

# Lessons to Learn? Past Design Experiences and Contemporary Design Practices

Proceedings of the ICDHS 12th International Conference  
on Design History and Design Studies

Edited by: Fedja Vukić, Iva Kostešić  
**Zagreb 2020**

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**EDITED BY**

Fedja Vukić  
Iva Kostešić

**REVIEWS**

Helena Barbosa  
Jonathan Woodham  
Priscila Lena Farias

**PROOFREADING**

Chelsea Alethea Sanders

**GRAPHIC DESIGN AND LAYOUT**

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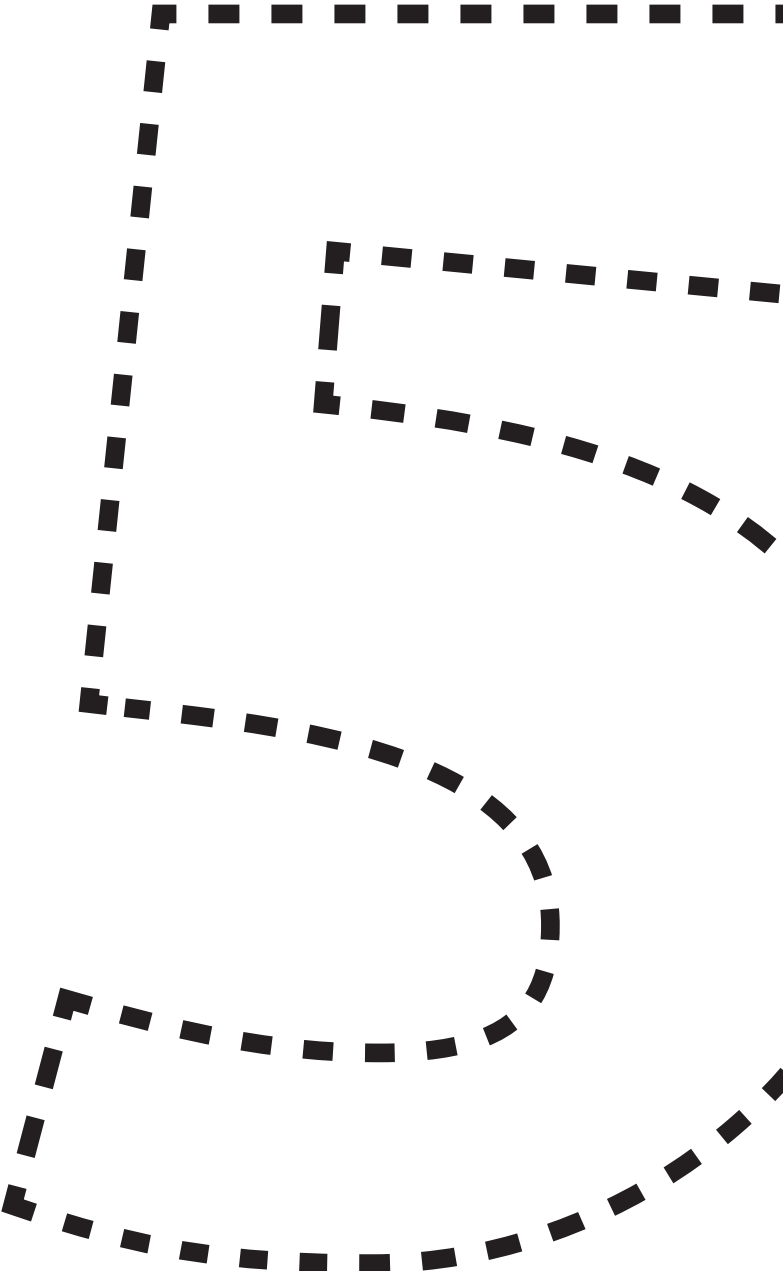
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# Challenging Orthodoxies II



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**Žiga Testen** is a graphic designer and PhD candidate at RMIT University, Melbourne, Australia.

