

The City Project

Strategies for Smart and Wise Sustainable Urban Design 11

Raffaella Maddaluno

Elisa Pegorin

Andrea Fanfoni *Editors*

Italy—Portugal on the Margins: Intersections of Architecture, Urban Design, and Art



Springer

The City Project

Strategies for Smart and Wise Sustainable Urban Design

Volume 11

Series Editor

Dario Costi , Department of Engineering and Architecture, University of Parma, Parma, Italy

Editorial Board

Roberta Amirante, Department of Architecture, University of Naples Federico II, Napoli, Italy

Guya Bertelli, Department of Architecture and Urban Design, Politecnico di Milano, Milan, Italy

Marko Bertogna, Department of Physics, Informatics and Mathematics, University of Modena and Reggio Emilia, Modena, Modena, Italy

Andrea Boeri, Department of Architecture, University of Bologna, Bologna, Italy

Andrea Borsari, Department of Architecture, University of Bologna, Bologna, Italy

Nicola Braghieri, Laboratoire des Arts, École Polytechnique Fédérale de Lausa, Lausanne, Switzerland

Ali Cheshmehzangi , Department of Architecture and Built Environment, University of Nottingham, Ningbo, UK

Antonio D'Aloia, Dipartimento di Giurisprudenza, University of Parma, Parma, Italy

Paolo Desideri, Department of Architecture, Roma Tre University, Rome, Italy

Morena Diazzi, Direzione generale economia della conoscenza, del lavoro e dell'impresa, Regione Emilia Romagna, Bologna, Italy

Sergio Duretti, Network Department, Lepida ScpA, Bologna, Italy

Agostino Gambarotta, Department of Engineering, University of Parma, Parma, Italy

Gabriele Lelli, Department of Architecture, University of Ferrara, Ferrara, Italy

Giovanni Leoni , Department of Architecture, University of Bologna, Bologna, Italy

Francesco Leali , Department of Engineering "Enzo Ferrari", University of Modena and Reggio Emilia, Modena, Italy

Francesco Manfredi, Management, Finance and Technology, University LUM Giuseppe Degennaro, Casamassima, Italy

Carlo Mambriani, Department of Engineering and Architecture, University of Parma, Parma, Italy

Eugenio Mangi, Department of Architecture and Built Environment, University of Nottingham Ningbo China, Ningbo, China

Roberto Menozzi, Ingegneria e architettura, Università di Parma, Parma, Italy

Antonio Montepara, Department of Engineering and Architecture, University of Parma, Parma, Italy

Marco Mulazzani, Department of Architecture, University of Ferrara, Ferrara, Italy

Carlo Alberto Nucci, Department of Electrical, Electronic and Information Engineering, University of Bologna, Bologna, Italy

Simone Scagliarini, Department of Economics "Marco Biagi", University of Modena and Reggio Emilia, Modena, Italy

Andrea Sciascia, Department of Architecture, University of Palermo, Palermo, Italy

Annalisa Trentin, Department of Architecture, University of Bologna, Bologna, Italy

Marco Trevisan, Department Food Science and Technology, University Cattolica del Sacro Cuore, Piacenza, Italy

Dario Zaninelli, Department of Energy, Campus Bovisa, Milan, Italy

Michele Zazzi, Department of Engineering and Architecture, University of Parma, Parma, Italy

Managing Editors

Emanuele Ortolan , Department of Engineering and Architecture, University of Parma, Parma, Italy

Andrea Fanfoni , Department of Engineering and Architecture, University of Parma, Parma, Italy

Antonio Villa, Department of Engineering and Architecture, University of Parma, Parma, Italy

The book series The City Project reports on applied research and operational developments that promote urban renewal and the sustainable transformation of contemporary cities. Inspired by the “City of Man” as imagined by Adriano Olivetti and Ernesto Nathan Rogers, and going beyond the concept of the smart city and related technological advances, the series’ goal is to present holistic, practice-oriented and multidisciplinary strategies for realizing the City 4.0, i.e., the city of the fourth industrial revolution, in keeping with the objectives of the UN’s 2030 Agenda for Sustainable Development.

In particular, the series reports on effective design, planning and management approaches that leverage urban and architectural design skills, engineering, environmental and social expertise, and administrative abilities alike. It welcomes books on each of the aspects mentioned above, as well as studies analyzing multiple aspects, their interactions and/or holistic solutions. The City Project addresses a very broad readership, including designers, engineers, architects, social scientists, stakeholders and public administrators, who deal with various aspects of the realization of the City 4.0. It publishes theoretical investigations into the contemporary built environment, international case studies, and pilot projects concerning urban renewal and the regeneration of urban areas, as well as the proceedings of key international conferences.

Books published in this series are devoted to supporting education, professional training and public administration. Outstanding PhD theses on emerging topics, if properly reworked, may also be considered for publication. The series is published with the support of the Smart City 4.0 Sustainable LAB, an interdisciplinary teaching and research project on future cities initiated by the University of Parma, and jointly implemented with other regional universities (the University of Bologna, University of Ferrara, and University of Modena and Reggio Emilia).

About the Cover

The cover of the book series The City Project features a painting by Carlo Mattioli (C. Mattioli, *Estate in Versilia*, 1974, oil on canvas cm. 118 × 70, Catalog n. 1974D0029, Courtesy of Fondazione Carlo Mattioli, thanks to Anna Zaniboni Mattioli)

The horizon of poppies painted by Carlo Mattioli between the dark background of the forest and the white plane of the wheat, becomes for us, thanks to a transfiguration of meaning that aligns with the attitude towards abstraction rooted in the figure of the painter; a city which is intertwined with its landscape, evoking the idea and the possibility of recomposing a balance and seeking an integration between settlement and environment, between human space and natural element.

Raffaella Maddaluno · Elisa Pegorin ·
Andrea Fanfoni
Editors

Italy–Portugal on the Margins: Intersections of Architecture, Urban Design, and Art

Editors

Raffaella Maddaluno 
CIAUD, Lisbon School of Architecture
University of Lisbon
Lisbon, Portugal

Elisa Pegorin 
Dipartimento di Architettura
Università degli Studi di Ferrara
Ferrara, Italy

Andrea Fanfoni 
Department of Engineering
and Architecture
University of Parma
Parma, Italy

ISSN 2730-6992

ISSN 2730-700X (electronic)

The City Project

ISBN 978-3-032-23758-3

ISBN 978-3-032-23759-0 (eBook)

<https://doi.org/10.1007/978-3-032-23759-0>

© The Editor(s) (if applicable) and The Author(s), under exclusive license to Springer Nature Switzerland AG 2026

This work is subject to copyright. All rights are solely and exclusively licensed by the Publisher, whether the whole or part of the material is concerned, specifically the rights of translation, reprinting, reuse of illustrations, recitation, broadcasting, reproduction on microfilms or in any other physical way, and transmission or information storage and retrieval, electronic adaptation, computer software, or by similar or dissimilar methodology now known or hereafter developed. The use of general descriptive names, registered names, trademarks, service marks, etc. in this publication does not imply, even in the absence of a specific statement, that such names are exempt from the relevant protective laws and regulations and therefore free for general use.

The publisher, the authors and the editors are safe to assume that the advice and information in this book are believed to be true and accurate at the date of publication. Neither the publisher nor the authors or the editors give a warranty, expressed or implied, with respect to the material contained herein or for any errors or omissions that may have been made. The publisher remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

This Springer imprint is published by the registered company Springer Nature Switzerland AG
The registered company address is: Gewerbestrasse 11, 6330 Cham, Switzerland

If disposing of this product, please recycle the paper.

Conference Organisation

Scientific Committee

Alessia Allegri (FAUL, CIAUD)
Ana Tostões (CITUA-IST)
Antonio Esposito (UNIBO)
Carlos Machado (FAUP)
Carlotta Torricelli (ROMA TRE)
Giovanni Leoni (UNIBO)
José António Bandeirinha (CES-UC)
José Miguel Rodrigues (FAUP)
Jorge Figueira (DARQ-FCTUC)
Marco Mulazzani (UNIFE)
Madalena Pinto da Silva (FAUP)
Paulo Pereira (FAUL, CIAUD)

Executive Committee

Andrea Fanfoni (UniParma)
Antonio Labalestra (Poliba)
Amílcar de Gil e Pires (UBI, CIAUD)
Caterina Anastasia (CIAUD)
Gianni Montagna (FAUL, CIAUD)
João Luís Marques (FAUP, CEAU)
Jorge Nunes (FAUL, CIAUD)
Ilaria Cattabriga (UNIBO)
Stefanos Antoniadis (FAUL, CIAUD)

Concept and Coordination

Raffaella Maddaluno (FAUL, CIAUD)
Elisa Pegorin (UNIFE)

Preface

Beyond Disciplinary Autonomy. Architecture, Criticism and Design Between Italy and Portugal

This publication is the result of a selection of texts presented following an international congress entitled “In the Margins: Italy—Portugal”, took place in Lisbon on 10 and 11 April 2025, within the premises of the Faculty of Architecture.

The theme of the congress was decided considering that, in architecture, as in art and design, Italy and Portugal have shared some fundamental characteristics over the last hundred years that determine lines of direct collaboration and profound affinity. Exchanges between Portugal and Italy have been intense, numerous and varied over the last century. Proceeding by summary examples one could mention the exchanges during the years of coexistence of the two dictatorial regimes—Estado Novo and Fascism—(think of the projects for the university cities of Lisbon and Rome, the national stadiums, Piacentini and especially Muzio’s plans for the city of Porto, which were fiercely opposed by a very young Távora, but also the similar research on popular anonymous architecture such as that of Pagano and the *Inquerito*); the intense relations in the immediate post-war period, the Portuguese interest in Bruno Zevi, the trips to Italy by Fernando Távora and others in his retinue; the affinities on the theme of the historic city (for example, the Cervellati Plan for Bologna and the Tavorian Plan for Barredo, almost contemporaries; or the renewed relationship between ‘church and city’ between the 1950s and 1960s); the role of Italy, and Vittorio Gregotti in particular, in the beginning of the international fortune of Portuguese architecture since the Carnation Revolution; or, in the same years, Portugal’s interest in Italian studies on the city, which saw Aldo Rossi as a major figure; the increasingly widespread, from the 1980s to the present, reciprocal presence and influence of the two architectural cultures in the two countries, which has led to very significant exchanges, in pedagogy, publishing and the profession. The two countries are certainly connected by their geographical location, in the centre of the Mediterranean and on the fringes of Europe, thus on the ‘border’—physical or cultural—of different geographies. This position has not prevented—but perhaps even favoured—the cultural (if not economic) success of the two architectural and, more generally, creative cultures.

Following discussion at the conference, all listed papers were subsequently transformed into research articles and finally published with a positive review

by the Editorial Board of the *Cities Project Book Series*. The Scientific Committee conducted a double-blind review process to select the abstracts, which then underwent a single review process by the Executive Committee.

This volume brings together a series of contributions which, although stemming from different disciplinary, methodological and thematic perspectives, converge in the construction of a shared field of reflection on architecture understood as a cultural, critical and design practice. Through an articulated dialogue between history and contemporaneity, theory and practice, design and teaching, the essays collected here explore the role of architecture as an instrument for interpreting reality and as a device capable of intervening critically in the processes of transformation of the built environment.

Within this framework, the comparison between Italy and Portugal assumes a paradigmatic value, configuring itself not only as an object of historical analysis but also as a privileged field of cultural, theoretical and operational exchange.

The underlying hypothesis running through the volume is that architecture cannot be reduced to an autonomous and self-referential discipline, but must instead be understood as a situated practice, deeply intertwined with the social, political and symbolic contexts in which it operates. The contributions thus converge on several central questions that mark contemporary architectural debate: the crisis of modern paradigms and their universalist promises; the role of memory, narration and historical stratification; the theoretical and projectual productivity of marginality and the interstice; the project as an ethical and political act, as well as a technical and formal one. In this sense, the volume aims to critically interrogate the consolidated categories of the discipline, opening space for alternative readings and for practices capable of engaging with the complexity of the present.

A first theoretical axis addressed in the volume concerns the critical rereading of Italian radical architecture, with particular attention to the experience of Archizoom Associati and the figure of Paolo Deganello. In this context, architecture and design are understood as instruments of cultural critique, capable of calling into question the ideological premises of the modern city, consumption and the commodification of space. Emblematic projects such as *No-Stop City* take on a value that transcends the formal and typological dimension, configuring themselves as true conceptual and narrative devices through which architecture becomes a means of exposing the contradictions inherent in the capitalist model of spatial production.

A theme running across the various essays is the critical revision of the notions of truth, origin and heritage. Architectural and urban heritage is reinterpreted as an open and dynamic system that includes not only monuments and historicized architectures but also ordinary spaces, infrastructures, productive landscapes and everyday dwelling practices. In opposition to a static and cataloguing conception of heritage, the contributions propose a relational reading in which meaning emerges from the construction of connections, narratives and constellations of significance.

The metaphor of the constellation, recurring in several essays, thus replaces that of the archive or catalogue: it is not the isolated object that produces meaning, but the relationship between fragments, between material and

immaterial traces, between past and present. Within this framework, the city of Lisbon is read as a stratified landscape, crossed by continuities and discontinuities that are often invisible, in which margins and interstices play a central role in the construction of urban identity. Architectural and urban design are called upon, from this perspective, not so much to impose new forms as to reveal, interpret and reactivate the latent potential of the context.

The condition of the interstice and of 'in-between' space indeed constitutes one of the fundamental conceptual nodes of the volume. Through an interdisciplinary dialogue linking art and architecture, the essays explore space as a place of openness, rupture and suspension. The comparison between Lucio Fontana's *Spatial Concepts* and the architectural work of Álvaro Siza represents, in this sense, a privileged field of investigation. Fontana's radical gestures of cutting and perforation liberate space from its representational dimension, introducing a temporality and conceptual depth that find significant resonance in Siza's architecture, where light, void and openness construct a constant tension between inside and outside, between everyday dimension and transcendence.

Reflection on the house further deepens the relationship between architecture, body and memory. The house is understood as a complex and dynamic organism, charged with symbolic, affective and corporeal meanings that elude a functionalist or purely technical reduction. In the dialogue between Álvaro Siza and Marco Frascari, architectural design emerges as a field in which gesture, metaphor and imagination assume a foundational role. Architecture is thus returned to a sensitive and enigmatic dimension, in which the construction of space is inseparable from the construction of meaning.

Alongside these reflections, the volume addresses the relationship between architecture, artistic avant-gardes and fiction, with particular reference to the visionary and cinematic architectures of the early twentieth century. The contributions devoted to this theme show how modernity produced urban imaginaries deeply influenced by artistic experimentation and by the language of cinema. Architecture and fiction are configured here as speculative practices, capable of generating utopian and dystopian visions and of critically interrogating the relationship between progress, technology and society. Far from being marginal exercises, these imagined architectures become instruments of critique and anticipation, capable of calling into question the certainties of industrial modernity.

A second major axis of the volume concerns the theme of intervention in the historic context, addressed not as a simple conservative practice, but as a complex process of interpretation, transformation and reintegration of the existing built environment into contemporary life. In this sphere, the thought and work of Fernando Távora, together with those of Álvaro Siza and Eduardo Souto de Moura, emerge as fundamental references for understanding the evolution of Portuguese architectural culture and its dialogue with Italy. The concept of historical continuity, understood as a dynamic balance between past and present, runs through both theoretical reflections and design practices, proposing an idea of heritage as a reality in becoming.

Távora's experience in Guimarães represents a key moment in this trajectory. His urban and architectural interventions, developed between the 1970s

and 1980s, demonstrate an integrated approach to the conservation of the historic centre, in which territorial planning, urban design and building rehabilitation converge in the construction of a unified vision of the city. Influences from Italian architectural culture—from the Milanese school to the experiences of Bologna, up to the theoretical reflections of Aldo Rossi—intertwine with a careful and critical reading of the local context, giving rise to a methodology that overcomes the traditional dichotomy between conservation and innovation.

The dialogue between Portugal and Italy also manifests itself with particular clarity in contemporary architectural works inserted into complex historic contexts, such as the Piazza Municipio metro station in Naples, designed by Álvaro Siza and Eduardo Souto de Moura. In this intervention, infrastructure becomes an opportunity for urban regeneration and for a stratigraphic rereading of the city, bringing archaeology, public space and contemporary architecture into relation. The project highlights how the approach of the so-called Porto School, founded on a deep understanding of place and on interdisciplinary dialogue, can effectively engage with the Italian tradition of restoration and heritage protection.

Alongside urban heritage, the volume also addresses the theme of industrial heritage and of technological transfer as determining factors in the configuration of the built environment. The analysis of the Leões pasta factory in Évora—today home to the School of Arts and Architecture of the University of Évora—highlights the role of Italian technological innovations in shaping the spatial and constructive organisation of the building. In this case, the relationship between machine and architecture becomes an interpretative key for understanding the historical and cultural value of the structure, not only as a productive container but also as a material testimony of technical knowledge shared at an international level.

