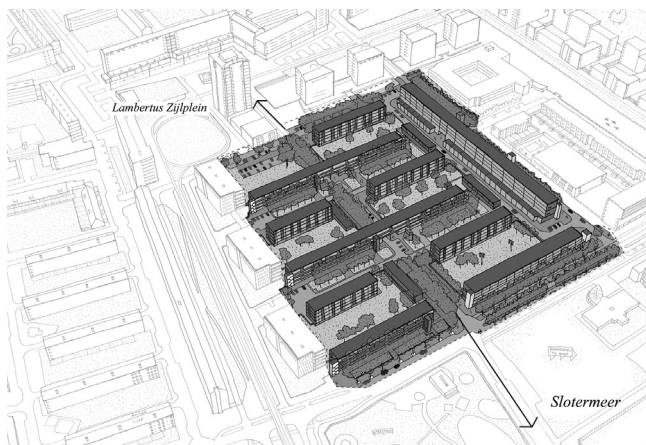
The spatial DNA of the Bakemabuurt

The *Bakemabuurt* is an experimental example of the realization of the ideas of leading designers of the *Nieuwe Bouwen* [New Construction] about public housing and, as such, is of architectural-historical importance. The design for the *Bakemabuurt* distinguishes itself from other housing plans from that time by the cohesion in the elaboration of urban development, architecture, and landscape design. The *Bakemabuurt* in Geuzenveld can be read as a three-dimensional Mondrian, composed of cube-shaped volumes in the form of buildings, stairwells, block-shaped shrubs, tight hedges, and tree blocks. The long gallery flats form the backbone of the spatial composition. Bakema sought to create intimacy in a pleasant human dimension by creating enclosed spaces. The architect does this, for example, by not aligning the building blocks with each other everywhere, which prevents spaces from continuing indefinitely.

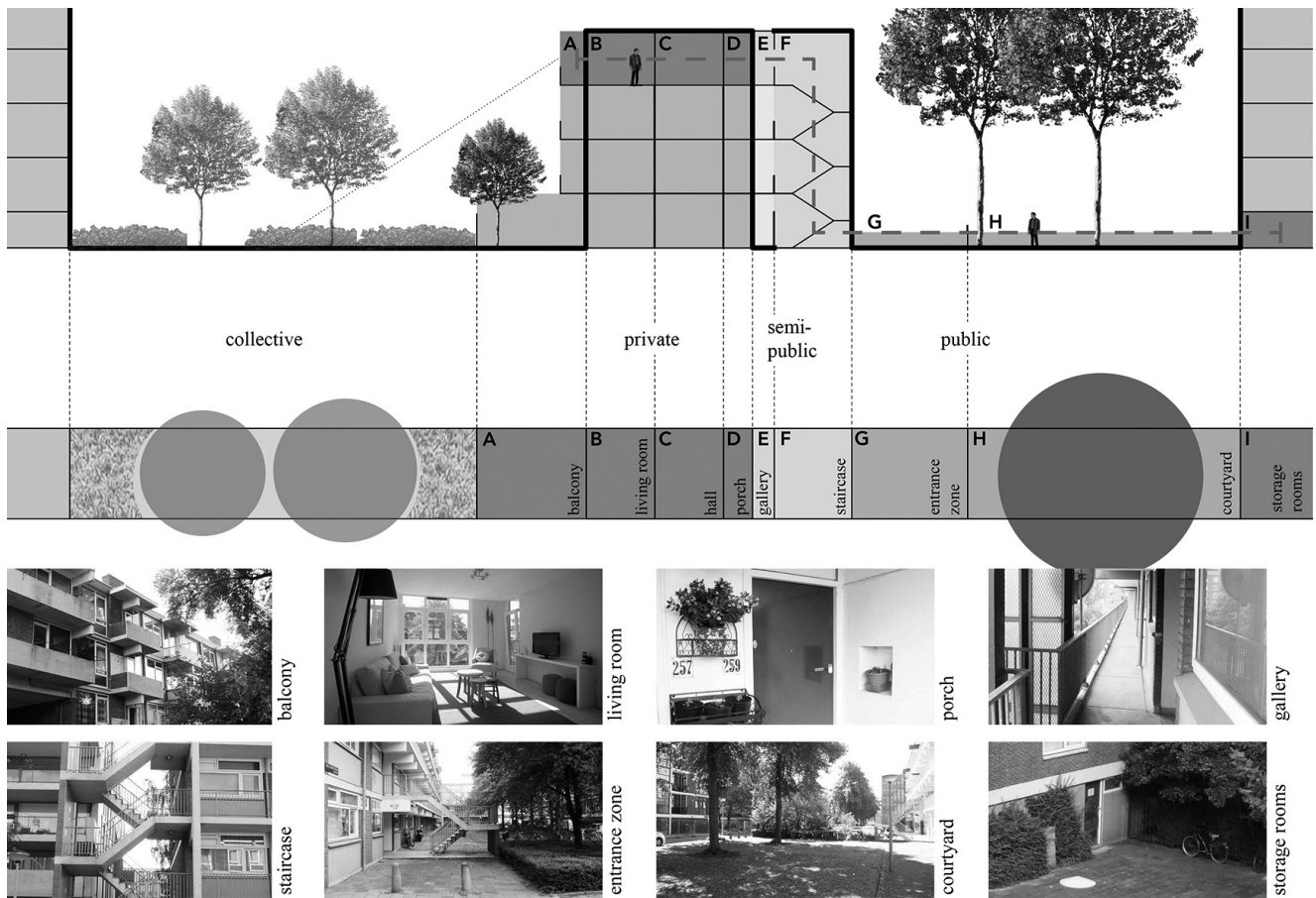
Due to the combination of expressive concrete, the plasticity of the pillars, balconies and the clearly articulated stairwells, the architecture has a heavy solidity that leans towards the characteristics of Brutalism. The image of the architecture is determined by the construction of elements and surfaces, a combination of concrete structures, masonry surfaces, facades, parapets, balconies, stairwells, and galleries. This creates an interesting composition of horizontal and vertical lines.

Bakema's goal was to create relationships between inside and outside and private and public at every level. The interweaving of urban development, architecture, and landscape design is expressed in the *Bakemabuurt* by the articulation of transitions between public space and private space, using the metaphor of "the threshold." It is a gradual transition from the public street to the front doors of the apartments. A special feature of the gallery flats is, for example, the entrances to the houses that are located at the back of the gallery. The *loggia*-like space clarifies the individuality of the home and is an important part of the transition between private and public. This makes the gallery flats look like a hybrid variant between a gallery and a porch. Bakema tries to give his ideas about collectivity a place by, for example, giving the residents of the gallery flats a storage room on the other side of the courtyard.

Mien Ruys was an influential and modern landscape architect in the mid-20th century and had an important role in the landscape design of the Amsterdam Garden Cities. Mien Ruys believed that landscape design should symbolize identity and diversity. Just as Bakema experimented with architecture, Mien Ruys experimented with landscape design. The *Bakemabuurt* is known at Mien Ruys for the so-called "*confectieborders*" ["ready-to-wear borders"].² She designed a color scheme with different ornamental values so that every place was different, and the residents can identify with a place in the neighborhood. Landscape design also pays a great deal of attention to the transition between public and private. The landscape design of trees, hedges, shrubs, and planting areas, together with the buildings, form a careful total composition.



01 Jaap Bakema, Jan Stokla, Mien Ruys and Jan Bijhouwer, *Bakemabuurt*, Geuzenveld, Amsterdam, 1953-1957. Bird's eye view of the *Bakemabuurt*, situation before renewal. © Tim Nagtegaal, 2014, City of Amsterdam.



02 Jaap Bakema, Jan Stokla, Mien Ruys and Jan Bijhouwer, *Bakemabuur*, Geuzenveld, Amsterdam, 1953-1957. Diagram of the "threshold principle" in the *Bakemabuur*. © Tim Nagtegaal, 2014, City of Amsterdam.

Living in the Bakemabuur

The *Bakemabuur* was completed in 1957. There is plenty of room for young families. After completion, the *Bakemabuur* consisted of 570 homes, 20 retail spaces (18 of which are on Sam van Houtenstraat) and 17 workshops/storage rooms for entrepreneurs. Stories from the first generation of residents show that the neighborhood was a very pleasant living environment. The society and togetherness was very strong due to the architectural design and the close proximity of the school and the church. The heart of the *Bakemabuur*, especially in the early years, was formed by the "room" in the *Dirk Sonoystraat*. This cozy meeting/function room with a multifunctional space is important for the neighborhood and contributes to social cohesion.

The architect's social ideas did not always turn out to be practical in practice. For example, residents find it inconvenient to have to walk to the other side of the street to get their bicycle from the storage room. The drying attics for drying the laundry also turned out to be impractical. Residents do not like to walk to the drying attics with their heavy wet laundry every time. That is also the reason why the drying attics were converted into homes after a few years. According to residents, this forced meeting is not necessary because the social cohesion in the neighborhood functions well. In the end, landscape architect Mien Ruys was not completely satisfied with the result of the applied

landscape design in the *Bakemabuur*. There were all kinds of problems at that time, such as lack of money and lack of materials. The large number of children playing caused damage to the plantings. In response to this, thorn bushes were planted in some places to keep the children out of the planted areas.

Change and decline

Due to increasing prosperity, native inhabitants in the 1960s and 1970s gradually move to better places and make way for labor migrants in particular. The neighborhood is gradually falling into a negative spiral due to various social problems. For a group of young people from Geuzenveld in 1970 the patience was exhausted. Bundled complaints are handed over to the mayor. Geuzenveld clearly does not meet the requirements of the welfare society for the youth and, because in the same period the youth is rebelling, the charge against the ruling system comes from the young. The degree of society is under increasing pressure. The neighborhood is in a bad condition due to burglaries and crime in those years. Residents feel less safe. In response, the inner gardens in the *Bakemabuur* are locked by high fences. Placing the fences almost seems to mark a changing society. However, the closure of the inner gardens goes against the principles of the original garden architect Mien Ruys. She was absolutely not in favor of defensive fences and fencing around inner



03 Jaap Bakema and Jan Stokla, *Bakemabuurtt*, Geuzenveld, Amsterdam, 1953-1957. Gallery flat building, situation after rebuilding by Gert Jan te Velde and Klaas Waarheid. © Tim Nagtegaal, 2019, City of Amsterdam.



04 Jaap Bakema and Jan Stokla, *Bakemabuurtt*, Geuzenveld, Amsterdam, 1953-1957. Porch flat building, situation before renewal. © Tim Nagtegaal, 2014, City of Amsterdam.



05 Jaap Bakema and Jan Stokla, *Bakemabuurtt*, Geuzenveld, Amsterdam, 1953-1957. Porch flat building, situation after renewal by Seth de Rooij. © Tim Nagtegaal, 2016, City of Amsterdam.



06 Jaap Bakema and Jan Stokla, *Bakemabuurtt*, Geuzenveld, Amsterdam, 1953-1957. Gallery flat building, situation before renewal. © Tim Nagtegaal, 2014, City of Amsterdam.

gardens because of the undesirable reference to the labor camps from the war. The placement of the fences also went against Bakema's collective ideas of the open society.

A paradise that needs adjustment

On 20th September 1995, the local *Parool* newspaper headlined with: "Garden city is a paradise that needs adjustment." Substantial investments are required to make the Western Garden Cities future-proof and to break the negative spiral. The *Bureau Parkstad* was established to give shape to this innovation. The *Bakemabuurtt* was one of those neighborhoods slated for demolition. It would then have taken years before there would have been a plan for renewal. Subsequently, discussions were held for years and a plan for renewal was signed. In 2005 a European competition was organized, and the winner came up with a plan for high-density patio housing; an idea that ultimately satisfied no-one. The idea of a *tabula rasa* turned out to be too easy a choice.

Renovation of a hidden gem

Once there was a plan for the new *Bakemabuurtt* and the first blocks (north of Sam van Houtenstraat) were demolished in 2008, the economic crisis broke out. This crisis turned out to be the salvation for this special Bakema heritage. The crisis led to a time of reflection. At that time, the *Stadgenoot* housing corporation saw opportunities in the preservation and restoration of the *Bakemabuurtt*. Between 2013 and 2019, the municipality of Amsterdam and *Stadgenoot* gradually worked on a careful, restoration and renewal approach. Plans were prepared for high-quality renovation, carefully fitted new construction and a fresh new landscape design.

As a first step, two porch flat buildings will be renovated to a high-quality design by Van Zwieten architects. The process for this renovation plan worked well and formed a starting point for the approach to the other three porch flat buildings. High-quality renovation is also being considered for the gallery flat buildings, but due to construction problems and an awkward shell, a plan for new construction

is being investigated as an alternative. Van Schagen architects are working on this challenging assignment. They ultimately managed to realize a successful design for a new construction. The restoration approach was done in a careful manner and has strong references to the striking features of the now-demolished gallery flat buildings. The architects are also working on the design of the new buildings at the Willem Baerdesenstraat, Sam van Houtenstraat and Dr. Colijnstraat. The last homes will be completed in 2022 and then the renovation of the *Bakemabuurtt* will be ready.

A new future

Stadgenoot offers housing in the new *Bakemabuurtt* as social housing, private sector rental housing and in the owner-occupied segment. From studio to large family home, there is room for everyone. The principle of mixing groups and lifestyles is in line with Bakema's original ideas. Residents from the gallery flat buildings still have their storage room in the porch flat building across the street. As a result, the architect's social ideology will remain alive for the time being. Bakema enthusiasts can be happy with the survival and resurrection of the Bakema experiment in Amsterdam's garden cities. It is a good example of a well thought-out social urban design concept that seems to stand the test of time. The question is for how long and whether the ideals of the open society of the architect in the *Bakemabuurtt* will be sustainable in the long term in an individualizing society. It will probably not pose a threat to the quality of life because the size of the neighborhood is compact and the mix of groups and lifestyles forms a strong foundation. Time will tell.

Notes

- 1 The "friendship model" is "a three-dimensional sociological diagram, symbolizing ideal human relationships. According to him [Bakema], 'it is about the way in which low, high, large and small buildings are spatially related, can be a means of making people feel at home in the total space.'", in CRIMSON architectural historians, *De Lijnbaan. Cultuurhistorische verkenning van het Lijnbaan ensemble*, December 2004, 45.
- 2 "Confectieborders" is a typical Dutch word, referring to a planting plan standardized by Mien Ruys.

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Ernő Goldfinger, Brownfield Estate, London, England, 1965-1970, with Balfron Tower, right. © RIBA Photographic Collection.

Conservation by consensus: heritage management in large housing estates

BY JOHN ALLAN

This study considers the role of management guidelines in regulating the pressures for change in large housing estates where heritage constraints are involved but where the use of formal enforcement procedures would be unrealistic and uneconomical. The author's experience in creating such documents indicates the importance of cultivating a sustainable consensus among stakeholders that balances respect for and understanding of architectural and historic significance with a realistic acceptance of the need for change. The author suggests that the success of such instruments depends upon three crucial attributes – fairness, usability and resilience. The examples, all in London, include the Barbican, Golden Lane and Brownfield.

Overview

All three estates resulted from wartime aerial bombardment which – most dramatically in the case of the Barbican – left huge tracts of derelict land in need of comprehensive redevelopment. They are among a select few post-war estates in Britain that have been listed as outstanding for their special architectural and historic interest. They are thereby subject to the regulations and protocols of our Planning (Listed Buildings and Conservation Areas) Act 1990 – hereafter “the Act.” The formal recognition of such considerable areas of development was in itself a major departure in the treatment of modern heritage in England – listing typically involving only single buildings or small ensembles, and it is chiefly the factor of scale that underscores the relevance of management guidelines. So before considering the details of each estate in turn it is useful to study the features of such projects that are common to them all.

The effect of listing any building or site (regardless of size) is to bring the designated “heritage asset” within the ambit of the Act. The relevant clause specifies that “no person shall execute, or cause to be executed, any works for demolition of a listed building, or for its alteration or extension in any manner which would affect its character as a building of special architectural or historic interest unless the works are authorized.” Authorization is the responsibility of the Local Planning Authority (LPA), who may in cases of higher-grade listings refer the matter to Historic England, the Government's advisory agency on heritage issues. Penalties for non-compliance can be severe.

Now whereas the operation of this regulation is relatively straightforward in the case of individual buildings in single ownership, its application to large estates involving several hundred residents and extensive public realm is clearly a different matter. There are simply insufficient public resources to be able to rely on enforcement as a realistic means of control. This is where management guidelines have a vital role to play, as their primary purpose is to cultivate among stakeholders sufficient understanding of

the significance of the asset that a consensus is created to achieve compliance by voluntary means. In summary, the key aims of listed building management guidelines are:

- to analyze the special architectural interest of the listed buildings and their environment and cultivate stakeholder recognition of these attributes;
- to provide guidance on the management of change and clarity on when formal authorization is required;
- to enable all interested parties to contribute;
- to make provision for regular review.

Such projects when properly conducted should benefit everybody. The conservation authorities can have confidence that the regulations will be observed without the need for excessive policing; owners may undertake works of alteration knowing where these will, or won't, require formal consent, and third parties such as amenity groups and others may be assured of the responsible stewardship of heritage assets that they care about. The importance of consensus cannot be overstated. However, it does not necessarily arise of its own accord – it usually must be cultivated. This underscores the need for consultation and inclusivity in the preparation of management guidelines documents.

In 2000, the United Kingdom (UK) government promulgated a Code of Practice on Consultation as a standard for its own such exercises as well as those of other public bodies. The observance of these principles becomes important because guidelines may then acquire the enhanced status of a Supplementary Planning Document (SPD) thereby becoming part of local planning policy. Whilst SPD's have only advisory status, they are then a provision to which the LPA must “have regard” when determining matters that may affect the heritage asset concerned. It was with these considerations in mind that the City of London Corporation, owners of the Barbican Estate, embarked on the project of creating management guidelines following its listing in 2001.



01 Chamberlin, Powell & Bon, Barbican Estate, London, England, mid-1950s-1982. Aerial view, a whole piece of city. © Christoffer Rudquist.

The Barbican Estate

The Barbican is the largest, and last to be listed, of the three estates covered in this study. But it was the first exercise in creating management guidelines and therefore merits the fullest study as many of the considerations affecting all three examples were pioneered here. Designed by architects Chamberlin, Powell & Bon, and built from the mid-1950s up until completion of the Arts Centre in 1982, the Barbican endured every vagary of architectural taste before its listing (at Grade II) in 2001, though even this was not without controversy. In 2003, it came top in an opinion poll of London's ugliest buildings and was a regular object of public odium, both for its Brutalist architectural style and also for the notorious difficulties in navigating its elaborate public realm. This particular feature, known as the Highwalk, raised on a podium some 6 meters (m) above ground level to segregate pedestrian from vehicular traffic, had not been helped by drastic reduction of the larger scheme of pedestrian walkways originally planned to connect the estate with the wider city context.

The Barbican as built contained over 2,000 dwelling units, as well as two schools, a library, several cinemas and restaurants, a youth hostel, two theaters, a concert hall, two art galleries, a huge conservatory, two large exhibition halls and a range of other commercial and retail spaces as well as extensive public landscaped precincts, private residents'

gardens and a lake. In short, it is not so much "an estate" as a complete piece of city. It is believed to be the largest built object ever listed – but this raises some significant questions. How would it be possible to apply the procedures and protocols of listing to some 35 acres (14 hectares) of London accommodating over 4000 people?

It was in 2003, in this disputatious atmosphere, that Avanti Architects, of which I was then a Director, was appointed to find answers to these questions. Whilst the designation had been prompted by controversial interventions by the City Corporation itself there was still resentment within the resident community that it was detrimental to their property values, as well as ignorance about what listing actually entailed. Many believed it only applied to building exteriors, or just to elements that had never been changed. In fact, listing covers everything that exists at the time of designation, original or not, though this of course not does mean everything is of equal significance.

The first step involved devising a suitable vehicle to administer the project. This took the form of a stakeholders' Working Party comprising representatives of Barbican residents, English Heritage, the Twentieth Century Society, officers of the Corporation, ourselves as independent consultants and also a widely respected City Alderman acting as Chairman. As well as establishing its mandate through this inclusive representation, it was also necessary

to understand its status as a non-voting body where decisions must be reached by debate and eventual agreement. Equally important was that its members would promote the group's conclusions to their respective constituencies.

The next challenge to ourselves as consultants and authors of the eventual document was to identify and analyze “special interest” throughout the estate, establishing as objectively as possible the circumstances in which the formal consent requirements specified by the Act should and shouldn't apply – then to persuade others of our recommendations. “Special interest” of course applied at many different scales and levels – so while some of our judgements were beyond dispute, others had to be argued out.

The grand urban proposition represented by the Barbican was clearly of incontrovertible significance, not only as unique example of its type in the UK but also in its historic differentiation from the rest of the Square Mile which, almost without exception, has been built and re-built over the centuries on the original Medieval street pattern. The estate's three towers (originally the tallest in Europe) make a unique contribution to London's skyline in being a coordinated urban composition, in sober contrast to the City's chaotic medley of tall buildings elsewhere. The segregation of pedestrian from vehicular movement is the most extensive experiment of its kind in the UK, while the podium also works as a powerful architectural datum, being encased in brickwork matching the tiled paving of the Highwalk itself and thereby becoming a visual plinth – or “made ground” – supporting the concrete superstructure above. The many other aspects of special interest were articulated and discussed – from building forms to roof silhouettes, the diversity of unit types, the materiality of expressed concrete, the character of windows and balconies, even the original kitchens and sinks, with their innovative Garchey waste disposal system.

We proposed a “Traffic Light system” – whereby examples are given of almost every imaginable type of intervention ranging from works which would not affect “special interest” and could therefore be undertaken without consent (green); to works that were uncertain, and needed further enquiry (amber); works that would certainly affect special interest and therefore require formal authorization (red) though this would not necessarily mean it would not be given; and finally works that were most unlikely to get consent because of their clearly detrimental impact (black). This analysis was then applied to the residential buildings of the estate in three categories – building exteriors, common parts, and flat interiors – a tri-partite structure that was reflected in the eventual guidelines. This made the document extremely user-friendly.

But it did not avoid controversy. At the first consultation stage the Working Party was deadlocked over several critical issues, most acrimoniously the question of residents' freedom to alter their kitchens, which had originally been manufactured to a highly distinctive design. Should this issue be placed in the green or the red category? Most kitchens need replacing after 30 years, and in many cases the originals had already been replaced before the listing. Naturally if residents wanted to replicate the original design that was

fine. But at such a scale was it reasonable to demand like-for-like replacement, or even feasible to police it? Most of the original components no longer existed. The group eventually agreed that residents should be encouraged to restore original kitchen fittings where they survived, but that they could not be prevented from replacing them. The formal consent trigger was set at the point where replacement would entail modification of the original floorplan. Interventions involving plan alteration would therefore be placed in the red category.

In the process of reaching a workable settlement membership of the stakeholder group was expanded to include representation of a particularly vocal faction of residents as well as another member of the Corporation's planning committee. This helped to bring disputatious elements “into the tent” rather than remaining at large and potentially weakening the Working Party mandate. It also enabled the eventual document to be signed off by the Working Party itself. To have sought the individual agreement of 2,000 separate leaseholders would have been quite unfeasible.

It also meant extending the program. Altogether the Working Party met 16 times over the 18 months it took to develop the first two volumes of guidelines, with two public consultation episodes at first and second draft stages. Consultation periods of ten weeks were allocated for comment and over 300 responses were received. These were all individually considered following the protocols of the UK Government's Code of Practice on Consultation. This was crucial to eventual validation. Many of the comments helped clarify the document and make it stronger. Once agreed within the Working Party the final draft passed through the City Corporation's committee approval processes, and was formally adopted as Supplementary Planning Guidance in May 2005.

Other Conservation Strategies

In addition to the “Traffic Light” sections there were other important measures, which we grouped into a further section called Conservation Strategies. These included creation of a number of Heritage Flats, which could be preserved in all details to serve as a permanent record of the original design. This “representative conservation” took some pressure off seeking a more restrictive settlement within the Working Party. Of course, even these Heritage Flats brought their own challenges, as a) they had to be found within the reducing portfolio of rental units still owned by the Corporation, and b) they needed to be tenanted by particularly committed residents who would accept the constraints entailed in safeguarding the authenticity of the interior. We also recommended the establishment of a Salvage Store to be based beneath the Podium where residents could source or exchange original items or fittings that were lost and which is managed by volunteers on the estate. Other measures included establishing a palette of approved colors for consistency in maintaining external metalwork, as well as the proposal for a Visitor Centre housing a Barbican archive for the benefit of residents and researchers. With the exception of the latter, all these proposals have been successfully achieved.

A further section on Best Practice for the Corporation's

in-house maintenance team addresses one of the greatest problems of heritage management on large estates – that is consistency in supervision of minor works and repairs, which individually seem trivial but which if done thoughtlessly can lead to cumulative erosion of integrity and original character – e.g. mis-matched paving replacements; illiterate proliferation of external cabling and pipework, uncoordinated signage, ad-hoc external lighting, errant security alarms, etc. – altogether resulting in a steady loss of visual hygiene through being casually and even innocently undertaken by personnel who may have no knowledge of listing or the damage they are doing. Few of these works would merit individual applications for listed building consent, even if the resources were available to deal with them, which makes it that much more important to cultivate wider understanding of their detrimental impact if allowed to happen in an improvised and unregulated manner.

Future proofing

Provision for future-proofing the document was made by including a review regime. Initially after adoption, the Working Party continued to meet every six months for the first two years to evaluate the Guidelines in operation. After five years we undertook a systematic review of the whole document and produced an updated version including changes in legislation and several new references. The revised document – now an SPD (i.e. “document”, superseding the previous SPG – “guidance”) – was adopted in October 2012 and is on the City of London website. The review process revealed that apart from a few gaps in detailed coverage or regulation changes the instances of where things had gone wrong had generally not been due to deficiencies in the Guidelines themselves, but to failure to apply them correctly. Thus, the review process itself serves to refresh peoples’ awareness of the document and how it can help them.

Later volumes of the Guidelines

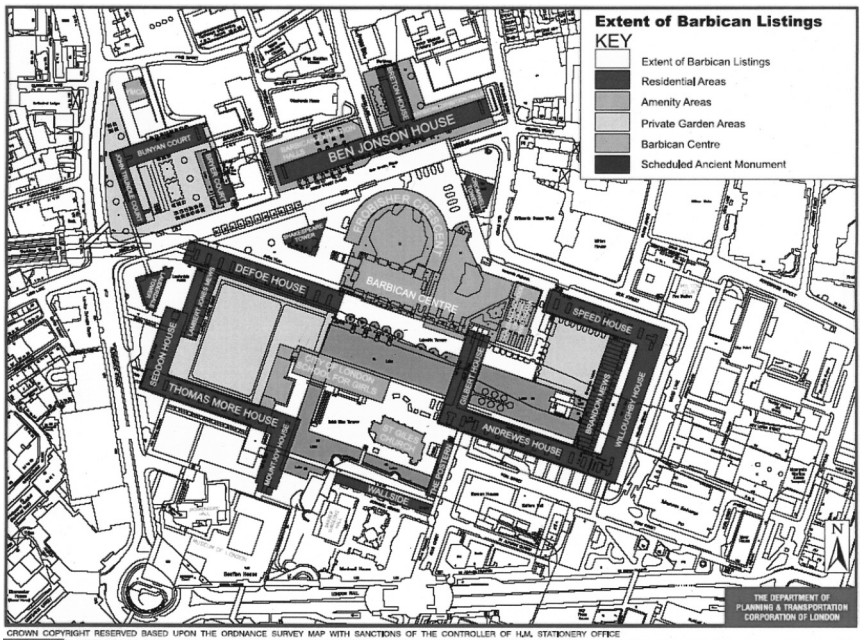
The Guidelines were always envisaged as comprising four separate volumes, and the process described above relates only to the first two. The introductory volume provided basic information and procedural advice. The second covered the residential parts, which constitute the bulk of buildings on the estate. We have now also produced Volume 4, the Barbican Landscape, in collaboration with J&L Gibbons LLP Landscape Architects – using a similar Working Party vehicle and consultation processes. This sought to capture the special interest of the designed landscape with its grand courtyards, luscious gardens and splendid lake, as well as considering such details as paving materials, lighting, furniture and signage. In addition to their listing the exterior works are also designated in the Register of Parks and Gardens, at Grade II* – a rare accolade. A Traffic Light analysis was included as well as guidance on Best Practice and Green Infrastructure. This volume was formally adopted in 2014 and is likewise available on the Corporation website. Finally, Volume 3A covering the Barbican Arts Centre was commissioned in late 2015 with drafting completed in July 2017 and is currently awaiting external consultation.

The Barbican Arts Centre, opened by Her Majesty The Queen in 1982, is the largest performing arts, recreational and cultural venue of its type in Europe. It is a major commercial enterprise and public destination in the heart of London, visited daily by thousands of people. The Guidelines for the Arts Centre are intended to inform the ongoing management and conservation of this Grade II listed building. As with previous volumes, a Working Party was composed of relevant stakeholders – in this instance from the various departments within the complex, as well as representatives of the City’s Planning Department, the Barbican Estates office and their retained architects, the firm of AHMM. The intention has been to achieve consensus on the draft document amongst these “internal” stakeholders before consulting more widely among residents’ groups, Historic England and the Twentieth Century Society. This consultation is currently awaited.

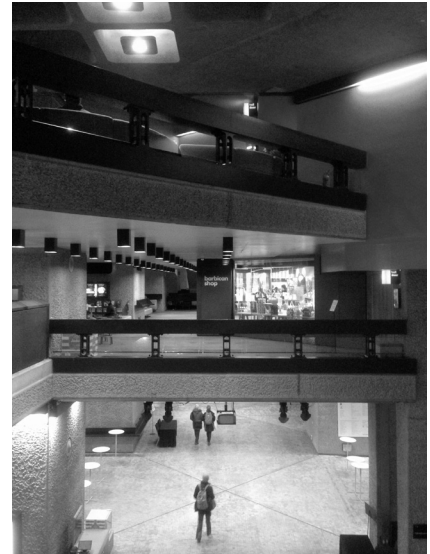
My methodology was to survey the entire building area by area to research the original design and principal subsequent alterations, locate and analyze “special interest,” offer general guidance and devise a detailed Traffic Light system for every part of the complex. Heritage significance here ranges from the Centre’s distinctive external form and materials that clearly proclaim it as a public building within its residential context, the deep spatial quality of the foyers, the “set piece” interiors of the concert hall and theatre, the conservatory, art gallery and library, down to the detailed finishes and fittings which constitute a highly distinctive and consistent design vocabulary for the whole building. In addition to the Traffic Light analysis, I also proposed a “Star Rating Scale” which attributes a hierarchy of heritage sensitivity to the various sections of the building according to their public prominence and surviving authenticity. The two systems complement each other but do not necessarily overlap. Thus a minor intervention could require consent in a highly sensitive location such as the concert hall or theater, whereas a major modification might be of little consequence (in heritage terms) in an area of low sensitivity such as the back-stage areas or offices. Whilst all areas are covered by listing, higher starred areas need to be approached with particular attention to heritage considerations.

Perhaps the most difficult issue here has been that of protecting the unique spatial qualities. The Barbican Arts Centre brief became bigger and more ambitious as the original project evolved, but its site was already confined by earlier phases of development. As a result, the building is characterized by deep excavation and dramatic interior spaces. At the time of our appointment a scheme was already underway for the introduction of a new retail floor which, though finely detailed in itself, has substantially reduced the open spatial character of the main foyer. Such is the commercial pressure to treat “space” as “room” and monetize what was once free. Given the timing of the two projects the Guidelines could not have prevented this intervention, but my Executive Summary still particularly urges that the inter-visibility and spatial drama of the common parts – a defining aspect of the Arts Centre’s character and special interest – are not further diminished through infilling or enclosure.

02 The Barbican Listed Site Boundary. © City of London, Department of Planning & Transportation.



03 Chamberlin, Powell & Bon, Barbican Arts Centre, London, England, mid-1950s-1982. Interior space/view. © John Allan.



04 Chamberlin, Powell & Bon, Barbican Arts Centre, London, England, mid-1950s-1982. © Johanna Gibbons.



05 Chamberlin, Powell & Bon, Golden Lane Estate, London, England, 1952-1962. Typical view with Great Arthur House, center.
© Nicholas Kane for Avanti Architects.

Also emphasized is that the guidelines apply equally to “minor” operational activities to ensure protection of heritage significance and character. A constant stream of installations – some worthy, some less so – continue to alter the Arts Centre on an almost daily basis – and whilst seasonal and special events are an inherent dynamic in such an institution, it must also be recognized that to avoid cumulative heritage detriment a consistent level of daily care and understanding is required.

The Arts Centre has now been in intensive use for over 35 years and has assimilated considerable change over this period. This is a testament to the resilience of the original design and demonstrates that progressive adaptation, if intelligently and sympathetically conceived, need not be detrimental to its special architectural interest. The challenge going forward will be to reconcile the constraints of listing with the realities of maintaining this major international institution as a leading cultural and commercially competitive venue, guiding and controlling the endless pressure for change to avoid harming the special qualities for which it is listed.

Golden Lane Estate

The original volumes of Management Guidelines have now been operating on the Barbican Estate for 15 years and are believed to be the first example of this conservation technique at such a scale in the UK. But their benefit was already registered when soon after their completion Avanti Architects was commissioned for the equivalent project at the adjacent Golden Lane Estate – an earlier work of Chamberlin, Powell & Bon which was built

between 1952-1962 and listed in 1997. Though smaller and of a different architectural character to the Barbican this estate was likewise conceived as a complete urban neighborhood. There are 550 units housed in eight blocks, with twenty shops, a pub, a community center, swimming pool, tennis courts, children’s nursery, recreation rooms and underground carparking. The project, one of the earliest progressive housing schemes after the war, aimed to provide high-density accommodation for those who needed to live in the City and was enriched with a designed landscape on the former bomb-cleared site, listed at Grade II in 2020.

This Guidelines assignment presented much the same challenges as those described for the Barbican, although as the estate had generally been more highly regarded, with an arguably more appreciative resident community, it attracted little of the Barbican’s controversy. The equivalent document was formally adopted in 2007, reviewed in 2012, and re-adopted in 2013. As with the Barbican, the Golden Lane Guidelines have generally been effective in managing change on the estate, most conspicuously in the recent exemplary facade replacement project for its central 16-story tower Great Arthur House, achieved with scrupulous concern for heritage values. However, despite their injunction to avoid detrimental impacts on the estate’s setting, the Guidelines have not been heeded by the recent development of a grossly over-scaled private apartment block on an immediately adjacent site. This illustrates the greater challenge of guidelines maintaining traction beyond the listing boundary itself.

Brownfield Estate

The Brownfield Estate was designed by the *immigré* Hungarian architect Ernő Goldfinger (1902-1987), and built in phases between 1965 and 1970, with later sections forming what is now an extensive designated Conservation Area. This was the last of the three Conservation/Guidelines assignments in the series discussed here, though ironically the most prominent component of the estate, the 26-story Balfron Tower was earliest of all the buildings to be listed at Grade II, in 1996 (being raised to Grade II* in 2015). Set in a bleak and bomb-damaged area of the East End, the Brownfield Estate – like its later cousin Trellick Tower (1972) – epitomizes the Brutalist style of Ernő Goldfinger in his maturity.

Our Conservation Management Plan was commissioned with the aim of informing a major regeneration project being planned by the estate owners, Poplar HARCA a registered social landlord, to whom it had been transferred by the local authority LB Tower Hamlets. The study was comprehensive with a detailed statement of heritage significance covering all aspects of the listed estate including its landscape and setting. Also included were conservation strategies and recommendations on best practice in maintenance works, with particular emphasis on the quality of concrete repair and the treatment of facade components – windows and screens – all of which were meticulously designed by Ernő Goldfinger in the original scheme.

The Conservation Management Plan was delivered at the end of 2007 and proved effective during the first phase of the regeneration. However, the project took a new

direction when Balfron Tower later became the subject of a joint-partnership of Poplar HARCA with a luxury private residential developer. The ensuing “gentrification” has led to all resident tenants being displaced and, despite objections, no social housing being retained in the block. The Conservation Plan has been largely ignored, with a complete fenestration redesign dramatically altering the character of the building. The completed refurbishment, inexplicably condoned by Historic England but condemned by the Twentieth Century Society as “a tragic missed opportunity,” illustrates the limitations of management guideline documents in the face of raw commercial ambition and underscores the crucial role of ownership culture in the authentic conservation of modern architecture.

Conclusions – Lessons learned

So what lessons can be drawn from these projects that might be useful to others in the field? I would suggest that for achieving successful Conservation Plans or Management Guidelines addressing heritage assets on this scale there are three key attributes – Fairness, Usability and Resilience.

Fairness

There are no short-cuts to cultivating a consensus, and there has to be enough time for the engagement of all who need to be involved. So the process must be adequately resourced. In case of the Barbican its sheer size was actually an advantage as the resident community already had its own internal democracy – house committees, residents’ association newsletter, etc., which provided a consultation infrastructure we could tap into directly. Meticulous attention to peoples’ responses and transparency on reasons for accepting or not accepting their suggestions is also vital. Gaining the trust, or at least respect, of divergent stakeholders entails scrupulous even-handedness with all participants.

Usability

Then there is the importance of producing a user-friendly result. How many well-intentioned documents of this sort have been shelved and forgotten? There are probably two reasons – insufficient stakeholder traction in the first place, and second the documents themselves being too unwieldy or academic. This can be a case of the best being the enemy of the good, leading to a document too intimidating for the ordinary user. Yet the tempting response to keep it “quick and dirty” may not be right either. In my view, the answer lies in output format rather than project scope. For such documents to have credibility the historical research and analysis of significance do need to be done properly. However, the material may not all need to be in a single large document. It may be better to customize the outputs to suit the different stakeholders. Conservation authorities and amenity societies are concerned to see that heritage assets are properly researched and understood before considering proposals for change. Meanwhile, owners and maintenance staff are more interested in a “how-to” manual that tells them quickly and simply where they stand in relation to the listing

regulations. These diverging needs may be best resolved by formatting the outputs to serve the different constituencies respectively – but always preserving all of the material for those who might want to refer to it. In both the Barbican and Golden Lane projects the full guidelines were complemented with short leaflets covering the essentials, but cross-referenced to the main document.

Resilience

A key aim of guideline projects is to raise heritage consciousness. But how does consciousness stay raised? Review procedures refresh memories and help ensure guidance remains current. Formal adoption and SPD status also provide a degree of existential permanence. But the longer answer is surely less by consciousness “staying raised” as by becoming engrained, whereby what is initially deliberate eventually becomes instinctual. This surely goes back to the issue of “heritage recognition.” The recognition and good stewardship of modern heritage in the UK is still a work in progress encumbered by controversy, prejudice and neglect. To the extent that popular recognition of the architecture of any period as “heritage” is commensurate with its age, it may be anticipated that the informed conservation of modern buildings for their “heritage” value (as distinct from economic or environmental reasons) will depend on when they can command the equivalent popular appeal as their historic forbears. In achieving this desirable goal fair, usable and resilient management guideline projects surely have a valuable part to play.

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(UK, 1945). Former director of Avanti Architects and led their Modern Movement conservation program including buildings by Berthold Lubetkin (1901-1990), Ernő Goldfinger, Wells Coates (1895-1958), Maxwell Fry (1899-1987) and Patrick Gwynne (1913-2003). Founding chairman of **docomomo** UK and served on several advisory committees of English Heritage. Biographer of Berthold Lubetkin and chairman of the Isokon Gallery Trust.



Mario Ridolfi, INA Casa Tiburtino District, Rome, Italy, 1950-1954. © Rinaldo Capomolla, 2020.

Reconstructing housing and communities: the INA-Casa Plan

BY ROSALIA VITTORINI

Among the Italian initiatives for social and material reorganization in the aftermath of WWII, the most interesting was undoubtedly the INA-Casa Plan. The plan was designed to counteract widespread unemployment in the construction sector and aimed to provide new and modern social housing to the poorer classes, thus simultaneously responding to the housing emergency. During the 14 years between 1949 and 1963, architects designed, and construction companies built a housing patrimony of remarkable quality, which now becomes an opportunity to develop strategies of urban revitalization.

Origins of the plan

In February 1949, having identified the construction sector as the driving force for economic recovery, Parliament approved a law for “A plan to increase worker employment, supporting the construction of social housing,” putting in gear a massive program designed “to provide a home for all Italians”¹ and address the double emergencies of housing and employment.

The INA-Casa Plan originated from several preceding proposals on the theme of social housing, and took its name from the National Institute for Insurance (INA) that had been made responsible for certain administrative aspects. The plan was heavily influenced by principles of Catholic solidarity, and in keeping with this, funding was ensured by a mixture of state contributions and deductions from employers and employees, a principle maintained in the second phase of the plan, beginning in 1955.²

The plan was administered at the national level by an agile, two-part structure consisting of an Implementation Committee, for policy, regulation and oversight, and an executive board called INA-Casa Management. The former was chaired by Filiberto Guala (1907-2000), an engineer with ties to the Catholic left; the latter by Arnaldo Foschini (1884-1968), architect and dean of the School of Architecture in Rome. At the local level, the plan co-opted the administrative agencies involved in social housing since before the war, in particular the National Institute for Housing of State Employees (INCIS) and the Autonomous Institutes for Social Housing (IACP), but also called on the branches of state administration, and brought in specific consortia and cooperatives.

Filiberto Guala had proposed standardized designs as the mode of implementation, however this was rejected in favor of Arnaldo Foschini's strategy of developing registers of architects,³ to be entrusted with the individual projects. In this way the plan would favor the relaunch of the professions, by calling on all Italian architects and engineers to participate in a great democratic and collective project.

The guiding committee directed that the plan should implement traditional construction types, entrusted to the

myriad of small and very small companies typical of the Italian sector, and avoid the experimentation in prefabrication, industrialization and concentration of companies then taking shape in other European contexts. The INA-Casa construction site thus featured very low levels of mechanization and massive use of unskilled labor, in keeping with the first aim of the 1949 law: a strategy also descending from awareness of the true state of the construction sector, which

... along with scarcity of adequate equipment was characterized by disorder in the production of materials, lack of modularization in brick sizes, lack of dimensional standards in timber, in windows and doors, and variability in construction practices from region to region, company to company, and master builder to master builder.⁴

With the launch of the first construction site on 1st April 1949, the vast machine of the INA-Casa Plan swung into action. By October of that year, 649 sites were operating in cities and towns throughout the nation. Pressing forward at an increasing pace, amplified by effective advertising, some 355,000 lodgings had been constructed by the expiration of the law. These represented 10% of the total housing stock, distributed through two-thirds of Italian municipalities. The homes were assigned to the less well-off classes, in rent or rent-to-buy programs, in developments varying in scale from single houses to entire blocks and neighborhoods, with associated shops and services.

Design instructions

Arnaldo Foschini entrusted the technical administration of INA-Casa Management to Adalberto Libera (1903-1963), who, after the wartime period of inactivity and consideration of eventual reconstruction, had participated with Gio Ponti (1891-1979) in a series of studies on the design of standardized housing.⁵ Adalberto Libera and Arnaldo Foschini also called other professionals, all based in Rome, including Giuseppe Vaccaro (1896-1970), Mario De Renzi (1897-1967) and Mario Ridolfi (1904-1984), who had already guided the publication of the *Architect's Manual* (1946), on matters from

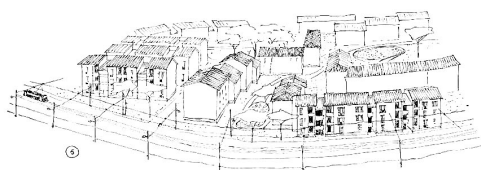


Fig. 56.

Fig. 56-57-58. — Vedute prospettiche dei complessi edilizi illustrati nelle planimetrie esemplificatrici della pagina precedente.



Fig. 57.

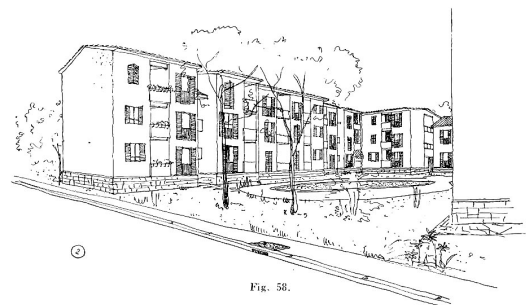


Fig. 58.

