



Project Report

# State-Subsidised Housing and Architecture in 20th-Century Portugal: A Critical Review Outlining Multidisciplinary Implications

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Abstract: Stable access to affordable quality housing is a core feature of public health principles and practices. In this report, we provide an update on the research project "Mapping Public Housing: A Critical Review of the State-subsidised Residential Architecture in Portugal (1910–1974)" (MdH), developed between 2016 and 2019 at the Faculty of Architecture of the University of Porto (FAUP) in Portugal. This funded research project (PTDC/CPC-HAT/1688/2014) brought together an international and multidisciplinary team composed of architects, sociologists, historians, an economist, an anthropologist, information scientists and archivists, from different academic levels (senior researchers, postdoctoral, PhD and Master's degree students), adopting a variety of approaches and operating in a range of different contexts. The aim of the research undertaken was to investigate the reality of social and state-subsidised housing in terms of its architecture, while, at the same time, seeking to broaden our understanding of this phenomenon and of the transition to a democratic regime. Furthermore, this research project was designed to contribute towards the development of common ground for supporting decisions in the environmental, social and economic fields relating to housing management, as well as architectural heritage management and protection. This review is based on the submitted application (2015) and final report (2020).

**Keywords:** architecture; social housing; affordable housing; neighbourhoods; data set; Portugal; 20th century



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# 1. Introduction

In the period between 1910 and 1974, Portugal lived through a variety of political regimes, ranging from the First Republic (1910–1926) and the military dictatorship (1926–1932) to the constitutional dictatorship of the *Estado Novo* ("New State") (1933–1974). As in most southern European countries [1], the first steps towards introducing the notion of social assistance policies were taken by a corporatist authoritarian government [2,3], giving rise to a complex web of charitable and pre-welfare agencies and a mode of action that was different from those followed in other countries [4,5].

The question of low-income housing involved a series of government measures addressing the basic needs of the poor (education, health and justice). Thus, the housing solutions adopted (the construction process, the layout of the internal space, the different dwelling types, their use and their urban integration) express the nature of the State's commitment and the relationship that existed between ideology, pre-welfare policies and residential architecture. It was not so much a social state implemented within the framework of a democracy, but rather a state whose welfare and charitable activity was practised under the assumption of a strictly political form of social control. Nonetheless, Ramos Pinto [3] maintains that this was the principle which led the "people" to consider that the State should guarantee a system of social support.

Given such a political and economic context, most of the research literature has concentrated on those housing realisations (architecture and urban environments) that have remained largely uncharted as a reflection of the State's social (welfare) policies and procedures. Today, these housing estates built all over Portugal represent a large and valuable document that can be used to both gain and consolidate our knowledge about their political, social and cultural context and to generate new perspectives about the modern and contemporary history of architecture. The aim of the Mapping Public Housing research project [6] was therefore to investigate the built reality in terms of the State-subsidised residential architecture developed between 1910–1974, while, at the same time, seeking to broaden our understanding of this phenomenon and of the transition to a democratic regime.

MdH was based on the study of a documentary corpus consisting of the residential and urban designs kept in the archives of various Portuguese institutions, as well as on the examination of the related process documents. These data were compiled into an online database [7].

This analysis and the reasoning behind it were discussed by the team's members at international conferences and meetings [8]. An International Congress [9] was also held at FAUP to discuss the research.

As scheduled in the proposal, several outputs were published and shared in the form of a series of periodical booklets [10–16], focusing on specific aspects, systems or cases; a documentary film [17] and a photo essay [18] were produced as visual records of the subject; and finally, a guide to the specific terminology [19] used in the housing field was published, as well as a book [20] based on an international comparative study. The project also allowed for the development of other research themes and productions beyond those that were initially planned, such as the exhibition "Housing in Portugal: History and Contemporaneity of State-subsidised Neighbourhoods between 1910 and 1974", which was held during the MdH congress, while, at this present moment, the international edition of another book is also being prepared (see Section 5).

Moreover, as it was a three-year project, MdH offered the corpus to scholars in order for them to explore the field of international comparative housing research. By adopting an integrated approach, this project offered the opportunity to build a critical review of several dialectics—architecture and power, architecture and social control, the origins of the demand for a modern social state, tradition and modernity, authorial architectural practice and civil service, global history and local experiences—crossing over the boundaries between disciplines, countries and times.

MdH is not only a project that is of benefit to the academic audience, but it also serves to enhance the general public's knowledge of this housing production, with its ultimate intention being to enrich discussions about the State's role in housing development.

This document will serve as an important overview of this research project, focusing on the following topics: the research team background; plan and methods; benefits, impact and results; and discussion and final remarks.

### 2. Research Team Background

The MdH Research Project sought to provide a pertinent contribution to the field of knowledge about housing by examining the relationship between housing, politics and architecture, focusing on the case of Portugal in the period between 1910 and 1974.

Several authors have approached the subject intermittently and focused on particular aspects, circumstances or geographies [4,21–25]. Seminal works developed by Baptista [26] or Gros [27] provide direct support for understanding general questions, linked with some specific housing estates. As this production arises from disciplinary areas other than architecture, it lacks specialist interpretations that, anchored in specific architectural topics, could help to place it within the framework of complementary historical dynamics (architectural, sociological, economic, technical and policy-based).

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The MdH team was well prepared to contribute to the research in this area, given their background in the housing studies field and the expertise gathered from their previous experience of working in a team. The Center for Studies in Architecture and Urbanism [CEAU] team and the international consultants of MdH (M. Eleb, M. Swenarton, J-M. Léger and C. Espegel) formally set up the research network in 2011: they discussed the architectural criteria and concepts and their socio-political contexts. They established a database (beta version) for MdH. The team members deepened the inherent theoretical framework of their production through articles presented at scientific meetings, specialised seminars and conferences.