A further thematic nucleus of the volume is represented by reflection on ‘marginal’ territories and on military and urban architectures, which challenges the central narratives of European modernity. The concept of the margin emerges as an interpretative key for reading landscapes, cities and infrastructures not as residual elements, but as strategic spaces of cultural, political and design experimentation.

The contribution devoted to *Constellation XX* shifts attention to the military heritage of the Second World War in Sardinia, and in particular to coastal bunkers. These structures, long perceived as an uncomfortable legacy, are reinterpreted as *difficult heritage*: material testimonies of a traumatic past but fundamental for collective memory. Through a methodology that combines archival research, satellite analysis, on-site surveys and GIS tools, the project constructs a systematic mapping of these architectures, restoring them as elements of a twentieth-century territorial constellation.

Taken together, the contributions gathered in the volume propose a vision of architecture as an open, relational and critical process. Far removed from closed models and absolute truths, design emerges as an instrument of knowledge and of the construction of meaning, capable of intertwining memory and future, body and territory, discipline and transdisciplinarity. The dialogue between Portugal and Italy, far from being a simple relationship of influence,

thus configures itself as a methodological paradigm for a conscious architectural practice, able to confront the challenges of urban transformation and heritage enhancement in the contemporary context.

The work is part of the project: ‘Documen-tália: *The role of Italian architectural culture in the process of cosmopolitanism and internationalization of Portugal in the 20th and 21th century*’ whose scientific coordinator is Raffaella Maddaluno.

Lisbon, Portugal
Ferrara, Italy
Parma, Italy

Raffaella Maddaluno
Elisa Pegorin
Andrea Fanfoni

Acknowledgements

This research was funded in whole or in part by the Fundação para a Ciência e a Tecnologia, I.P. (FCT, <https://ror.org/05qdjap63>), under Grant of the Strategic Project with the references UID/04008/2025 and DOI <https://doi.org/10.54499/UID/04008/2025>.

CIAUD, Research Centre for Architecture, Urbanism and Design, Lisbon
School of Architecture, Universidade de Lisboa

Alma Mater Studiorum—Università di Bologna—HPA Lab

Università degli Studi di Ferrara—Dipartimento di Architettura

FCT—Fundação para a Ciência e a Tecnologia

Contents

Architecture

The Influence of Italian Technological Patents on the Design of the Leões Pasta Factory, Now, the School of Arts and Architecture at the University of Évora (Portugal)	3
Sheila Palomares-Alarcón and Ana Cardoso-de-Matos	
Moving from FERNANDO TÁVORA <i>no Ensino da Arquitetura</i>. Marginal Living Between History, Design and Landscapes	11
Barbara Bogoni and Marco Cillis	
São Domingos Chapel, An Influence of Italian Architecture in Portugal	23
Ana Paula Borghi de Avelar	
Mario Ridolfi, Álvaro Siza: Screenplays for the Craftsman	31
Alessandro Brunelli	
<i>Constellation XX</i>. Rethinking the Future of Sardinia's Bunkers	41
Giulia Cherchi, Donatella Rita Fiorino, and Maria Serena Pirisino	
Exchanges Between Portuguese and Italian Architectural Cultures in Contemporary Practice: The Piazza Municipio Metro Station in Naples	53
Sofia Darbesio	
The Portuguese Italian Architecture Workshop of Paolo Deganello. Project Praxis and 'Radical' Achievements	63
Rúben Manuel Ferreira	
Architettura Rurale Italiana and Arquitectura Popular Em Portugal: The Responsibilities Toward Tradition	75
Lavinia Ann Minciacchi	
Hypotheses about Italian Influences on the Morphology of Modern Architecture in Portugal in the 1950s and 1960s	83
Caio A. M. Rodrigues de Castro	

Urban Design

Utopian Matrix in the Problematic of the 21st Century City: A Multifunctional Modular System and Its Experimental Application in Lisbon	95
--	----

Raquel Cruz Barbosa, Ana Marta Feliciano,
and António Santos Leite

The [Italian] Debate on the City at <i>Centro Cultural de Belém</i>	105
---	-----

Rodrigo Lino Gaspar

The Value of the Cultural and Urban Matrix of a ‘Marginal’ Mediterranean South. Geographical, Historical and Cultural Reasons for the Qualification of a Way of Life	115
---	-----

António Santos Leite and Ana Marta Feliciano

Porto COVO: “New Cities” Urban Heritage and “New” Enlightenment in Southern Europe	123
---	-----

Paulo Pereira and João Firmino

Fernando Távora in Guimarães: Urban Project and the Maturity of a Concept for Preserving Historical Heritage	139
---	-----

Fernanda Vierno de Moura

Art

Luso-Italian Constellations. Overcoming the Consolidated Heritage	149
--	-----

Stefanos Antoniadis

On the Margins of House and Body: Affinities and Coexistences in Álvaro Siza Vieira’s and Marco Fracari’s Architectural Design Thought	159
---	-----

Luís Carlos Bucha

Fiction, Futurism and Architecture	165
---	-----

Carlos Henriques Ferreira

A Look at the Frozen Time of the Italian and Portuguese Outskirts by Gabriele Basilico	173
---	-----

Laura La Rosa

Portugal Fim de Século: The Project for Constructing the Country’s Image in the <i>Encontros de Fotografia</i> in Coimbra (1993–1996)	183
--	-----

Sebastiano Antonio Raimondo

In the Marginality of the Slit and the In-Between Place: Lucio Fontana’s <i>Concetto Spaziale</i> and Álvaro Siza’s Santa Maria Church	195
---	-----

Ana Vasconcelos

Editors and Contributors

About the Editors

Raffaella Maddaluno is an Assistant Professor of Architectural History at the Department of History and Theory of Architecture of Lisbon School of Architecture. Ph.D. in Architecture and Construction (2007) from the ‘Università degli Studi di Roma Tor Vergata’. Master Second-level short specialisation degrees ‘Conservation, management and enhancement of industrial heritage’ (20 from 3) 1 ‘Università degli Studi di Padova’, and degree in Architecture (2000) from the ‘Politecnico di Bari Dipartimento di Scienze dell’Ingegneria Civile e dell’Architettura’.

She was post-doctoral fellow at Calouste Goulbenkian Foundation in Lisbon with research about Fernando Távora e the Gulbenkian Journey—1960. He is vice president of the Association of Italian Researchers in Portugal—Hipácia.

She has organised many international conferences including ‘In the Margins: Italy Portugal’ (Lisbon, 2025) and “Architecture: War and Peace” (Lisbon, 2023).

She is the author of numerous texts dealing with relations in architecture between Italy and Portugal in the twentieth century, including Esposito, A. Leoni G., Maddaluno R. (2022) FERNANDO TÁVORA. diário di bordo. Letteraventidue, Siracusa. And A Travel in Fernando Távora’s Travels. (With Álvaro Siza, Alexandre Alves Costa, Fernando Barroso, Sérgio Fernandez, Alcino Soutinho, Manuel Mendes, José António Bandeirinha, Jorge Figueira, Francisco Barata, Eduardo Souto de Moura, 2013–2022, published in Histories of Porstwar architecture, 5 (11), 2022.

Elisa Pegorin is an Architect and a Ph.D. Researcher.

She graduated with honours in Architecture at Università Iuav di Venezia with a thesis oriented by Stefano Rocchetto, Gonçalo Byrne, João Ferreira Nunes.

Between 2005 and 2020, she lived and worked in Portugal in several architectural offices.

She studied Arabic at the Universidade Nova in Lisbon (2012–2015), worked in Cairo (2010) and on independent research in Tunisia (2014). Since 2012, she integrates the Centro de Estudos de Arquitectura e Urbanismo (Ceau/Faup).

She had a Research Grant (2017–2019) at Instituto Superior Tecnico of Lisbon (IST-UL) in a research project coordinated by Prof. Ana Tostões.

In 2019, she obtained Ph.D. in Architecture at the Faculdade de Arquitectura da Universidade do Porto (Faup) with the thesis *Arquitectura e Regime em Itália e Portugal. Obras Públicas no Fascismo e no Estado Novo (1928–1948)* oriented by Marco Mulazzani (UniFe) and Madalena Pinto da Silva (Faup). In the years 2021–2023, she was a Research Fellow in the Department of Excellence *Infrastruttura di Ricerca. Integral Design Environment (IR.IDE, Lab. Pride)* and Teaching Assistant at Università Iuav di Venezia. From 2024, she is a Research Fellow at Dipartimento di Architettura, Università degli Studi di Ferrara (Unife). In 2024–2025, she obtained a Senior Research Fellow at Calouste Gulbenkian in Lisbon (FCG). Her main interests of research are the modern and contemporary architecture in Italy, Portugal and Arab countries.

Andrea Fanfoni has been a Doctor of Research (Ph.D.) in Architectural and Urban Design at the University of Parma since 2023. Trained between Parma and Porto (PT), he graduated with honours in 2014 and then moved to Barcelona where he collaborates with MBM Arquitectes and F2M arquitectura studio. Since 2019, in addition to conducting an autonomous design activity, he is a member of the Smart City 4.0 Sustainable Lab and participates in numerous researches on the design for urban regeneration, social housing in the Iberian context and the characters of contemporary Spanish and Portuguese architecture. He has carried out various research activities applied to urban design within the framework of conventions and contracts with public and private entities. In 2022, he participated in the study that led to the writing of the Guidelines for Urban Regeneration in Italy drafted for SNA (National School of Administration) and in 2024 in the research for the definition of Guidelines for a new Housing Plan in Italy. Since 2025, he has been curator of the international research project *Latitudini | La cultura del progetto di architettura in Italia, Spagna e Portogallo*.

Contributors

Stefanos Antoniadis Lisbon School of Architecture and CIAUD—Research Centre for Architecture, Urban Planning and Design, Lisbon, Portugal

Raquel Cruz Barbosa FAUL—Lisbon School of Architecture, University of Lisbon, Lisbon, Portugal

Barbara Bogoni Politecnico di Milano - Mantova Campus, Mantova, Italy

Alessandro Brunelli Department of Architecture, University of Ferrara, Ferrara, Italy

Luís Carlos Bucha CITAD—Centro de Investigação em Território, Arquitectura e Design, Universidade Lusíada, Lisbon, Portugal

Ana Cardoso-de-Matos CIDEHUS, University of Évora, Evora, Portugal

Giulia Cherchi Department of Science of Antiquity, “La Sapienza” University of Rome, Rome, Italy

Marco Cillis Politecnico di Milano - Mantova Campus, Mantova, Italy

Sofia Darbesio Interuniversity Department of Regional and Urban Studies and Planning (DIST), Politecnico di Torino, Turin, Italy

Ana Paula Borghi de Avelar FAUL, Lisbon School of Architecture, CIAUD, Research Centre for Architecture, University of Lisbon, Lisbon, Portugal;
FCT—Foundation for Science and Technology, Lisbon, Portugal

Fernanda Vierno de Moura Centre for Architectural Studies (CEARQ), University of Coimbra, Coimbra, Portugal

Ana Marta Feliciano CIAUD—Research Centre for Architecture, Urbanism and Design, FAUL—Lisbon School of Architecture, University of Lisbon, Lisbon, Portugal

Carlos Henriques Ferreira Lisbon School of Architecture, CIAUD, Research Centre for Architecture, Urbanism and Design, Universidade de Lisboa, Lisbon, Portugal

Rúben Manuel Ferreira CIAUD, Lisbon School of Architecture (FAUL), Universidade de Lisboa, Lisbon, Portugal

Donatella Rita Fiorino Department of Civil and Environmental Engineering and Architecture, University of Cagliari, Cagliari, Italy

João Firmino CIAUD, Research Centre for Architecture, Urbanism and Design, Faculdade de Arquitectura da Universidade de Lisboa, Lisbon, Portugal

Rodrigo Lino Gaspar CEACTION/UAL, Lisboa, Portugal

Laura La Rosa Freelance professional, Turin (TO), Italy

António Santos Leite FAUL—Lisbon School of Architecture, University of Lisbon, Lisbon, Portugal;
CIAUD—Research Centre for Architecture, Urbanism and Design, University of Lisbon, Lisbon, Portugal

Lavinia Ann Minciaccchi Rome Program, Iowa State University, Ames, Iowa, US

Sheila Palomares-Alarcón CIDEHUS, University of Évora, Evora, Portugal

Paulo Pereira CIAUD, Research Centre for Architecture, Urbanism and Design, Faculdade de Arquitectura da Universidade de Lisboa, Lisbon, Portugal

Maria Serena Pirisino Department of Civil and Environmental Engineering and Architecture, University of Cagliari, Cagliari, Italy

Sebastiano Antonio Raimondo DiPA, Accademia di Belle Arti di Palermo,
Palermo, Italy;
Dinâmia'Cet, ISCTE – Instituto Universitário de Lisboa, Lisbon, Portugal

Caio A. M. Rodrigues de Castro CIAUD—Lisbon School of Architecture,
University of Lisbon, Lisbon, Portugal

António Santos Leite CIAUD—Research Centre for Architecture,
Urbanism and Design, FAUL—Lisbon School of Architecture, University of
Lisbon, Lisbon, Portugal

Ana Vasconcelos CIAUD, Research Center for Architecture, Urbanism and
Design, Lisbon School of Architecture, Universidade de Lisboa, Lisboa,
Portugal

Architecture

The Influence of Italian Technological Patents on the Design of the Leões Pasta Factory, Now, the School of Arts and Architecture at the University of Évora (Portugal)

Sheila Palomares-Alarcón  and Ana Cardoso-de-Matos 

Abstract

The production of dry pasta is an entirely Italian invention, as the craftsmen dedicated to this sector began inventing and patenting machines that facilitated and mechanized the production process. Among the most internationally renowned were the engineer brothers Giuseppe and Mario Braibanti, who patented more than 30 inventions, notably including the *Automatica Braibanti*. However, other individuals also contributed significantly to the technological development of the sector, such as the lesser-known Pidale Barducci, who registered over 20 patents, including one for a machine for the artificial drying of long pasta in 1906. In Évora, at the Leões flour and pasta factory—now the School of Arts and Architecture at the University of Évora—Italian machinery was installed from its inception and throughout its productive life. After analyzing the original construction processes of the Leões pasta factory and observing a lack of publications focusing on its machinery and the transfer of knowledge between Italy and Portugal, the primary aim of this research is to fill that gap. Furthermore, we will identify

which Italian-made machines were installed in this Portuguese factory and when, and we will analyze how technological innovation influenced the design of the architectural project.

1 Introduction

Sometimes, machinery in industrial settings is considered merely as accessories randomly placed within buildings. However, these machines are of great importance not only from a technological and artistic-engineering innovation standpoint, but also because their installation and layout are crucial for optimizing the production process. They must be positioned in a specific way, and their arrangement directly influences the design and configuration of industrial architecture [1].

The fact that machines—whose purpose is to save time and effort in industrial activity—are the result of human creativity has led to efforts to regulate the protection of inventions since the fifteenth century. The first known legislative attempt to control patents is recognized as the decree of the *Senato della Serenissima Repubblica di Venezia* on March 19, 1474, which aimed to protect anyone who created a new and ingenious machine.

However, it was with the Industrial Revolution that the use of machines surged, along with the number of patents and inventions. This led, for instance, to inventor-artists in France taking part in the National Assembly in the summer of 1790, demanding recognition of their invention rights.

S. Palomares-Alarcón (✉) · A. Cardoso-de-Matos
CIDEHUS, University of Évora, Evora, Portugal
e-mail: sheila@uevora.pt

A. Cardoso-de-Matos
e-mail: amatos@uevora.pt

They argued, as Boufflers stated on December 30, 1790, “*S’il existe une véritable propriété pour un homme, c’est sa pensée*” (“If there is one true form of property for a man, it is his thought”) [2]. In this context, one of the measures adopted for this purpose was the French law of January 7, 1791,¹ on patents of invention, which served as inspiration for the drafting of other European laws, such as the Savoyard law No. 782 of March 12, 1855, enacted by Vittorio Emanuele II.

In the case of pasta production machinery—the focus of this study—the earliest references date back to the 1870s, when significant technological innovation occurred in these machines. From that point onward, pasta manufacturing came to be regarded as a true industrial activity [3].

In the earliest facilities, *pasta da minestra* was produced. These were located next to flour mills, as a secondary activity to flour production.² The production of dry pasta is considered an entirely Italian invention, as the craftsmen dedicated to this sector began inventing and patenting machines to facilitate and mechanize the production process.³

One of the figures who registered the most patents—and who has been largely overlooked in the literature of the sector—was Pilade Barducci, active in Naples. Between 1905 and 1915, he filed more than 20 patent applications, among which the most notable are: a machine for the artificial drying of long pasta in 1906, improved with a device for packaging long pasta in 1908, and the patent for the large automatic cylindrical *Gramola* for pasta production in 1911.

Among those who registered the most patents to optimize pasta production—over 30 in total—were the engineer brothers Giuseppe and Mario Braibanti,⁴ based in Milan. Among their inventions, one stands out in particular: a revolutionary machine that automated the modern pasta production process, known as the *Automatica Braibanti* (1933). This single machine performed the work of three separate machines: it selected the grains, kneaded, and pressed the dough [1], and it was exported to other countries, including Portugal.