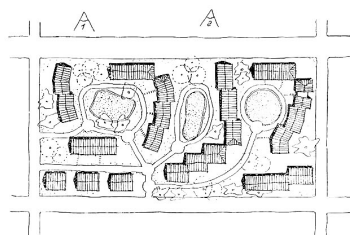


Fig. 54.

Date le possibilità di associazione, illustrate nella pagina precedente, il corpo di fabbrica può essere articolato con tutta libertà, e così creare dei complessi edilizi il cui interesse non sia limitato ai fabbricati, ma anche agli spazi liberi da essi delimitati. (Fig. 54-55-55 bis).

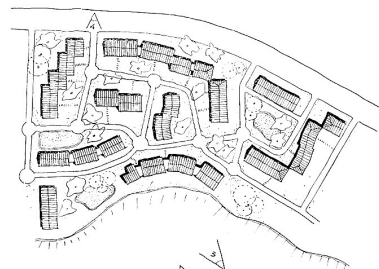


Fig. 55.



Fig. 55-bis.

construction techniques to worksite organization and safety.

The artisanal approach to construction also forced the designers to enter into artisanal detailing, since executive drawings were necessary not only for building elements, but also for construction operations, ensuring control over results and quality. To guide the architects, INA-Casa Management produced four instructional “dossiers”. The first (1949), dedicated to the housing unit, gathered floor plans for four types – multi-story single, continuous, and terrace housing – also showing aggregative and distributive solutions. The second (1950), dedicated to urban planning, offered Italian and international examples, in particular showing principles of “organic planning”. Designers were invited to avoid rigidly geometrical or closed and isolated rationalist schemes, and instead pursue plans adapted to the terrain and environment, so that the inhabitants “have the impression that there is something spontaneous, genuine, indissolubly fused with the place where the developments rise.” The 1950 dossier also established a maximum density of 500 inhabitants per hectare (ha), reduced to 300 in the second seven-year period. The last two dossiers were drawn up in 1956, considering the results of the first period. The first recommended exclusion of solutions proven dysfunctional or unsatisfactory to residents, such as buildings with more than three floors, ground-level apartments, two-story units in urban contexts, and staircases open to the exterior. Instead, designers were guided towards well-accepted

solutions: living rooms free of traffic routes, sheltered entrances, indoor common laundries, family balconies and clothes-drying areas. This dossier also saw the introduction of urban planning standards, such as on neighborhood sizes and provision of a “social center” fulcrum, signifying a multipurpose structure for services and collective activities. The fourth and last dossier gathered the main circulars and standards of INA-Casa Management.

An entire generation of young designers would advance their professional training as they pursued these directives, working in groups on the sole theme of social housing. The entire plan assumed the character of a national laboratory of design and construction, aimed at developing housing for the less well-off, at low-cost, built quickly, optimizing available resources and favoring durable materials. The new urban complexes were distributed throughout the country, and assumed more or less original character, sometimes even experimental, depending on the hand of the designer. All developments, however, shared a similarity of appearance, descending from the unitary strategy and INA-Casa Management, with its control over designs, contracts and construction sites.

INA-Casa Style

The designers were entrusted with shaping a new concept of the “neighborhood”, marking a political and social change, but, as Gio Ponti explained, without renouncing Italian tradition:

between the Anglo-Saxon and German approaches of gathering single-family houses in the garden city, and that of grouping homes in a huge machine as in Marseille, we have the Italian way of the 'rione', meaning the approach of bringing a number of homes together in single structures, gathering them very close, creating small and lively spaces, always varied and always commensurate with the person, their habits and their most essential pleasure: of chatting from window to window, of seeing the children play (...) of courtyards, not grand parade squares, but small courts, with the sensation of living spaces – a very Italian and pleasant invention.⁶

The idea was to develop the already complete housing as a community – an idea deriving in part from the areas designated for construction. These were peripheral, for economic reasons, but also for aims of urban decentralization, expressed as

various urban compositions, articulated and activated so as to create welcoming and restful environments, with different views in every part, and endowed with beautiful vegetation, where every building has its distinct appearance, and every person easily finds their own home, with the feeling that it reflects their own personality.⁷

The planners sought compositional diversification in the design of collective spaces – pedestrian paths, courts, green spaces, flower and vegetable gardens – developing a

connective tissue mediating the relationship between the neighborhood and the houses and encouraging community relationships and rootedness.

Given the predetermined construction systems, of load-bearing masonry for lower structures and reinforced concrete framing for higher structures, the architect's work was focused on the materials and building elements. This resulted in experimental works in new languages, based on the exposition of all structural and finishing elements, reinterpreted in a figurative key, also extending to the outdoor spaces, in components from paths to fences.

The building elements are all placed in plane, revealing their functions: load-bearing masonry, framing in reinforced concrete with infill, roof and balcony parapets, window and door sets (comprising architrave, sash and sill). The facades attain a strong formal character through the balconies, and in particular through two new elements: the *loggia*, introduced to facilitate outdoor life, and small drying spaces for laundry, ventilated but shielded from view. The roofing also assumed new importance: most often in semi-traditional pitched form, accentuating the domestic character of the buildings, more rarely flat roofs. In both cases, all the fittings were on display: overhangs, eaves, downspouts and chimneys. The rich assortment of solutions descended not only from the skill of the designers, but also the reference to local traditions and materials: tuff, stone and colored plasters, with exposed reinforced concrete for perimeters and framing, and solid and



02 Mario Ridolfi, INA Casa Tiburtina District, Rome, Italy, 1950-1954. Design for tower blocks. © Accademia Nazionale di San Luca, Roma, Fondo Mario Ridolfi.

03 Luigi Carlo Daneri, INA Casa Forte Guezzi District, Genoa, Italy, 1956-1968.
© Roberto Saba, 2008.



04 Adalberto Libera, INA Casa Tuscolano III District, Rome, Italy, 1950-1954.
© Luigi Beretta Anguissola, 1963.



05 Luigi Figini and Gino Pollini, INA Casa Harar District, Milan, Italy, 1951-1955.
© Marco Introini, 2005.



06 Ceramic tiles that distinguish one of the INA Casa District. © Rosalia Vittorini.

perforated brick in an infinity of systems. Added to this were innovative solutions for balconies, *loggias* and drying areas: iron railings, concrete and brick grilles, wooden and sheet-metal louvers, panels in glass brick.

The neighborhoods share a language of spontaneous, studied realism, in an almost infinite range of variants, precisely characterized by one of Pier Paolo Pasolini's (1922-1975) fictional characters:

One day, on the via Tiburtina just past the Fort, they began to spread apartment buildings all around: it was an INA-Casa project, and buildings began to sprout on the meadows, on the knolls, with strange shapes, pointed roofs, little terraces, dormers, round and oval windows. People called them Alice in Wonderland houses, the Fairy Village, New Jerusalem, and everyone started laughing.⁸

The best-known examples, together with a multitude of smaller and untraced interventions, offer a rich and varied, but still unitary, panorama. Only in rare cases does the construction deviate from INA-Casa directives, through reference to local vernaculars, or at the opposite extreme, by exploiting the expressive potential of concrete framing.

The Tiburtino project (1950-1954)⁹ is pivotal to the debate,

given its status as a pilot intervention. Here, Ridolfi designed both in-line terraced houses, adapting them to the rigid structural scheme of load-bearing masonry, and tower blocks, where, instead of capitalizing on the freedom offered by the concrete framework, he forced the framing into the role of a sort of reinforcement of the walls, adapting the position and section of the concrete pillars to the masonry planes. Mario De Renzi was among the first to propose the tower block, in an original star-shaped version achieving greater facade surfaces and multiplying the views, in the Valco San Paolo district of Rome (1949-1952)¹⁰. Adalberto Libera's design for the Tuscolano III project (1950-1954) remains unique: a horizontal dwelling unit, closely descended from Mediterranean tradition, counterpointed by high buildings with external access galleries. Derogating from the INA-Casa instructions on density, Adalberto Libera designed an urban quadrangle incised by narrow pedestrian lanes and perforated by terraces, overlooked by single-story homes gathered in groups of four. Above these rise higher buildings, with minimal housing units inserted in a field of portals in reinforced concrete, endowing the facades with rhythm.

The projects by the Milanese architects echo those of the Romans: in Milan Cesate (1951-1957)¹¹, Ignazio Gardella (1905-1999) and Franco Albini (1905-1977) proposed the terraced

type, with two-story homes in load-bearing masonry. Gardella designed long narrow modules, with elements typical of the masonry tradition. Franco Albini worked with a quadrangular unit, rotated and embedded in an L-shaped module, assembled in multiples to create the overall project.

Given the traditionalist orientation of the Plan, there are only rare cases of prefabrication, such as grilles, sills, shutters, balcony parapets, and generally in small series. In the Harar district of Milan (1951-1955),¹² Luigi Figini (1903-1984) and Gino Pollini (1903-1991) designed parapets of concrete grating elements, cast in factory for the south-facing terraces of an apartment block with an external corridor. In the Bernabò Brea district of Genoa (1950-1957),¹³ Luigi Carlo Daneri (1900-1972) specified panels for parapets and architraves, of thin slabs of reinforced concrete with the external face showing rounded river or sea pebbles, about four centimeters (cm) diameter, immersed in concrete.

By the time of the second seven-year period, experience had led to the revision of rules on design, and experiments were advanced for rationalizing the worksite, contributing to what would become a mature INA-Casa style. The still limited use of reinforced concrete in framing permitted new aggregations, such as the free-plan housing of *Forte Quezzi* in Genoa (1956-1968).¹⁴ Here, faithfully following the site contours, Luigi Carlo Daneri organized typologically complex units with loggias and pedestrian paths. In the La Palma district in Cagliari (1957-1963),¹⁵ Enrico Mandolesi (1939-2015) experimented with the theme of unification through a project using modular components. Starting with a reinforced concrete frame, he designed five variants of a wall panel in exposed UNI brick, with openings up to full height. In the Soccavo-Canzanella district of Naples (1957-1962)¹⁶, Mario Fiorentino (1918-1982) introduced a prefabricated metal staircase with steps of vibrated concrete, and eight types of sheet-metal sashes and doors, each in four variants, complete with rolling shutter and batten, painted and ready for installation.

Perspectives

The INA-Casa experience produced an architectural heritage and an immense historical and cultural heritage of quality urban nuclei. Although criticized, this patrimony represents a unique instance in the history of Italian building policies, for the efficiency of public management and the central role played by architects. At the time of construction, the INA-Casa neighborhoods represented an anomaly. Until then, urban centers had grown gradually, in small increments, through almost spontaneous planning. Following this interlude, growth would often proceed by disorderly summation of indistinct parts.

Today, the INA-Casa neighborhoods maintain their distinct image, each with its identity, despite the inevitable tampering with common spaces and changes to the properties, in many cases accelerated by fragmentation of ownership. The projects are highly resilient, and capable of responding to current sustainability criteria, given their design for optimization of environmental resources.

The surviving common spaces, often green, intertwine domestic areas and collective uses, and can be reinvigorated without loss of identity. Nowadays, these neighborhoods

offer a decisive added value, residing precisely in these “unbuilt” connective spaces: in light of the crisis of later models of public housing and the current restrictions on resources, revising the shape and roles of this material heritage can open new perspectives on contemporary living.

Notes

- 1 Salvatore Aldisio (1890-1964), Minister of Public Works, speaking at the opening of the National Congress on Construction and Housing, 20th-25th October 1950, in Rome.
- 2 At the close of the first seven years, Parliament passed Law 1148 for the “continuation and expansion” of the plan.
- 3 The first call (October 1949) brought 340 applications, mostly from young architects.
- 4 Francesco Tentori, “Opere recenti di Mario Ridolfi”, *Casabella Continuità*, No. 249, Milano, Studio Editoriale Milanese, March 1961, 4-23.
- 5 From his larger work on “The technical function of the housing unit”, Libera published *La stanza da letto*, Garzanti, Milano, 1945, and “Il ciclo dei cibi. Tecnica funzionale e distributiva dell'alloggio”, *Struttura*, No. 3-4, Roma, Edizioni della Bussola, December-January 1947-1948, 22-48.
- 6 Gio Ponti “Quartiere all'italiana”, *Domus*, No. 293, Milano, Editoriale Domus, 1954.
- 7 From the second dossier.
- 8 Pier Paolo Pasolini, *Una vita violenta*, Milano, Garzanti, 1959, 184-185.
- 9 Ludovico Quaroni (1911-1987) and Mario Ridolfi, with others.
- 10 Mario De Renzi, Saverio Muratori (1910-1973), Mario Paniconi (1904-1973), Giulio Pediconi (1906-1999), Fernando Puccioni (1907-1990).
- 11 Franco Albini, Ignazio Gardella, Gianni Albricci (1916-2001), Enrico Castiglioni (1914-2000), Ludovico Barbiano di Belgiojoso (1909-2004), Enrico Peressutti (1908-1976), Ernesto Nathan Rogers (1909-1969).
- 12 Luigi Figini, Gino Pollini, Gio Ponti, Piero Bottoni (1903-1973), Paolo Chessa (1922-1981), with others.
- 13 Luigi Carlo Daneri, Luciano Grossi Bianchi (1922-2013), Giulio Zappa (1895-1989).
- 14 Luigi Carlo Daneri, Eugenio Fuselli (1903-2003), Claudio Andreani (1914-2005), Robaldo Morozzo della Rocca (1904-1993), with others.
- 15 Enrico Mandolesi with others.
- 16 Mario Fiorentino, Giulio De Luca (1912-2004), Giulio Sterbini (1912-1987), with others.

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Duarte Nuno Simões and Maria João Cardoso, linear housing buildings, Telheiras, Lisbon, Portugal, 1977. © Ana Tostões, 2021.

Large-scale housing projects in Lisbon: *Olivais and Telheiras*

BY ANA TOSTÕES AND ZARA FERREIRA

The neighborhoods of *Olivais Norte* (1960), *Olivais Sul* (1963) and *Telheiras Sul* (1974) are paradigmatic examples of the Portuguese State's response to the housing shortage that was acknowledged in Lisbon, in the period of the post-wwii. Featuring a varied catalogue of architectural trends, this series of projects demonstrated extensive structural, formal, and spatial experimentation that revealed the concerns and quest by their designers to respond to the need for "housing for the greatest number". What all three projects shared was that they were large scale, publicly financed, started out with similar programs, and that various architectural teams were involved in each of them. The fact that they succeeded one another chronologically enables a critical reading to be made of the evolving interpretation of the Modern Movement in Lisbon, and the pursuit of modernity as an attitude that valued universality, rationality, and a fair response to new social orders.

Introduction

The Portuguese dictatorship that survived the end of wwii¹ – the *Estado Novo* (1933-1974), led by António de Oliveira Salazar (1889-1970) – was forced to carry out "cosmetic operations, with the adoption (...) of some democratic mannerisms."² In terms of architecture and urbanism, this translated into accepting projects that, in former years, would have been rejected. Even though Salazar did not like these projects, there was an overarching idea that Lisbon had to be a modern city, that it to be in line with what was most innovative in Europe.³ Swayed by the climate of challenging the regime and inspired by visits to Welfare State developments in Holland, England, France and Nordic countries, the Portuguese architects who gathered at the 1st *National Congress of Architecture* (1948), appealed for industrialization, and their involvement in regional planning and in seeking solutions for the housing problem.⁴

Throughout the 1940s, the shortage of housing in the metropolitan area of Lisbon increased inordinately, leading to the appearance of illegal dwellings and shanty towns in many areas of the city: in 1959, there was an overall shortage of 140,000 homes.⁵ To solve this situation, the *Câmara Municipal de Lisboa* (CML) [Municipal Council of Lisbon] created the *Gabinete de Estudos Urbanos* (GEU) [Urban Studies Office] in 1954, and the *Gabinete Técnico de Habitação* (GTH) [Technical Department of Housing] in 1960, to build new housing with affordable rents for low-income households, co-funded by the State.⁶ In 1959, the Decree-Law 42454 determined that the shortage should be resolved by providing a ratio of 70% social housing to 30% at market rents. Within the first group, 4 categories were identified (40% I, 30% II, 20% III, and 10% IV) according to household rent, in an effort to foster social diversity.

It was an era for rethinking the traditional city. The idea of an "integrated plan" became prevalent, extending the concept of housing to a full and balanced quality of life.

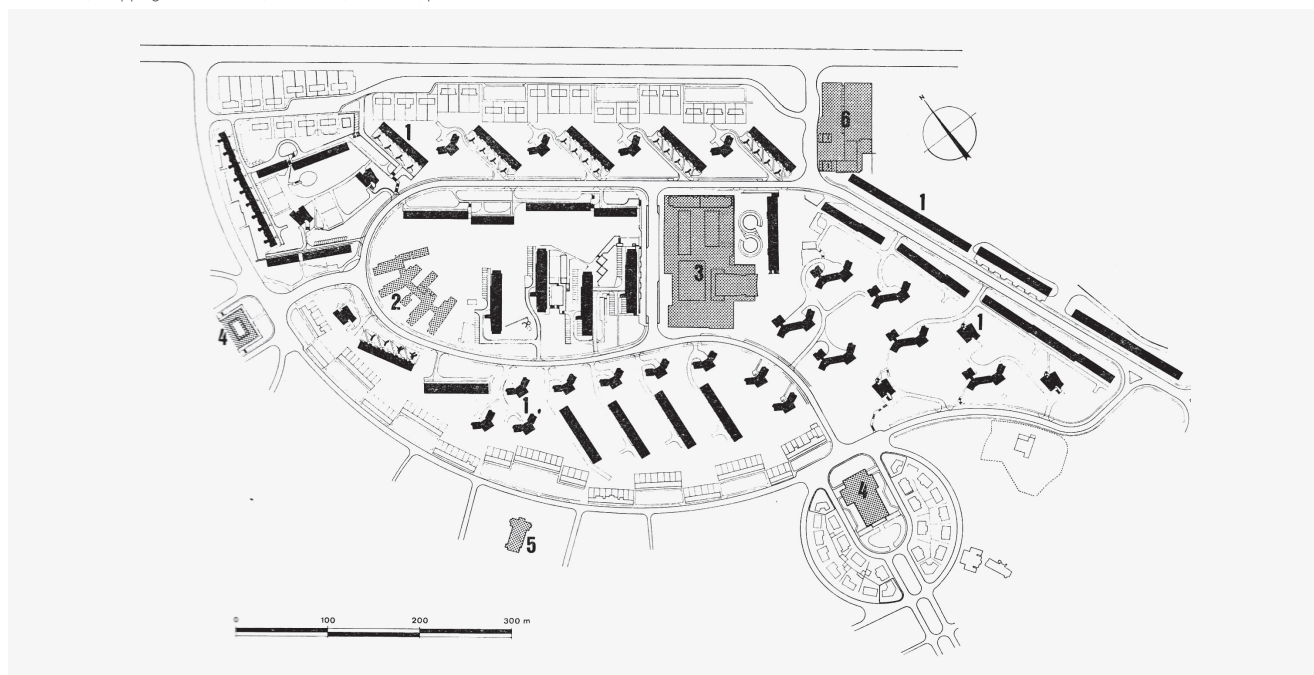
Housing implied not only "the dwellings", but everything else involved with human life in an urban context. At long last, the ethical dimension of the Modern Movement was accepted on a large scale in the Portuguese capital, and the development of habitat for the greatest number could finally be undertaken by socially-aware architects.⁷

Notable among the action undertaken were the neighborhoods of *Olivais Norte* (GEU, Guimarães Lobato, Sommer Ribeiro, and Pedro Falcão e Cunha, 1960-1972), *Olivais Sul* (GTH, José Rafael Botelho and Carlos Duarte, 1963-1972) and *Chelas* (GTH, José Rafael Botelho, Francisco da Silva Dias, João Reis Machado, Alfredo Silva Gomes, Luís Vassalo Rosa e Carlos Worm, 1964).⁸ Covering more than 700 hectares (ha), they provided decent housing for around 100,000 inhabitants. Because of their size, their role in the city's plans for expansion eastward, on land bordering the city, and because the architectural design of the various buildings and facilities were entrusted to different teams of professionals, these neighborhoods provided unprecedented conditions for exploring modern planning in Portugal and made the GTH a laboratory for urban and housing development.

Olivais Norte, the radicalism of the Athens Charter tempered by the contestation of the International Style

The first realization in Lisbon of a large-scale housing plan designed in a truly modern way.⁹

Olivais Norte, in Lisbon, marked a break with the traditional urbanism formed by a system of streets and urban blocks, and the adoption of fundamental principles of the Athens Charter: the urban structure was based on a rational occupation of the site marked by the isolated insertion of



residential buildings, subject to the criteria of solar exposure and ventilation, in an open landscaped space.¹⁰ The circulation spaces formed a hierarchical system with a clear differentiation between the traffic and pedestrian circulation networks, with a road layout independent of the buildings' orientation. Conceived as a neighborhood unit, the facilities supporting the housing, of a social nature (commerce, culture, and recreation), constituted a nucleus in a civic-commercial center. School groupings were located to never be further than 250 meters (m) from the housing.

Exploring the linear, block and tower typologies, the solutions presented were divided into two scales of intervention determined by social categories: the higher categories (III and IV) were given taller buildings (8 and 12 floors) and the lower categories (I and II) lower buildings (4 floors), avoiding the need of installing an elevator that makes construction more expensive. The tallest buildings were arranged next to the civic-commercial center and the primary school, in the highest and most central area of the urban-cell, oriented along Cartesian axes and resembling a kind of acropolis. The lower buildings, with greater repetition of type, and more varied orientation, were dispersed around the periphery in order to follow the terrain, following a *plan masse* logic. As a belated application of the principles of the Athens Charter, the plan reflected post-war tendencies, notably the British new town construction program.¹¹

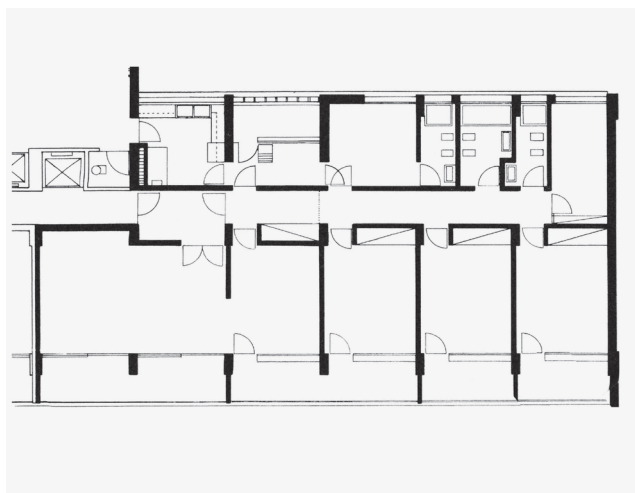
The buildings intended for the higher categories¹², with a more imposing volumetric presence, embodied rationalist devices in a more pronounced way, paradigmatic of the typical modern housing block: the use of *pilotis* on a broad platform articulating accesses, the expressed modulation of the structure in the elevations, the plastic exaltation of

vertical communications, the shared terraced roof, generous windows, and the wall-to-wall balconies. At the same time, and paradoxically – given that residents still lived under a dictatorial regime – the rooms made a clear distinction between family and servant areas (including a room and bathroom for the maid), with independent access doors.

In the buildings for the lower categories,¹³ their considerably smaller areas and lower quality finishes contrasted with their more varied internal layouts, with solutions that enabled future adaptation, and that directly connected the living room and kitchen, promoting greater spatial fluidity and family communication. More organic alternatives were explored, some reminiscent of Italian neo-realist precedents, with exposed brick, projecting balconies, sloping roofs, and plans renouncing orthogonality in an effort to promote more varied ways of living. The tower by Nuno Teotónio Pereira (1922-2016), António Pinto Freitas (1925-2014) and Nuno Portas (1934-),¹⁴ which, in 1967, won the Valmor Prize, awarded for the first time to a building that was social in character and budget, was the example that took this exploration the furthest. In its design, the parts of the tower were detached and inflected to provide a more favorable orientation for the apartments, and to create a naturally ventilated and lit interstitial access space, with a character of permanence. Featuring a fixed bench on each level, traditional Portuguese paving, and occasional artworks, the design sought to overcome the isolation between neighbors that a tower typology can engender and provide social housing with dignity. This logic of social interaction continued in the apartment interiors, whose social areas could be used fluidly and flexibly.



02 Abel Manta, housing block (category IV), *Olivais Norte*, Lisbon, Portugal, 1960.
© Armando Maia Serôdio, 1963, PT/AMLSB/CMLSB/PCSP/004/SER/013043.



03 Abel Manta, housing block (category IV), *Olivais Norte*, Lisbon, Portugal, 1960.
© *GTH Boletim*, Vol. 2, No. 15, 1968.



04 Nuno Teotónio Pereira, António Pinto Freitas and Nuno Portas, housing tower (category II), *Olivais Norte*, Lisbon, Portugal, 1958. © Armando Maia Serôdio, 1968, PT/AMLSB/CMLSB/PCSP/004/SER/S01382.



05 Nuno Teotónio Pereira, António Pinto Freitas and Nuno Portas, housing tower (category II), *Olivais Norte*, Lisbon, Portugal, 1958. © *GTH Boletim*, Vol. 2, No. 15, 1968.

- 06 José Rafael Botelho and Carlos Duarte, *Olivais Sul*, Lisbon, Portugal, 1963. General plan. 1) Primary school, 2) elementary school, 3) secondary commercial centers, 4) church, 5) *contador-mor*, 6) sports area, 7) cemetery, 8) industrial area, 9) Lisbon Water Company, 10) social medical center, 11) nursery/kindergarten, 12) parks. © GTH Boletim, Vol. 3, No. 20, 1971.



Olivais Norte, with 1,889 houses for 8,500 inhabitants on 40 ha, was conceived as a smaller scale trial for the major operation that would follow it to the south, the neighborhood of *Olivais Sul*, providing 7,996 dwellings for 38,250 inhabitants on 186 ha.

***Olivais Sul*, the return of the garden-city new-town version**

*Olivais-Sul constituted the largest and most ambitious housing development created among us.*¹⁵

Due to its size, the planning of *Olivais Sul* was divided into 4 basic urban scales, based on the number of inhabitants: urban fabric (38,400-48,000 inhabitants), urban cell (9,600-12,000 inhabitants), neighborhood unit (4,000-5,800 inhabitants), and residential group (1,200-2,400 inhabitants). The residential groups were clustered into neighborhood units that were arranged around a local civic-commercial center, together constituting an urban cell. While the main amenities of social life (civic-commercial centers, health facilities, parish centers, sports facilities, and urban parks) were designed on the perimeter of the cells, concentrated along a main vector running through the center of the urban fabric, schools (pre-school and primary) were sited in the central zones of the urban cells (serving a radius of 150-200 m and 400 m, respectively).

Commercial services were planned on 3 levels: the first, to satisfy daily needs, and consisting of nuclei of 10-15 stores, were designed to serve inhabitants within a radius of 150-200 m, with some occupying the ground floor of residential buildings; the second, intended for weekly/monthly purchases, were located in the civic-commercial centers of the cells, with 40-50 establishments, serving a 400 m radius; and the third, made up of commerce and services for occasional use, were incorporated in the main civic-commercial center, serving a 1,000 m radius.

In addition to *Olivais Norte* (subsequently known as cell A), 6 further cells were defined: four mainly intended for housing (B, C, D, E), another incorporating a housing nucleus for rehousing, and largely occupied by a cemetery (F), and another intended to be entirely occupied by the main civic-commercial center (G) at the core of the urban fabric, where it was planned to include cultural and recreational social amenities, a municipal library, museum, art galleries, cine-theater, cinemas and stores.

The vehicle and pedestrian circulation networks remained independent, and the buildings were sited organically, as the topography dictated – the towers were placed at the highest points while, on the slopes, the buildings were sited to follow the terrain – on an immense green space that played a fundamental role from a hygienic, sanitary, recreational, and psychological point of view. The plan sought to establish a green curtain that would form a barrier between

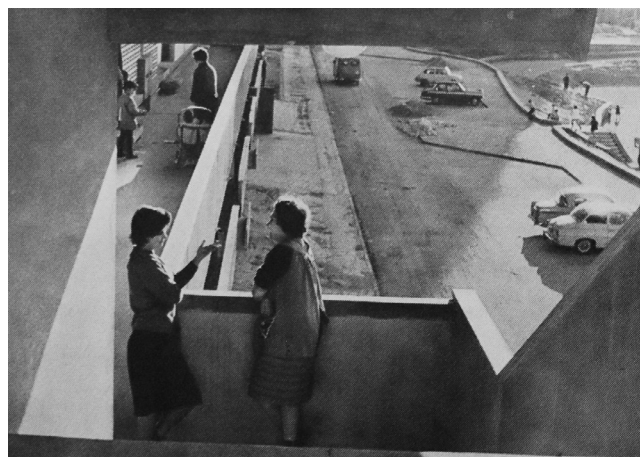
the industrial zone and housing areas, able to prevent the entry of polluted air from nearby industries, and protect the inhabited areas from the harsh prevailing winds and from excessive heat in the summer months, through the propagation of vegetation that could improve the local micro-climate.

In order to avoid creating socially segregated areas, the 4 categories established by Decree-Law 42454, were included in every cell. However, there was an attempt to define a socially homogeneous spatial system through the grouping of nuclei of similar categories, leaving schools and civic centers to articulate social heterogeneity, according to principles implicit in the concept of neighborhood unit. This was the basic concept of post-war British urbanism, which relied on primary schools becoming a center to foster civic activity that, through a series of extra-curricular services (gymnasium, library, meeting rooms, and event rooms) would encourage a fluid boundary between the population and the school community. Additionally, with regard to the younger population, it was intended to create outdoor spaces that provided educational experiences, inspired by the Swiss Robinson Crusoe parks, through the inclusion of facilities suitable for cultural and craft activities. The principle of combining art and architecture, which can be seen in the tower by Nuno Teotónio Pereira and António Pinto Freitas in *Olivais Norte*, was transposed, in *Olivais Sul*, to the level of public space, and assumed a scale unprecedented in Portugal, reflecting a belief in the transforming power of art in society.¹⁶

Thus, a hierarchical cellular structure was created that developed the tradition of garden cities and departed from the rationalist mainstream of the CIAMs [*Congrès Internationaux d'Architecture Moderne*] and the Athens



07 Costa Martins, Hernâni Gandra and Nevez Galhoz, housing block, *Olivais Sul*, Lisbon, Portugal, 1963. © Augusto de Jesus Fernandes, 1966, PT/AMLSB/CMLS-BAH/PCSP/004/AJF/001817.



08 Costa Martins, Hernâni Gandra and Nevez Galhoz, housing block, *Olivais Sul*, Lisbon, Portugal, 1963. © *Arquitectura*, No. 97, 1967.

Charter. As Nuno Portas argues, “if the plan for *Olivais Norte* resembled a timeless immense *siedlung* of parallel blocks interspersed by towers – unity imposed on diversity – that of *Olivais Sul* was already cellular, (...) facilitating the (divergent) incursions into urban design itself by the development’s designers – diversity imposing itself to unity.”¹⁷

With great autonomy, the 26 teams¹⁸ who undertook the architectural designs had the opportunity to explore programmatic innovations and new ways of living, adapting the homes to manners and customs within the context of the minimal areas and limited budgets of social housing.¹⁹

Generally speaking, two different urban approaches coexisted: one more tied to rationalist principles, and another that sought to reinvent traditional images with the aim of fostering neighborhood relations. The first approach is exemplified by the buildings of Vítor Figueiredo (1929-2004) and Costa Lobo (1929-2013), and the team formed by Costa Martins (1922-1996), Hernâni Gandra (1914-1988) and Nevez Galhoz. Thought as autonomous buildings, easily repeatable in other places, they replaced a relationship with the immediate exterior with the intention of transporting social relationships to the heights, through access galleries that recall the celebrated “streets-in-the-air” of Alison and Peter Smithson. However, in *Olivais Sul*, the second route was primarily pursued, through the creation of outdoor living spaces that could function as an extension of the home, places for meeting and appropriation, with the aim of satisfying a need for participative civic involvement and a social life after work. Particular efforts were made to satisfy the needs of residential groups in which the lower categories predominated, whose residents, due to traditional cultural habits, sedentary lifestyles imposed by their own economic condition, and the exiguity of housing, would most appreciate them. As Carlos Duarte explained,²⁰ in a search for “neighborhood life”, which meant streets, paths, intimate town squares and plazas, places traditionally found in a city of commerce, meetings, and gatherings, architects attempted to recreate traditional images of sociability and the neighborhood and, in the architecture, sought to incorporate features of Mediterranean life, such as balconies

and washing lines facing the street. The developments designed by the teams of 1) Vasco Croft de Moura, Justino Morais (1928-2011), Joaquim Cadima (1925-?) and João Matoso; 2) Bartolomeu Costa Cabral (1929-) and Nuno Portas; 3) Chorão Ramalho (1914-2002), Santiago Pinto and Nuno Simões; and 4) Nuno Teotónio Pereira, Freitas Leal (1927-2018), Silva Gomes and Correia Rebelo (1923-2006), were paradigmatic of this approach. In different ways and to varying extents, solar orientation ceased to be a primary factor, while the relationship between the interior of the dwelling and the public outdoor space was given a pivotal role. This resulted from the articulation of the various buildings – even in the case of towers – which were arranged in different shapes and configurations to define squares, plazas, and gardens of predominately irregular geometry, in the spaces between them. At the same time, the volumetric modulation of the façades was intended to avoid “the monotony of continuous façades and blind gables, often observed in buildings with limited budgets.”²¹ Through the use of exposed brick and sloped tiled roofs, “building traditions and craftsmanship were evoked, (...) an unusual option for an architecture rooted in modernism,”²² which sought to respond to the budget, to thermal comfort, to durability, and to establishing visual continuity between the façades and the urban space. As Nuno Portas explains,²³ these concerns had affinities with the experiences of the Italian INA-Casa neighborhoods (Ludovico Quaroni (1911-1987), Carlo Aymonino (1926-2010), Mario Ridolfi (1904-1984), Giancarlo De Carlo (1919-2005), and Mario Fiorentino (1918-1982)) and with the work of Francisco Sáenz de Oiza (1918-2000) and his disciples in the social housing developments of Madrid.

In terms of the internal organization of the apartments, the most modern solutions were found in the buildings intended for the lowest categories. The buildings provided for the wealthier families, although they no longer had a service area independent from the family area, or spaces for servants, remained closely tied to a logic of compartmented space; a “Babylon of house parts”²⁴ inherited from the past. In buildings for the poorer families, it was more common to find interior layouts that prioritized communal life, through the design of fluid spaces, that communicated freely, and promoted an idea of simultaneity and versatility of uses and circulation. The grouping formed by the living room, kitchen, often a balcony, and sometimes the children’s room, functioned as a permeable arrangement, promoting a communal experience. Also due to limited space, it was common for the kitchen and living room to share the same space. The balcony was often seen as a living space or as a link between different spaces. Some architects even dared to design small spaces with no particular designated function, because they considered it essential that residents were able to actively participate in and, thereby, appropriate the space, as Henri Lefebvre (1901-1991) so well identified in his *Le droit à la Ville* (1968).

Olivais became a reference for its capacity to innovate in industrialized construction and developing architectural typologies in line with new standards of comfort and social

engagement, and for its ability to act as a vehicle for new urban ideas.

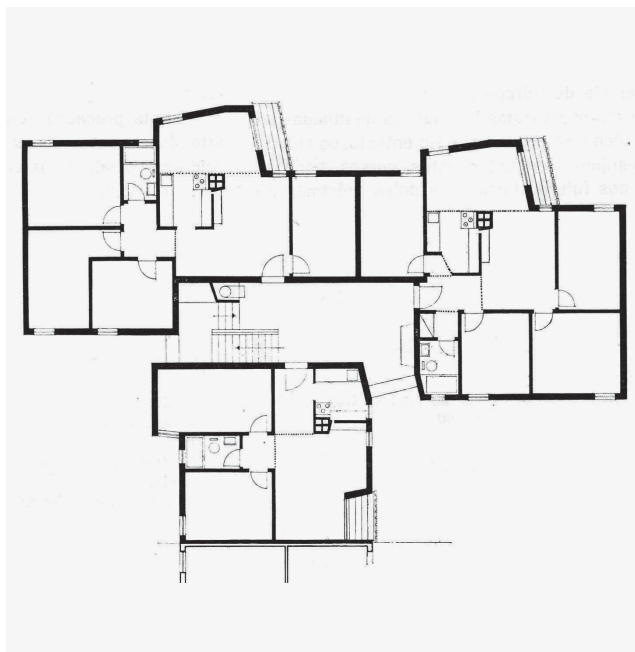
As is often the case in the history of social housing developments, vicissitudes of various kinds led to the appearance of some social stigmas regarding the *Olivais* neighborhood. These originated from the fact that those who financed and managed the construction of the housing were usually different from those who did so for the complementary facilities, so that many of the facilities were not built (the main civic center was only opened in 1995). This led to a lack of services and commerce that inevitably generated a perception of the neighborhood as a dormitory town. Among the most common criticisms raised were the lack of unity and formal dispersion of the groups of buildings, due to the disparate design teams and interpretations: “there are areas that are nothing more than a series of blocks with no sense of the whole; other areas that practically form more or less introverted blocks; and series of towers that, because they are incapable of punctuating the overall agglomeration and are arbitrarily varied, become dispersive elements, all within a motley array of architectural and constructional traits,”²⁵ “a neighborhood made up of smaller neighborhoods.” On the other hand, this idea made evident its distancing from the *plan masse* associated with modern rationalist planning, and seemed to be an important factor for its architects, and not for residents. As Carlos Duarte explains, the residential groups were large enough to create their own image, which is only lost when *Olivais* is seen by plane or car. In truth, what seems more important was the attention paid to the relationship between buildings and landscape, in a way that it rarely feels like mass housing. Furthermore, as Paulo Varela Gomes (1952-2016) argues,²⁶ the excellent and varied architecture of the development, as a counterpoint to the monotonous and banal architecture so commonly blamed for the failure of mass housing developments, created strong images that helped people to identify with the place they lived in.

The social distribution of the area led to the formation of a few ghettos which people gave names to, such as the “*Bairro dos Índios*” [Indians neighborhood], or the “*Aldeia dos Macacos*” [Monkeys neighborhood]. Many social studies were undertaken at the time, inspired by the work of Chombart de Lauwe (1913-1998) in France, studying the environment and way of life of the working classes, which recommended open methodologies, as opposed to the dogmatic solutions of “storing the population” that arose from the orthodox spirit of the CIAMS.²⁷ Despite this, in reality, many people were placed in apartments, irrespective of their wishes, and with no choice in the type of interior layout. Some conflicts, resulting from cultural differences in ways of living and inhabiting spaces, led to the stigmatization of the development. In the first few decades, some considered it an unsafe neighborhood, a criticism mainly levelled by people who did not live there. Today, on the other hand, it is common to hear reports from adults, who as children, played with children from all the neighborhoods, without encountering prejudice and with no social conflicts.²⁸ Time has passed, trees have

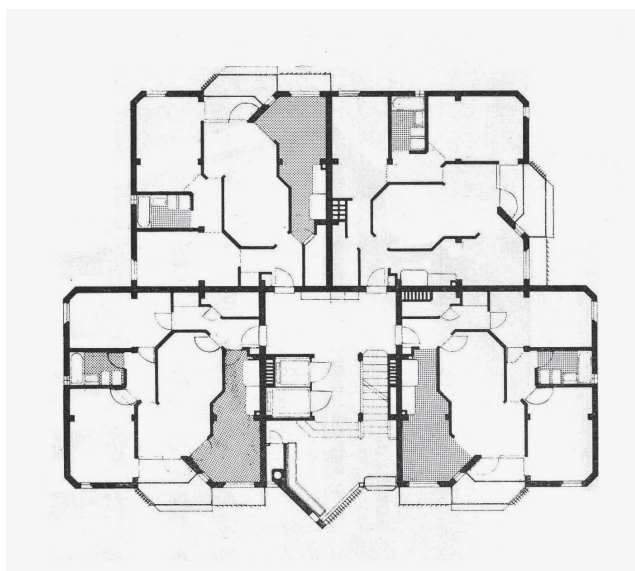
- 09 Vasco Croft de Moura, Justino Morais, Joaquim Cadima and João Matoso, linear housing buildings (category I), *Olivais Sul*, Lisbon, Portugal, 1963. © Arnaldo Madureira, 1965, PT/AMLSB/CMLSB/PCSP/004/ARM/004179.



- 10 Vasco Croft de Moura, Justino Morais, Joaquim Cadima and João Matoso, linear housing buildings (category I), *Olivais Sul*, Lisbon, Portugal, 1963. © *GTH Boletim*, Vol. 3, No. 20, 1971.



- 11 Nuno Portas and Bartolomeu Costa Cabral, linear housing (category II), *Olivais Sul*, Lisbon, Portugal, 1963. © *GTH Boletim*, Vol. 3, No. 20, 1971.



- 12 Nuno Portas and Bartolomeu Costa Cabral, tower (category II), *Olivais Sul*, Lisbon, Portugal, 1963. © *GTH Boletim*, Vol. 3, No. 20, 1971.

grown, and the children of the angry teenagers of the 1960s have already grown up in a stable part of the city that suits them, rooted in its culture. Nowadays, the stronger connection that the neighborhood has with the rest of the city is also one of its stabilizing factors, developed mainly with the Urbanization Plan for the Intervention Zone for *Expo 98*, and with the creation of the *Olivais* metro station, in the same year.

What has turned out to be more decisive in making the development obsolete in some ways, was the technological revolution and the democratization of the car and home appliances. The car invasion led to the gradual

disappearance of green spaces, transformed into parking areas, and the arrival of washing machines and refrigerators transformed balconies into enclosed utility rooms to house them.

Initiatives such as the *Associação Amigos de Olivais* [*Olivais Friends Association*]²⁹ and publications such as *Memórias de um Condomínio*³⁰ [*Memories from a Condominium*] (2010), celebrating 40 years of intense and uninterrupted activity in the condominium room of a building in *Olivais Sul*, by residents with common interests and affinities, reveal not only a strong sense of belonging and community, but also great satisfaction with living in the neighborhood.



***Telheiras Sul*, the synthesis**

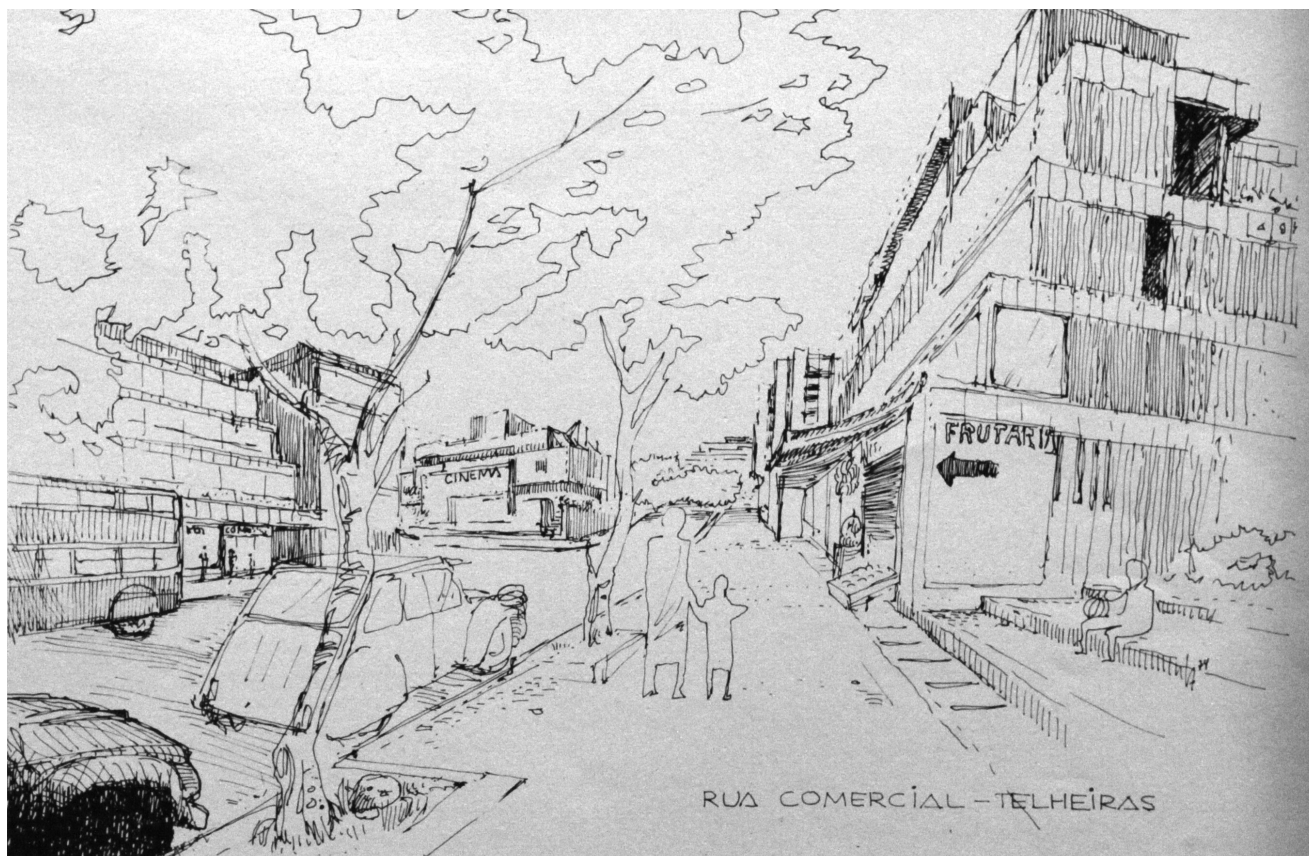
This was an operation whose results seemed to be qualitatively superior, guaranteeing its insertion in the context of the city without the inconveniences of the grands ensembles of the isolated peripheries.³¹

In 1971, efforts were made to create, within the ambit of the municipality, a business structure to tackle the housing shortage for the urban middle class, since the GTH was primarily focused on the more disadvantaged.³² Thus, the *Empresa Pública de Urbanização de Lisboa* (EPUL) [Public Company for Urban Development of Lisbon] was created, with the objective of assisting municipal action to design and implement urban development and housing projects in the city of Lisbon.

