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Portuguese state-subsidized housing projects. A general overview of a recent heritage

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ABSTRACT: In Portugal, although the single-family housing model remained a preference for most state-provided housing initiatives until late into the 20th century, in the 1940s it became obvious that this housing model would be unable to resolve the lack of housing. Between the 1920s and the early 1970s, this fact brought about the emergence of various types of multifamily housing buildings, constructed by different types of promoters, such as private individuals, real estate developers, and public and cooperative housing initiatives, the latter being more constrained at an economic level. This article proposes a panoramic overview regarding the state-subsidized housing programmes built in Portugal until the early 1970s, focusing specifically on multifamily housing built by Casas de Renda Económica [CRE], the Programme', Rent Houses with funds from Social HabitaçõesEconómicas - Federação de Caixas de Previdência [HE-FCP]. The 'Affordable Rent Houses Programme' rested on a specific regulation framework, namely Law n°2007, dated 7 May 1945, which allowed for the construction of housing blocks of up to four-storeys high, intended for rent or sale, according to the option selected by the promoting organisation. The aim is to identify the main characteristics of this housing stock as well as their impact on the cities' expansion. The housing estates built during these decades brought new housing types, in many ways radically different from the most current solutions that characterised the singlefamily models: the access systems, the organisation of the functional programme, the design of the façades and also the materiality of the buildings. Thus, this study will focus on an analysis of these architectural principles, aiming to support further actions on both the transformation process and preservation of the buildings. Although not referring to a particular historic structure, we believe that this large set of buildings, constructed over several decades, representsmodern heritage that in many ways triggers the need for reasonedconsideration on strategies for valorisation, rehabilitation or reuse as well as an analysis of the buildings' adaptability to the requirements of contemporary living.

1 INTRODUCTION. THE STATE-SUBSIDIZED HOUSING PROGRAMMES IN THE PORTUGUESE 20^{TH} CENTURY

This article is an extension of the research project entitled 'Mapping Public Housing: A critical review of the State-subsidized residential architecture in Portugal (1910-1974)' [PTDC/CPC-HAT/1688/2014]. The project focused on the role of the State as a provider of housing, and its aim is to identify the public programmes and their spatial concretisations (estates, collective buildings or single-family houses), thus establishing a relationship between public housing programmes and political and legal contexts, identifying construction systems and housing types, and geo-referencing urban contexts in which the initiatives are inscribed. In the introduction, we will provide a short overview of the public housing programmes implemented

in Portugal between 1910 and 1974. The first section will take up the particularities of the 'Affordable Rent Houses Programme' (*Casas de Renda Económica - CRE*) and the second section will focus on a set of buildings constructed under this specific housing programme.

1.1 Public housing programmes in Portugal

1.1.1 The ordinary construction of modernity: context, political framework, models

During the 20th century, the issue of housing represented major political and public concern across Europe as authorities were confronted with the need to provide solutions to the substantial challenges arising from growing urban societies, the conditions of low-income populations, the migration from rural areas to city centres, and the devastation of two world wars.

As in other European countries, the Portuguese state (central governments, municipalities), sought to address these concerns, begun at the time of the founding of the Republic (1910) and via different policies, programmes and actions. Over the decades that followed, particular national circumstances of a social, economic, and cultural nature shaped different housing stocks, incorporating into the debate the discussion of contemporary spatial and social concepts such as comfort, privacy or minimum dwelling. Portugal experienced different political frameworks during this period from the 1st Republic (1910-1926) to *Estado Novo* dictatorship regime (1933-1974), with the state promoting and subsidising thousands of housing units, and proposing distinct housing solutions (construction process, typologies, urban integration) deeply related to the ideology and welfare policies of the authoritarian regime.

In the first housing programme implemented during the *Estado Novo*, the construction of single-family houses was viewed as the symbol of an "instrument of social control", a sort of "archetypal symbol of nationalism" (Silva & Ramos, 2015: 261). This 'Affordable Houses Programme' (*Casas Económicas*, decree n°23.052, 23 September 1933) was based on a principle of a rent-to-own property scheme in which the monthly rent included payment on the house overa 20-year period (later 25 years), the purpose of which was to transfer ownership of the dwelling to the residents.