<ziga.testen@gmail.com>

# An Experience of Synthesis and Freedom: Space and Design in Post-World War II Portugal

Antunes, Sandra; PhD candidate | IADE — Universidade Europeia, Portugal  
Souto, Maria Helena; Associate Professor | IADE — Universidade Europeia, Portugal

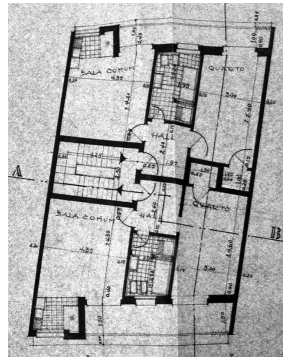
## *Portuguese design culture, modernisms, space and design.*

*This paper analyses a domestic space designed amidst cultural tension in Portugal, within a context defined by nearly a quarter century of autarky by the 1950s. Striving for a reformed way of living, Carlos Tojal's first home, 'the burrow', contrary to the endemic practices, comprised a modern 'manifesto', simultaneously functionalist and organicist. What were Tojal's contributions, as an architect and interior designer, in questioning modern living and the design culture of autarkic Portugal? Away from the nationalistic, historical and folkloric themes endorsed by the Dictatorship, his proposals aspire towards democracy and the practice of design as a project, comprising the modern and its contradictions. The research, supported by historiographical-based methods, began with a heuristic process, through bibliographical research and an inventory of sources from the studio's collection, complemented by library and archive research, resulting in the current hermeneutical approach towards a prospective understanding of the works in question, leading to the research topics outlined. Through hermeneutical interpretation, a design culture in which arts and crafts interact and complement each other emerges. In his first home, 'the burrow', the idea of a 'lost paradise' was reflected in the permeability of human and natural spaces, welcoming the informal and jovial environment.*

## Introduction

The present article follows the discovery of an unpublished work by the relatively unstudied Portuguese author, Carlos Tojal (Lisbon 1929 – 2015). This work's unique stance constitutes a rare material manifesto on the imagination and reformist ideal of a generation of designers in the fields of architecture and the fine arts.

Through hermeneutical interpretation, ideological and cultural issues were considered, exploring how artefacts and the living space influence the way one acts and thinks. Design expresses ideas about who we are and how we should behave, it being determined by the people and industries that produce it, through its relationship with the society in which the products will be sold (Forty, 1986, pp. 6 – 9). Following the journey of erudite culture to material culture, the history of design has come to consider 'the texture of the everyday' (Woodham, 1997, p. 7). The undisciplined 'Wild Things' (Attfield, 2000, p. 5), emphasises the social context above the celebration of the creator. Consumption is underlined as a core ingredient of the study of material culture, considering the processes and dynamics through which individuals and groups construct their identity, experience modernity and deal with social change. The way in which people make sense of the world by means of physical objects (Attfield, 2000, pp. xiii, 1, 13 – 14, 32). In the light of design culture, a more anthropological attitude towards the visual and society is assumed, moving



**Figure 1.** Rental property, Travessa da Pereira. Carlos Tojal (completed: 1955). Plan: Lisbon Municipal Archive. Author's photographs.

'beyond visual and material attributes to consider the multivarious and multilocal networks of its creation and manifestation' (Julier, [2000] 2008, p. 11).

In the context of material culture studies in Portugal, unawareness of the objects being analysed speaks to the need for a study such as this. In autarkic Portugal, a country held captive by the political, pedagogical and existential policies cultivated during the long Estado Novo [New State] regime (1933 – 1974), modern cultural design and its working principles and foundations were inherently unwelcome. Promotionally alluded to, but structurally distanced, the modern was only tolerated in its formal configuration and when it could be linked to 'traditions' as perceived by the New State's ideology.