In particular, in Évora, at the former Leões flour and pasta factory⁵—since 2008, the School of Arts and Architecture of the University of Évora—several Italian-made machines were installed for pasta production.

After analyzing the original construction processes of the Leões pasta factory and noting a lack of publications focused on its machinery and the transfer of knowledge that took place between Italy and Portugal, the main objective of this research is to fill that gap. On one hand, we will identify which Italian-made machines were installed in this Portuguese factory and when; on the other hand, we will analyze how technological innovation influenced the design of the architectural project.

¹ The first modern patent law was the *Statute of Monopolies*, enacted in England in 1624, which regulated the granting of patents and established a royal prerogative granting the first inventor exclusive rights for 14 years [4].

² We are referring to pasta production from a fully industrial perspective. Artisan production had already existed since the Middle Ages in small workshops, and from the sixteenth century onward, small manually operated devices were used tools that remained in use until the mid-nineteenth century.

³ There are four stages in pasta production: (a) preparing the dough using semolina and water; (b) refining the dough; (c) shaping the various types of pasta; and (d) drying.

⁴ Sons of an engineer who also owned a pasta factory founded in Parma in 1870, the Braibanti brothers established the Braibanti Company in 1922. After studying mechanical engineering, both brothers opened a studio in Milan, where they focused specifically on developing new production techniques aimed at scaling up pasta production to an industrial level [1].

⁵ Established in 1916, it was one of the most important factories in the Alentejo region and serves as a typical example of the European milling factories that emerged in 19th-century Europe. In 1993, due to a lack of competitiveness, the factory was forced to close. After several years of abandonment, the University of Évora acquired the building in 1998 with the aim of converting it into the School of Arts and Architecture. The Architecture and Visual Arts Complex of the University of Évora officially opened its doors on November 2, 2008, and now offers programs in Sculpture, Visual Arts, Painting, Design, Architecture, and Multimedia [5].

2 Italian Pasta Production Machines Installed at the Leões Flour and Pasta Factory in Portugal

At the Leões flour and pasta factory, grain was processed into semolina, flour, and by-products⁶ across three sections installed within the original building (likely dating from 1916).⁷ The factory-made use of its direct connection to the railway line both to receive raw materials and to distribute its finished products.

The earliest surviving site plan of the factory dates to 1923, and it specifies that the pasta factory was under construction at that time. Given the existence of the *Memória Descritiva da Fábrica de Massas dos “Leões”*, dated 1926, which states that the factory had a production capacity of 7500 to 8000 kg of pasta every 10 h and belonged to *Sociedade Alentejana de Moagem, Lda.*, in Évora [6], the building must have been constructed between 1923 and early 1926.

The document states that the most modern Italian pasta production system of the time had been installed—specifically, the *Napolitano* type—which produced soft pasta using durum wheat grains (treated with boiling water) and pasta flour (treated with warm water), allowing to produce three different quality grades of pasta. On the ground floor of the building was the room where the molds were washed, and where 4 hydraulic presses had been installed, along with 3 mixers and their corresponding kneading machines, with capacities of 50, 125, and 150 kg of pasta, respectively.

The pasta production process was as follows: the raw materials—mainly semolina in its various forms—were stored in five wooden silos (located

in the flour factory’s silo), each equipped with a *Chevalier*-type automatic dispenser that transferred the materials into three smaller wooden silos in the pasta factory. After being weighed on a scale and mixed with boiling or cold water, the ingredients were fed into three mixer-kneader units. The resulting dough was manually cut and placed into presses, where it was compressed and then automatically cut. Upon exiting, the pasta was ventilated for pre-drying (using *trabatti*) and then placed on drying boards for final drying. There were four drying rooms equipped with the specialized *Barducci*, *Periodico*, and *Tropicale* systems—the latter especially suitable for drying longer pasta, which was hung from rods. Two freight elevators facilitated the production process. At that time, in 1926, another drying room was under construction on the first floor of the building.

The factory was heated by low-pressure steam generated by two water boilers installed on the ground floor, which allowed the building to maintain optimal thermal and hygrometric conditions for production. The machinery operated using electricity produced by an alternator owned by the company at its private power station. Water was supplied through a private branch line connected to the city of Évora’s water supply network.

In a letter addressed to the Minister of Agriculture in 1928, the *Sociedade Alentejana de Moagem, Lda.* emphasized the importance of semolina for producing high-quality pasta, noting that they had succeeded in creating a Portuguese product capable of competing with foreign goods. They highlighted that their products were made using exactly the same manufacturing process as abroad but had been adapted to suit Portuguese consumer preferences—such as texture, appearance, and taste. As a result, Portuguese consumers preferred their products over foreign ones, which represented a significant advantage for the national economy.

According to various records consulted, the pasta factory continually modernized its machinery over time.⁸ By 1950, a continuous

⁶ The machines came from various sources—some domestic, others foreign—such as the cylindrical mills from the Swiss brand *Daverio* and a French mill from the brand *Teisset*. Other machines were acquired from different factories, including equipment from the Galveias Milling Factory in 1940, due to the inability to import machinery during World War II. Additionally, the equipment was progressively updated, with older or deteriorated machines being replaced by more modern ones [6].

⁷ It was the year in which the *Sociedade Alentejana de Moagem*, the owner of the factory, was established.

⁸ In fact, during the 1970s, the company even set up a pastry and confectionery factory, also equipped with Italian machinery, such as *Grissinatrice* machines.



Fig. 1 Report on the Fabrica dos Leões. Photo by David Freitas. 1950s/60 s (production). PT AFCME AF/DFT/619/5106. Owned by Arquivo Fotográfico da Câmara Municipal de Évora

press from the brand *Braibanti* and another from *Reggiane* had been installed. By 1972, the automatic *Braibanti* system was already in place, and the factory continued to use the most modern Italian equipment, including presses (such as the *Reggiane*) as well as modern pasta dryers and packaging machines. In 1977, two older pasta production lines were replaced with two new ones of slightly higher capacity, also of Italian origin, manufactured by *S.p.A. Braibanti* and its associates [6]—likely the last machines used before the factory closed in 1994 (Figs. 1, 2 and 3).

3 The Influence of Italian Technological Patents on the Design of the Leões Pasta Factory

The various records preserved about this factory, especially the graphic materials, have allowed

us to approximate the architectural growth of the facility. As previously mentioned, by 1923 the flour mill already existed, along with the silo and storage buildings (U-shaped, likely built in 1916 when the company was founded); a bakery was located to the northwest of the milling area; and the pasta factory was under construction. The buildings were laid out separately, not connected to one another, and positioned around the perimeter of the plot, enclosing a central courtyard.

In a photograph taken in 1938 by photographer Eduardo Nogueira (Fig. 4), one can observe that the pasta factory building consisted of several parallelepiped volumes. The most prominent was a main two-story block (ground floor and first floor) with a flat, walkable roof, interrupted by a three-story module—also with clean lines and a flat roof—housing the connecting staircase. A thoughtful composition of volumes is evident, featuring simple openings on the ground floor and double-height openings on the upper floor, similar in design to those in the other factory buildings. However, in this case, the upper-floor openings are blind (perhaps sealed off due to production process requirements). There was also a visible connection at the first-floor level to the storage building, where the semolina silos were located.

Several blueprints signed by *Braibanti Milano*—Italy, dated 1972, are preserved, detailing a study on flour storage. Additionally, there is a descriptive report on the installation of a storage facility for flour intended for breadmaking and durum wheat semolina for pasta production, signed by the manager of *Sociedade Alentejana de Moagem, Lda*. In July 1973. Regarding the storage of semolina for pasta production, nine sealed metal silos were to be installed, with their interior walls coated in anti-corrosive paint.⁹ This plan was executed: between 1973 and 1976, the silos were constructed in the grain storage building (south of the flour mill), as shown in a site plan of the factory dated August 12, 1976, signed by engineers Duran García & C^a of Lisbon,

⁹ The document describes that the storage of wheat flour for baking would be carried out in 10 reinforced concrete silos, airtight and sealed, equipped with a range of mechanisms for extraction, monitoring, and control.

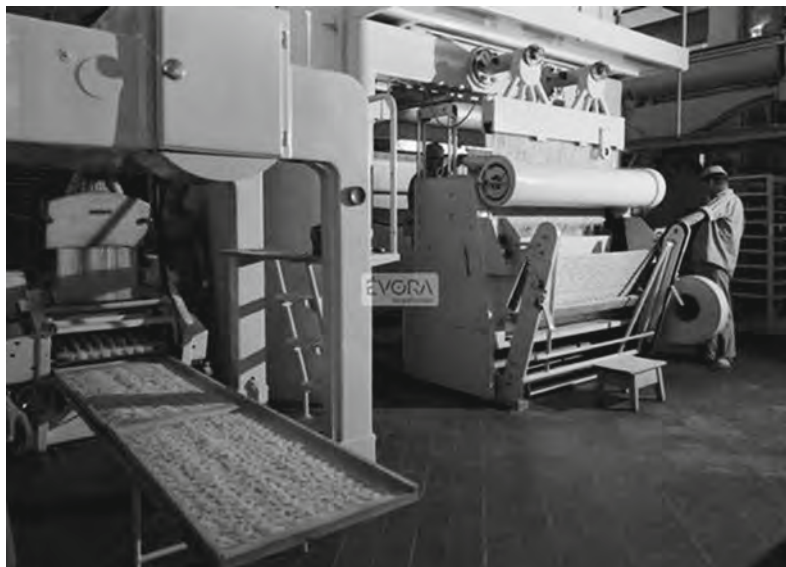


Fig. 2 Report on the Fábrica dos Leões. Photo by David Freitas. 1950s/60 s (production). PT AFCME AF/DFT/619/5125. Owned by Arquivo Fotográfico da Câmara Municipal de Évora



Fig. 3 Report on the Fábrica dos Leões. Photo by David Freitas. 1950s/60s (production). PT AFCME AF/DFT/619/5131. Owned by Arquivo Fotográfico da Câmara Municipal de Évora

for the installation of a new thermal power plant in the pasta factory building.¹⁰

From the same project, an interesting ground floor plan at a 1:200 scale has been preserved, allowing us to better understand the layout of the pasta factory's ground level. Two aspects are particularly noteworthy: it is an open-plan, rectangular space with access through the courtyard, where the façade is punctuated by a sequence of closely spaced openings. Within this space, two connected rooms are represented in isolation—an office and a staff room—as well as the boiler room. There is also a difference compared to earlier plans: the rear section, opposite the courtyard façade, had been expanded with a rectangular addition containing, on opposite sides, changing rooms for men and for women (in 1973, the factory employed 112 men and 41 women).

The pasta factory building was constructed with a reinforced concrete structure. The use of this material was common in Portugal during the 1920s, when this factory was built.¹¹ Although no plans have been found for the installation of the *Napolitano* system between 1923 and 1926, it is possible that the Italian company itself designed the factory (it was common practice for machinery installation companies to design industrial spaces). For pasta production, long machines were used, so the open-plan layout made possible by the reinforced concrete structure facilitated installation and production.

There is a clear difference in architectural expression between the pasta factory and the rest

of the buildings, which could be due to them being designed by different architects. In the pasta factory, the interplay of volumes is emphasized by its flat roofs, while the rest of the buildings are more classical in style and topped with gabled tile roofs. The pasta factory also features a straight frieze near the top of the volumes (see Fig. 4), reminiscent of the interior of the Fagus Factory¹²: a shoe last factory built between 1911 and 1925 in Alfeld (Germany) by architect Walter Gropius, which is considered the first building of the twentieth century to clearly express the ideas of the new architecture of that era, in which form was seen as the result of function and construction.

It is possible that this architectural trend, championed by architects such as the aforementioned Walter Gropius as early as 1911, may have been introduced by Italian designers, since at that time it was uncommon to find this type of architectural expression in the Alentejo region.

«Train stations, warehouses, and factories demand their own truly modern expression and absolutely cannot be resolved in the style of past centuries without degenerating into empty schematism and historical masquerade. (We should flatly refuse to practice archaeology in everyday life). Instead of external formulation, what is needed is an intrinsic understanding of the new architectural problems. Spirit instead of formula, and from the outset, an artistic mediation on the fundamental form. No additional decoration». [8] (p 122).

A differentiated treatment of the openings in the façades of the pasta factory can also be observed in the 1938 photograph (Fig. 4). On the one hand, the openings on the ground floor of the main façade resembled, in proportion and arrangement, those of the other factory buildings, while on the upper floor, they were much more numerous and closely spaced, giving the impression of a single horizontal opening. This may have been due to the layout of the machinery within the production process, or perhaps it was a decision made by the designer. On the other hand, on the remaining façades, the openings are minimal, varied, and without any apparent composition.

¹⁰ *Central Térmica. Localização. Sociedade Alentejana de Moagem, Lda. 12–08–76. Durán García & Cª Engenheiros. Escala 1:1000. Source: Direção Regional da Economia de Évora, Processos de licenciamento, cancelados, Processo nº 40, referente a uma Fábrica de Panificação e Moagem de Cereais ao sítio dos Leões em Évora, da Sociedade de Moagem Alentejana Lda.*

¹¹ Although Cottancin's patent had previously been employed to construct the roof of the Escola Médico-Cirúrgica de Lisboa in 1836 and the roof of the Faculty of Medicine in Lisbon in 1899, it was the first granting of the Hennebique patent in Portugal—secured by Jacques Monet in 1894—that marked the beginning of its widespread adoption. Its application in 1897 during the reconstruction of the *Fábrica de Moagem de Caramujo* in Lisbon is considered the most notable and pioneering example of its use [7].

¹² It was recognized by UNESCO in 2011.



Fig. 4 Enlarged detail of the photograph. In the background, with the chimney, the original flour mill building; on the right the pasta factory. Exterior of the Leões Factory,

1938. Photo by Eduardo Nogueira. EDN018480. Owned by Arquivo Fotográfico da Câmara Municipal de Évora



Fig. 5 Exterior of the old Leões Pasta Factory. Photo by Sheila Palomares Alarcón, 2021

In a photograph taken of the complex in the 1950s, it can be seen that the pasta factory had been extended by an additional floor and covered with a double gabled roof. In later photographs, the disappearance of most of the openings on the main façade is evident, resulting in the loss of its original configuration. This was

the image of the pasta factory that survived to the present day. In 2024, the building, which had not been renovated in 2008 and had mainly been used by the theatre department in recent decades, was rehabilitated and is now part of the facilities of the University of Évora (Fig. 5).

4 Conclusions

With this article, we have aimed to contribute to the understanding of the configuration of the Leões Pasta Factory building, based on previously unpublished material that has been consulted. A significant transfer of knowledge between Italy and Portugal has been observed, particularly in the field of industrial machinery, production processes and architectural design. On the one hand, it has been verified that, from its origins in the 1920s, the *Napolitano* system was installed with machinery from the brand *Pidale Barducci*, and especially from the 1950s onwards—once international connections had been restored after World War II—various machines from the *Braibanti* company were incorporated. The latter continued to be used to replace older equipment well into the 1970s. On the other hand, although the original architectural project of the pasta factory from 1923 has not been located, we hypothesize that the designers were from the *Barducci* company. It was common for the same companies installing the machinery to design the industrial spaces where it would be housed. Moreover, there is a clear difference in the architectural configuration of the pasta factory compared to the other buildings of the complex, in which simpler volumes and flat roofs prevail.

Acknowledgements This work has been financed by national funds through Fundação para a Ciência e a Tecnologia within the scope of the project CIDEHUS-UIDB/00057/2020.

