

POST-WWII MODERNISM WITH A GLAZE

A Comparison Between Antwerp and Lisbon

Els De Vos, Selin Geerinckx, Inês Lima Rodrigues, Ana Vaz Milheiro

ABSTRACT: Post World War II European modern housing often exhibited a Corbusian influence, but Le Corbusier was not embraced to the same extent everywhere, as noticed during exchanges between the University of Lisbon and the University of Antwerp in the ambit of the COST-Action 18137 on MCMH. While Belgium has several 1950s social housing projects, strongly indebted in its Unité d'habitation in Marseilles, Portugal does not. There, social housing architecture remained rather conservative, even though Corbusian features manifested themselves in some middle-class mass housing projects, such as the complex on Avenida Estados Unidos da América in Lisbon (1954-1966) designed by Lucínio Cruz, Alberto Ayres de Sousa and Mário Oliveira. While the housing blocks are on *pilotis*, they also have notable Art-Deco elements. In Belgium, free-standing modernist housing on *pilotis* with Art-Deco features also appears, such as the housing project at the Jan De Voslei in Antwerp designed by Jos Smolderen (1952-1967). These Modernist/Art-Deco hybrids have never been explored in depth because they are considered not radical enough. However, these cases shed light on how (older) architects mediated between traditional architecture and Modernism, between their own preferences and those of the state or housing company. They illuminate the political, social, and urban context in which these buildings were created. This paper explains why the principles Belgian architects applied to social housing were closer to Lisbon's middle-class housing than their similar buildings for low-income housing. Based on cross-referencing archival material, legislation, on-site observations, and a study of the political, urban and social context, this paper posits a re-reading of Le Corbusier's legacy in middle-class housing in Lisbon versus Antwerp.

KEYWORDS: Middle-Class Mass Housing, local Modernism, Lucínio Cruz, Jos Smolderen, high-rise, Art-Deco

INTRODUCTION: Post World War II (WWII) European modern housing often exhibited a Corbusian influence; his Unité d'habitation in Marseilles (1947-1952) proved particularly influential. But Le Corbusier was not embraced to the same extent everywhere, as became evident during exchanges between the University of Antwerp and the University of Lisbon in the ambit of the COST-Action 18137 on MCMH. During our visits to each other's city, similarities and differences inspired us to compare the modernist high-rise housing projects where the middle classes lived. Both cities, Antwerp and Lisbon, took a pioneering role in implementing modernist free-standing high-rise housing projects in their respective country. Belgium has several social housing projects indebted to Le Corbusier's Unité. But as for the Kiel estate in Antwerp, Renaat Braem (1910-2001) "provided Antwerp with a personal interpretation

of the best that international urbanism had to offer at the time: a piece of Flemish Cité Radieuse, which not only had exceptional and particularly refreshing significance for Belgium at the time but which can immediately be counted among the coolest of what CIAM produced," as Francis Strauven (1983, p. 67) put it. Because Braem did an internship at Le Corbusier's office during 1936-1937, he had a clear affinity with the project in Marseilles (De Vos, Geerinckx, 2016). In Portugal, a dictatorship at that time, the situation was different. There, the architecture of social housing remained rather conservative, while Corbusian features emerged in some middle-class mass housing projects, such as the *Blocos de prédios de rendimento a norte da Avenida Estados Unidos da América*, commonly known as Av. EUA in Lisbon and designed by Lucínio Cruz and others (1954-66). While the housing

blocks are on *pilotis*, some Art-Deco is added, such as its marble finish instead of bare concrete [FIGURE 05]. This kind of detailing contradicts modernist principles of authenticity, austerity, rationality, and integrity of materials. However, in Belgium, free-standing modernist housing on *pilotis* with Art-Deco features appeared as well, such as the social housing project at the Jan De Voslei in Antwerp designed by Jos Smolderen (1952-1967). His blocks have rounded corners, circular window frames, and curved walls finished with mosaic or ceramic tiles [FIGURE 04]. Such Modernist/Art-Deco hybrids have never been explored in depth academically because they are considered not radical enough. They remain in the shadows of the internationally praised Kiel estate. Yet, these hybrid cases can give us insight into how older generations of architects mediated between traditional architecture and Modernism, between their own preferences and those of the state or housing company. In what political, social, and urban context were these buildings created? Why were the principles the Belgian architects used for social housing closer to Lisbon's middle-class housing than their similar buildings for low-income social housing? We will answer these questions based on a cross-referencing of archival material, legislation, on-site observations, and a study of the political, urban and social context of two cases. First, we will discuss the Antwerp Case of the Kiel estate and the Jan De Voslei estate (1952-1967), followed by the Av. EUA (1954-1966) project in Lisbon.

THE SPREAD OF THE LEGACY OF LE CORBUSIER IN ANTWERP

In post WWII Belgium, a democracy situated in the heart of Europe, the Modernist ideas of Le Corbusier freely circulated. Belgian architects were founding members of CIAM, Congrès international d'architecture moderne, and in the 1950s, the Belgian CIAM branch—Renaat Braem being among those involved—often held its meetings at the Higher Institute of Fine Arts in Antwerp. Although low-rise detached housing was the main typology for middle-class mass housing championed by the leading Christian democrats in government, high-rise housing did emerge, particularly in bigger cities. Instrumental to this was the Brunfaut Act of 1949, named after the Socialist MP Fernand Brunfaut. It made provisions not only for regular annual financing with respect to the construction of housing clusters by semi-governmental and recognized social housing associations but also for street layout, including paving, public utilities such as drainage, and open space planning, etcetera. It gave a boost to high-rises in the more urban areas and was part of the construction of the welfare state, that emerged in Western Europe. The welfare state combined a

free-market economy with a comprehensive social security system, and a government that intervened, for example with social housing, and corrected. It was characterised by the optimistic belief that economic and technological progress would lead to general prosperity. Industrialisation and modernisation were key to this, also in the housing sector.