The team's production can be classified under three main headings: (1) The ordinary construction of modernity; (2) The history of housing types, models, contexts and their transformation; (3) The Portuguese public housing programmes and actions.

Ramos developed a consistent approach to housing as a crucial phenomenon in the architectural production of the twentieth century. In his writings, he highlights the need to reconsider the orthodoxy of the Modern Movement, accepting a plural, impure and diverse modernity identified in current production as a background for the development of an alternative housing history [28–30].

Lameira and Rocha developed studies about collective dwelling for middle classes, focusing on the preservation processes [31,32], the socio-economic context and regulations [33], as well as the methodological instruments required for a morphological analysis of the city and its buildings [34,35]. As an international partner [36], C. Espegel conducted team-based research work documenting an extensive series of multifamily housing units built in Spain (1929–1992), which resulted in a critical overview of Spanish housing phenomena.

Ramos, Gonçalves and Silva [37] propose an overview of the subject. Since the first half of the twentieth century, various architectural designs have been connected with one another through the common search for a 'new identity' deriving from the single-family house model. In his production, Gonçalves [38,39] introduced this topic by examining the question of social housing in the period before Salazar's dictatorship (1926-1974), which was mainly characterised by an unconscious and experimental reasoning that brought together different housing proposals. Such architectural experiences resulted in a modern reasoning that replaced the traditional academic imperative of form [40,41]. The reframing of the single-family house as an archetypal symbol of nationalism and as an instrument of social control is the core theme of Silva's PhD, which is being written about the Affordable Houses programme (CE, 1933–1974). Based on the timid attempts made previously during the First Republic (1910-1926), the CE's developments generated several other public initiatives, such as those studied by Tavares. She focuses her research on the housing programmes developed mainly in the second half of the twentieth century with the primary goal of understanding the architecture produced with funds from the Social Security via Habitações Económicas—Federação de Caixas de Previdência (HE—FCP, 1946–1972) [42,43]. She reconstructs the path followed by housing architecture [44] and highlights emerging values relating to different cultural and contextual patterns [45]. In her postdoctoral research, Cruz focuses on Cooperative Housing (CHE, 1974-1982), clarifying the national context of the CHE production [46] and explaining the shifts that occurred in the cooperative sector with the Portuguese transition to democracy [47].

These approaches to different layers of the theme allow for an understanding—from the architect's point of view—of the social, cultural and economic transformations of twentieth-century Portugal, enriched by the expertise of other team members. Their investigations focus on the topic in hand, as is the case with Pereira's research into Porto's social housing [24,48], or on a broader approach to twentieth-century Portugal. Rollo's investigation into the period after the Second World War [49] stresses the transition from a rural to an industrial society, directly linked to the transformations that took place in housing programmes during that period.

From certain works outlined above, we understand that the main research into Statesubsidised housing has consisted of the analysis of single buildings or neighbourhoods Challenges **2021**, 12, 7 4 of 23

(overlooking the complexity of architectural types and programmes). Furthermore, these circumscribed studies have underestimated the impact of specific contexts on ordinary architecture, the urban environment and the geographical dispersal of architectural projects.

The MdH project thus results from the need to create an integrated knowledge network supported by the expertise in information technology of Ribeiro (a MdH researcher), materialised in the form of an instrument—the database—making it possible to bring together miscellaneous documents and knowledge and to promote future developments in this area (see Appendix A Figure A1). We proposed to do this by bringing together various international scholars engaged in historical, theoretical and documentary research into housing, in a multidisciplinary team that would study housing programmes, instead of just looking at singular architectural works.

The MdH project has opened up innovative perspectives that contribute to a review of the established discourses that have spread among several disciplines and contexts.

### 3. Plan and Methods

# 3.1. Context

The twentieth century fostered a broad debate on housing, fed by the appearance and development of some of our contemporary spatial and social concepts: comfort, privacy, minimum dwelling, welfare state, right to housing, etc. Therefore, housing has come to represent a common ground for different fields of knowledge, becoming an area of significant public and political concern.

Alongside academic research and architectural experimentation, all over Europe, the State (i.e., central governments, municipalities, etc.) promoted and subsidised the building of thousands of housing units to address the needs arising from growing urban societies, decolonisation, the devastation caused by two world wars, and the fragility of low-income populations, incorporating the general idea of the State as a provider of housing in a variety of forms.

Although it is widespread and reveals similar concerns in most European countries, this State production of housing is deeply interwoven into the national and cultural circumstances that have shaped our different housing stocks. In Portugal, the overthrow of the dictatorship in 1974 delayed the development of the welfare policies that were introduced in most European countries at the end of the Second World War. Nevertheless, we can note a concern with the provision of public housing ever since the foundation of the Portuguese Republic in 1910, which was then materialised in the form of different policies, programmes and actions over the following decades.

Our project was centred on this period (1910–1974) and sought to understand the concrete architectural realisations resulting from this largely uncharted action of the Portuguese State.

Our approach to this question was proposed at a time when a global concern was being developed about the State's role as a provider of housing, motivated by the American and European economic crisis. In this context, we sought, on the one hand, to understand the relationship between architecture and power [50], viewed under the framework of housing production. On the other hand, we also envisaged incorporating this analysis into a broader questioning of the State's guarantee of the basic requirements of its citizens: education, health, justice, etc.

Considering these interrelations, our research also focused on the particular role played by architects in terms of political ideologies and actions. The architect as "the heroic figure, building the future ( . . . ) at the forefront of innovation" [6] contrasts with the idea of a 'departmental architecture' [51]. We sought to analyse these two roles of the architect in relation to the practical realisations of residential architecture. Where and when can we observe spatial or constructive innovations? How far have architects been able to go in pursuit of their authorial concerns? To what extent has the State influenced architectural practice?