In 1948, when the '15 years of Public Works' government exhibition took place, the First National Congress of Architects occurred in parallel and was widely attended (Acciaiuoli, 1991, p. 374). This was the result of collective awareness, evident when observing the activity of the first two professional associations organised in Portugal: ICAT [Cultural Initiatives Art and Technique], active in Lisbon, greatly influenced by the theoretical work of Francisco Keil do Amaral (1910 – 1975), and ODAM [Organization of Modern Architects], in Porto, rooted in the work of Fernando Távora (1923 – 2005) (Tostões, [1994] 1997, pp. 18, 33). Keil and Távora, both resistant to formalist culture, are significant figures in the progress of modern architecture in Portugal (Tostões, [1994] 1997, pp. 28, 184).

Positioning itself as a professional class and facing the New State, the Congress rejected the national culturalist model (Almeida & Fernandes, 1986, p. 140). Portugueseism was to be condemned from architectural works, thereby requiring the concepts of tradition and regionalism to be reviewed. The ideology of the 'Portuguese house' would be erased and replaced by the 'triumphant Athens Charter, reiterating the rationalisation of urbanism' (Acciaiuoli, 1991, p. 376).

## Resistance

Resistance architecture, or simply modern architecture, are the descriptions more or less accepted and employed by Portuguese historiography (in reference to the phase that developed during the course of the 1950s) confirming the gradual implementation of modern ideology in Portugal (Fernandes, 2003, p. 24). Although, the 'architecture of the New State' would persist until the end of the 1950s, remaining above all in some state-commissioned sectors, in the mid-1950s, the generation of architects born in the 1930s [among them Carlos Tojal] would initiate an 'international style' critical process.



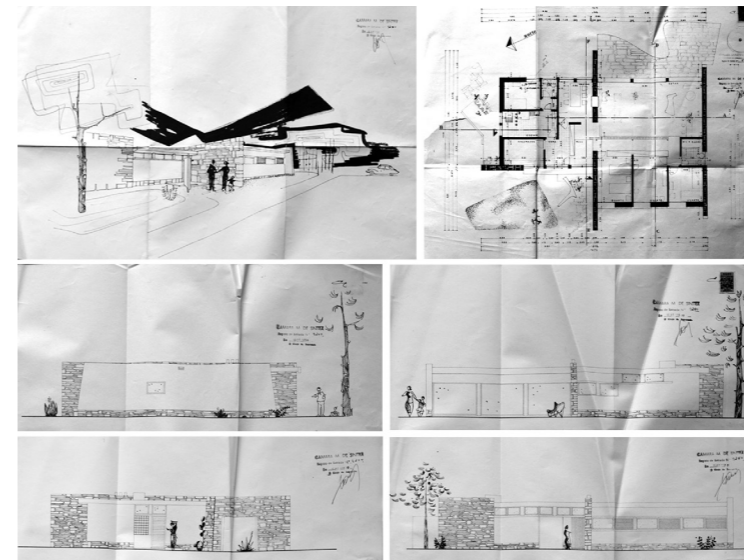
**Figure 1.** Rental property, Travessa da Pereira. Carlos Tojal (completed: 1955). Plan: Lisbon Municipal Archive. Author's photographs.

Together with the growing importance given to an organicist approach, an open way of considering materials and technology would characterise practices in the 1950s. A developmental stage emerged, which, by going beyond the 'strict principles of the modern movement', articulated the possibilities of new technologies with the use of everyday materials, revealing the depth and richness of a material approach (Tostões, n.d., pp. 20, 22 – 24). Finally, by the end of the 1950s 'a clearer awareness of the role of design and the designer in society' (Souto, 1992, p. 26) began to take hold in the country: socially and politically engaged in the consciousness of that which it concerns and entails; not harmless, heavily involved in ideology and economy; offensive, as a critical influence on the way in which citizens think and act. To evoke the principles of design practice involves a truly political and ideological act. Observe, in this context, the words of the architect Carlos Duarte (b. 1926), Director of the magazine *Arquitectura* between 1969 and 1974, referring to the 1960s.

*'The truth is that, at that time [the 1960s], Architecture and Design were viewed by many as an ideal and not as a profession.'* (Duarte, 2001, p. 61).

