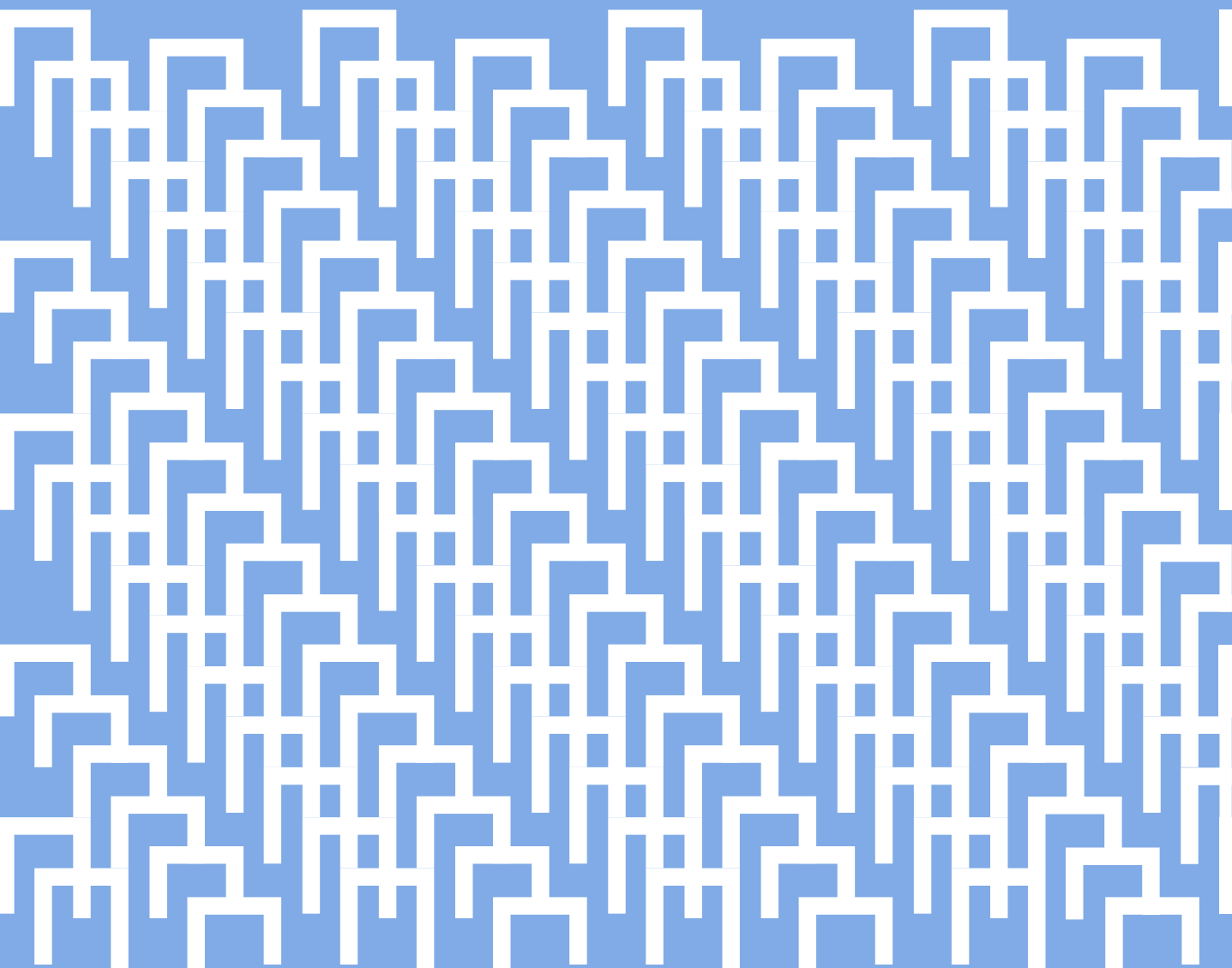


Working Group 1
MCMH Atlas

European Middle-Class Mass Housing: Past and Present of the Modern Community



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Editors

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This publication is based upon work from COST Action “European Middle-Class Mass Housing” CA18137 supported by COST (European Cooperation in Science and Technology).

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Decentralising the core: notes on middle class mass housing in Portugal

The impetus for mass housing complexes was entirely linked to the expansion of Portuguese cities to the periphery. This process overlapped with the aspirations of a heterogenous middle class – on the one hand, those who could not find in the sought living conditions in the historical city; and on the other, those who could not afford to settle in the centre. The text focuses on neighbourhoods developed in Lisbon, Oporto and Coimbra after the second half of the 20th century to demystify the urban peripheries' planning histories by analysing an “optimistic architecture” that helped shape the built environment and echoed its time's urban and political concerns. Examples range from Oeiras to Portela in Lisbon, Boavista in Oporto and Calhabé in Coimbra, to provide an overview across geographies and time. The chronological framework extends to the late 1970s, with a pivotal moment in 1974, when the dictatorial regime fell and democracy was established in Portugal. To reflect the aspirations of the middle classes, new housing solutions were sought with high architectural standards in housing in line with the landscape as a fundamental part of the residential project. The following sections consider the characteristics (urban layout, architecture, and interior design) of some key neighbourhoods, their role as a testimony to the social and political aspirations of the time, and the quality of life and lifestyles of their current population. Taking the overview of the MCMH panorama through the Lisbon case and how the city has grown through western, north-eastern, and northern urban expansion, the article aims to open new strands of research outlining other cities such as Oporto and Coimbra (in the third section) or the Algarve. It also briefly addresses the current state of mass housing complexes and how they can be drafted in future strategies for housing revitalisation.

Until very recently, the periphery of Portuguese cities was seen as the outcome of an essentially

chaotic urbanisation process, carried out without qualified professionals and effective public intervention. Although there may be some truth to this perspective, recent studies show that this urban development phenomenon was a much more complex mosaic of competing intentions and concerted action (Cardim & Rodrigues, 2021; Ferreira, 2015).

From the late 1950s onwards, demographic pressure in the main cities and the relatively reduced public investment in housing meant that the task of solving the housing problem in the country was mostly left to the private sector – apart from social housing. Although there was regional and municipal urban planning, the demand for new housing on the periphery and the speed of free market speculation meant that public institutions assumed a less relevant role, concentrating their efforts on delivering infrastructure, public facilities and legislative measures, such as the horizontal property regime (Decree Law 40333, 14/10/1955).

Within this context, the collective housing block promoted by private investors – which was first tested in the city centre – became a crucial element in the growth of suburbia, synonymous with vertical density, modern urbanism and international architecture, where it – literally – found the ground to flourish upon. These blocks were many times arranged in what became known across the world as the *grand ensembles*, initially hailed as triumphant glimpses into an optimistic future, a new narrative between building and landscape, a symbolic and functional affirmation of turning utopian dreams into reality. They were heralded as “new ways of life” for a new middle class that no longer wanted to live in a crowded city. By taking advantage of road and railway infrastructure, most of these neighbourhoods were seen as an opportunity to have a more comfortable life in the suburbs while still working in the centre (Rodrigues, 2022: 130). A similar influx of new residents to the city periphery was already happening, although for different reasons, triggered by an emerging middle class, mostly newcomers from the neighbouring districts north of the capital looking for better ways of life. They settled on the northern city fringes

(as opposed to the previous cross-section, which sought housing mostly in coastal bathing areas to the west), since they could not afford real estate rental values, for example, in new central residential neighbourhoods, such as Lisbon's Avenidas Novas.