In Antwerp, where the Social Democrats had been in power since the Second World War, and even before that, high-rise housing was advocated according to the new urban planning concepts. Their modernity, monumentality and high level of comfort (fully-equipped kitchen and bathroom, central heating, running water, gas plumbing) were so different from traditional homes that progressive Socialist politicians used them to symbolize their enlightened policy. They were also a means to keep (middle-class) inhabitants in the city and acted as a dam against the suburbanization of the middle class towards cheaper green suburbs (Braeken 2010b).

The city of Antwerp became a shareholder of three Antwerp social housing companies by offering each a plot of land on the fringes of Antwerp, where the prices were low. These plots were situated near the ring road around the city. On the available land, a mix of low-rise houses for the elderly and large families, on the one hand, and apartment buildings for the rest were to be built. The three companies competed with each other to come up with the most impressive project. Social housing company S.M. Housing-Antwerp (S.M. Huisvesting Antwerpen) commissioned the young Modernist Renaat Braem in cooperation with Viktor Maeremans (a Socialist) and Hendrik Maes (a Catholic) for the Kiel estate (1950-1955) in the south of Antwerp. Two different firms were responsible for the developments Jan De Voslei Estate, near Kiel, and Luchtbal (1954-1962), a site in the north of Antwerp, near the harbor: *De Goede Woning (The Good Dwelling)* by Jos Smolderen, assisted by Henrik Maes, and *Onze Woning (Our Dwelling)* by renowned Hugo van Kuyck who designed the latter project. Each of these projects consisted of large housing blocks on *pilotis*. However, their design and the ideology behind them differ in each case.

SOCIAL HOUSING IN THE KIEL NEIGHBORHOOD (RENAAT BRAEM, 1950-1955)

Influenced by his tutor Le Corbusier, Braem, by then 40 years old, created an iconic social housing complex in Kiel, Antwerp [FIGURE 01]. Braem's design revealed a clear affinity with the Unité d'habitation in Marseilles. As already discussed extensively in other publications (De Vos, Geerinckx, 2016, De Vos 2010), the nine free-standing blocks also stand on *pilotis* and adopt a similar use of colors and materials as well as architectural elements of Brutalist expression. However, Braem did not apply the



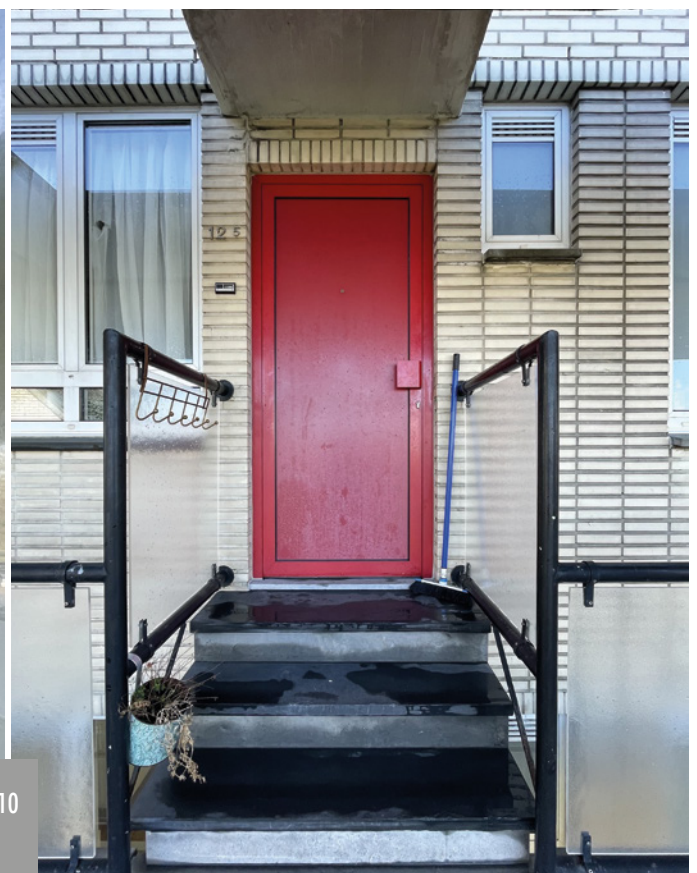
01 View of the Kiel social housing blocks on pilotis. © Tino Schlinzig, 2022.



CIAM doctrine or the ideas of Le Corbusier indiscriminately. His apartments were wide and stretched out in an elongated fashion along the façade, while the ones in Le Corbusier's *Unité d'habitation* were rather small and narrow. Braem consciously chose this configuration to favor the flow of air and (day) light as much as possible, which was no luxury in a country with a rain-heavy climate such as Belgium. And instead of an internal pathway, Braem designed open galleries that served the apartments. These outdoor corridors veered off from the façade and were placed a few steps lower than the residential level [FIGURE 02] so that daylight could enter the kitchen window freely along the split between the wall and the gallery, and visitors had no direct view into the apartment. Such a typology prevented prying looks from the galleries and guaranteed the residents' privacy. The apartments were

very much ahead of their time. Not only were the "fenêtres en longeurs" innovative, but also the modernist, non-bourgeois layouts conceived at the planning stage. The kitchen was a small rationally-designed Cubex kitchen, and the dining table was placed such that the narrowest side was against a wall and not in the middle of the room as was typical for (petit-)bourgeois interiors. On the other hand, the flats were not as 'progressive' as the most radical ones in the Narkomfin Communal House (the F-units), which had almost no separated rooms but adopted a single large open-space layout (Buchli, 2001, 70-72). Braem still provided a separate kitchen, bathroom, toilet, and separate bedrooms. As such, they had a lot in common with the K-units of the Narkomfin building, which were designed to accommodate pre-existing bourgeois domestic layouts. In Braem's flats, the entrance was also next to

02 The Kiel social housing blocks with (left) view into the open gallery, (right) private entrance with stairs to an apartment. © Tino Schlinzig, 2022.



the rationally-designed kitchen and a toilet, similar to the plans for the Unité.