In a context such as this, the first work by Carlos Tojal, dated between 1952 and 1957, should be considered a material manifesto. Witness to a moment in which 'after graduating, completely free-thinking [...] he produces fantastic single-family living projects, which are quite bold for the time' (architect Frederico Valsassina (b. 1955),<sup>1</sup> 2019, interview).

<sup>1</sup> From his graduation in July 1979 until 1983, he worked directly with Carlos Tojal.



**Figure 2.** 'The burrow', the first home, Rodízio, Praia das Maças. Carlos Tojal (completed: 1956). Blueprints: Historical Archive, Sintra Municipal Council. Author's photographs.

On this subject, three architectural items will be reviewed: a rental property with a specifications report dated November 1952, completed in 1955 (Fig. 1); his first house, named by Carlos Tojal 'the burrow', with a building licence dated January 1956 and habitation licence dated August of the same year (Fig. 2 - 4), and the single family house 'La Madonnina', designed with particular attention to detail for a close client,<sup>2</sup> with work starting in December 1957 and the habitation licence dated July 1959 (Fig. 5).

<sup>2</sup> Doctor Miguel Cocco, a businessmen and friend of the family.

**Life as Principle:  
Designing From  
the Floor Plan, a  
Materialisation of the  
Natural Path of the  
Free Individual**

<sup>3</sup> According to a baptism certificate from the FAUL archive.

With respect to the principles of modern practices, but also considering organic and phenomenological factors, the material manifesto in this project (Carlos Tojal's first work) is evident from the outset. The commission, as it was intended for his father, gave him absolute freedom. When the building was completed on May 15th, 1955 (CML Historical Archive), Carlos had not yet received his Architecture diploma, so the project was signed off by his uncle the architect Raul Tojal (1899<sup>3</sup> - 1969). Raul was a design agent who features in Portuguese architecture historiography as one of the forerunners of the Art Deco universe and with whom Carlos completed his apprenticeship (ca. 1952 to 1956). However, the concept in its entirety displays Carlos Tojal's unmistakable view. It is evident in the bold handling of the given spatial context. The living space, functionally envisaged, is designed by utilising the entrance void within the block, the builder Diamantino Tojal's (1897/98 - 1958) workshops. It is evident in the geometric perspective and the poetry of the place, following Carlos's principle that the space should be intuitive for whoever lives there (F. Valsassina, 2019, interview). Again, it is evident in the way the floor plan is designed, the first element from which the elevation is derived (Carlos Tojal, 2013, interview). The floor plan outline does not impose



**Figure 3.** 'The burrow', Carlos Tojal (completed: 1956). Northern elevation and tiled panel by Maria Keil (attribution: Estêvão and Nazaré Tojal). Author's photographs.



**Figure 3.** 'The burrow', Carlos Tojal (completed: 1956). Northern elevation and tiled panel by Maria Keil (attribution: Estêvão and Nazaré Tojal). Author's photographs.

**A 'Burrow' Filled With Bossa-Nova: The First Home**

<sup>4</sup> Cf. Carlos Tojal, July 17th, 1956, Specifications report.

<sup>5</sup> We have documented evidence that João Tojal attended this course from the school archives.

geometry on the human, but instead reveals a vital concept, derived from the study of human needs and paths. Rejecting the façade/rear opposite, Carlos does not compartmentalise the living space into traditional left/right, but rather as two living areas imagined as fronts.

The architect is therefore able to physically and perceptively lengthen the interior flooring. By using an open plan arrangement, served by a kitchenette that opens onto the living room, the architect turns the kitchen, once reserved for the woman, into a shared space. He gives equal emphasis to the living room and the bedroom as vital spaces of private life. Simultaneously, through the use of broad patios, which are situated around the whole living space, the private space is opened wide to the outdoors, making it a participant in the urban, and humanising the urban in return.

It is intended to provide a way of living freely, rich in aesthetic and sensory elements. All the detail is structural, designed to be functional, sensorial and noticeably integrated. The use of textures and colour plays a role in the proposed living experience, which becomes an openly phenomenological space through dramatic accentuation effects, by achieving levity through use of the lighting scheme and via chromatic sensation phenomena. Carlos Tojal's articulation of volumes, materials, colour and textures, demonstrates a structural understanding of aesthetic syntax, integrating painting, sculpture and architecture, all considered principles of design practice.