References

1. Monte A (2019) Brevetti e macchine per la produzione dell'industria alimentare (1855–1935). Rivista AIPAI. Associazione Italiana per il Patrimonio Archeologico Industriale, 21. Industrie per l'industria. Brevetti e invenzioni dalla macchina ai luoghi per la produzione. Patrimonio Industriale, pp 28–47
2. Galvez-Behar G (2023) L'État et le brevet d'invention: une relation embarrassée, 1791–1902. Concurrence et marchés, édité par Patrick Fridenson et al., Institut de la gestion publique et du développement économique. <https://doi.org/10.4000/books.igpde.16918>
3. Monte A (2018) La tradizione quando è nata era innovazione. 1918–2018: centenario del pastificio Benedetto Cavalieri a Maglie (LE). Tecnica Molitoria, Anno 69(12):1202–1217
4. Schmitz Vaccaro C (2013) Evolución de la regulación internacional de la propiedad intelectual. Revista de la Propiedad Intelectual 17:63–92
5. Cardoso de Matos A, Palomares Alarcón S, Quintas A (2019) The origins of the Leões flour and pasta factory. The present of the arts and architecture school of the University of Évora (Portugal). VAD. Veredes, Arquitectura Y divulgación 1(2):96–106
6. Direcção Regional da Economia de Évora, Processos de licenciamento, cancelados, Processo no 40, referente a uma Fábrica de Panificação e Moagem de Cereais ao sítio dos Leões em Évora, da Sociedade de Moagem Alentejana Lda
7. Licordari M (2016) A Propagação do Betão Armado em Portugal e as Primeiras Indústrias de Cimento do País. In: Póvoas RF, Mateus Mascarenhas J (eds) 2º Congresso Internacional de História da Construção Luso-Brasileira 2016, vol 2. Centro de Estudos de Arquitectura e Urbanismo, Faculdade de Arquitectura da Universidade do Porto, Porto, pp 1189–1201
8. Gropius W (2018) Arte monumental y construcción industrial. 1911. In: Medina Warmburg J (ed) Walter Gropius proclamas de Modernidad. Escritos y conferencias, 1908–1934. Editorial Reverté, Barcelona, p 122

Moving from FERNANDO TÁVORA *no Ensino da Arquitetura*. Marginal Living Between History, Design and Landscapes

Barbara Bogoni  and Marco Cillis 

Abstract

History assigns a major role to the many cultural exchanges between Portugal and Italy, and identifies FERNANDO TÁVORA as a Portuguese master able to build a school of thought, important for his generation and the ones close to him, but also for the generation of contemporary architects. From here, a group of professors and students of the Mantova Campus of Politecnico di Milano starts a research on the traces of Távora, as an architect, traveller and professor. This research develops: a DIDACTIC PROJECT, continuous with the educational actions already undertaken with the interpreters of the Portuguese contemporary architecture who have been his pupils and collaborators—Álvaro Siza, Eduardo Souto de Moura, João Mendes Ribeiro, Rui Lobo; an INVESTIGATION, on living and drawing the public, collective, domestic and open space, and on the preservation of the historical space; a JOURNEY to Portugal, moving from East to West, unlike Távora's European journey, to get to know architecture through its direct experience; the REDRAWING, activator of the critic process of learning; the CONSTRUC-

TION through the models; an EXHIBITION and a BOOK, that collect and communicate the work's results, exposing the traces of reciprocity, and locate mutual references for the contemporary project, in Italy from Portugal.

Just Like Communicating Vessels, Italy and Portugal have started a flow of exchanges that, over time, has reciprocally enriched the cultural development of both, also in the architectural sphere. This exchange has moved people, ideas, materials and techniques with bilateral inputs and outputs, often at different times [1]. With an interweaving of views from and to Italy, from and to Portugal, both have learned and taught architecture, in an interchange of principles and projects.

Throughout the twentieth century, Portugal looked at Central Europe, especially in Italy. The latter, at the time, being the cradle of an unrivalled architectural culture, prominent in experimentation and innovation, but always careful in preserving traces, roots and memory. Throughout this period Portuguese architects closely followed the events of the Rationalist school of Terragni, Libera, Moretti and Ponti, and also the monumental school of Muzio and Piacentini. Relevant are Franco Albini's presence in the jury of the competition for the Gulbenkian Foundation headquarters in Lisbon

B. Bogoni (✉) · M. Cillis
Politecnico di Milano - Mantova Campus, Mantova, Italy
e-mail: barbara.bogoni@polimi.it

M. Cillis
e-mail: marco.cillis@polimi.it

(between 1959 and 1960), and, in the field of landscape design, the association between Pietro Porcinai and Francisco Caldeira Cabral within the IFLA in defining the disciplinary contents in the landscape architect's training courses [2, 3].

Following the Carnation Revolution (25th April 1974), Portugal opened new cultural frontiers and new geographical horizons: the *3 Ds Programme—Descolonizar, Democratizar, Desenvolver* was supported by a movement towards internationalisation, frequent international travels, and closer cultural, professional and educational collaborations. Thanks to this opening, Portugal and Italy today are able to experience a strong sharing of theoretical principles and a common *modus discendi et docendi* that, through reciprocal ministerial programmes, have united students and teachers oriented towards the recognition of places, the development of the landscape, and the practice of a realistic and concrete architecture. The two countries have also formalized exchange programmes with the objective of promoting the internationalization of research and teaching.

In Portugal, urban planners and architects acting as researchers, lecturers and designers founded the basis of this cohesion, with the aim of defining a synthesis between the universal and the local sensibility, a kind of *Portugueseness*.

Távora, an emblematic figure in Portuguese history and schooling, has never really been truly recognized outside of Portugal. His studies have not been widely spread, are rarely translated into English and only sporadically raised within the international debate. Yet, they contained a broad, universal theoretical reflection on the actuality and identity of architecture, although only practically applied locally.¹

Therefore, we consider Távora the cornerstone of the contemporary dialogue with Portuguese architecture. He was the first Lusitanian interlocutor who was able to transpose, in terms of theory and design, a modern thought into the reality of his country (a thought faithful to local

history, traditions and materials) and translate Portuguese modernity into a *universal Portugueseness* [4].

As researchers, we are fascinated by Távora, by his writings and his oeuvre [5]. We are intrigued by his coherence and adherence to the figurative and cultural principles that we consider invariants, and by the humanity which Távora continually addresses.

We believe that these aspects should be fundamental in didactics, particularly in the multi-form, evanescent cultural context in which today's university's education moves. Today, the teaching is characterised by tons of graphic and photographic informations, where with difficulty one can distinguish substance from form. In this context the good too often yields to the beautiful, and too often the beautiful does not recognize the *necessary necessity* of the good. In this context the artificial tools are so high-performance and so captivating as to be too fatally assumed as cultural products.

This is enough for us to accept the provocation to rehash Távora, to re-discuss him, to refine a realistic and manual way of doing architecture, based on the principles of coherence, necessity and unavoidable confrontation with pre-existence. This is not a nostalgic impulse towards tools that have now fallen into obsolescence, but it is our high-consideration of the works produced by these tools.

Three pillars guide us in the interpretation of Távora's thought and architecture:

Building the space: meaning to think, design and realize the space in coherent forms, so that man can appreciate its correctness and utility—it is a skill that based on theoretical knowledge and technical abilities, associated with the primordial desire to inhabit.

Inhabiting the space: to move into/through architecture, which is, by its very nature, static and immobile, 'waiting'—it is a skill based on a univocal, never reciprocal, movement—*uma viagem*, which is the principle of the experience of inhabiting [6]. Távora travels, observes and records images and signs and uses them to communicate what he has learnt. He draws and teaches his students how to draw and introduces

¹ The theme was developed in master's degree thesis: Debora Zaccarelli (2021) Contemporary Távora. Rules, strategies and Thought of the Portuguese Master, Politecnico di Milano.

them to critical observation, refining his personal way of teaching [7].

Teaching the space: it is to systematize scientific thought and to take a clear theoretical position—this skill is based on a vision of the future, on a desire to promote and consolidate a design culture founded on Continuity and Humanity, in the tradition, *through* Modernity.

Today, Távora's pupils design an international architecture, yet always traceable to Portuguese landscapes and sensibilities. They have inherited all those principles that we ourselves use in the project of our university didactics. We are convinced of the effectiveness of the 'Távora Method', that rises from History and trains a contemporary design, that in building the future does not forget the experiences of a past that still has much to say.

Hence, the intention of the research.

A Research, which involved about thirty students from the Mantova Campus of the Politecnico di Milano, has addressed the themes of Space Organisation, History and Landscape, Domestic and Collective Living, Conservation and Reuse of Historical Space. On these themes, Távora has experimented with a broad design vocabulary. On these themes, we have carried out interpretative investigations and activated a fruitful intellectual exchange.²

Investigating the triple relationship Project-History-Landscape from original sketches, documents and original photographs, the students have re-drawn the projects and elements of the anthropic and natural context; they have observed and inhabited the buildings; they have reconstructed the landscape and architecture through models at different scales of representation; they have experimented with the method of the Portuguese school, according to which the project is made by 'inhabiting' the space from within the

sketch-*esboço*, the drawing-*desenho*, the model-*maqueta*.

The programme required students: to acquire specific disciplinary skills through the exercise of certain instrumental activities; to learn the not always linear coherence between drawing, model and built work; to recognise the relationships between design and the historical, urban and landscape environment; to refine critical thinking on the themes of form and meaning in architecture.

The didactic method ('Drawing, Building, Inhabiting'), based on the re-constructive exercise, clarified the relationships of scale and the balance between the parts and the whole; it forced one to reason about heights, elevations, differences in height, dimensions and reciprocal proportions; it educated one to reality control, verified intuitive thinking, sifted error, concretised relationships; it talked about articulated and uneven land sections, interlockings and juxtapositions, complex relationships between design and pre-existence, going so far as to read the traces of reciprocity *from Italy to Portugal* and the possible mutual references, *in Italy from Portugal*, references that teachers looked at for the education of their students.

We selected twelve projects, chosen for their typological variety and their coherence with the training objectives (the adherence to the context and landscape, the operational relationship with history, the interpretation of tradition in a contemporary key) and identified them with certain keywords that gave the work its structure.

The first keyword is [*Historical*] *Continuity*. Investigating Távora's rejection of nostalgic traditionalism and innovation disconnected from the past, Teresa Cunha Ferreira, David Ordóñez Castañón and Eleonora Fantini define this issue as a "special sensibility that allows him to 'continue-innovating'" [8], (p 26–34) to relate with history and, at the same time, to elaborate a personal and contemporary synthesis of languages sedimented over time.

² The teaching activity was carried out within the framework of the Architectural Design Laboratory III, Sec. A, Mantova Campus, Politecnico di Milano a.y. 2024–2025, prof. Barbara Bogoni and prof. Marco Cillis, with arch. Francesco Cancelliere, dr. Maria Gaia Cicconi, arch. Dario Erioli, arch. Riccardo Colaiani, arch. Filippo Brutto.

From the redrawing of the urban façades and the pavements of the Squares of the historical centre of Guimarães³ emerges the attempt of the project in redesigning unclear spaces, occasionally amorphous, characterized by a complex fabric produced by the juxtaposition of autonomous volumetric unities, either small-scaled or monumental, with their own settlement rules [9]. Távora lays his ‘paving carpet’ on the slightly irregular topography of the terrain and confirms, while valorising them, the existing spatial relations.

Instead, in Praça 8 de Maio in Coimbra,⁴ he heavily modifies the established layout, using trace not as an independent, identifiable element, but as ‘thread’ that restores lost connections. Here takes place the engagement with History. It’s evident in the revival of some ancient elements, such as the original level of the city, the historical façades, the monumental presence of the church with a completely new composition that highlights its adherence to what has been built, to its partitions and decorations. A similar adhesion can be read in the references of the lines, in the orientations and in the spatial hierarchies that reassign the monument-building their dignity. We have interpreted them as ‘injectors of continuity’ (Fig. 1).

Both the solutions that have been elaborated for Guimarães and Coimbra, in similar yet different contexts, tackle the themes of the historical continuity and the relation between Nature and Architecture: Távora works exclusively with stone and few natural elements—the water basin, the flowerbed, the tree, the tree lining—to highlight the excellence or certain urban features. Both projects, despite resulting in different outcomes, get rid of issues with connection, accessibility and identity, relying on the enduring duality of modern-design/ancient-material.

From the practice of an architecture founded on the dialogue between history and the constants—an architecture that transforms context not through

nostalgic revival but through recomposition, integration, ...—brings to light another theme: the dialectic between *Heteronomy and the Universal*. Heteronomy (from Greek, ἑτερονυμία, diversity of naming⁵) is a narrative strategy widely used by Fernando Pessoa, that had a significant influence also in Távora’s line of thought (and later Siza’s). It well describes the approach to the complexity of ‘making architecture’—universal, historical, modern or contemporary.

«We have but two ways of seeing: from the inside and from the outside. Heteronomy is my way of being others without ceasing of being myself», writes Pessoa [10], and Távora: «there is no unity without variety» and «architecture must be a synthesis of past and present, of the local and the universal» [11].

We are convinced that the pursuit of unity and of the universal is not a form of ‘weak thought’ but rather an ethical stance rooted in profound honesty and that the project can only be the product of many different perspectives, historical, cultural, geographical, figurative, technical.

This aspect emerges in the Pavilhão de Ténis,⁶ a small building that incorporates the natural slope of the terrain, highlighting the sequence of horizontal planes that descend along the transversal axis of the park. The building ultimately synthesises the complexity of the landscape in the simplicity of its cross-section, where landscape and architecture meet, and where the spontaneous and brief action of ‘inhabiting the landscape under a canopy’ takes place. Carlos Machado’s [12] (p 43–55) fine essay on this building explains the «desire to be useless», reflecting on its meaning, that lies not so much on its function (a stand for the sports fields, or at most a miradouro) but in its role as a manifesto for the possible integration between the Portuguese popular tradition and the international architectural culture [13].

³ Re-drawings and Model 1/200, by students Giulia Cocozzello, Valerio Vitali, Lorenzo Pecchiolan.

⁴ Re-drawings and Model 1/100, by Alice Campagnari, in the bachelor’s degree thesis: Alice Campagnari (2025) Fernando Távora a Coimbra. Due interventi nello spazio pubblico tra Storia e Modernità, rel. prof. Barbara Bogoni.

⁵ Headword ‘Heteronymy’, Treccani Dictionary of the Italian language.

⁶ Re-drawings and Model 1/50, by students Carolina Andreoli, Miriam Vantini, Giuditta Odorizzi and Caterina Saltori.

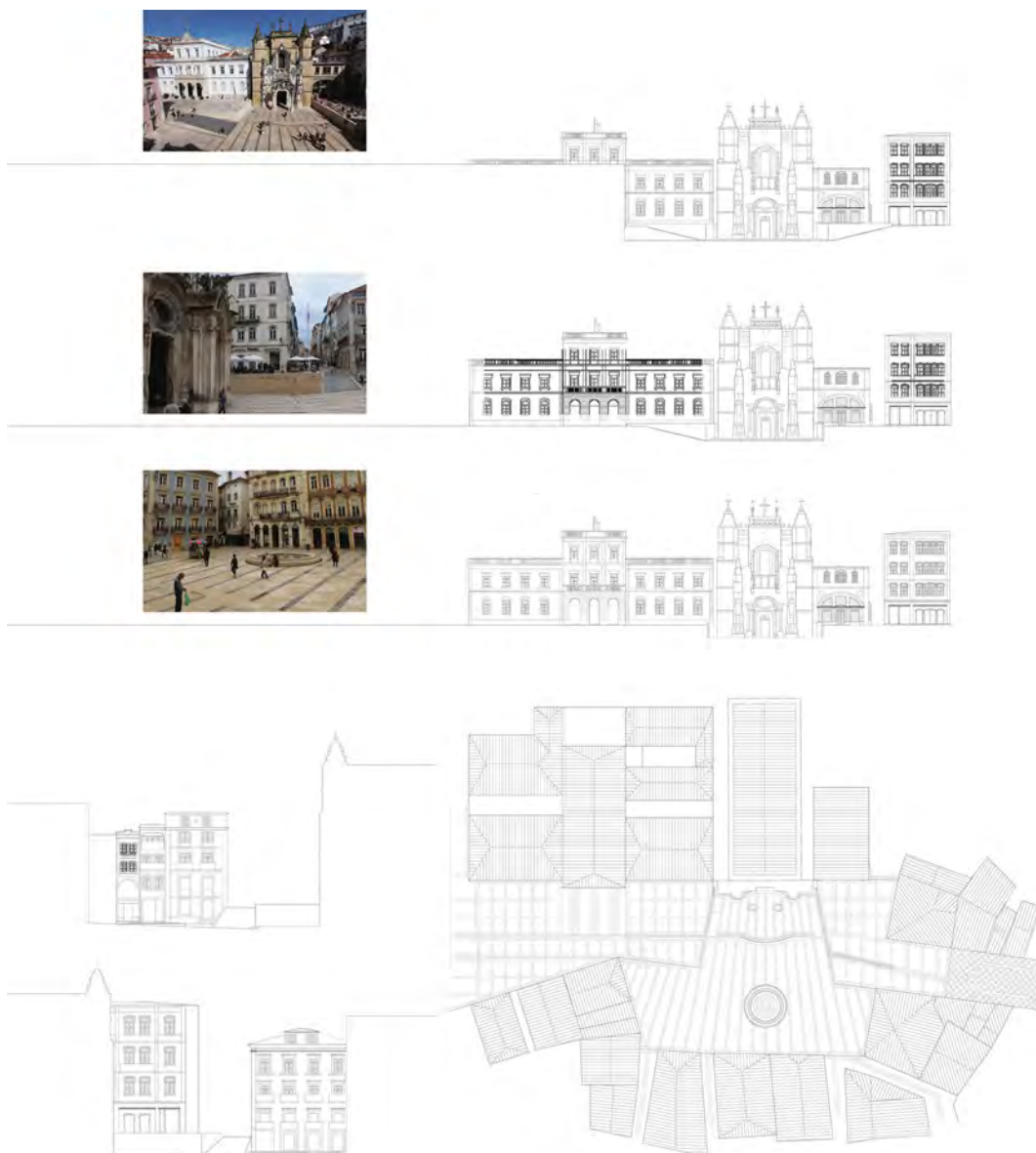


Fig. 1 Re-drawing the urban spaces. Praça 8 de Maio, Coimbra (1992–1997) (Photos by Lorenzo Feruglio; drawings and model 1/200 by Alice Campagnari)

The construction of the model in a 1/200 scale forced students to engage with the pavilion's plasticity and with its figurative-structural language, that works through the juxtaposition and the interlocking of planes.