In the post-war context, three programmes were implemented which defined a turning point in the 1950s in terms of public housing policies:

The 'Houses for Poor Families Programme' (Casas para FamiliasPobres, decree-law n°34.486, 6 April 1945) was meant for the most disadvantaged populationswhose resources were so limited that they were ineligible for housing via other state housing offers. Although this programme started with individual houses, after the 1950s it turned to the multifamily housing model.

The 'AffordableRentHousesProgramme' (Casas de Renda Económica, law nº 2007, 7 May 1945), implemented via HE-FCP (Habitações Económicas - Federação de Caixas de Previdência), hadanotheraim. It was focused on constructing rental housing but also acknowledged that the single-house model would not resolve the needs at the time. This housing programme targeted the residents who could not apply to the 'Affordable Houses Programme', broadening the access to lower rent houses. This housing initiative is particularly relevant, both in the number of multifamily housing estates produced during its lifetime and in the complexity and diversity of the proposed housing types and models.

The 'Houses with Controlled Rent Programme' (*Casas de Renda Limitada*, decree-law n°36.212, 7 April 1947), from another perspective, tried to increase cooperation between private investment and the public sector, although implementing the previous fixing of the maximum total rent to be charged for the apartments.

The 'Houses built or Acquired through loan Programme' (Casas ConstruídasouAdquiridasatravés de Empréstimo, law 2092, 9 April 1958), another housing programme implemented via HE-FCP, established the basis on which to approve loans to build or buy houses to those beneficiaries of the Insurance Fund (Caixa de Previdência). These programmesgave rise (although under distinct circumstances) to residential settlements of varying sizes that were built in the first peripheries of the cities, playing a key role in their planned expansion as urbanisation works were earmarked for development by the municipalities. In Oporto, for example, the 'Houses built under the Improvement Plan for the city of Oporto' (decree-law 40.616, 28 May 1956) were strongly linked to the 'Houses for Poor Families Programme'.

2 THE PARTICULAR CASE OF THE 'AFFORDABLE RENT HOUSES PROGRAMME'

2.1 Background. Regulatory framework evolution

The 'Affordable Rent Houses Programme' was based on a specific regulation framework, namely Law n°2007, dated 7 May 1945, followed by decree-law n°35.611, dated 25 April 1946, Law n°2092, dated 9 April 1958 and decree-law n°419, dated 4 October 1977.

According to Law n°2007, the 'Affordable Rent Houses', constructed in urban or industrial centres, should have direct access to each dwelling and have a maximum of 4 floors, among other specifications relating to hygienic conditions, water distribution systems or areas of interior spaces. The government could authorise the construction of taller buildings (blocks) but only in exceptional cases. This regulation sought to promote the construction of affordable housing to be rented or sold to middle class families. Also, it enabled social security institutions¹ to participate. Therefore, the decree-law n° 35.611 mainly provided an impetus to the implementation of the previously defined plan², with specific conditions related to the investment from social security institutions for the construction of 'Affordable Houses', 'Affordable Rent Houses' and 'Income buildings'. Theframework allowing institutions to cooperate were expandedby Law n° 2092, namely with respect to the construction (for rent or transfer) of 'Affordable Houses', 'Affordable Rent Houses' and 'Rent-Free Houses' and to the granting of loans for the construction or improvement of residents' own housing. Decree-law n°419, from 1977, allows the 'Affordable Rent Houses' to be sold to their respective tenants.

The 'Affordable Rent Houses Programme' originated with the intention to build affordable houses with funds from Social Security via HE-FCP. Beginning in 1946, the HE-FCP was supported by the aforementioned decree-law 35.611. Thus, over 26 years they were responsible for an extensive body of work, both in terms of financing and supporting the construction of 'Affordable Rent Houses' and by deepening and innovating the way one thinks of the inhabitable space (Tavares, 2016: 21). The neighbourhoods built under this specific housing programme constitute a significant turning point with respect to public housing by offering the opportunity to introduce multifamily buildings. This 'political' change allowed for the introduction of new city models and urban arrangements in alignment with the precepts of the Charter of Athens and the desire to experiment with different architectural languages. Relevant transformations can also be seen in the design of the typologies, increasingly involved with the ideals underlying a 'minimum dwelling'.