The Braem blocks were of outstanding quality and received international recognition after their presentation by Braem at CIAM IX in Aix-en-Provence. A delegation of the "Housing Committee of Sheffield City Council" visited the project, and City architect Womersley called it "perhaps the most exciting scheme inspected." Even a Soviet delegation had to come to see the housing blocks for themselves to be convinced they were really social housing (Strauven 1983, 71). As a matter of fact, one advantage of such a pioneering project was that the maximum budget had not yet been set. Therefore, Braem was able to engineer a quite luxurious housing complex with integrated art (for example, sculptures at the entrance) and landscape design that was actually inhabited by the middle class, mainly civil servants from the city of Antwerp (teachers, police officers, and firefighters). As a social utopian, he believed his buildings would free people from the burden of the past and lead to a more equal and inclusive society (Sterken 2010). With the Kiel estate, the foundation had been laid for the Cité Moderne that Braem would carry out for Expo '58 in Brussels.

THE JAN DE VOSLEI SOCIAL HOUSING NEIGHBORHOOD (JOS SMOLDEREN, 1952-1967)

In 1952, 63-year-old Jos Smolderen, assisted by Hendrik Maes, designed the Jan De Voslei project (1952-67) for *De Goede Woning* company, consisting of twenty blocks. Unlike the Braem project, it hardly received any (inter)national attention because it was less radical and progressive. Smolderen (1889-1973), twenty-one years older than Braem, was a versatile architect with a distinctly

monumental vision of architecture and urban planning (Laureys 2004, 509-510). In 1914, he won the prestigious Prix de Rome and the Prix de Godecharle. Initially a staunch advocate for the Beaux-Arts tradition, in the interwar period, he developed a distinctive Art-Deco style. One of his most important works was his design for the Christ-King Church in a neo-Byzantine Art-Deco style (1928-1930). This church was part of the 1930 Antwerp World Fair, for which, as chief architect, he also designed the general plan, several pavilions, and the Century Festival arch, all in Art-Deco style. Smolderen also gave classes to Braem, amongst others, at the National Higher Institute connected to the Academy of Fine Arts in Antwerp. As the successor to Victor Horta, he taught the 'Monumental Architecture' course there, advocating for integrating various art forms in architecture (Van Nuffel 2014, p 34).

The blocks of the Jan De Voslei complex belonged to his later work during the post-war period, where he developed a stately form of Modernism that attracted the middle class that would eventually live there. The blocks [FIGURE 03], free-standing according to CIAM principles, clearly had Modernist features, concrete *pilotis*, horizontal windows, and what were, for its time, progressive features of modern comfort such as central heating, intercoms, radio and television connections as well as a fully-equipped bathroom and kitchen. However, at the same time, some elements did not fit into Modernist trappings, such as the cantilevered eaves and cladding with white natural stone slabs. Some Art-Deco elements popped up, such as its porthole windows and streamlined shapes [FIGURE 04]. In most of his blocks, he did not incorporate galleries but rather separate staircases accessible from the entrance

03 The Jan de Voslei social housing blocks with (left) a view at one of the three towers, (right) the tower rooftop. © Tino Schlinzig, 2022.



halls. The entrance blocks have rounded corners, and the curved walls are finished with shiny ceramic tiles. This kind of detailing is contrary to Modernist principles of authenticity, austerity, rationality, and integrity of materials. Also, in the interior of the apartments, there are some traditional design features. The kitchens, although well-equipped with all “mod cons,” are not pure work kitchens but also equipped for eating. As opposed to the social housing blocks found in Braem’s or Van Kuyck’s work, they are designed to have a dining table. Secondly, Smolderen envisaged a decorative fireplace in the living room, which was unthinkable for Braem, who saw it as an element of a Catholic/bourgeois lifestyle. Smolderen was also the only one of the three architects selected by the Antwerp housing companies who was against prefabrication and sometimes applied more traditional construction methods with load-bearing walls. While Van Kuyck felt that buildings should be demolished after 30 years of use, Smolderen stated that he had conceived the neighborhood in such a way that the flats could last at least 65 to 70 years. (Van Nuffel, 113). Smolderen did not adopt the vision of the Modern Movement, which saw architecture as something of-the-moment.