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# 3.2. Challenge

The already-mentioned state production of housing represents a significant portion of the groups of residential buildings constructed in Portugal in the twentieth century (641 neighbourhoods inventoried: data set from September 2019), even if such a situation has been scarcely acknowledged, studied and surveyed. In order to use and maintain this heritage, we needed to understand its history, its premises and objectives. However, studying these within the context of the overall activities undertaken in this area represents a concrete challenge, largely due to: (1) the nature of previous studies and research; (2) the way in which the relevant archives and institutions are organised.

Many institutions responsible for the construction and supervision of public housing have archives that contain a considerable amount of data relating to Portugal's residential architecture over the past decades. With such information being more or less organised and stored mainly in physical archives, these documents are of tremendous value for housing research. They represent a considerable asset, being closely related to the changing policies and regulations over the years, and are kept and maintained by specialist local teams, although they have not generally been disclosed to society and are largely unrelated to one another.

Furthermore, most of the research carried out in the field of housing studies is undertaken under the scope of distinct disciplines and areas of study. Given the fact that academic teaching and research are structured in the form of specialist subjects, this means that the integration of results is a slow process, generating only a limited amount of academic questioning.

As far as architectural research is concerned, most recent studies have tended to adopt a monographic approach, thus favouring interpretive analyses and reasoning, rather than promoting the understanding of artefacts as a part of other more complex cultural, economic and political arrangements.

We believe that this particular body of data and knowledge needed to be organised, integrated, interrelated and sorted into broader contexts. Therefore, this project's key research question was to study the complex relationship between housing architecture and the State's actions by revisiting neighbourhoods, buildings, dwellings, and their original plans.

# 3.3. Our Proposal

We sought to build an instrument that would enable the interweaving of data and knowledge relating to State-subsidised housing in Portugal. This would result in the creation of a complex database, which would allow us to develop its inherent methodologies. While this implied a return to primary sources (archive records and documents), it also fostered a review of already known books and research works (secondary sources). In doing this, we were able to adopt an integrative approach based on distinct document types and the perspectives obtained from various fields.

Our aim was to produce an integrated overview of two combined paths. On the one hand, there is the chronological perspective: by looking at a particular aspect such as regulations, public/private interaction or urban inscription, we can observe the various developments that have occurred in the subject of study at different times. This enables a broad consideration of the factors that impact on housing architectural design and vice versa. On the other hand, bringing different housing developments together allows for a systematic reading of their processes in relation to the social and political context. This approach enabled us to understand the diversity of responses adopted in relation to identical problems and to recognise the similarities that existed between geographically scattered events or facts.

Being able to arrive at an overall view of the various housing estates that were built triggered a research approach that would be capable of revealing the overall intentions, background strategies and common solutions, which were not apprehended through the separate analysis of individual housing developments.

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# 3.4. Methodologies

The research work was organised into three main actions:

- (1) Documental: database construction and data collection.
- (2) Interpretive: systematisation, categorisation and interrelation of documents and data.
- (3) Communicative: Dissemination of the knowledge obtained.

For the first action, we relied on a documentary corpus consisting of the projects developed for the building of housing estates kept in the archives of various Portuguese institutions—IHRU (Institute for Housing and Urban Rehabilitation/Instituto da Habitação e da Reabilitação Urbana), SIPA (Architectural Heritage Information System/Sistema de Informação para o Património Arquitectónico), LNEC (National Laboratory for Civil Engineering/Laboratório Nacional de Engenharia Civil), Municipalities, etc.—and the related documents (project briefs, reports and assessment procedures, etc.). These data were then compiled in a database that linked each operation/estate/building to its respective bibliographical and photographic references, as well as to its legal framework.

In the second action, the interpretation and interrelation of the materials gathered together and duly organised were the basis for developing a contemporary vision and understanding of the residential estates, confirming the various interventions undertaken until the present day, as well as for reviewing the political, economic and social history of Portugal in the twentieth century, introducing alternative readings established from the study of social housing.

The already-mentioned housing estates served as anchor points for compiling and relating further data and other pertinent cases. The database is organised on two levels: the first level consists of the elements referring to the architectural design of the residential buildings: plans, cross sections, elevations, photographs, location, urban insertion, authorship, relevant dates or facts, the public entity or department promoting the development, and bibliographical references. On a second level, we find a record of the categories relating to each building or estate, together with an interpretive explanation.

In the third action, we successfully produced: an international conference; an exhibition; a documentary film; several books: glossary, booklets, catalogue, edited book; a project website; and an open access online database.

Several institutions were involved in this research project, with different roles:

- FAUP (Faculty of Architecture, University of Porto): providing the necessary space for research activities and events; offering technical support to the team; providing administrative and accounting support for the project.
- CEAU (Center for Studies in Architecture and Urbanism): coordinating all the activities; promoting meetings among researchers; recruiting research fellows.
- FLUP (Faculty of Arts and Humanities, University of Porto)
- IS-UP (Institute of Sociology of the University of Porto) and CETAC.MEDIA (Centre of Studies in Technologies and Communication Sciences, University of Aveiro): background studies: interpretation of architectural data from a socio-political perspective. Information Technology: database parameterisation and configuration, indexing policies; indexing language; interfaces and definition of user levels.
- FCSH-UNL (Faculty of Social Sciences and Humanities, NOVA University, Lisbon)
- IHC (Institute of Contemporary History): Background studies: interpretation of architectural data from the perspectives of Contemporary History and Political Science.
- ETSAM (Higher Technical School of Architecture of Madrid)
- GIVCO (Grupo de Investigación en Vivienda Colectiva): Database adjustments: definition of criteria; systematisation and interpretation of architectural data from an international architectural perspective.