Reflecting the subtle openness to modernity of the Estado Novo dictatorial regime, housing ensembles for the middle class represented the possibility of introducing certain trappings of contemporary life (the elevator, the *solarium* etc., and sometimes the concierge apartment and the garage). However, the internal layout of most of the first dwellings to be built still betrayed a conservativeness of imagination, as per Portuguese middle class social convention – such as a maid's bedroom – that was reflected throughout the building through the duplication of accesses or means of internal circulation (Els et al., 2023; Pacheco, 2022).

This expansion of the cities via the establishment of new middle class neighbourhoods is more clearly seen in the metropolitan areas of Lisbon and Oporto, but it has also occurred on a smaller scale in medium-sized cities such as Coimbra, Braga, Viseu and Faro. This article intends

to explore some case studies that are representative of this phenomenon in Portugal.

Across Lisbon's periphery

Expansion to the west

The suburbs of Lisbon grew in a radial fashion along old access roads and, in particular, the railway lines. Apart from a certain amount of 'impromptu' building construction, urban planning played an important role in this development. One of the essential elements of strategic expansion was the *Urbanisation Plan of Costa do Sol* (1935-1948, Donat-Alfred Agache and others). The plan aimed to structure the western area between Lisbon and the Cascais-Estoril touristic zone. It had two main circulation lines options, both following the coastline: the inland highway and the 'Avenida Marginal', a lengthy thoroughfare of almost 30 km along the sea and riverfront. Both roads paved the way for the suburbanisation of small towns *en route*. After the Second World

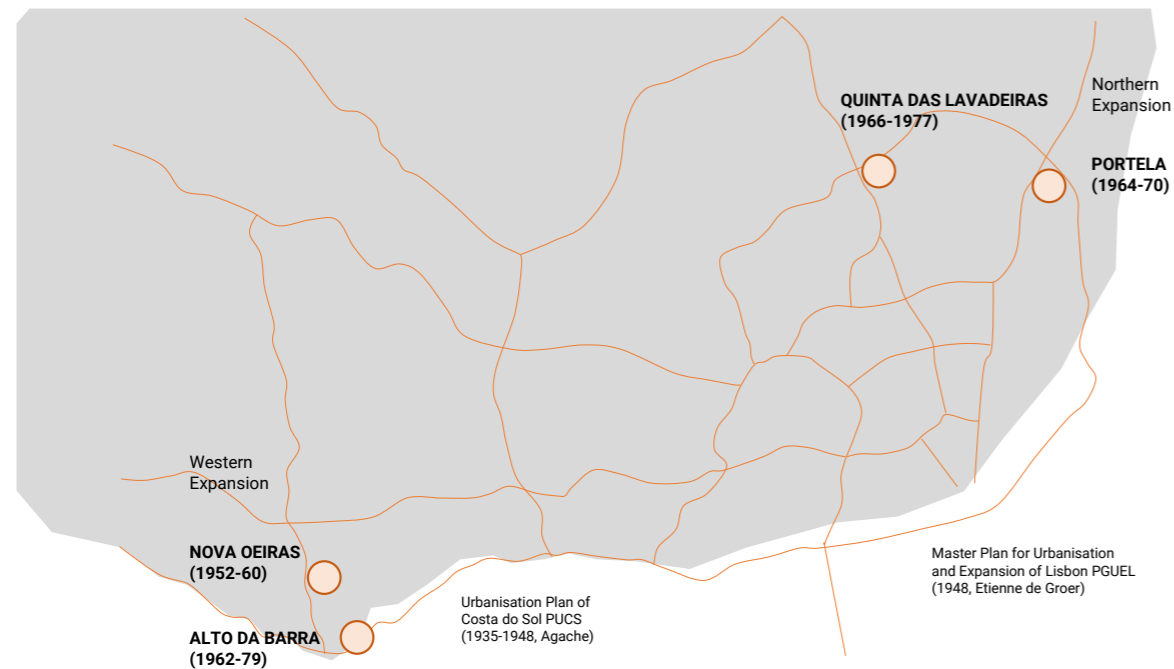


Figure 1

War, when a particularly progressive spirit and a zeal for industrialisation took hold, urban proposals for this area changed from low-rise and low-density typologies to multifamily buildings of greater height and population density. Continuous demographic growth in and around the capital meant that the ever-present housing shortage was too severe to be ignored and could not be solved by so-called 'garden suburbs' characterised by single-family houses.

The first big residential development located in this area (about 20 km from the city centre) was the *Nova Oeiras neighbourhood (1952-1960)*, a private initiative that made use of imported the grand ensemble model even before the public-sector-sanctioned neighbourhood of Olivais Norte (1955) did. The *Urbanisation Plan for the Nova Oeiras Residential Unit* (1953) was drawn up by the architect Luís Cristino da Silva, with the architect Pedro Falcão e Cunha and the landscape architect Gonçalo Ribeiro Telles. Comprising two distinct zones – one punctuated by towers and blocks, and the other by single-family residences –, this neighbourhood also offered spaces for commercial, recreational and religious purposes, creating a new urban environment with an emphasis on integration with the landscape. Resulting from a combination of European modernist principles of various origins – namely the Corbusian *ville radieuse*, the English new towns and the primacy of the *existenzminimum* –, Nova Oeiras stood out for the "integrity" and "clarity of the complex", all of which today remains fairly intact (Milheiro et al., 2015: 141).

Also in Oeiras, the *Alto da Barra Neighbourhood (1962-1979)* is another essential case study in Lisbon's western area. It incorporates different housing typologies for a considerable range of social classes, although it was a private initiative with clear commercial goals. This diversity was an explicit intention right from the start. In close cooperation with public authorities, the promoter sold a very large part of its land to the State, at a specially-negotiated price, in order to add a public school and to expand a nearby affordable-housing neighbourhood. The rest of the land was developed in three different sections: one for single-family houses; one for middle class blocks; and another one for upper middle class blocks. This last sector adopted the name Alto da Barra in 1974, for commercial and marketing purposes. Other additions were made over the



Figure 2

years, such as a shopping centre and support services. Architect Fernando Silva designed the urbanisation plan and some of its sections, specifically the five upper middle class blocks that stand in a large green area landscape designed by Ribeiro Telles. These blocks made use of innovative building technologies imported from abroad, namely Sweden, introduced by Mercator (the private real-estate promoter of the plan). Although this large project – called the Casal da Medrosa Urbanisation Plan – underwent several revisions over the years, it never lost touch with its original vision, born of a spirit of generous negotiation between the parts, and which resulted in a stable, multi-social and heterogeneous neighbourhood (Cardim & Rodrigues, 2021).

Expansion to the north

The visionary modernism of the Alto da Barra project was echoed two years later by Fernando Silva in his *Portela Complex (1964-1970)*, located on the north eastern outskirts of Lisbon. The emulation of Portela's functional layout – and even its aesthetic – by other architects and developers working until the 1980s is a testament to its relevance. Its urban plan was based on the Athens Charter, with large, freestanding housing blocks and differentiated circulation for cars and pedestrians. A central area was designed for the community, with commercial, educational, cultural, religious, sports and leisure facilities. Although the main promoter (Manuel da Mota) sold the individual parcels to a total of



Figure 3

134 builders, which then made alterations to the original apartment layouts, the neighbourhood has a strong identity and homogenous character (Ferreira, 2010).