2.2 Types and models

According to the database of the ongoing research project 'Mapping Public Housing' [https://bit.ly/2qa224L], available at the conclusion of this work, 112 neighbourhoods and 14420 dwellings were built via the 'Affordable Rent Houses Programme' with funds from Social Security via HE-FCP. These ensembles are located throughout the country, with special attention paid to the region of Lisbon and the North Coast (Tavares, 2015a: 17, vol.2). This was the field of study and work for a group of important actors interested in testing new types and models for the construction of housing aimed at a less advantaged social class.

In the first phase, the strategy adopted by the HE was to use the Miguel Jacobettyproject for the Alvalade Complex³, built in Lisbon, as a model for the construction of other ensembles throughout the country. Although this was an important starting point, the arrival of Nuno Teotónio Pereira in 1948 proved to be an essential turning point in that it stimulated an architecture adjusted to the real needs of the population and suitable to each region's character (Tavares, 2015a: 34-35, vol.1). This resulted in a number of planned but diversified projects by Nuno Teotónio Pereira, Nuno Portas, Bartolomeu da Costa Cabral, Vasco Croft, Fernando Távora, Ruyd'Athouguia, AlcinoSoutinho, João Andresen, and Conceição Silva, among others (Tavares, 2010: 49), constructed mainly in the 1950s and 1960s. Nevertheless, almost at the

same time, other examples stand out as experiments in the construction of large urban settlements such as Olivais (North/South) in Lisbon, or for the urban densification through tall residential towers, as in the *Torres Vermelhas*, in the Pasteleira district in Oporto.

2.3 Research questions and case studies

Given this architectural, urban, social and political context, we will approach the housing sets built under the 'Affordable Rent Houses Programme' aiming to frame two research questions, namelyi) the strategies to approach these multifamily housing sets from the valorisation/preservation point of view, and ii) the architectural characteristics of this recent heritage that should be considered as identity or cultural heritage.

As particular case studies, thearticleproposestheanalysisofthefollowingresidential complexes: CRE *Alvalade* complex, Cells 1 and 2 (Lisbon, 1945-1948), Miguel Jacobetty Rosa; *Ramal de* Residential Unit (Porto, 1950-1954), Fernando Távora; *Soda Póvoa* neighbourhood (Vila Franca de Xira, 1953), Nuno Teotónio Pereira; *Santa Marta* estate (Barcelos, 1955-1962), Nuno Teotónio Pereira; *Cabo Mor* estate (Vila Nova de Gaia, 1957), João Andresen; *Caixas da Previdência* neighbourhood (Parede, 1957), Rui Athouguia; *Caixas da Previdência* neighbourhood (Coimbra, 1965), Jorge Albuquerque; *Torres vermelhas d aPasteleira* (Oporto, 1966-1972), João Serôdio, Luís Almeida d'Eça, Rui Paixão. The methodology to achieve these objectives is based on archival research (primary sources), bibliographic survey (secondary sources) and terrain research (visits to case studies).

3 MULTIFAMILY RESIDENTIAL COMPLEXES BUILT BETWEEN THE 1950S-1970S: SOME CRE EXAMPLES

3.1 Project/apartment typification: CRE Alvalade Complex, Cells 1 and 2 (Lisbon, 1945-1948)

The CRE complex built in the *Alvalade* neighbourhood (cells 1 and 2) is a large residential set with 302 buildings and 2066 dwellings. This neighbourhood corresponds to the first stage of the development of the Urbanization Plan of *Alvalade* (arch. Faria da Costa). Miguel Jacobetty Rosa, the architect in charge, proposed a type-project with 9 variants (3 series with 3 types of buildings each), according to the size of the household and economic conditions of residents. Series I buildings are 3-storey edifices while the buildings from series II and III have 4 storeys.

Although the housing buildings aim to implement a nationalist model with historicist roots and to display traditionalist architectural languages, the apartment design developed by M. Jacobetty is closely linked to the rationalist theories of Alexander Klein and Enrico Griffini, such as the minimum dwelling areas, the optimisation of the circulation and access areas, and the design variants according to the household (Jacobetty, 1948 [2008], 276); (Costa, 2010, 46). Jacobetty under scores the need to rationalise the apartment design as a way to reduce the area: cutting the circulation areas; condensing the living space andestablishing a better geometry in the correlation of the compartments.

The type-projects developed by Jacobetty were very detailed in terms of the compartment's areas and correlation expressed in drawing schemes and specific maps, which recall the studies developed later by Nuno Portas regarding the housing areas and family's needs (Portas, 1964).