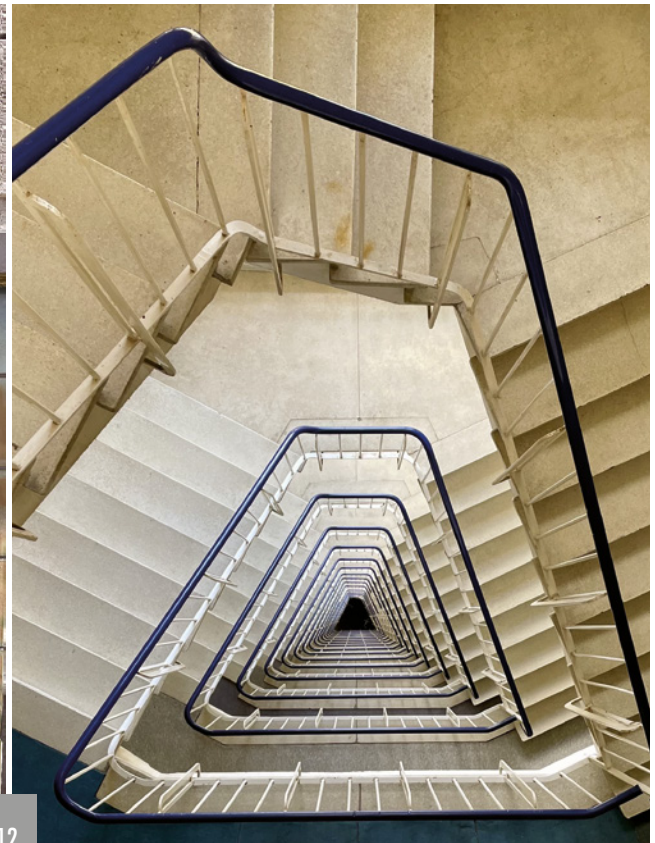
In any case, the high-rise housing apartments by Braem, Smolderen, and also Van Kuyck, which arose on the city’s outskirts, answered the middle class’s prayers: they offered a level of domestic comfort that guaranteed an improvement in one’s daily life and were aesthetically innovative. At the same time, Smolderen’s blocks still

contained familiar Art-Deco elements that catered to the somewhat more bourgeois middle-class tastes.

LE CORBUSIER’S LEGACY IN A DICTATORSHIP. THE LISBON CASE: AV. EUA (1954-1966) DESIGNED BY LUCÍNIO CRUZ, AND OTHERS

Portugal was under the fascist-leaning dictatorship of the Estado Novo and continued to be a “colonial empire” despite the decolonization processes taking place in other former European powers that also had colonial territories in Africa and Asia. The ideas of Le Corbusier and CIAM, associated with democracy, could not circulate freely. That would change partly in 1953. In September of that year, the city of Lisbon, for the first time, brought several notable professionals in the field of international architectural and urban culture to Portugal by hosting the III Congress of the UIA - Union of International Architects.¹ The president of the event was Sir Patrick Abercrombie (1879-1957), whose urbanistic ideas were based on modern principles, already being questioned at an international level, and which would find echoes in Portuguese practices. The Brazilian delegation also brought with it new proposals for integrating the three arts—architecture, sculpture, and painting—and conforming to new technologies reflected in contemporary design features. In the jargon of Portuguese architects, this meant the inclusion of *pilotis* and the freeing up of the city’s soil, an unusual choice in the country up to that time. The year 1953 would also become famous in Portuguese circles for being the

04 The Jan De Voslei social housing blocks with (left) Art-Deco details such as porthole windows and the use of ceramic tiles and (right) separate stairs accessed from the entrance halls. © Tino Schlinzig, 2022.



date of the Honourable Mention given to a residential complex near Av. EUA, called Bairro das Estacas by Ruy d'Albuquerque, Formosinho Sanchez, at the II Biennial of the Museum of Modern Art of São Paulo (Gropius et al., 1954). The Portuguese government, politically (although not diplomatically) isolated, saw the Lisbon meeting as an opportunity to show itself receptive to architectural innovation, granting permission to not only the Congress but also a series of exhibitions that would change the course of Portuguese culture indefinitely.

One of them was the traveling exhibition "Brazilian Contemporary Architecture," a propagandist initiative coordinated by the Brazilian Ministry of Foreign Affairs, held in the wake of the UIA event (Rodrigues, 1954). Among the residential projects shown in Lisbon were Affonso E. Reidy's Pedregulho and Lúcio Costa's Guinle Park (both in Rio de Janeiro) and Rino Levi's Bloco Prudência, by Roberto Cerqueira Cesar, in São Paulo, which display aesthetic affinities with the core of the Av. EUA project (beyond the desired upper middle-class clientele). This process of opening up to modernity was also reflected in the shift in the urban planning of the country's capital, which would begin to integrate the requirements of a modern layout into the formal and volumetric considerations of building design. One of those responsible for Av. EUA, architect Lucínio Cruz (1914-1999), had already had one of his projects rejected for not fulfilling the "modern" expectations espoused by the municipality from 1953 onwards (Agarez 2009; Milheiro 2011). In 1954, he would not repeat the same mistake, as we shall see.

Proposals for new urban plots were required to comply with the municipality's plans and with a modern vision. The new designs resulted from invitations to tender sent by City Hall to private developers, who were responsible for contracting the project planner's teams. As stated in an article published in 1952 in the modern style-inspired magazine *Arquitetura*, this new practice placed the responsibility for urban layout in the public remit of the Municipal Council and in the hands of private individuals, with architects being invited to develop the designs for the residential nuclei, albeit within sanitarian standards to be respected: "maximum percentage of lot occupancy; a maximum number of floors, the abolition of lobbies and, in certain cases, the very limiting cut, in plan, of the back of the future buildings, so that some would not prejudice the others, affronting them, robbing them of sun and air" (anonymous 1952, p. 10).