Concurrently, the expansion of the city to the north required the widening of the existing road crossing the valley, Calçada de Carriche. In the mid-1960s, an urban plan and housing scheme for private profit along this new road infrastructure were promoted by the owner of the land on its east side — the Quinta das Lavadeiras — beginning a period of major transformation to the site. The project, designed by Thébar Rodrigues Frederico, can be described as three large blocks perpendicular to Calçada de Carriche with three lower floors for commerce, an intermediate access core (with a one-room duplex for the concierge house) and eight floors of housing built on *pilotis*. These intersect the other blocks, perpendicularly defining the view from the main road but without access from it, and were intended for stores, warehouses and

garages. Altogether there were 350 apartments for an estimated population of 1,750 people. Despite the reduced areas (approximately 60m²), in addition to a shared bathroom, each apartment included a second one en suite, hinting at the aspirations of a middle class on the rise and the progressive affirmation of its own culture. The plan was a composite of the urban visions of Ludwig Hilberseimer and Le Corbusier. On the one hand, the geometric order and the composition seem to aim for a vertical organisation of the city through *unités* perpendicular to the main roads and elevated on *pilotis*. On the other, the need to define an urban front visible from the highway is recognised, giving it the character of a boulevard without being directly accessible. The monumentality of the complex, composed by “L” structures linked by stairways and intended to repeat *ad infinitum*, thus underlined the accentuated character of the topography and embraced the presence of the adjacent highway in a consistently-conscious manner, heralding a new gateway to the city (Pacheco, 2022).

Middle class mass housing experiences in Oporto and Coimbra

Even though this study has chiefly addressed middle class mass housing developments in the Lisbon Metropolitan Area, it is essential to highlight some examples in smaller cities that share similar characteristics. In their ‘conquest’ of the outskirts through transportation infrastructures, opportunities for adding specific residential neighbourhoods emerged, defining new centralities. This was common in Portuguese cities such as Oporto and Coimbra, which experienced fast population growth until the 1960s. It is important to stress that, in both cases, large private developments responded to urban plans previously or simultaneously produced by public entities. Differences between what was initially planned and the end result stemmed from the desire to maximise profit, the need for a larger housing supply, and increased demand for middle class neighbourhoods.



Figure 4

Oporto

Since the 1950s, the urbanisation plans of Oporto (1952, 1962) were mostly concerned with circulation and roads infrastructure, facilitating the growth of the medieval urban centre to feed into new areas of expansion. Most pertinently, the 1962 Urbanisation Plan by Robert Auzelle pinpointed two main road axes, South-North and East-West, which linked major infrastructures such as bridges and train stations. The East-West axis outlined a second urban core, on the Western side of the city (Boavista), where the Grande Parque Residencial da Boavista (1962-1979) was built. The emergence of the new urban core relied on two fundamental infrastructures: a new road resulting from the construction of the Arrábida Bridge (1963); and the future ring road of the city. The Parque Residencial da Boavista, by architects Agostinho Ricca, João Serôdio e José Magalhães Carneiro, was located at the intersection of the future ring road and the arterial ‘boulevard’ that shaped the area. The project was advertised as a modern, exceptional setting in which to live, stressing how calm and relaxed it was, even if it was close to important traffic roads. It was conceived as a neighbourhood unit, satisfying the needs of an upcoming middle class, where great attention was given to the design of the outdoor

spaces, building accesses, privacy, ground floors and collective facilities. Leisure areas were promoted as a desirable commodity for the community, such as the recreational centre with indoor and outdoor swimming pools, the restaurant and the cinema, together with a church and the kindergarten. Even if a contemporary lifestyle was the image, the interior layout of the apartment-units – with their spacious divisions, heavily decorative furnishings, a maid’s bedroom with separate entrances, and oversized kitchens – suggested the Oporto bourgeois apartments from the 1940s (Lameira, 2014). High-rise apartments, single-floor living, which were a novelty for the city of Oporto and for potential buyers, may have been the promoters’ selling point, but without letting go of the idea of comfort in a detached house.

Coimbra

Smaller cities all around the country, such as Coimbra, also went through similar phenomena, albeit on a more contained scale. One such case was the Solum Neighbourhood (1964-2004). The area, first established as the Calhabé Residential Unit in Étienne de Gröer’s 1948 Plan

for Coimbra, served as a hinge point between uptown (Coimbra's "Alta") and the city's expansion to the east. The need to draft other plans to accommodate the city's growth quickly put the Calhambé Plan under revision. The architects, Rogério Alvarez and Carlos de Almeida, worked on it between 1959 and 1963. It was from this latter year onwards that the private promoter Solum started the construction of the area (giving its own name to the neighbourhood), in partnership with the municipality. Most of the plan was finished by 1976 (over five phases), although the last buildings were not concluded until 2004, with the construction of the Municipal Stadium and the new urbanisations of Casal da Eira and Brotero.

Similar to some of the above-mentioned examples, the Solum neighbourhood was designed on the principles of the Athens Charter and the Neighbourhood Unit. It presents a great variety of typologies (e.g. dwellings in horizontal and vertical combinations), as well as different ways of combining buildings (isolated, in continuous blocks, and staggered). The façades were designed incorporating large glazing and solar protection features, such as metallic grids. The buildings were separated by landscaped green areas, which sometimes allocated space for private vehicles, and the neighbourhood offered a few schools as well as a church (Santos, 1995; Simões, 2008; Fernandes, 2008).

Conclusion/Discussion

The case studies presented in this article are representative of the adaptation of international urban and typological models to Portuguese society, namely to an emerging middle class that, for a number of reasons, established itself on the periphery from the 1960s onward. Large residential ensembles were built by private promoters to answer this demand, following urban plans commissioned by public institutions.

This being the case, how can we define, architecturally, middle class mass housing in Portugal? Based on research to the present, the article allows to highlight some characteristics that seem to be paradigmatic of this housing phenomenon. Firstly, these ensembles - occupying large agricultural estates on the peripheries - followed modern urban guidelines

and made use of high-density housing blocks with a modernist, international aesthetic, in response to a progressive ideal. Responding to new ways of living, these ensembles frequently included facilities for public use, such as shopping centres, sports areas and green parks, and usually reflected the rise in private car ownership. Secondly, housing typologies, although presenting some overall layout innovations, could still be conservative in the interior. More significant innovations were the preserve of the building systems that allowed for more efficiency in the swift construction of these mass-housing estates - maximising speed, supply and profit.

The planning and construction of these estates were complex endeavours and involved a great number of public and private participants. Over the years, these neighbourhoods' image has been consolidated by their solidly homogenous character. Today, they are easily identifiable landmarks on the suburban landscape, sustaining their core integrity, even after sporadic alterations and the natural appropriation of space by successive generations of residents.

Figures

Cover - Fernando Silva, Alto da Barra Neighbourhood, Oeiras. © Inês Lima Rodrigues, 2018.

Fig. 1 - Location of Lisbon case studies (transposed over Agache and de Groer's original urbanisation plans). © Drawing by Beatriz Serrazina.

Fig. 2 - Fernando Silva, Portela District, Lisbon, Portugal. © João Cardim.

Fig. 3 - Thebar Frederico, Quinta das Lavadeiras, Lisbon, Portugal. © Mónica Pacheco, 2022.

Fig. 4 - Commercial brochure for the Parque Residencial da Boavista, Oporto. Project by Agostinho Ricca, João Seródio and José Magalhães Carneiro. © Agostinho Ricca Archive.