# 4. Benefits, Impact and Results

This project will benefit two main groups: specialists in Architecture, History, Social and Political Sciences and Urban Studies (architects, sociologists, policymakers and

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government institutions) and research and education stakeholders (universities and research institutions). The impact in terms of the transfer of knowledge relates to both the deepening of classification and analysis methodologies between fields of expertise, research units and countries and the promotion of training opportunities for Early-Stage Researchers. The research developed under the scope of this project resulted in significant and diverse achievements:

# 4.1. The "Mapping Public Housing" Online Database

The "Mapping Public Housing" Online Database [7] gathered together, for the first time, the information relating to social and state-subsidised housing in Portugal, linking each construction operation/housing estate/building to bibliographical and photographic references and to cartography, as well as to the relevant legal framework in each case (see Appendix A Figure A2).

The database has 641 records and includes interactive analytical graphs (see Appendix A Figures A4–A6) drawn according to neighbourhoods and programmes and digitally mapped (Google and Instituto Geográfico Português), with GPS coordinates based on the territorial administrative units (NUTS—Nomenclature of Territorial Units for Statistics, which corresponds to the regional divisions existing in all the Member States of the European Union) (see Appendix A Figure A3). This open source platform was designed to promote a critical reflection and propagation of the architecture that, through different programmes, gave rise to affordable housing in Portugal in the twentieth century. Available both to the general public and an institutional audience, the database offers a contemporary vision of the public housing estates that were built, showing the interventions that have been made until the present day, as well as offering a review of the political, economic and social history of the twentieth century and incorporating alternative readings arising from the study of social housing.

The focus is on "other architecture", promoting a debate on the day-to-day production of architectural designs, which, although largely forgotten by history, have shaped our territory and paved the way to our modernity. This database is thus not only a chart of the different types of housing estates and programmes, and of the documentary sources that they generated, but it also represents a starting point for an updated discussion of narratives and counter-narratives, opposed to the orthodox historiography and suggesting different canons.

The information contained in the database will extend beyond the study period established for the project, also encompassing the final decades of the twentieth century and the first years of the twenty-first century, in order to include the exchanges of standards and models between public promotion and private investment.

# 4.2. The MdH Website

The MdH Website (https://mappingpublichousing.up.pt/en/ (accessed on 31 December 2020)) was developed in order to disseminate the project's outcomes. This includes improved networks, disclosing our activities and scientific production and providing online access to the database platform. In addition to offering a permanent means of communication, registration and dissemination, this instrument is designed to ensure free access to a work that has been financed by public funds.

# 4.3. The Booklet Periodical Series-Cadernos de Habitação (CDH Portugal)

The Booklet Periodical Series–Cadernos de Habitação (CDH Portugal)—emerged from a cooperation agreement between Mapping Public Housing MdH (FAUP-CEAU/FCT), GIVCO (ETSAM-UPM) and PC3 (FAUUSP). The booklets were developed in order to systematise information on collective housing for researchers, architects, public organisations and other interested parties. This specific series included seven titles: *Affordable Houses Estate of Alvito* (Lisbon) [10]; *Duque de Saldanha Residential Block (Porto)* [11]; *Affordable Houses Estate of the Cooperative "O Lar Familiar" (Porto)* [12]; "Rainha D. Leonor" Housing

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Estate (Porto) [13]; "Cabo Mor" Housing Estate (V.N. Gaia) [14]; Santa Marta Housing Estate (Barcelos) [15]; Pasteleira Housing Estate (Porto) [16].

# 4.4. The Organisation of a Guide to Specific Terminology

The organisation of a Guide to specific terminology [19] under the framework of the Mapping Public Housing research project was considered to be a key piece in the consolidation of systematised knowledge, and it has thus become a performative and constantly updated collective work tool. The Guide is also an instrument that, instead of closing off people's knowledge of the subject through categorical definitions, establishes a theoretical tool for promoting new readings, further amplified through bibliographical references, parallel definitions in international contexts and sample listings. For this purpose, it has the structure of a permanent hypertext.

The objectives of this document were therefore extended beyond the definition of concepts. Each selected entry constitutes a universe of its own, seeking, albeit with varying characterisations and descriptions, to construct a framework of references, further amplified by parallel definitions or relevant quotations gathered from a specialised national or international bibliography.

This work was published as a book and can also be accessed as a PDF file via the MdH website. In addition, a short version entitled "Quick Reference Glossary" [52] can be accessed online through the MdH database.

4.5. The International Congress "Affordable Housing. The 20th-Century Legacy. Learning from the Past. What Future? Challenges and Opportunities"

The International Congress "Affordable Housing. The 20th-Century Legacy. Learning from the Past. What Future? Challenges and Opportunities" [9,53] was held at the Faculty of Architecture of the University of Porto (FAUP) during the final stages of the project. The Congress programme included: a guided tour of four recently rehabilitated State-subsidised neighbourhoods in the city of Porto; an exhibition entitled 'Housing in Portugal: History and Contemporaneity of State-subsidised Neighbourhoods between 1910 and 1974'; and conferences and debates moderated by the journalists Cândida Pinto and Valdemar Cruz. The work was organised around four thematic sessions, in which four different topics were addressed: Colonising Territories, Conquering Wills: Housing as a Political Weapon; The Social Dimension of the Housing Problem. Reorganisation of Society and Cities in the Context of Modernity; Housing Buildings as Typo-morphological Laboratories during the 20th Century; and The Challenge of a New Time. Preservation or Transformation of State-Subsidised Housing Architecture.

The Congress programme also included lectures given by Mark Swenarton (Words on the Street: Transformations in 20th-century Housing from Raymond Unwin to Neave Brown), Franz Graf (European Collective Housing in the Post-war Period: Thermal Retrofitting and Architectural Impact) and Leandro Medrano (On Space and Society: Modernity and Dwelling in Brazil), closing with a lecture by Alejandro Aravena (The Right Left to Housing).