Similarly, in the Mercado Municipal de Santa Maria da Feira⁷ Távora stitches together past and present with a modern language and develops

the traditional type of the neighbourhood market. Pedro Levi Bismark defines this outcome as a 'paradox': «everything in it is modern and, at the same time, nothing is only modern» [14] (p 26–39). In the project, Távora associates the modernity of the drawing to the perpetuity of daily gestures—the meeting of people, the display and the exchange of goods—and recognizes the space's essential role of promoter of interpersonal

⁷ Re-drawings 1/50, by arch. Dario Erioli.

bonds, of social encounters, of verbal communication. The drawing, with its strict square geometry, circumscribes the place where the actions unfold (a citadel) and integrates the urban social spaces' elements, the square, the fountain, the benches, the vegetation.

Both these projects connect unevenness and join the landscape, either natural or urban, through pathways, roads, ramps and stairs; they insert the actions of stopping and exchanging in the open but covered space; they develop the theme of heteronomy not in the antithesis, but in the synthesis between architecture and landscape. It is a dialectical synthesis that applies the rules of what is contemporary. We have defined this antinomian but synergic interaction as *Dialoguing Agonism*: an interaction between Ancient and New that is neither subjugating nor conflictual but competitive. It manifests itself when the one and the other compete for the construction of a more performant spatial asset, without causing lacerations or discontinuities. The research applies to three projects that, while intervening on buildings or on landscapes sedimented over time, have expanded, supplemented and integrated elements.

The *Escola Superior Agrária do Convento de Refóios*⁸ triggers a dialogue between ancient and modern, in which the latter, while acknowledging the first's extraordinary monumental value, 'observes it from a distance' or 'lightly touches it'. The redrawing of the project [15] (p 291–323) in fact reveals how the student settlements and the auditorium do not alternate the relationships nor the equilibrium of the ancient composition. In addition, it shows that the new volumes work in order to integrate or support the «process of growth that, as already foreseen, would be said to be so natural—and almost fatal—it manifests itself» [16]. Plus, it explains how the dialectical confrontation between ancient and new is founded on decorum, not prissy but respectful towards the dialoguers' role, just like good relations between human beings (Fig. 2).

On the other hand, in Guimarães, in the *Pousada de Santa Marinha da Costa*⁹ the interaction is not balanced, but dissolves in the soliloquy of History, to which the new 'plays second fiddle'. Here, 'inhabiting the modern' integrates the 'inhabiting the ancient'. Bruno Gil well describes this integration as «a sort of propylaeum that filters, frames and (dis)veils the distance from the retrospecting volume, resurrected in the meanwhile, almost replacing it» [17] (p 92–106). We have reason to believe that this building represents the 'Tavorian' emblem of the relation between History, Project and Landscape: [8] (p 173–209) in it, the contained and respectful new volume expresses an awareness of History that is not mere knowledge, but instead is a continuous attendance, the constant practice of its principles and a long-standing friendship synergistically competitive but never duelling (Fig. 3).

The dialectic relationship between the two disciplines of the architectural and landscape design is shown in both these projects. This dialectic also came to life through the dialogue between Távora and Ilídio Alves de Araújo on the choices regarding the restoration of the formal garden and of the wooded slopes in Guimarães and regarding the design of the terraced gardens and the tree-lined wings that connect the *Escola de Agraria* to the rural environment of Ponte da Lima.

In Gondomar, in the *Mosteiro das Irmãs Franciscanas de Calais*,¹⁰ the investigation reveals the dialogical theme in the volumes distributed and aggregated in various forms, in the slight topographical gradients within the composition, and in the comparison with the vastness of the natural landscape: it is a difficult complexity encountered by the students during the redesign and construction of the model. The typological investigation brings out the 'tavorian' technique that acts by juxtaposition, interlocking and adjunction, and that entrusts to each element a defined identity: the church, the patio, the court-

⁸ Re-drawings and Model 1/250, by students Adele Colombini, Sabrina Malagoli, Giovanna Trevisan and Lorenzo Feruglio.

⁹ Re-drawings and Model 1/250, by students Valeria Ferramola, Eloisa Adorni and Castelletti Stefano.

¹⁰ Re-drawings and Model 1/200, by students Daniele Haxhiraj, Denise Rovatti and Vincenzo Sannino.

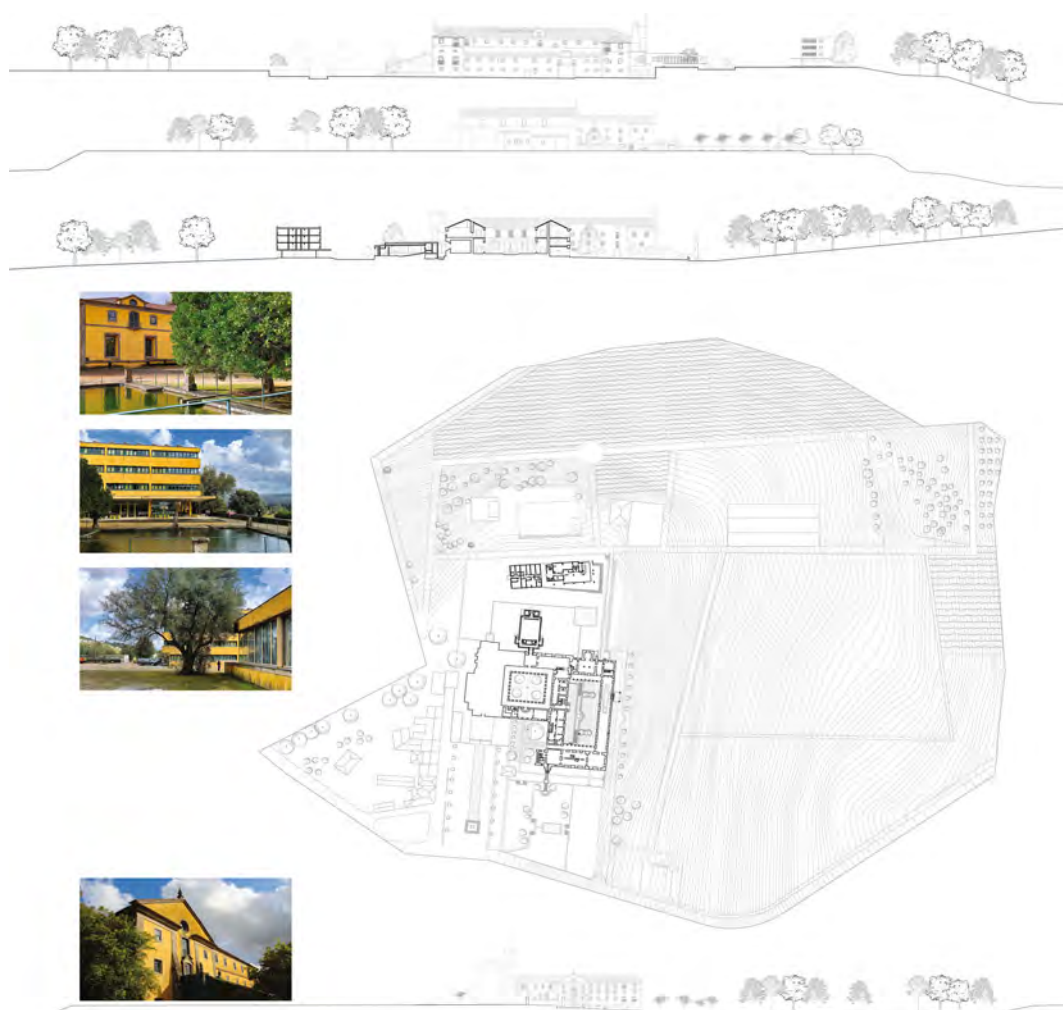


Fig. 2 Inhabiting the history. Pousada Convento de Santa Marinha da Costa, Guimarães (1975–1982) (Photos by Stefano Castelletti, Carolina Andreolli and Sara Rigatelli;

Drawings and Model 1/250 by Eloisa Adorni, Stefano Castelletti and Valeria Ferramola)

yard, the residential spaces and the accessories, the street, the Nature.

Nature, landscape and vegetal elements are structural pre-existences/invariants to whose rules Távora's architecture often bends—a tree's trunk interrupts a wall, a vegetal background folds a building—producing a sort of *Vibration*, a movement of adaptation, that responds to the imperative of making the elements synergistically collaborate with each other. This Vibration well interprets Távora's opposition to rigid rational architecture and his propensity for an alternative that responds

to peculiarities of the place, of the climate and of the local culture [18].

Thus, in the Parque da Quinta da Conceição¹¹ Távora responds to the temptation of 'redrawing the landscape' with a more punctual (and humble) 'drawing of the landscape' that valorises 'what is there' and uses few elementary signs. These are lines that orient the movement or that circumscribe a space, or marks (a fountain, a seat, a porch) that are born from simple suggestions (the cliff of a

¹¹ Re-drawings and Model 1/250, by students Carolina Andreolli, Miriam Vantini, Giuditta Odorizzi and Caterina Saltori.



Fig. 3 Ancient and new. Escola Superior Agrária do Convento de Refóios, Ponte de Lima (1986–1991) (Photos by Caterina Saltori and Lorenzo Feruglio; drawings and

model 1/250 by Adele Colombini, Lorenzo Feruglio, Sabrina Malagoli and Giovanna Trevisan)

slope, the presence of a tree or of a meadow, a particular perspective). These elements connect the historical and archaeological pre-existences, following the orography and using the materials available on site: water, vegetation, light (Fig. 4).

Even in the Casa de Férias em Ofir¹² the relations with Nature and with orography are very close and produce a complex open-and-closed flow of spaces, that Pedro Baía calls a «chemical compound» [19] (p 58–71).

From here we have the Vibration: in the composition; in the orientations and in the structural and material juxtapositions; in the frames of the natural backdrops used as background for the domestic setting; in the distribution of volumes

around the patios generated by slight unevennesses; in the slight slope of the roof pitches; in the opening that welcome the outdoors into the interior spaces; and in the montage of planes distributed in relation to few, very few, natural reference structures.

A final theme would be the one regarding the way in which some of Távora's public building settle are inserted in the urban fabric. With a metaphor on the art of sitting, Giovanni Leoni [20] (p 66) associates the posture of these building to their rootedness to the ground, and describes their refined, noble, even solemn demeanour and their offering themselves as “useful, alive and deeply felt monuments” [21] (p 66).

¹² Re-drawings and Model 1/50, by student Matteo Iafisco.

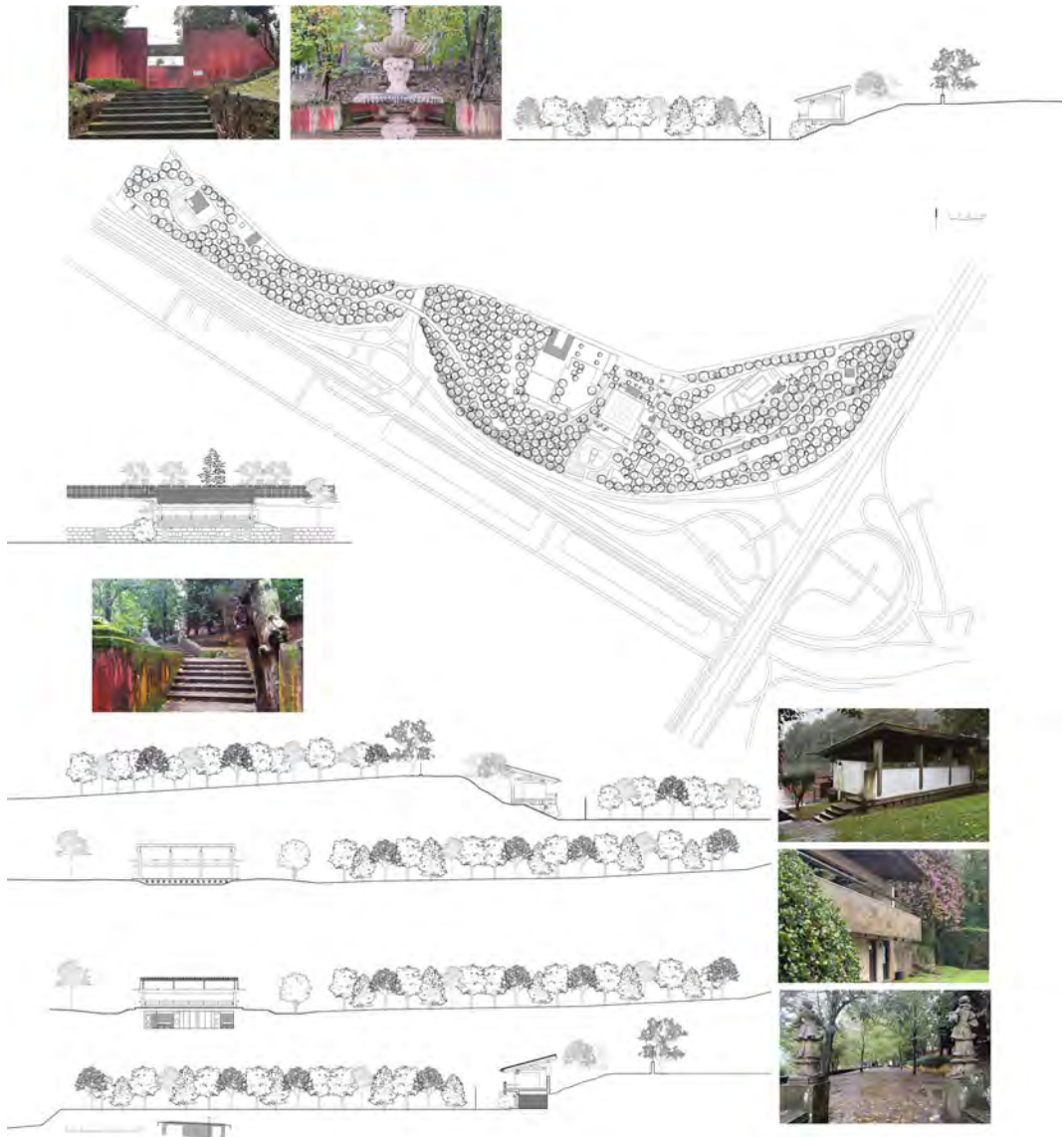


Fig.4 Drawing the landscape. Parque da Quinta da Conceição, Leça de Palmeira, Matosinhos (1956–1960) (Photos by Marco Cillis; drawings and models 1/500 e

1/200 by Carolina Andreoli, Miriam Vantini, Giuditta Odorizzi and Caterina Saltori)



Fig. 5 Layered architecture. Casa dos Vinte e Quatro, Porto (1995–2003) (Photos by Lorenzo Feruglio and Sara Rigatelli; drawings and model 1/250 by Giulia Bellomi, Marlene Pircher and Arianna Punzi)

Retracing the Italian experiences of Ignazio Gardella and Franco Albini, who are often referred to by Távora, the latter entrusts a monumental value and civic dignity to his buildings set in the historic fabric, making them work with topography and proxemics, completing an apparently already set urban scene. We have called this design the *Living Monumentality* | *Buildings as Acropolis*.

It is a monumentality that mediates between two historical urban fabrics separated by water in the building of the Camara Municipal de

Aveiro,¹³ where the review of the classicism in modernity produces a new, complex and contemporary classicism. Instead, it mediates the urban-landscape relations between the ‘university citadel’ of the Paço das Escolas and the Mondego River valley, in the Anfiteatro da Faculdade de

¹³ Re-drawings and Model 1/100, by students Alex Montresor, Sara Rigatelli and Elena Veneri.

Direito da Universidade de Coimbra [22].¹⁴ Both buildings, of contained dimensions in respect to the monument with which they confront themselves, dominate the urban and natural landscape—the city the first and the valley the second, projecting from a prominent position. The former connects the two levels of the city and, with the help of the pavement’s drawing, composes a sort of monumental ‘Capitol’ with the pre-existing buildings. The latter elaborates a wide variety of antinomian scans between the inside and the outside, light and shadow, emptiness and fullness, opacity and transparency, History and Archaeology.

Finally, the Casa dos Vinte e Quatro¹⁵ shows the mediation between the sacred and the daily: building on the ruins and rebuilding the ruins *in the city* (urbanistically), *for the city* (socially) and *from the city* (historically) are all actions contained in the tower, where the public activity of meeting to govern the city takes place [8] (p 417–443).

In the stratification of the ancient and modern rocks, past and present History is sedimented. In this context, the temporal continuum does not allow lulls or interruptions, but only a pause to observe, from a position with strategic direction and role, chosen from the possibilities within the Acropolis where symbol-buildings of the humanitarian Institutions are settled, in Porto (Fig. 5).

“**Marginal Teaching**”, for us it means “Teaching Távora through Távora”; studying it as if it was a didactic tool; transposing his ‘Portuguese acting’ in our ‘Italian learning’. It is a way to bring back architecture to its origins and to explore the meticulous practices of the design as a form of meditation and of building through slowness; of the measuring as a yearning for a proportional and dimensional correctness; of the model’s construction as a process of control and verification of spatialities.