The first plan, commissioned from a French team (OTAM-Interlande, coordinated by Giles O'Calaghan, 1969 and 1972), was handed over to Pedro Vieira de Almeida (1933-2011) with Augusto Pita (1941-), who carried on a new concept

linked with the garden city legacy: the *Plano de Pormenor de Telheiras* (PPT) [Detailed Plan for Telheiras] approved by the CML in 1974. Occupying an area of 63,5 ha, the plan included 3,300 dwellings for 14,400 inhabitants.

The conceptual universe of *Telheiras Sul*, although based on a modern matrix, proceeds to its critical reinterpretation. The idea of the street as the conduit of the urban fabric was restored, the building footprints once again became the defining element of the street-front, and the residential buildings – mostly organized in linear or perimeter blocks, never exceeding 8 floors – were divided into residential blocks or cells. However, the streets were not completely consolidated, the blocks were not closed, and the squares were not perceived as such, because they did not acquire monumental proportions. The egalitarian and open notion underlying modern man³³ was maintained, through a more fluid understanding, as recommended by Jane Jacobs (1916-2006)³⁴: the interiors of the blocks were understood as semi-public spaces to support the community (day-care centers, schools, public services, and daily



commerce); the ground floors of buildings along main roads were reserved for non-housing uses, fostering an understanding of a mixed city, as opposed to the polarization practiced in *Olivais*; a network of pedestrian paths traversed the blocks, interconnected, when possible, with green spaces and enhanced by facilities for collective use; the relationship between construction and public space approaches the human scale.

Approaching the prospect of Christopher Alexander (1936-)³⁵ and, thus, representing an approach that was completely new in the expansions of Lisbon up till then, the PPT decided to anchor its development to the renovation of the old *Telheiras* nucleus, considering it the embryo of life already existing in the area. It functioned as a backbone for the entire neighborhood, containing 700 m of pedestrianized streets, interspersed by social facilities and preserved urban elements (a convent, mill, pump, wells, water tanks, benches, etc.). This option was anchored in environmentalist and historicist arguments that had begun, at the time, to make their way into ideologies of urbanism.

Efforts were made to define a strong urban image in which the influence of Kevin Lynch (1918-1984) and Gordon Cullen (1914-1994)³⁶ can be found. Through a “system of spatial notation”, volumetric, spatial, and usage intentions were defined for every building, in terms of its envelope and relationship with the public space, with the aim of introducing landmarks and strong identity to the urban space. The layout and outline of the cells and

15 Leopoldo Criner, linear housing buildings, *Telheiras*, Lisbon, Portugal, 1977. © *Arquitectura*, No. 137, 1980.



buildings were guided by this system, which identified notable points in the ends and connections between buildings, zones of compression and decompression, barriers and crossings. They sought to punctuate pathways with points of interest or variation.

Unlike *Olivais*, the plan intended to demarcate the categories of housing by the quality of finishes, rather than areas. However, following new regulations implemented in 1978,³⁷ in the aftermath of the Revolution of 25th April (1974)³⁸, the housing categories were replaced by a single category, to promote equality and avoid social segregation. In the context of an era reaching the 21st century, this plan took care to provide housing appropriate for disabled and elderly people, through differently serviced and specialized structures, and housing for young and single people, two realities that were not found in *Olivais*, where the apartments were clearly designed for families, age not being a parameter, and access to buildings and apartments on routes that often included stairs, were not designed for people with reduced mobility.

What is most extraordinary about *Telheiras* is that, despite having a far greater appreciation of traditional urbanism than in *Olivais*, some of the most daring Modern Movement solutions can be found there. The dialogue between the two ideologies produced a hybrid outcome. In contrast with *Olivais*, most of the buildings in linear blocks were flanked by exterior access galleries, but unlike the repetition on every floor commonly found in the typical housing block, the access galleries were only located every two, or three floors.³⁹ This occurred either because there were duplex apartments inside, or because, the logic of familiar pathways through this urban fabric, of corners, nooks, and surprises, was elevated, via secondary routes originating from the main galleries, which led to the front doors of the apartments, grouped on landings of a more intimate character. Sometimes, the sculptural celebration of vertical communication were expressed through elevator towers, which included a window allowing a visual promenade of the surrounding park. The towers⁴⁰ were set on *pilotis*. Research was undertaken into *low-rise high-density*.⁴¹ Inside the apartments, one can find the convenient modern solution of the kitchen hatch which was rarely employed in *Olivais*.

There are those who consider that *Telheiras* represents an acknowledgement of averageness, what the Swedes call the spirit of *lagom*, and that none of the buildings, considered individually, are significant for the contemporary history of Portuguese architecture.⁴² However, the best assessment of the success of a neighborhood is the one made by its residents, and in this case, it is difficult to deny its achievement: 85% of residents are satisfied or very satisfied with the neighborhood, 77% considers it the best neighborhood in Lisbon to live in.⁴³ Among the reasons most commonly invoked,⁴⁴ are the pleasant and enjoyable urban ambience resulting from the “volume and aesthetics” of the buildings, the combination of housing and services, the presence of green spaces and public areas for socializing and recreation, the coexistence of old and new areas, the quality of the facilities (providing education from nursery

school to 12th grade), its ease of access, augmented by a good public transport infrastructure that was consolidated in 2002 with the arrival of the metro, and its ease of parking (the PPT envisaged there would be underground parking in each cell, although only half was built). But the most commonly mentioned factor is the quality and quantity of street commerce (restaurants, cafés, bars, bakeries, butchers, fishmongers, hypermarkets, etc.). In fact, the distribution of facilities and services, with variations in intensity and use in the spaces throughout the day, mean that *Telheiras* is a neighborhood with none of the dead or residual spaces that can be found in many areas of *Olivais*.

The relative socio-cultural homogeneity of *Telheiras* has also contributed to the development of a strong local identity and a resilient community – “those who live in the *Telheiras* neighborhood don’t want to leave. You change your home, but you don’t change your neighborhood.”⁴⁵ It so happens that, due to its proximity to several universities [*Cidade Universitária*] and the moderate prices offered at its launch by the EPUL, *Telheiras* attracted young graduates who settled and never left the neighborhood.⁴⁶ The idea, which began to circulate in the late 1980s, that *Telheiras* was the place in the metropolitan area of Lisbon with the highest level of education, has remained true to this day,⁴⁷ being known as the “neighborhood of doctors.”

The fact that 88% of the apartments are owned⁴⁸ and not rented is symptomatic of the residents’ satisfaction with life in the neighborhood, but also of their purchasing power (reinforced by the incentive to credit created in the late 1970s). It should be noted that a sense of self-preservation is necessarily linked to a culture of ownership: residents are prepared to work on the conservation of something they are proud to own. This culture of participation can be verified by the activity of the Residents’ Association (ART),⁴⁹ created in 1988, with the aim of promoting the creation of infrastructure that directly supports the resident community (gardens, playgrounds, pedestrian walkways, public lighting, security, urban furniture, etc.) and through initiatives carried out to promote the cultural, social, civic and physical improvement for residents, recently reinforced by environmental concerns. Taken as a whole, the activities undertaken by the ART contribute to consolidating a community living, promoted by mobilizing and active social resources.

Conclusion

Olivais and *Telheiras* represent important moments in the history of the planned expansion of the city of Lisbon. This is evident in the way it managed to surpass the intermittent and punctual architectural housing production, promoting solutions to the housing question at the city scale. The proposals succeeded one another in time, inserted in an evolutionary path of the conception of the western city, from the rejection of the traditional city lexicon, to the reconciliation with history; from an initial period when society was divided between two extremes – a wealthy social group that held power, and an extremely poor, laboring or rural, working population – to a time when the middle class arose, alongside and in step with the democratization



16 Duarte Nuno Simões and Maria João Cardoso, linear housing buildings, *Telheiras*, Lisbon, Portugal, 1977. © Ana Tostões, 2021.



17 Rodrigo Rau, linear housing buildings, *Telheiras*, Lisbon, Portugal, 1985. © Ana Tostões, 2021.



18 Rodrigo Rau, linear housing buildings, *Telheiras*, Lisbon, Portugal, 1985. © Ana Tostões, 2021.



19 *Telheiras Sul*, Lisbon, Portugal. © Ana Tostões, 2021.



20 *Telheiras Sul*, Lisbon, Portugal. © Ana Tostões, 2021.

of access to higher education.

Bringing together a curious catalogue of architectural tendencies, the series of projects demonstrated tremendous structural, formal, and spatial experimentation, which revealed the architects' concerns and search for "housing for the greatest number." Although the buildings were not pioneering in introducing formal and architectural vocabularies, *Olivais* and *Telheiras* were paradigmatic cases of the search for modernity in building design, as an attitude that values universality, rationality, and a fair and effective response to new social and technological orders.

Olivais and *Telheiras* have been assimilated and, today, are a consolidated part of the city. Designed and occupied in just over thirty years, their consolidation as urban territories, developing their own character and a recognizable identity in such short time, is evidence of their coherent conceptual frameworks. Regardless of the differences in their intended objectives, the models that oriented each of the interventions, the circumstantial frameworks within which they were implemented, and their ability to embody a spirit of place – in contrast with the anonymity of many of the mass housing developments commonly located on the outskirts of large cities – are, in themselves, a sign of success.

Incorporated in the broader ideology that we call the Modern Movement, *Olivais* and *Telheiras* constituted important steps in the highly-complex path of producing the city, through a humanized approach to architecture and urbanism.

Notes

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- 1 With the advent of the democracies and an opposition revived by the defeat of fascism in Europe, the end of the war brought a period of cultural agitation that made the end of the 1940s particularly significant for the reflexion on the Modern Movement in Portugal. In the hostile political context of the regime, the notion of the values of ethical and cultural awareness disseminated by the neo-realist group, which was followed by the foundation of the architects' organisations ICAT – *Iniciativas Culturais Arte e Técnica* [Cultural Initiatives Art and Technique] (Lisbon, 1946) and ODAM – *Organização dos Arquitectos Modernos* [Organization of Modern Architects] (Oporto, 1947), was crucial in the understanding of both the architecture that was going to be produced in the post-war period in Portugal and the ideological weapons used in the assertion of the profession's social dimension.
- 2 Nuno Teotónio Pereira, "Que fazer com estes 50 anos?", in Ana Tostões (coord.), *1º Congresso de Arquitectura* [edição fac-similada], Lisboa, Ordem dos Arquitectos, 44.
- 3 Carlos Duarte, "Memórias de Olivais-Sul", *Jornal Arquitectos*, No. 204, 2002, 53.
- 4 Ana Tostões, "Portugal, the Modern Rupture: The Fifties 'Green Years'", in *Proceedings of the Fifth International docomomo Conference*, Stockholm, 1998. An analysis of the papers presented gives us an idea of the dominant themes, the question of the "utopia of architecture transforming life and society" being the most common theme raised by the 35 theses. For the younger architects, the transformation of the world with the participation and the leadership of architects now seemed possible. Democratization was reaching the architecture that "must be within the reach of the greatest number possible." It was the emergence of a "New Humanism (...)" that expressed the concern of men to solve the problems of their times and create conditions to

erect the cathedrals of modern times, rejecting the past that means routine, caste privilege or class prejudices." Architects undertook to carry out "the sacred mission to build houses rationally so as to maintain the equilibrium of society, so the jubilant path proposed by the Charter of Athens is the only way to bring joy and optimism to man." The architect's new tasks seemed to know no bounds, because he was the "builder for men and the organisms that serve him; the solution to man's problems is in his hands." Architecture was seen in an eminently social role, embracing the classical domains of an architecture that could not now be limited to serving a privileged few, but the whole population (Arménio Losa, 1948), encompassing a whole world of forms from the intimacy of the bedroom to the layout of cities (Keil do Amaral, 1948).

- 5 In accordance with the Master Plan for the Urbanization of Lisbon 1959.
- 6 Rui Ramos, Virgílio Pereira, Marta Moreira, Sérgio Silva (ed.), *Contexto Programa Projeto: Arquitectura e Políticas Públicas de Habitação*, Porto, Faculdade de Arquitectura da Universidade do Porto, Research Project (FCT) Mapa da Habitação, 2019.
- 7 Ana Tostões, *A Idade Maior. Cultura e Tecnologia na Arquitectura Moderna Portuguesa*, Porto, FAUP Publicações, 2015.
- 8 *Chelas* is omitted from our study, as it never came to fruition in the way it was planned, due to the time taken by the CML to acquire the land needed, and to the land occupations that took place during the turbulent *Verão Quente* of 1975. On *Chelas*, see Teresa Heitor, "Revisiting Chelas: in search of the promised urbanness", *docomomo Journal* 55 – "Modern Lisbon", Lisboa, *docomomo International*, 2016, 58-65.
- 9 Leopoldo de Almeida, "Olivais-Norte, nota crítica", *Arquitectura*, No. 81, 1964, 12.
- 10 Ana Tostões, "Olivais Cidade Jardim", *Lx Metrópole – Vida Urbana*, No. 06, 2002, 24-25; Ana Tostões, João Caldas, "A Carta de Atenas e o espírito das New Towns na cidade portuguesa dos anos 50: o caso de Lisboa", in *9th International Planning History Conference. Planning Theories Between Atlantic and Mediterranean Cultures*, Helsinki, 2000; Tiago Cardoso de Oliveira, "A modernidade complexa dos bairros dos Olivais", *Cadernos do Arquivo Municipal*, 2nd serie, No. 12, 2019; Carolina Marques Chaves, "Olivais Norte e Olivais Sul. Desafios para uma conservação urbana integrada", *Seminário Internacional de Investigação em Urbanismo*, Lisboa, 2020.
- 11 Teresa Heitor identifies similarities with Harlow (1947), one of London's satellite towns, whose plan incorporated a paradigmatic hierarchical cellular structure, and with the Alton Estate, in Roehampton, London (London City Council, 1952 and 1955), whose articulation and synthesis between buildings and surrounding landscape was considered exemplary. For *Olivais Sul*, the proposals were augmented by features resulting from a revision of the concepts underlying the British new towns, for example, those introduced in the plan for Cumbernauld, in Scotland, in particular, the higher density of the residential areas and the structuring of the city around a large-scale civic center. Teresa Heitor, "A Expansão da Cidade para Oriente: Os Planos de Urbanização de Olivais e Chelas", in Maria Helena Barreiros, *Lisboa. Conhecer Pensar Fazer Cidade*, Lisboa, CML, 2001, 72-85.
- 12 Blocks designed by Artur Pires Martins and Cândido Palma de Melo (category III), and Abel Manta (category IV).
- 13 Linear housing by João B. Vasconcelos Esteves; Braula Reis; Braula Reis and João Matoso (category I); linear housing by Pedro Cid and Fernando Torres; and linear housing and towers by Nuno Teotónio Pereira and António Pinto Freitas (category II).
- 14 Ana Tostões, "Obra Aberta: entre experimentalismo e contexto, um sentido de escola", in Ana Tostões (ed.) *Arquitectura e Cidadania: atelier Nuno Teotónio Pereira*, Lisboa, Quimera, 2004.
- 15 *Arquitectura*, No. 127-128, 1973, 57.
- 16 Inês Marques, *Arte e habitação em Lisboa 1945-1965. Cruzamentos entre desenho urbano, arquitetura e arte pública*, PhD thesis, Barcelona, Universitat de Barcelona, 2010.
- 17 Nuno Portas, "A Habitação Colectiva nos Ateliers da Rua da Alegria", *Jornal Arquitectos*, No. 204, 2002, 49.
- 18 1) Costa Martins, Hernâni Gandra, Coutinho Raposo, and Neves Galho; 2) Jorge Ferreira Chaves, and Goulart Medeiros, 03)

- Eduardo Moreira Santos; 04) Manuel Arroyo Barreira; 05) Victor Figueiredo, and Vasco Lobo; 06) Vasco Croft, Justino Morais, and Joaquim Cadima (sometimes with João Matoso); 07) António de Azevedo Gomes, and Fernando Shiappa de Campos (sometimes with Silva Campos); 08) Mário Xavier Antunes; 09) Bartolomeu Costa Cabral, and Nuno Portas; 10) Leopoldo Leal; 11) Fernando Gomes da Silva, Octávio Rego Costa and Sebastião Alves Samfins; 12) Jorge Teixeira Viana; 13) Frederico George and Manuel Alzina de Menezes; 14) Duarte Castelo Branco and Rui Pimentel; 15) Calvet da Costa; 16) Manuel Laginha and Rui Saraiva; 17) Luís Xavier; 18) Amândio Amaral; 19) Manuel Mendes Tainha and Raul Hestnes Ferreira; 20) Raul Chorão Ramalho and Raúl Santiago Pinto (sometimes with Nuno Simões); 21) Duarte Nuno Simões and Marília Noura; 22) Fernando Torres, Palma de Melo, Pires Martins, and Matos Gomes; 23) A. Petersen, L. Sá Marques, and F. Fonseca; 24) Alberto Camacho, Formozinho Sanches, and António Neves; 25) António Freitas, Silva Gomes, João C. Rebelo, and Nuno Teotónio Pereira; 26) A. Silva Gomes and F. Ferreira dos Santos.
- 19 Ana Tostões, “Plano dos Olivais Sul”, in Ana Tostões, Annette Becker, Wilfried Wang, *Portugal: Arquitectura do Século XX*, München/New York/Frankfurt/Lisboa, Prestel/DAM/PF97, 1998, 245.
- 20 Carlos Duarte, *op. cit.* 53–58.
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Franz Amrhein, Walter Maria Förderer, Peter Steiger, *Avanchet-Parc*, Geneva, Switzerland, 1969-1977.
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***Avanchet-Parc* in Geneva: an experimental housing scheme, an exemplary complex**

BY FRANZ GRAF AND GIULIA MARINO

In the teeming context of the 1970s, the *Cité Avanchet-Parc* is an undeniably original achievement, representative of the approach – above all cultural – of a generation of architects who sought to experiment with new urban and architectural forms in response to current practice. The satellite precinct is also a sign of skillful construction, undoubtedly pioneering in the context of the 1970s and which is still today, half a century later, the essence of its relevance to the present. An exemplary experience, the *Cité Avanchet-Parc* today deserves renewed recognition.

“Humanizing architecture”: an experimental development

Completed in 1977, the *Cité Avanchet-Parc* in Geneva, is a housing scheme deeply rooted in the culture of its time. Assisted by Franz Amrhein (1929-2019), the architects Peter Steiger (1928-) and Walter Maria Förderer (1928-2006), both very active in the Swiss Werkbund when it was campaigning for the renewal of housing, became involved in the Geneva project in 1969. The project was deliberately conceived as a reaction to current practice, at a time when it was being called into question. It was a pivotal period in the history of architecture of housing: the end of *Les Trente Glorieuses* [The Glorious Thirty] coincided with the end of the policies of the large-scale housing projects, and this was happening everywhere in Europe. While waiting for “cluster habitat” to emerge as a viable alternative to the satellite-precinct of the 1950s and 1960s designed to an elementary grid layout by juxtaposing tower blocks and linear blocks, experimentation was the rule. Punctuated by pioneering achievements – Émile Aillaud (1902-1988) in France, Lucien Kroll (1927-) in Belgium, or Ralph Erskine (1914-2005) in England – this was a period of prolific research. New and innovative configurations were emerging, with obvious societal implications.¹

The approach adopted by the architects of *Avanchet-Parc* was very clearly of “a break with the past.” The Lignon housing project (George Addor, Jacques Bolliger, Dominique Julliard, and Louis Payot, 1963-1971) served as a model so far, but the architects explicitly diverged from it. It was a question of adapting the industrialized construction techniques which had finally been mastered perfectly to a new way of thinking about housing estates, from which they banished any form of “monotony” that would result from the repetition of the prefabricated components.² They therefore had to explore new strategies. Through a tenacious design process, moreover, driven by the prolific personality of the architect Christian Hunziker (1926-1991),

playing the part of the “devil’s advocate,” the designers of *Avanchet-Parc* delivered a bravura showpiece.

To achieve this, they deployed all the available means in a true *crescendo*: the open asymmetrical design articulated around a central spine of amenities; the volumes varied by shifting, skewing and jutting generated by a skillful “combination” of typologies; the color schemes, which drew on the rules of perception to enable the inhabitants to identify with their housing block and find their bearings on the estate; the architectural landscape, literally sculpted in the ground by the artist Jürg Altherr (1944-2018) and the landscape designer Christian Stern (1935-), which offers a multitude of different outdoor spaces where the various plant species are conceived as landmarks. A broad array of devices was used with the aim of “humanizing the architecture,” in keeping with the vocabulary of the time, in reaction to the criticisms of the “boring” architecture of those “contemporary rabbit cages,” those “termite mounds” which had arisen on the outskirts of cities. A profusion of ideas emerged, which took material form in so many shapes and volumes, colors and textures. Everything was, however, perfectly organized to guarantee at the same time the rationalization of construction work, which meant the control of costs and deadlines, a crucial issue in a context of housing shortage that had persisted since 1945 and by that time seemed endemic in the canton of Geneva.

“Building for the greatest number”: a remarkable operation

The housing development in Vernier-Geneva is indisputably an original achievement, representative of the approach – above all cultural – of a generation of architects that, in the 1970s, sought to experiment with new urban and architectural forms. Suffice it to say that *Avanchet-Parc* is an extraordinary housing estate that has no equal in Switzerland. But *Avanchet-Parc* is also a beautiful story of a fruitful collaboration between trade unions, employers’ associations, and

01 Franz Amrhein, Walter Maria Förderer, Peter Steiger, *Avanchet-Parc*, Geneva, Switzerland, 1969-1977. Satellite precinct, Vernier. © Gertude Trepper, Centre d'iconographie, Bibliothèque de Genève.



a private developer, who joined forces to create a complex planned to house 7,000 inhabitants.

When, in 1970, the “Schwarzenbach Initiative” aimed at limiting the number of foreigners in Switzerland was sparking passions, the social partners agreed to send a strong signal by building housing intended for a population with a modest income through the intermediary of combined union and employer cooperatives. At the same time, Ernst Göhner (1900-1971), a powerful developer and general contractor from Zurich, was seeking to extend his activities in Geneva with a new housing complex intended to crown his impressive portfolio of completed works in German-speaking Switzerland. The social partners set themselves a specific objective: to build a housing complex that could set an example, act as a demonstration of social peace considered essential to counter a popular initiative that was harmful on both the political and economic planes. Ernst Göhner, for his part, had the expertise and know-how. Since the late 1950s, he had worked to rapidly make available housing to the middle class with above-average standards but at low prices, thanks to the most advanced industrialized techniques backed by a very competitive financial plan. With the support of the public authorities, this multitude of actors that everything seemed to oppose a priori, then jointly engaged in an operation that was meant to be exemplary: a housing estate of 2,200 home units, partly subsidized, partly for unregulated rental, supplemented with numerous community amenities and pleasant green spaces that the residents could make their own – such as the community’s urban allotments, which were integrated from the outset into the city’s outdoor facilities.

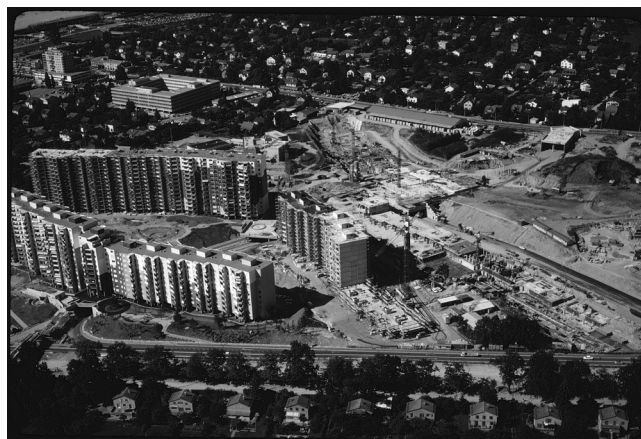
“A housing estate of a new and original design” whose value needs to be enhanced

Avanchet-Parc has been somewhat forgotten in recent years. By mistake or ignorance, the whole development was often overlooked in the series of significant operations that the

canton of Geneva undertook after 1945, including *Meyrin*, *Le Lignon*, *La Gradelle*, among others. Worse, the complex is often stigmatized, being presented – quite wrongly – as the result of the most abject real estate speculation. Nothing could be further from the truth, just as one can easily rebut the critical remarks about the excessive density of the whole or its overgrown character. As for its social representation, this is also somewhat problematic: a certain number of received ideas still weigh on this district whose social mix – part of the operation from the start – has nevertheless contributed to its undeniable success. Spacious and well-designed apartments, the presence of numerous amenities, generous public spaces that benefit from the separation of traffic flows (the roads are placed beneath the public park), its layout, which offers a variety of viewpoints and ensures the buildings do not overlook each other: these are all reasons that have helped make *Les Avanchets* a neighborhood where life is good, according to its inhabitants.

The city has certainly passed through some difficult times – such as the effects of the emergency federal decrees on property law of 1989, which caused a sudden change in the level of the population by an unprecedented concentration of disadvantaged social categories. Over the years, however, *Avanchet-Parc* has regained the vitality of its beginnings, a vitality attested to by a community life of extraordinary richness, supported by a committed public policy which, at the local level, has borne fruit in terms of social cohesion. Despite a sometimes critical external outlook on the whole, the inhabitants have been able to appropriate *Avanchet-Parc* as a pleasant place to live, enhancing the value of its many assets.

When it was built, between 1969 and 1977, the last of the Geneva housing estates was asked to conform to certain paradigms of the spatial planning policy of the WWII period, at a time when they were beginning to be called into question. Paradoxically, the project by Peter Steiger, Walter Maria Förderer and Franz Amrhein represents the culmination of the established practice of the *grands ensembles* [large-scale high-rise housing projects] while also being ahead of its time. It made the transition between the design of the satellite cities of the 1950s and 1960s (in

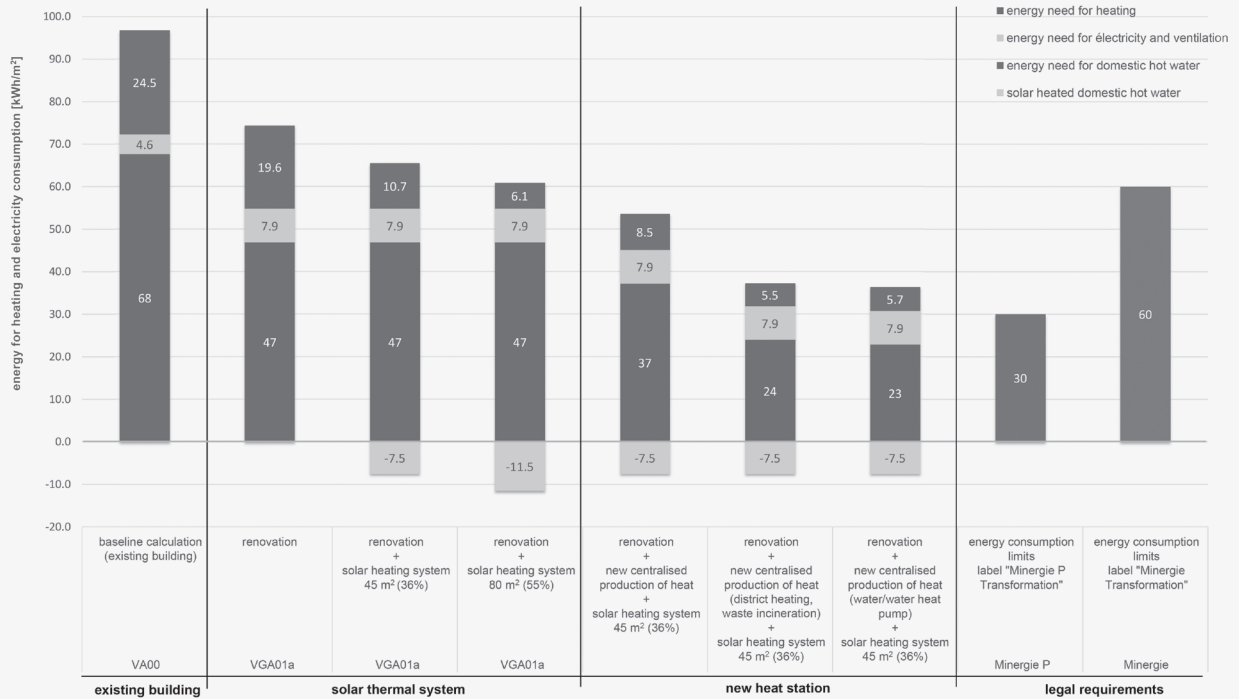


02 Franz Amrhein, Walter Maria Förderer, Peter Steiger, *Avanchet-Parc*, Geneva, Switzerland, 1969-1977. Construction site of *Avanchet-Parc*, 1974. © Archives d'architecture, Université de Genève, Zschokke Archives.

03 Franz Amrhein, Walter Maria Förderer, Peter Steiger, *Avanchet-Parc*, Geneva, 1969-1977. *Avanchet-Parc* in 1977. © Jacques Buards' archives.



04 Franz Amrhein, Walter Maria Förderer, Peter Steiger, *Avanchet-Parc*, Geneva, Switzerland, 1969-1977. © Claudio Merlini, 2020, EPFL-TSAM.



05 Franz Amrhein, Walter Maria Förderer, Peter Steiger, *Avanchet-Parc*, Geneva, Switzerland, 1969-1977. *Avanchet-Parc* is particularly efficient in terms of energy use, with punctual interventions, carried out from the inside and respectful of materiality, the city easily falls within the legal limits of the law on energy. © EPFL-TSAM, *Guidelines for Avanchet-Parcs' safeguarding*, 2013.

constructional terms, as well as others) and a whole new way of thinking about housing that would in turn be upset by the reaction to the oil price shocks of the 1970s, which led to a far-reaching changes in the techniques and architectures produced.

The complex therefore fully shares in the *corpus* of remarkable buildings from a period of architectural history that today deserves new consideration, which is already being undertaken. Thus, after the wave of recognition, which is highly salutary, experienced by the post-war housing estates, it is now a question of broadening the established periodization, by taking into account a certainly more recent heritage, but one for which we now have sufficient perspective to assess its heritage value.

The heritage of the architecture of the 1970s is recent, even very recent. The tools – both scientific and cultural – for identifying the qualities of the architecture of this period, even to place these objects in a given context, in a crucial phase of contemporary history, are being put in place. *Avanchet-Parc*, which perfectly meets these criteria, deserves to be viewed in the necessary perspective. Multicultural and the bearer of a great social and generational mix, *Les Avanchets* is an exemplary experience. At the present, at a time when the planning challenges of the canton of Geneva are giving rise to a passionate and fascinating public debate, we should look with renewed interest at the *Avanchet-Parc* housing estate, bring out its qualities and learn from it.

We should recall the process of placing the *Lignon* housing estate under protection, which in 2008-2009 raised numerous questions.³ The dialog, not always serene, was however constructive: the exceptional overall value embodied by the complex designed by George Addor (1920-1982), since protected by a site plan on the cantonal level, was finally recognized. Today, ten years later, it would be opportune to extend this cultural recognition to *Avanchet-Parc*, a unique record of a later phase in the history of the canton and of European architecture. The time has come and *Les Avanchets* deserves it by the representativeness of the approach and the coherence of the result, all well as by its undoubtedly remarkable character.

Technical innovation and regular maintenance: a wager won

Investment in the construction of *Avanchet-Parc* was substantial, with, it appears, a relatively small profit for Göhner S.A., which acted both as co-developer and general contractor. The use of the most innovative construction techniques – and not necessarily the cheapest – was considered a guarantee of success. From the design of the public spaces to the layout of the apartments and their finishes, everything was done to ensure the highest quality. Excellence was sought and every means was adopted to secure this wager.

This far-sighted strategy is confirmed today, fifty years later, by the excellent state of preservation of *Avanchet-Parc*, an otherwise perfectly maintained housing complex. Despite some unfortunate alterations – the renovation of the ground floors and the almost systematic change of the beautiful original wooden double windows with more

06 Franz Amrhein, Walter Maria Förderer, Peter Steiger, *Avanchet-Parc*, Geneva, Switzerland, 1969-1977. *Avanchet-Parc* in 2020. © Claudio Merlini, 2020, EPFL-TSAM.



banal PVC (polyvinyl chloride) elements – the whole has indeed benefited from regular maintenance, both in the buildings and the outdoor spaces, profiting from the outset by the services of a central management commissioned by the cooperative of home-owners, which acts in concert with the municipal services. The model is very similar to the one implemented a few years earlier at *Lignon* – a pilot operation which saw very strong involvement by the same union cooperatives. As in *Lignon*, the benefits of this both pragmatic and forward-looking approach deserve to be noted: it is a rare and precious achievement in the most often neglected European housing estates, which reinforces their image as socially troubled neighborhoods and with the least architectural qualities, two dimensions absent from *Avanchet-Parc*.

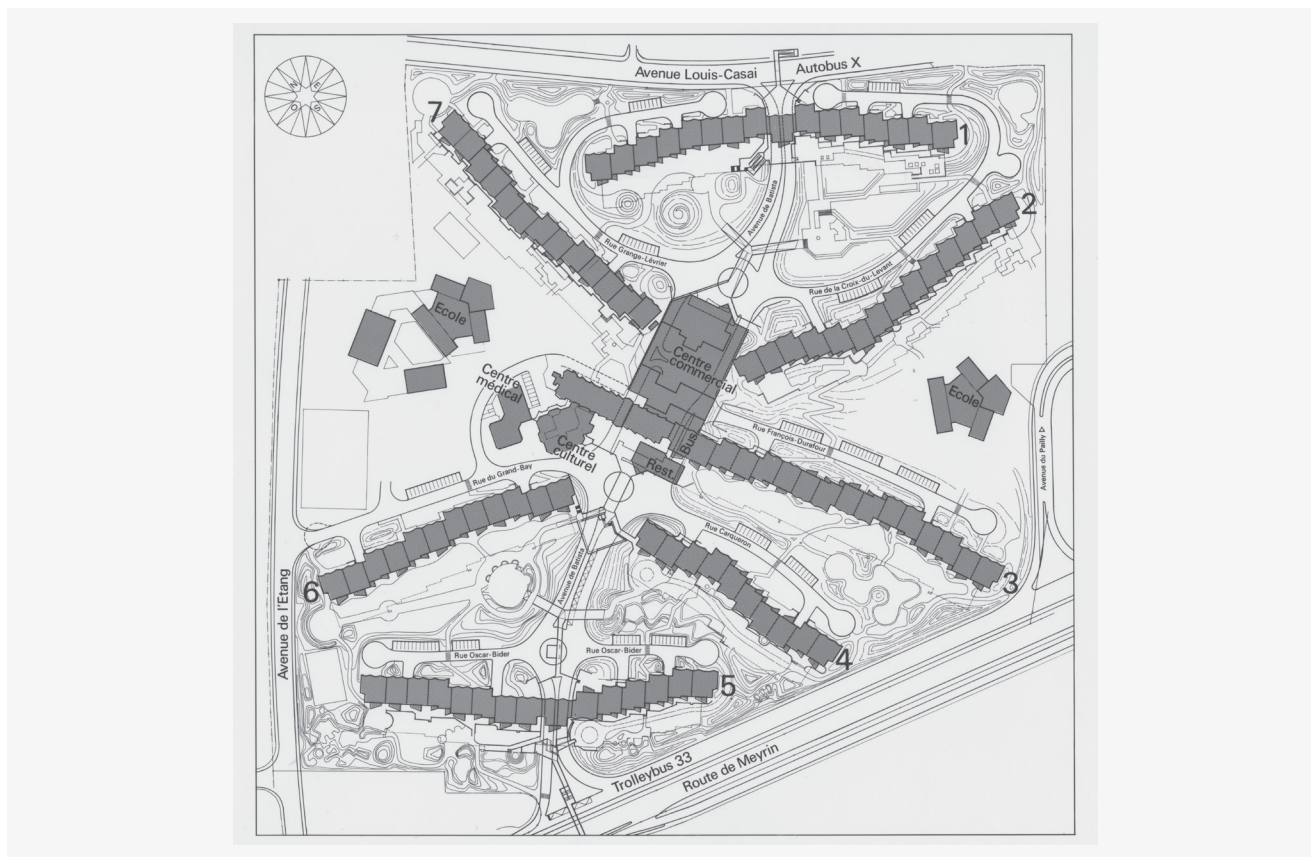
In this respect, one last point should be mentioned: the energy performance of the whole. This is due to the ventilated facades, thanks to which the buildings are insulated from the outside and so achieve a thermal and acoustic performance well above the average of the time. Indeed, if the reinforced concrete structure built by the IGECO S.A. heavy prefabrication process was fully perfected at the time – suitably adapted to the height of the buildings, which can rise to thirteen stories – the envelopes of the buildings undoubtedly represent one of the main advances of *Avanchet-Parc* in constructional terms.

The estate includes a ventilated facade, a continuous skin placed in front of the supporting structure in prefabricated reinforced concrete, which excludes any thermal bridge. The construction technique is that of the “Ickler Norm 100 system,” a sub-construction of aluminum T-shaped and angled profiles, fixed to the supporting structure by means of cast aluminum plates using stainless steel screws. After insulation, the facade was clad with Pelichrome panels, a flagship product of Eternit included in its catalog in 1964 with an impressive palette of colors. These were fitted with standardized window units produced by the Ego company, part of the Göhner group since the 1940s. These wooden “box windows” are particularly sophisticated from the point of view of their airtightness. Fitted with two single

07 Franz Amrhein, Walter Maria Förderer, Peter Steiger, *Avanchet-Parc*, Geneva, Switzerland, 1969-1977. © Claudio Merlini, 2020, EPFL-TSAM.



08 Franz Amrhein, Walter Maria Förderer, Peter Steiger, *Avanchet-Parc*, Geneva, Switzerland, 1969-1977. © Claudio Merlini, 2020, EPFL-TSAM.

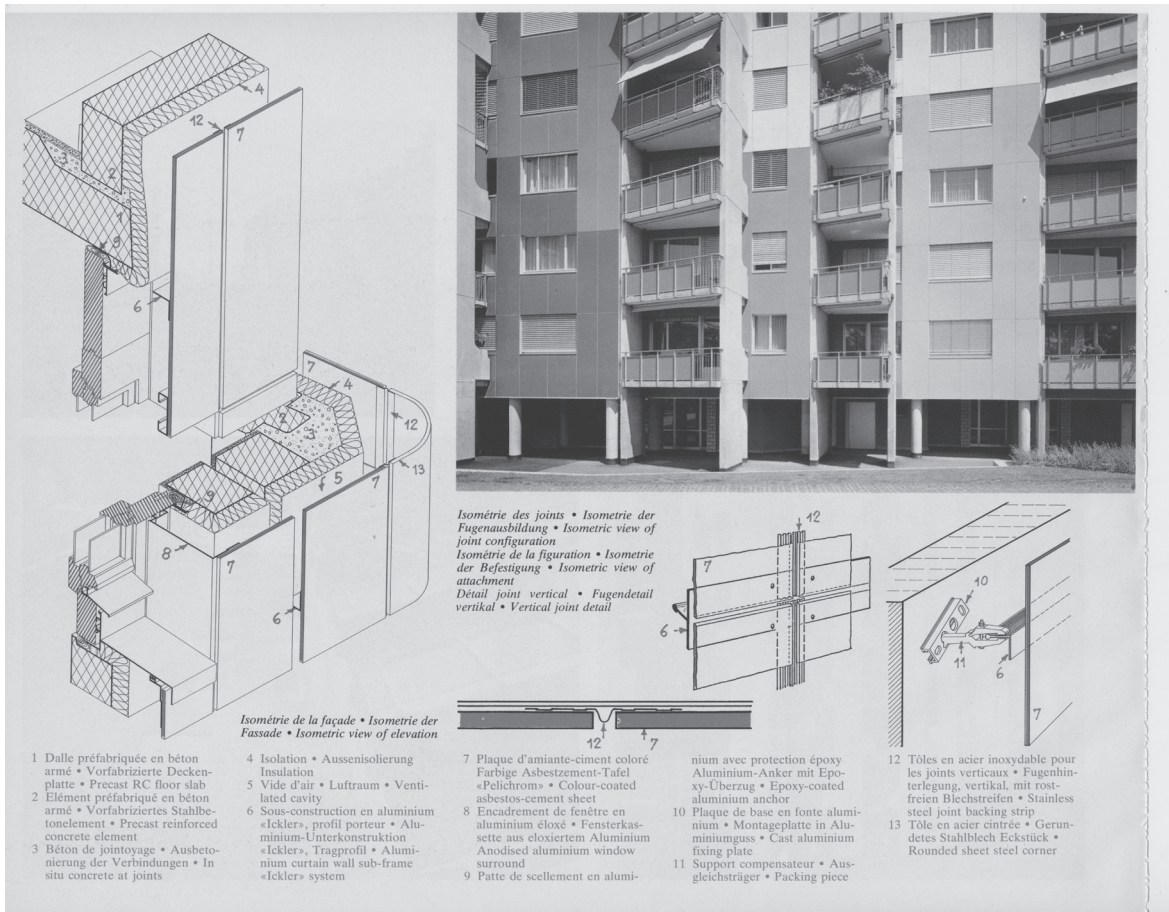
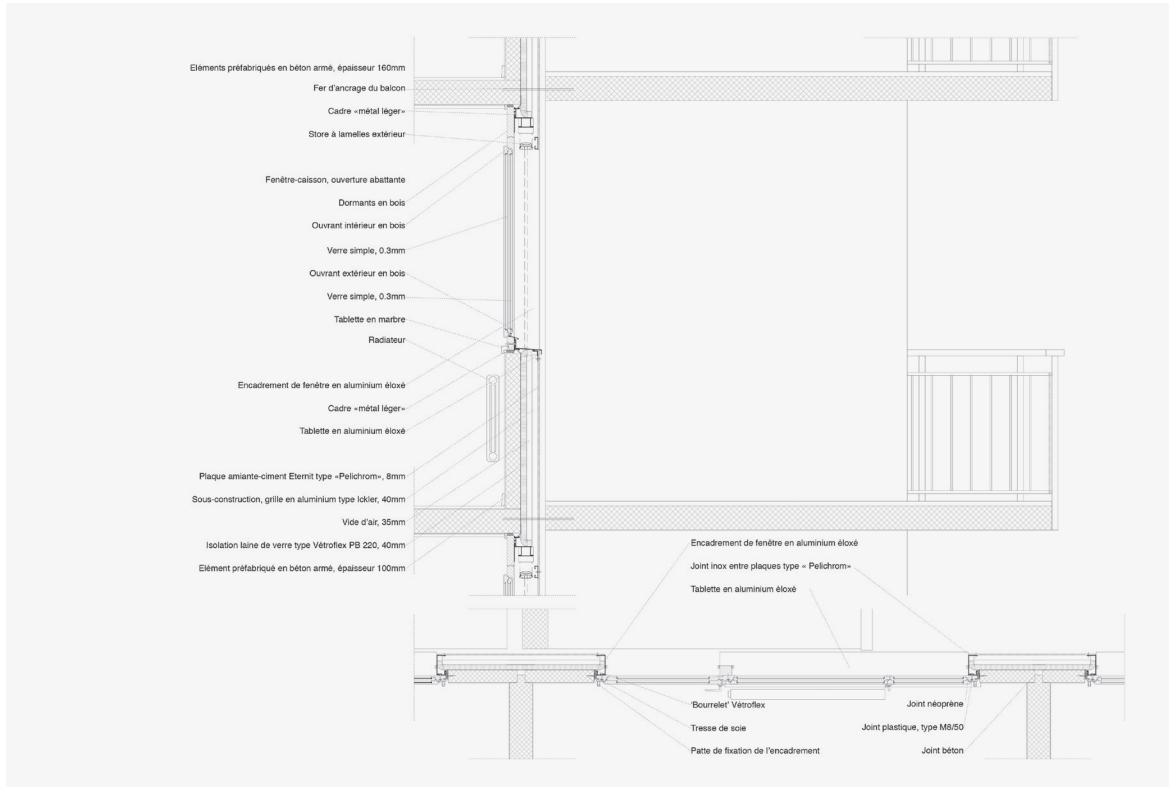


09 Franz Amrhein, Walter Maria Förderer, Peter Steiger, *Avanchet-Parc*, Geneva, Switzerland, 1969-1977. General plan of the Cité Avanchet-Parc. © Jürg Branschis archives.