# 4.6. The Documentary Film "Morada"

The documentary film "Morada" [17] offers a visual record of this subject, proposing a cinematic stroll through the architecture of public housing built with the support of the State in Portugal, and registered by the "Mapping Public Housing" research project. This exercise resulted in an interdisciplinary perspective and interaction between architecture and art, which proposes another form of knowledge.

# 4.7. The Book "Contexto Programa Projeto: Arquitetura e Políticas Públicas de Habitação"

The book "Contexto Programa Projeto: Arquitetura e Políticas Públicas de Habitação" [20] offers an open and heterogeneous perspective on the theme.

Through its chapters—*Context*, *Programme*, *Project* and *Parallel*—this document deals with the following subjects: historical, political and sociological problems; the housing

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programmes, from the early attempts made by the First Republic until the end of the period under study; the disciplinary issues arising from the exercise of architectural design with a focus on the housing problem; and a series of parallel initiatives in the field of international housing, which provide a framework for the Portuguese context and allow for a broader understanding of the question.

# 4.8. Scientific Outcomes

This research project has also offered support to significant scientific outcomes, such as: Master's degree dissertations on housing programmes [54–60], housing models [61] and intervention strategies [62]; book chapters on housing policies and the national political and architectural framework [63–65]; articles published in peer-reviewed journals [66–68]; and conference papers focusing on themes related to housing in a broader context [69–73].

# 4.9. Complementary Outputs

In addition to the achievement of the objectives initially set out in the project plan, other complementary outputs were developed:

- A photo essay [18] was developed by the photographer Casanova on the Affordable Houses Estate in Mira-Sintra (Agualva-Cacém), in order to document one of the last estates to be built under the dictatorship. This singular estate is also analysed in the PhD thesis currently being written by Dias Silva (MdH researcher). The essay includes 100 black and white images with multiple perspectives and aerial views, blending both documentary and artistic values in what amounts to the unique documentation of an estate that has been mostly "forgotten" in the history of Portuguese housing and which may now be seen from a new perspective. This photographic work will also be published in the form of a special booklet, together with the publication of an upcoming book (see Section 4.10).
- The EDD [74] consists of a graphic record of the research developed during the course of the project in order to demonstrate the complex relationships between historical time, housing programmes and relevant contextual data. The aim was to create a visual instrument that registered the complexity of the processes under investigation. The visual record followed each stage of the research project. The final design covers a long period of time in order to allow for a rich reading of the period under study.

# 4.10. Parallel Results

The quality of the activities designed for the extension and dissemination of knowledge, and specifically intended to promote cultural and scientific practices, was an important feature of this project. Thus, together with the activities undertaken to ensure the academic dissemination of the project, other events were developed that were aimed at a wider audience:

- "Housing in Portugal: History and Contemporaneity of State-subsidised Neighbourhoods between 1910 and 1974": an exhibition organised by FAUP/CEAU with the curatorship of Paulino and Rocha (MdH researchers) and launched at the time of the International Congress, based on the systematised information provided by the MdH Database;
- Several MdH researchers led some teams and were responsible for critical partial studies on the book "Habitação: Cem anos de políticas públicas em Portugal 1918–2018" [63–65,75], a research project developed by the public institute IHRU.
- "Hidden in Plain Sight: Politics and Design in State-subsidised Residential Architecture" edited by Ramos, Pereira, Rocha, Silva: an upcoming book that follows the MdH research project, produced under the scope of the CEAU at FAUP.

### 5. Discussion and Final Remarks

The MdH research project enabled the development of a critical review on Statesubsidised housing between 1910 and 1974 in Portugal, embodied in a set of partial investigations developed in parallel with the consolidation of a reference database for the

study of social housing in Portugal. Using the building context and its complexity as a starting point, the research project combines an analytical method—the open source MdH database—with a process of reflection, establishing common grounds between architecture, urban design, sociology, anthropology and other fields.

The multidisciplinary nature of the information that was processed and then made available, as well as the architectural knowledge that was thus produced, gave preference to the relationships that are established between the production of architecture and its economic, social and political context. On the one hand, the results obtained were made possible through strict compliance with a robust methodology that had clearly identified objectives, milestones and schedules; on the other hand, due to the formation of a heterogeneous and international work team that included specialists in several related disciplinary areas, it was possible to create a strong international community composed of architects, historians, archivists and sociologists at different stages in their careers.

It is important to stress here the expansion and reinforcement of an international network of researchers from a variety of institutional partners, namely: Madrid (ETSAM), São Paulo (FAUSSP) and Umeå (Umeå Universitet, Sweden). And, furthermore, because of this, we should also emphasise the strong dissemination of the information and knowledge produced by the MdH research project. Moreover, the academic community's involvement, mainly with the Integrated Master's degree of FAUP (MIARQ), resulted in the development of several Master's degree theses that corresponded to significant developments in sectoral understanding.

As mentioned previously, the project sought to identify public housing programmes and their spatial realisations: estates, collective buildings, or single-family houses. Some difficulties were expected, namely in the perception and understanding of an extensive phenomenon, with different levels of political intensity, which, when not correctly observed in overall terms, led to misconceptions in the most diverse narratives, namely in the reading of twentieth-century Portuguese architecture.

How many estates were created? How many houses? Where are they located? How did they affect the growth of cities? Who lived there in the past—and who lives there now? What kind of city are we talking about when we mention housing estates? These and many other questions might now start to find their answers after decades of overlooking their social, economic, political, territorial and architectural relevance.

One of the most relevant issues is related to the peak of construction in the 1950s, which is shown in the attached graph (see Appendix A Figure A4).

The 1950s were a time of political change and the Portuguese economy received international support, provided at the end of the Second World War [76–78].