References

Agarez, R. (Coord.) (2018) *Habituação, Cem Anos de Políticas Públicas em Portugal, 1918-2018*. Lisbon: Instituto da Habitação e da Reabilitação Urbana. 978-972-27-2711-2.

Cardim, J., & Rodrigues, I. (2021, June 16-18). 'Demystifying Lisbon's periphery

from an optimistic perspective: Urban context and architectural analysis of the Alto da Barra Neighbourhood'. *International Conference Optimistic Suburbia 2*, Lisbon.

De Vos, E., Geerinckx, S., Rodrigues, I. & Milheiro A. (2023) 'Modernism with a glaze. How Le Corbusian principles were applied to mass housing after the war: a comparison between Antwerp and Lisbon'. *Docomomo Journal, Special Issue MCMH*. 69 (forthcoming).

Fernandes, J.L. (2008). *Requalificação da periferia urbana. Expansão urbana, forma urbana e sustentabilidade urbana na requalificação da periferia de Coimbra*. Master's thesis. Lisbon: ISCTE.

Ferreira, B. (2015) 'A Configuração Urbano-Arquitectónica da Periferia Norte da Cidade de Lisbon. Leitura a partir da obra do arquitecto Fernando Silva e da Urbanização da Portela'. *Optimistic Suburbia? The Student's Perspective*. Lisbon: ISCTE-IUL. pp. 193-207.

Ferreira, B. (2010). *(In)formar a cidade contemporânea: A criação de uma imagem/modelo de periferia com a obra do arquitecto Fernando Silva [(In)forming the contemporary city: The creation of an image/model of periphery with the work of architect Fernando Silva]*. Master's thesis. Lisbon: ISCTE-IUL. <http://hdl.handle.net/10071/2292>.

Lameira, G. (2014). 'Contemporary Oporto fragments: oppositions on the morphological relationship between collective housing and the city'. *EURAU2014 Composite Cities*.

Milheiro, A.V. & Almeida, R. V. (2015) 'Nova Oeiras: an Ideal for Living - a middle class ideal before the large housing complexes' in Fernandes, J. M. & Janeiro, M. de L. (Eds.) *O Livro de Nova Oeiras - Nova Oeiras Book. Bases for a UNESCO World Heritage Site Candidacy of the Nova Oeiras Residential Neighbourhood, Oeiras Municipality*. Portugal. Oeiras: Oeiras City Hall / Calouste Gulbenkian Foundation, pp. 110-141.

Pacheco, M. (2022) 'Middle-class mass housing between city and suburb: the case of Quinta das Lavadeiras'. In *Proyecto, Progreso, Arquitectura 27, May 2022 (XIII), Procesos disruptivos: arquitecturas desde los sesenta*. Sevilla: Editorial Universidad de Sevilla, pp. 114-129. DOI: <http://dx.doi.org/10.12795/ppa.2022.i27.07>.

Rodrigues, I. L. (2022) 'When Modern Housing Built Optimistic Suburbia: A Comparative Analysis Between Lisbon and Luanda'. *Urban Planning*. 7(3). pp. 130-143. DOI: <https://doi.org/10.17645/up.v7i3.5221>.

Santos, L. & Ferreira, F. Z. (1995). 'A Unidade residencial do Calhabé (Solum), um paradigma na história recente do urbanismo em Portugal'. *Sociedade e Território*. pp. 77-86.

Simões, L. (2008) *Cidade jardim em Coimbra: Bairro Norton de Matos e Solum*. Bachelor thesis in Architecture. Coimbra: Universidade de Coimbra.

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Urban plan based on the Athens Charter, with emphasis on circulation, living and leisure. A central area was defined to be the center of the community, with commercial, educational, cultural, religious, sports and leisure facilities. These were built over a long period of time, and some of them were never built.

Address/District	Rotunda Nuno Rodrigues dos Santos, 2685 Portela		
GPS	8.46571, 9.06402		
Scale of development	District		
Project author	Fernando Silva		
Developer	Fernando Silva		
Landscape author	-		
Period of construction	beginning: 1964 (pre-plan) 1969 (plan)	end: 1970-1993 (construction)	inauguration: -



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URBAN AREA

Location - within in the city	original:	suburbia
	current:	suburbia
Other facilities / availability of amenities	Schools / health / sports / shops / religious / kindergartens	
Location - position of buildings	Perpendicular (with a shorter façade facing a street)	
	Parallel (with a wider façade facing a street)	
Urban Ensemble	Sun oriented paralell rows	
	total area:	44 ha
	housing:	15.45 %
Connectivity Accessibility	The neighbourhood is very well connected by express roads that cross the city. The proximity to the airport also marks the urban relationship. All the buildings have private parking (garages) and some spaces in the collective patios.	
Landscape	The neighbourhood takes advantage of its proximity to the Tagus River on one side and to the airport on the other. The surrounding green areas (seminary or parque das nações) are complemented by the green spaces within the neighbourhood.	
Open and public space	The main structuring followed modern principles defined by a rational and hierarchical road scheme, and by establishing functional clusters. The central core concentrated the commercial, cultural, and recreational amenities; the remaining public space was privatised.	current condition: good
Quality of living environment	The distance from the buildings allows all the rooms to have good light and ventilation conditions (cross ventilation). The collective spaces in each building (patios) and the public green spaces surrounding the central area (commercial) provide good urban living conditions.	
Main Features	Readability	

RESIDENTIAL AREA

Residential buildings	The internal organisation of the apartments favours the distribution of utilitarian space according to daytime/night time routines; in the addition of a maid's room adjacent to the kitchen area. Most of the buildings are well oriented towards the sun (mainly the ones facing E-W) and have cross ventilation inside. The height and distance between the buildings allows you to take advantage of the views (especially in the higher apartments).	
No. of buildings	52	
No. max. of floors	12	
Average no. floors	12	
Materials Fabrication	The materials used are based on prefabricated construction systems and components and contribute to the homogeneity of the neighbourhood, as the horizontal stripes and long windows accentuate the horizontality of the façades.	
No. of dwellings	700	
Average dwe. area	100 m ²	
Dwellings' type	one floor	3, 4 rooms
Qualitative issues	All flats are well designed with comfortable living areas and fully equipped with all necessary services. Most apartments have cross ventilation, benefiting from sunlight and prevailing winds. The large windows allow you to enjoy the views of the surrounding green areas and, in some cases, the Tagus River.	
Housing density	Number of dwellings per ha:	21.5

MIDDLE CLASS

Original dwellers class: middle class	The district was designed for the middle class (which still remains today) who were determined to seek a better quality of life in the suburbs. The high quality of the flats, as well as the collective spaces, has increased the price of the dwellings.	
Current dwellers class: middle class		

MASS HOUSING

Massification through: planned process	It was a planned mass housing development. Type designs were used on a large scale for the middle class. The construction was awarded to different private developers changed the interior layout envisaged by the architect FS.	
Building's typology: block tower	Nevertheless, it was possible to maintain the uniform and abstract character that marks the urban composition of the neighbourhood.	