Figure 1. Perspective from Roma Avenue. ©Nuno Teotónio Pereira archive. SIPA/IHRU.

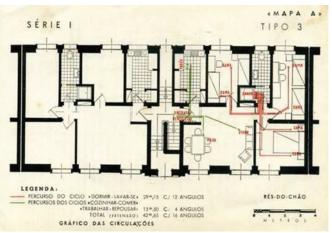


Figure 2. Partial Plan with circulations chemes. © 'Grandes Problemas de Lisboa', Revista Municipal, n°26, 3° trimestre, 1945, CLM.

3.2 Rational urbanisation plan/ housing typology: Ramalde Residential Unit (Porto, 1950-1954)

The *Ramalde* Residential Unit is located near *Boavista* Avenue in the western part of the city of Oporto, occupying a lot of considerable size. The Municipal Council proposed a specific plan for the area, called the '*Ramalde* Partial Urbanisation Plan'(1948), including housing (106 blocks), commercial buildings, schools, and sports buildings. The buildings would enjoy a rational layout so that their façades could benefit from the best solar exposure. The residential complex, well organised from a morphological point of view, proposed a sort of autonomous garden city, following the principles stated in the Charter of Athens, which in the late 1940s was a novelty in Oporto. The plan was organised along two main structuring axes, perpendicular to each other: one perpendicular to *Boavista* Avenue and another crossing the centre of the composition, outlining its centrality. This plan underwent several adjustments and was reduced to the construction of 26 collective housing buildings, carried out in a two-stage process, with the project being awarded to architect Fernando Távora. The relationship between the exterior space and the height of the buildings was carefully defined, apparently following the studies which Walter Gropius presented at the 3rd Congress of CIAM (Congrès International d'ArchitectureModerne) in 1930.

The spatial organisation of the small apartments faced the challenge of reducing and simplifying the programme of the household, in this case mainly through the elimination of unnecessary circulation spaces, with the living room becoming the central distribution area. Also, the rational and clear layout allowed for optimising the use of spaces, especially via the detailed design of the service areas and the integration of the wardrobes in the remaining spaces.



Figure 3. Site plan Phases 1 and 2 ©Department *Património Imobiliário* from IGFSS, Oporto.

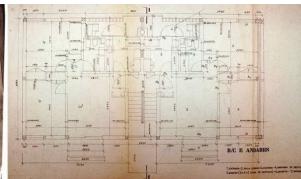


Figure 4. Ground floor and type floor plan ©Department *PatrimónioImobiliário* from IGFSS, Oporto.

3.3 Innovation in the access system: Soda Póvoa neighbourhood (Vila Franca de Xira, 1953)

Located in the *Soda Póvoa* neighbourhood in Póvoa de Santa Iria is a project designed by architect Nuno Teotónio Pereira. The project from 1953 (preliminary draft) envisaged a phased construction consisting of 2 sets of 2 buildings of 4 floors each, in a total of 24 dwellings, and another 28 in single-family houses, being carried out only 2 blocks and 12 dwellings.

Each floor has three dwellings, two in the same building, both with three bedrooms, and one four-room apartment in the other volume. The spatial distribution of the apartments takes advantage of the solar orientation and clearly separates daylight areas from night areas. The two symmetrical dwellings of smaller size stand out for their simplified programme and the central space with kitchen and dining/living room. The second type has a more complex programme with a clear separation between the kitchen and the common room and a maid's area, which introduces a different dynamic in the dwelling. Also, the connection between the office and the living room allows for either individual or combined use, which introduces the modern concept of flexibility into the domestic space. In these multifamily housing buildings, the distribution gallery stands out, facing north. Formally, this access system is distinguished by the occasional connections to the buildings and the relationship with the autonomous volume of the stairwell. From the functional point of view, it consists of an intermediate space, one of crossing and interaction. This system is also part of the volumetric composition of the ensemble establishing the relationship between the two buildings, which allows each one to have an independent layout in the plot. This site plan also guarantees the equal importance between façades by voiding the front/back hierarchy.

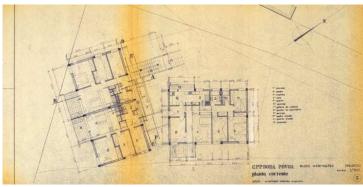


Figure 5. Type floor plan ©Nuno Teotónio Pereira archive, SIPA/IHRU.