Faria da Costa was the urban planner who developed *Plano de Urbanização da Zona a Sul da Av. Alferes Malheiro*, identifying the Av. EUA as one of the main arteries of the plan, foreseeing the implementation of housing for the middle class across its entire length and

on both sides (north and south) to economically recoup for the non-limited rental housing² that predominated other sectors of the neighborhood. Between 1945 and 1956, the layout would evolve from U-shaped residential cluster implementation to blocks bisecting with the road axis.³ These requirements and partial plans thus transitioned from the consolidated city to unoccupied areas on its fringes, on municipally-owned land and plots, bordering the peripheral metropolitan areas still characterized by informal settlements (actually shanty-town "slums") which would soon form the great middle-class mass-housing complexes. In these tenders, where the modernization of the city's image was at stake, Portuguese architects of different generations would reflect not only technical and sanitary standards current at the time but modern languages inspired by the international circles to which they wanted to belong. This was the tendency followed across the whole of the Avenida EUA, more specifically in the "*Faixa norte do troço Campo Grande / Avenida de Roma* [northern strip of the Campo Grande / Avenida de Roma section]," as stated in official documents⁴: the existence of a modern-inspired plan, sectorized and responding to zoning, based on a rationale of housing units, with public buildings and housing blocks built over vacant land and "apparently" with the freedom of the *tabula rasa*. Learning from Le Corbusier, whose urbanistic teachings had been fundamental to Portuguese architectural culture since the first piecemeal translations of the Athens Charter in 1944,⁵ the buildings were set out following the guidelines for good sun exposure, going against the alignment of the roads, and placed at right angles to the main avenues. In terms of architectural design, however, the Portuguese resisted slavishly following Corbusian proposals. In a similar spirit, they also turned their backs on the large housing units that Le Corbusier advocated for and would continue to design after the Av. EUA project. They preferred neighborhoods on a more "humanized" scale by reducing volumes and height and integrating, whenever possible, residential squares, including neighborhood amenities. At Av. EUA, residential buildings were not to exceed ten floors, the limit of which was already the result of a negotiation process with the city council to make the development more profitable in favor of private investments: "As a result of various studies of the whole (...) and with the collaboration of the city council's urban technicians, it was concluded that reducing the number of blocks to four and increasing the number of floors would compensate for the economic investment."⁶

The championing of collective housing in Lisbon had other antecedents with their roots in the debate surrounding social housing developments. Until the 1950s, social housing had been seen by architects as a less prestigious convention. This situation was to change radically after the

debates on the subject that took place at the 1st National Congress of Architecture, which was held in Lisbon at the end of the preceding decade and which was divided into two topics for discussion: “architecture at the national level” and “the Portuguese housing problem” (Sindicato Nacional 1948). Both would influence future master planning such as on the Av. EUA project: the first would deal with linguistic, functional, and technical issues of the profession, as well as the artistic culture and academic learning in the country’s two schools of architecture, while the second dealt essentially with the cityscape as a whole, despite focusing on collective housing. Portuguese architects would debate not only the deficit of available units for the most disadvantaged classes by using the solution proposed for the Alvalade neighborhood (close to Av. EUA) – of low-rise and density housing (as a case study) but also discuss the concept of multifamily housing. Even before the 1953 UIA Congress, which was central to understanding the genesis of the EUA Avenue project, younger architects had been defending openness to emerging architectural cultures since as far back as 1948, such as that of Brazil (Simões, Rodrigues, 1948; Martins, 1948, p. 170), where building housing with a Corbusian influence was common practice and implemented across all economic classes. On the occasion of the 1948 Congress, social housing was not only gaining in prestige and as a space for experimentation, hotly debated among the new generations, but also housing for the middle classes, of which the EUA Avenue complex was just one example, began to aspire to a modern visual language, even without drastically altering the internal layout of the flats to comply with modern bourgeois tastes, as we shall see.

At the beginning of the 1950s, the middle classes, who were the target demographic for this complex, were abandoning the traditional cityscape and migrating to peripheral areas where more salubrious neighborhoods were appearing, with open spaces, attractive surroundings, and modernized facilities (Milheiro et al. 2015, 110-141). However, the Av. EUA complex was still a “hybrid”; being close to the historic center, it provided an opportunity to introduce new concepts of modern living. Among its architects were those who had taken an active part in the debates at the 1st Congress of Architecture, such as Mário de Oliveira (1914-2013), who advocated for treading a more conservative path, rejecting the idea of architecture as an activity with a radical impact able to change the lives of its inhabitants. Oliveira’s position was based on the idea that design should not cause psychological “discomfort” by abruptly changing the functional and aesthetic meanings of buildings and collective spaces. The other two architects in the group, Lucínio Cruz and Alberto Ayres de Sousa, were experts in their field who,

like Oliveira, came from the Ministry of Overseas. They often had to deal with public representation programs, as in the *Alta plan* for the University of Coimbra, where the main academic facilities were located. In the colonies, modern architectural ideas began to take hold, alongside public architecture still featuring classicist and monumental elements of the kind practiced by Cruz and Oliveira until late in the decade. As a result, we arrive at a trio of architects active in colonial territories with a history in formally conservative architecture. They worked on the free market for private development in Lisbon, designing flats for the middle class. They were present, each in a different capacity, at the Congress, where modern concepts of collective housing were debated.