HOUSING POLICIES

Urban promotion type: public	The neighbourhood was built in the early 1970s, taking place during a period marked by political and economic upheaval and a significant shrinking of real estate activity. The subsequent handing over of the plots to 134 different private developers did not question the semblance of the neighbourhood; its only impact was in making changes to interior layouts in certain cases.	
Housing promotion type: private		
Name of specific programmes or funding applied	(1) Decree-Law 47344, of 25 November 1966 (horizontal property regime in Portugal)	

PRESERVATION | TRANSFORMATION REGENERATION

Preservation and maintenance	Fully refurbished	
Preservation and maintenance status details	The main public investment is in the improvement of green spaces and also at the level of public facilities (sports, church and commercial area). In the last few years social housing has been built around the urbanisation.	
Urban building transformation or regeneration	The condominiums carried out the main changes and maintenance work in the buildings. On the other hand, the public spaces under the responsibility of the municipality have been progressively improved over time.	
Intervention scale	Buildings / community improvement / open and public spaces / collective green spaces	
Intervention status details	The interventions in the buildings are carried out privately, driven by the condominiums and refer essentially to maintenance works. The most visible transformation of the lack of coordination is the lack of unity in the window frames. In terms of interiors, the main changes are improvements in kitchens and bathrooms.	

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Alto da Barra Neighbourhood

Portugal, Oeiras



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Alto da Barra is the main area of the Casal de Medrosa Urbanisation Plan. It stood out for its premium location, in front of the sea, the innovative building system and the surrounding facilities (one of the first freestanding malls in Portugal, a swimming pool, schools). It was a “new way of life” to be promoted in Lisbon’s outskirts for a modern middle class society, born of the post-war optimistic winds.

Address/District	Alameda Alto da Barra, Oeiras		
GPS	38.679237,-9.319152		
Scale of development	District		
Project author	Fernando Silva		
Developers	OSAPIL / MERCATOR / LUSECA / Rodrigues & Mattson		
Landscape author	Gonçalo Ribeiro Telles (1972)		
Period of construction	beginning: 1962	end: 1979	inauguration: 1979



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URBAN AREA

Location - within in the city	original:	suburbia coastline
	current:	suburbia coastline
Other facilities / availability of amenities	Schools / market / shops / leisure	
Location - position of buildings	Parallel (with a wider façade facing a street)	
Urban Ensemble	Sun oriented paralell rows	
	total area:	13.1 ha
	housing:	16.8 %
Connectivity Accessibility	With very good connections to Lisbon, via roads and a train line. Every facility in the neighborhood was in walking distance of its residents. Each building has its own car parking underground garage, whose entrance merges into the landscape.	
Landscape	The landscape project took advantage of the topography, while aiming to protect the buildings from the northern winds, ensuring air breeze and connecting the functional programs.	
Open and public space	Following Modern Architecture’s principles, the plan has a functional zoning; separation of circulation routes; landscaped outdoor areas and public facilities.	current condition: good
Quality of living environment	The insertion of an angle in the central zone of the blocks accentuates the inflection towards the interior of the complex. The ground floors are open, inviting people to move through. Moreover, high-quality overall construction and good exterior finishings qualify the project.	
Main Features	Diversity / readability	

RESIDENTIAL AREA

Residential buildings	Although built over the course of many years, the five blocks are formally alike and have uniform characteristics, being marked by a structural clarity. The module of the balconies presents itself as the structuring element of the blocks' shape. Against the surrounding gardens, different geometries are highlighted throughout the day.	
No. of buildings	34	
No. max. of floors	6	
Average no. floors	6	
Materials Fabrication	The construction materials were of current use, but the structural conception was innovative. The "tunnel formwork system", clearly showing the influence of foreign know-how, required specialized labor and prior preparation of the work, but served well the underlying profitability logic.	
No. of dwellings	476	
Average dwe. area	110m ²	
Dwellings' type	one floor	1, 2, 3 rooms
	studio	–
Qualitative issues	The pragmatism of the internal organization is evident, being clearly influenced by the construction system, with a scheme of two symmetrical dwellings per floor. A ventilation grille, applied in block B, allowed for the ventilation of the rooms without the need to open the windows.	
Housing density	Number of dwellings per ha:	37.7

MIDDLE CLASS

Original dwellers class: middle class	With a very fortunate location, large panoramic views, sizable floor areas and high-quality construction, this multi-family ensemble attracted a high-income middle class.	
Current dwellers class: middle class		

MASS HOUSING

Massification through: Planned process Horizontal growth Element's repetition	The modular repetition of the concrete walls (built, in some of the blocks, via a tunnel formwork system), made it possible to take advantage of the large horizontal glazed surfaces that characterize the façades. Construction also used some pre-fabricated elements, denotes a rationalized approach and benefits from an economy of scale.	
Building's typology: Block		

HOUSING POLICIES

Urban promotion type: public-private partnership	Its location was integrated in the Urbanization Plan of Costa do Sol (1935-1949), which structured the western area between Lisbon and the Cascais-Estoril touristic zone. Concession of private land for the construction of adjacent public facilities and affordable housing (1). NATO's installations nearby the limits of the site meant urban and architectural changes to the complex. Another key factor was the creation of the horizontal property regime in Portugal (2).	
Housing promotion type: Private		
Name of specific programmes or funding applied	(1) Decree-Law 23052, of 23 September 1933 (2) Decree-Law 40333, of 14 October 1955	

PRESERVATION | TRANSFORMATION REGENERATION

Preservation and maintenance	Unrefurbished, but not yet deteriorated.	
Preservation and maintenance status details	The maintenance and rehabilitation of the buildings are the responsibility of the apartment owners. The green spaces retain their original character and are well managed, a current responsibility of the municipality.	
Urban building transformation or regeneration	Today, the whole urban complex has an essential architectural and urban value, mixing housing for the upper-middle and middle class (arch. FS), and affordable housing of various typologies (semi-detached houses, multi-family blocks), supported by public facilities in full use and by its distinctive setting. The several housing types are witnessing a wave of refurbishing by individual owners, both for homeownership and renting regimes.	
Intervention scale	Buildings / community improvement	
Intervention status details	The main changes in the façades concern windows' frames and/or closed balconies (popularly named a "marquise"), and also improvements in the ground floor of the blocks and in the collective infrastructures.	

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Nova Oeiras Neighbourhood

Portugal, Lisbon



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The central nucleus of the plan follows the “Athena’s Charter” as defined by Le Corbusier - 6 towers, 3 blocks and a complex of equipment and commerce surrounded by green public spaces with separation between road and pedestrian system. Furthermore, this neighbourhood is structured within an afforested complex following an innovative and modern landscaping project.

Address/District	Alameda Conde Oeiras		
GPS	38.412869, 9.191504		
Scale of development	District / building		
Project author	Luís Cristino da Silva		
Developer	Sociedade Nova Oeiras, Lda		
Landscape author	Gonçalo Ribeiro Teles, Edgar Sampaio Fontes (colaborator)		
Period of construction	beginning: 1953	end: 1962-1965	inauguration: 1960



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URBAN AREA

Location - within in the city	original:	suburbia
	current:	suburbia
Other facilities / availability of amenities	Schools / health / market / sports / shops / religious / youth centre	
Location - position of buildings	Perpendicular (with a shorter façade facing a street)	
Urban Ensemble	Sun oriented paralell rows	
	total area:	40.8 ha
	housing:	9.5 %
Connectivity Accessibility	The complex is near the railway line and has a privileged view over the sea. Several pedestrian accesses exist to all principal areas and buildings within the housing complex and the commercial area.	
Landscape	The complex, framed by a landscape made up of vegetal species native from the Mediterranean implemented by Ribeiro Teles, acquired a defining body and presence after 50 years of growth	
Open and public space	The generic layout of the buildings, orderly and based on principles of functional rationality, contrasts with the sinuous forms of the boundaries of the urban complex. Equipment, shops and services are concentrated in the centre of the neighbourhood, allowing for the creation of open green spaces, covered galleries and small squares that promote community among residents.	current condition: excellent
Quality of living environment	The global design of the neighbourhood has tried to articulate aspects and forms of architecture town-planning, mainly influenced by northern Europe, with typologies of the southern urban tradition. Two artistic interventions value the public spaces (Tile panels by Rogério Ribeiro (1960) and the “Mural Construction” by Carlos Nogueira (2005-2006).	
Main Features	Flexibility / diversity / combining different uses	