Figure 6. View of the vertical access ©Nuno Teotónio Pereira archive, SIPA/IHRU.

3.4 Modern Movement signs through materiality: Cabo Mor estate (Vila Nova de Gaia, 1957)

The *Cabo Mor* estate is located in Vila Nova de Gaia and was designed by architect João Andersen in 1957 (built in 1958). The plan of this residential complex comprises six 3-storey buildings with raised basement and a school. Housing buildings were placed parallel to each other facing north-south. Each building includes two mirrored units with centrally accessed stairways and two apartments per floor. The exterior areas between the buildings of this set were planned to be green areas with pathways.

Each floor has one three-room apartment and one four-room apartment (72 dwellings total). The apartment noticeably separates daylight areas (kitchen/common living room) from the bedrooms according to solar orientation (bedrooms facing east). The core service areas are located near the entrance.

The most relevant feature in this residential complex is the critical view of the Modern Movement principles and formal solutions. On the one hand, Andersen clearly attempts to combine white and clean forms with traditional elements and construction techniques, namely the gable roof design. On the other hand, the use of a specific lexicon such as the precast ventilation tiles (balconies, basement), which suggests an inspiration from the Brazilian

approach to the Modern features, the concrete roller shutter boxes, and the entrance design, are in line with the materiality that Le Corbusier applied in some of his designs.

From a contemporary perspective, it can be said this housing set has undergone little or nothing in terms of maintenance procedures or intervention actions since its construction.



buildings ©Maria Tavares, 2011.

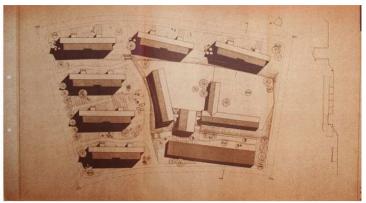


Figure 7. View from the housing Figure 8. Site plan. ©Department Património Imobiliário from IGFSS, Oporto.

3.5 The modern concept in the interior spatial organization: Caixas da Previdência neighbourhood (Parede, 1957)

The Caixas da Previdência neighbourhood, designed by Ruyd'Athouguia, consists of a group of 7 blocks of 4 floors with an exclusively housing programme. This complex is located in Parede, a coastal town that is part of the Municipality of Cascais, near Lisbon. The site plan of this complex is characterised by the layout of the blocks in parallel and by the definition of a large common exterior space, which breaks with the surrounding urban structure. The narrow and long volumes serve to gather the housing typologies with symmetrical structure from the respective vertical access core. The spatial distribution of the dwellings is based on the clear division between the service spaces, facing north, and the remaining spaces arranged to south.

The modern concept of living is mainly reflected in the design of the "kitchen corridor", similar to the Frankfurt Kitchen⁴, with a rectangular layout and a small but very functional space. In this case, the kitchen does not appear integrated into the living area but rather associated with a service area, also consisting of a pantry, a utility room and a WC. This set is also revealed in the façade through a composition of horizontal windows and prefabricated concrete grids. Furthermore, the central space - the common room - reveals a multifunctional character by the possible connection to one of the bedrooms for a use adapted to the residents' needs.

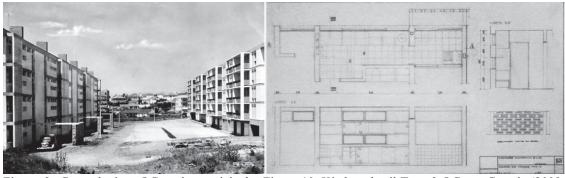


Figure 9. General view ©Cascais municipal Figure 10. Kitchen detail Type 3 ©Graça Correia (2008:

3.6 Tradition, context and modernity: Santa Marta estate (Barcelos, 1955-1962)

The *Santa Marta* estate was designed in the mid-1950s by Nuno Teotónio Pereira, a figurehead of the HE-FCP. Santa Marta is located in Barcelos, which in the 1950s was a rural town in the north of Portugal near a railway line. This small neighbourhood has two 2-storey housing buildings composed of 10 side-to-side units (with two super imposed apartments each). The first version of the project, dating from 1957, was quite different from the current set: it proposed a 2-storey building with regular shape and gallery access, quite close to the Modern Movement ideology (Correia, 2012).