We have identified a variety of general, analogical themes—Drawing and Re-drawing the urban space; Drawing and Inhabiting the landscape and history; Typology and Topography; Domestic, Rural and Collective Living; Integrating, Continuing and Extending between Ancient and New, between Classicism and Modernity; Layered Architectures.

Consciously running the risk of a potential anachronism, we explored the different declinations of the project, retracing the choices of coherency, continuity, composition and distribution, and building the levels and differences in levels, the sloping, the joints, the grafts, the overlaps, the supports, the widths, the planes and plateaus, the tree, the water.

Finally, with the confrontation with the students on their work, we obtained several keywords: [Historical] Continuity, Heteronomy and Universal, dialoguing Agonism, living Monumentality|Buildings as Acropolis.

Furthermore, the encounter with Portugal stimulated us to elaborate programs able to adapt to the needs of a wide, multifaceted and changing society; to promote an attitude of co-participation and international sharing; to pay attention to the preservation of tangible and intangible heritage that safeguards cultural permanence.¹⁶ These objectives guided us towards an endless didactic, open to experimentation in various fields.

Thus, we proceeded with the conviction that students must be forced to build on their own and use the tools to see what they had already *looked at*, and that Távora’s approach teaches how to dig further, how to study and how to know. The intense Italo-Lusitanian exchange was of great help to us.

We have chosen to ‘be marginal’, to return to an Architecture that Távora defines as ‘ethical imperative of being’ [23] through a journey from Italy to Portugal, to use mind and hands, to reconsider the universality of the inescapable design’s invariants, and to work with small things, with simple tools, sensitive to details. It teaches interdisciplinarity, coherence, methodological rigor and

¹⁴ Re-drawings and Model 1/100, by Alice Campagnari in the bachelor’s degree thesis: Alice Campagnari (2025) Fernando Távora a Coimbra. Due interventi nello spazio pubblico tra Storia e Modernità, rel. prof. Barbara Bogoni.

¹⁵ Re-drawings and Model 1/100, by students Marlene Pircher, Arianna Punzi and Giulia Bellomi.

¹⁶ ONU 2030 Agenda. Goal 11: Make cities and human settlements inclusive, safe, durable and sustainable and Goal 12: Ensure sustainable patterns of production and consumption.

intransigence on quality. The results: dozens of interpretative sketches and drawings in different scales, hundreds of photographs taken on the run, under downpours of *chuva*, a book on Távora's didactical value and an exhibition of enormous models in scale 1/500, 1/200, 1/100 and 1/50 where architecture, nature, new, ancient, buildings, trees and streets, canals as water tales are all one, a white solution without a solution to continuity, because the Continuity was already in the thought, in the architectural design, in Távora.

References

1. (1940) Relazioni storiche fra l'Italia e il Portogallo. Memorie e documenti, Accademia Nazionale dei Lincei
2. Bandeirinha JA (ed) (2012) Fernando Távora. Modernidade Permanente. Associação Casa da Arquitetura, Porto
3. Nardella L (2024) Landscape architecture education in Portugal and Italy. The pioneering approach of Francisco Caldeira Cabral and Pietro Porcinai. In: Matos Silva M, Castel-Branco C et al (ed) Portuguese landscape architecture education, heritage and research. Routledge, New York
4. Matos Silva M, Castel-Branco C (ed) (2024) Portuguese landscape architecture education, heritage and research. Routledge, New York
5. Bogoni B, Mendes Ribeiro J (2024) In class with Távora. Teaching and learning (living) today. Amag, Porto
6. Esposito A, Leoni G, Maddaluno R (ed) (2022) Fernando Távora. Diário di bordo. LetteraVentidue, Siracusa
7. Távora F (2012) Diário de Bordo. Casa da Arquitetura, Matosinhos
8. Cunha Ferreira F, Ordóñez Castañón D, Fantini E (2024) Novo e antigo em Fernando Távora: Construção dialética entre Continuidade e Criação. In: Cunha Ferreira T, Ordóñez Castañón D, Fantini E (ed) Fernando Távora. Edições Afrontamento e FIMS, Porto
9. Fernandes E, Cabeleira J (ed) (2025) Fernando Távora em Guimarães. Edições Afrontamento, Porto
10. Pessoa F (1986) Il libro dell'inquietudine di Bernardo Soares. (Trnas: Lancastre de MJ, Tabucchi A) Feltrinelli, Milano
11. Távora F (1962) Da Organização do Espaço, Porto
12. Machado e Moura C (2023) O desejo de ser inútil: sobre o Pavilhão de Ténis na Quinta da Conceição. In: Alves Costa A (ed) Fernando Távora. Pensamento livre. Fundação Marques da Silva, Porto
13. Alves Costa A (ed) (2023) Fernando Távora. Pensamento livre. Fundação Marques da Silva, Porto
14. Levi Bismark P (2023) A solidão da Arquitetura. In: Alves Costa A (ed) Fernando Távora. Pensamento livre. Fundação Marques da Silva, Porto
15. Ordóñez Castañón D (2024) Escola Superior Agrária de Ponte de Lima, Ponte de Lima (1986–1993). In: Cunha Ferreira T, Ordóñez Castañón D, Fantini E (ed) Fernando Távora. Edições Afrontamento e FIMS, Porto
16. Távora F (1993) Escola Superior Agrária de Refóios do Lima. In: Trigueiros L (ed) Fernando Távora. Edições Blau, Porto
17. Gil B (2023) O fluir da experiência e a recorrência da Arquitetura. In: Alves Costa A (ed) Fernando Távora. Pensamento livre. Fundação Marques da Silva, Porto
18. Távora F (1947) O Problema da Casa Portuguesa, In: Cadernos de Arquitetura, vol 1. Porto
19. Baía P (2023) A casa de Ofir entre os CIAM e o ensaio de um composto crítico. In: Alves Costa A (ed) Fernando Távora. Pensamento livre. Fundação Marques da Silva, Porto
20. Leoni G (2005) Oltre il moderno. L'architettura di Fernando Távora, In: Esposito A, Leoni G, Fernando Távora. Opera completa. Electa, Milano
21. Esposito A, Leoni G (2005) Fernando Távora. Opera completa. Electa, Milano
22. Tavares D (2022) Fernando Távora em Aveiro. Dafne, Porto
23. Távora F (2020) As Raízes e os Frutos. Palavra-Desenho-Obra (1937–2001). In: Mendes M (ed) O meu caso—Arquitectura, imperativo ético do ser 1937–1947 (I). U.Porto Press, Porto

São Domingos Chapel, An Influence of Italian Architecture in Portugal

Ana Paula Borghi de Avelar 

Abstract

Diogo Lino Pimentel (1934–2019) was a Portuguese architect who graduated from the ESBAL in 1959. During his student years, he became affiliated with the Movimento de Renovação de Arte Religiosa (MRAR). In 1960, he initiated a period of study in Bologna at the Centro di Studio e Informazione per l'Architettura Sacra, an institution founded by Cardeal Lercaro and directed by Italian architects Giorgio Trebbi and Glauco Gresleri. The subject's academic endeavours were facilitated by a scholarship from the Calouste Gulbenkian Foundation. Following his return to Portugal in 1961, he was invited to join the recently established Secretariado das Novas Igrejas do Patriarcado (SNIP), where he assumed the role of technical director until his retirement in 2014. In one of his inaugural projects in the religious field, the São Domingos Chapel, in Aldeia Nova, Ourém (1964–1967), which the architect was particularly fond of, there may be an Italian influence evident in the design,

derived from the work he had followed during his internship, the Beata Vergine Immacolata Alla Certosa Church (1956–1961). On initial observation, the two works are characterised by the use of curved outlines delineating the perimeter walls. Despite the apparent simplicity of their form, these structures exude a sense of dynamism and expressivity through the intricate textures printed on the white-painted plaster. The objective of this article is to establish the relationship between Diogo Pimentel's work and the influence of Italian sacred architecture.

1 Introduction

The architect Diogo Lino Pimentel (1934–2019) dedicated the majority of his professional life to projects in the field of religious art and architecture. Having graduated from the Lisbon School of Fine Arts in 1959, he became an active member of the MRAR—*Movimento de Renovação de Arte Religiosa*.¹ While still a student, he subsequently became a full member, in recognition of his profound interest in the movement. This involvement led him to participate in numerous MRAR meetings and gatherings, deliver lectures, and contribute to the organisation of various exhibitions [1].

¹ MRAR—Movement for the Renewal of Religious Art (free translation).

A. P. B. de Avelar (✉)
FAUL, Lisbon School of Architecture, CIAUD, Research
Centre for Architecture, University of Lisbon, Lisbon,
Portugal
e-mail: anapaulaborghi@hotmail.com

FCT—Foundation for Science and Technology, Lisbon,
Portugal

In 1960, he undertook an internship in Bologna at the *Centro di Studio e Informazione per l'Architettura Sacra (Ufficio Nuove Chiese)*, an institution established by Cardinal Giacomo Lercaro and overseen by architects Giorgio Trebbi and Glauco Gresleri. This placement was made possible by a scholarship from the Calouste Gulbenkian Foundation. Upon his return to Portugal in 1961, he was invited to join the recently established *Secretariado das Novas Igrejas do Patriarcado de Lisboa (SNIP)*,² where he served as technical director until the organisation's dissolution in 2014.

Pimentel also held other positions, including a consultancy role with Sintra Town Council from 1976 to 2010 and membership on the IPPAR Advisory Council. In his capacity as an architect, he was engaged in professional activities at his studio, CANON Lda., which he founded in 1966. This studio was established following his participation in the 1965 competition for the Bragança Cathedral, where he and the architect Sebastião Formosinho Sanchez secured second place [1].

In an interview, Diogo Pimentel stated that «churches have always been a mirror of the culture of their time and a testimony to the liturgical and pastoral experience of each era» [2]. He described himself as an architect of his time, dedicated to the creation of churches that reflected the spirit of their historical context.

The architect enjoyed a distinguished career in sacred architecture, during which time he designed several significant Catholic churches in Portugal, including the chapel of the Dominican Seminary of Olival (1964–1965), in Ourém, and the church of Santo António (1966–1979), in Santo António dos Cavaleiros, and the church of Nossa Senhora do Desterro (1984–1985), in Angra do Heroísmo, among others. He also participated in several competitions, including the aforementioned competition for the Bragança Cathedral and the competition for the church of the Sacred Heart of Jesus, held in Lisbon in 1962, collaborating with Freitas Leal and Maria

do Carmo Matos, where the team achieved fifth place [1].

This article aims to demonstrate the presence of Italian architectural influence acquired during Pimentel's internship at the *Centro di Studio e Informazione per l'Architettura Sacra* in Bologna, as reflected in his first religious work in Portugal: the Chapel of the *Dominican Seminary of Olival*, in Ourém. A comparative analysis is undertaken between this chapel and one of the Italian churches followed by Pimentel during his internship, considering the Vitruvian triad of *firmitas* (solidity), *utilitas* (functionality), and *venustas* (beauty).

During his training in Bologna, Pimentel observed the construction of several churches, one of which he regarded as particularly significant: the *Beata Vergine Immacolata alla Certosa Church*, [3] (p 7) designed by Glauco Gresleri. His first work in Portugal exhibits several parallels with this Italian example.

Pimentel stated that he returned to Portugal with a renewed perspective on sacred architecture, having gained a deeper understanding of socio-urban issues related to the design of religious buildings [3] (p 6–7).

1.1 The Influence of Beata Vergine Immacolata Alla Certosa Church

The *Beata Vergine Immacolata alla Certosa Church* is a significant example of modern sacred architecture in Bologna, Italy, and a landmark of its period. The project was commissioned by Cardinal Giacomo Lercaro to Gresleri, head of the *Centro di Studio e Informazione per l'Architettura Sacra*. It was designed between 1956 and 1957, with construction completed in 1961 [4] (pp 156–161).

Gresleri, a distinguished Italian architect renowned for his contributions to modern architecture, approached the design with the intention of creating a space capable of meeting the needs of a contemporary congregation while respecting the spiritual and ritual functions of a Catholic church [5] (pp 8–9).

² SNIP—Secretariat of the New Churches of the Lisbon Patriarchate (free translation).

The architectural project demonstrated a clear influence of Le Corbusier's principles, particularly in the treatment of light and surfaces, evoking parallels with the Ronchamp Chapel. The composition characterised by a simple structural system comprising four double reinforced-concrete porticoes connected by transverse beams. Free-flowing brick walls, finished with thick plaster, envelope and mould both the internal and external space, while natural light plays a fundamental role throughout the building [6] (p198).

Natural light is carefully orchestrated within the interior. A zenithal opening above the presbytery and altar table, illuminates the sacred focal point, while the nave receives diffused light through upper openings near the ceiling, mainly composed of abstract-coloured stained-glass. The upper gallery is illuminated by a large window, and a stained-glass wall adjacent to the presbytery, above the sacristy, further contributes to interior lighting. In the Blessed Sacrament Chapel, light enters through a window and a small opening between the roof and the walls [6] (p198).

The materials employed include exposed reinforced concrete, used for the structural elements, and an overhanging roof that extends outward as a protective feature. Hand-applied calcined plaster on the masonry walls introduces a sense of rusticity, while glass, wood, and steel complete the material palette. The church's artistic elements include stained-glass windows, a crucifix by Luigi Spazzapan, and a wooden cross by Giuliano Gresleri, suspended above the high altar in a neo-primitive style [6] (p198).

Externally, the juxtaposition of the exposed concrete of the structure and roof with the white of the rustic walls creates a bold ensemble under which a church and a chapel are grouped. An open-air pulpit, which is useful during the summer months for large gatherings, is located above the main door. Upon entering through the main door, one is greeted by a corridor with subdued lighting, the baptistery situated to the left and the terminus of the chapel to the right, both leading to the nave, which is notable for its ample natural light. An additional entrance is situated on the right-hand side, positioned between the rear of the nave and the Blessed Sacrament Chapel. The interior

is distinguished by a contrast between the walls and the roof, the latter of which is of particularly noteworthy due to its elaborate and dramatically exposed structure, which is supported by internal pillars and allows light to enter from all sides [6] (pp 198–200).

The design of the Blessed Sacrament Chapel is notable for its simplicity when compared with that of the church as a whole. The absence of a pitched roof, in conjunction with the blind walls and rounded apse, engenders in a sense of enclosure that is more pronounced in this space, and which is consistent with its designated purpose. The separation of the walls from the ceiling by a narrow strip of light serves to mitigate any sense of enclosure. The room is illuminated by a single window, which is designed to mitigate glare. The confessionals are located at the rear of the chapel, situated in front of a staircase that leads up to the tribune [6] (p 200).

The church occupies a special place in the history of sacred architecture in Bologna, as it was the first church of the "Lercarian phase," following the First Congress of Sacred Architecture in 1955. This phase foreshadowed the notion of active congregant involvement, a concept that would subsequently play a pivotal role in the liturgical reform movement that emerged during Second Vatican Council. The architectural excellence of the work has been recognised through its inclusion in numerous publications, and it has been selected by the General Directorate of Contemporary Creativity of the Italian Ministry of Culture as a significant example of twentieth-century architecture. Pimentel's involvement in this project dates to his internship, during which he accompanied the project [4].

The preliminary design was published for the first time by the *Centro di Studio e Informazione per l'Architettura Sacra* in the magazine *Chiesa e Quartiere* no. 3 of September 1957. The design was included in 1966 in the Bolaffi catalogue of Italian architecture, and has subsequently been featured in volumes dedicated to places of worship at the European level, as well as in guides dedicated to modern architecture in the city of Bologna. The design is notable for its embodiment of the innovative spirit that charac-

terised mid-twentieth-century sacred architecture, synthesising modern architectural principles with emerging liturgical norms.

The spatial conception of the church is focused on the experience of the faithful approaching the high altar, and there is careful attention to the manner in which light and space interact inside to create a sense of sacredness and tranquility. The church's integration into the urban landscape of the Certosa district is noteworthy, while simultaneously serving as a prominent landmark in the realm of modern religious architecture.

1.2 The Chapel of the Dominican Seminary in Olival, Diogo Pimentel's First Sacred Work

The chapel of the *Dominican Seminary of Olival*, also known as *São Domingos Chapel*, is in Aldeia Nova, within the municipality of Ourém. It was the first sacred work designed and built by Pimentel between 1964 and 1965 [7].³ The chapel was intended to serve both the seminary community and the small rural population of Aldeia Nova. The architectural programme aimed to respond to the renewed liturgical requirements and to the spirit of a young and dynamic community.

«This was an exemplary collaborative project involving clients (the Dominican priests), architect, engineer, painter, and sculptor. The programme was extremely simple: a chapel serving the seminary and the village of Aldeia Nova where it would be built; [...] the aim was great formal simplicity, low cost, and perfect liturgical adequacy» [8].⁴

³ The chapel was designed before the publication of the document *Sacrosanctum Concilium*, which originated from the Second Vatican Council and already met the expectations of the conciliar revision. Miranda E (2005) *Arquitectura e Liturgia em Portugal (1926–1974)*, p. 158.