10 Franz Amrhein, Walter Maria Förderer, Peter Steiger, *Avanchet-Parc*, Geneva, Switzerland, 1969-1977. Floor plans of different typologies, 1972. © Peter Steigers archives.

11 Franz Amrhein, Walter Maria Förderer, Peter Steiger, *Avanchet-Parc*, Geneva, Switzerland, 1969-1977. Vertical section of the ventilation envelope. © Giulia Marino, EPFL-TSAM.



12 Franz Amrhein, Walter Maria Förderer, Peter Steiger, *Avanchet-Parc*, Geneva, Switzerland, 1969-1977. Details of the ventilated facades. © AC, *Revue Internationale d'amiante-ciment*, No. 1981, 1976.

coupled glass panes, they also ensure excellent thermal and sound performance – a crucial factor due to the proximity of the airport.

A primarily pragmatic option, the ventilated envelope was a pioneering choice, ahead of its time. On the one hand, this constructional principle offers very great freedom in the plastic expression of the envelopes compared to the traditional concrete painted or coated at the bottom of the formwork, and the architects took advantage of this freedom in a masterly way. On the other hand, from a constructional point of view, the design of these “durable, adjustable and economical” envelopes follows the logic of the industrialization of components and constructional elements, the real unifying thread in the *Avanchet-Parc* project and the Göhner company’s cutting-edge product.

A pioneering city: heritage and energy

The material design of the envelopes of the buildings at *Avanchet-Parc*, therefore, represents a pioneering approach, heralding the paradigm shift that would take place in construction following the oil shocks of 1973 and 1979 through the generalization of peripheral insulation. Economical operation and lower maintenance costs were featured as a major asset, which is indeed the case. Recent research conducted by the Laboratory of Techniques and Preservation of Modern Architecture (TSAM) of the Federal Polytechnic in Lausanne (EPFL)⁴ have shown, with supporting calculations, that with its annual consumption, *Avanchet-Parc* is particularly efficient in terms of energy use. Through the design of ventilated envelopes with external insulation and balconies with thermal breaks, as well as district heating that was particularly effective at the time and has since been adapted through incentivization programs at the cantonal level, the measures taken by architects to contain operating costs have proved to be beneficial.

On the basis of this observation, resulting from a careful knowledge of the constructional and material aspects of the estate, guidelines have been laid down for the preservation of *Avanchet-Parc*. Conducted with a multi-criteria evaluation process, which takes into account several variant forms of intervention, the studies have revealed the very great potential of the whole as regards its future renovation. The results are encouraging. By making local improvements on the inside, hence respectful of the exceptional architectural qualities of *Avanchet-Parc*, which needs imperatively to be preserved, it can easily meet the most ambitious standards in terms of energy saving. With a reduction in heating needs estimated at 51.8%, coupled with the installation of solar thermal collectors that would cover domestic hot water needs to the order of 36%, the *Avanchet-Parc* estate could even achieve certifications of excellence, while retaining its intrinsic qualities. This is a sign of skillful construction,

undoubtedly pioneering in the context of the 1970s and which is still today, half a century later, the essence of its relevance to the present.

Notes

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- 2 Giulia Marino, “Variations on the theme of Plattenbau. Heavy prefabrication and total industrialization in the experience of the Göhner housing estates in Switzerland (1966-1979)”, *History of Engineering – Proceedings of the 3rd International Conference*, Naples, Cuzzolin, 2020, 869-880.
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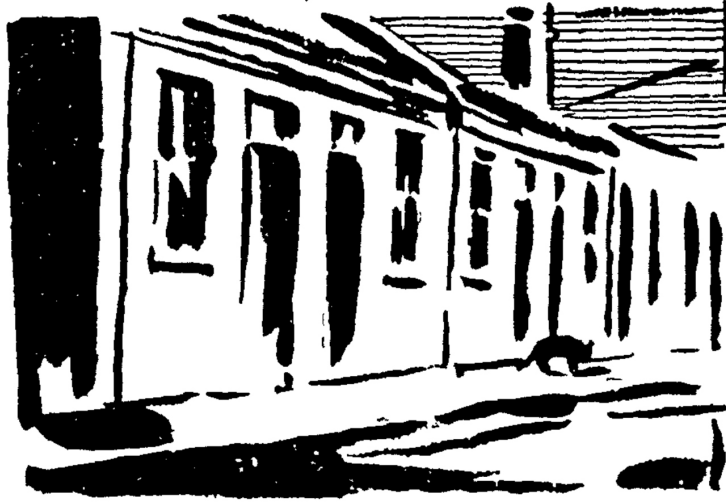
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New Zealand shows the way!

Royal Australian Institute of Architects, *Wanted! A Plan!*, rehousing proposal, showing the New Zealand example, the 1943 Dixon Street Flats designed by the Department of Housing Construction. © Royal Australian Institute of Architects, *Wanted! A Plan!*, post war development, Sydney, Royal Australian Institute of Architects, 1946.

Sunny flats will replace... A congested slum block: Sydney's post war housing improvement schemes

BY NONI BOYD

The present text traces the post war slum clearance program in Sydney, Australia, that saw the construction of modern blocks of flats drawn from international examples of rehousing schemes. This State-funded urban renewal program continued from the late 1940s until the 1980s. Many of the blocks of flats are slated for demolition, yet no overall assessment of their design quality or detailed discussion of the range of building forms or apartment layouts has been undertaken. There is a danger that these well-designed blocks will vanish rather than be retrofitted and that this unparalleled demonstration of modern housing progress by the State of New South Wales will be incomplete.

Until WWII housing for the working classes close to the center of Sydney, Australia, was dominated by two building types, both of which were owned by investors: rows of terrace houses erected from the 1830s until WWI and walk-up blocks of apartments erected during the interwar years. During the 1930s there were calls for wholesale slum clearance of areas of substandard housing and its replacement with modern housing. This desire for slum clearance arose out of concerns for public health.

The Housing Improvement Board, formed by the New South Wales (NSW) State Government in the mid-1930s to replace the Housing Investigation Committee, had identified slum areas in the Sydney suburbs of Alexandria, Darlinghurst, Erskineville, Glebe, Paddington, Mascot, Redfern, Surry Hills, Waterloo and Woolloomoolloo.¹ This ring of suburbs surrounded the heart of the colonial city. Whole blocks of substandard housing in the vicinity of Devonshire Street in Surry Hills and to the east of Redfern Park in Redfern were proposed for urban renewal prior to the outbreak of WWII. In 1934, a committee of the NSW Chapter of the Royal Australian Institute of Architects had considered a scheme that would have seen an entire block in Redfern cleared and modern housing erected.

To rehouse the people from the areas in the inner Sydney suburbs of Redfern and Surry Hills proposed to be cleared, a housing scheme was erected in nearby Erskineville from 1938, constructed under the 1936 NSW Housing Improvement Act. The Erskineville Housing Scheme, designed by William Ronald Richardson (1890-1972) and Morton Herman (1907-1983), was the first public housing complex in NSW designed according to modernist principles, and was inspired by international developments in the provision of workers' housing.

Conceived of as a demonstration project, this rehousing scheme was based on contemporary ideas from Europe where traditional

street patterns were rejected for buildings set in open landscaped space (...). The modernist ideals embodied in the project make it the primary built prototype for the Post World War II Housing Commission projects.²

This complex survives today and has been supplemented by a series of later apartment blocks, however, only the first stage of the complex has been afforded any heritage protection.

The need for good quality housing for workers had long been an issue that Australian architects discussed. Reports of overseas housing developments could be found in the Australian press from the Victorian Era (1837-1901) onwards. During the interwar years Australian-trained architects on travelling scholarships to Great Britain and the Continent visited European housing exhibitions in Berlin and Vienna, as well as modern architectural developments in Great Britain, France, the Netherlands, and Scandinavia. The architectural and popular presses carried reports of the visits by architects, such as Sydney Ancher (1904-1979) and Walter Bunning (1912-1977), to see new forms of housing.

The threat of war saw several Sydney-trained architects who had been working in London during the 1930s returning to Sydney in 1938, bringing with them first-hand knowledge of planned housing estates with modern blocks of flats. Walter Bunning used these ideas in his advice to the Commonwealth Government on appropriate forms of housing for post-war Australia.³ In his book *Homes in the Sun*, published in 1945, he contains a diagram of modern communities based on Scandinavian prototypes.

In *Wanted! A Plan!*, the Royal Australian Institute of Architects' proposal for post-war redevelopment in Australia, an example of high-rise housing in New Zealand, was illustrated as showing the way. A multi-story block of flats was shown as a prototype for rehousing those currently living in small-scale housing erected during the previous century.

Although not identified by name, the multi-story block illustrated is the Dixon Street Flats in Wellington, New Zealand. This building is under threat of demolition, yet the influence of the design of the block, as a model for post-war housing beyond New Zealand, has not been fully identified.

Whilst there were numerous published ideals for modern housing and planned communities in Australia, including planning schemes prepared in 1948 following council amalgamations in Sydney that would have seen entire suburbs vanish, the continuing post-war building material restrictions resulted in key projects such as electricity generation plants, schools and hospitals taking precedence.

The scale of slum clearance initially envisaged in Devonshire Street and Redfern proved beyond the capacity of the Sydney City Council, whose boundaries had recently been expanded to include Redfern. During the interwar years it was the local government (i.e. local councils) that was largely responsible for the provision of housing. Dr. John Smith Purdy (1872-1936), the Sydney City and Metropolitan Health Officer commented in 1936 that “no Government (...) has yet realized that housing the low-est-privileged was a collective responsibility.”⁴

The NSW State Government took over slum clearance, establishing a Housing Commission under the 1941 Housing Act that made provision for clearance areas to be gazetted and housing improvement schemes erected. Unlike Great Britain, where areas had been bombed during the war and housing needed to be rebuilt, the erection of modern public housing in Sydney was undertaken as a more gradual urban renewal from the late 1940s until the 1980s by the NSW Housing Commission, later the Department of Housing.

Investigations by the newspaper *Tribune*, in 1947, found that much of the substandard housing was owned by absentee landlords who had neglected to maintain the housing stock as the 99-year leases were due to expire. Their tenants were “ordinary working people with a burning desire to get out of the slums into decent, modern cheap rental flats or cottages.”⁵

The visit of the NSW Minister for Housing, Clive Evatt (1900-1984), to homes in the Redfern area, which he described as being in scandalous condition, where residents lived in squalor and misery, was reported nationally.⁶ The need for slum clearance is not an issue often associated with Australia, as the country was considered to be new, without the problems of the Old World.

The previous year, work had commenced clearing land for the Devonshire Street Rehousing or Clearance Scheme in Surry Hills and on the Redfern Clearance Scheme, clearance of the block bounded by Elizabeth, Kettle, Phillip and Walker Streets in Redfern. Within the resumed area of Devonshire Street 900 people had been living in 241 substandard dwellings. Residents from the slum clearance areas were rehoused in Army Camps in the Sydney area. The Devonshire Street Clearance Scheme was to cost one million pounds and was to be undertaken in co-operation with the Sydney City Council. This new housing complex was to include 15 blocks of flats built on a star plan designed to provide maximum sunlight, air, and privacy.

The latest Swedish ideas in flat design are the basis of the plans... the star plan breaks completely free of the conventional idea that blocks of flats should be huge box shaped structures covering as much of the site as possible (...).⁷

The new blocks were to be surrounded by landscaped grounds including tennis courts and a community center. The architects of the first group of apartments, completed in 1953, were Morrow & Gordon in association with James Aubrey Kerr (1896-1971). Not all the proposed star blocks were erected and a larger multi-story block was subsequently built in the center of the Devonshire Street resumed area. Part of the site was dedicated to a park.

In the Redfern / Waterloo area the urban renewal took place in waves, with a different scale and form of housing erected in each decade by the NSW Housing Commission (and, after 1985, the NSW Department of Housing). The urban renewal was influenced by international architectural developments, which Sydney architects followed closely. The Housing Commission investigated international examples and always sought to improve on what they had seen and ensure that it was a suitable approach for Sydney. At the request of the Minister for Housing, the architect Percy Gordon (1892-1976), who was to design the initial blocks for the Devonshire Street Clearance Scheme, had visited housing estates in England, Denmark and Sweden in 1947, furnishing a report to the Housing Commission in early 1948.⁸

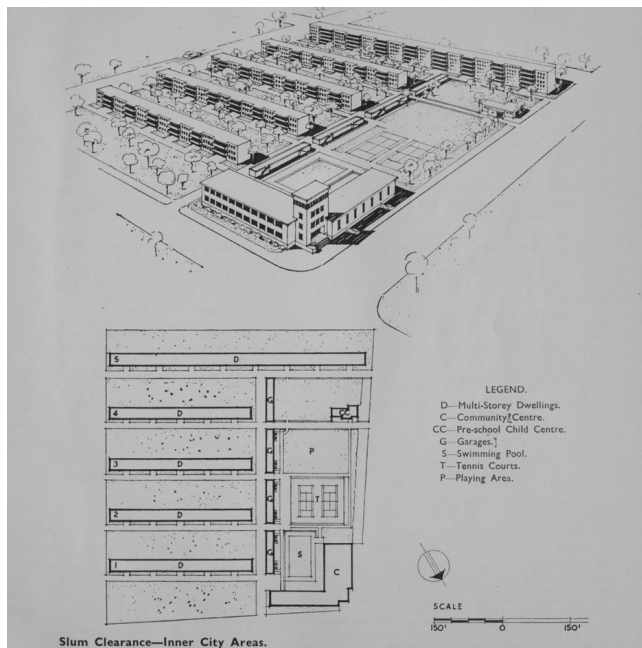
The 1950s saw the start of the progressive urban renewal of the Redfern area. Entire blocks were demolished, and construction began on a series of blocks of flats including two larger blocks – Kyeema and Willawa – designed by Stephenson and Turner in 1952, supplemented by number of the more standard Housing Commission walk up blocks. These standard blocks, designed to be economic in their cost and layout, were developed in close consultation with the commissioners of the NSW Housing Commission.

There was a complete contrast in housing forms between the new blocks of flats being erected by the Housing Commission according to modern architectural ideas and the low scale 19th century housing it replaced. There is, however, little discussion in the Housing Commission's Annual Reports of the architectural character of the buildings erected as part of the Slum Clearance in Redfern beyond the numbers of units erected. The success of their slum clearance program, and the growing demand for flats, saw the Housing Commission continuing to acquire land in the Redfern area in order that ‘modern dwelling units’ could be constructed.

By 1959 “slum clearance efforts at Redfern have now rehabilitated quite a large area and some hundreds of families are now comfortably housed in modern, attractive flats within a few minutes traveling time of the city.”⁹

Larger scale tower blocks were also being proposed and the slum clearance project was extended south into the adjacent suburb of Waterloo. During the early 1960s, two substantial tower blocks were erected, William McKell Place in Redfern (1961) and John Northcott Place in Surry Hills (1963). When completed, the Y-shaped John

- 01** Walter Bunning, Proposal for Slum Clearance for Australian inner-city areas, 1944, included in his final report on appropriate housing types for Post War Australia to the Commonwealth Housing Commission. © Commonwealth Housing Commission (Australia), L. P. D. O'Connor, Australia Department of Post-War Reconstruction, "Final Report, 25th August 1944", Sydney, Ministry of Post War Reconstruction, 1944.



- 02** View from Redfern Park showing the different eras of Housing Commission Flats. The Poet's Corner slabs, by Peddle, Thorp and Walker, are to the rear. © Sydney City Council Engineers, 1968, Sydney City Council Archives 022\022151.



- 03** Morrow & Gordon and James Aubrey Kerr, three-story star plan blocks of the Devonshire Street Rehousing Scheme, Surry Hills, Australia, 1953. The star plan blocks with the John Northcott Place (1963), by Lipson & Kaad Architects, behind. © Noni Boyd.



- 04** Hanson Todd and Partners, Purcell, Redfern Clearance Scheme, Redfern, Australia, 1971. Current view. © Noni Boyd.



05 Stafford Moor and Farrington, Endeavour Project housing, Waterloo, Australia, 1976. Current view. © Noni Boyd.



06 Morrow & Gordon and James Aubrey Kerr, Lipson & Kaad Architects, Devonshire Street Rehousing Scheme, Surry Hills, Australia, 1950s-1960s. Aerial View of Northcott Place, Devonshire Street, Surry Hills, looking south east showing the NSW Government's Slum Clearance and Rehousing Scheme, bounded by Devonshire Street, Riley Street, Belvoir Street and Clisdell Street, mid to late 1960s. © Surry Hills, City of Sydney Archives, Sydney Reference Collection, Box CSA069597 040/040786, Alternative ID SRC 14390.

Northcott Place, designed by Lipson & Kaad Architects, was the largest apartment building in Australia, containing 429 units and accommodating 1200 people. This block is located within the Devonshire Street Clearance area.

In the mid-1960s, a group of three tall slab blocks known as Poet's Corner (as each block was named after a well-known Australian poet, Kendall, Gilmore and Lawson) was erected on the ridge that separated Redfern from Moore Park. Designed by the well-known architectural firm of Peddle, Thorp and Walker, these slab blocks continue to dominate the skyline of this part of Redfern.

Within the Redfern Clearance Scheme area private architectural firms with expertise in the design of housing were employed by the Housing Commission to design blocks for the more complicated sloping sites and to design specialized forms of housing, such as pensioner housing or "aged units." Purcell (1971) designed by Hanson, Todd and Partners as units for the aged was located within walking distance of the Redfern shops. Each unit has a north-facing window designed to let sun into the living area. The provision of sun-filled flats was a theme that can be traced through each era of housing.

The project that is the most controversial today is the Endeavour Project in Waterloo: four 17-story slab blocks set in a vast area of lawn. Designed by Stafford, Moor and Farrington and erected in 1976, the architects used modular planning and repetitive layouts to lower the costs and construction times. The blocks are all named for prominent locations and explorers from Captain James Cook's voyages of discovery.

The last two blocks of the Endeavour Project were two 30-story blocks for single, aged people: Matavai and Tauranga. Advice was sought from a wide range of experts in the field of aged housing. The Housing Commission noted that:

Two pencil slim towers that have the crowning place in the NSW Housing Commission's Endeavour Project at Waterloo, represent the best and most modern thinking about the way elderly people should be housed to give them the most pleasure and enjoyment as well as safety and comfort in their surroundings.¹⁰

A further series of these 30-story tower blocks were planned to be repeated across Waterloo, however, resident action saw the proposal abandoned and the existing low scale housing stock rehabilitated and supplemented with carefully designed infill. This architectural expression of this new infill housing is postmodern in its character, whereas the lower scale 1950s blocks and the 1960s and 1970s slab blocks clearly followed the tenets of international Modernism.

More recently the pair of towers Matavai and Tauranga has become known for the "We Live Here" installation. Colored lights placed in the apartment windows turned the towers into a work of art, bringing public attention to the removal of public tenants, including long-standing elderly residents, from the public housing in Redfern / Waterloo.

Another more interesting complex, the Drysdale and Dobell blocks in Waterloo, was designed in the early 1980s by the Housing Commission (design architects Tao Gofers and Penny Rosier). The stepped form and generous terraces were intended to be a more human scale than the slab blocks erected during the 1960s and 1970s. A child-care facility was incorporated at the base.

The late 1980s also saw the construction of a series of blocks that collectively received a Civic Architecture award in 1993. Described by the Institute of Architect's jury as being the "finest residential street erected for a century," the series of buildings included Singles Housing (1988) designed by the Department of Housing's Urban Renewal Group, Waterloo housing (1989) designed by Peter Myers (1941-) and the Walker Street Housing designed by Philip Cox, Richardson, Taylor and Partners (1989). These

projects saw a move away from the modernist slab block set within an expanse of lawn to buildings designed with street frontages. This change in architectural character reflected international developments in the provision of public housing that had seen a move away from the tower block form with a single entrance to the construction of new streets of housing.

Today much of the higher density public housing in the Redfern Waterloo area is proposed to be demolished and replaced by new housing stock, designed and erected by developers for the private sector, a trend often referred to as social cleansing (or simply by the broader term of gentrification). The public housing tenants are being removed from the majority of the areas that surrounded inner Sydney, areas where workers had been housed in Housing Commission blocks since the slum clearances of the 1940s and had previously lived in rental accommodation since the 19th century.

Despite international precedents for the retrofitting of public housing blocks, the approach being taken in Redfern / Waterloo appears to be the demolition of many of carefully designed Housing Commission blocks, although little of the proposal has been made public. The Lord Mayor of Sydney, Clover Moore (1945–), and her councilors have protested at this approach, taking the State Government to task over the proposed densities to be created by the new housing to be built by, and for, the private sector with only limited provision for social housing. Whilst some generalist heritage advice has been sought regarding the heritage value of the buildings, the designs of the individual blocks and groupings have not been assessed in the context of the development of modernist planned housing estates or the evolution of public housing nationally or internationally.

The Redfern / Waterloo area is arguably the largest concentration of high-density public housing to have been erected in Australia, with blocks designed by Sydney's leading post-war architects. However, no overall assessment of the design quality of the blocks or detailed discussion of the range of building forms or apartment layouts has been undertaken.

There is a danger that these well-designed blocks will vanish, rather than be retrofitted, and that this unparalleled half century of housing progress by the State that obliterated slum housing providing “modern comfortable flats” will be incomplete. Even at an international level, it is difficult to think of another concentration of public housing of this scale where the development of post-war housing can be traced decade by decade, with the building stock demonstrating first the adoption of ideas drawn from

international Modernism and subsequently, due to resident action, the abandonment of the multi-story slab block and the return to more traditional streetscapes.

Notes

- 1 “Reveals Shocking Slum Conditions”, *The Labour Daily*, Sydney NSW, 20th October 1938, 3.
- 2 Michael Zanardo, Noni Boyd, *Affordable Housing Sydney: Architectural Guide Map*, Sydney, Studio Zanardo, 2019.
- 3 Commonwealth Housing Commission (Australia), L. P. D. O'Connor, Australian Department of Post-War Reconstruction, “Final Report, 25th August 1944”, Sydney, Ministry of Post-War Reconstruction, 1944.
- 4 “Wipe Out Slum is Big Scheme”, *Daily Telegraph*, Sydney NSW, 21st April 1936, 8.
- 5 “They’ve forfeited right to own slums”, *Tribune*, Sydney NSW, 27th June 1947, 3.
- 6 “Sydney’s 99-Year Slum Leases Expire Soon”, *Herald*, Melbourne VIC, 27th June 1947, 9.
- 7 “‘Star-Plan’ Flats will Replace City Slum”, *Sydney Morning Herald*, Sydney NSW, 29th April 1948, 2.
- 8 *Idem*.
- 9 NSW Housing Commission, “Report of the Housing Commission of NSW for the year ended 30 June 1959”, Sydney, NSW Government Printer, 1959, 11.
- 10 NSW Housing Commission, “Matavai and Tauranga”, Sydney, NSW Government Printer, n.d.

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- “Reveals Shocking Slum Conditions”, *The Labour Daily*, Sydney NSW, 20th October 1938, 3.
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- “They’ve forfeited right to own slums”, *Tribune*, Sydney NSW, 27th June 1947, 3.
- “Wipe Out Slum is Big Scheme”, *Daily Telegraph*, Sydney NSW, 21st April 1936, 8.
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- NSW Housing Commission, “Report of the Housing Commission of NSW for the year ended 30 June 1959”, Sydney, NSW Government Printer, 1959.
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- ZANARDO, Michael, BOYD, Noni, *Affordable Housing Sydney: Architectural Map Guide*, Sydney, Studio Zanardo, 2019.

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Minoru Yamasaki, Pruitt-Igoe Homes, St. Louis, MO, United States, 1956. Because of deteriorated condition the 33 buildings were demolished between 1972 and 1976. © US Department of Housing and Urban Development, Office of Policy Development and Research, c. 1972.

Preservation and public housing in the United States

BY THEODORE PRUDON

Public housing is an important part of the heritage of the 20th century that deserves preservation, but is in danger of being demolished or unrecognizably altered.¹ The United States, which saw the construction of such government sponsored projects, largely between 1930 and 1975, is no exception. In the last four decades government efforts have continued to shift towards financial incentives for private initiatives for design, construction and property management. This housing legacy, if being preserved, still needs to be improved so it can continue to serve as affordable housing in the 21st century.

During the 19th and early 20th century most multi-tenanted housing was constructed by charitable organizations or speculative developers. Government actions were limited to regulating life safety or health issues. That changed with the severe housing crisis caused by the Great Depression in the 1930s. Housing advocates like Catherine Bauer (1905–1964) studied European policies, practices and projects and argued for legislative reforms.² Housing became not only a social concern, but also an opportunity for economic stimulus and employment.³ As part of the New Deal programs the National Housing Act was passed on 27th June 1934 and established the United States Housing Administration (USHA), which was to be renamed the Federal Housing Administration (FHA) in a subsequent Housing Act in 1942. Among other initiatives, the act created various financing measures.⁴ This spurred the creation of local housing authorities, which could receive Federal funds to build clean, decent, modern housing. The many simplified and less ornate masonry apartment houses of small to medium scale also provided employment for the building trades. However, when compared to Europe, this involved only a relatively small number of units.⁵

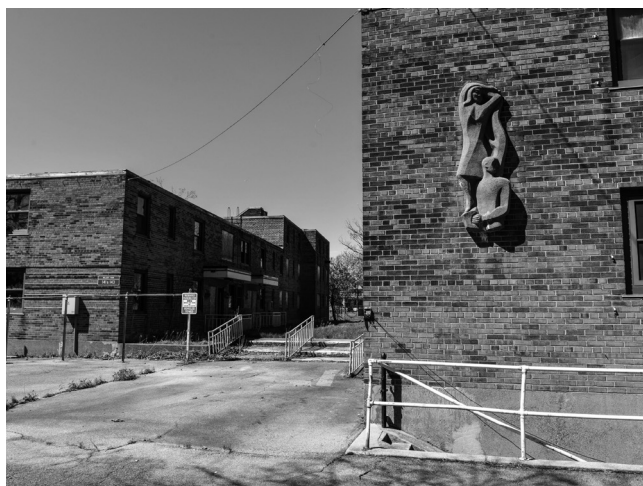
The war years saw the construction of many temporary and substandard housing units to support the war effort, the permanent housing stock expanded very little.⁶ After the war, demand fueled a mostly private suburban construction boom and was made possible by various types of government mortgage guarantees.⁷ The United States (USA) government also continued to build or to provide funds to municipalities to construct low-income – or as it was referred to at the time as limited-income – housing. Because funds were often tied to slum clearance as defined in the Housing Act of 1949, this assistance mostly went to the urban areas. There the limited space available and density requirements necessitated the construction of multi-story apartment buildings throughout the 1950s and 1960s. Tall towers with cruciform or star-shape plans with a central core and narrow slabs with double-loaded corridors or an open-air gallery became customary and economical.⁸

While representing only a part of the housing constructed in the 1950s, the simply detailed high-rise apartment towers grouped on a superblock site came to be seen as synonymous with public housing.⁹ The upheavals caused by the demolition of existing, if blighted, neighborhoods, together with the declining quality of the designs and the inexpensive construction and the lack of (economic) diversity and opportunity changed an initially positive impression of modern housing into a negative one by the end of the 1960s.¹⁰

At the end of the 20th century a report commissioned by the Federal government to assess the condition of Federally funded public housing concluded that a substantial portion of that housing stock was severely deteriorated. Recommendations mandated not only improvements, but also that for every unit demolished a new one had to be constructed.¹¹ That no demolition rule was revoked subsequently in the Quality Housing and Work Responsibility Act of 1998.¹² The new program was titled *Hope VI* and enabled the demolition of older housing projects to make way for low-rise townhouse-like developments that have a distinct anti-modern tinge and found its visual inspiration in the retro-look favored by New Urbanism.¹³

All preservation discussions, however, are still overshadowed by the narrative and perceptions surrounding the Wendell O. Pruitt and William L. Igoe Homes in St. Louis, Missouri (MO). The project with its 33 buildings on 57 acres [23 ha], designed by Minoru Yamasaki (1912–1986) and completed in 1956, was completely demolished between 1972 and 1976.¹⁴

Pruitt-Igoe was part of a larger slum clearance and redevelopment effort in St. Louis that involved also the construction of Busch Stadium and the Gateway Arch National Park with the Arch (1947–1965) designed by Eero Saarinen (1910–1961).¹⁵ The project funded under the terms of the Housing Act of 1949 took place at a time of social change and, while intended to be segregated but racially mixed, was majority African-American from the beginning. Rental income covered maintenance during its peak occupancy in 1957, but almost immediately declined as occupancy dwindled.¹⁶ By



01 Frederick C. Backus, Willert Park Courts, Buffalo, NY, United States, 1939-1944. An architectural sculpture program was included in the design, being shown in the image the sculpture titled "Family by Harold Ambellan". © Buffalo Rising, c. 2019.



02 Frederick C. Backus, Willert Park Courts, Buffalo, NY, United States, 1939-1944. Parts of the project have been demolished, the remain is vacant and boarded up and threatened with demolition; new vaguely traditional houses have been built adjacently. © Buffalo Rising c. 2019.

the mid-1960s, Pruitt-Igoe was considered the most dangerous housing project in the city.¹⁷ A nine month rent strike in 1969 further exacerbated conditions.¹⁸

The discussion around the question whether the failure of the buildings was to be attributed to its planning and design started almost immediately. The original designs and the finished project published respectively in 1951 and 1956 received extensive praise.¹⁹ Less than ten years later, by 1965, that opinion had changed and the project was declared a failure.²⁰ In 1972, when the first demolition took place, Pruitt-Igoe was labeled "the housing failure of the century," and called "a disaster in human, architectural, and now economic terms."²¹ The popular press echoed these verdicts.²²

The discussion continued over time and generally faulted the design or size of the buildings. The demolition as evidence of the failure of modern architecture was most notoriously made by Charles Jencks (1939-2019) in his famous claim that modern architecture "died" in 1972 when the first Pruitt-Igoe buildings were imploded.²³ It is not until more recently that a more critical reexamination of the circumstances surrounding the design, construction and operation of the project takes into account societal and social and public policy issues.²⁴

Against this background, the preservation of public or subsidized housing projects continues to be challenged. The need for affordable housing has not lessened but instead has become even more urgent. Existing housing complexes are under considerable pressure because of dwindling government support, while simultaneously being faced with a need for extensive maintenance and upgrades to new standards. Projects have been demolished or have been privatized and made all or partially market rate, or sections have been demolished to make room for market rate infill development.²⁵

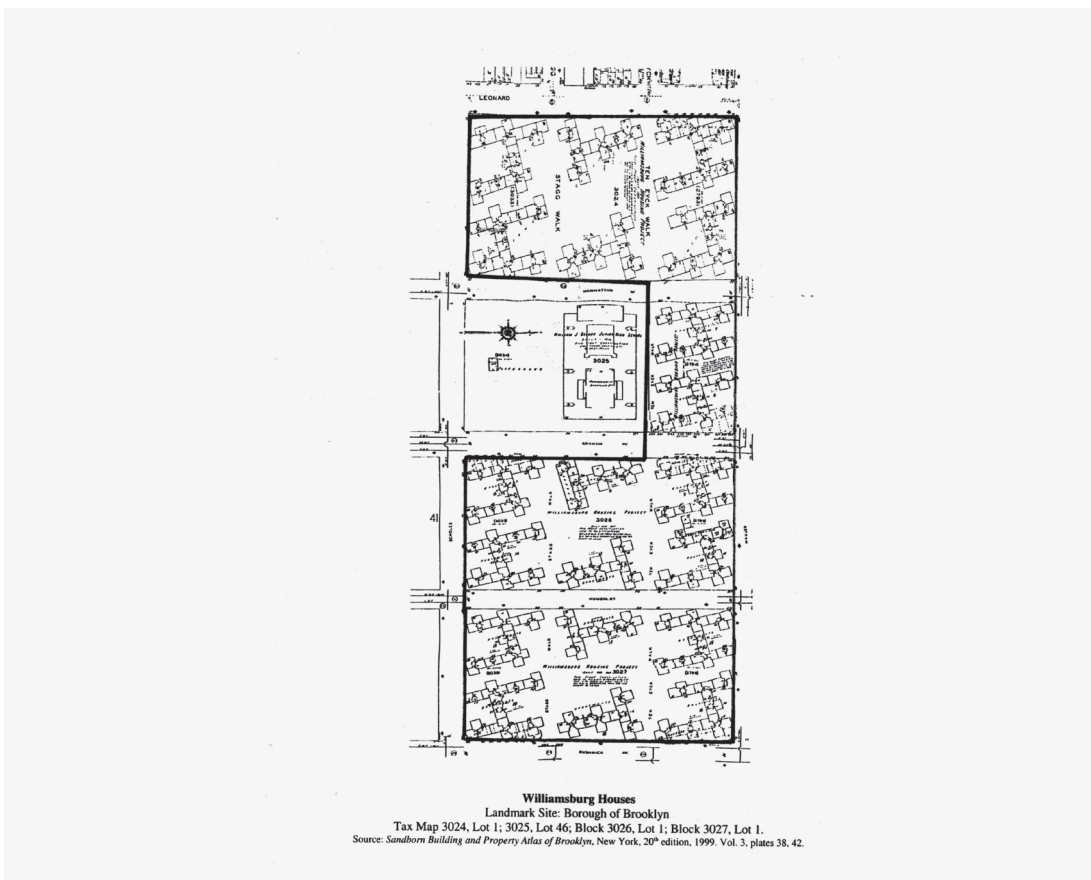
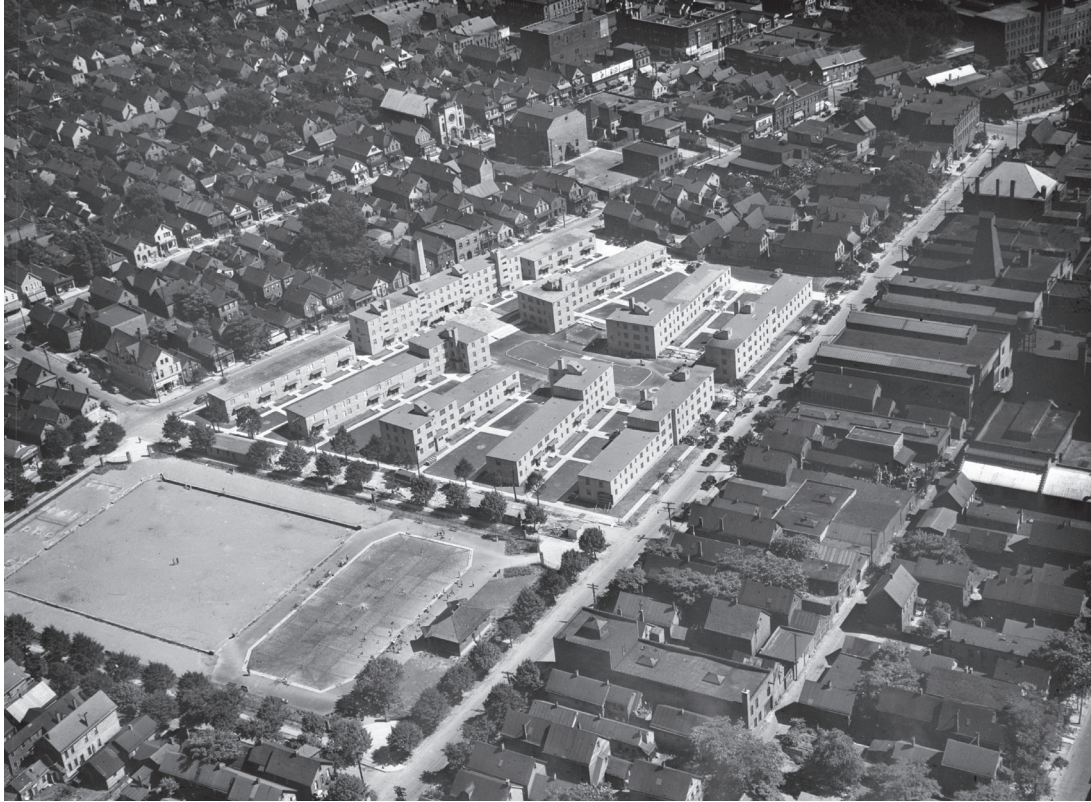
A few examples may help to illustrate the dilemmas. Projects, ownership, conditions, architectural, design and cultural significance vary, as well as actions contemplated

or undertaken to upgrade housing conditions and achieve – in some instances – preservation. Most discussions and considerations continue to take place against a background of continued fiscal austerity and a still evolving public perception of what happened in St. Louis in the 1970s.

The Housing Act of 1937 enabled the design and construction of a number of important small and low-rise housing developments. One example, the Lafitte projects (1940-1941) in New Orleans, Louisiana (LA), designed by Sol Rosenthal, Jack J. H. Kessels, and Ernest W. Jones, has been demolished about a decade ago because of social conditions, neglect and deterioration after hurricane Katrina in 2005. It has made way for a new, architecturally more traditional development of lesser density with detached houses.²⁶ A similar fate may be in store for Willert Park Courts, renamed Alfred D. Price Housing in 1969, in Buffalo, New York (NY). Designed by Frederick C. Backus (1889-1969) and completed in 1939 with additions in 1942 and 1944, for the Buffalo Municipal Housing Authority (BMHA), it was the first housing complex for Afro-Americans in the city. Sculptures by artists Robert Cronbach (1908-2001) and Harold Ambellan (1912-2006) were incorporated in the architecture.²⁷ While determined eligible for listing on the *National Register for Historic Places* because of its significance for architectural, planning, landscape, art and ethnic heritage, the nomination was not moved forward. The remainder of the project is currently scheduled for demolition and is the subject of an on-going preservation battle.²⁸ Sections had been demolished in 2006 and 2009.

Housing authorities, some established after the passing of the 1937 Housing Act, were and continue to be important in providing affordable and public housing. Agencies like the New York City Housing Authority (NYCHA) and the Chicago Housing Authority (CHA) were established to build, own and operate housing.²⁹ Their operations have been affected by the changes in policies and a decrease in funding. The last two decades have seen an increasing turn towards the private market.³⁰

- 03 Frederick C. Backus, Willert Park Courts, Buffalo, NY, United States, 1939-1944. Aerial view, 1939. © us Department of Housing and Urban Development, Center for Urban Planning, State University of New York Buffalo.



- 04 Williamsburg Associated Architects, Williamsburg Houses, Brooklyn, NY, United States, 1936-1938. Landmark Map, 2003; around 20 buildings have been placed on the site at an angle to the street grid. © Landmark Preservation Commission, "Williamsburg Houses Designation Report (LP-2135)", New York, City of New York, 2003.

One of the early housing projects constructed in New York City is Williamsburg Houses built between 1936 and 1938. Originally named Ten Eyck Houses, it was the work of a design team under the direction of Richmond Shreve (1877-1946) of Shreve Lamb & Harmon, the architects of the Empire State Building (1929-1931). William Lescaze (1896-1969), the Swiss-born modernist, is credited as one of the designers. Commissioned initially by the Public Works Administration (WPA), a New Deal agency charged with building housing prior to the passing of the Housing Act of 1937, the project was turned over to NYCHA ownership in 1957.

Around 1622 apartments are located in 20 buildings with H or T-shaped footprints. The individual buildings are placed at a 15-degree angle to the orthogonal street grid. The 25-acre [10 ha] site allowed for generous use of open space and walks and community facilities in the center. Williamsburg Houses was designated a New York City Landmark in 2003 and received a 70-million-dollar upgrade in 1999.³¹

Another example of a project that involved William Lescaze in the early design phase is Queensbridge Houses with its 3149 apartments in 6-story buildings.³² Located in Queens just north of the 59th Street bridge, it is the largest project of its kind in the NYCHA portfolio and was completed in 1940, following the design of the architects William F. R. Ballard (1905-1993), Henry S. Churchill (1893-1962), Frederick G. Frost (1876-1966) and Burnett C. Turner (1902-1999). While the project was also determined eligible to the National Register for Historic Places, no further action was undertaken. Like Williamsburg Houses, the project has a generous amount of open space between Y-shaped buildings that made the plan independent from the city's orthogonal plan. A community center, school and small commercial area have been placed at its center.

Not all NYCHA projects have fared as well and the agency is facing considerable financial shortfalls and substantial backlogs in repairs and maintenance. A 2015 plan named *Next Generation* sought to establish financial stability following the earlier financial crisis and to repair and expand affordable housing. That earlier plan was updated in 2018 with NYCHA 2.0 and sought to raise funds for capital repairs over a ten year period through converting around 62,000 units into private management, the sale of unused development rights and under a component of the plan called "Build to Preserve" mixed use infill development on existing sites.³³ An example of this strategy envisioned replacing two existing buildings with three mixed income ones.³⁴ Turning over some 62,000 units to private developers would follow the example of cities like Chicago and San Francisco.³⁵ No action has yet been taken on any part of the plan, but given the dire need for resources, it is likely to reemerge in some form in the near future.

Roosevelt Island, the last example, is of interest both socially and architecturally. The island was called Welfare Island and home to a number of hospitals before being re-christened Roosevelt Island in 1973.³⁶ That was the year when Louis Kahn (1901-1974) was commissioned to design the memorial for Franklin Delano Roosevelt (FDR),

the Franklin D. Roosevelt Four Freedoms Park, at the southern tip of the island. In 1969 New York State's Urban Development Corporation (UDC) had commissioned Philip Johnson (1906-2005) and his partner John Burgee (1933-) to create a plan for 5000 apartment units to provide housing for 20,000 people. The project was one of two that benefitted from a Federal program that sought to stimulate large-scale multi-use development projects with mixed income housing adjacent to or in existing cities.³⁷ The first phase of the original plan that was built was "Northtown" and included four buildings: Westview and Eastwood as well as Island House and Rivercross.³⁸

The original buildings are significant not just because of the prominence of the designers, but also for what they sought to achieve. Aligned along a north south axis named Main Street and arranged with open spaces and courtyards in between, the buildings step back from the street towards the water. In addition, Josep Lluís Sert (1928-1979), for instance, attempted to "modify typical American housing patterns by including more communal facilities within them."³⁹ In response to criticism of Pruitt-Igoe, he intentionally created a density of doorways in each corridor to increase the "eyes on street" and avoid empty corridors characteristic of other housing schemes.⁴⁰

Once a unique community with an economic diversity, the island is now changing. No existing housing is being demolished. Of the original subsidized housing some buildings have been privatized, and new market rate residential buildings are being added in the southern part of the island, in the area that in the original masterplan was referred to as "Southtown". Also, on the southern part of the island a new academic campus is being built and on the very tip of the island the Franklin D. Roosevelt Four Freedoms Park has finally been completed in 2012. The success of the island as originally conceived and what is evolving today was and is a subject of much discussion in the popular press.⁴¹

These few examples provide an indication of the complexity around the discussion of the preservation of housing and what challenges are ahead. Affordable housing, be it government built, owned or subsidized in densely populated urban areas, remains in great demand. Throughout the second and third quarter of the 20th century a great number of apartments were built, remaining still today. With perceptions still mixed, changes in social policy, the need for maintenance and upgrade, and diminishing government financial support and subsidies, public owners and housing authorities have turned more and more towards private industry for help and solutions. While this may result in improvements and desperately needed upgrades, it is critical that important parts of the original social and design intent are valued and preserved.