The Av. EUA complex by Cruz’s team would be the logical result of the following unusual combination of interests: on the one hand, a city that wanted to be perceived as modern, a social class that saw modern design as an upgrading of taste without affecting the master plan too radically, and a group of architects trained in the Beaux-Art tradition with the ability to adapt to the formalisms of the “new architecture.” The regime thus saw these undertakings as proof of its “progressiveness” without questioning the political ideology at its core. This ensemble consisted of four conceptually modern blocks on *pilotis*, with refined details at a level appropriate to the social class for which it was intended, either for first-time buyers or for the rental market, while maintaining the internal organization of the flat that left the inhabitants’ lifestyle unchanged [FIGURE 06]. The opening of the floors at ground level, raised on pillars, was intended to facilitate access to the open garden spaces that take over the avenue slope. The ceiling height of the ground floor is enhanced by the dark ceramic cladding of the pillars and the refined materials in the Art-Deco design decorating the access to the flats (the concierge’s office, as a result, being installed on the roof).⁷ The buildings provided a generous distribution of space with typologies ranging from three to four bedrooms and with interchangeable functions that could be adapted to serve as offices, drawing rooms, etc. The corridor that eighteenth-century bourgeois housing had introduced for hierarchy-based circulation would be maintained in order to facilitate the functional organization but stood in opposition to the modern conceptualizations that proposed its abolition. A fundamental addition was making room to accommodate a housemaid who slept on the premises and occupied areas specifically designed for this purpose. Long balconies are interspersed along the length of the flats, designed to benefit from the best exposure to natural sunlight. Refusing to resort to modern solutions for circulation such as galleries, which in 1953 Nuno Teotónio Pereira (1922-2016) and Bartolomeu Costa Cabral

05 The blocks are standing on pilotis with a marble finish. © Ana Vaz Milheiro, 2023.



06 Residential Complex Avenida dos Estados Unidos da América. © Inês Lima Rodrigues, 2023.



(1929-present) had incorporated also for the middle class into the residential Águas Livres building—which is considered the first Portuguese Unité d’habitation—, the Av. EUA’s blocks would follow a conventional left-to-right plan, reducing the likelihood of creating interior collective spaces such as Portuguese architects were at the same time trying to introduce into social housing. Thus, the privacy resulting from this spatial model would guarantee the desire for reserved restraint that the Portuguese upper middle classes wished to uphold.

The residential ensemble for Av. EUA would appease the anxieties of the middle class: it offered all the novelties that guaranteed an improvement in their daily lives, an aesthetic statement of renewal that breathed new cultural life into the urban significance of these neighborhoods while upholding the sense of social privilege that keeping a maid implied and offering access to supply services (milkman, baker, etc.) that were reflected in the building through the duplication of accesses and internal circulations.

CONCLUSIONS

The challenge of developing comparative studies on middle class mass housing, in this case highlighting modern examples in Lisbon and Antwerp, allows cross-urban architectural issues to encounter several visual similarities; although the ideology behind them and the intended audience were completely different. By comparing cases from other countries, parameters resemble more precisely, such

as the political regime, the position of architects, and the importance of local actors (such as the city and the state), allowing for deepening the existing knowledge on MCMH in Europe. It is essential to mention that it was possible to highlight these two complexes after the realisation of several CA18137 networking tools linked to the analysis, such as the Writing MCMH Workshop (Antwerp 6-8 April 2022); and the two Short Term Scientific Mission carried out in Antwerp (Ana Vaz Milheiro, 8-20 April 2022) and Lisbon (Selin Geerinckx, 26 Sep – 09 Oct 2022) that opened the clues to advance towards a comparative study between two European neighbourhoods and allowed to find cases that were interesting to compare.

One of the leading threads was the influence of Le Corbusier’s Unité d’habitation in Marseilles and CIAM principles manifested themselves differently across different countries. In Antwerp, the social housing architectural firms, supported by the municipality of Antwerp, were the driving force behind high-rise experiments on *pilotis* with all mod-cons (central heating, fully-equipped kitchens, and bathrooms) that were the expected housing for the middle classes. These high-rise structures were emblems of prosperity and modernization. Any associations with Le Corbusier could be straightforward, as in the case of Braem, who had even interned at Le Corbusier’s office. However, he elected to not reproduce the model indiscriminately, churning out version after version of the Unité d’habitation de Marseille, such as Le Corbusier himself did

in several places, but rather to create a uniquely Flemish take on the Unité, which became an international interpretation of the Cité Radieuse presented at CIAM IX in 1953. As a social utopian, he considered his Kiel estate to be a way to improve the lives of its inhabitants. The older generation of architects, including Jos Smolderen, rather went for a more hybrid conceptualization of apartment living, which juxtaposed elements borrowed from the Modern movement with Art-Deco and bourgeois home trappings.

In Portugal, ideas from the Modern movement were more likely to find their way through via the colonies. As such, they entered the country already watered-down and less radical in scope. In Portugal, the city council also played an important part in developing its outskirts to accommodate the middle class. In both cases, Antwerp and Lisbon, similar locations were used, namely on the fringes of the city but still relatively close to the city center. The cities expanded their boundaries, using new, high-quality Modernist housing models.

In all of this we can discern different positions on the part of each protagonist. While Braem was a social utopian who radically chose Modernism as a way to emancipate inhabitants and improve the circumstances of the working classes, Cruz, Ayres de Sousa and Oliveira, the first generation of modern architects, used the language of Modernist architecture as a stylistic option. They tweaked more traditional housing with certain Modernist features and, as such, created a kind of hybrid that was, to a certain extent, similar to Modernism but, at the same time, quite unlike it. Also, Smolderen's Jan Devoslei project can be considered a hybrid between Modernism and the less strident Art Deco that was popular with the middle class and a sign of good taste and prestige. Hereby, the fact that Smolderen belonged to an older generation educated in the Beaux-Art tradition probably played a role. Ultimately, it seems that the social housing development of the 1950s in Belgium strongly appealed to the middle class, which was very much in line with the city's objective of keeping them in the city. The municipality made this happen through cooperation with architectural firms specialized in social housing, while in Lisbon, the municipalities gave similar sites on the fringes of the city mainly to private developers but with the task of developing them into modern, prestigious housing estates. These hybrids of Modernism with a glaze are interesting to study because they negotiate a path between Modernism and the needs of more traditional lifestyles.