The adopted language in the final version (building materials, roof and stair design, etc.) shows evidence of the balance between vernacular references and the influences of some INA-Casa⁵ paradigms built during the early 1950s, namely the *Quartiere Tiburtino* in Rome (Ludovico Quaroni, Mario Ridolfi) and *Quartiere a Cesate*, Milano (Franco Albini, Ignazio Gardella, et al.).

The scale of the buildings is adapted to the specific surrounding context as well as the construction techniques, suggesting the shifting paradigm from the Modern Movement's international codes to more 'humanised' and 'organic' interventions. This search is materialised through the design of 'in-between' exterior spaces as extensions of the apartments or the individualised access to each dwelling, for example. Three types of apartments were designed for this set with a varying number of bedrooms (total 20 units). The plan is quite compact and follows the principles of minimum dwelling, separating the daylight areas (facing east) from the night areas (facing west and the private gardens). The common living room acts as the core area, congregating several domestic functions. Despite the clearly smaller area of this room, the plasticity of its shape plays a key role in the distribution of the plan.

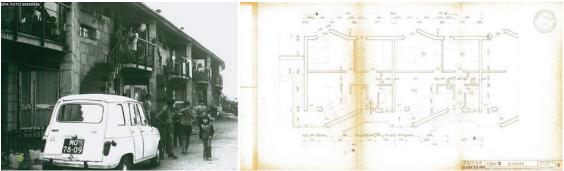


Figure 11. Perspective from the building. ©Nuno Teotónio Pereira archive. SIPA/IHRU.

Figure 12. Type 2 apartments. ©Department "Património Imobiliário" from IGFSS. Oporto.

3.7 New languages and materiality: Caixas de Previdência neighbourhood (Coimbra, 1965)

The *Caixas de Previdência* neighbourhood in Coimbra (1965, 1st phase), from Jorge Albuquerque, comprises 9 multi-family housing buildings with 4 and 8 floors, combining two distinct access systems: vertical communication core and distribution gallery. The larger buildings comprise two entrance cores consisting of the main staircase on the façade and two interior elevators providing access to 3 dwellings per floor. In contrast, the remaining smaller buildings have an outer gallery and a central staircase, which allows access to 4 dwellings per floor. This case stands out for its difference in height between the gallery and the dwellings, guaranteeing greater privacy in the interior spaces.

In this complex, signs of modernity can be identified in the language and materiality, both by the diversity of the materials and colours and by the volumetric composition of the ensemble and the absence of ornaments. In the larger buildings, especially noteworthy is the use of elements such as the flat roof, the horizontal windows, the projected balconies and the marking of the floor slabs in the façades. But this demand for modernity is even more evident in the smaller buildings, characterised by the design of the distribution gallery as well as the volume of the stairwell and the indentation in the side elevations. In addition, the lower finish stands out

with a base in stone whereas the upper finish is notable for its combination of flat and inclined rooftops. Regarding the coating materials, it is important to mention the diversity of textures and materials used in the distribution gallery, in the wall of the common staircase and in the side elevations, highlighting the grille for ventilation in the laundry.

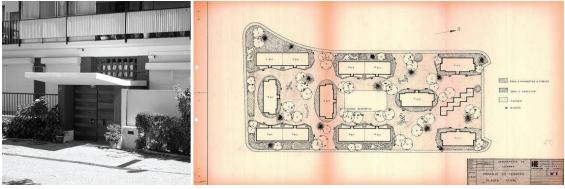


Figure 13. Entrance detail ©Maria Tavares, 2012.

Figure 14. Site plan ©Department *Património Imobiliário* from IGFSS, Oporto.

3.8 Densification throughresidential parks: Torres Vermelhas da Pasteleira complex (Oporto, 1966-1972)

The housing complex of the *Torres Vermelhas* was part of the *Pasteleira* Plan, begun in 1956 by the Oporto Municipality. This plan provided for the organization of the territory as a residential park with large green areas, dividing it into two cores and sectors with different sizes and characteristics. The south core comprised two sectors, where the west sector corresponded to the *Torres Vermelhas* complex and the east sector was earmarked for private investment. This plan introduced a new city model, suggesting influences from the ideologies seen in the Charter of Athens.

The *Torres Vermelhas* project, attributed to the architects João Serôdio (1932-), Luis Almeida D'Eça (1921-2011) and Rui Paixão (1932-), also proposes innovative residential models through several isolated buildings: 12 buildings, 6 towers and 6 blocks with different types of apartments.