⁴ «Foi este um trabalho de certo modo exemplar como trabalho de colaboração entre clientes (os padres Dominicanos), arquitecto, engenheiro, pintor e escultor. O programa era tudo o que havia de mais simples: uma capela servindo ao Seminário e também ao lugar de Aldeia Nova onde seria construída; [...] pretendia-se grande simplicidade formal, baixo custo, e perfeita adequação litúrgica». (free translation). Pimentel D L (Nov/Dec 1967) *Capela*

The site was in a rural context with limited urban development, apart from the seminary buildings, which displayed a more urban architectural language. Consequently, the architect chose to integrate the chapel into the surrounding landscape, while clearly asserting its modern and erudite character. The chapel was conceived as an independent volume, distinct from the seminary complex, thereby emphasizing differences in architectural expression. The materials were carefully selected to harmonise with its rural setting. As João Alves da Cunha observed, «the chapel was integrated into the rural environment, both through the materials used and the way they were applied, but despite this preference and approach to the rural space, it clearly asserted itself as an erudite and modern work» [9] (p 79).

The chapel was built using local stone masonry finishing with plaster, intentionally treated to create a rough and textured surface. This approach sought to elevate plaster beyond its role as inert mortar, imbuing it with movement and expressive quality [8] (p 244). The continuous curved wall on the left-hand side envelops the interior space, metaphorically embracing the community. The integration of the two entrances reinforces the relationship between interior and exterior spaces, with the porch and the main roof projection forming a unified architectural element.

The chapel is illuminated naturally by light that is diffused through apertures in the lateral walls, which are positioned at intervals along the lateral walls of the nave. On the left-hand side, there are upper perforations, at the back, there is a vertical slot on the left-hand side, and on the right-hand side, there is a large window that is even crossed by one of the scissors roof trusses [9]. The asymmetrical gable roof, embellished with ceramic tiles and exposed woodwork, serves as a unifying element for the entire structure. In the case of the Blessed Sacrament Chapel, the natural light enters through two apertures located on the left.

The bell tower has a modern design and was constructed entirely from reinforced concrete,

“right at the foot of the altar,” as the architect himself stated in his text published in *Arquitectura* magazine. The fabrication of the liturgical objects was undertaken using reinforced-concrete. The tower was conceptualised as a liturgical object and not a constructive element of the building. «That’s why the tower is made of concrete: because concrete was reserved not for structural elements, but for the moulding of liturgical objects (or parts of them)» [8] (p 244).⁵

It is also important to consider the beam above the confessionals and the concrete pillars. These elements, which have been endowed with an object value within the context of this work, are of a structural nature. The objective was to provide a building-equipment ensemble with a constant characteristic. This objective was realized through the adoption of a monumental-scale configuration for the equipment, complemented by an almost object-like approach to the treatment of surfaces and constructive elements [8] (p 244).

The presence of spontaneity in the work is evident in the utilisation of materials and constructive elements in their natural state, eschewing surface treatment. This is evident in the exposed concrete, the stones utilised in the altars with their grooves reminiscent of their immediate origin in the quarry, the wood in the roof structure, and the rough and uneven plaster on the walls [8] (p 244).

Access to the chapel is permitted via two entrances: the primary entrance is situated within the portico, which connects those entering from the seminary and the community. This entrance is primarily utilised for community celebrations and is located at the rear of the nave, in close proximity to the main altar. The secondary door is intended for individual access, facilitating personal prayer [9]. A third door, accessible directly from the sacristy to the presbytery, is also present.

The architectural conception of the edifice was formulated within the framework of the revised liturgy, wherein the congregation encircles the altar, thereby becoming an integral component of the ceremonial proceedings. The internal pillars of

the building have been found to have no effect on its smooth running. The altars have been designed with an exposed concrete base, as is typical of most liturgical objects. Upon this base, a block of white Estremoz marble stone with natural faces has been superimposed, except for the top face, which has been polished for functional reasons [8] (p 244). The primary altar, designated for the liturgical celebration, differs from the altar of the Blessed Sacrament Chapel in that its configuration aligns more closely with the spirit of the Second Vatican Council. The tabernacle, which has historically been regarded as a symbol of elegance, was crafted from stainless steel and oxidised copper, featuring a minimalist, unadorned design.

The pulpit, located between the presbytery and the nave on the left, features an exposed concrete base, accompanied by a wooden shelf positioned on top. The strategic placement of the subject ensures optimal audibility and visibility. This same concern was evident in the selection of the chair for the presidency, which, while highly visible, did not feature a throne-like configuration.

In the domain of artistic expression, the chapel houses a notable wooden painting, dedicated to the chapel’s patron saint, São Domingos, by the artist José Espiga Pinto (1940–2014); a plaster sculpture of the Virgin and Child by the artist Maria do Carmo d’Orey (1933–2023); and polychromy by Manuel Costa Cabral (1941–)⁶; and the processional cross on the altar with the crucified Christ in Portuguese ivory, designed by the architect himself. The project was further enriched by the contributions of engineer Eduardo Zuquete, Manuel Torre do Valle, who was responsible for the design of the liturgical objects, and Alves Ribeiro, the builder [8] (p 244).

The asperge cover was designed by Isolda Norton (1912–2008), the architect’s aunt. The inspiration for Norton’s costume was drawn from the design created by Almada Negreiros for the theatre play *Auto da Alma*, which was performed in Lisbon in 1965. This design can therefore be regarded as a complete work in its function [9].

⁵ “Essa a razão porque a torre é de betão: porque o betão foi reservado não para elementos estruturais, mas para a moldagem de objectos (ou parte deles) de equipamento”. (free translation) Pimentel, D. L.: op. cit., p. 244.

⁶ The sculpture was taken to the Convent of São Domingos in Lisbon.

2 Final Considerations

It is evident that, following the presentation of these two works, it can be concluded that Diogo Pimentel utilised the knowledge he acquired in Bologna in his inaugural religious work in Portugal. Evidently, the meticulousness demonstrated in the design of this chapel is evident in the building itself, liturgical objects, and artistic elements, with attention to the minutiae.

A juxtaposition of these two works reveals some notable parallels. The Italian urban church that Diogo accompanied during his internship (and which he considered to be the most significant) and the Portuguese rural chapel that he designed share certain common features.

The utilisation of materials and construction systems, including reinforced concrete, glass, and wood, along with the employment of rustic white plaster on the walls, which creates a contrast with the exposed concrete (in natura materials), is indicative of a distinct approach to architectural design. The design incorporates the use of a continuous curved wall that embraces its entire envelope, a feature previously seen in the Italian church. Moreover, the spatial configuration corresponds to the principles articulated by the Second Vatican Council advocating for active involvement by the congregation through the arrangement of the assembly surrounding the high altar. This approach is in alignment with the spirit of the council, which is influenced by the Liturgical Movement in its capacity as the House of God.

A notable distinction emerges between the two in terms of the meticulousness of certain details, including liturgical objects, art, and furnishings. Diogo Pimentel demonstrated greater discernment in this regard, employing concrete in the construction of equipment objects, at least in their bases, and utilising stones on the altars in a rustic form with a polished surface. The presence of modern art, including painted wood art, a sculpture, and a processional cross on the high altar, as well as the asperge cover, was also notable. By way of contrast, the Italian church featured temporary furniture, some abstract stained-glass windows, a cross in the Blessed Sacrament

Chapel, and a wooden cross suspended over the high altar.

In both cases, the design of the natural lighting system was of particular note, with diffuse and cosy overhead lighting from the sides of the nave being incorporated into the interior, with the intention that this, in combination with the surfaces, would inspire prayer and recollection. In the Italian church, in addition to the lighting on the sides above the high altar, there is a zenithal opening that floods it with light. A comparison can be drawn between these two cases and the Ronchamp Chapel, in terms of the manner in which the lighting is treated, diffused and cosy, thereby creating a sense of separation from the outside world.

In terms of configuration, both edifices are characterized by a square base and a predominantly single interior. The exteriors of both edifices are in keeping with their rural surroundings. The Italian church is distinguished by its flat exposed concrete roof, which is supported by a structure of exposed concrete pillars. These pillars are set into recessed masonry walls, which serve to separate the interior from the exterior of the building. The walls of the church are composed of rustic plasterwork, a distinctive feature that sets it apart from the residential buildings in the neighbourhood in which it was constructed. In contrast, the Portuguese chapel, on the other hand, is distinguished by its asymmetrical gable roof, which incorporates a wooden structure and ceramic tiles. The use of local stone foundations, rustic plastered white masonry walls, pillars, and an exposed concrete beam is also notable, and the presence of a porch in the churchyard, a common feature in rural buildings, further enhances its distinctiveness. The exposed concrete bell tower, situated at the foot of the altar, is not merely an architectural element but a functional addition, thus distinguishing the chapel as an entity within its environment.

Diogo Pimentel then synthesised his expertise as an architect, as a member of the MRAR, as a trainee in Bologna, and as director of the SNIP to conceptualise this significant project for modern religious architecture in Portugal. The

establishment of this project as a comprehensive and contemporary work, both in architectural and artistic terms, within the new liturgical spirit with simplicity and humility to serve a community, is of considerable importance.

References

1. Secretariado Nacional da Pastoral da Cultura—Diogo Lino Pimentel 1934–2019. http://www.snpcultura.org/diogo_lino_pimentel.html. Last accessed 05 Jan 2025
2. Alagamares Associação Cultural (2016) À conversa com o arquitecto Diogo Lino Pimentel, Sintra. <http://www.alagamares.com/a-conversa-com-o-arquitecto-diogo-lino-pimentel/>. Last accessed 05 Jan 2025
3. Pimentel DL (1960) Relatório referente ao 1º trimestre de estágio junto do Centro di Studio e Informazione per l'Architettura Sacra, Bologna
4. Gresleri G (2019) Chiese prima e dopo il terremoto. In: Glauco Gresleri (1930–2016). In_bo Ricerche e progetti per il territorio, la città e l'architettura 10(14)
5. Bartolomei L (2019) Glauco Gresleri [1930-2016]. In: Glauco Gresleri (1930–2016). In_bo Ricerche e progetti per il territorio, la città e l'architettura 10(14)
6. Smith GEK (1964) The new churches of Europe. The Architectural Press, London
7. Miranda E (2005) Arquitectura e Liturgia em Portugal (1926–1974). Universidade do Minho, Guimarães
8. Pimentel DL (1967) Capela do Seminário Dominicano do Olival. *Arquitectura* 100:238–245
9. Cunha JA (2019) Capela do Seminário do Olival—Aldeia Nova, Ourém. In: Cunha JA, Marques JL (eds) *Dominicanos Arte e Arquitetura Portuguesa Diálogos com a Modernidade*. Sersililo, Porto, pp 76–91

Mario Ridolfi, Álvaro Siza: Screenplays for the Craftsman

Alessandro Brunelli 

Abstract

“Távora often spoke of Albini and Gardella I was struck by Ridolfi’s work and his drawings [...] so precise, so different from those of Le Corbusier”. In a 2019 interview, Álvaro Siza recalls his formative years talking about one of the most important architects of the twentieth century in Italy: Mario Ridolfi, disseminated in Portugal by Fernando Távora and the magazines that circulated within the School of Fine Arts in Porto in the 1950s. Ridolfi came to Siza through Gregotti (“Casabella-Continuità” no. 210 later paraphrased by Carlos S. Duarte in “Arquitectura” no. 57/58) and the lens of Távora intent on seeking a third way between modernity and tradition. Biographically distant by almost thirty years, Ridolfi is an indirect master of Siza who is trained in his architecture already inscribed in the Tavorian vision. Brought together by their work in the provinces (Matosinhos and Terni), Siza and Ridolfi can be assimilated for their “drawing-thinking” between spatial intuition and constructive moment. It is precisely on the theme of construction that “Lotus” No. 37 calls into question Ridolfi and Siza; masters

of the art of the hand linked by certain design assonances.

1 Portraits

In 2019, *Casabella* dedicates an entire monographic issue to Álvaro Siza’s early work. For the occasion, the Portuguese master gives an interview to director Francesco Dal Co about the four Matosinhos houses (1954–56) and his formative years spent between the desks of the School of Fine Arts in Porto and Fernando Távora’s drawing tables. When the question was asked about the material and typological references of the Matosinhos buildings, designed when he was only twenty-one years old, Siza himself talks about the “fight for modernity”, citing some of the most important architects of the twentieth century in Italy; among them Mario Ridolfi.

«Távora often talked about Albini and Gardella I was impressed by Ridolfi’s work and his drawings. Those hand-drawn drawings were so precise, so different from those of Le Corbusier. They showed great attention to materials and the ability to compose them, there were fantastic details that yet spoke to the city. They were rigorous drawings, so different even from those of the Brazilian architects we knew» [1].

Mario Ridolfi’s work reached the young Siza in Portugal through *Casabella-Continuità* edited by Ernesto Nathan Rogers from issue 199 of

A. Brunelli (✉)
Department of Architecture, University of Ferrara,
Ferrara, Italy
e-mail: alessandro.brunelli@unife.it

December–January 1953–54. Rogers was a friend of the master Fernando Távora and the two would meet several times in Italy between 1947 and 1952 [2]. Rogers' *Casabella*, which opens up to «continuity as historical consciousness [...] - and - essence of tradition [...] - against - any past or present formalism» [3], is aligned with Távora's thinking, who in the same years defined modern architecture as not a search for a style but a design attitude [1]. (p 71) In the first issue of Rogers' "Continuity" we therefore find space for the equatorial architectures of Cameroon, those of Jean Prouvé, but also the Italian architectures of Ridolfi (Houses in Viale Etiopia in Rome) and Gardella (Dwellings in Alessandria) described by De Carlo as buildings freed from "abstract dogmatism" and immersed in a profound search for reality [4].

In June 1956, eleven issues after the 199, it was Vittorio Gregotti's words that continued the popularisation of Mario Ridolfi's work in *Casabella-Continuità*, which published a number of recent works in issue 210 including the INA houses in Cerignola and Terni, the building in Via Vetulonia in Rome and two other houses in Terni

(Casa Chitarrini and Casa Luccioni) [5]. In the text, Gregotti roots Ridolfi's works in the echoes of rationalism and a strong expressionist component in dialogue with the techniques and styles of historic Italian architecture. A few months after Gregotti's article, Ridolfi's architecture landed in Portugal through the Lusitanian channel of the magazine *Arquitectura* (issue 57–58), which repropose in the words of Carlos Duarte the three projects by Terni published in *Casabella* in June 1956 [6]. Besides a substantial difference in the writings (Duarte paraphrases and quotes Gregotti at the foot of the page) the Portuguese magazine did not publish the numerous detail drawings, admired by the young Siza, but almost exclusively some photos of the realisations. In the following years, the magazine *Arquitectura* will give more and more space to Portuguese projects, limiting the dissemination of Italian works to other authors including Albini, Scarpa, Libera but no longer Ridolfi. Rogers' *Casabella-Continuità*, on the other hand, continued to follow Ridolfi's trajectory by publishing the Roman architect's architecture in the making. (Fig. 1).

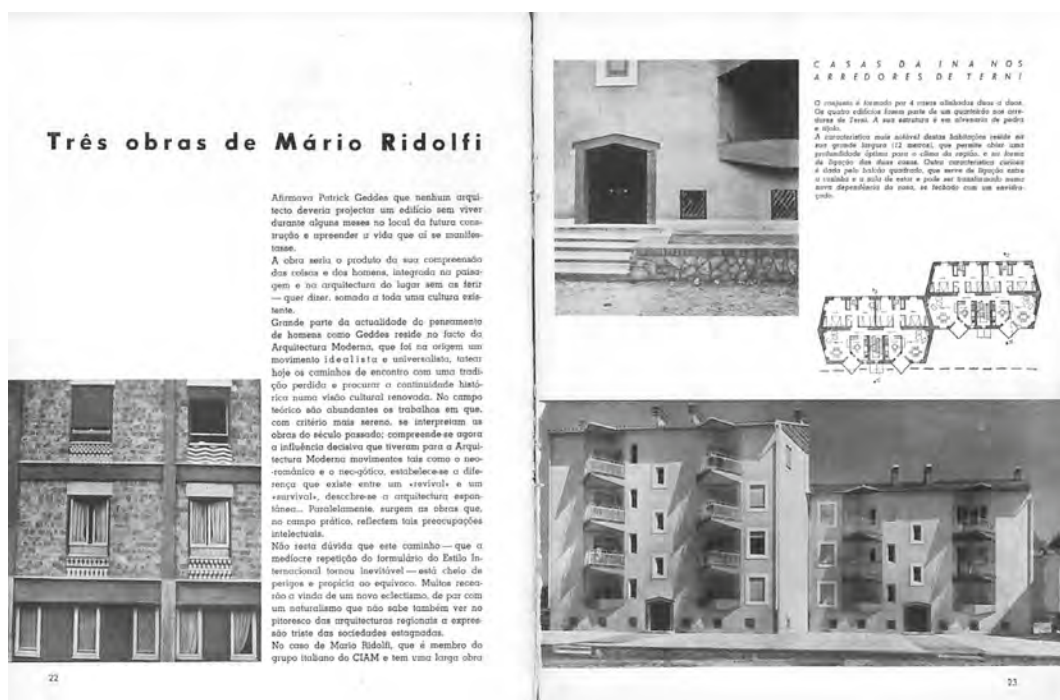


Fig. 1 Duarte, C. S.: Três obras de Mario Ridolfi. *Arquitectura*, January–February (57–58), 22–25 (1957)

Siza therefore learns Ridolfi's lesson through the drawings disseminated by the Italian magazines, [1] (p 78) drawings "so precise", according to the Portuguese master, that they "speak to the city" and at the same time to the artisans who, reading the screenplay, interpret the graphic signs and the numerous accompanying notes to realise the construction.