'I began by being abstract and then became figurative' stated Carlos, in the only interview that his health permitted. This comment on his forays into painting, which were more detailed in the final phase of his life, hints at an understanding of the pictorial research into the elements of the syntax itself, from the moment when, after abandoning natural figurative design, the fine arts turn to the study of its grammar and the resulting investigation into the moulds via which the contents are conveyed.

As a starting-out project, the need to maximise cost savings presided over the design. The open plan living space, from the ample lounge void to the large external pergola, rested on thin iron tubes: a resource required for cost reduction.<sup>4</sup> Carlos Tojal's obvious cultural knowledge and technical ability for modern design practice, would have been inherited from his family. The stability calculations of this work and those of 'La Madonnina' were signed off by João Francisco Tojal (1901 - 1980), civil engineer specialised in concrete studies, at the Technische Hochschule Charlottenburg, Berlin (T. H. Berlin).<sup>5</sup>



**Figure 4.** 'The burrow', Carlos Tojal (completed: 1956). Interiors after a reformation in the first half of the 1990s and original flooring by Câmara Leme (attribution: Estêvão and Nazaré Tojal). Author's photographs.

The family members also recall civil constructor Diamantino Tojal's stay in Berlin for professional training, the same as all his brothers. Carlos would later mould this cosmopolitan family tradition into his own concept, in an organic sense, bringing himself up to date through travel and the acquisition of magazines, he himself choosing (Carlos Tojal, interview, 2013) 'mostly' Italian ones.

Named 'the burrow', and according to this name, the house is described as a refuge, a shelter, a natural sanctuary. The design has a rich sensory nature in the multiple expressions that the humanised use of line, in its various subtle expressions, communicates. A vital element of organic architecture, the space is intuitive for those who inhabit it, as Carlos liked to state a home should be. The intuition of the idea of 'the first home', a promised paradise more than a memory, an impulse and guide for the future (Rykwert, ([1972] 1981), pp. 227, 237 – 239), assumptions inferred from the statements analysed and the conviction of Carlos Tojal. In the present study's context, it is a domestic proposal of freedom.

It is from the activity of a free body in the space that this refuge, full of joviality and liberty, begins to develop. A paradigmatic example of this type of 'organic functionalism' is the design of the architectural/sculptural element that Carlos conceived as a shield from the north wind. A plastic element designed as if from a material soft enough for the wind to leave its imprint upon it.

Prospective on the consideration of modernity in its complexity is the interaction between the architectural project, visual arts and design processes. The 'total art concept', considered all practices as project based, extending the discourse on the project.

6 Such as in her panel 'The Sea' (1956 – 1958), Avenida Infante Santo's residential complex, Lisbon (Souto, 2016, p. 75).

7 Signed and dated June 1954 (Serrão & Meco, 2007, pp. 269 – 272).

The architectural space integrates works by Maria Keil (1914 – 2012), João da Câmara Leme (1930 – 1983), José Escada (1934 – 1980) and Costa Pinheiro (1932 – 2015). Maria Keil is a creator recognised for reinventing the role of the *azulejo* [tiles] in the modern urban architectural space, in terms of artistic and lighting structures and models. Maria employed bold tile integration into the architecture, through the composition of geometric patterns.<sup>6</sup> She was the designer of the ceramic panel which integrates the sculptural form modelled by Carlos Tojal as a shield against the north wind. Considering its similarity with the panel created for the dining hall of the old Portuguese Electrical Union's holiday camp, in Palmela,<sup>7</sup> this tiled panel (Fig. 3) was certainly one of Maria's first experiences in this field.