The 14-storey towers (6 units), set in landscaped spaces and surrounded by outdoor parking areas, have 4 apartments per floor, distributed symmetrically from a central core of elevators and stairs. The spatial distribution of the apartments stands by the concentration of the service areas next to the access core and by the central location of the common living room and its relation with the adjacent balcony. The remaining apartment blocks have two variations: one has 6 floors and an architectural language similar to that of the towers. The upper floors consist of two apartments on each floor, displaying typological options that emphasise solar exposure and the separation of two functional cores. The other 5 apartment blocks have 5 floors and a similar access system, but distinct options in terms of architectural materiality (Lameira & Rocha, 2017).

The red bricks and concrete surfaces give the complex a very specific iconic identity, suggesting influences from the Italian production of the 1960s (the Quartiere INA-Casa Sant'Agnese, for example), namely in the 'organicism' of the site plan distribution, the volumetric deconstruction of the building's volume, or the plasticity of the architectural language.



Figure 15. Construction ©Historical Archives from Secil/ Fábrica Macieira-Liz.



Figure 16. Site plan. ©IGFSS (*Instituto de Gestão Financeira da Segurança Social*).

4 CONCLUSIONS

At this point, a broad analysis of the 'Affordable Rent Houses Programme' and some of its paradigmatic productions has allowed for the construction of a possible reinterpretation and a wider understanding of the genealogy of the modernity in residential architecture in Portugal, especially among less known, studied or valued architectural productions.

The methods underlying the HE-FCP and its role as a housing provider between the 1950s and the 1970s led to the construction of an organic and diversified architecture. On the one hand, a generation of architects headed by Nuno Teotónio Pereira were encouraged to design by taking into account the specific region's character. On other hand, the construction of large pieces of the cities allowed for the development of high-rise buildings and the exploration of the principles of the Charter of Athens.

The architectural evolutionary trends during the 1950-1970s can be clearly identified through the selected case studies, demonstrating that the architects responsible for these projects were fully committed to the ideals of the Modern Movement (and its later revision during the 1960s), or in a wider sense, to the renovation and modernisation of the architectural codes in force in Portugal since the 1950s.

The architectural characteristics of the analysed examples can be categorised in several principles directly connected with the implementation of the 'modern' paradigm and with references from other international contexts. The identified principles, such as the new urban approaches

'rational urbanisation plans/densification through residential parks'; the 'project and apartment typification', the 'rational housing typology', the 'modern signs through materiality'or 'new languages', the 'innovation in the access systems', the 'modern concept in the interior spatial organisation',

and the balance between 'tradition, context and modernity', serve to assemble a comprehensive yet complex framework that can be broadened to a wider set of housing arrangements build during the same period, throughout different programmes. Although the residential buildings constructed under the 'Affordable Rent Houses Programme' via HE-FCP followed specific guidelines and economic constrains from the investment point of view that had naturally impact on the architectural standard of the buildings, these principles support the hypothesis that this recent heritage should be considered as identity or cultural heritage.

The current preservation status of these housing sets is quite variable, with most buildings having been transformed without defined policies, or suffering from a complete lack of maintenance. From the valorisation/preservation point of view, the strategies to approach these multifamily housing sets could well benefit from a closer involvement from the Municipalities in terms of financial support.

Another main initiative is directed to raising both the residents' and the experts' awareness of the importance of this recent architectural heritage. In this context, the database developed by

the research project 'Mapping Public Housing' is an essential instrument for identifying and geo-referencing the housing programmes and respective initiatives. This platform available online gathers the process documents (memoirs, reports and assessment procedures, etc.), bibliography and photographic references, as well as the legal framework for each operation/estate/building.

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ENDNOTES

- ¹ Law n°2007, Base II and Base IV, item d.
- ² Decree-law n° 35.611, article 3.
- ³ CRE Alvalade complex, Cells 1 and 2 (Lisbon, 1945-1948).
- ⁴ The *Frankfurter Küche* was developed in 1925 by the architect Margarete Schüte-Lihotzky (1897-2000) for the mass housing programs of Ernst May (1886-1970). cf. TOSTÕES, A., 2015 [2002]: 305.
- ⁵ The Plan INA-Casa was a general plan developed by the Italian government between 1949 and 1963 to provide public housing.

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