- 05** Williamsburg Associated Architects, Williamsburg Houses, Brooklyn, NY, United States, 1936-1938. View of a typical interior space of the project.
© Theodore Prudon, 2018.



- 06** Williamsburg Associated Architects, Williamsburg Houses, Brooklyn, NY, United States, 1936-1938. View of a typical corner of the four-story buildings.
© Theodore Prudon, 2018.



- 07** Philip Johnson, John Burgee (plan), Roosevelt Island, New York, NY, United States, 1969. View of the Main Street with the Chapel of the Good Shepherd and Eastwood designed by Josep Lluís Sert and completed in 1976.
© Theodore Prudon, 2015.



- 08** Philip Johnson, John Burgee (plan), Roosevelt Island, New York, NY, United States, 1969. View of the Westside of the Island with the buildings Rivercross and Island House designed by John Johansen and Ashok Bhavnavi and completed in 1975.
© John Arbuckle, 2015.



- 09** William F. R. Ballard, Henry S. Churchill, Frederick G. Frost, Burnett C. Turner, Queensbridge Houses, Queens, NY, United States, 1938-1940. Aerial view, 1939, showing buildings in the southeast corner of the site still under construction and in the background is visible the south end of Roosevelt Island. © New York City Housing Authority Collection LaGuardia and Wagner Archives, LaGuardia Community College, City University of New York.

Notes

- 1 The term “affordable” captures housing of many different types of ownership or financial support. It reflects a cost or rental level as determined in a local context. Public housing generally denotes ownership and management by a government agency such as a housing authority. A good overview of the history of affordable housing in New York City may be found in Nicholas Dagen Bloom, Matthew Gordon Lasner (eds.), *Affordable Housing in New York*, Princeton, Princeton University Press, 2016.
- 2 In *Modern Housing*, Boston, New York, Houghton Mifflin Company, 1934, Catherine Bauer, describes not only various European housing policies and projects, but she also recognizes the importance of design as she states on page 213 “Architecture is the Social Art”.
- 3 Much of the focus was on the suburbs. Dolores Hayden states: “The National Industrial Recovery Act of 1933 had four goals: to increase employment, to improve housing for the poor, to demonstrate to private industry the feasibility of large-scale community planning efforts, and to eradicate and rehabilitate slum areas ‘to check the exodus to the outer limits of cities with consequent costly utility extensions and leaving the centrally located areas unable to pay their way’”, in Dolores Hayden, *Building Suburbia: Green Fields and Urban Growth, 1820–2000*, New York, Vintage Books, 2003, 221.
- 4 Kenneth T. Jackson, *Crabgrass Frontier: The Suburbanization of the United States*, New York, Oxford University Press, 1985, 197. FHA published guidelines for house and neighborhood design to ensure designers and planners consider certain issues, like space planning, orientation, and street layout for projects that would need to receive FHA approval.
- 5 During the interwar period, over a million houses were built by the local authorities in England and Wales, while in the US in the four years before the outbreak of WWII, only 130,000 new units were sponsored. For more information on the New Deal housing programs, see *idem.*, 190–230.
- 6 See Donald Albrecht (ed.), *World War II and the American Dream: How Wartime Building Changed a Nation*, Washington DC, National Building Museum, 1995.
- 7 The policies and ideals leading up to these suburban developments have been the subject of a considerable study. Of note are studies that examine the suburbanization phenomenon in relation to the development of housing from a social history perspective. See Dolores Hayden, *Redesigning the American Dream: The Future of Housing, Work and Family Life*, New York, W. W. Norton, 1984; or Gwendolyn Wright, *Building the Dream: A Social History of Housing in America*, New York, Pantheon Books, 1981. Suburbanization is often tied to discussions about sprawl: Dolores Hayden, *A Field Guide to Sprawl*, New York, W. W. Norton, 2004, details different forms of sprawl; Robert Bruegmann, *Sprawl*, Chicago, University of Chicago Press, 2005, presents a more comprehensive history of both positive and negative aspects. Attempts have been made to develop criteria for listing suburban developments, see David L. Ames, Linda Flint McClelland, *Historic Residential Suburbs*, Washington DC, US Department of the Interior, National Park Service, 2002, National Register Bulletin.
- 8 For a discussion about the evolution of high-rise housing in the US see Eric Mumford, “The ‘tower in the park’ in America: theory and practice, 1920–1960”, *Planning Perspectives*, Vol. 10, No. 1, Abingdon, Taylor & Francis, 1995, 17–41. He notes the influence of both the European modernists and the already existing American practice of building multistory residential structures. See also Robert A. M. Stern, Gregory Gilmartin, Thomas Mellins, *New York 1930*, New York, Rizzoli, 1987, 428–447, for a summary of housing in New York City in the two decades before WWII. Most of the projects noted are multistory structures in cruciform typologies, only the Chrystie-Forsyth Street development proposal by Howe & Lescaze of 1931–1932 shows a modernist design.
- 9 Most public housing was built as two- to four-story structures. See Alexander von Hoffman, “A Study in Contradictions: The Origins and Legacy of the Housing Act of 1949”, *Housing Policy Debate*, Vol. 11, No. 2, Abingdon, Taylor & Francis, 2000, 299–326.
- 10 The issues surrounding the design of modern high-rise housing and their success or lack thereof remain an important subject of discussion and controversy with very divergent points of view. Gail Radford, *Modern Housing for America*, Chicago, University of Chicago Press, 1996, 208–209, argues that some of it did work and serve well. One of the culprits identified is the so-called “two-tier” housing policy in the US, i.e. public housing versus the middle-class mortgage income tax deduction. That opinion is echoed in J. S. Fuerst, *When Public Housing was Paradise: Building Community in Chicago*, Westport, Praeger, 2003. He comes to a somewhat similar conclusion when discussing the Chicago Housing Authority. For some of the general issues and case studies, see Theodore Prudon, *Preservation of Modern Architecture*, New York, John Wiley & Sons, 2008, 239–301. For a general discussion of housing preservation, see by the same author “Modern Housing Redux: the (Un)Loved and the (Un)Learned”, *Historic Environment*, Vol. 25, No. 2, Burwood, Australia ICOMOS, 2013, 12–37.
- 11 National Commission on Severely Distressed Public Housing, “The Final Report of the National Commission on Severely Distressed Public Housing: A Report to the Congress and the Secretary of Housing and Urban Development”, Washington DC, The Commission, 1992.
- 12 HOPE VI funded the demolition of around 150,000 units between 1993 and 2007 and only 24% of the demolished units had been replaced by 2008. From a high of 1,410,00 public housing units in 1994 the number decreased to 1,002,114 units in 2020. See Jeff Andrews, “Affordable Housing is in Crisis. Is Public Housing the Solution?”, *Curbed*, [online], 13th January 2020. Available at: <https://archive.curbed.com/2020/1/13/21026/public-housing-faircloth-amendment-election-2020>.
- 13 The program was administered by the US Department of Housing and Urban Development (HUD) and the approach recommended was based on the actions around the Columbia Point Housing in Boston built in 1954. Here the solution had been to turn the project over to a private development firm, who demolished the housing and built a new complex.
- 14 The firm responsible for the design was Leinweber, Yamasaki & Helmuth.
- 15 Katherine G. Bristol, “The Pruitt-Igoue Myth”, *Journal of Architectural Education*, Vol. 44, No. 3, Abingdon, Taylor & Francis, 1991, 166.
- 16 Robert Fishman, “Rethinking Public Housing [Research & Debate]”, *Places*, Vol. 16, No. 2, Berkeley, University of California, 2004, 29.
- 17 Joseph Heathcott, “Pruitt-Igoue Public Housing Project, St. Louis, Missouri”, in R. Stephen Sennott (ed.), *Encyclopedia of 20th Century Architecture*, New York, Fitzroy Dearborn, 2004, 1066.
- 18 Katherine G. Bristol, *op. cit.*, 166.
- 19 The praise was for “a new kind of apartment.” The buildings had interior “neighborhoods” created by the skip-stop elevator system that stopped only every three floors giving access to broad galleries where children could play safely and that allowed people to meet and enjoy fresh air through operable windows. Also praised as “refreshing” was the considerable amount of open park land with circa 200 feet [61 m] between buildings. The article claimed that this project had “already begun to change the public housing pattern in other cities” and “would save not only people, but money,” see “Slum Surgery in St. Louis”, *Architectural Forum*, Vol. 94, No. 4, New York, Time Inc., April 1951, 128–136. In 1956 the architecture was described as “(...) to achieve that essential smallness of scale within the huge context of the project which alone will preserve conditions in which human beings can live comfortably and restrain all that is possible of the small neighborhood,” in “Four Vast Housing Projects for St. Louis”, *Architectural Record*, Vol. 120, No. 2, New York, August 1956, 182–189.
- 20 James Bailey, “The Case History of a Failure”, *Architectural Forum*, Vol. 123, No. 5, New York, Urban American Inc., December 1965, 22–25. The project was to receive a 7-million-dollar renovation. Referencing the 1951 article, Bailey notes that the original design aspects as extolled in 1951 were never fully realized.
- 21 “St. Louis Blues”, *Architectural Forum*, Vol. 136, No. 4, New York, Urban American Inc., May 1972, 18.
- 22 “Demolition marks ultimate failure of Pruitt-Igoue Project”, *Washington Post*, 27th August 1973, 3; and John Herbers, “The Case History of a Housing Failure”, *New York Times*, 2nd November 1972, 1.
- 23 Charles Jencks, *The Language of Post-Modern Architecture*, London, Academy Editions, 1978, 9.
- 24 Peter Hall, *Cities of Tomorrow*, Oxford, Blackwell Publishers, 2000, 239–240, sees Pruitt-Igoue’s failure not as the result of a “planning mistake”

- but of the arrogance of the “Corbusians”, who did not understand what was needed for the population inhabiting the buildings. A point of view to some extent echoed in D. Bradford Hunt, “Public Housing in America: Lost Opportunities”, *Reviews in American History*, Vol. 25, No. 4, Baltimore, Johns Hopkins University Press, 1997, 637-642, in his review of Radford’s *Modern Housing for America*.
- 25 For instance, in 2009 according to the HUD since 2006 circa 195,000 units of public housing have been demolished and another 230,000 were scheduled for demolition. See Robbie Brown, “Atlanta is making way for new Public Housing”, *New York Times*, 21st June 2009. Here the typical brick structures – dating from 1936 – were being demolished to make way for quasi-colonial low-rise housing dispersed in presumably mixed neighborhoods developed by private developers. The same has been taking place in New Orleans and Newark. For Newark, see Antoinette Martin, “End nears for Unloved Housing”, *New York Times*, 12th October 2008.
- 26 A number of housing projects were damaged by hurricane Katrina. See Susan Saulnay, “5,000 Public Housing Units in New Orleans are to be razed”, *New York Times*, 15th June 2006. For Lafitte, see: Nicolai Ouroussoff, “High Noon in New Orleans, LA the Bulldozers are ready”, *New York Times*, 19th December, 2007, who writes about Lafitte: “Some [public housing] rank among the best early examples of public housing built in the United States, both in design and in quality of construction.”
- 27 About the artists and their art, see “The Artists of Buffalo’s Willert Park Courts Sculptures (aka A.D. Price Courts, 406 Jefferson Avenue)”, *Western New York History* [online]. [Accessed: 24th November 2020] Available at: https://www.wnyhistory.org/portfolios/more/DEPRESSION_ERA_PUBLIC_ART/willert_wpa_art/willert_wpa_art.html.
- 28 A determination of eligibility for inclusion in the National Register of Historic Places is an interim procedure that can be made before the formal process of listing is undertaken or completed.
- 29 The NYCHA was established in 1934 and is the largest of its kind in the US. The CHA dates from 1937.
- 30 For a summary of the history of the NYCHA, see Luis Ferré-Sadurns, “The Rise and Fall of New York Public Housing”, *New York Times*, 9th July 2018. For a more detailed discussion about NYCHA and the various Federal programs and agencies, see Richard Plunz, *A History of Housing in New York City*, New York, Columbia University Press, 1990, 207-227 and 233-245.
- 31 *Idem.*, 214-220: figure 7-11 on page 217 shows a plan of the site as built, as well as a comparison with a more traditional NYCHA layout. For a detailed description, see Landmark Preservation Commission, “Williamsburg Houses Designation Report (LP-2135)”, New York, City of New York, 2003, prepared by staff.
- 32 *Idem.*, 239-240; and Gaia Caramillino, Marella Feltrin-Morris, *Europe Meets America: William Lescaze, Architect of Modern Housing*, Newcastle upon Tyne, UK, Cambridge Scholars Publishing, 2016, 118.
- 33 Arthur Tristea, Max Brueckner-Humphreys, Daniel Rubin, “NYCHA’s Road Ahead: capital and operating budget needs, shortfalls and plans”, *NYU Furman Center* [online], August 2019. [Accessed: 16th November 2020]. Available at: <https://furmancenter.org/research/publication/nychas-road-aheadnbsp-capital-and-operating-budget-needs-short-falls-and-pla>.
- 34 See Luis Ferré-Sadurns, “To Save Public Housing, New York Warily Considers a New Approach”, *New York Times*, 25th April 2019.
- 35 An example of this approach is the Raymond M. Hillard Center in Chicago from a decade earlier. See Theodore Prudon, 2008, *op. cit.*, 292-301.
- 36 See Charles Giraudet, “The New Deal Health Infrastructure of New York: The Hospitals of Isadore Rosenfield”, *docomomo Journal* 62 – “Cure and Care”, Lisboa, *docomomo* International, 2020, 52-59.
- 37 For a history of the development of Roosevelt Island, see Robert A. M. Stern, *New York 1960*, New York, The Monacelli Press, 1995, 641-659. For a discussion of the political issues around the project and the role of Ed Logue, see Lizabeth Cohen, *Saving America’s Cities*, New York, Farrar, Straus and Giroux, 2019, 277-293. For a discussion on the development of the project and Sert’s buildings, see Joan Ockman, “1970 Roosevelt Island”, in Josep M. Rovira (ed.), *Sert 1928-1979 Half a Century of Architecture*, Barcelona, Fundacio Joan Miro, n.d., 333-347. One other project developed under this Federal program “New Town in Town” is the Cedar Riverside project (1962-1973) in Minneapolis designed by Ralph Rapson (1914-2008). For a summary of this project, see Jane King Hession, Rip Rapson, Bruce N. Wright, *Ralph Rapson: 60 Years of Modern Design*, Afton, Afton Historical Society Press, 1999, 192-201.
- 38 These buildings were respectively designed by Sert Jackson & Associates and Johansen & Bhavnani. Other architects involved in the design for Roosevelt Island are Kallmann & McKinnell (of Boston City Hall fame), landscape architects Dan Kiley (1912-2004, of Lincoln Center), Zion & Breen (of Paley Park) and Lawrence Halprin (1916-2009). Eastwood has been renamed Roosevelt Landing.
- 39 Eric Paul Mumford, Mohsen Mostafavi, *The Writings of Josep Lluis Sert*, New Haven, Yale University Press, 2014, xviii.
- 40 Yonah Freemark, “Roosevelt Island: Exception to a City in Crisis”, *Journal of Urban History*, Vol. 37, No. 3, 2011, 367. Sert’s work reflected the influence of Le Corbusier (1887-1965) in both his architectural philosophy and the design of the actual apartments.
- 41 Mark Lamster, “Rethinking Roosevelt Island”, *Design Observer* [online], 14th January 2012. Available at: <https://designobserver.com/feature/rethinking-roosevelt-island/32188>. Here Mark Lamster describes an architectural critic’s visit before construction of the new campus and reflects on the original design. Much of the discussion centers on the makeup of the original community, its governing structure and the evolving real estate and costs. Bruce Lambert, “In search of Democracy for Roosevelt Island”, *New York Times*, 19th June 1994; and Bruce Lambert, “Living on...Roosevelt Island”, *New York Times*, 4th October 2017, for example.

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Lars Ågren, Kollektivhuset Stacken, Göteborg, Sweden, 1969-1980. The first small collective house of the multi-family dwelling "Swedish model". © Claes Caldenby.

***Kollektivbus:* the Swedish model¹**

BY CLAES CALDENBY

Today there is a new wave of co-housing internationally. Co-housing is here understood as collaborative housing, based on collaboration between residents on cooking and house maintenance, a new phenomenon since the 1980s. Sweden has a tradition since early modernism of *kollektivbus*, collective houses, in multi-family dwellings with employed staff managing household work. In Sweden today there are only some 40 true *kollektivbus* or co-housing projects, while ordinary Swedish postwar multi-family dwellings have common facilities that potentially would make them co-housing. Co-housing is often seen as a sustainable house form, but a problem is that they mainly reach middle-class residents.

The first ever international conference on co-housing was held in Stockholm in 2010. This is not a coincidence. It tells at least two things: 1. That today there is a new wave of co-housing internationally, including also countries that have not had many examples built before and 2. That Sweden has a long history of collective houses, since early 1900s and especially since the breakthrough of modernism in the 1930s. The terminology is also telling: the conference was about co-housing, usually understood as collaborative housing, while the Swedish term since the 1930s and still today is “*kollektivbus*”, collective house. Collaborative and collective can be understood as two different aspects of this kind of housing, its content and form if you like, but they can also be given a political meaning.

Housing typology and organization of household work

Much has been published internationally on co-housing as part of this recent wave. One Italian book, by Jacopo Gresleri (1971-), gives an overview of co-housing projects and points out two main building types, the “Swedish model” and the “Danish model”.² The “Swedish model” is a multi-family dwelling, while the “Danish model” is a group of small houses of the “dense-low” type. The “Danish model” is most common in the Anglo-Saxon world, where co-housing is a fairly new phenomenon from the late 1900s. In housing generally multi-family dwellings are dominating in the Nordic countries, in the former Eastern Bloc and in central parts of more densely populated European cities, while the rest of the world is dominated by lower one-family dwellings.

It is worth emphasizing from the beginning that the Swedish and Danish models are about housing types while the collaborative aspect is about the organization of household work (cooking and house maintenance), in collaboration between inhabitants as opposed to done by employees. Collaboration on household work is a recent phenomenon, introduced in Denmark in the 1970s (then mainly

in dense-low settlements) and in Sweden in the 1980s (in multi-family dwellings). The Swedish term for the collaborative aspect was “*bogemenskap*” [living community], still used alternating with “*kollektivbus*”. The reason for introducing this model was both to counter the “social atomization”, a perceived lack of community in modern society, and the high costs of employed household workers.

The modernist collective house, both in Sweden and Denmark, was typically based not on collaboration, but on employees doing the household work for what was mainly middle-class inhabitants. The Swedish modernist manifesto *Acceptera* from 1931 describes “family hotels” as a type of housing already being built in “capitalist America and communist Russia”. A large unbuilt project by Sven Markelius (1889-1972) from 1932 was called “*kollektivbus*”, a term claimed, with unclear support, to come from the Soviet Union. The first built modernist example, also designed by Sven Markelius, was *Kollektivhuset John Ericssonsgatan 6* in central Stockholm, from 1935, with 57 apartments, a restaurant, and a day nursery. It was followed during the next ten years by a handful of similar projects, each with between 60 and 280 mainly small apartments, half of them aimed at single women and all with a restaurant.

The large multi-family dwelling of the *unité d'habitation* type was characteristic for modernist housing architecture. This has been called “a new urban genotype”, typical for “industrial bureaucracies”, by Bill Hillier (1937-2019) and Julianne Hanson in their space syntax analysis.³ They also call it “reversed buildings,” not facing the street directly but with a certain inward-oriented detachment from its context. This might be advantageous for the community but can also cause problems which will be addressed later.

Swedish post-war housing policy

The ruling Social-Democratic party, already in the early 1930s, started to form a new housing policy for Sweden, which was launched immediately after the war. Collective houses were not part of that policy, they were considered to

be, and also remained, marginal cases in what was intended to be a general policy. There is however an interesting relation between the two million apartments that were built in Sweden up until the mid-1970s as part of this policy and the later co-housing projects that makes it necessary to go a bit deeper into the characteristics of the in many ways unique Swedish post-war housing policy.

The Swedish post-war welfare state model included a long and strong tradition of financial state support to housing. It was part of Keynesian politics, but it also had social ambitions. The aim was to provide “good housing for everyone,” meaning that the policy was universal, with no special “social housing” for lower income groups. It also meant an internationally very high percentage of multi-family dwellings (~50%) as well as a large percentage of rented (~40%) or cooperative tenant-owned (~20%) flats. Municipal housing companies were set up to lead the construction of affordable housing on a large scale, facilitated by the state through favorable loans.

The typical Swedish multi-family dwelling of the post-war decades would contain not only flats but also a common laundry, for free use of the inhabitants. In cooperative tenant-owned houses there often was an overnight room that inhabitants could rent for guests that they could not accommodate in their own flat, as well as a meeting room for the board of the cooperative, which also could be used for bigger parties by inhabitants. Many of the recent international co-housing projects do not have more common facilities than this, which means that even if the number of “true” collective houses in Sweden today are not more than some 40, there are tens of thousands of houses that in other countries would qualify as co-housing.

The housing policy was launched after the war in a situation of severe housing shortage. To this was added the economic boom of the first post-war decades, which caused a rapid growth of both smaller factory towns and large cities. More housing was in high demand while at the same time all the available workforce was needed in export industries. In an agreement between the government and the large builders, the builders were given economic loans for mechanization and full control over the building process, in exchange for a promise to build more without using a larger workforce. Sweden got a structure of the building trade which included large clients (municipal housing companies), large-scale builders and large-scale architects’ offices. Large-scale architects’ offices were a way of handling large-scale projects (often with over 1000 flats) but also a way of trying to counter the weakened role of the architect in the building process.

The “million program” to build one million flats between 1965 and 1974 was a final attempt to get rid of the still lingering lack of housing. It meant that the state guaranteed loans over a ten-year period to make the builders invest in prefabrication factories. There was a large production of rational housing at a highly functional standard, both in flats and in common facilities, but in external locations and often with a rather bleak architecture that made these districts vulnerable to changing economic conditions.⁴ This is

also what happened with the crisis in the early 1970s. All of a sudden, the demand for multi-family dwellings dropped dramatically: in a process of “suburbanization” those who could afford moved to one-family houses on the outskirts of larger cities. In the beginning of the “million program” two-thirds of the built apartments were in multi-family dwellings, towards the end it was one-third in a decreasing production. Empty flats started to appear in the “million program’s” districts, which contributed to their stigmatization. But it also opened up an opportunity for the new wave of co-housing.

Two pioneer projects

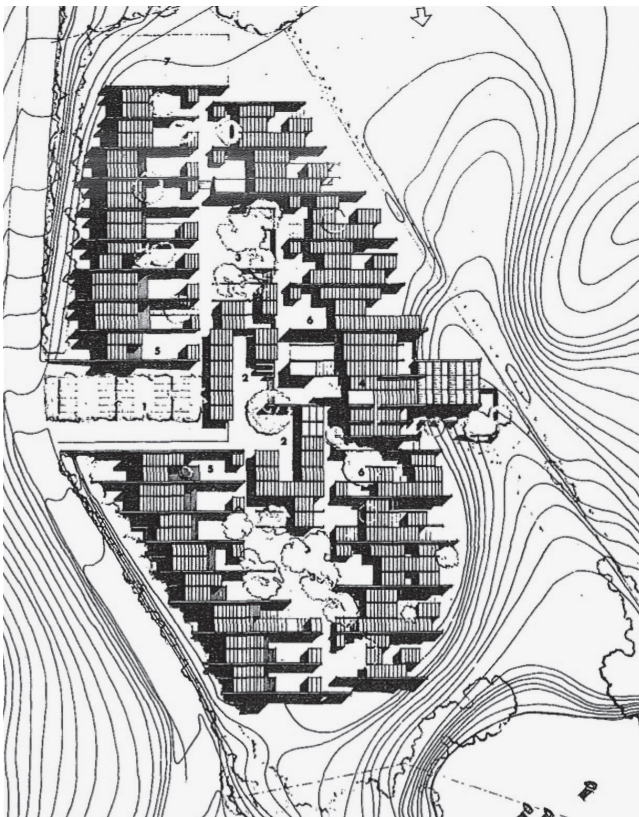
The “record years” of the 1960s and the “million program” in housing, with a belief in technology and large-scale solutions, had addressed the Swedish post-war housing shortage, but it also ended in a critique of the social consequences of the “strong society.” The general lack of community became a focus of the co-housing movement.

This was combined with a widespread interest in ecological alternatives and gender equality. There were also practical experiences of different forms of solutions to these problems. Small groups of young people, sometimes referred to as “extended families,” shared large central apartments, older villas or small former institution buildings. Estimates indicate that around 1980 there were at least 200 such small collectives with an average of six to seven members in Sweden. One of the last traditional large collective houses, Hässelby Family Hotel, opened in 1955 but closed its restaurant in 1976, allegedly for economic reasons. Inhabitants then for some time took over cooking for themselves, showing that this was possible.

These different tendencies were combined in the idea of “the small collective house” formulated by a group of ten women in Stockholm, many of them architects or journalists. Somewhat paradoxically they called themselves BIG, which stands for “live in community” [“*bo i gemenskap*”]. Four principles were fundamental to the idea of the small collective house: no more than 20–50 residents, shared work with daily activities coupled with living (such as cooking and house maintenance), freedom from economic speculation and the right to decide on common matters, and finally a varied group of residents.

The ideas outlined by BIG influenced the first Swedish co-housing project of the new generation, called *Stacken* [“the Ant-Hill”] in Gothenburg, opened in 1980. Another part of its background was that municipal housing companies were bleeding economically because of empty flats and searched for all kinds of solutions, including co-housing. An empty point block with 40 apartments from 1969 in the suburb of Bergsjön was offered to Chalmers School of Architecture, who had run seminars and student projects on co-housing of the new type. The school handled the design and the recruitment of inhabitants, while the housing company paid for the remodeling. In 1980, 55 adults moved into the building, which now had some common facilities such as a laundry, workshop and *café* on the rather closed ground floor and the main common rooms – kitchen,

- 01** Carl-Axel Acking, Hässelby Family Hotel, Stockholm, Sweden, 1953-1956. One of the last large collective houses with 340 apartments and employed staff.
© Holger Ellgaard, Wikimedia Commons CC-BY-SA-3.0.



- 02** Palle Dyreborg & Theo Bjerg, Sættedammen co-housing, Hillerød, Denmark, 1972. The first co-housing project of the dense-low "Danish model".



- 03** hsb architects, Kollektivhuset Trädet, Göteborg, Sweden, 1956-1985. A follow-up of the same model as Stacken. © Claes Caldenby.

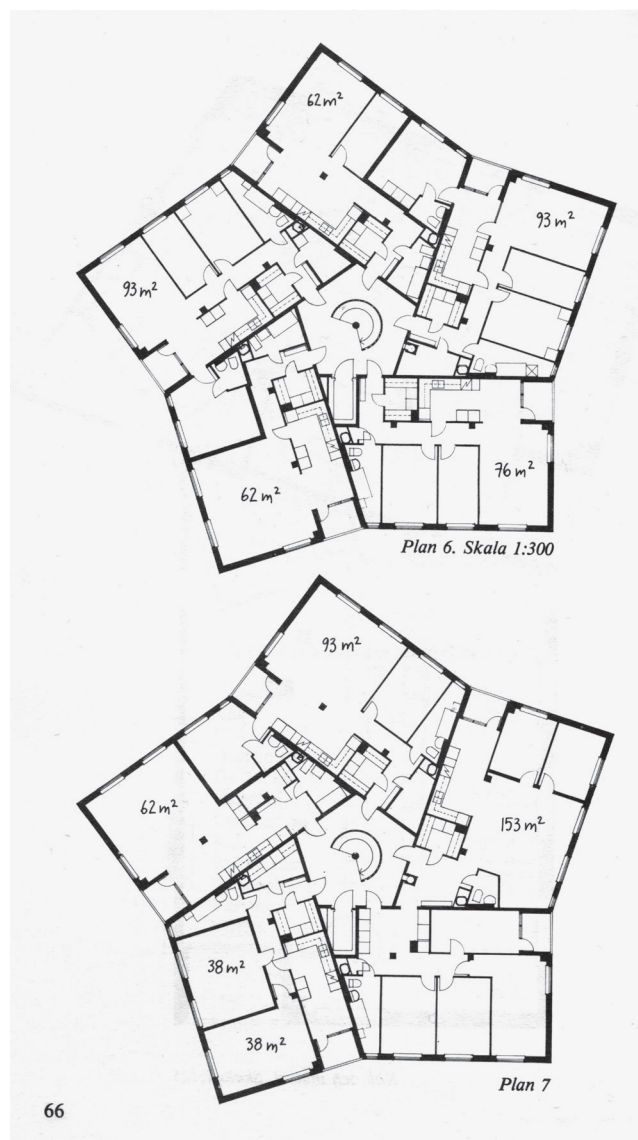
- 04 Lars Ågren, *Kollektivhuset Stacken*, Göteborg, Sweden, 1969-1980. The building after being remodeled into a passive house with a new facade of solar panels, 2017. © Katarina Despotovic.



dining room for daily common meals, day nursery and textile atelier – on the fifth floor. The reason for this was that the structure was so neatly tailor made that larger openings could not be cut in the load-bearing walls on the lower floors. Inhabitants were lower middle-class, many of them with jobs in the public sector as teachers, health and social care workers. The most common household type was single adults, and the second most common was the traditional family of two parents and two children. Single mothers with one or two children were also common.

The pioneering project was, in 1985, followed by a second one, called *Trädet* [“the Tree”], in another point block in a slightly older nearby suburb. *Trädet* was owned by a municipal housing company and the remodeling was again handled by Chalmers School of Architecture. It was technically easier to retrofit than *Stacken*. The restaurant and other common facilities could be placed on the second floor with direct access from the outside. Notwithstanding considerable differences, the two pioneering projects in the first wave of co-housing in Gothenburg are clearly of the same type, the “Swedish model”. They have now been working for more than 30 years, not without problems and conflicts, but in principle according to the ideas of BIG from the late 1970s about “the small collective house” with shared household work. *Trädet* is the better organized collective house with common meals cooked by inhabitants three days a week. *Stacken*, on the other hand, is more activist and “alternative”. When the building was about to be sold by the municipal company to a private developer it was bought by the inhabitants. At the time there was a new form of tenure called cooperative rental, which made it possible to avoid the speculation now connected with cooperative tenant ownership. This means that the house is owned by an association of its tenants, and then each tenant has a share. The residents of *Stacken* could buy their shares for 100 SEK each, which was affordable for everyone. Recently, *Stacken* has also been remodeled into a passive house with a new facade made of solar cells which will considerably decrease energy costs. *Stacken* is an interesting alternative in what today is a

- 05 Lars Ågren, *Kollektivhuset Stacken*, Göteborg, Sweden, 1969-1980. Floor plans: 40 identical 76 m² flats were diversified into one room bigger or smaller flats and even one flat shared by two singles and another made into a double-size collective within the collective house.



problematic situation in Swedish housing. It is an alternative not only, or even mainly, for its collaborative organization, but also for its tenure form and its passive house solution. It is also an exception today with its low living costs, caused by its historical background.

Still a marginal phenomenon

The Swedish policy of “good housing for everyone” was abandoned in the 1990s. The state subsidies were replaced by a market solution. At the same time Sweden has the highest building costs in Europe. The large-scale builders prefer to build housing with cooperative tenant ownership, which is also subsidized by the state through tax reductions on loans. This means that for those who are new in the housing market and who do not have money, such as young people and immigrants, it is very difficult to find a flat.

Collective houses are built today but like all new buildings

06 Lars Ågren, *Kollektivhuset Stacken*, Göteborg, Sweden, 1969-1980. Watching football together in *Trädet*. © Katarina Despotovic, 2018.



07 Lars Ågren, *Kollektivhuset Stacken*, Göteborg, Sweden, 1969-1980. Ove, age 80, cooking in the common kitchen of *Trädet*. © Katarina Despotovic, 2018.



they are expensive. Groups of future residents who take initiatives to start new projects often prefer to have them built by municipal housing companies as rental apartments, to avoid speculation. They will usually meet some lack of interest or even skepticism from the housing companies who still have a general policy in mind. If residents choose cooperative tenant ownership, they will face the problem of affordability for many potential residents as well as a lack of control over to whom an apartment is sold, which is a problem for a housing form that is built on the residents' active participation in collaboration on cooking and maintenance.

The demand for economically and culturally resourceful residents leads to a bias towards middle-class people inhabiting the relatively few new collective houses in Sweden. This is a problem which has followed collective houses since the beginning. It is underlined by the housing typology of "reversed buildings," which tends to favor "trans-spatial" over "spatial solidarity," that is to favor the detached community over the activist nucleus interacting with its context. This is a critique that has also been launched against the recent wave of co-housing.

At the same time, we are in dire need today of socially and ecologically sustainable alternatives in housing as well as in other fields. Collaboration and collective solutions are part of such an alternative thinking. And the history of collective houses offers us examples to learn from, but they need to be contextualized in their different cultural, social and political situations.

Notes

- 1 This article is based on earlier research published in Swedish, see Claes Caldenby, Åsa Walldén, *Kollektivhus: Sovjet och Sverige omkring 1930*, Stockholm, Bygghörsningsrådet, 1979; and Claes Caldenby, Åsa Walldén, *Kollektivhuset Stacken*, Göteborg, Bokförlaget Korpen, 1984; and also on a recent research project published in English, see Pernilla Hagbert et al., *Contemporary Co-Housing in Europe: Towards Sustainable Cities?*, London, New York, Routledge, 2020. For a fuller version of the argument see these books.
- 2 Jacopo Gresleri, *Cobousing: Esperienze internazionali di abitare condiviso*, Busalla, plug_in, 2015.
- 3 Bill Hillier, Julianne Hanson, *The Social Logic of Space*, Cambridge, Cambridge University Press, 1984.
- 4 See Eva Rudberg, "One day we shall inherit the earth - Swedish functionalism as a vision and reality", in *Proceedings of the 5th International docomomo Conference - Vision and Reality: Social Aspects of Architecture and Urban Planning in the Modern Movement*, Stockholm, 1998.

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DOCUMENTATION ISSUES

Vegaviana, a colonization village: the rural “naturalness and simplicity”¹ of modern Spanish heritage

BY INMACULADA BOTE ALONSO
AND BEATRIZ MONTALBÁN POZAS

The *Instituto Nacional de Colonización* built a series of villages all over Spain to support farmers who were working on the newly established irrigated lands. Vegaviana, which was projected by the architect José Luis Fernández del Amo, stands out among the almost 300 villages that were constructed, becoming a referent for INC colonization and also in modern Spanish architecture. Firstly, a brief contextual review is presented. Secondly, the emphasis is put on Vegaviana, and its presence in international contexts is analyzed, highlighting its outstanding low-cost design with local materials. This essay ends with a review from the current perspective.

The *Instituto Nacional de Colonización* and rural housing

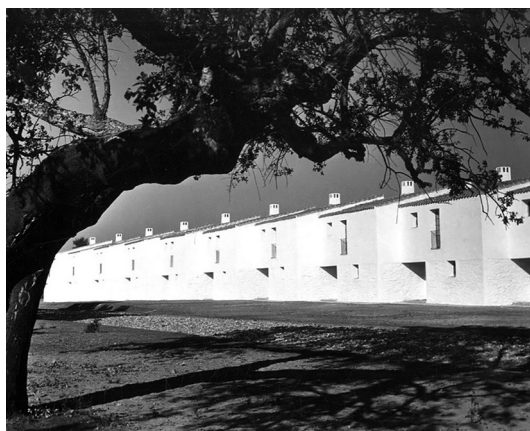
After the Spanish Civil War (1936-1939), the Franco regime created the *Instituto Nacional de Colonización* [National Institute of Colonization, INC] in 1939. Its main objective was to solve the problems of the Spanish countryside that had been dragging on since the 19th century,² as well as other challenges, including high levels of unemployment and a paralyzed industry.³ Some of the measures taken were the implementation of an extensive hydraulic infrastructure so that the lands were irrigated, and the construction of houses for settlers and workers.⁴ Most of the colonization villages were built during the most active period of the INC,⁵

i.e., in the 1950s and in the first half of the 1960s. Vegaviana, for example, dates from 1954. This development was endorsed by the 1949 *Ley sobre Colonización y Distribución de la Propiedad de las Zonas Regables* [Law on Colonization and Distribution of Property in Irrigable Areas]. In compliance to this law, the state is responsible of the major hydraulic infrastructures in the irrigable areas, as well as of the transformation and colonization of these croplands.⁶

This colonization work follows previously studied issues on rural housing. It is based, in particular, on the ideas extracted from a project run by the Second Spanish Republic (1931-1939). Its aim was to provide preliminary drafts for the construction of villages in the

irrigable areas of the Guadalquivir and Guadalquivir rivers (1933).⁷ Moreover, its problems had been studied in detail during the *Seminario de Urbanología* [Urban Management Seminar] led by the School of Architecture of Madrid⁸ (1932-1936). After establishing the “essential residential conditions,”⁹ hygienist principles and a reduction of costs were determined. Architects embraced these principles in the subsequent guidelines and incorporated them in their work. Thus, the INC set criteria closely linked to modern ideology about habitability requirements: sun exposure, air circulation and minimum size. José Tamés Alarcón (1905-2002), chief architect of the Architecture Department of the INC from 1943 to 1975, mentions these factors in some of his publications for the institute, such as *Viviendas Rurales*¹⁰ [Rural Housing]. Moreover, this publication states other determinants for these constructions, including location, materials, building methods, distribution of the dwellings, and other special conditions like position, and minimum widths and heights. According to these principles, rural housing should be located on dry lands with natural drainage and next to a water source, as well as be built with local materials. An economical approach should prevail in its interior layout, so that “unprofitable solutions from a construction point of view”¹¹ are not designed.

The INC went through different phases, as it always functioned within a complex context, and it kept working until near the end of the Franco regime. Its first period was closely linked to “fundamentalist values,” whereas the second unfolded in an international environment of reconstruction after WWII. In this phase, villages reflect charac-



01 José Luis Fernández del Amo, Vegaviana colonization village, Vegaviana, Spain, 1954-1958. Set of houses. © Kindel (Joaquín del Palacio), Heirs of Joaquín del Palacio, in Carlos Flores López, *Arquitectura Española Contemporánea*, Madrid, Aguilar, 1961, (Reedition, Aguilar, 1989).



02 José Luis Fernández del Amo, Vegaviana colonization village, Vegaviana, Spain, 1954-1958. Set of houses. © Kindel (Joaquín del Palacio), Heirs of Joaquín del Palacio, in José Luis Fernández del Amo, *Palabra y obra, escritos reunidos*, Madrid, COAM, 1995.

teristics of modernism, with architects as José Luis Fernández del Amo (1914-1995), Alejandro de la Sota (1913-1996) and José Antonio Corrales (1921-2010).¹²

Even though they started from the same premise, the work developed by INC's architects offers diverse (and sometimes even opposing) results. José Tamés Alarcón's approach to colonization was to create a *nuevo orden rural* [new rural order] with the moral values prevailing in the early Franco regime. José Luis Fernández del Amo's vision, by contrast, was guided by the search for an architecture far from popular mimicry.¹³ He looked for "a simple architecture for rural people" in which modernism translates into "clean shapes, sincerity in the use of available materials and attention to function."¹⁴

Vegaviana, a colonization village

The place

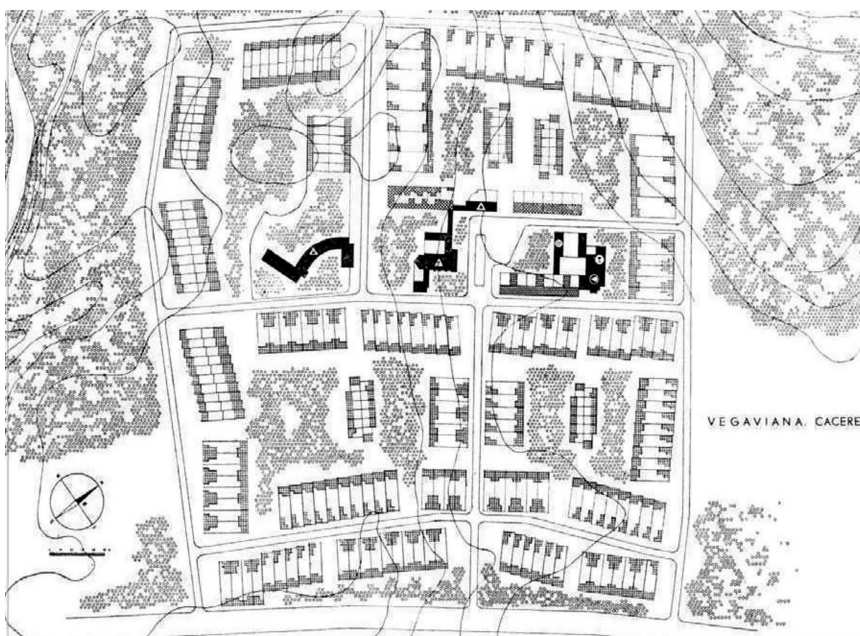
*Vegaviana is born with trees. In fact, since its inception, the village had more trees than Paris or New York. This is because the architect managed to build a perfect geometry of white houses among holm oaks and with holm oaks.*¹⁵

Vegaviana is located in Extremadura, where the INC developed two major colonization initiatives: the Badajoz Plan and the Cáceres Plan, to which Vegaviana belongs. The village was built in an irrigated area of the Borbollón reservoir, in the region of *Sierra de Gata*, in the northern part of Cáceres. It is very near a town called Moraleja and, in both locations, soils are clayey and there is almost no slope. Two streams run through the village: the Tinaja flows on the southern side and the Cigarro on the northwest side.

The village is named after the plantation it was located in: Entrearroyos or Vegaviana. The land is covered by holm oaks, cork oaks, pasture, cereals and vegetable gardens,¹⁶ as well as shrubs such as "rockrose, lavender, thyme, hedge mustard and broom."¹⁷ This environment plays a key role in José Luis Fernández del Amo's way of thinking, and its conservation is one of the objectives of the Vegaviana project. In his own words: "as the natural element is already in place, the village will provide exceptional living conditions. All that is required is the utmost care when building the houses."¹⁸

The understanding and the protection of the natural characteristics of the area are, thus, the basis of Vegaviana's architecture. Because of this differentiating identity, José

03 José Luis Fernández del Amo, Vegaviana colonization village, Vegaviana, Spain, 1954-1958. Aerial view. © Servicios Aéreos Norte.

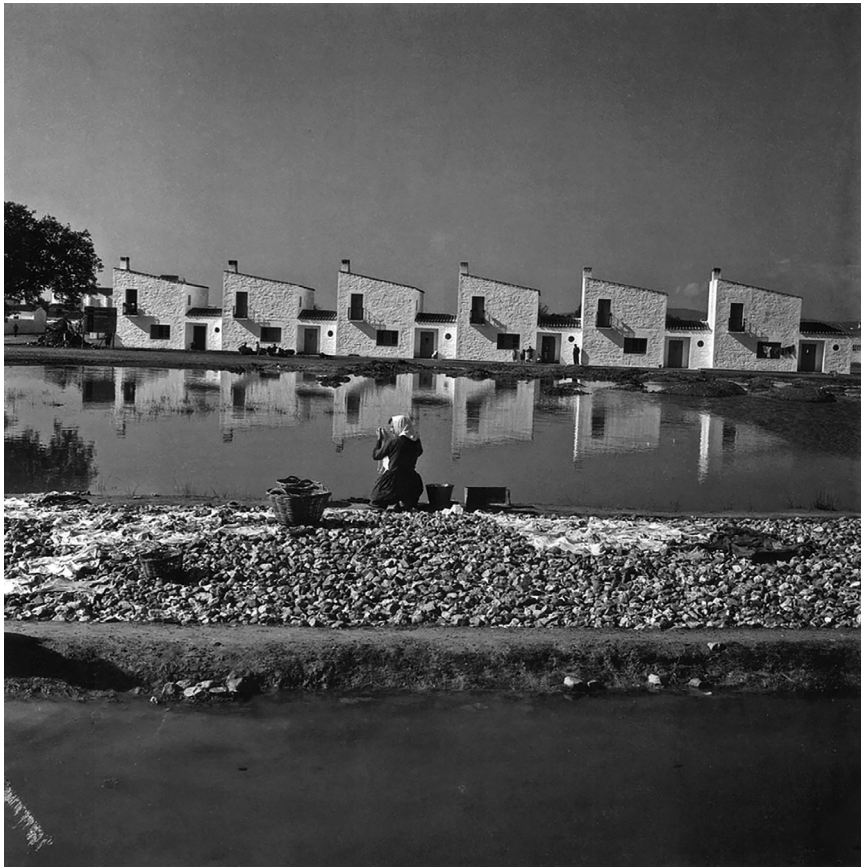


04 José Luis Fernández del Amo, Vegaviana colonization village, Vegaviana, Spain, 1954-1958. General plan. © Courtesy Rafael Fernández del Amo.