João da Câmara Leme contributed the polychrome flooring, composed of cut pieces of leftover marble. It is an eloquent manifesto in its 'primitivism' and there are no other known works in the same style by this designer (Fig. 4). He himself a cosmopolitan author, João lived in Paris working in various graphical studios. He lived in Helsinki, working for the Finnish advertising company SEK. There are records of his editorial work from 1959, on his return to Lisbon (Silva, 2015, p. 127). An advocate of 'a jazzy modernism' that fled from the rigidity of the international style, the covers he created throughout the 1960s made him responsible for the design of 'true icons of Portuguese Neo-Realism' (Marques, 2015, pp. 7, 9).

José Escada contributed a mural consisting of a painting with three-dimensional figures attached and Costa Pinheiro provided a stucco mural, both now lost. These painters, while on scholarships at the FCC [Calouste Gulbenkian Foundation], become two of the first



**Figure 5.** 'La Madonnina', Cascais. Architect Carlos Tojal. Started December 1957; habitation licence July 1959. A panel in multicoloured stone can be seen signed by Almada Negreiros (1958). Postcard photograph sent from the owner to Carlos, signed and dated 1959. Personal archive of the owner. Author's photograph. This facade also integrates a large ceramic relief signed by Querubim Lapa (1958), not visible in photography.

8 Taking on research outside the national cultural sphere, under the name *kwx* (letters considered apart from the national alphabet), met in Paris publishing the homonymous magazine (1958–1964).

members of the *kwx* group<sup>8</sup> ‘from which some of the most notable artists of the *new-figuration* in Portuguese painting would emerge’ (Rosa Dias, 2008, p. 135).

The activities of a group of creative agents appear to converge in ‘the burrow’, consciously dedicated to affirming a historical ground zero in the face of the prevailing academic inheritance. As a project, the joint effort appears to be part of the construction of a group identity. This effort transforms this living space into an eloquent manifestation of modernity and its contradictions.

*‘They were all colleagues and friends. And very young. And very bold! [...] Architecture integrated with painting, sculpture, decorative arts, everything had a voice and they all sang in tune. And stamped their feet! That is very important. They were fearless. That couldn’t have been easy, at that time in Portugal.’*  
(Nazaré Tojal, 2017, interview).

The imagery glimpsed in this free-thinking work is anti-academic. It is evident that, from a spatial point of view, it is not the structure that imposes the dominant hierarchy, so little is the geometry sublimated to align itself with the human. The predominant features here are human activity, playfulness, the experimental attitude, lack of symmetry and untouched nature. The volumetric horizontalises and humanises. The scale is human, the volumes are erected and implanted in the ground organically. The spaces are versatile and interrelated. In a living, non-mechanical way, the architectural design spreads into the harmony between the interior and exterior, the natural light, the textures of the colours and materials, and the architectural, sculptural and pictorial dimensions.

The design extends into the furniture project, architecturally thought out, that is, conceived as part of the spatial arrangement. The interior aesthetics are part of the whole, as is the way Carlos Tojal navigates the artistic and architectural relationship between different paving stones, beams and roofing fabrics, as if they were fundamental elements of the artistic language. Reflecting on the syntax, the fine arts, also conceived as design by creators, are part of the same whole.

Experimentalism is another trademark, the fireplace opens on two sides, a conventional bath is installed on the ground floor and the wall of one of the bedrooms has a blue velvety material as a form of sound-proofing. The blue tone was refined by the architect (Estevão Tojal, 2019, interview), and was repeated in ‘La Madonnina’, as a trademark. In a humanised and humanising approach to living, ‘the burrow’

embodies a space that welcomes the informal. Supplied by this proposal of living space, there is a sense of freedom, which still endures in the sentiments of those who experienced it while children.

*‘[...] we didn’t know where the architecture started, where the sculpture started [...] it had very unusual furniture [...]. I remember perfectly. That house is an icon. For me it was! It defined for me what I consider to be a house. I was very sad to see it changed.’*  
(F. Valsassina, 2019, interview).

In fact, Carlos’s daughter, Nazaré, still remembers ‘the burrow’ being brought to life with the sounds of Bossa-Nova, and the way its chords sounded full of freedom in such an open space.