Investment was made in the modernisation of the country, led by young engineers who had undertaken postgraduate studies abroad. They joined the government and the administration's technical staff without questioning the orthodoxy of the authoritarian regime, mediating new modes of political action, engaging in resource management, and avoiding conflicts with the most radical sectors of the regime. At that time, for example, hydroelectric dams were built and the electrification of the country began, the great monopolies of heavy industry were organised, and legislation was introduced for the constitution of horizontal property (Decree No. 40.333, of 14 October 1955), a fundamental instrument that allowed for the construction of tower blocks providing multi-family housing under a regime of private property and resolvable income [79,80].

These new leaders brought a new developmental and technocratic vision to the political regime, focusing on progress and favouring certain sectors of society. They sought efficiency and profitability. From this point of view, housing initiatives such as the Affordable Houses Programme (1933), based on individual and detached houses, became unsustainable due to their low density and high cost. Thus, in 1945, the Affordable Rented Houses Programme was created (Decree-Law No. 2007), which had access to the large welfare funds of the social security through "Caixas de Previdência" and provided housing investment for different sectors of society, ranging from industrial workers to teachers.

This programme enabled young architects to build modern housing projects of various types and costs, using modern typologies updated in response to international criticism. This process led to a much greater openness to modern architecture in Portugal, together with an increase in the number of dwellings built.

But, there was one particularly decisive factor that serves to explain the peak in housing construction in the 1950s. This was the partnership created between the two largest municipalities in the country and the Ministry of Public Works, leading to the intensive construction of housing estates with rapid results (see Appendix A Figure A4). Beginning in 1956, with the Improvement Plan for the City of Porto (Decree-Law No. 40616) and, after 1959, with the introduction of the Plan for the Construction of New Housing (Plano de Construção de Novas Habitações—PCNH) in Lisbon (Decree-Law No. 42454), the municipalities demonstrated an enormous capacity for local response: within a few years, they had reached the same level of housing construction that it had taken government programmes several decades to achieve. This not only demonstrated the importance of decentralising such interventions, but also revealed the political ineffectiveness and legal dispersion that had characterised the government's various attempts to intervene in this area. In fact, it should be remembered that, after dozens of housing programmes, the figures revealed that, in 1974, in a total of 2.5 million homes, 52% had no water supply, 53% had no electricity, 60% had no sewage network, and 67% had no sanitary installations. At the same time, there was an estimated shortage of 600,000 homes [81].

An analysis of the Olivais/Chelas housing estate suggests a transition of scale, approaching the mass architecture mentioned above. The three phases of the project—Olivais Norte, Sul and Chelas—do, however, display differences in urban planning and building design.

While Olivais Norte clearly follows the principles of the Athens Charter, Olivais Sul is already approaching brutalist trends. The intervention in Chelas reveals the influence of the contemporary international experience of Alison and Peter Smithson—Golden Lane (1952) and Robin Hood Gardens (1962–1972)—Candilis, Josic and Woods' proposal for Toulouse Le Mirail (1961–1971), or the Italian experiments conducted by Giancarlo de Carlo, Aymonino and Rossi.

This approach has been further developed in the research work conducted essentially by the MdH researcher and FCT-PhD Scholarship Holder Dias Silva, under the scope of his PhD thesis (now nearing completion) entitled "O Programa das Casas Económicas do Estado *Novo* (1933–1974)". This research enables us to construct a privileged perspective, not only about the dictatorship's Affordable Houses Programme, but also about the context under which it took place, reflecting on the main features of the housing policies pursued by the authoritarian regime, and on its different phases, from the beginning of its decline until the Portuguese revolution of 25 April. The research highlights the last years of the regime, after the removal from office of Oliveira Salazar (1889-1970) due to an accident that later proved to be fatal. Between 1968 and 1974, Marcelo Caetano (1906–1980) became the last Prime Minister of the Estado Novo. The research also provides another understanding, not only of the final decades of the authoritarian regime, but also of the importance of the social housing question in Marcelo Caetano's discourse and political performance, allowing us to understand, for instance the unexpected project of the Affordable Houses Estate in Mira-Sintra (Agualva-Cacém) in 1965 (Figure 1). This neighbourhood, which was almost like a "new town", represented a return to the regime's initial programme, connoted with greater ideological and formal orthodoxy, but in a completely different way. Tall buildings combined with single-family houses and urban equipment to compose an urban fabric marked by a specific landscape design, produced by a team of architects and landscape architects whose work was linked to the modern expression [82].



**Figure 1.** Affordable Houses Estate in Mira-Sintra (Agualva-Cacém)/ICESA neighbourhood, 1965, João Abel Manta, Alberto Pessoa, Gonçalo Ribeiro Teles (MdH BD a267). © MdH and Tiago Casanova.

Between the multiple-nuclei schemes of Olivais and Chelas at the end of the 1950s, and the larger regional approach of the "Planos Integrados" at the end of the following decade, the Affordable Houses Programme experimented with an intermediate urban scale, a new town prototype, following the British model. The Agualva-Cacém estate (Mira-Sintra) was designed between 1965 and 1970 and represented an up-to-date summary of recent developments in urban design and regional planning, combining low and high density housing, single-family and multifamily housing, and common green areas and private backyards. It was a lukewarm attempt at creating a self-sufficient community while maintaining the regime's goal of creating a home-owning middle class, in keeping with the programme's principles, as every dwelling was to be distributed according to the resolvable rent system.

A more authorial design process than was usually found in the programme combined the architecture of Alberto Pessoa and João Abel Manta with an all-encompassing landscape design by Ribeiro Telles, in a not-so-subtle nod to the Calouste Gulbenkian Foundation (Lisbon) ensemble, designed by Pessoa and Telles with d'Athouguia and Cid, then under construction in Lisbon.

In addition to the aforementioned research work and in order to shed some light on the knowledge that has been developed since the end of the MdH project, we can focus on two more recent works, in addition to the approved results of the initial research plan.