María Alagón Laste considers Vegaviana as an example of respect to the natural environment within the colonization movement; according to him, San Isidro del Pinar (Barbany Bailo (1926-2018), 1961) would be another colonization village that blends in harmoniously with the natural surroundings.¹⁹ José Ángel Vaquero Gómez, on the other hand, connects Vegaviana's houses to icons of the Modern Movement, such as Fallingwater (Frank Lloyd Wright (1867-1959), 1936) or Villa Malaparte (Adalberto Libera (1903-1963), 1937), as they exemplify a "climax" in the relation between architecture and landscape.²⁰

The village

*Even though there have been some significant improvements in the village, its lifestyle and activities are mainly linked to the regional tradition. However, Vegaviana has been designed following universal and current concepts, thus avoiding monotony. This newly established village has its own functions, its particular weather conditions and it is subjected to the settlers' idiosyncrasies. If these characteristics hadn't been taken into consideration and if general standards had been applied, the result would have been superficial and flawed.*²¹



05 José Luis Fernández del Amo, Vegaviana colonization village, Vegaviana, Spain, 1954-1957. Iconic image.
© Kindel (Joaquín del Palacio), Heirs of Joaquín del Palacio. Mediateca. Secretaría General Técnica. Ministerio de Agricultura, Alimentación y Medio Ambiente.

Vegaviana's project was first presented in 1954. Then, a series of modifications and phases followed. The initial project encompassed the whole village, but only the first phase was undertaken. Genaro Alas Rodríguez (1926-), an architect from the Cáceres administration, and the technical architect Fernando Crespo Antón (1911-2000) worked together at this early stage. The second phase started in 1956 and was intended to finish the program. José Luis Fernández del Amo and Fernando Crespo Antón oversaw it.

The project report reveals that the village has 27.5 hectares (ha), with a total capacity of 340 houses for settlers and of 50 houses for workers. However, only 150 houses for settlers and 30 for workers were finished in the first phase.²² Settlers' houses are divided into several types depending on the number of floors and bedrooms: type A (one floor and three bedrooms); type B (one floor and three bedrooms); type C (two floors and three bedrooms); type D (two floors and four bedrooms); type E (two floors and five bedrooms). This translates into compositional differences between them all.

The project also took into account public

buildings, which are located in the center of the village. These include a church, a rectory, Catholic Action premises, a town hall with a house for the bailiff, schools, art and craft shops, the social building and the house of brotherhood, as well as houses for the doctor, teachers and shopkeepers.

The village is organized in spacious blocks, giving free passage on the perimeter to road traffic and agricultural fields (located on the opposite side of the settlers' houses). The interiors of the blocks are, therefore, conceived as a major public pedestrian space where the protection, the importance and the connection to the pre-existing pasture are prioritized.

The materials used (such as slate masonry, wattle, lime, or fired clay tiles) come from the local and rural area of Vegaviana. This choice of materials brings together this type of architecture and the vernacular architecture of its surroundings.²³ The difference lies in the emphasis placed on its plastic and aesthetic qualities, resulting in a more abstract architecture.

José Luis Fernández del Amo highlights harmony as an aesthetic criterion. He makes

use of serial architecture, where houses are designed to form blocks, and with the "maximum expression of their volumes and masses of solid and hollow spaces and qualities of materials on the surface of the walls, in contrast to the vegetal elements that accompany it."²⁴ According to Francisco Javier Saénz de Oiza (1918-2000), "Vegaviana remains as a masterclass in the human art of living."²⁵

Awards, publications and international recognition

Vegaviana was completed in 1957²⁶ and, a year later, Spain participated unofficially in the 5th Congress of the International Union of Architects (UIA), held in Moscow. Two colonization villages were presented in the competition: Vegaviana and Esquivel (Alejandro de la Sota, 1952). *Construction and reconstruction of towns, 1945-1957* was the theme of the contest, which turned out to be a huge success, with 1500 participants from 50 countries.²⁷ Spain was not awarded any prize,²⁸ but Vegaviana stood out and it was praised for its urbanism and plasticity. In fact, papers primarily valued the study of lifestyle habits, of climate conditions and of the regional factors, considering them as "a return to the essence of human beings."²⁹

*It comes as no surprise that architects were so enthusiastic about Vegaviana after the Congress in Moscow. After all, its perfect geometry and perfect, human space contrast with all those five-year plans and full programs, always with concerns about numbers, grandiosity and excesses.*³⁰

Following this, Vegaviana became well known and appeared in several publications and other media. The *Revista Nacional de Arquitectura*³¹ [National Architecture Journal], for example, portrayed the village on its front page. The description and planimetry of Vegaviana came with photographs by Kindel (Joaquín del Palacio, 1905-1989), who managed to capture its essence and thus contribute to its iconic status.³² The same photographs were then exhibited at the Ateneo de Madrid, and José Luis Fernández del Amo was awarded the Eugenio d'Ors Gold Medal of Plastic Arts from the International Association of Art Critics (AICA), led by the Press Association of Madrid in 1959. This was the first time this medal was granted to an architect and not to a plastic artist. The newsreel "NO-DO" broadcast this exhibit on 30th March 1959. Vegaviana was described then

as a “major architectural work, marked by its modern aesthetic sense and effective functionalism.”³³ The village also received press coverage, and Juan Ramírez de Luca (1917–2010) defined it in an article as “a newborn but already world-famous village.”³⁴

In 1961, Vegaviana was presented to the 6th *São Paulo Biennial* (an international exhibition of modern art), along with three other colonization villages: Villalba de Calatrava (1955), San Isidro de Albatera (1956) and El Realengo (1957), all constructed by José Luis Fernández del Amo. On this occasion, it obtained a gold medal in the urban planning section. Oscar Niemeyer (1907–2012), foreman of the jury, praised Vegaviana for “its human, plastic and social quality, (...) whose architecture derives from man and serves his vital fulfilment.”³⁵ The village was also presented to other competitions, such as the 63rd *National Congress of Federation of Trade Unions of Architects of South-West France* which was held in Bordeaux in 1963. In 1979, the village participated in the 3rd *General Assembly of the International Rural Housing Association*, which takes place in Spain.

Being known internationally, this colonization village from Cáceres appeared in exhibitions and anthologies about Spanish art and architecture, such as *Arquitectura Española Contemporánea* [Contemporary Spanish Architecture], *Arquitectura española: años 50–años 80* [Spanish Architecture: 50s–80s], *Historia del Arte en España* [History of Art in Spain], *Guía*



06 José Luis Fernández del Amo, Vegaviana colonization village, Vegaviana, Spain, 1954–1957. Current state of the houses and the surroundings of the iconic image. © Inmaculada Bote Alonso, 2019.

de arquitectura de España 1929–1996 [Guide to the Architecture of Spain: 1929/1996] or *Guía de la arquitectura del siglo XX: España* [Guide to 20th Century Architecture: Spain].³⁶

José Luis Fernández del Amo's works for the INC are considered to be a precedent of “a first organic trend” in Spanish architecture in the 1960s.³⁷ However, despite its international recognition, and partly because of the studies carried out by Latin Americans in Spain, the architecture of the colonization villages is mostly appreciated abroad.³⁸

Exceptional results with minimum cost and local materials: Vegaviana as part of the heritage of the Modern Movement

Only 20 colonization villages from the INC (including Vegaviana) figure on the **docomomo** Iberia register as modern housing.³⁹ The Modern Movement is present in these villages in a completely (and almost revolutionary) different way. The use of local materials and traditional construction systems are distinctive features of the conception and design of colonization villages belonging to the Modern Movement. Authenticity is hence of great value in this rural modernity. Many modern constructions lack this quality because of their “technical reproducibility.”⁴⁰

Vegaviana stands out especially for its use of slate masonry on facade walls, making it unique and highlighting the architect's goal of establishing a link with the area.⁴¹ This characteristic materiality is typical of the Modern Movement in architecture, which places a high value on “an efficient use of materials, a design approach incorporating an intelligent saving or resources,”⁴² something nowadays considered as sustainability.

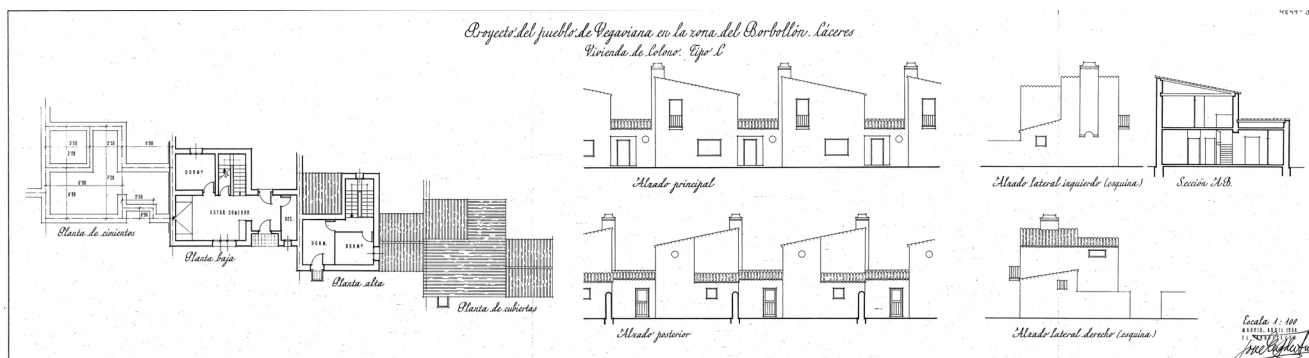
Government institutions have also recognized Vegaviana's heritage value. In fact, formal proceedings have been initiated twice as to declare Vegaviana as *Bien de Interés Cultural* [Asset of Cultural Interest, BIC].⁴³ However, the outcome was negative on both occasions,⁴⁴ which is very negative for the “unstoppable” transformation of the colonization villages.⁴⁵



07 José Luis Fernández del Amo, Vegaviana colonization village, Vegaviana, Spain, 1954–1957. Current situation of the relationship with the pre-existing vegetation. © Inmaculada Bote Alonso, 2020.



08 José Luis Fernández del Amo, Vegaviana colonization village, Vegaviana, Spain, 1954–1957. Original materials in the course of repair work. © Inmaculada Bote Alonso, 2020.



09 José Luis Fernández del Amo, Vegaviana colonization village, Vegaviana, Spain, 1954-1957. Plan, elevations and section of type c, Vegaviana's iconic dwellings, 1954.
© courtesy Rafael Fernández del Amo.

Sustainability and the future

Preventing abandonment of rural areas in favor of cities (and thus its collapse) was one of the main reasons why the INC began its colonization process.⁴⁶ However, this rural-to-urban migration further developed, ending up in what it is now known as “emptied Spain.”⁴⁷ Nevertheless, in today's uncertain under and after COVID-19 world, life in rural areas reappears as a quality alternative to living in overcrowded big cities,⁴⁸ inviting their reconsideration. Renowned architects such as Rem Koolhaas (1944-) had already promoted the rural area as a solution to climate change on his exhibition *Countryside, The Future*.⁴⁹ With all that in mind, could Vegaviana be a benchmark for the future? It is an internationally acclaimed village for its quality, resulting from the Modern Movement, and it has close ties with sustainability. After all, Vegaviana belongs to “a movement that always tries to overcome any difficulties.”⁵⁰

Acknowledgements

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Notes

- 1 These adjectives are taken from the words José Antonio Marina dedicated to Vegaviana: “A village is born in the harsh lands of Cáceres. It emerged from the land with the same naturalness and simplicity as a plant; with the same

humbleness and joy possessed by the holm oaks and thymes surrounding Vegaviana”. Available at: <http://vegaviana.nophoto.org/45>.

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- 3 José Antonio Flores Soto, “La construcción del lugar. La plaza en los pueblos del Instituto Nacional de Colonización”, *Historia agraria: Revista de agricultura e historia rural*, No. 60, Murcia, Universidad de Murcia, 2013, 119-154.
- 4 José Ignacio Sánchez Mora, “El proceso de colonización en Extremadura (1952-1975): sus luces y sus sombras”, *La agricultura y la ganadería extremeñas en 2015*, Badajoz, Fundación Caja Badajoz, 2016, 225-240.
- 5 José Antonio Flores Soto, *op. cit.*
- 6 Miguel Centellas Soler, *op. cit.*
- 7 Miguel Centellas Soler defines this project as “the first step together with hydraulic constructions aimed at building houses to settle farmers down,” in Miguel Centellas Soler, *op. cit.*
- 8 The Urban Management Seminar led by the School of Architecture of Madrid was conducted by José Fonseca Llamado. He was later appointed as director of the *Instituto Nacional de Vivienda* [National Housing Institute, INV], an organization which operated from 1939 (just after the Civil War) until 1977. During his tenure, the architect focused his work on rural housing. Originally, the INV's regulations were binding for the INC, as indicated by Manuel Calzada Pérez in “La vivienda rural en los pueblos de colonización”, *PH, Boletín del Instituto Andaluz del Patrimonio Histórico*, No. 52, Sevilla, Instituto Andaluz del Patrimonio Histórico, 2005, 55-65.
- 9 *Idem.*
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- 11 *Idem.*
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- 15 Translation from the original: “Vegaviana nace con árboles. Es curiosa la estadística para los árboles de París o Nueva York. Vegaviana les gana desde su niñez porque el arquitecto supo, entre encinas y con encinas, levantar una geometría perfecta de casas blancas”, in Francisco Javier Sáenz de Oiza, “El Pueblo de Vegaviana”, *Arquitectura*, No. 7, Madrid, COAM, 1959, 25-28.
- 16 Antonio Berbiela Gómez, “Emplazamiento del pueblo de Vegaviana (Término de Moraleja)”, Ministerio de Agricultura (INC), 1954. Mérida, ARCHIVO HISTÓRICO, Centro de Estudios Agrarios. Consejería de Medio Ambiente y Rural, Políticas Agrarias y Territorio.
- 17 José Luis Fernández del Amo, “Proyecto del Pueblo de Vegaviana (Cáceres). Memoria”, Instituto Nacional de Colonización, Ministerio de Agricultura, 1954. Mérida, ARCHIVO HISTÓRICO, Centro de Estudios Agrarios. Consejería de Medio Ambiente y Rural, Políticas Agrarias y Territorio.
- 18 Miguel Centellas Soler, *op. cit.*
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The Chandigarh Sector

BY SANGEETA BAGGA

The neighborhood unit (Sector) in Chandigarh was conceived as a self-sufficient, repeated element to create the matrix of the city along with the hierarchical circulation system defined by the 7Vs¹ to disburse traffic in an orderly manner. This arrangement was interfaced with a designed landscape at the behest of Le Corbusier and Dr. M. S. Randhawa whose passion for bio-aesthetics realized a city where landscape and built forms created a patina of the most charming capital of the modern world. Seven decades later, the city's flowering landscape and modernist architecture continues to make it one of the best neighborhoods in which to reside.

In the modern world, while the automobile has overtaken city life, the Chandigarh Sector still maintains its walkability and here "pedestrian predominance" can still be perceived. The Chandigarh Sector is a comfortably sized walkable neighborhood unit which has its origins in the Roman quadra. Easy to

traverse on foot, according to Le Corbusier (1887-1965), the sector is a self-sufficient neighborhood unit – a microcosm in which all amenities and day-to-day needs of the citizens are provided within walking distance. Each sector has a neighborhood shopping area, a school, a community center or club,

and a dispensary or health center with a religious amenity such as a temple, mosque, church or gurudwara. Open spaces and parks connect these sectors in the north-south direction offering a view of the Shivalik hills located north of the city. The houses are two to three stories and do not obscure the mountain view. The city gently slopes to the south and thus the drainage is taken care of.

Each sector measures 800 x 1200 meters (m) and could be accessed only at four pre-determined points to maintain the insular and introverted character. Entry was either through the V₃ (fast traffic road) or a V₄ (slow traffic meandering market street). At the junction of the V₃ and V₄, the V₅ loop road (slow traffic sector circulation road) – that formed roughly the figure 8 through the sector – connected and gave access to the sector dwellings and other amenities designed by Jane Drew (1911-1996), Maxwell Fry (1899-1987) and Pierre Jeanneret (1896-1967), the team of architects who actually were responsible for the fabric of the sector and thus the city. They were assisted by the Indian collaboration of architects Manmohan Nath Sharma (1923-2016), Urmila Eulie Chowdhury (1923-1995), Jeet Malhotra (1929-), B. P. Mathur (1926-1976) and Aditya Prakash (1924-2008).

The beauty of the sectors of Chandigarh is a fusion between the built forms and the landscape elements. Low-rise cubic built forms and the designed landscape together create scenic avenues, sector gardens and greens, play areas and open spaces. For much of the landscape design in Chandigarh the credit goes to Dr. M. S. Randhawa (1909-1986), its first chief commissioner – an avid botanist with a passion for landscape gardening – who defined this as bio-aesthetics.² For Dr. Randhawa, landscape gardening was primordial for city planning and beauty and aesthetics lay largely in flowering trees, greening the landscape and overall garden landscape design ethics. According to him, the plantation must include flowering trees which characterize the beauty and aesthetics of the city, a source of passive learning for school children and citizens alike! The flowering trees were along the avenues, the V₄ market street, the V₅ loop, the V₆ (houses' access roads) and V₇ (foot paths and cycle tracks) streets that led to the dwelling and the sector green that ran North-South. The fabric of the city emerged from the dictates of a shoestring budget to build, a social dictate to fulfill the needs



01 Le Corbusier with the collaboration of Pierre Jeanneret, Maxwell Fry and Jane Drew, Chandigarh, India, 1950-1965. The Chandigarh Masterplan, a fusion of buildings and landscape signifying the bio-aesthetics advocated by Dr. M. S. Randhawa, 1951. © Wall model at the Chandigarh College of Architecture.

of an egalitarian society in a democratic nation and the vagaries of climate that had almost six seasons – a harsh summer and winter and a fierce and tumultuous monsoon. Being a government city that was to cater to employees who worked in the administrative capital of erstwhile Punjab, there were 13 categories of house types distributed within the sectors. The larger villa type houses with fruit gardens and orchards were distributed in the northern sectors, while the duplex and smaller units densified the southern sectors of Chandigarh. The commonality and the notion of a classless society was depicted through similarity in material and massing. This idiom of functional zoning replaced the zoning by class as was prevalent in the country.

After having suffered the loss of capital of Lahore to Pakistan, the life in the capital city for the newly truncated state of Punjab, Chandigarh, the brainchild of Pandit Nehru, was to be the last thing in beauty and simplicity in the world. Unfettered by the traditions of the past ushering in a new bright future in the words of Jawaharlal Nehru, the city was to be the role model for future town planning in newly independent India – a new democratic nation.

The avid interest of Dr. Randhawa in art, as well as landscape gardening – a collector of seeds, plants with a passion for travelling –, set the tone for the creation of a Landscape Advisory Committee that would oversee the landscape plan of the city. During his travels in the Himalayan region, Burma, and overseas Dr. Randhawa collected varieties of young flowering trees that he brought back to plant in Chandigarh. Thus, was born the first nursery in the city in sector 23, where original mango groves existed, and the environs gave the impression of a mature countryside. Thereafter, Dr. Randhawa established contacts with the Lal Bagh at Bangalore, Lac Institute at Ranchi, Pune among other cities to create Chandigarh's seed nurseries which continue to flourish and provide seeds and plants to the region. Dr. Randhawa personally supervised the landscaping and planting of these along the avenues of the city.

Each of the three architects Jane Drew, Maxwell Fry and Pierre Jeanneret had a role to play in the design of the sector. While they collectively agreed upon the layout, the design of subsectors, such as the Drew-designed villages in sector 22, was carried out individually. The variety was brought into the grain and texture of



02 Le Corbusier with the collaboration of Pierre Jeanneret, Maxwell Fry and Jane Drew, Chandigarh, India, 1950-1965. The market street created the earliest Aesthetic Legislation with a distinct architectural control for the shops and flats, as well as the row houses called Marla housing. © Sangeeta Bagga.

the subsector with the work of the trio assisted by the Indian architects, yet it bore the identity of the three master architects Pierre Jeanneret, Maxwell Fry and Jane Drew. The resultant architectural character comprising low rise cubic built volumes with deep balconies with concrete parapets, the use of local, baked bricks contrasted with painted, lime washed and white plastered bands, the random rubble masonry from the bed of the river Ghaggar and the terracotta screens and *jalis* and sunbreakers fetched it the popular name the Chandigarh Style.³ The rhythm and the patterns of the city varied with single and double story and even duplex housing, which was modest born out of the East-West dialogue where the East signified the indigenous men and women and methods while the West was the import of modern ways of living. Ushering in modernity, the sector houses had an underground wastewater sewage system, being the first in the country. Its modern planning, even for the smallest category of peon housing, had a functional countertop for women to stand and cook, in contrast to women cooking on the floor in rural areas. Toilets were placed at the rear of house types. Pierre Jeanneret stayed in the city as its chief architect for over 15 years, while the English couple were on a three-year long contract to build Chandigarh. Besides the housing, fondly called the “peoples’ architecture,” the trio is responsible for realizing the educational, health care and public infrastructure of the city.

The softness and color hues that varied with the change in seasons were introduced into the urbanscape of the neighborhood through tree blossoms, shrubs, and gardens as part of Dr. Randhawa's bio-aesthetics. Landscaping and tree-planting in Chandigarh can be classified into three element typologies: firstly, the urbanistic elements, which require tree-planting; secondly, the manner and arrangement of the trees, i.e., the architectural disposition of the elements of tree-planting; thirdly, the selection of trees and their classification accordingly to the shape of the crown and color of the flowers. Urban elements affected by tree-planting are the roads, urban spaces with elements of architecture such as the Capitol, the university, commercial centers, and open urban spaces. Along the roads, trees are planted in single rows, in double rows or in multiple rows. In the green belts and other free urban spaces, the trees are planted singly, in homogeneous groups, in heterogeneous groups, or in large forest plantations.

Within the sector, the V4 street is the place where the most intense activity of the urban life of the sector is assembled and gives its own character to each sector. Consequently, each V4 is different from the others and was finished with special characteristics, because it was indispensable to create a great variety across the city. All the possibilities of nature were used to give each V4 a personality, which maintains itself in the whole width of the town and thus ties together five or six sec-

tors traversed by a V4. The V4 street was defined by double-story shops-cum-flats and single-story booths (smaller shops) along one side and three-story uniform row houses, called Marla housing, on the other side. The urbanity and the need for a certain image of the V4 brought about the need for definite architectural controls that would generate a uniformity and order in the built forms and guide the movement along the V4 street. Thus, was created the first set of architectural controls for both the houses and shops, to define an aesthetic legislation that would lend a continuity and uniformity and thereby identity in the street image. To strengthen the identifiable character further, each V4 street has been planted with flowering trees and colored foliage with different colors of flowers. For example, one V4 is yellow, another red, and yet another mauve. The residential areas are brightened up by masses of blossoms at different times of the year. Walking through the sector market, as well as the inner V6 and V7 streets abutting the dwellings, is a visual delight.

Chandigarh is one of the most carefully planted cities in the world. Recognizing the role and value of trees, a Tree Preservation Order was passed in early 1952 and a protective green belt – the Periphery set the limits to the built-mass. The role of tree cover has been understood well for microclimatic amelioration in Chandigarh. In the hot summer months, heavy masses of dark green leaves provide a refreshing shade. Under the shadow of the blue mountains of the Kasauli range, the buildings stand shaded by the tree canopies, the true friends of man. From the top of the buildings the vast horizon is

seen providing a play of colors throughout the seasons. In the monsoon, which is the most pleasant season in Chandigarh, clouds appear in all directions; they are raining in the east, their dark masses are visible in the south, and the scarlet of the setting sun is tinging the horizon in the west. The green domes of peepal, cheeku and mango trees, which have been retained, provide a touch of the country. Thus, Chandigarh's inhabitants find that the town and the country are blended, the fusion between the landscape and built forms has taken place; the result is harmony, and the link between nature and man is established.

The urban design of the city ranges from the hierarchical road network to the smaller elements, including street furniture. The sector has a comprehensive layout, its beauty is complimented with utilitarian, simple and functional elements such as bus stops, sector signage, drinking water fountains, reading rooms, and even bollards that were modest in material and design and enhanced the simplicity of the setting. These have been generously provided in the sectors. While walking or bicycling along the streets it is easy to sight the end walls of school buildings and hostels embellished in brick murals to convey values and messages to students and visitors in equal measure. Even the standard design of boundary walls of buildings and houses in the sector contributes to the desired urbanity as well as identity in the neighborhood. The aesthetic legislation has stayed well with the residents of privately-built and -owned houses, as they have adopted the same or similar variants from the vocabulary of the government housing stock. Through the neighborhood one can

see the use of public art through utilitarian objects, which is symbolic of the functional society of the Modern Movement.

More than 70 years since the first sector was laid out, its structuring elements, i.e. the Vs and the original layout, have been conserved in letter and spirit. The landscape has matured, and more vegetation has come up under the Greening Chandigarh annual mission, the nurseries have flourished too and multiplied with a dedicated botanical garden under the Chandigarh administration and strict compliance to The Tree Preservation Order of 1952. Under the smart city mission, pedestrian and cycle tracks dedicated for walkers and cyclists within and across the sectors have been refurbished and introduced. During the recent global COVID-19 Pandemic these tracks served their purpose to the best as opportunities for cycling and walking were made available to citizens from all walks of life and the city even experienced a shortage in bicycle supply due to its soaring demand. The city managed well in the crucial times and credit for this must be given to the conservation of the original layouts of the sectors, resulting in a fairly low density of traffic, congestion, availability of civic amenities and infrastructure, and good air quality due to the abundance of soft landscape, tree cover and even medicinal and herbal gardens coupled with the civic sense and pride of the residents in conserving the manmade and natural resources of the sectors individually and the city collectively.

By this, the sector planning of Chandigarh has served as a role model for developing Mohali and Panchkula almost like its offsprings! Together, Chandigarh and these



03 Le Corbusier with the collaboration of Pierre Jeanneret, Maxwell Fry and Jane Drew, Chandigarh, India, 1950-1965. The V3 sector dividing street: shaded street and a wall like insular character, as no V3 street opens into the sector. © Sangeeta Bagga.



04 Le Corbusier with the collaboration of Pierre Jeanneret, Maxwell Fry and Jane Drew, Chandigarh, India, 1950-1965. The Vs loop road that leads to dwellings through V6 and V7 roads. It has different varieties of plantations: tree blossoms, which form a riot of color and a play of shade and shadow while walking through the sector during different seasons. © Sangeeta Bagga.



05 Le Corbusier with the collaboration of Pierre Jeanneret, Maxwell Fry and Jane Drew, Chandigarh, India, 1950-1965. Houses along the V4 market street: the terracotta, brick screens acting as sun breakers, cross-ventilation and privacy elements in response to hot and humid composite climate on a shoestring budget. © Sangeeta Bagga.

two cities form a tri-city agglomeration nowadays. Mohali is a virtual extension of the Chandigarh sectors in the southwards direction, while Panchkula is separated from Chandigarh by the Ghaggar river and railway line. Nevertheless, the quality of life and convenience of the sectoral grid of Chandigarh is visible in its replication in the smaller towns in its hinterland.

Notes

- 1 The 7Vs is the hierarchical road system to convey traffic from intercity to the city and finally to the dwellings in an ordered manner.
- 2 The Chandigarh Style as it came to be popularly called was born out of: the use of local materials, such as sand and stone from the nearby Ghaggar river, cement from the factory set up at Surajpur on the outskirts of the new town, and clay bricks from the kilns set up in the periphery of the city; the repetitive use of these elements along with plastered, painted and lime washed overhangs, sunshades and verandahs (that were used as sleeping terraces at night) created by indigenous men. In other words, materials and methods to deliver a rich vocabulary that was climate responsive. The low rise cubic forms interspersed with green spaces contributed as well to the definition of this architecture as the Chandigarh Style.
- 3 Bio-aesthetics was a term defined by Dr. M. S. Randhawa in his book *Flowering Trees. India – The Land and The People* (1965) and several of his writings. He established the connect between the aesthetic value of trees and landscape elements and their biological benefits. Further, according to him trees in Chandigarh had the role of adding the element of beauty to the city, by the immense variety of flowering trees that embellish the avenues and create a rich visual and delightful experience for people as they traverse through the city by foot, bicycle and car. These flowering trees and fruit bearing trees also provide the habitat for fauna, birds and other forms of life and, thus are beneficial for the ecosystem of the city.

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06 Le Corbusier with the collaboration of Pierre Jeanneret, Maxwell Fry and Jane Drew, Chandigarh, India, 1950-1965. The house types within the sector contributing to its grain and texture. Two to three story government houses uniformly and variably mixed with privately-owned and -built houses, interspersed with community greens, tot lots, and gardens that formed subsectors of the individual sectors and maintained its insular character. © Sangeeta Bagga.

DOCUMENTATION ISSUES

Torres Blancas, a vertical garden city

BY ALBERTO SANZ

Torres Blancas, the building designed by Francisco Javier Sáenz de Oíza for the Huarte company, was built between 1964 and 1972. Its powerful sculptural form, the expressive use of bare concrete and its experimental nature make it an iconic example of Madrid's architecture. Proposed as a vertical city with an organic emphasis, *Torres Blancas* is not the usual stack of flats, but a residential complex of independent housing units with garden terraces and the amenities of a small community. This building thus combines Le Corbusier's *unités d'habitation* and Frank Lloyd Wright's towers.



01 Francisco Javier Sáenz de Oíza, *Torres Blancas*, Madrid, Spain, 1958-1972. Exterior view. © Pedro Ibáñez, 2011, Archivo del Servicio Histórico de la Fundación Arquitectura COAM.

Introduction

Torres Blancas, the residential building built in Madrid by Francisco Javier Sáenz de Oíza (1918-2000) between 1964 and 1972 is one of the city's main 20th century architectural milestones,¹ partly due to its quality² and its widespread dissemination, both in Spain and abroad.³

Specialist architectural media recognized its extraordinary architecture during the process of construction, although there was also some degree of controversy because of its profound contradictions,⁴ its unsuitability for acting as a formal model,⁵ and its elitism, which did not take into account the social transformation of the city.⁶

For Spanish society, accustomed to the unstoppable and run-of-the-mill mass con-

struction in the outskirts of Madrid, the unusual and original form of *Torres Blancas* was a wake-up call and a salutary lesson, although the use of bare concrete in a luxury residential building was rejected.⁷

The beginnings of the work: the protagonists

The unique nature of *Torres Blancas* has often been pointed out as the result of the combined effort and understanding of the classic triangle of developer, builder – in this case the same person, the Navarran entrepreneur Juan Huarte (1925-2018) – and architect, Francisco Javier Sáenz de Oíza.⁸

Francisco Javier Sáenz de Oíza is considered one of the top Spanish architects of the second half of the 20th century. Son of an architect, he was born in Casada (Navarra) and attended university in Madrid, where he graduated with honors in 1946. He was one of the main driving forces of the recovery of the Modern Movement following the Spanish Civil War (1936-1939), with such interesting works as *Entrevías* (1956), *Fuencarral A* (1955), the Tax Office of San Sebastian (1953), or the Chapel of the Camino de Santiago (1954, not realized). In the 1960s he embraced the organic trend of Nordic architecture, especially that of Alvar Aalto (1898-1976), and the change of direction observed in the work of Le Corbusier (1887-1965) at the time. His work was crucial to the development of Spanish architecture of that period, and his work as a teacher is considered to have influenced several generations of architects.⁹

The project for *Torres Blancas* was proposed by Juan Huarte,¹⁰ director of Huarte Inmobiliaria S.A. (HISA) to be constructed by the family company, Huarte y Cía. This busi-

nessman and philanthropist from Navarra aimed to build two residential towers with a major experimental component, without being conditioned by economic constraints, budget, or commercial profit, but which would be a reflection on the ideal home with no defined agenda.¹¹

Francisco Javier Sáenz de Oíza was recommended to Juan Huarte by the sculptor Jorge de Oteiza (1908-2003), who had worked with the architect on the *Basilica de Aránzazu* (1950-1955) and on the competition for the chapel of the Camino de Santiago. Francisco Javier Sáenz de Oíza designed an exhibition space for the HISA headquarters (1959) in Madrid and the *Ciudad Blanca* (1961) residential complex in Alcudia (Majorca) for Juan Huarte.

Impressed by the architect's work, in 1958 Juan Huarte commissioned the design of *Torres Blancas* from Francisco Javier Sáenz de Oíza, who stated that he was asked "to design an ideal project for a tower: not just a stack of houses one on top of the other, but a vertical structure of dwellings whose organization he urged me to find."¹²

In 1964, following several proposals, Francisco Javier Sáenz de Oíza presented a plan with two identical towers in bare concrete and a varied selection of housing units ranging from apartments to large duplexes, a social hub, which included a swimming pool and a restaurant with a dumb waiter directly connected to the apartments, as well as other services on the upper floors, and a chapel and kindergarten in the garden.

The structure, which was one of the main, most original features, was the result of a collaboration between Francisco Javier Sáenz de Oíza and two civil engineers who worked for Juan Huarte: José Antonio Fernández Casado (1905-1988) and Javier Manterola (1936-).

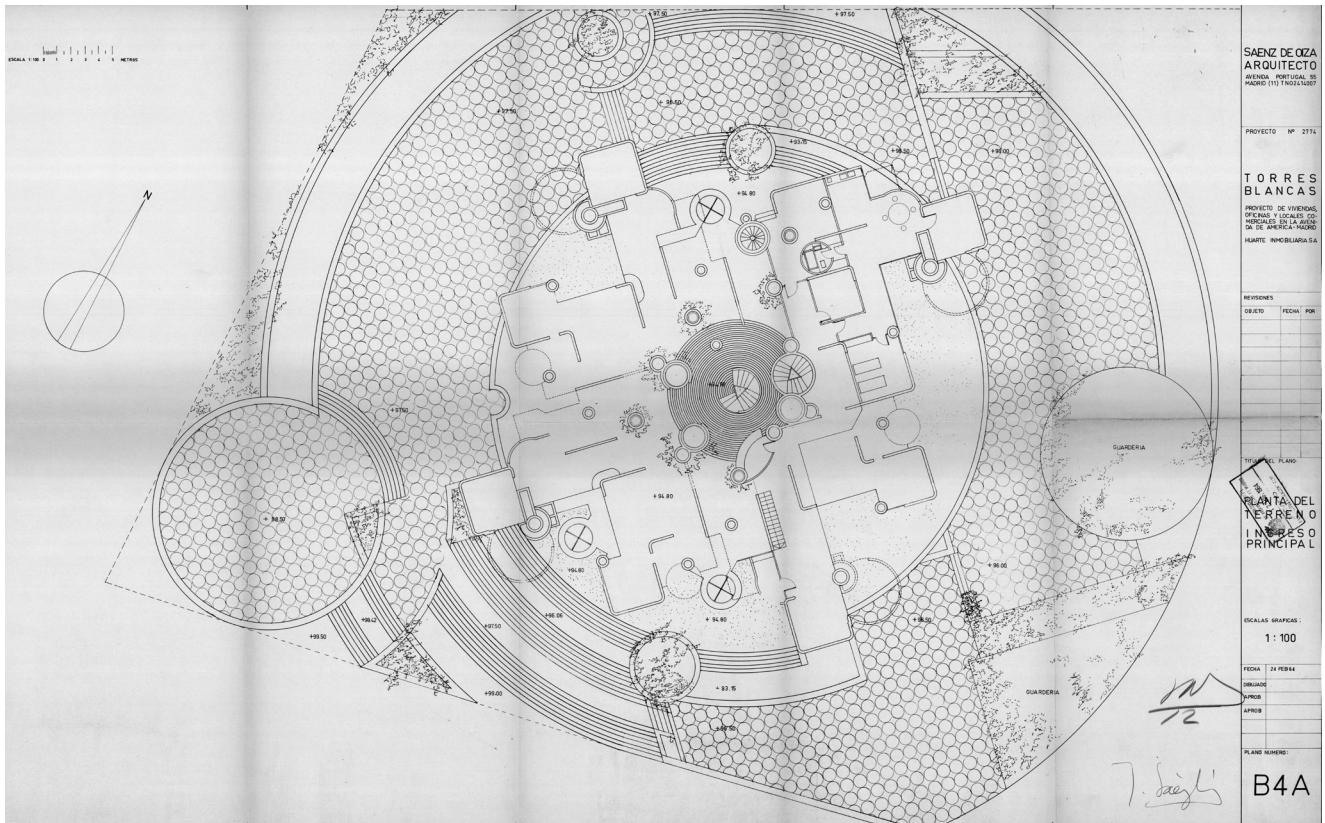
The construction process was extremely expensive and complex, not only due to the specifications of the project, but also due to the continuous changes, according to quantity surveyor Antonio Pallol (1937-2010), the master builder for Juan Huarte, who took on the supervision of the project, which was completed in an almost artisanal manner.¹³

This exceptional design was the culmination of the major cultural works which the Huarte family had patronized since the 1950s.¹⁴

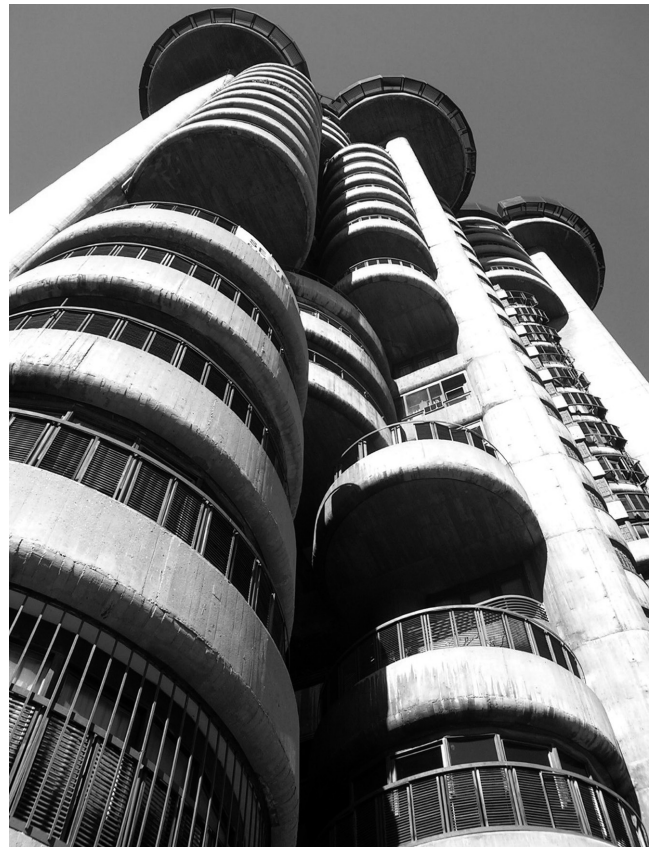
Design and Development

Francisco Javier Sáenz de Oíza proposed a footprint of 1,400 square meters (m²) in two towers on a 7,119 m² plot owned by HISA, opening onto the north end of *Avenida de América*.

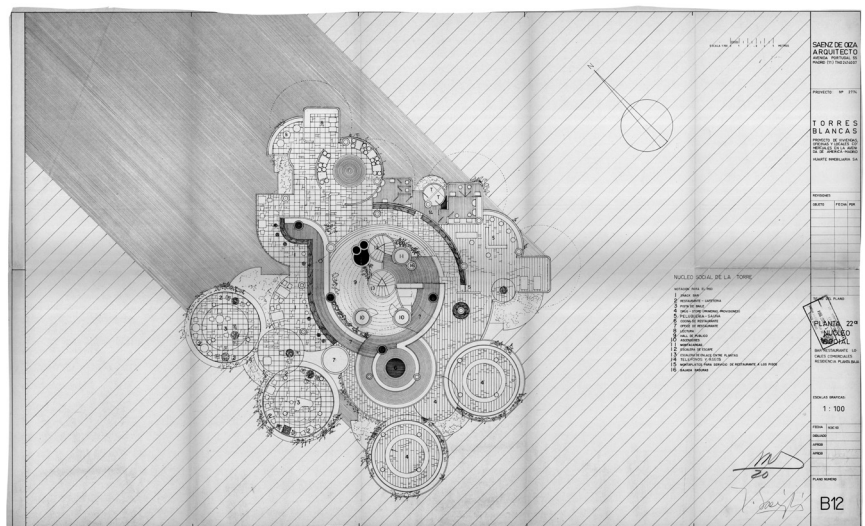
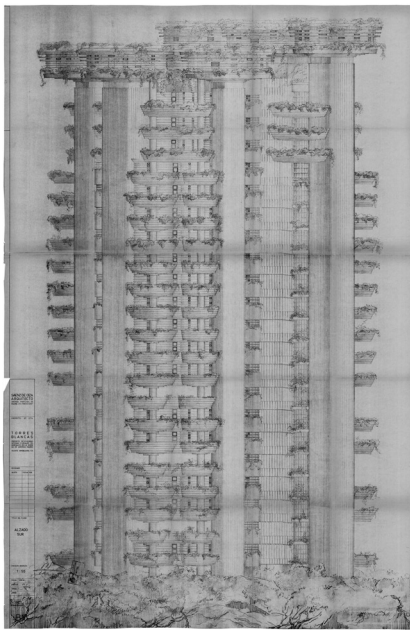
02 Francisco Javier Sáenz de Oíza, *Torres Blancas*, Madrid, Spain, 1958-1972. Ground floor plan, 1964. © Archivo del Servicio Histórico de la Fundación Arquitectura COAM.



03 Francisco Javier Sáenz de Oíza, *Torres Blancas*, Madrid, Spain, 1958-1972. Stairwell view. © Alberto Sanz, 2005, Archivo del Servicio Histórico de la Fundación Arquitectura COAM.

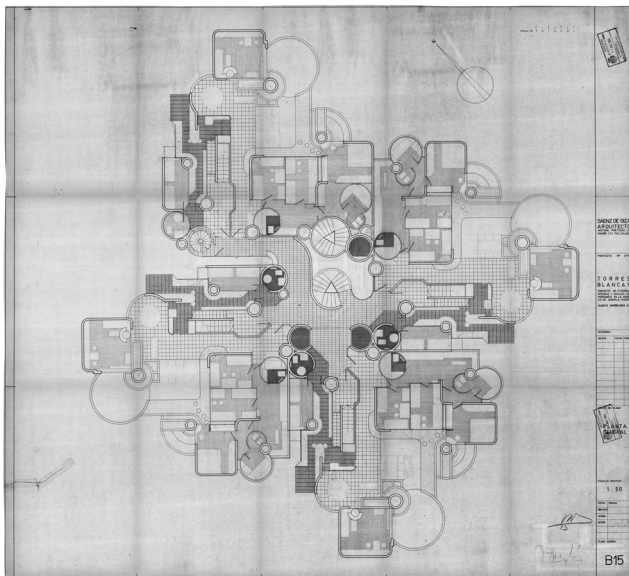


04 Francisco Javier Sáenz de Oíza, *Torres Blancas*, Madrid, Spain, 1958-1972. Detail of the southern façade of the building. © Pedro Ibáñez, 2011, Archivo del Servicio Histórico de la Fundación Arquitectura COAM.