RESIDENTIAL AREA

Residential buildings	The modern guidebook, the external configuration of the towers (ten-floors height) and the “Y” configuration reflect the internal organisation of the dwellings. The semi-detached blocks (four-floors height) follow the same rational logic. From a structural point of view, the rational use of constructive systems by using prefabrication principles and bearing walls are conjugated with current systems of pillar/beam.	
No. of buildings	9	
No. max. of floors	10	
Average no. floors	6	
Materials Fabrication	The plastic potentialities of points, straight lines and architectural elements make up the essence of modern shape. The continuity of surface and texture of the prefabricated grids of the kitchen and service areas characterise the residential buildings.	
No. of dwellings	145	
Average dwe. area	–	
Dwellings' type	one floor	1, 2, 3, 4, +5 rooms
	duplex	3 rooms
Qualitative issues	All flats are well designed and were fully equipped with all necessary services. Most apartments have cross ventilation, with south-east to south-west orientation benefiting from less light and prevailing winds. The balconies allow to control the sunlight and enjoy the views of the surrounding green areas.	
Housing density	Number of dwellings per ha:	3.75

MIDDLE CLASS

Original dwellers class: middle class	The proximity to transport (mainly the train), the large green spaces, the panoramic views and the high-quality construction of this multifamily complex has attracted the middle class to live in the suburbs with a high standard of living.	
Current dwellers class: middle class		

MASS HOUSING

Massification through: planned process element's repetition	The massification was achieved through the repetition of architectural elements in the different types of residential buildings (towers, blocks) and equipment since the amplitude of green spaces was preserved with an architectural quality.	
Building's typology: block tower		

HOUSING POLICIES

Urban promotion type: private public-private partnership	GALNOV opening and commencement of operations – Gabinete de Apoio a Nova Oeiras (Cabinet of Local Support to Nova Oeiras) by Oeiras City Hall, following the existing regulation, based on the recuperation process and various works carried out (2002-2003). Approval of the RENOV Award regulation - Nova Oeiras Recuperation (foreseen in the recuperation plan) by Oeiras City Hall (2007-2008).	
Housing promotion type: public-private partnership		
Name of specific programmes or funding applied	(1) GALNOV- Gabinete de Apoio a Nova Oeiras (Cabinet of Local Support to Nova Oeiras)	

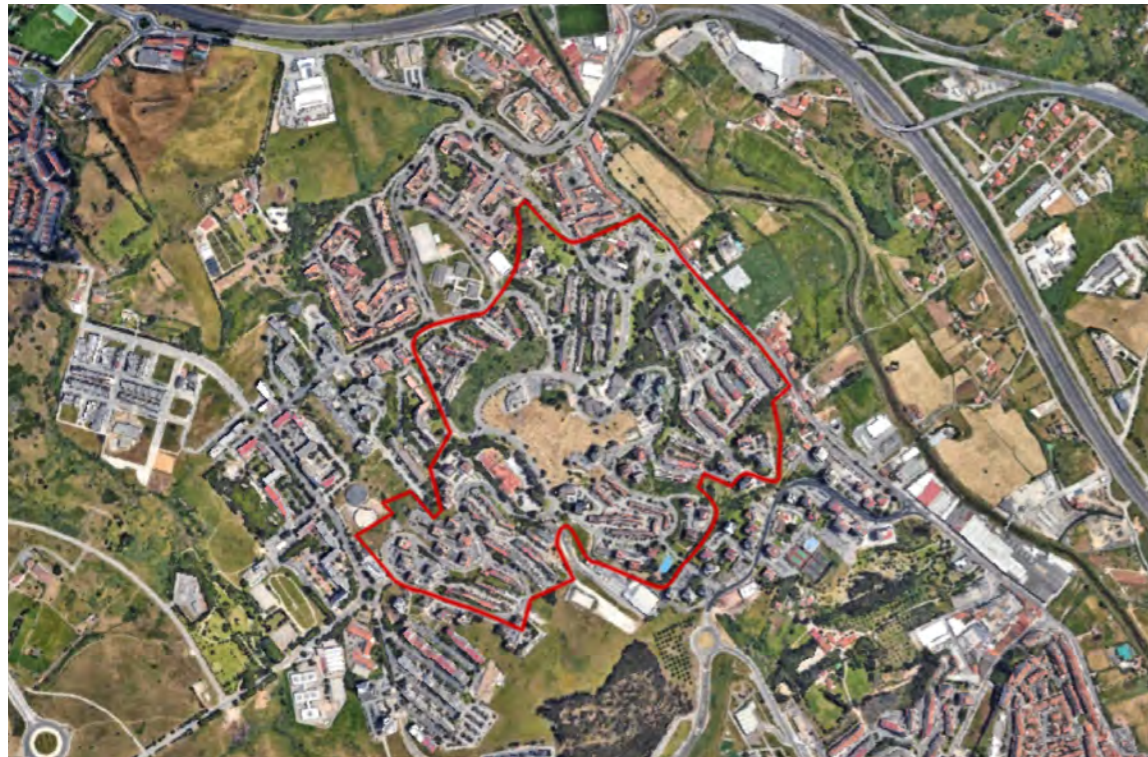
PRESERVATION | TRANSFORMATION REGENERATION

Preservation and maintenance	Partially refurbished	
Preservation and maintenance status details	Regular supervision of recuperation and alteration works, from mild interior and exterior recuperations such as the recovery of the original colours of the towers (D, E, F) during 2014, in works resulting from the owner's initiative coordinated by the municipal office to ensure compliance with the regulations.	
Urban building transformation or regeneration	The functional reconversion of the small square located between the Commercial atrium, residential Block A and tennis court carry out by the City Hall (2004-2007) Launching the so-called “Community vegetable gardens” (2015) in an area of free and public lands to the north of the complex.	
Intervention scale	Buildings / open and public spaces / collective green spaces	
Intervention status details	In 2013-2014 the City Hall planted over 50 specimens within this consolidated/ renovated framework, thus gradually annulling the presence of invading species. Application for UNESCO patrimonial heritage for the Nova Oeiras Residential Neighbourhood (2015).	

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Santo António dos Cavaleiros

Portugal, Loures



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SAC Urbanization is considered the first heavy-prefabrication experience in Portugal, and it makes use of the French Fiorio system. The project, supported by consultants in France, began in 1964. Aimed at a solid middle class and located in a suburban area (20-minute drive from the city center), it was presented as a satellite city in a park.