"Politics and Residential Architecture: A Map of State Intervention in Housing" [83]. This essay written after the end of the research project was an attempt to give a first overall

assessment of the research that was carried out. It sought to offer an intelligible guide to the political action that led to a proposal of different housing programmes or similar acts in this field. It was intended not only to provide an exhaustive list of neighbourhoods and their legal framework, but also to recognise how they implied a political construction, based on a complex hierarchy of power after 1933. It was possible to identify the fluctuations in the programmes, institutions and services, all of which were faced with various challenges. Thus, there was a development not only in the strength and weakness of a totalitarian regime unable to solve the contradictions of the social formation of the Portuguese, but also in an architectural culture open to modernity, and eventually leading to the outbreak of the 1974 Revolution (83 (p. 252)).

One of the conclusions of the article reinforces the fragmentation of knowledge, increasing the relevance of MdH's research instruments for future works, since these will help to promote an integrated reading of phenomena. However, we must be aware of the lack of any conclusive answers. After our long research journeys—for which we are indebted to everyone who has collaborated in this project—one possible statement is to recognise the existence of a complex organisation during the first three quarters of the twentieth century.

There is no simple formula for expressing the long-term phenomena that continued to exist throughout different political systems, from the monarchy to the *Estado Novo*, where the partnerships established with other stakeholders, such as the private sector, philanthropic agents, the municipal authorities and the national government also resulted in a range of different interventions.

For this reason, any attempt to synthesise these themes or approach their study should always highlight both what preceded them and what has followed them, in a chronological and diachronic movement, understanding that it is in the intricate interaction between social, geographic, economic and technical factors and architecture that the political will is established. Perhaps this will be the safest of all the narratives observed, namely that the social, geographical, economic, technical and architectural aspects are always part of the same political currency. Therefore, looking at the architectural production relating to housing is to accept its impure praxis as part of the processes that sometimes result in its impasses. (83 (p.255)).

The book "Hidden in Plain Sight: Politics and Design in State-Subsidised Residential Architecture". This book can be presented as the result of the contributions and exchanges of views between several international specialists. It will be published in English in 2021, under the scope of CEAU at FAUP.

This publication makes it possible to confront contemporary international housing projects with interpretations of the same phenomenon—"social housing" and "economic housing"—from other disciplinary areas, such as political history, sociology, anthropology, public health, etc., in a reading of the city and its periurban space, but also of rural areas.

It is an interdisciplinary reading and a fundamental redefinition of the discipline of architecture, rejecting the idea of externality in relation to other scientific fields that share the same object of study. From this point of view, which is vital for the survival of architecture as a specific field of knowledge, (taking into account the problems that arise, in order to arrive at a specific understanding of the discipline), it follows both Arnold's theoretical reflections about a social history of architecture [84] and the positions more recently defended by Sarkis [85], deriving from the disciplinary practice and the architectural project developed by Fernándes-Galiano [86–88]. Sarkis puts his finger on the problem, by showing that architects cannot ignore the challenges currently facing society, such as big data, AI, digitisation, etc. In other words, these challenges cannot be considered external, but, on the contrary, they must allow us to move towards a new epistemology. When he says "bring it on" [85], Sarkis is speaking as an architect who wants to be present and has something to say in the discussion about the challenges of climate change, the loss of biodiversity, an ageing population and the healthcare that they need, new ways of living, greater resilience in housing, in neighbourhoods and urban systems, and energy efficiency,

particularly in regard to the rehabilitation of neighbourhoods. In short, he is talking about another notion of inclusiveness, reusability, and sustainability.

In this sense, the MdH research project is the perfect instrument appearing at the right time, as is already reflected in the book we have prepared, and which is mentioned above. "Hidden in Plain Sight" marks a first step, which is always difficult to achieve in relation to such longstanding knowledge, but it is, nonetheless, very clear in the structure that it uses to present and debate the themes:

- House, Philanthropy and Social Economy;
- House, Family and State;
- House, Neighbourhood and Density;
- House, Urban Sprawl and Revolution;
- New Hypotheses for Old Problems.

All of these questions are studied within the context of European dynamics and the concern that is displayed with regard to this subject. In this sense, our research and our proposals for its future development respond perfectly to the challenges posed by European public policies, such as the EU's *Horizon Europe* programme, developing EU innovation and research, or by the Portuguese regional policies, such as the *NORTE 2020* programme. Above all, we believe that we can contribute to the new *EU Agenda* in the following areas:

- Green Deal Policies:
- New Wave Renovation;
- New Bauhaus.

Therefore, it is useful to return to von der Leyen's words: "The groundbreaking success of the Bauhaus would not have been conceivable without the bridge to the world of art and culture, or to the social challenges of the time. [...] This is why we will launch a new European Bauhaus movement—a collaborative design and creative space, where architects, artists, students, scientists, engineers and designers work together to make this vision a reality" [89].

Notably, the New Bauhaus programme is in keeping with the research that we have been undertaking, and which we intend to continue to deepen. It is also a global vision, genuinely bringing together the contributions of various fields of knowledge, in a multidisciplinary approach to the global problems that society faces.

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# Appendix A

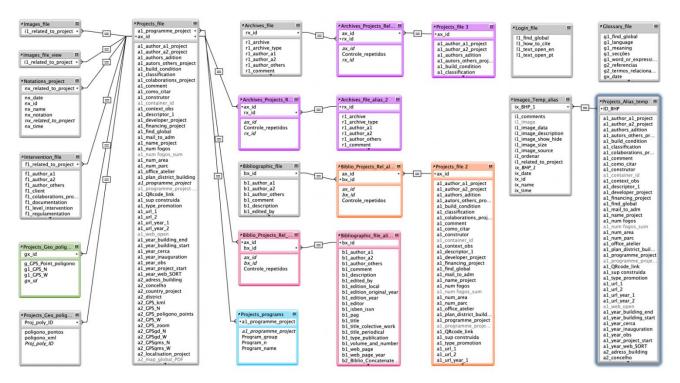


Figure A1. Data flow diagram of MdH database. Source: MdH database, 2019.