ACKNOWLEDGMENTS

This publication is based upon work from COST Action, European Middle-Class Mass Housing (MCMH-EU) CA 18137, supported by COST, www.cost.eu. This work was also financed by national funds through FCT-Fundação

para a Ciência e a Tecnologia, I.P., within the scope of the project "UIDB/03127/2020" of Instituto Universitário de Lisboa (ISCTE-IUL), Centro de Estudos sobre a Mudança Socioeconómica e o Território (DINÂMIA'CET), Lisboa, Portugal.

REFERENCES

- AGAREZ, R. (2009). *O Moderno Revisitado. Habitação Multifamiliar em Lisboa nos anos de 1950*. Câmara Municipal de Lisboa, Lisboa.
- ANONYMOUS. (1952). The experience of the Avenues João XXI, Paris and Pasteur Square. In: *Arquitetura*, n. 45, nov, 10.
- BRAEKEN, J. (2010a). *Renaat Braem 1910-2001. Architect. Volume 1*. ASA Publishers, VIOE, Antwerpen, Brussels.
- BRAEKEN, J. (2010b). *Renaat Braem 1910-2001. Architect. Volume 2*. ASA Publishers, VIOE, Antwerpen, Brussels.
- BUCHLI, V. (2000). *An Archaeology of Socialism*. Oxford, New York: Berg.
- COSTA, J.P. (2006). *Bairro de Alvalade. Um Paradigma no urbanismo Português*, Livros Horizonte, Lisbon.
- CRUZ, L., de Sousa, A.A., Oliveira, M. (1955). Blocos de prédios de rendimento a norte da Avenida Estados Unidos da América - anteprojecto". In: Câmara Municipal Lisboa, Descriptive Memory, 1-2.
- DE DECKER, P., Van Mele, E., Demalsche, M. (eds.) (1999). *Huiszoeking. Een kijkboek Sociale Woningbouw*. Brussel: Ministerie van de Vlaamse Gemeenschap.
- DE VOS, E., Geerinckx, S. (Dec. 2016). Modernist High-Rises in Post-War Antwerp. In *CIDADES, Comunidades e Territórios*, 33, pp.113-132.
- DE VOS, E. (2010) Living with High-Rise Modernity. The Modernist Kiel Housing Estate of Renaat Braem, a Catalyst to a Socialist Modern Way of Life? in *HomeCultures. The Journal of Architecture, Design and Domestic Space*, no. 2, pp. 135-158.
- EYCKERMAN, T. (2004). Bouwen van 1945 tot 1975. In: Laureys, D. (ed.), *Bouwen in Beeld. [Building in Pictures]*, Provincie Antwerpen, Brepols, Antwerpen, Turnhout, pp. 131-162.
- GROPIUS, W ; Sert, L, Aalto, A., Roger. E, Bratke, O, Reidy, A, Machado (1954). Acta do Júri Internacional de Premiação da IIª Exposição da IIª Bienal do Museu de Arte Moderna de São Paulo. In: *Arquitetura*, n. 52, 11-13.
- LAUREYS, D. (2004). De architectuur in een stroomversnelling [Architecture in Flux]. In: Laureys, D. (ed.), *Bouwen in Beeld. [Building in Pictures]*, Provincie Antwerpen, Brepols, Antwerp, Turnhout, pp.85-130.
- LAUREYS, D. (2003). "Smolderen, Jos", In Van Loo, A. (ed.), *Repertorium van de architectuur in België van 1830 tot heden*, Antwerpen: Mercatorfonds, pp. 509-510.
- MARTINS, J.L.O. (1948). A Arquitetura de Hoje e as suas relações com o Urbanismo. In: I Congresso nacional de Arquitetura - Relatório da Comissão Executiva, theses, conclusions and votes, May-June, p. 170.
- MILHEIRO, A.V. (2011). Manolo Potier, The Violin-Palying architect. In *JA - Jornal Arquitectos*, <http://arquivo.jornalarquitectos.pt/en/241/Grey%20Eminence/> Accessed Febr. 1, 2023.
- MILHEIRO, A.V., Almeida, R.V. de. (2015). Nova Oeiras: an Ideal for Living - a middle class ideal before the large housing complexes. In: Fernandes, J. M., Janeiro, M. de L., 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.
- NEVES, J, Tormenta, P (2020). Espaços ajardinados do lado norte da Avenida dos Estados Unidos da América. Traços conceptuais na definição de um corredor verde no Bairro de Alvalade (1940-1960). In: *CIDADES*, 158.