Address/District	Largo Francisco Morais, 2660-310 Santo António dos Cavaleiros		
GPS	38.814446, -9.160385		
Scale of development	District		
Architectural studio	Studies and Projects Office of ICESA		
Project author	Alberto Reaes Pinto (coord.), Fernando Ressano Garcia and others		
Developers	ICESA - Indústrias de Construção e Empreendimentos, SARL		
Landscape author	Gonçalo Ribeiro Telles		
Period of construction	beginning: 1966	end: Early 1980s	inauguration: 1969



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<https://app.cm-loures.pt/portalarquivo/agenda.aspx?displayid=691>
courtesy of Joaquim Augusto dos Santos

URBAN AREA

Location - within in the city	original:	satellite
	current:	satellite
Other facilities / availability of amenities	Schools / health / market / sports / shops / religious / kindergartens / leisure.	
Location - position of buildings	Perpendicular (with a shorter façade facing a street). Parallel (with a wider façade facing a street).	
Urban Ensemble	Sun oriented parallel rows / free-standing objects	
	total area:	42 ha
	housing:	–
Connectivity Accessibility	Mostly a self-referenced, isolated ensemble, SAC benefits from a high degree of road connectivity (fostering car ownership). Public transportation limited to buses. Pedestrian traffic separated from vehicles and taking advantage from the landscape. Roads frequently end in 'cul-de-sacs' to limit car speed.	
Landscape	The concept of the neighborhood as a 'city in a park' was fulfilled by the landscape project, which includes not only the treatment of the land between the roads and the buildings, but large parked areas, both in the lower area and along the sloped terrain, where some of the public facilities are located.	
Open and public space	The siting of the residential buildings, following the contour lines, was dependent on technical issues regarding the assembly process of the prefabricated panels, namely the crane paths and their range. This question led to a uniform and somewhat fragmented public space that mostly consists on the gardens and access streets between the rows of buildings.	current condition: reasonable
Quality of living environment	SAC was promoted as a garden-city close to Lisbon, and the landscape project was key in softening the hardened aspect of the prefabricated buildings and in providing a qualified public space, with the intention of offering "a new way of life", in contrast with the traditional city, which was considered congested, too dense and polluted.	
Main Features	Readability	

RESIDENTIAL AREA

Residential buildings	Slab blocks (S) have two dwellings per floor, and Towers (T) have four dwellings per floor. The typologies vary between 1 and 4-bedroom apartments in both building types, which have fairly conventional access and distribution schemes.	
No. of buildings	183	
No. max. of floors	11	
Average no. floors	–	
Materials Fabrication	The system uses one-story-high wall panels and room-sized floor panels of concrete and brick, prefabricated at the factory and assembled in-situ. Foundations and support structure are in reinforced concrete.	
No. of dwellings	c. 3000	
Average dwe. area	75-93 m ²	
Dwellings' type	one floor	1, 2, 3, 4 rooms
Qualitative issues	There is cross-ventilation in the slab blocks but not in the towers. The dwellings have different typologies and quality of finishes, with the objective to respond to the various social and economic patterns of the potential users.	
Housing density	Number of dwellings per ha:	71.4

MIDDLE CLASS

Original dwellers class: middle class	The referred “new way of life” was also reflected in the layout of the apartments, aiming at a new middle class which wanted a more open and less segregated layout, based in the modus vivendi of the nuclear family. The developer offered payment plans so that the families could pay the house over the years. The marketing strategy tempted prospective buyers to leave everything behind and “bring only the family”, selling apartments decorated by Olaio, a Portuguese brand of modern furniture.	
Current dwellers class: middle class		

MASS HOUSING

Massification through: planned process vertical growth horizontal growth element's repetition	The objective was to build the greatest number of dwellings in the least time possible, without compromising the quality of construction and providing different typologies and finishes to appeal to a wide range of residents. The French heavy total prefabrication system Fiorio (patented in 1951) was chosen by ICESA to meet this objective.	
Building's typology: slab, tower		

HOUSING POLICIES

Urban promotion type: private	Part of the plan, in the northern area, was built by ICESA as affordable-rent houses to be given and managed by public institutions related with housing. This area comprised 760 dwellings in 15 buildings.	
Housing promotion type: private		
Name of specific programmes or funding applied	(1) CRE - Casas de Renda Económica (affordable-rent houses) (2) Habitações Económicas - Federação de Caixas de Previdência (HE-FCP)	

PRESERVATION | TRANSFORMATION REGENERATION

Preservation and maintenance	Unrefurbished, but not yet deteriorated	
Preservation and maintenance status details	The maintenance and rehabilitation of the buildings are the responsibility of the apartment owners. Thus, they present different levels of preservation, normally in accordance with the economic capacity the dwellers. The overall care for the buildings façades is good. The maintenance of green spaces is a responsibility of the municipality.	
Urban building transformation or regeneration	There were no significant transformation or regeneration actions in the neighborhood, at least of a broader level. Some building rehabilitation has occurred, promoted by private, individual owners or organized groups of residents, but only at the building level (especially repairing and painting of façades).	
Intervention scale	Buildings	
Intervention status details	The neighborhood is included in an ARU (Área de Reabilitação Urbana – Urban Rehabilitation Area), a (national-wide) program where the various municipalities (in this case the City Hall of Loures, since 2016) support private regeneration initiatives of individual owners (especially via tax cuts). However, there is no information of the impact of this measure in the neighborhood.	

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Quinta das Lavadeiras

Portugal, Lisbon

Quinta das Lavadeiras, Lisbon



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Designed in 1966 by Thébar Frederico in the city fringe, three large blocks perpendicular to its northern entrance, an intermediate access core and eight floors of housing built on pilotis, intersect another one with three lower floors for commerce. There are 350 apartments for an estimated population of 1750 people.

Address/District	Rua Quinta das Lavadeiras Rua Cidade de Tomar, Lisbon, Santa Clara		
GPS	38.4637, 9.0940		
Scale of development	Urban plan		
Project author	Thebar Rodrigues Frederico, Raul Branco, Fernando Monteiro Grilo, Horácio Silva Rodrigues, Domingos Veloso Garcês, António B. Abreu Miranda, Margarida Lopes Alves		
Constructors	Sociedade de Construção Copetrus, Lda / Santelo Investimentos Imobiliários Lda ; Precifer - Construtora de Edifícios Lda ; SPOC , SEUL ; INIL - Investimentos Imobiliários Administrativos Lda ;		
Landscape author	-		
Period of construction	beginning: 1966	end: 2000	inauguration: 1973



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URBAN AREA

Location - within in the city	original:	city fringe
	current:	city fringe
Other facilities / availability of amenities	Shops / stores / offices / garages / warehouses	
Location - position of buildings	Perpendicular (with a shorter façade facing a street)	
	Parallel (with a wider façade facing a street)	
Urban Ensemble	Semi-open block / free-standing objects	
	total area:	2.5 ha
	housing:	80 %
Connectivity Accessibility	Located on a hill on the sidewalk of Calçada de Carriche, main connecting artery between the city and the peripheral neighborhoods, with a secondary street that makes a domestic connection.	
Landscape	3-storey plinth, connecting the split levels between them, with five apartment blocks with eight to six floors built on "pilotis".	
Open and public space	The mediation spaces, above, at the level of the housing units, are linked by secondary roads and enclosed by the rows of warehouses and workshops, creating levels of public space.	current condition: good / needs to improve
Quality of living environment	This megastructure provides spaces for shops, warehouses and workshops, exterior patios and galleries of public use, and parking. It offers duplex houses for concierges, and a roof terrace with clothesline in open pergolas.	
Main Features	Diversity	