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Figure A2. Partial view of the neighbourhood record (MdH DB a88). Source: MdH database, 2019.

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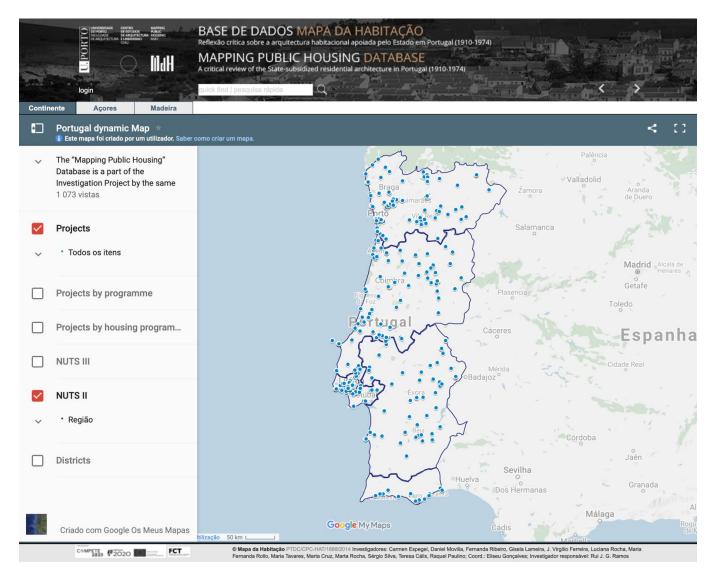
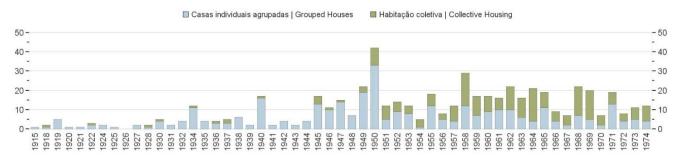
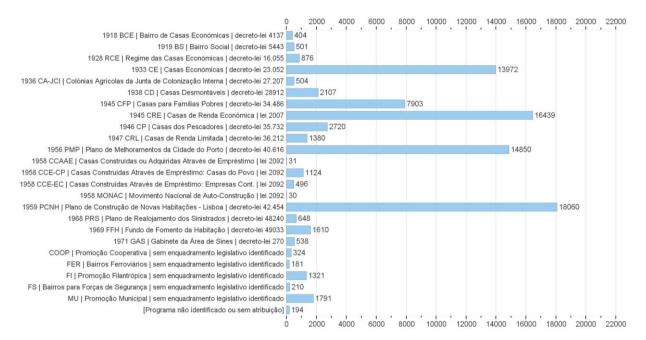


Figure A3. Map of Portugal based on NUTS II, showing the location of neighbourhoods. Source: MdH database, 2019.

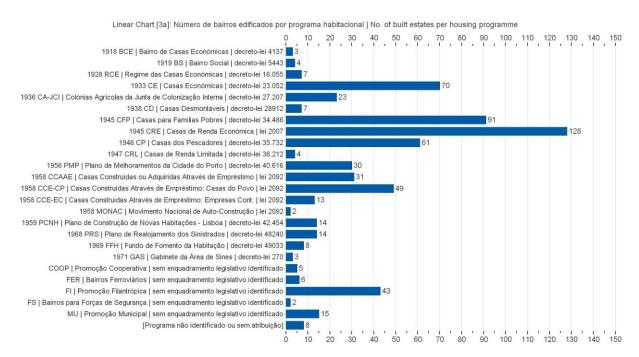


**Figure A4.** Linear chart. Distribution of housing descriptors per year. Source: MdH database, 2019. Universe: built estates and phases included in MdH between 1910 and 1974, and number of dwellings. Error factors: in some cases, the number of dwellings is an estimate; the reference date is the first known date; in the case of large urban plans—such as Olivais Norte, Olivais Sul and Chelas—the values entered are the date of the plan and the projected number of dwellings (sep-arate parts of these are not considered in the graphs and are recorded in the database due to their architectural relevance). Data conditions: Omit records—Type promotion: (= Privada: Rendimento Imobiliário); Omit—Year web sort: (0 < 1910); Omit records—Year web sort: (>1974); Omit rec-ords—Build condition (=NC); Find records—Plan district building: (=bairro | district).



**Figure A5.** Linear chart. No. of built dwellings per housing programme. Source: MdH database, 2019. Universe: built estates and phases included in MdH between 1910 and 1974, and number of dwellings. Error factors: in some cases, the number of dwellings is an estimate; the reference date is the first known date; in the case of large urban plans—such as Olivais Norte, Olivais Sul and Chelas—the values entered are the date of the plan and the projected number of dwellings (sep-arate parts of these are not considered in the graphs and are recorded in the database due to their architectural relevance). Data conditions: Omit records—Type promotion: (=Privada: Rendimento Imobiliário); Omit—Year web sort: (>1974); Omit records—Build condition (=NC); Find records—Plan district building: (=bairro | district).

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**Figure A6.** Linear chart. No. of built estates per housing programme. Source: MdH database, 2019. Universe: built estates and phases included in MdH between 1910 and 1974, and number of dwellings. Error factors: in some cases, the number of dwellings is an estimate; the reference date is the first known date; in the case of large urban plans—such as Olivais Norte, Olivais Sul and Chelas—the values entered are the date of the plan and the projected number of dwellings (sep-arate parts of these are not considered in the graphs and are recorded in the database due to their architectural relevance). Data conditions: Omit records—Type promotion: (=Privada: Rendimento Imobiliário); Omit—Year web sort: (> 1974); Omit records—Build condition (=NC); Find records—Plan district building: (=bairro | district).

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