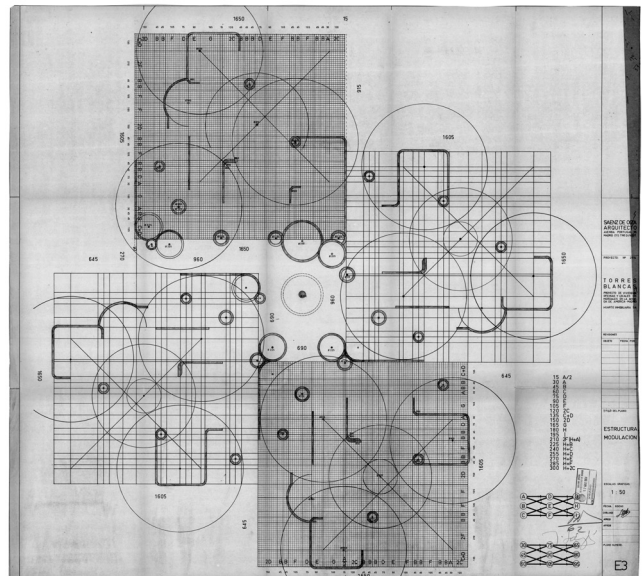


05 Francisco Javier Sáenz de Oiza, *Torres Blancas*, Madrid, Spain, 1958-1972. Southern elevation plan, 1963. © Archivo del Servicio Histórico de la Fundación Arquitectura COAM.

06 Francisco Javier Sáenz de Oiza, *Torres Blancas*, Madrid, Spain, 1958-1972. Top floor plan, 1963. © Archivo del Servicio Histórico de la Fundación Arquitectura COAM.



07 Francisco Javier Sáenz de Oiza, *Torres Blancas*, Madrid, Spain, 1958-1972. Typical floor plan, 1963. © Archivo del Servicio Histórico de la Fundación Arquitectura COAM.



08 Francisco Javier Sáenz de Oiza, *Torres Blancas*, Madrid, Spain, 1958-1972. Typical floor structure, 1963. © Archivo del Servicio Histórico de la Fundación Arquitectura COAM.

Eventually a single 830 m² tower was built.¹⁵

In the technical report for the project the architect stated that *Torres Blancas* was a “unique housing unit,” not “just a group of housing units, but a residential complex, with a series of facilities in addition to the characteristic housing layouts, including shops, kindergartens and a small chapel.”¹⁶

One clear predecessor was Le Corbusier’s *unités d’habitation*,¹⁷ self-contained units with a social component, small vertical garden cities which benefited social relations without compromising privacy, where it was possible to enjoy life in contact with nature together

with the advantages of city life.¹⁸

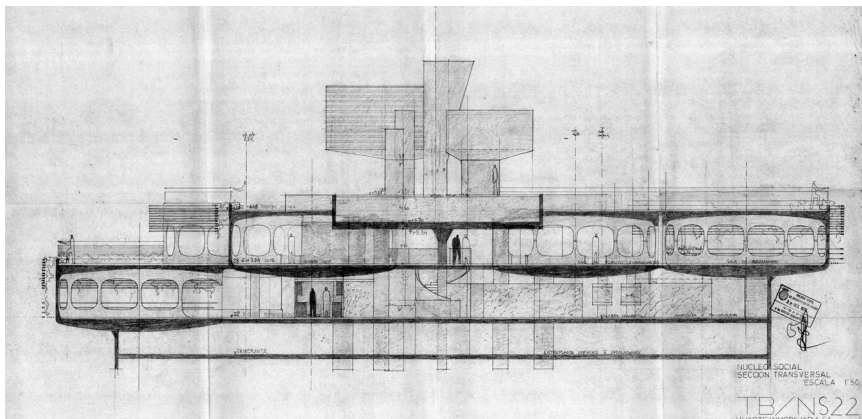
In the early designs, which were very open, the architect proposed two 60 meters (m) towers, each 20 stories high, 18 of which were residential and 2 were to act as a social hub. The architect defined the entrance, facilities, and structure, but left the interior of the housing unit open so that owners could establish the layout to their liking,¹⁹ a proposal rejected by Juan Huarte. Francisco Javier Sáenz de Oiza then designed gamma-dion-shaped floors of different types for the proposed 84 housing units, prioritizing medium-sized ones, although eventually smaller

apartments were in higher demand.

The medium-sized L-shaped dwellings²⁰ in the form of superimposed single-family units were built up independently from each other around a large garden terrace. Those with a poorer orientation were rotated in the design.

As in Le Corbusier’s *unités d’habitation*, the organization into groups of three plans provided access to the 14 housing units of each set – two duplexes, four normal flats and eight apartments –, as well as the development of the vertical connections.

The project met with obstacles in the Town Hall and the construction permit for



09 Francisco Javier Sáenz de Oiza, *Torres Blancas*, Madrid, Spain, 1958-1972. Section of the social center, 1966. © Archivo del Servicio Histórico de la Fundación Arquitectura COAM.

the two towers was rejected. Furthermore, the idea of adding a bare concrete shell to such an important location was not well received.²¹ Although the construction of only one tower was authorized, there were more stories – 23 including the social center on the upper section – with a lower building to be used as offices and commercial premises.²² Finally, the tower featured 20 residential floors, an intermediate one with service installations, and above two levels for the social center, as well as a garden rooftop with a pool. A chapel and kindergarten were also designed for the rest of the plot, but just like the offices, were never built.

Its unusual location²³ acted as a showcase in anodyne surroundings in the periphery of one of the main arteries in Madrid, and therefore Francisco Javier Sáenz de Oiza was not forced to interact with urban surroundings that did not interest him. This was widely discussed at the time²⁴ and some even regretted that there was not a different location for the building.²⁵

However, it was positively recognized as a tower, even though the surrounding buildings were almost as high. This tower's identity comes from its verticality as expressed through its structure and freestanding position.

According to the final construction report *Torres Blancas* was completed in 1972, with 2 basements, 24 stories and a total surface area of 23,243 m².²⁶

The structure

Torres Blancas is a structural milestone in Spanish architecture. Its identity as a tower is apparent from its loadbearing structure, with an exterior built entirely in bare concrete from which circular platforms are suspended, creating a sculptural and expressionist external effect.

Structure and architectural form are strongly identified. The architect takes this

organic concept espoused by Frank Lloyd Wright (1867-1959) to its final consequences with complete formal coherence,²⁷ which increased as the loadbearing system conditioned the functions of the building even though the hexagonal grid of the original floor plan had disappeared.

The total communication and understanding between Francisco Javier Sáenz de Oiza and the engineers from Juan Huarte, Carlos Fernández Casado and Javier Manterola, meant that they all played a full part in the design process and that the structure and the building floor plan were designed simultaneously.²⁸

With a loadbearing system in reinforced concrete, the building rests on a vertical structure made up of 46 pillars and resistant folded screens on the edges, center and the intermediate area. The horizontal structure, built with 20 centimeters (cm) slabs, performs equally in all bending directions.²⁹

Therefore, the basic structural concept for *Torres Blancas* is radically different from that of conventional skyscrapers, as the cage of pillars and metal beams was replaced by folded screens and slabs aiming to ensure solidity and resistance and which gave rise to unsuspected expressive solutions. Francisco Javier Sáenz de Oiza used these screens to define the floor plan and, according to Javier Manterola, this resulted in an oversized structure. The architect joked about this, saying that the problem with *Torres Blancas* was that it could not be demolished.³⁰

The floor plans

The unique nature of *Torres Blancas* became apparent in the distribution proposed for different functions on the floor plan.³¹

The first gammadion-shaped diagrams were organized on a hexagonal grid inspired by Frank Lloyd Wright and reminiscent of his St. Mark's (1927-1931, not realized) and Price

(1952-1956) towers, as pointed out by Francisco Javier Sáenz de Oiza in the technical report, where he referred to these as courtyard houses.³² The architect later softened the design by rounding off the corners of the building and introducing circular elements, such as communications, facilities and terraces, without modifying the floor plan.³³

The car park, with one space per unit, abandons "the garage-type solution, proposing parking spaces like rings surrounding the tower, as a vestibule or anteroom. Although these took the form of covered areas, they were open to natural light and the penetration of a verdant mass."³⁴

The ground floor and the nucleus of stairwells form a veritable convoluted forest of circular pieces – elevators, dumb waiters, installations, stairs, screens, pillars – reflecting the huge scale of the structure. Its cave-like appearance was emphasized with false ceilings at different heights. These unique circles spread to the garden, a meadow dotted with large concrete slabs, some of which were perforated to let light into the garage.

The typical floor plan distribution was based on an L-shaped layout around a garden terrace or open courtyard, with a bedroom wing running perpendicular to the kitchen and servants' quarters, and connected through the living room, dining room and terrace.³⁵ This resulted in four 200 m² housing units organized in the shape of an irregular gammadion around a vertical communica-



10 Francisco Javier Sáenz de Oiza, *Torres Blancas*, Madrid, Spain, 1958-1972. Entrance hall with the building janitor desk. © Alberto Sanz, 2005, Archivo del Servicio Histórico de la Fundación Arquitectura COAM.



11 Francisco Javier Sáenz de Oiza, *Torres Blancas*, Madrid, Spain, 1958-1972. Interior of duplex apartment. © Javier Saenz Guerra, 2021.



12 Francisco Javier Sáenz de Oiza, *Torres Blancas*, Madrid, Spain, 1958-1972. Interior of duplex apartment. © Javier Saenz Guerra, 2021.

tions node which, according to the urban regulations for Madrid, should have ventilation and daylight. This nucleus formed a narrow and undulating interior corridor around a stairwell that served the entire tower.

The kitchen was conceived as a domestic laboratory in contact with the dining room, while the string of bedrooms – more like cells – was designed to open up onto the garden terrace, and the gallery beyond was seen as a games or study room. The circular bathrooms aspired to be the smallest geometric waterproof unit as Francisco Javier Sáenz de Oiza had lectured in Installations at the Madrid School of Architecture early on in his career.

Like the main building doorway or the central nucleus, the interior of the dwellings feature a suggestive interior landscape flowing between the structure and installations inherited from the free space of the Modern Movement.

The folded concrete screens of the square floor plan with their rounded corners are found throughout the whole height of the building and are mostly used for living quarters and main bedrooms. The suspended platforms, which spring from the pillars, are folded and organized in the ledges of the terraces or in different parts of the flat, such as bathrooms and dining rooms. These are closed off with openings, many in colored glass, or with trellises creating incredibly expressive elevations. These pieces are repeated in a larger format in the upper sections of the tower where concrete platforms cantilevered over the main screens housed the social center, with restaurant, café, hairdresser, swimming pools, and a small shop, over the two upper floors and roof.

According to the technical report: “the top two stories, with an unusual architectural treatment, are the largest and most important ones. They offer the best view, combining the development of covered and garden space, and the social nucleus of the whole revolves around them.”³⁶

The swimming pool meanders among circular planters and the large towers of installations and lifts on the extensive upper terrace. These form concrete sculptures with a tree-like feel ordering a powerfully artistic space reminiscent of the roofs of Le Corbusier’s *unités d’habitation*. The swimming pool outline shaped by the different circular structures that punctuate the roof has strong biomorphic echoes of Roberto Burle Marx’s (1909-1994) architecture and forms an isotropic element with no predominant direction. This spatial ambiguity is highlighted by the way it completely opens up to the urban landscape, without selecting any views of interest.

Garden city and organic analogies

According to Antón Capitel (1947-) *Torres Blancas* combines three main ideas: the self-sufficient tower as a vertical garden city, inspired by Le Corbusier’s *Unité d’Habitation*; the tower as a tree-like structure of biological analogies of *Wrightian* inspiration and, finally, following the spatial research of Sáenz de Oiza, highly artistic organic formal results.³⁷

The gap closing between Francisco Javier Sáenz de Oiza and Le Corbusier through vertical garden cities was seen in the adoption of the *immuable-villa*, with the private gardens linked to each dwelling and set out as

terraces, complemented with the *toit-terrasse* [roof garden] used by Francisco Javier Sáenz de Oiza in *Torres Blancas*. Javier Vellés (1943-) points out the basic difference between both projects: whereas *Unité d’Habitation* was a machine, like a transatlantic liner, *Torres Blancas*, born from the earth and opened from above, was like a tree.³⁸

In fact, in this organic affiliation based on Frank Lloyd Wright’s apartment towers, a central structural system in the form of a trunk supported the upper platforms in obvious imitation of a tree. This was commented on by Francisco Javier Sáenz de Oiza, who drew the building as a tree with roots stretching out towards the city³⁹ through the car park and conduits, with its branches spreading in the central nucleus: a biological analogy of the tower as tree.⁴⁰ However, given the size of the floor plan the final multiplication of the structure of *Torres Blancas* diminishes the tree analogy.

Thus, the appearance of *Torres Blancas* is just another paradox, combining the concrete screens that cover the elevation of the building and sustain – apparently at random – the circular platforms of the terraces and other pieces. Unlike the smooth uniform vertical screens, which hem in the vertical organic impetus of the large supporting trunks, a striking *chiaroscuro* with reminiscences of trees and bones, that brings to mind the strong impact of an architectural expressionism similar to Brutalism.⁴¹

Despite the unity of the tower, the plasticity of concrete is used to create a folded skin which advances and recedes on both the floor plan and elevation, differentiating the functions of atmosphere that, in turn, generate an impressive variety of forms. The formalization of the main entrance to the building and other features achieved similar effects indoors with intensely organic analogies with the sculptural architecture of Catalanian *Art Nouveau*.

Conclusion

Torres Blancas, a highly impressive and expressive sculpture, presented an alternative to modernity by both offering a counterargument to it whilst embracing it. This ambiguous yet radical Organicism, with its brutalist formalization, was not merely an artistic image but also a conceptual experiment far beyond the merely visual.

Notes

- 1 In this period the architecture of the streets of Madrid comprised many masterpieces. From the same time as Francisco Javier Sáenz de

- Oiza's work are: *Casa Huarte* (1965-1967), by José Antonio Corrales (1921-2010) and Ramón Vázquez Molezún (1922-1993); *Clesa factory* (1958-1966), by Alejandro de la Sota (1913-1996); *Corona de Espinas* (1964-1970), by Fernando Higuera (1930-2008) and Antonio Miró (1931-2011); and the parish church of Nuestra Señora del Tránsito (1961-1963), by Luis Cubillo (1921-2000), all listed in the Iberian **docomomo** Register.
- 2 It won the Architecture Prize of the COAM in 1972.
 - 3 It was widely publicized outside Spain (France, Germany, Italy, Japan, Switzerland, Argentina, and Portugal) and in Italy it sparked a debate between two journals, *l'Architettura* and *Casabella*. See "La alternativa de Torres Blancas", *Nueva Forma*, No. 74, 1972, Madrid, 60-61.
 - 4 Francisco Fernández-Longoria Pinazo, "Contradicción y contrapunto en las Torres Blancas", *Arquitectura*, No. 120, Madrid, Colegio Oficial de Arquitectos, 1968, 3.
 - 5 Francisco de Inza, "Notas sobre un comentario", *Arquitectura*, No. 120, Madrid, Colegio Oficial de Arquitectos, 1968, 21.
 - 6 Ricardo Bofill, "Algunas consideraciones sobre la arquitectura sugeridas por la contemplación de las Torres Blancas de Sáenz de Oiza", *Arquitectura*, No. 120, Madrid, Colegio Oficial de Arquitectos, 1968, 28 and 30. For Bofill, "Torres Blancas es el edificio más bello, sugerente y expresivo que se ha construido en Europa en los últimos diez años" ["Torres Blancas is the most beautiful, suggestive and expressive building built in Europe in the last ten years"].
 - 7 Bare concrete was more acceptable in industrial estates and even offices.
 - 8 Collaborators included architects Juan Daniel Fullaondo (1936-1994) and Rafael Moneo (1937-).
 - 9 Alberto Sanz Hernando, "Francisco Javier Sáenz de Oiza", *Real Academia de la Historia* [online]. Available at: <http://dbe.rah.es/biografias/5575/francisco-javier-saenz-de-oiza> [2020-09-17].
 - 10 It appears that Juan Huarte himself suggested the name of *Torres Blancas* not referring to the color of the building itself but to the concept of whiteness as a "símbolo de buena intención, (...) que se dedicaba a la arquitectura no como negocio, sino fomentando la creación" ["symbol of good intentions, (...) directed at architecture, not as a business, but to encourage creativity"], in Javier Sáenz Guerra, *Sáenz de Oiza y Torres Blancas. Una torre en plural*, Buenos Aires, Diseño, 2016, 31-34.
 - 11 *Idem.*, 30-36.
 - 12 Francisco Javier Sáenz de Oiza, "Disertaciones", *El Croquis*, No. 32-33, Madrid, El Croquis Editorial, 1988, 27.
 - 13 Javier Martínez González, Marta García Alonso, "Construyendo Torres Blancas", in *Actas del Séptimo Congreso Nacional de Historia de la Construcción*, Santiago, 26th-29th October 2011, Madrid, Instituto Juan de Herrera, 2011, 882-883.
 - 14 Gonzalo García-Rosales González-Fierro, *Operación H, o la poética experimental. Una aproximación a las vanguardias de los años cincuenta y sesenta en España*, Alcalá de Henares, PhD Thesis, Universidad de Alcalá, 2015.
 - 15 Francisco Javier Sáenz de Oiza, "Torres Blancas", preliminary technical report, Archivo Servicio Histórico Fundación Arquitectura COAM, 1964, [2].
 - 16 *Idem.*, [2].
 - 17 A few years earlier, in 1961, Francisco Javier Sáenz de Oiza had designed the Schools of *Escuelas de Batán*, in Madrid, the formal precursor of *Torres Blancas*, see Javier Sáenz Guerra, *op. cit.*, 59-63.
 - 18 Francisco Javier Sáenz de Oiza, 1964, *op. cit.*, [6]. Another close antecedent, in Barcelona, is the Mitre building (1959-1962) designed by the architect Francisco Barba Corsini (1916-2008), which was a similar experiment where the social nature of the development encouraged the centralization of a series of shared services which contributed to the reduction of the surface area of the dwellings.
 - 19 Javier Martínez González, Marta García Alonso, *op. cit.*, 875.
 - 20 The analogies with Frank Lloyd Wright's Prairie Houses and Jørn Utzon's Courtyard Houses have been pointed out in Javier Sáenz Guerra, *op. cit.*, 55.
 - 21 On a visit to the tower in 2000, shortly before his death, Francisco Javier Sáenz de Oiza told how the town architects did not accept the towers with a shell of bare concrete, but that he had convinced the councilors with a watercolor specially painted to show the garden areas. See Francisco Javier Sáenz de Oiza, *Visita Torres Blancas y Banco de Bilbao*, Madrid, [Video], Madrid, COAM, ETSAM, 2000.
 - 22 Javier Vellés, "Oiza. Primera parte", *Arquitectura*, No. 376, Madrid, COAM, 2018, 108.
 - 23 Apparently, as this was an ideal project no previous location was determined for the towers, in Javier Sáenz Guerra, *op. cit.*, 32.
 - 24 Francisco Fernández-Longoria Pinazo, *op. cit.*, 22-23; and Ricardo Bofill, *op. cit.*, 28.
 - 25 "Ha sido lástima para Madrid que tan hermosa construcción no se haya emplazado en un marco más idóneo que en el que se ha levantado: por ejemplo en una zona estacada con amplia vegetación que permitiera su más completa contemplación" ["It is a great pity for Madrid that such a beautiful construction was not placed in more suitable framework than that in which it was built, for example a fenced-off area with plentiful vegetation to allow for more complete contemplation"] N.R., "Oficina al lado de Torres Blancas", *Arquitectura*, No. 154, Madrid, Colegio Oficial de Arquitectos, 1971, 46.
 - 26 Francisco Javier Sáenz de Oiza, "Torres Blancas", construction completion certificate, Archivo Servicio Histórico Fundación Arquitectura COAM, 1972.
 - 27 Antón Capitel, "Las ideas orgánicas como instrumentos de proyecto. Torres Blancas y otras obras de Sáenz de Oiza", *Anales de Arquitectura*, No. 2, Valladolid, Universidad de Valladolid, Secretariado de Publicaciones, 1990, 54.
 - 28 Javier Martínez González, Marta García Alonso, *op. cit.*, 878.
 - 29 Francisco Javier Sáenz de Oiza, Carlos Fernández Casado, Javier Manterola Armisen, "Estructura de Torres Blancas", *Informes de la Construcción*, No. 226, Madrid, Instituto Torroja, 1970, 55.
 - 30 Francisco Javier Sáenz de Oiza, 2000, *op. cit.*
 - 31 Javier Sáenz Guerra, *op. cit.*, 79-85.
 - 32 Francisco Javier Sáenz de Oiza, 1964, *op. cit.*, [6].
 - 33 Javier Vellés, *op. cit.*, 108.
 - 34 Francisco Javier Sáenz de Oiza, 1964, *op. cit.*, [3].
 - 35 The organization of an L-shaped house around an open courtyard with exterior terraces is contemporary with the nearby Edificio Girasol (1964-1966), designed by José Antonio Coderch (1913-1984) and Manuel Valls (1912-2000).
 - 36 Francisco Javier Sáenz de Oiza, 1964, *op. cit.*, [2]. Apart from the Ruperto de Nola café-restaurant, passed in 1970 and with a striking design, a small residence for the Huarte executives was also proposed, in Javier Sáenz Guerra, *op. cit.*, 52.
 - 37 Antón Capitel, *op. cit.*, 54.
 - 38 Javier Vellés, *op. cit.*, 108.
 - 39 In the design report Francisco Javier Sáenz de Oiza indicated that: "Lo que sobra siempre en una torre es luz y ventilación, lo que falta es posibilidad de concentración y aislamiento" ["there is always too much light and ventilation in a tower and what is missing is the possibility for concentration and isolation"], and "estimamos la torre como una prolongación del terreno más que como una jaula ligera" ["we feel that the tower is more a prolongation of the land rather than a light cage"], in Francisco Javier Sáenz de Oiza, 1964, *op. cit.*, [8].
 - 40 The design of the 'Torres Blancas' gardens was analyzed in Patricia Hernández Lamas, *El jardín moderno en España (1926-1980)*, Madrid, PhD Thesis, Escuela Técnica Superior de Arquitectura, Universidad Politécnica de Madrid, 2017, 725-736.
 - 41 Torres Blancas does not eject the spectators from its interior like any other convex tower but rather invites them, welcoming them into the many concave spaces.

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The young Paulo Mendes da Rocha: Jockey Club of Goiás and a modernity project

BY ELINE CAIXETA AND CHRISTINE MAHLER

The Jockey Club of Goiás, located in the city of Goiânia, in the interior of Brazil, was the first building to adopt the language of exposed concrete in this city, in addition to other attributes of architectural and urban relevance. This discussion aims to analyze the design approach, the tectonics, the urban setting, and its transcendence in the architect's career. It examines the conception of the project and identifies similarities between this project and his future work.

The architectural production of Paulo Mendes da Rocha (1928-2021) is of indisputable quality, as attested to by the publications about his work, as well as the awards and exhibitions of international recognition. Recently, to talk about the architect is to bring out intensified feelings about the collection so dear to Brazilians, especially on the occasion of the donation of his work to *Casa da Arquitetura* [Architect's House] in Portugal, released in mid-2020.

His career, since graduation in 1954, coincides with a period of broad flourishing of civil construction and the diffusion of modern architecture in Brazil, through the decentralization of the economy of the Rio de Janeiro – São Paulo axis to the interior of the country, as well as with the projects of several architects who brought innovative proposals to the hinterland, imbued with precepts still unknown in these regions of the country.¹

Goiânia, capital of the state of Goiás – planned in the 1930s under the discourses of modernity² – is the bearer of four works by Mendes da Rocha,³ among which is the Jockey Club of Goiás, that figures in the first decade of the architect's career. In the 1960s, the capital aroused the curiosity of young professionals, according to the architect, "(...) for being a new city, a favorable locus for the construction market."⁴

At that time, most Brazilian capitals were investing in recreational clubs for the leisure of the population. During this period of full growth, there was a great volume of construction work in Goiânia that responded to the demands of that time, among them an urban club. Created in 1937, the Jockey Club occupied a large area in the urban center, with an eclectic building as its headquarters, which would soon become obsolete. Thus, it

was decided to demolish the original headquarters and, in 1962, a national competition for preliminary projects was started, promoted by the Brazilian Institute of Architects, for the construction of the new headquarters in the same area.⁵

A year earlier, Paulo Mendes da Rocha had won an award at the VI *Bienal de São Paulo* with the *Ginásio Clube Atlético Paulistano* [Paulistano Athletic Club Gymnasium] project, designed in 1958.⁶ According to the architect, this award might have influenced the invitation to participate in the Jockey Club headquarters' contest, which he later won.⁷ Paulo Mendes da Rocha then developed the project in collaboration with João Eduardo de Gennaro (1928-2013) between 1963 and 1964, and the construction was concluded in 1975.

During this period, the duo designed the projects of *Fórum de Avaré* [Avaré Forum] and

Grupo Escolar de São José dos Campos [São José dos Campos School Group] (1961), *Faculdade de Filosofia* [Faculty of Philosophy] (1962) and *Clube da Orla de Guarujá* [Guarujá Waterfront Club] (1963),⁸ which have elements in common with Jockey Club's design. For presenting solutions that are conceptually close, which will be present also in later works, one can infer the importance of the Jockey Club project, in the context of experimentation that characterized his first ten years of work, for the formation of the architect's repertoire.

On the other hand, the new headquarters of the Jockey Club of Goiás was the first concrete building in Goiânia to exert influence on local architects, in a period coinciding with the creation of the first school of architecture in the state in 1968. This influence manifested, not only through the technology used, but also the way in which the building was inserted into the site, creating new spatialities and transforming the pre-existing landscape, with a new reading of modernity.

Hélio Piñon (1942-) identified a constant in Paulo Mendes da Rocha's work as the "identification of the concrete problem to be treated in each case" and the attention to the specificities and nature of the place, in order to make it habitable, which, according to the author, contributes to its capacity to "bring out the essential."⁹

In the text "Depoimento" published in the magazine *Acrópole*, Paulo Mendes da Rocha speaks of his first ten years of professional activity as a process of continuous learning in which serious teamwork, since its conception, plays an important role: "10 years for a



01 Paulo Mendes da Rocha, Jockey Club of Goiás, Goiânia, Brazil, 1962-1975.
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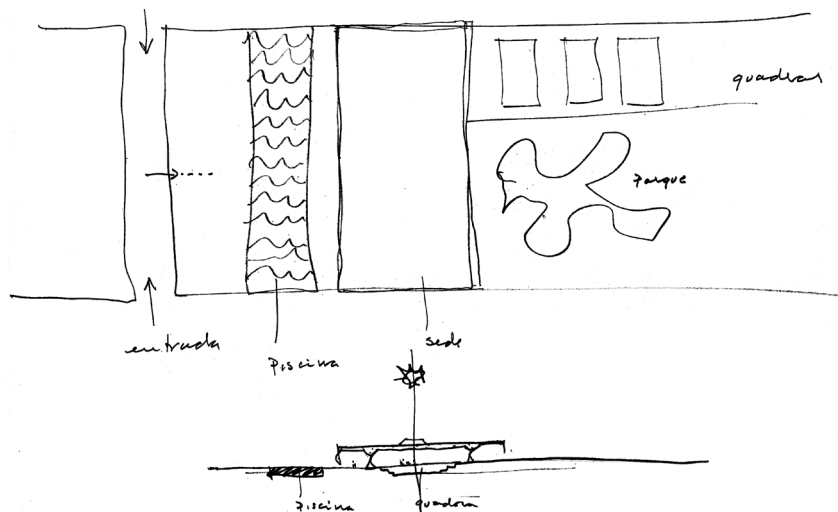
work represents very little when it is the first 10 years. In short, it is a single project, where perhaps there is with certain evidence, the fundamental concern of an adequate space.”¹⁰

Among the highlights of the work in question are the first concerns of the place as a defining element of the design approach. The 22,000 square meters (m²) site is located in the center of the city, contiguous to two large roads – Anhanguera and Tocantins avenues –, near the *Cine Teatro Goiânia* [Goiânia Cine Theater]¹¹ (an Art Deco building from the 1940s) and within the banks of the Buritis stream (one of the water courses that comprise the region’s water system), possessing a flooded stretch due to its outcrop on the path of the stream to native forest. In the project, the vegetation was maintained,¹² as a reference to the foundational elements of the site. This decision indicates an important trait that would come to permeate future works, aiming for the integration with the place and its “urban anchorage,”¹³ even if it was one of the contest conditions.

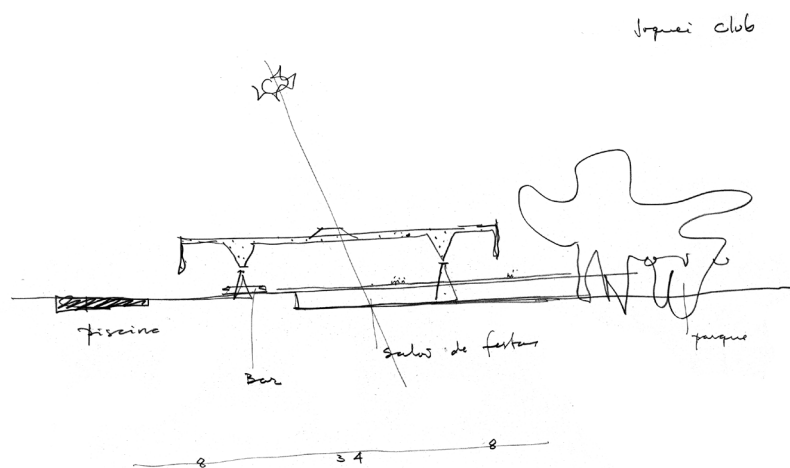
At that time, the Jockey Club’s land was located in a strategic area from the point of view of the city’s growth, as it bordered on the *Setor Oeste* neighborhood, an urban area in expansion. It was, therefore, a “difficult anchoring”¹⁴ project. Paulo Mendes da Rocha proposed a singular articulation with its surroundings, generating new urban spatiality and giving it monumental status. “The building assumes a double reading: it presents itself at the same time as a solid built prism and acts as a diaphanous portal that connects the covered space with the open.”¹⁵

Regarding the architectural and urban solution, a great introspective horizontal plan is observed, which organizes three distinct sectors: the pool square, the covered square (building) and the park (native forest). These elements constitute the transverse and tripartite architectural parti, together with the transversal relationship of the building to the access points. The area of the institution occupies almost the entire block, separated from the eastern portion of the block not belonging to the club by an internal street that gives access to the club site’s main entrance. This characterizes the architect’s “transverse approach.” According to the architect, he wanted to “risk” this solution in the Jockey Club competition, because he considered it more appropriate to the place.¹⁶

The decision of the design approach, with the opposition between wooded park and pool square, was decisive as it preserved the forest. This option respects the original



02 Paulo Mendes da Rocha, Jockey Club of Goiás, Goiânia, Brazil, 1962-1964. Transverse design approach and covered court section. © Paulo Mendes de Rocha Collection, Casa da Arquitectura, Matosinhos.



03 Paulo Mendes da Rocha, Jockey Club of Goiás, Goiânia, Brazil, 1962-1964. Party Room section. © Paulo Mendes de Rocha Archive, Casa da Arquitectura, Matosinhos.

vocation of the place and its environmental nature, due to the outcrop of the stream. The building was inserted in the centre of the site, leaving the peripheral areas free, mediated by the building. The result seen from the outside presents an alternation between walls and blank end walls, with discrete volumetry and strong presence in the urban context.

In the definition of the design, three traditionally urban spatial categories – the street, the square, and the park – were confronted, synthesized and used as the strategy of urban insertion. Two of these categories were already present in previous projects, such as the Paulistano Athletic Club Gymnasium, when it refers to the swimming pool area as a “swimming pool square,” and the Avaré Forum, when it says that “the project is essentially a covered square” and calls the raised galleries

“inner streets.”¹⁷ In the Guarujá Waterfront Club, there is an alternation of urban categories, with the use of a design approach that opposes beach and pool, articulated by the building as “a suspended pavilion supported on side buttresses.”¹⁸ With this analysis, it can be seen that in the Jockey Club these categories, transformed into project concepts, were used in a more powerful way.

On the other hand, in the first ten years of Paulo Mendes da Rocha’s professional career (1958-1967), there is a continuous research around certain spatial and construction/formal solutions that are tested and perfected, in order to obtain the desired spatial fluidity. In this sense, it can be said that in the Jockey Club project the “transverse approach” design solution is consolidated. When comparing the Goiás Jockey Club and the Guarujá Waterfront

Club, that are of similar programmatic categories and adopt the same architectural parti, in the Jockey Club can be seen a spatial complexity originating from the definition of levels, half levels and access platforms to the internal areas, that is not present in the Guarujá project.

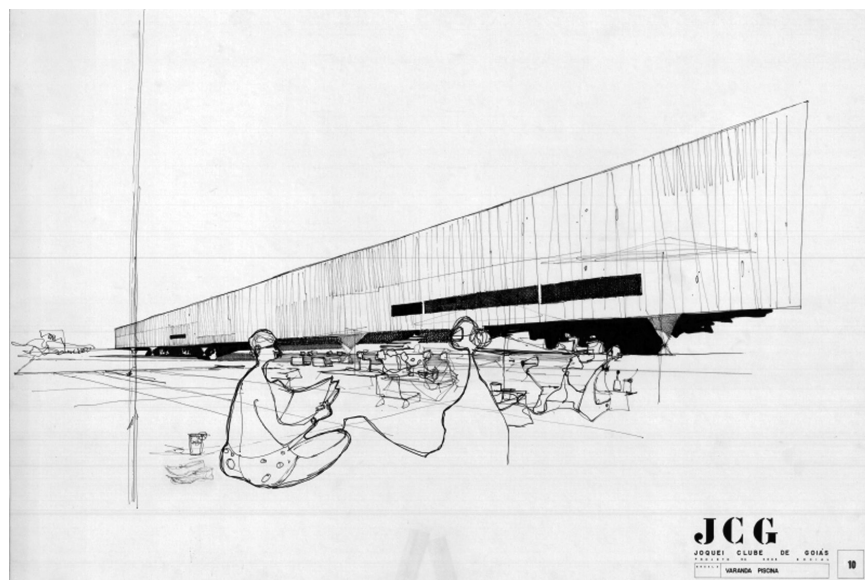
Through this internal, private street, one penetrates through a tunnel directly into the building's internal space. The restaurant and the party room are connected to the external space, on the face of the wooded park, (...) The square of the swimming pools penetrates as a covered space (...) over the party room, (...) To the more reserved activities, game, reading and deliberative activities was destined for the last floor, (...) the gymnasium has differentiated access for the general public directly from Rua 3 to the party room. The building divides the land and its internal space serves as a link between the two resulting areas, the pool square, and the park.¹⁹

The internal area is fluid and interconnected by ramps and half-levels, is well ventilated and illuminated, mixing the social and sport sectors, compensating an existing gap between Rua 3 and Avenida Anhanguera, in the longitudinal direction of the site. The program is distributed over the four levels, resulting in a large horizontal plane that shapes the building as a large “covered square.”

Another highlight of the architect's authorial trait is the adoption of striking sections, as the design's defining features. The examination of the cross and longitudinal sections already clarifies the elegance of the solution. By choosing the “covered square” as the protagonist of the project, Paulo Mendes da Rocha adopts the concept of coverage that, at the same time, protects and reveals the public character of the spaces.²⁰

The image of shadow, which establishes the character and dimension of the main spaces, also appears in the courtyards of the school projects in São Paulo in the 1960s and in the Avaré Forum, the so-called “shadow square”: an appropriate place to wait, as it “creates a very adequate internal climate, with controlled natural light and the desired shaded atmosphere.”²¹ This image is materialized, in the Jockey Club, from the ribbed slab, from the internal trapezoidal section pillars and from the overhead skylights located in the longitudinal axis of the roof.

Present in many of Paulo Mendes da Rocha's works, the ribbed slab defines the shape and spatiality of the building. The solution of the ribbed slab, the reduced internal vertical supports and the blank end walls



04 Paulo Mendes da Rocha, Jockey Club of Goiás, Goiânia, Brazil, 1962-1964. East facade and pool square.
© Paulo Mendes de Rocha Collection, Casa da Arquitectura, Matosinhos.

present in the Jockey Club, were also used in the Guarujá Waterfront Club.²² The experience with the Jockey and its constructional solution provided the basis for the study of a grid of delicate proportion, despite its materiality in *beton brut*.

In the project, the care with the tectonic elements, especially the ribbed slab and the prismatic pillars, is called to attention. Generous cantilevered areas correspond to the interface with the external areas, allowing the entrance of natural light. The reinforced and prestressed concrete structure has a section with a central span of 38 meters (m) and external cantilevers of 16 m, making up 5,000 m² of projection and total constructed area of 15,000 m². The building measures 47 m wide by 103 m long and 6.9 m height, from the level of the pools. The two main beams of the roof coincide with the alignment of the pillars, working as transition beams and as gutters. The structural slim blank cantilevered end walls further extend the facades. They have a height of 4.70 m and provide a continuous split in the building's lateral roof.

This large shaded roof, associated with zenithal skylighting elements, is present in many of Paulo Mendes da Rocha's works designed in the first years of his career, with different solutions applied in each case. At the Faculty of Philosophy, a similar one to the Jockey Club's zenithal skylighting appears.²³ The zenithal ventilation and lighting of the changing rooms and the Jockey Club's service sector, achieved through a small crack along the side support, is also present at the São José dos Campos School Group and at the

Faculty of Philosophy.²⁴

The pillars are one of the most expressive elements of the project. Composed of trapezoidal sections divided into three parts (a truncated pyramid base, a central pyramid transition section and an inverted pyramidal capital), such pillars demonstrate the concern with the lightness of the structural elements, which vary in cross section according to the structural loads. Such columns are present in his work since the Paulistano Athletic Club Gymnasium project.

In the focal analysis of the isolated elements, one observes the design and the proportions applied, bringing the image of a mature result for a young architect at the beginning of his career. In the case of the Jockey Club these elements acquire a solution of ingenuity and sophistication in relation to the whole of the work,²⁵ constituting the basis of a greater search, associated with the creation of a transparent internal space defined essentially by the incidence of light and shadow.

This space is integrated with the swimming pool square and to the courtyard of the park by means of doors with revolving frames and steel cable bracing. The notion of inside and outside, in this case is quite subtle. By opting for the separation of environments by means of levels and interconnected by ramps and walkways, connected to a sophisticated system of pillar, beam and slab, the architect achieves a spatial fluidity not present in his previous works.

The continuous research around a spatial system and constructional elements in the first years of Paulo Mendes da Rocha's work, is reflected in his future production, like the great horizontal plane suspended by few sup-

ports existing in the Hotel in Poxoréu (1971), in the *Núcleo de Educação Jardim Calux* [Jardim Calux Primary School] in São Bernardo do Campo (1976), in the *Museu de Arte Contemporânea da Universidade de São Paulo* [Museum of Contemporary Art, University of São Paulo] (1975) and in the *Museu de Arte de Vitória* [Art Museum in Vitória] (1991); or the expressive spaces of the *Museu da Escultura* [Sculpture Museum] (1988), to mention some examples.

Conclusions

The detailed analysis of the project of the Jockey Club of Goiás reveals a surprise, a premature maturity for a young architect, in the first decade of his professional work. In it, a consistent formal synthesis is already observed, characteristic of his forthcoming work, which presents itself as an aesthetic result of “his way of understanding the historical reality of his time and, consequently, the criteria that determine his performance over it,” as Hélio Piñon²⁶ points out.

The dialectic relationship between the building and the environment seems to be part of Paulo Mendes da Rocha’s initial gestures, overcoming the challenges of the place with lessons of urban setting and insertion in the landscape. Risking the “transverse” design approach in the Jockey Club’s project (to

which he attributed the victory of the contest) would have been one of the decisions that would be revisited in the coming decades.

In an interview about his projects in Goiânia, in 1988, the architect observed that the Jockey Club – as an urban club – would be located on a valuable site and that, with time, it could be pressured by the growth of the city. At the time, he anticipated that the facilities “would be a very beautiful exception for the city” if kept in the same place, and stated that with such a space, it could receive future interventions with complementary uses to its original purpose.²⁷ In fact, the club functioned as a social catalyst, where parties, games, tournaments and leisure took place until the late 1990s. However, the building is nowadays abandoned, in a state of accelerated degradation, awaiting intervention actions that will guarantee its use and its permanence in time.

Notes

- 1 See Hugo Segawa, “Arquitetos peregrinos, nômades e migrantes”, in Hugo Segawa (org.), *Arquiteturas no Brasil, anos 80*, São Paulo, Editora Projeto, 1988, 9-13.
- 2 Planned in 1933 by Attilio Correia Lima (1901-1943), under the precepts of the French school of scientific urbanism.
- 3 The Jockey Club of Goiás (1962), the Bento Odilon Moreira residence (1963), the Serra Dourada Stadium (1974-1975) and the Goiânia Bus Terminal (1983-1986) as a consultant.
- 4 Paulo Mendes da Rocha, “Entrevista concedida a Christine Ramos Mahler, São Paulo, 1988”, in Christine Ramos Mahler, *Aspectos da Modernidade na Cidade de Goiânia. (1950-1960)*, Goiânia, Master Thesis, Instituto Goiano de Pré-História e Antropologia, Universidade Católica de Goiás, 2004, 139.
- 5 According to an article published in the magazine *AB Arquitetura do Brasil*, the presidency of the competition was in charge of architect Jon Maitrejean (1929-). See “Jóquei Clube de Goiás”, *AB Arquitetura do Brasil*, No. 11 – Esporte e Lazer, São Paulo, 1979, 20.
- 6 See Rosa Artigas, *Paulo Mendes da Rocha*, São Paulo, Editora Cosac & Naify, 2002, 225.
- 7 Paulo Mendes da Rocha, in Christine Ramos Mahler, *op. cit.*, 139.
- 8 This last project in partnership with Waldemar Herrmann (1937-).
- 9 See Hélio Piñon, *Paulo Mendes da Rocha*, São Paulo, Romano Guerra Editora, 2002, 8.
- 10 Paulo Mendes da Rocha, “Depoimento”, *Acrópole*, No. 342, São Paulo, year XXIX, 1967, 15.
- 11 Goiânia has a significant Art Deco heritage declared in 2003, at the national level. The region where the Jockey Club is located is registered in the map, having a historical dimension to be considered.
- 12 According to Rosa Artigas, *op. cit.*, 124.
- 13 Term used by Eline Caixeta and José Artur Frota in “Paisagens Desoladas: quatro Máscaras de Concreto em Deriva”, when dealing with the four works of Paulo Mendes da Rocha built in Goiânia. In Carlos Eduardo Comas, Marta Peixoto, Sérgio Moacir Marques (org.), *Concreto: Plasticidade e*

Industrialização na Arquitetura do Cone Sul-Americano 1930-70, Porto Alegre, Editora UniRitter, 2010, 161.

- 14 *Idem*.
- 15 Eline Caixeta, José Artur Frota, *op. cit.*, 163.
- 16 Paulo Mendes da Rocha, in Christine Ramos Mahler, *op. cit.*, 142.
- 17 *Acrópole*, *op. cit.*, 18 and 26.
- 18 Rosa Artigas, *op. cit.*, 40.
- 19 *Acrópole*, *op. cit.*, 34.
- 20 The club was designed for an average daily attendance of 2,000 members, at the time a considerable volume of people for an urban club headquarters.
- 21 *Acrópole*, *op. cit.*, 26.
- 22 Ana Elisa Moraes Souto, *Projeto arquitetônico e a relação com o lugar nas obras de Paulo Mendes da Rocha (1958-2000)*, Porto Alegre, PhD Thesis, Universidade Federal do Rio Grande do Sul, Vol. 11, 2009, 23.
- 23 *Acrópole*, *op. cit.*, 30-32.
- 24 *Idem*. 23 and 30-32.
- 25 Regarding the solution given to the design of the Jockey Club pillars, perhaps the closest kinship is in the pillar section of the 1962 Faculty of Philosophy of the University of São Paulo. See *idem*, 30-32.
- 26 Hélio Piñon, *op. cit.*, 7.
- 27 Christine Ramos Mahler, *op. cit.*, 141.

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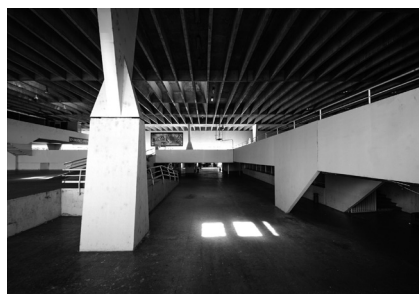
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05 Paulo Mendes da Rocha, Jockey Club of Goiás, Goiânia, Brazil, 1962-1975. Access tunnel, Gymnasium on the right and Party Room on the left. © José Artur D’Aló Frota, 2012, JADF Collection.