RESIDENTIAL AREA

Residential buildings	At the ground level the blocks are connected in both corners, creating a kind of outside enclosed space through a lower row building for industrial activities (workshops) and warehouses.	
No. of buildings	30	
No. max. of floors	8	
Average no. floors	7	
Materials Fabrication	The blocks are built with a reinforced concrete structure with brick filling. Non-combustible materials were applied, and outwardly marble, stone, and ceramics define que ensemble.	
No. of dwellings	350	
Average dwe. area	60 m ²	
Dwellings' type	one floor	1, 3, 4 rooms
	duplex	–
Qualitative issues	Despite the reduced areas (approximately 60 m ²), each apartment included, in addition to a common sanitary installation, a second “en suite” one, revealing the aspirations of a rising middle class and the progressive affirmation of its own culture.	
Housing density	Number of dwellings per ha:	269

MIDDLE CLASS

Original dwellers class: middle class	Emergent middle class.
Current dwellers class: middle class	

MASS HOUSING

Massification through: planned process element's repetition	Each of the three large blocks consists of four lots, that in turn consist of two dwellings per floor, with four rooms each. On the penthouse floor, each tenant has their own clotheslines under open pergolas, eliminating the popular clotheslines at the façade, projecting the image of a new urbanity
Building's typology: slab	

HOUSING POLICIES

Urban promotion type: public	In the mid-1950's, in order to regulate the construction sector, the state provided incentives to private investors (e.g. reduced construction taxes for those building low-income housing).
Housing promotion type: private	
Name of specific programmes or funding applied	–

PRESERVATION | TRANSFORMATION REGENERATION

Preservation and maintenance	Partially refurbished
Preservation and maintenance status details	All the buildings are occupied and have been partially refurbished, both in the interior and exterior, although not always following the original layout (i.g. balconies closed) or materials (windows and doors).
Urban building transformation or regeneration	From the original plan, more than 60% has been built.
Intervention scale	Neighbourhood
Intervention status details	–

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Grande Parque Residencial da Boavista 'FOCO'

Portugal, Oporto



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The Parque Residencial da Boavista constitutes an emblematic middle class residential project within the city of Oporto regarding both housing, collective facilities and outdoor space. Built in the expanding area of the Western side of the city, FOCO neighbourhood aimed to supply a modern way of life which was unprecedented within the city of Oporto.

Adress/District	Avenida da Boavista - Bessa, 4100-100		
GPS	41.161911, -8.647192		
Scale of development	District		
Project author	Agostinho Ricca Gonçalves, João Serôdio, José Carlos Magalhães Carneiro		
Constructors	Banco Português do Atlântico / Sociedade de Construções William Graham SARL		
Landscape author	Technical Office lead by Eng. Helder Ribeiro da Silva		
Period of construction	beginning: 1962	end: 1973	inauguration: -



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URBAN AREA

Location - within in the city	original:	city fringe
	current:	city centre
Other facilities / availability of amenities	sports / shops / religious / kindergartens / leisure / hotel / offices / recreational centre / residential club / restaurant	
Location - position of buildings	Perpendicular (with a shorter façade facing a street) Parallel (with a wider façade facing a street)	
Urban Ensemble	Open block / free-standing objects	
	total area:	7 ha
	housing:	28 %
Connectivity Accessibility	The neighbourhood is quite enclosed due to the location in an important cross roads. Accessible mainly by car and by public buses, the pedestrian circulation only occurs within the neighbourhood.	
Landscape	Because of its proximity to congested roads, landscape design was crucial to connect the buildings creating good quality outdoor environment.	
Open and public space	The buildings are organized around a big void which was designed as a central gardened piazza where collective life occurs: the commercial gallery, cinema, and church overlook this square.	current condition: reasonable
Quality of living environment	The diversity of the leisure facilities (cinema, church, swimming pool, gardens) activated as gathering places, enable a strong sense of belonging within the community of the neighbourhood.	
Main Features	Diversity	

RESIDENTIAL AREA

Residential buildings	The design of the apartments reveals conservative signs aimed at meeting the demands of the middle class, such as the introduction of the maid's room, ambiguous spaces, and separate entrances. The plasticity of the balconies set the pace in the horizontal rhythm, evidenced by the marking of the slabs.	
No. of buildings	12	
No. max. of floors	22	
Average no. floors	11	
Materials Fabrication	While the building construction was in reinforced concrete, the interior finishes materials of both common areas (halls, corridors, etc.) and apartments varied from marble to tropical wood. Acoustic and thermic isolation was achieved by cork panels.	
No. of dwellings	547	
Average dwe. area	190 m ²	
Dwellings' type	one floor	1, 2, 3, 4, +5 rooms
Qualitative issues	'Foco' presents a high-standard housing program, combining housing and services organized linearly on both sides of the garden. Ricca could test the modern models influenced by the nordic experiences. Construction in height, green space and self-sufficiency are the key elements of the project, subordinated to precise visual compositions.	
Housing density	Number of dwellings per ha:	78

MIDDLE CLASS

Original dwellers class: middle class	The advertising brochure suggested a modern, elegant and sophisticated way of life, stressing the quality of collective facilities, construction materials and public spaces. Middle class features are also expressed in the way different degrees of privacy, but also in the unit apartments layout based on the characteristic Oporto bourgeois apartments from the 40s (Lameira, 2014).	
Current dwellers class: middle class		

MASS HOUSING

Massification through: planned process vertical growth horizontal growth	The neighbourhood was built in the city outskirts between vacant lots and swampy areas. It was part of the western expansion of the city, aiming to urbanize potential areas through the construction of new residential nucleus. In this case, the massification of the previous areas was achieved by balancing open space and high-density buildings (slabs and towers) never undermining the quality of collective spaces.	
Building's typology: slab block tower		

HOUSING POLICIES

Urban promotion type: n/a	The neighbourhood construction, design and management were strongly characterized by the influence of the private promoter and its goals. However, the success for the neighbourhood was enabled by the 1955 Decree-Law of horizontal property. Apartments were sold emphasizing the commodities of a detached house "without its inconveniences".	
Housing promotion type: private		
Name of specific programmes or funding applied	-	

PRESERVATION | TRANSFORMATION REGENERATION

Preservation and maintenance	Unrefurbished, but not yet deteriorated	
Preservation and maintenance status details	The maintenance done by the inhabitants and the owners of commercial activities was sufficient to keep the neighbourhood in a good state of conservation. However, some of the windows have been substituted	
Urban building transformation or regeneration	The neighbourhood has been preserved until nowadays, including gardens and exterior arrangements. However, some of the collective facilities (hotel, cinema, residential club) have been closed down, which provoked their accelerated state of degradation and their availability on the market.	
Intervention scale	Buildings	
Intervention status details	The vacant spaces of the hotel, cinema and residential club which are part of one of the central buildings of the neighbourhood, were about to be converted into a private hospital, then into an office centre. Together with an art intervention by a renowned Portuguese urban artist on the façade of one of the building (planned in 2018), a public debate has been triggered on the preservation and the protection of the site. Since that the area of the Parque Residencial da Boavista is enlisted as "Area of Urban and Architectonic interest", while the church complex is enlisted as "Propoerty of heritage interest". (Decree-Law 310/03, December, 2012). The artist decided not to move forward.	

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The proofreading of the texts of the case studies was the responsibility of their authors.

Edition

1st Edition

Date

December 2023

ISBN

978-989-781-862-2

Publisher

Iscte-IUL, Lisbon

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This book was made within the CA18137 European Middle-Class Mass Housing [MCMH-EU], with the support of COST Association.

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