In the same disruptive manner, questioning orthodoxies, Carlos Tojal does not cite L’architecture d’aujourd’hui, as an important instrument in disseminating the principles of the modern movement for three generations of Portuguese architects,<sup>9</sup> when asked about his library in 2013. He names subscriptions to Italian and English magazines. In fact in his library, from the research period, titles such as, in English, the *Architectural Review* between 1952–60 and *Architectural Design: Planning, Building, Construction* between 1953 and 1959 were inventoried. From Italy, *Casabella Continuità: Rivista Internazionale di Architettura* between 1957 and 1966 and *L’Architettura: Cronache e Storia* between 1958 and 1975.

Carlos refutes the concept of the absolute value of reason; confesses particular admiration for the Italian and English experiences and follows a path which, requiring more than functionalism, tends to stand out in the face of modern rationalism. On this path, conscious that to design also involves planning how the conceived space will interact, he does not neglect the value of multi-sensory signs in the integration of form and content. He broadens the understanding of the utilitarian objective of architecture, thereby expanding the lexicon of the trade and the concept of living space. But if ‘the burrow’ seems to derive from the evident boldness of his experimental drawing, ‘La Madonnina’, the work started in December 1957, with a habitation licence from July 1959, testifies to clear affirmation and concept ownership.

An open-minded proposal that remains to this day in the imagination of those who lived there, the eloquence of ‘the burrow’ speaks of modernism and of its contradictions, during a bleak time in Portugal, which here transformed into the space that its creator wished to open, as the work that followed — ‘La Madonnina’ — would confirm them. (Fig. 5).

9 On this subject see (Tostões, [2003] 2015, pp. 111–112) and (Pardal Monteiro, 2012, pp. 67, 69).

## Conclusion

Challenging the orthodoxies imposed by the New State, Carlos Tojal's design materialises one of the first experiences of modern living in Portugal.

Stating at ground zero from academic inheritance and looking ahead, considering form and function as one, his modern design takes into consideration that which Venturi (1966) would call 'the experience that is inherent to art', that of its complexities and contradictions.

Distancing himself from the nationalistic, historical and folkloric themes endorsed by the Dictatorship, taking in account consumption as much as production, his legacy is questioned by his contemporaries.

'The burrow' would come to be known as the 'ugly house' among the local population, 'the pick of the creators of our cultural scene' (Nazaré Tojal, 2017, interview). In fact, at the end of the 1960s, a contemporary critic noted the boldness in the context of the group of architects that Carlos was part of (the magazine *Arquitectura*, n.º101, 1968). It is an indication of how the distance between Carlos Tojal and the nationalistic, historical and folkloric themes endorsed by the Dictatorship was perceived by his contemporaries.

His nonconformist proposals are manifestations of freedom, in favour of reforming established customs. Taking the path of the 'natural form of the building', the house is not enclosed, but rather acts as a mediator between the human and historical and cultural development. In the same way it is a map of a living body and as such models the meaning of the world. In 1950s Portugal, in search of a free society, 'the burrow' projects a model of democratic life.

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**Sandra Antunes** is a PhD student in Portuguese Design History at IADE — Universidade Europeia; a postgraduate in Product Design (IADE); holds an MA in Theories of Art and a BA in Visual Arts — Painting of Lisbon's Fine-Arts School. Since 1998 she has published on drawing and the peninsular counter-reformation conception of body; more recently on Design History in Portugal.

ORCID number: 0000-0003-0579-0665  
<antunes.sandra.design@gmail.com>

**Maria Helena Souto** is an Associate Professor at IADE — Universidade Europeia. She has coordinated national and European projects, such as 'Design in Portugal, 1960 – 1974' (2012 – 2015) or the EU cooperation project co-funded by Creative Europe Culture, 'MoMoWo — Women's creativity since the Modern Movement' (2014 – 2018). She is the author of several articles and monographs on Portuguese art and design history.

ORCID number: 0000-0002-0892-3622  
<helena.souto@universidadeeuropeia.pt>

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