06 Paulo Mendes da Rocha, Jockey Club of Goiás, Goiânia, Brazil, 1962-1975. Gymnasium and access ramps. © José Artur D’Aló Frota, 2012, JADF Collection.

The real reason why Nakagin Capsule Tower was never metabolized

The first part of this two-part essay is about the Nakagin Capsule Tower restoration and preservation project and discusses the low awareness of the current situation of the building. In part two Showcase Tokyo Architecture tours share survey responses from enthusiastic capsule tower fans on the future of the building.

Nakagin Capsule Tower and The Metabolist Movement

The Nakagin Capsule Tower – completed in 1972 – is a well-known example of Metabolist architecture designed by Kisho Kurokawa (1934–2007). It is very popular in Japan and enjoys a high level of recognition overseas thanks to references in architecture, design, and videos. Before COVID-19, there was a time when the total number of non-Japanese guests participating in the tours was greater than that of Japanese ones.

Externally it appears to be a single building, but it is in fact two towers: Tower A has 13 floors while Tower B has 11 floors, and 140 capsules are attached to a spiral staircase in each tower respectively.

The external dimensions of a single capsule are 2.5 x 4 meters (m) making an area of 10 square meters (m²). This was governed by the size of an object that may be legally transported on a road in Japan. Each capsule was actually transported by truck to Tokyo from a container factory in Shiga, lifted into position by crane and attached to the tower.

At the time, the tower's capsules were designed and marketed as “business capsules.” The interiors featured built-in storage shelves including various integrated devices: a unit bathroom with toilet, sink, and bathtub, and a bed. A desk, a refrigerator, an air-conditioner, and lights were incorporated into the storage unit as a standard specification. Buyers could then choose options such as a telephone, TV, a digital a clock, audio system, and an electronic calculator (quite a pricey option in those days). As they were not designed for permanent



01 Kisho Kurokawa, Nakagin Capsule Tower Building, Tokyo, Japan, 1972. Full view of the Nakagin Capsule Tower. © Tatsuyuki Maeda, 2020.

occupancy, neither cooking nor laundry facilities were included. In lieu of the latter, a concierge service provided room cleaning or laundry. The tower even had special staff providing business support services for residents, which was a very advanced concept for the time.

Popularity grew as it was an easily grasped expression of Metabolist theory, where old capsules could be swapped for new. It was intended at first that the change would happen after about 25 years, but to date – 48 years later, none have ever been changed.

Why were the capsules never changed?

One of the reasons was structural. The idea that each capsule could be changed is one of the most interesting ideas for people visiting the building. However, few people realize that the capsules cannot be taken out horizontally. The underside of each capsule is fixed to brackets extending from the tower core and the upper part of the capsule is fixed with four bolts to the tower. There is about a 30 centimeters (cm) vertical gap between capsules, so they cannot be detached from the brackets as the space above each capsule is too narrow. In fact, to remove a single capsule each capsule above it would also have to be removed.

Another reason preventing capsule replacement is that each capsule was sold to individual owners, meaning that an agreement would have to be obtained from 140 owners: 100% agreement would be necessary since refurbishment would include not just their capsule but the communal space as well. Owners are obliged to pay a monthly fee for maintenance, but they would still have to cover the approximately additional 10 million yen (at 2007 prices) for the exchange of a capsule. This prohibitively high cost meant it would not be possible to obtain agreement from all owners.

In addition, the Nakagin Capsule Tower sits on leased land, with the landowner at the time (Nakagin group) favoring a more effective use of the land.

The accumulation of various negative arguments resulted in the 2007 decision to redevelop the capsules as studio apartments. How is it then that building still stands?

The construction company in charge of the redevelopment failed in the 2008 global financial crisis, and the redevelopment planning began again from scratch.

Preservation activity

There had previously been several preservation attempts undertaken by individuals, but the whole flow changed in 2014 when the *Nakagin Capsule Tower Preservation and Restoration Project* was formed.

Firstly, the team crowd-sourced funds and published *White ark of Ginza, Nakagin Capsule Tower Building* in October 2015 to raise awareness of the situation. The building itself had been covered extensively by architectural books, but this was the first time in Japan a book had been published for the reader with a personal affection for the capsule tower and which included interviews with residents and renovation examples.

A new book *Nakagin Capsule style - 20 stories* with the latest collection of interviews and photos has been released recently. It is a documentation of those capsules that have been used as homes, as well as other various applications such as office space and as second homes. Of particular interest are those capsules that have been renovated as traditional Japanese or antique-style rooms, as well as those that have been restored to the original specification.

It was felt that a good understanding was



02 Kisho Kurokawa, Nakagin Capsule Tower Building, Tokyo, Japan, 1972. Two capsule rooms. © *Nakagin Capsule Style*, Tatsuyuki Maeda, 2020.

a prerequisite for the preservation of this building, and so in 2015 weekend tours of the building were commenced. The tours were originally in Japanese only, but with the cooperation of Showcase Tokyo,³ who run various architecture tours of Tokyo, English and Chinese speaking tours are now offered. Around 1,500 people join the Japanese tours, and English/Chinese tours welcome around 800 per year, which has helped to create many more fans of the Capsule Towers. Tour participants purchasing or renting the capsules has reinvigorated the use of the building and so the tours have become directly connected with the preservation activity.

The visits can only last around one hour, but the best way to create a fan might be to have them actually use a capsule on a daily basis. To do this, a “monthly capsule” rental system is operated, allowing people to stay for a month at a time. Guests post descriptions of their experience on social media and this has significantly amplified the interest that people have for the Capsule Tower.

The project also promotes coverage in domestic and foreign media. Primarily news and architecture magazines, but also the requests from variety and game shows have been growing. The retro-futuristic interiors are also in demand from movie, music video, and fashion shoot producers, notably appear-



03 Kisho Kurokawa, Nakagin Capsule Tower Building, Tokyo, Japan, 1972. Two types of events held in the Nakagin Capsule Tower. © Tatsuyuki Maeda, 2019.

ing as a hotel in the Hollywood X-MEN movie *The Wolverine*.

Though small at only 10 m², the acoustic insulation from surrounding rooms is surprisingly good as each capsule is an independent structure. One tenant even uses a capsule as a bump-in studio with musical instruments and a DJ booth. Art and music events were held in these spaces that leverage the sense of unity, which is the strength of these rooms. The number of people in the rooms is limited due to the small space, but by live streaming, a greater virtual presence is possible and the charm of the round window can be emphasized to a broader audience.

The project has played a major part in forming the community supporting the Nakagin Capsule Tower. Of the 140 capsules, 20 are occupied by residents, 30 are used as office space, with another 30 used as small workshops. There are around 60 capsules that are not usable or not being used. Sadly, use falls year by year with the natural deterioration of the building, but the community is still very active. On weekends, people might gather from nowhere in a vacant capsule for an impromptu banquet. Often more than ten people fill this 10 m² space to enjoy chatting about architecture, design, or other common topics. There is a strong camaraderie aroused amongst occupants of diverse backgrounds

and age groups through their connection with this building. This may be the reason this building is loved by so many people.

The current situation and the future

At the same time, the redevelopment plans were forced back to the drawing board in 2007, the preservation activity saw renewed life. There was even a chance to suggest a capsule exchange plan at the building management union general meeting held at the end of 2017. However, the building's greatest crisis came in June the following year. The Nakagin group, which owned 17 capsules, the street-level store, offices on the second floor, and the plot on which the building stands, sold all proprietary rights to the CTB CK company, an investment group. The company pushed forward to purchase the capsules and, as of 1st November 2020, they have acquired 80% or more of the voting rights and are trying to complete this purchase in order to demolish the building.

Over the past two years, the *Nakagin Capsule Tower Preservation and Restoration Project* has considered several measures, such as a plan to actually renew capsules, a renovation plan, leaving some part of the capsule tower or buildings intact, or the construction of a mini-capsule tower. It is unknown how our project will advance, but it must be seriously thought about how to pass on the legacy of the Nakagin Capsule Tower metabolism to the future.

There is little time left!

What if the Nakagin Capsule Tower becomes metabolized?

Showcase Tokyo has been offering English/Chinese speaking Nakagin Capsule Tower tours for three years and has hosted about 2,200 guests.

Guests are encouraged to experience these 10 m² microcosms, get an explanation of what the building is about, why it is so special, and a description about the current situation with regard to the preservation activity.

The tours are also excellent opportunities for passionate fans of Nakagin Capsule Tower to engage in lively debate and exchange opinions about the future of the building. In Winter they get so excited that the windows fog up.

Before writing this essay, a questionnaire-based survey was conducted among enthusiastic capsule tower fans all over the world who had previously joined one of the

HERITAGE IN DANGER

tours (including the virtual tour). They were able to tell in their own words what kind of exciting future they would like to see in the case that the present critical situation is successfully overcome.

The concept of this building is Metabolism.

It is a unique building designed on the premise that the building itself would make continual change possible. That being the case, would it not also be possible to incorporate the ideas of people enthusiastic about the design philosophy into discussions about faithful preservation of the original building?

The survey had 25 respondents from 12 different countries (Australia, Belgium, Chile, Canada, Finland, France, Germany, Hong Kong, Italy, Switzerland, the United Kingdom and the United States), with ages between the 20s and 60s. About 30% of the respondents have a professional interest in architecture.

The survey consisted of five questions:

**Q1. How did come to know
of the Nakagin Capsule Tower?
Do you have any personal memories
of the building?**

The most common answer from those working in architecture was “I learned about it at University” and “it was a study theme in the studio where I did my internship.” Many of the answers from laypeople were that they had come across the building in the media, fell in love with it, and decided to go see the building on their next visit to Tokyo. Some had an interest in Brutalist architecture or tiny house, and that led them to find this example of Metabolist architecture...

Some of the memories associated with the capsule tower were “Unable to gain entry I loitered fretfully in front of the building,” “I participated in a tour, and finally got into the building (and got a photo of the round window!),” “my future husband got interested in this building as well as I did when we visited the site,” “I actually got a tattoo of the capsule tower on my arm as a memory of the trip,” “I actually lived there several years later,” “I had a trip to the building as a birthday present” and “it was a surprise present from my partner.”

**Q2. What is the charm of
the capsule tower?**

It has not asked about the significance of the building seriously here, more talking

about what it is about the capsule tower that appeals to them on a personal level.

“Minimalistic and carefully considered space,” “original design of the stunning facade, the round windows, and the furniture,” “parallel world feeling of futuristic space” – these got the most votes.

Some of the other opinions were: “the idea that the tower is actually alive rather than static and that it can grow over time with its inhabitants,” “the idea and courage to build this extraordinary building back in the 1970s and how the design still remains,” “embodying the businessman culture of Tokyo and it feels like living part of history.”

It can be said that the guests were attracted by the character and the story that the building tells.

**Q3. If you were to own a capsule
room, and utilize it with no restriction,
including refurbishment or otherwise,
what would you like to do?**

Seeing many people commenting that they would like to use the space as a “weekend villa” and “hobby space,” can be concluded that many would like to experience the idea of the second house, which was the original concept of the project.

However, many had pointed out that it is actually a bit inconvenient to use with the capsules in their current condition and that refurbishment would therefore be necessary, but said “in the case of refurbishment, we would need to stick to the original design faithfully and minimize the changes” and “change the technology part discreetly so that the changes were not apparent.”

In addition, there were opinions like: “I would use it as an artist’s studio since the logic of the building fits creative activity perfectly.”

**Q4. Imagine that the tower remained,
and all the capsules were upgraded
and metabolized to new ones.
If you have a chance to change
the tower and create something
fun by adding something new to the
original design or concept, what would
you like to add (or take away)?**

The most common response was to “create a terrace/rooftop garden and plant trees” to the inorganic building facade texture.

The following ideas were about connecting the building and the public more closely: “cre-

ating a community space for both residents and nonresidents,” “make one huge capsule connecting more than two units” and “shop capsule” (small convenience store, bar).

Other interesting ideas were “to make the tower elevator transparent so that you can see the tower core,” “to change into a hotel,” “to make the whole building like a Ferris wheel looking like a three-dimensional parking lot!”

**Q5. If there is anything you could
do to help to save this building
in any way, by profession or skill,
what would that be?**

Most of the responses involved publicizing the tower, and to express its value, and spread awareness in various media.

On top of that, there were ideas such as “launching international crowdfunding project,” “bringing in a hotel project team,” “support financially,” “convincing the Tokyo authorities” and “participate in the competition.”

The responses indicate that this building is an object of interest and affection for people all over the world. Its future remains uncertain, but we do hope you come to experience the current capsule tower before any major changes, which could happen very soon.

Tatsuyuki Maeda and Yuka Yoshida

Notes

- 1 Metabolism was a post-war Japanese architectural movement from the 1960s by a group of Japanese architects who envisioned a new direction for future Japanese architecture and urbanism. The term “Metabolism” refers to the replacement of the old with the new and the group further interpreted this to be equivalent to the continuous renewal and organic growth of the city.
- 2 See more online at: <https://showcase-tokyo.com>.

Tatsuyuki Maeda

(Tokyo, Japan, 1967). Graduated in Marketing from Nihon University in Tokyo in 1991. After working in an advertising company consulting client branding and promotion for 27 years, he founded the *Nakagin Capsule Tower Preservation and Restoration Project* and has been a representative of the project since 2014.

Yuka Yoshida

(Shizuoka, Japan, 1981). Graduated in Japanese culture and folklore at Musashi University in 2004. After working for an Australian tour company for seven years as a tour guide and the director of the Japan Management Team, she founded the agency Showcase Tokyo Architecture Tour, with nationally licensed tour guides since 2014.

A conference for the future: *From Bauhaus to the New House – Post-Covid Landscapes*

Lisbon, Portugal,
8 – 9 June 2021

When, on 15th October 2020, the President of the European Commission, Ursula von der Leyen, in her State of the Union speech and an article published in several newspapers, launched the idea of a New European Bauhaus, it surprised politicians, cultural agents and citizens in general. After all, we are not used to having a leader at the highest level, putting forward a cultural, artistic, and architectural issue as a central policy motivation.

Moreover, it drew on a century-old institution, the Bauhaus, undoubtedly one of the pillars of modern culture, where artists, architects, and designers in Weimar, Dessau, and already in decline, in Berlin, created a fundamental experience that was formative for modernity in the 20th century. In its time, the Bauhaus was in a continuous state of permanent and heated controversy. Now, a century on, it is also subject to the scrutiny of what is known as “politically correctness,” and to petitions and calls for “cancellation.”

Nonetheless, what is admirable in the president’s initiative, is the willingness to see in the emergencies of the present, not only a need for an environmental and economic project, but also a multi-disciplinary cultural challenge. In this sense, the invocation of the Bauhaus is welcome and pertinent. From 1919, in Weimar, the body and the machine were examined in the workshop. The approach was experimental and communal, today we would say it was interdisciplinary. The costumes and decorations of the many parties held, resulted from student work with the “Master of Form.” The communitarian idealism derived from the 19th century was tested by the pragmatism of those who wanted to work with industry and the market. Nowadays, the workshop will be different; the focus has shifted; there is a new fight against climate change. But the collaborative model of the Bauhaus, the interlacing of theory and practice, and of design and manu-

facture, retains an unparalleled acuity.

Furthermore, in the president’s initiative, proposed as a “movement,” the incorporation of culture at the center of today’s challenges, is primarily a demonstration that the European project is not only based on the primacy of economic and national interests. To regain people’s confidence, it can and must include a social, artistic, and architectural dimension, involving everyone.

The *Ordem dos Arquitectos* [Order of Architects] in Portugal resolved to respond positively to this challenge. The *Conferência Europeia de Políticas de Arquitetura – European Conference on Architectural Policies* (CEPA – ECAP) traditionally takes place under the Presidency of the Council of the European Union, which in the first half of 2021 falls to Portugal, and it will be held under the aegis of the New European Bauhaus. *From Bauhaus to the New House – Post-Covid Landscapes* will take place at the Calouste Gulbenkian Foundation, on 8th and 9th June 2021, and will bring together a series of participants from vari-

ous disciplines, drawn from several regions within and outside Europe, including Africa, Asia, and Brazil.

From Bauhaus to the New House alludes to the title of Tom Wolfe’s (1930–2018) book, *From Bauhaus to Our House*, from 1981, a devastating satire on the school, its architects and modern culture. Naturally, the conference will take a somewhat different outlook, but without ignoring the events of the past, the setbacks, excesses, and intransigence, which were also part of the story.

In fact, the state of emergency that Walter Gropius (1883–1969) experienced after WWII, and which led him to establish the Bauhaus has, in relative terms, some parallels with the post COVID-19 pandemic, social and climate challenges we now face. The reconfiguration of the city, and its relationship with the countryside, the new models of sustainable construction, and domestic space after the traumatic experience of the pandemic, have emerged as topics to which architecture, art, and the creative disciplines

The poster features a large, bold, diagonal title 'FROM BAUHAUS TO THE NEW HOUSE' in black. Above it, in smaller text, is 'DA BAUHAUS À NOVA CASA PAISAGENS PÓS-COVID'. Below the main title, a black circle contains the text 'FUNDAÇÃO CALOUSTE GULBENKIAN'. To the right of the title, a black box contains the dates '8-9 JUN'. On the left side, vertical text reads 'CEPA - CONFERÊNCIA EUROPEIA DE POLÍTICAS DE ARQUITETURA' and 'ECAP - EUROPEAN CONFERENCE ON ARCHITECTURAL POLICIES'. At the bottom, there are logos for the organizing body 'ORDEN DOS ARQUITECTOS', the host '2021 PORTUGAL .EU', the patron 'COM O ALTO PATROCÍNIO DE SUA EXCELENCIA', the official seal of Portugal, the media partner 'arch daily', and the exclusive sponsor 'OTIIMA'.

01 Poster of *Conferência Europeia de Políticas de Arquitetura – European Conference on Architectural Policies*, Calouste Gulbenkian Foundation, Lisbon, 8th–9th June 2021. © Ordem dos Arquitectos.

must respond. Consequently, the conference will involve various political and cultural figures, and will be divided into four areas for debate: the New European Bauhaus seen from outside Europe; transformations of the post-pandemic city; architecture, art, and sustainability; and architectural policies.

The conference will also include a presentation on the “state of the art” of architectural design, and feature several speakers linked to the European Commission, the New European Bauhaus program, and the Portuguese government and institutions. The keynote speaker will be Eduardo Souto de Moura, the 2011 Pritzker Prize winner, and an architect whose personal dialogue with Mies van der Rohe (1886-1969), the final director of Bauhaus, and his own position on “sustainability” issues, will undoubtedly be a controversial high point of the event.

The presence at the closing session of the President of **docomomo** International, Ana Tostões, is also a recognition of this institu-

tion’s crucial work and its natural affinity with the legacy of Bauhaus.

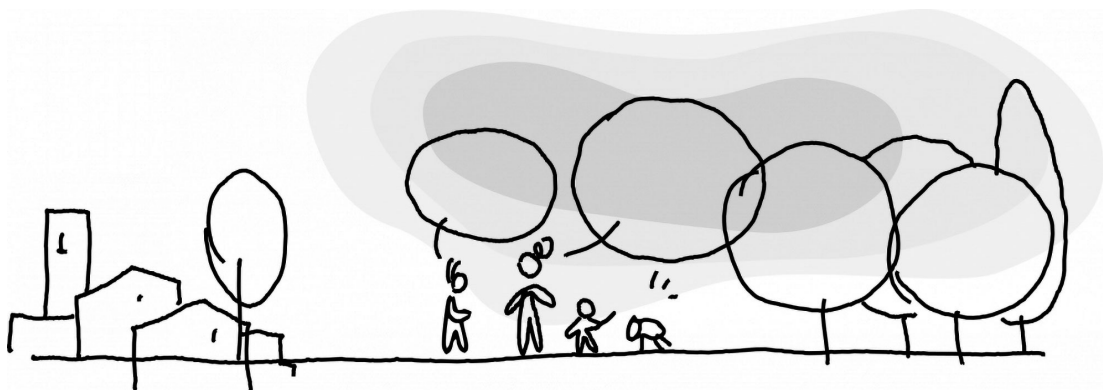
Oskar Schlemmer (1888-1943), a master of form, first in sculpture, and then in the theater workshop, was someone who found, in his drawings and murals, and his later plays such as the *Triadisches Ballett* [Triadic Ballet], a particular *baubauian* beauty, in which the human body meets the robotic geometrical form. Even nowadays, 100 years’ later, the innocent joy of such a strikingly innovative project is moving. Oskar Schlemmer’s masks linger in the imagination, enigmatic and unresolved, even today. In 1923, Walter Gropius organized an exhibition in which he presented the *Haus am Horn*, the first fully Bauhaus home, a state-of-the-art Bauhaus prototype, with objects created in its several workshops.

It is imagined – it is intended – that the projects the New European Bauhaus selects for its second phase, will be as radical as *Triadisches Ballett* or *Haus am Horn*.

As conclusion, a last personal note for

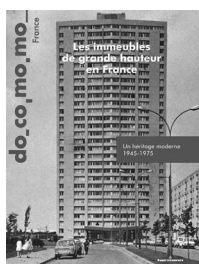
everyone: having visited the “White City” in Tel Aviv in early 2020, and the exhibition “Bauhaus: Our Play, Our Party, Our Work” at the Israel Museum in Jerusalem, I was able to re-live the experience of the old Bauhaus, and remember how in Portugal, and particularly in the “School of Porto” where I graduated in the early 1990s, the legacy of the Bauhaus still persisted to some extent in a first-year “preliminary course.” The geometry and play of pure forms were combined with life drawing, in the *Beaux Arts* method and, in Portugal, seamlessly incorporated the modernity of Modern Movement architecture. Thus, despite the fundamental differences it calls for, there is a great deal of continuity at stake in the New European Bauhaus. In any case, *From Bauhaus to the New House – Post-Covid Landscapes*, opens its doors to everyone, inside and outside Europe.

Jorge Figueira
Ordem dos Arquitectos, Portugal



New European Bauhaus
beautiful | sustainable | together

BOOK REVIEWS



**Les immeubles
de grande hauteur en France.
Un héritage moderne 1945-1975
High-rise buildings in France.
A modern heritage 1945-1975**

Edited by: Richard Klein

Publisher: Hermann Publishing

ISBN: 979-10-370-0340-9 / 979-10-370-0654-7

Language: French / English

Year: 2020 / 2021

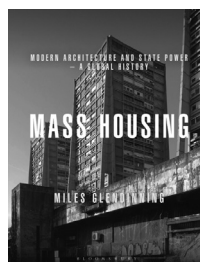
Undeniably indebted to the structural experimentation and advancements in technology that took place in US at the end of the 19th century, high-rise buildings have become a milestone of our recent history reshaping urban landscapes all around the world. Initially recognized as a technical, aesthetic, and financial solution much related to office buildings, this architectural form responded to different uses. But it was the social housing domain that received the harshest criticism. To properly convey the role of this building typology in urban culture, a much wider approach is required: to overcome a fragmented one in which these objects are sorted by authorship or functional programs.

The special issue of the *Bulletin docomomo France*, under Richard Klein's supervision, dedicated to the recognition of high-rise buildings built between *les trente glorieuses* [the glorious thirty] as national heritage assets, discusses this theme amidst a diverse group of case studies – over its 15 chapters – spread throughout the French territory. Although a national approach, it reminds us that these objects are elements of a global narrative representing the vectors of the city's modernization process in the second half of the 20th century.

The first two chapters set the tone of the discussion emphasizing that not only the high-rise building is a political object, but their heritage recognition and preservation is a harsh battlefield in which cultural significance is constantly threatened by economic interests. Each chapter updates the historical,

cultural, and material circumstances that supported the creation of these architectural forms in either rectifying current narratives or revealing new actors and achievements. The only way to learn from the past is getting to know it, and this publication points out clear ways in this direction.

Carolina Chaves



**Mass Housing: Modern Architecture
and State Power – a Global History**

Author: Miles Glendinning

Publisher: Bloomsbury

ISBN: 9781474229289

Language: English · Year: 2021

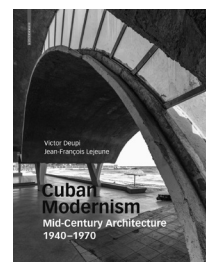
This major work provides the first comprehensive history of one of modernism's most defining and controversial architectural legacies: the 20th century drive to provide “homes for the people.” Vast programs of mass housing – high-rise, low-rise, state-funded, and built in the modernist style – became a truly global phenomenon, leaving a legacy which has suffered waves of disillusionment in the West but which is now seeing a dramatic, 21st century renaissance in the booming, crowded cities of East Asia.

Providing a global approach to the history of Modernist mass-housing production, this authoritative study combines architectural history with the broader social, political, cultural aspects of mass housing – particularly the “mass” politics of power and state-building throughout the 20th century.

Exploring the relationship between built form, ideology, and political intervention, it shows how mass housing not only reflected the transnational ideals of the Modernist project, but also became a central legitimizing pillar of nation-states worldwide. In a compelling narrative which likens the spread of mass housing to a “Hundred Years War” of successive campaigns and retreats, it traces

the history around the globe from Europe via the USA, Soviet Union and a network of international outposts, to its ultimate, optimistic resurgence in China and the East – where it asks: Are we facing a new dawn for mass housing, or another “great housing failure” in the making?

From the publisher



**Cuban Modernism.
Mid-Century Architecture 1940-1970**

Authors: Victor Deupi

and Jean-François Lejeune

Publisher: Birkhäuser

ISBN: 9783035616415

Language: English

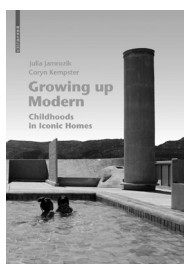
Year: 2021

For several decades in the 20th century, modern architecture thrived in Cuba, and a wealth of buildings was realized prior to the revolution of 1959 and in its wake. The designs comprise luxurious nightclubs and stylish hotels, sports facilities, elegant private homes and apartment complexes, both on the island and abroad. Drawing on the vernacular, these architects defined a way to be modern and Cuban at the same time — creating an architecture oscillating between avant-garde and tradition.

Audacious concrete shells, curving ramps, arresting *brise-soleils*, a fluidity of interior and exterior spaces, impressive murals and other integrated works of art are characteristic of an airy, often colorful architecture well-suited to life in the tropics. The publication highlights virtually unknown and previously inaccessible visual material, both from university and family archives. The stunning contemporary photographs were taken specially for the book and new drawings were prepared for it.

From the publisher

BOOK REVIEWS



Growing up Modern. Childhoods in Iconic Homes

Authors: Julia Jamrozik and Coryn Kempster
Publisher: Birkhäuser
ISBN: 9783035619058
Language: English
Year: 2021

Starting from questions such as “What was it like to grow up in an early Modernist villa or housing estate?”, “Did living in such settings change children’s attitudes? Did these radical environments shape the way they looked at domestic space later in life? Were children in Modernist homes self-conscious about their *avant-garde* surroundings, or proud of them?” the authors reunite in the book memories of four persons who grew up in four examples of Modern Movement iconic housing: Rolf Fassbaender, who lived for 12 years in one of J. J. P. Oud’s (1890-1963) Weissenhof Estate row houses (1927); Ernst Tugendhat, the only surviving Tugendhat child who lived in the iconic Tugendhat House in Brno (1930), designed by Mies van der Rohe (1886-1969); Helga Zumpfe, the youngest child of the Schminke family, who lived in the ship-form Schminke House in Löbau (1933) by Hans Scharoun (1893-1972), from when she was two until adulthood; and Gisèle Moreau, who lived almost her entire life in Le Corbusier’s (1887-1965) *Unité d’Habitation* in Marseille (1952).

By interviewing these four former inhabitants, very different emotions from childhood came up, as not all understood the radicality and innovative architecture in which they were living, some just understood it was a special place, and others were more impressed with small details. They even state that some people didn’t like them at all for being too different from the usual, minimalist, or exuberant.

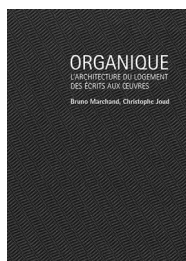
Complementing each interview, contemporary and current photos, architecture drawings, and architecture descriptions provide a new perspective on these buildings, the

architectural perspective from the “outside” and the lived perspective from the “inside.”

And, as children often live some experiences more intensively than adults and are sensitive to, for them, unknown aspects, and consequently somehow influenced in their development and personality by them, the rescuing of memories from childhood gives a unique and different vision of these Modern Movement buildings and demonstrates their impact on the ones who grew up and lived in them. Even though the dwellings were radical these former children feel nostalgia when asked about their childhood there.

So, this publication, as part of a broader project (*Growing up Modern*) that includes an exhibition as well, contributes to an expanded and evolving architectural, cultural, and social perception of these modernist housing. One of the important lessons that can be taken from the project, and underlined in the book, is that we have to be aware “of not only the utilitarian amenities adopted as standard under Modernism, but also the particular generosity that was a feature of at least some of the early examples of the movement,” as while its functional and efficient aspects have been transmitted, often its humanist and social aspects have been left in the background and have to be re-evaluated again.

Joana Coutinho



Organique - L'architecture du logement des écrits aux œuvres

Authors: Bruno Marchand
and Christophe Joud
Publisher: EPFL Press
ISBN: 9782889152902
Language: French
Year: 2020

This book is based on a surprising observation: the emergence, from the 2000s, of a series of mass housing projects in Switzerland

using irregular geometries, both in the interior configuration of domestic spaces and in the shape of buildings. Are we facing the revival of an “organic” architectural trend?

To answer this question first involves a “revisiting” of the theoretical texts and conceptual principles founders of such a trend. The work of protagonists such as Frank Lloyd Wright, Hugo Häring, Hans Scharoun and Alvar Aalto (the Top Four), among others, has thus constituted a “hard core” of observation making it possible to grasp the diversity of these conceptual principles, limited to the field of mass housing and approached according to two distinct periods: the inter-war period and the second post-war period. Finally, contemporary architectural production is questioned through the prism of (possible) continuity with the organic thought of the last century.

Generously illustrated, with archival drawings in particular, this work aims to be a critical, theoretical and historical account of what certain authors have called “the other tradition of modern architecture.”

From the publisher



Habitat: Ecology Thinking in Architecture

Authors: Dirk van den Heuvel,
Janno Martens and Victor Munoz Sanz
Publisher: Naïo10 Publishers
ISBN: 9789462085565
Language: English
Year: 2020

Habitat became a hotly debated topic in architecture in the 1950s, when this ecological term was introduced in the avant-garde circles of CIAM (Congrès Internationaux d’Architecture Moderne) and Team 10. Next to rethinking the housing question the notion of habitat brought a profoundly new way to conceive architecture and urban plan-

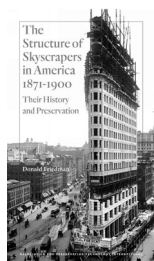
BOOK REVIEWS

ning. No longer could one consider cities and buildings as discrete, isolate objects but instead they were to be understood as part of a larger whole, an environment or habitat.

In light of contemporary environmental awareness *Habitat: Ecology Thinking in Architecture* offers a transhistorical perspective to reflect on design principles from the recent past, reinvigorate current debates while offering suggestions for future architectural research.

The publication contains contributions by Frits Palmboom, Erik Rietveld, Hadas Steiner, Georg Vrachliotis, and Leonardo Zuccaro Marchi, combined with generous visual documentations of the work of renowned architects Aldo van Eyck, Alison and Peter Smithson, Van den Broek & Bakema, and many more.

From the publisher



The Structure of Skyscrapers in America 1871-1900: Their History and Preservation

Author: Donald Friedman
 Publisher: Association for Preservation Technology
 ISBN: 9780998634715
 Language: English
 Year: 2020

In this long-awaited book, award-winning author Donald Friedman presents an illustrated history of the development of the structure of skyscrapers during the last quarter of the 19th century. In the first 190 pages, he details the context for the emergence of this new building type and thoroughly explains the cutting-edge technology of construction. Preservation problems are examined in depth.

A separate 200-page section provides construction dates and images for every known building taller than nine stories erected in the United States between 1871 and 1900 – a total

of 443 individual buildings, both extant and demolished, in 36 cities all across the country, from Boston and New York to San Francisco.

This definitive new book is essential reading – and an unrivaled reference – for anyone who is interested in early skyscrapers and in identifying the more than 300 engineers, architects, and contractors who designed and built them.

From the publisher



Les Multiples vies de L'appartement-atelier Le Corbusier

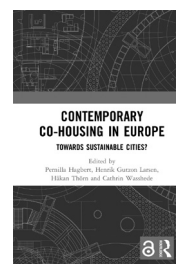
Authors: Franz Graf and Giulia Marino
 Publisher: Cahiers du TSAM
 ISBN: 9782889152131
 Language: French
 Year: 2017

Le Corbusier's studio-apartment is an iconic object of the 20th century, combining the indisputable material values of the building with the intangible "sense of place" of an architect's home. Le Corbusier, who lived there from 1934 until his death in 1965, treated it as a permanent construction site - a unique place of spatial, plastic and constructional experimentation.

Phases of change at "24NC" are overlaid as a palimpsest, and the apartment's "many lives" create major philosophical problems for conservation. A study of its material history over time reveals a simple fact: the "stratigraphy" itself, hard to unscramble yet rich in meaning, is key to the object's importance.

This first monograph on the studio-apartment, richly illustrated with largely unpublished visual material, presents research undertaken by the TSAM for the Foundation Le Corbusier during preparatory investigations for the program of restoration.

From the publisher



Contemporary Co-housing in Europe: Towards Sustainable Cities?

Edited by: Pernilla Hagbert, Henrik Gutzon Larsen, Håkan Thörn and Cathrin Wasshede
 Publisher: Routledge
 ISBN: 9781138325913
 Language: English · Year: 2019

This book investigates co-housing as an alternative housing form in relation to sustainable urban development.

Co-housing is often lauded as a more sustainable way of living. The primary aim of this book is to critically explore co-housing in the context of wider social, economic, political and environmental developments. This volume fills a gap in the literature by contextualizing co-housing and related housing forms. With focus on Denmark, Sweden, Hamburg and Barcelona, the book presents general analyses of co-housing in these contexts and provides specific discussions of co-housing in relation to local government, urban activism, family life, spatial logics and socio-ecology.

From the publisher



A l'intérieur - Les espaces domestiques du logement collectif Suisse

Author: Christophe Joud
 Publisher: EPFL Press
 ISBN: 9782889151707
 Language: French · Year: 2016

A l'intérieur is the perspective adopted by this theory notebook. A particular point of view

BOOK REVIEWS

that focuses on the theme of interior space and the devices and elements that characterize it, in the context of the architecture of mass housing and, in particular, of Switzerland. Inserted in a sort of imaginary path, unfolding from the inside to the outside, the entrance, the corridor, the foyer, the door, the “interior window,” the window and finally, the balcony are successively analyzed by a collective of authors, in the form of richly illustrated articles that immerse the reader in an unprecedented vision of contemporary domestic interiors, in the light of major historical references.

In a current context where an eclecticism of lifestyles and a breakdown of family structures dominate, the architects seek to induce or anticipate a variety of spatial practices, by questioning the current devices, of functional inspiration, and by investing in a stronger characterization of their atmosphere. Thus, the modes of representation are diversifying and revealing new material and sensitive experiments applied to housing, renewing the famous question: how to live today?

From the publisher



Post-War Middle-Class Housing

Edited by: Gaia Caramellino
and Federico Zanfi
Publisher: Peter Lang
ISBN: 9783035194708
Language: English · Year: 2015

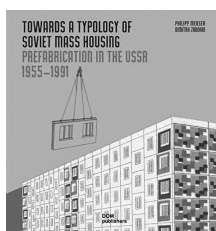
Post-war middle-class housing played a key role in constructing and transforming the cities of Europe and America, deeply impacting today's urban landscape. And yet, this stock has been underrepresented in a literature mostly focused on public housing and the work of a few master architects.

This book is the first attempt to explore such housing from an international perspective. It provides a comparative insight into the processes of construction, occupation and

transformation of residential architecture built for the middle-classes in 12 different countries between the 1950s and 1970s. It investigates the role of models, actors and policies that shaped the middle-class city, tracing geographies, chronologies and forms of development that often cross national frontiers.

This study is particularly relevant today within the context of “fragilization” which affects the middle-classes, challenging, as it does, the urban role played by this residential heritage in the light of technological obsolescence, trends in patterns of homeownership, as well as social and generational changes.

From the publisher



Towards a Typology of Soviet Mass Housing: Prefabrication in the USSR 1955-1991

Authors: Philipp Meuser
and Dimitrij Zadorin
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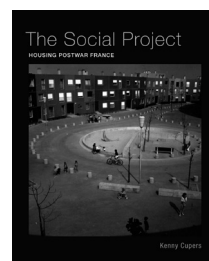
Towards a Typology of Soviet Mass Housing is the first comprehensive overview of prefabricated mass housing in the USSR. Due to the joint efforts of Philipp Meuser and Dimitrij Zadorin – two relentless experts on the matter – it is now possible to contemplate an unbiased introduction to the subject.

The book is divided into two main parts: “Typology”, written by Philipp Meuser, and “Catalogue”, written by Dimitrij Zadorin. The first part – “Typology” – analyses the USSR mass housing types through the lenses of ten correlated parameters. They approach issues such as the structural organization, the construction and creative aspects, as well as the influence of production and assembly on architecture. The second part – “Catalogue” – presents the systematized documentation of several major typological series, organized chronologi-

cally by three distinctive generations.

Together, the two parts of the book allow the reader to study and grasp a theme that, until now, had been absent from architectural discussion. Nonetheless, they confirm one of our deepest fears: an architecture mostly focused on productivity parameters, even more in an undemocratic country, can only lead to its own irredeemable and monotonous loss of quality.

Jaime Silva



The Social Project: Housing Postwar France

Author: Kenny Cupers
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ISBN: 9780816689651
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Year: 2014

Even its public transport has a different name. To visit the other Paris, you take not the metro but a different network of regional express trains. You cross underneath the périphérique, the circular highway that has replaced Paris's nineteenth-century city wall but has the same effect of demarcating the center from the rest. After this threshold, still the official city limit of Paris, the familiar city quickly peters out through the window. Then suddenly, the other Paris – perhaps the truly modern one – appears. Housing slabs and towers blocks in bright white, daring pink, and drab gray. Palaces for the people, giant but mostly less than glamorous. Ten-story pyramids imitating Mediterranean hilltop villages. Expansive multilevel plazas and exuberantly designed playgrounds. Graffitied concrete and postmodernist cladding. Well-intentioned community centers and monstrous shopping-mall megastructures.

This is the city where tourists do not go, but where most Parisians live. In it, we do not find the monumental splendor and richness of the historic center of the French capital, but the hopelessness of suburban landscapes, whose massive housing complexes are often

called “concentration camps”, “silos for people”, “rabbit cages”, “dormitory cities”. The setting of movies like *Terrain Vague* (1960) by Marcel Carné or *Deux ou Trois choses que je Sais d'elle* (1967) by Jean-Luc Godard, or from novels like *Les Petits Enfants du Siècle* (1951) by Christian Rocherfort's.

The history of post-war housing estates is usually featured as a triumphant and utopic rise, followed by a monstrous and dystopic fall. The first tells the story of nations rising from the ashes. In France, WWII ended with 3 million homeless people, 1,400,000 homes damaged and 300,000 completely razed. 48% of French homes had no running water and 80% had no shower – consequences of a mostly rural country that had little development in the first half of the century. *L'État-providence* [the welfare state], regulating the country's social, political and economic life, would guarantee the necessary public services and the protection of the population. As far as housing is concerned, in these well-known *les trente glorieuses* (1946-1975), the French State was willing to modernize the country through the massive production of state-aided mass housing on the outskirts of the existing cities, while providing housing for the greatest number. Then, usually comes the story of the so called “dystopia”: the description of these areas as social ghettos, with high rates of crime, unemployment, drug addiction, that house nowadays the most disadvantaged sections of society, the unemployed, families of low income and ethnic minorities. This is often accompanied by the story of the “failure of the Modern Movement,” in which architecture is blamed for the failure of public or social housing: the monotony of the facades, the inflexibility and reduced size of the spaces, the poor materials, the lack of sound insulation, etc. It is a convenient black and white story, with the seesaw of the world simplifying the narratives of History.

Revealing other pieces of the puzzle, *The Social Project: Housing Postwar France* helps us to deconstruct these myths. With a broad narrative spectrum that spans the three post-war decades, and a precise explanation of the processes that were at the origin of the urbanization of the French peripheries, this publication proposes a relational history of architecture correlating the multiple disciplines and actors involved: France's centralized state apparatus, government and civil society institutions, architects and planners, social scientists, construc-

tion companies and engineers, inhabitants and residents' associations, developers, journalists and popular media; politics, economy, design, building technology, and social life. It deconstructs the common linear and rigid understanding of history, to reveal that the complex field of experimentation that accompanied the proliferation of post-war housing estates in France resulted from continuous revision processes and efforts invested in several disciplines, in which architecture and urbanism evolved — or tried to evolve — in direct relationship to the permanent mutation of daily life, sustained by the evolution of an emerging domain of specialization – social science.

To map this evolution, this study is organized in three main chapters, according to the three mentioned decades: “1950s: Projects in the Making”, “1960s: Architecture Meets Social Science” and “1970s: Consuming Contradictions”. In the first one, “1 - Streamlining Production” presents the housing policies that led to the conception of the *grands ensembles* as the new paradigm of urban development in the immediate postwar years, and “2 - A Bureaucratic Epistemology” demonstrates how social science emerged to adapt architecture to the needs of inhabitants, having become a central instrument of a centralized state committed to modernize the country. During the 1960s, the rising economic prosperity and mass consumerism saw inhabitants to become “users”, envisaged as active individuals instead of passive beneficiaries. “3 - Animation to the Rescue” introduces us to the notion of “animation” as a social and technical tool to promote community life and lively neighborhoods, “4 - The Expertise of Participation” the development of citizen participation in planning and architecture, contesting “the right to the city” and “5 - Programming the Villes Nouvelles” presents the method of programming in the design of the *Villes Nouvelles* as a way to design new urban centers based on functional diversity, as *grand ensembles* were commonly criticized for being too isolated and mono-functional. The 1970s chapter describes the rise of private development over public housing: “6 - Megastructures in Denial” discusses about the attempts to give the urban sprawl new urban centers, envisaged as giant megastructures and “7 - The Ultimate Projects” illustrates the time when the rising purchasing power of the middle-class and its mobility increased the discon-

tent with mass housing and the preferences for the return to single houses, giving rise to alternative housing models such as the *habitat évolutif* and the *habitat intermédiaire*.

Giving continuity to the work undertaken by French scholars in their native language (Annie Fourcaut, Antoine Picon, Bruno Vayssière, Danièle Voldman, Jean Fourastié, Joseph Abram, Le Goullon, Rémi Papillault), this book fills an important gap in the literature for an international audience of English speaking scholars.

The Social Project is not an architectural book focused on the usual masters, nor on the sweetest gem of the discipline. Of course, Cupers does not leave out Le Corbusier and CIAM, Chombart de Lauwe and Henri Lefebvre, but insists on revealing that the history of French postwar social science, architecture and urbanism cannot be understood by the work of “great men”, having instead been developed by plural, and sometimes dispersed, almost anonymous, huge mass of studies promoted by the State, popular inquiries, journalistic reportage, and academic research.

In the 1980s, more than 700 of the postwar housing estates built in France “have been officially marked as ‘urban problem areas’ by the French government, stigmatizing more than 5 million inhabitants.” While this publication does not offer the reader a position on the discussion between demolition versus conservation, it is a fundamental piece of research to understand the housing policies, experiments and initiatives promoted by the French state, in the three decades following WWII, in political, architectural and social terms. Connecting phenomena developed within politics, architecture, engineering, planning and sociology, it provides a clear understanding of the evolution of the post-war dwelling environment in France, from the welfare state panorama to the rise of mass consumerism.

In the overall context of neo-liberal policies, it is imperative that works like this are developed, read and spread, before the products of the Welfare State disappear before we have begun to understand them. In case such research as this is not enough to restore the idea of the right to housing, at least it can contribute to informed decisions when dealing with the future of post-war housing estates, in France, and beyond.

Zara Ferreira