- PEREIRA, T, Martins, M.C (1944) *Técnica Magazine of the students of the Instituto Superior Técnico*, (from n.147, May).
- D'ÊÇA, LAA Explanatory note of CML [8 sheets], signed by the Chief Engineer Luís Artur de Almeida D'Êça, 3rd Division - Architecture, CML, DSSEU, Process 11.968/55 [PT FAUP/CDUA/CC/ARQ/016].
- RODRIGUES, F.C. (1954). Brazilian Contemporary Architecture Exhibition. In: *Arquitetura*, n. 52, 17-22.
- SIMÕES, J., Rodrigues F.C. (1948). Do ensino da profissão. In: I Congresso nacional de Arquitectura - Relatório da Comissão Executiva, theses, conclusions and votes, May-June, p. 94.
- SINDICATO NACIONAL DOS ARQUITECTOS (1948). I Congresso nacional de Arquitectura – Relatório da Comissão Executiva, teses, conclusões e votos, Maio-Junho.
- STERKEN, S., (2010), “De mens verbeteren door zijn milieu te verbeteren” (“Improving the people by improving their environment”), Braeken, J. (2010), *Renaat Braem 1910-2001*. Architect, ASA Publishers, VIOE, Antwerpen, Brussels. p. 181-210.
- STRAUVEN, F. (1983). *Renaat Braem, architect*, Brussel: AMA uitgave, LXX.
- VAN NUFFEL, M. (2014). *Onderzoek naar het interieur van sociale hoogbouwprojecten in Antwerpen uit de Jaren 1950 en 1960* [A research towards the interior of social housing projects in Antwerp in the 1950s-1960s], unpubl. Ma. Diss., Department of Art, Music and Theater Sciences, University of Ghent.

ENDNOTES

- ¹ The III Congress of the UIA was held between 20 and 27 September 1953 and brought together 600 participants. Cf. Congress of the International Union of Architects (1953). *UIA Portugal 1953 / Third Congress of the International Union of Architects held from 20 to 27 September*, Lisbon.
- ² For framing the expression *casas de renda não limitada* (unrestricted rental housing), see Neves, Tormenta, 2020, p. 158
- ³ See the initial plan made by the urban planner Faria da Costa, entitled *Plano de Urbanização da Zona a Sul da Av. Alferes Malheiro* (1945) [AML, PT/AMLSB/CMLSB/UROB/EV/0545]. [AML, PT/AMLSB/CMLSB/UROB/EV/0545], *Planta de divisão em lotes da Avenida Estados Unidos da América (1951) (1951)*; with the successive changes to the plan approved by the Lisbon City Council until 1956, *Planta de Apresentação para a Av. E.U.A.* (CML\DSUO\1ºRepartição–Urbanização e Expropriação, [PT/AMLSB/CMLSB/UROB/EV/0248].
- ⁴ Explanatory note written by the municipal council, in which the orientation to define the final arrangement of the Av. EUA [8 sheets] is established, signed off by Chief Engineer Luís Artur de Almeida D'Êça, 3º Repartição – Arquitectura, CML, D.S.S.E.U., Process 11.968/55 [PT FAUP/CDUA/CC/ARQ/016].
- ⁵ Nuno Teotónio Pereira with M. Costa Martins for the *Técnica Magazine of the students of the Instituto Superior Técnico*, 1944 (from n.147, May).
- ⁶ Lucínio Cruz, Alberto Ayres de Sousa, Mário Oliveira, “Blocos de prédios de rendimento a norte da Avenida Estados Unidos da América - anteprojecto”. Câmara Municipal of Lisbon, *Memória Descritiva*, pp.1-2. Cf. João Pedro Costa, *Bairro de Alvalade. Um Paradigma no urbanismo Português*, p. 112.
- ⁷ Explanatory note of CML where it establishes the orientation to define the final arrangement of the marginal strips of Av. EUA [8 sheets], signed by the Chief Engineer Luís Artur de Almeida D'Êça, 3rd Division - Architecture, CML, D.S.S.E.U., Process 11.968/55 [PT FAUP/CDUA/CC/ARQ/016].

Els De Vos is Professor at the University of Antwerp. Her research concerns the field of history and theory of (interior) architecture, home culture and public space in the 20th century. She published her Ph.D. with the University Press Leuven and has co-edited several volumes, including *Reuse of modernist buildings: a case study handbook*. She has curated different exhibitions, including *Living in Colour*. As WG2 Leader in the COST-Action ‘European Middle-Class Mass-Housing’, she focuses on definitions and concepts to study MCMH.

Selin Geerinckx is Affiliated Researcher at the University of Antwerp. Her research centers on the effects of interwar housing ideologies. She recently published on the work of choreographer Lea Daan in *Home Cultures* and in the edited volume *Interiors in the era of Covid-19*. She has co-tutored *Docomomo International Student Workshops (Japan, Valencia)* and presented at the 17th IDC a talk about abstract painter Jozef Peeters’ home interior. As a recipient of research visit grants (Delft, Lisbon) and assistant in the Antwerp writing workshop, she is an active member of the COST-Action ‘European Middle-Class Mass Housing’ group.

Inês Lima Rodrigues is Integrated Researcher at *Dinâmia/CeH-IUL*. Her research focuses on architecture and urban planning in Portuguese-speaking territories, highlighting the role of modern housing. Currently, she is doing postdoctoral research on the Modern Movement in Sub-Saharan Africa and Portuguese-Angolan tropical architecture (2017-2023). She is the WG1 Leader in the COST-Action ‘European Middle-Class Mass Housing’ group for developing new methodologies for “Documenting MCMH” by consolidating a growing international network of housing experts.

Ana Vaz Milheiro is Assistant Professor at the University of Lisbon. She is principal investigator of research projects focused on architecture and urban planning in former Portuguese colonial African countries and in middle-class housing funded by the Foundation for Science and Technology (FCT). She has published *A Construção do Brasil (2005)*, *Nos Trópicos sem Le Corbusier – Arquitectura Luso-Africana no Estado Novo (2012)*, and *African Colonial Architectures – At the end of the ‘Portuguese Empire (2017)*. She chairs the COST-Action ‘European Middle-Class Mass Housing’ group.