The relationship between Siza and Ridolfi is thus linked to the gesture of the hand that, although expressed through distinct strokes from which completely different architectural works emerge, finds the same rigour in the meticulous drafting of the project drawing constantly linked to construction. It is precisely on the theme of construction that issue 37 of *Lotus* calls on the two Mediterranean architects.

On page twenty-five of the same issue, Mario Ridolfi is presented with a figurative self-portrait with a dense and marked mark, while Álvaro Siza appears in a sequence of photos whose dynamic gestures, captured on site by Roberto Collovà, recall the graceful movement of his pencil used to represent himself [7], people and architecture with soft, open lines.

The portraits translate two different personalities, biographically distant almost thirty years, united by the search for an exact architectural construction as the result of a precise screenplay drawn for craftsmen, often encountered in provincial contexts such as Matosinhos and Terni. Ridolfi and Siza, linked by the realism of practice and the recovery of tradition, the former through the lens of Pagano's exhibition of '36 [8], the latter through the experience of the '56 *Inquérito* (published in 1961), [9] are in search of a new post-regime architecture, a similar condition that seems to bridge the thirty-year biographical gap between the two masters: on the one hand Mario Ridolfi (born 1905) and the liberated Italy of 25 April 1945, on the other Álvaro Siza (born 1933) and the post-Salazar Portugal of 25 April 1974.

Starting from the drawing, understood as the graphic thought of the design process, and from some testimonies given by the two masters, it is possible to establish a relationship between

Ridolfi and Siza whose architectural research, far apart in formal and figurative terms, seems to find certain assonances on the theme of housing.

2 The "Drawing-Thinking" [10]: Screenplays for the Craftsman

La costruzione: percorsi e discorsi is the editorial in issue 37 of *Lotus*, a fascicle that dedicates two articles on the subject of construction to Mario Ridolfi and Álvaro Siza respectively. In the text, editor Pierluigi Nicolín takes up the topic of the dimensioning of architecture addressed by Hamburger a few pages later:

«Bernard Hamburger [...] observes that in measuring the elements of architecture two types of dimensioning would be necessary: the heuristic and the nominal. - If - the first [...] begins with the drafting of the sketch that allows the architect that dimensional imprecision necessary to "negotiate" between different requirements of the programme [...] - the second is instead the - nominal dimensioning: of those precise measurements that must be fixed for the documents necessary to stipulate the actual agreement with those who will have to build and ensure coordination [...]» [11].

The two types of architectural dimensioning, the heuristic and the nominal, undoubtedly correspond to two modes of representation: the intuitive drawing and the drawing normalised by notes and measurements, which during the design phase merge and blur until the final drawings are drawn up. But the «plans plus instructions - as Pierluigi Nicolín himself states, quoting Goodman's *Linguaggi dell'arte* - give - only - a screenplay [...], a drawing» [11] which, according to Nicolín himself, is never capable of identifying an architectural work. The identification of an architecture as such only occurs with the end of the construction act during which the *arkhitekton*, the head of the workers (or filmic cameo), actively enters the construction site (or filmic scene) negotiating and discretizing the drawn project. (Fig. 2).

Mario Ridolfi and Álvaro Siza as *arkhitekton* take part in the construction site settings and write

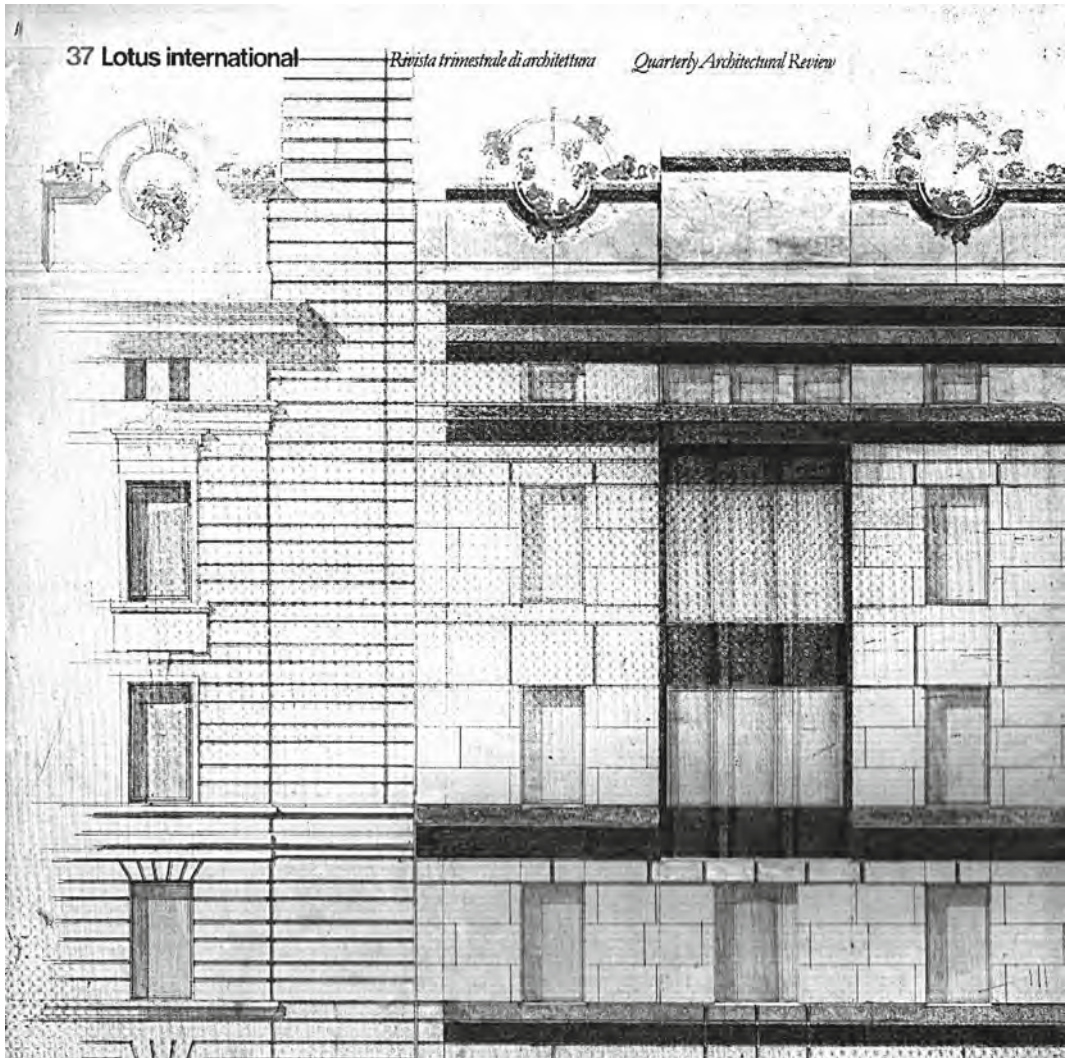


Fig. 2 Cover of Lotus (I), 3 (1983)

them through the constant production of drawings which, from the very first ideational stages, condense the intuitive and normalised dimension of architecture. For the two masters, the sheet becomes the space of design thinking in progress in which the different scales are syncretically interwoven from the beginning of the design process.

Marco Biraghi would identify the graphic signs of Siza and Ridolfi's design research with the term "drawing-thinking", [12] (p 80) that is a drawing:

«always *in view of* the realisation, — in which lives — [...] the continuous iteration between the

ideational moment and the executive moment. [...] - The "drawing-thinking" is - the place of an accumulation, a stratification, an *overwriting* of signs and "senses", of plans, elevations, annotations, calculations, decorative details [...] simple pencil sketches, all coexisting with each other, even at different scales» [12]. (p 82–83).

The historian Biraghi sees in Carlo Scarpa the exponent of "drawing-thinking", understood as a complex of graphic traces capable of holding together the heuristic and nominal dimension of architecture, a characteristic that can be transferred to the drawings of Mario Ridolfi and Álvaro

Siza, who also find in Scarpa the analogy of not being «champions [...] of theory» [12]. (p 80).

Although the drawings of the Roman and Portuguese masters are exemplary for their intuitive-constructive coexistence, it is possible to find slight differences related to the biographical events of the two architects. On the one hand, there is in fact Mario Ridolfi, with a “drawing-thinking” more inclined to the nominal dimension that comes to terms with his quest to normalise the elements and methods of the post-war architect’s work [13], on the other hand, there is Álvaro Siza’s “drawing-thinking” whose centre of gravity is shifted towards the heuristic dimension of the sculptor turned architect [14].

The drawing of the 1950s by Mario Ridolfi, now far distant from the absolute representations of the fascist period, is steeped in the experience of the *Manuale dell’architetto*, [15] published in 1946, and the «need for standardisation - of the discipline - in view of the strong expansion of mass construction» [13]. The Roman architect’s interest was thus aimed at filling the gaps in the academy «unable to address the *real* problems of construction» [13] which needed greater technological standardisation and graphic codification. On this last subject, Ridolfi dedicated an entire insert to issue 181 of *Domus* 1943, *Il disegno architettonico professionale*, in which he proposed a series of graphic and technical standards, asserting the importance of drawing as a form of expressive language that must be standardised in order to achieve a “non-academic but practical” value [16] (1 of 20 pp. out of text) necessary for the designer.

Among the *Criteri Generali* of Ridolfi’s standards, the accent is placed on the drawings of details, which must be elaborated with «all the notions in one’s possession, using the valuable advice of technicians and specialised workers» [16] (3 of 20 pp. out of text) considered not mere executors, but an active part of the project and the definition of the drawings. The Roman master goes on in his *Criteri* explicating the need for method and sharing with his readers his *modus operandi* in drafting the details.

«The writer has already had the opportunity to inform his colleagues of the method he follows in drafting the drawings [...] which consists in

considering each building element as a system of nodes and rods, where the nodes are the obligatory points and the rods are the distances between nodes. It is therefore sufficient in each building element to consider all the cases that each node entails, specifying in each of them the fixed measurements and indicating for those that are the responsibility of the designer only the references» [16]. (4 of 20 pp. out of text).

Ridolfi concludes the *Criteri* notes by recommending that architects provide precise drawings with annotations and numbers to ensure the best execution of the construction site. From this writing, but also from other interviews and textual evidence [17, 18], it is easy to understand how Ridolfi’s “drawing-thinking” is more inclined to the nominal dimension of the project that proceeds simultaneously between the intuitive search for the forms of space and the rational search for construction.

Returning to Álvaro Siza and observing his graphic work, we move towards a more heuristic dimension of architectural drawing in which the nominal datum re-emerges as the ideational process progresses. As Siza states, the drawings:

«as a working tool, they help establish a permanent dialectical relationship between intuition and rigorous verification, in a progressive process of complete understanding and visualisation» [19].

From representations of the site through bird’s-eye views, Siza’s free traces become more and more “drawing-thinking” and the orthogonal projections of the project mix with detailed sketches and numerous perspectives: small human visions that widen or close the field of vision, narrating an environment, a material joint or an architectural node. For the Portuguese master, it is necessary to carry forward all scales of project [20] always following the same iter: «analysis in detail, introduction of elements [...], criticism, the need to reduce [...] and [...] the drawing becomes again as simple as it was at the beginning, but [...] - with - a new complexity» [21].

In the intricate shaping of Siza’s architectural thought, between plastic visions and details, one can see how the master’s hand acts freely in the worksheet, often letting go of human figuration. The faces and bodies that surface among Álvaro

Siza's design drawings, that is the heritage of the School of Fine Arts but also the latent nature of the sculptor Siza, are proof of the heuristic inclination in the Portuguese master's stroke.

«The figure, and the human figure in particular, were present in my early drawings in an instinctive way. Over time, I began to think that the human figure is decisive for architecture - even Palladio's villas are faces - and that the body is the origin of all proportion. But in my case, the overlapping of figures on architectural drawings is the result of unthought, instinctive events, the work of the subconscious» [1].

The relationship between the drawing of the human figure and the architectural sign is explored in Francesco Dal Co's essay, *L'uomo-linea. Un furto a Italo Calvino*, [22] in which the historian explains that the overlap between human and architectural forms is triggered at «the moment of verification, of the *errores inveni*, when the hand regains full freedom and the eye resumes wandering, or stealing as Siza likes to say. The appearance of the figure in architectural drawing follows a similar mechanism to that which is the result of an untiring curiosity of the hand» [22]. (p 102).

Francesco Dal Co's words on Siza underline the role of the hand in the ideational process of architecture, a hand that for the Portuguese master becomes «another self, which [...] keeps company and [...] says what it thinks of the [...] project» [23]. Mario Ridolfi is of the same opinion, insisting on several occasions on the autonomy of the manual sign as an immediate instrument of reflection and «the best expressive means [...] in stopping thought on paper» [24]. Despite the fact that Siza hybridised the design process with digital tools, it is possible to note how the pen continued to maintain its primacy in his design process and «the introduction of the personal computer did not modify [...] either the working system or the results [25] of the works realised as Antonio Angelillo states in the paragraph *Dalla Bic Al Cad, Alla Bic*.

Having ascertained the differences in the «drawing-thinking» of the two masters, the latter linked to biographical events, and having find out the common reflection on the importance of the

manual sign, it is now necessary to dwell on some of their considerations regarding the conception of construction detail.

Mario Ridolfi and Álvaro Siza, immersed in the material culture of the realism of practice, both search for the perfection of executive drawing by going into almost life-like detail on handles, balustrades, window frames and details of partitions and closures of the building envelope. For the Roman architect, detail drawings are made to anticipate construction problems because «if [...] you have to make a window frame taking into account the non-waste of glass, you necessarily have to detail [...]. - Only - when you get to decompose, mentally first and with the drawing later, a building organism» [24] is it possible to solve construction problems. In the same way, Siza insists on the need to draw every detail in order to control architectural quality and achieve the desired result [20]. «The development of an objective detail, a window, a masonry or [...] the stereotomy of the building are all elements that are part of a whole and should not be considered as something isolated» [26].

Having elaborated the executive screenplay for the realisation of the work, the two masters begin their frequentation of the construction site, similarly establishing a continuous dialogue on an equal footing with the workers. Siza and Ridolfi listen attentively to the words of the craftsmen, resolve accidents along the way, improvise solutions and finally open up new design paths together with the executors; paths that are necessarily verified through the drawing [20]. In this regard, it is sufficient to cite the testimonies of the two masters' collaborators: Roberto Collovà's famous *Action Building*, [27] a sequence of images of Siza documenting his face-to-face interaction with the construction site and the dialogue with the workers, and Wolfgang Frankl's words on Ridolfi, who: «originally was searching the national motifs on which to base his work, learned the technique from the carpenters, seeing how their work was carried out» [28]. Frankl's testimony tells us of the fruitful relationship with the artisan culture from which Ridolfi learnt how to design: «a marvellous door [...], which has the formal richness of ancient things and the usefulness and flexibility

of modern things» [24]. Similarly, Siza, speaking of the building site as a «participatory exercise [...] shared with craftsmen [1] who “explain how to make things», [1] (p 76) places himself in the same dimension as Ridolfi, where craftsmen and architect align themselves to «build in the most practical and rational way, as happened [...] in the Parthenon, or in Chartes, or in the Casa Milà [...] - rediscovering - the magical strangeness, of the obvious things» [29].

3 Between House Drawings: Assonances

The incessant dialogue with the building tradition, understood as a cultural reservoir from which to nourish architectural research, unites the work of Siza and Ridolfi, which Marco Biraghi includes in *Storia dell'architettura contemporanea II. 1945–2008* in the respective chapters *Il colloquio con la tradizione I* [30] (pp 72–96) and *Il colloquio con la tradizione II* [30] (pp 239–270). The historian uses the same titles to relate the condition of backwardness in post-war Italy to the Spain and Portugal of the post-regimes, countries in which modern architecture was rebuilding on the shoulders of the popular building tradition. In these underdeveloped contexts, partly to be reconstructed and partly to be urbanised, many of the architects confront the theme of housing by building destroyed pieces of cities, expansions to be destined for the less affluent classes and new middle-class residences. The production of Ridolfi and Siza is also characterised by projects on housing, including many private and many public buildings such as the INA neighbourhoods of the Roman architect and the SAAL neighbourhoods of the Portuguese master.

Ridolfi's house is «clever - with - the groove for hanging pictures, the door frames that contain the electrical system, the sliding and interchangeable door panels, the size of the windows the same as the doors; and the transparent parapets to prevent children from feeling enclosed» [31].

Siza's house is «a complicated machine, in which something breaks down every day: lamp, tap, drain, lock, hinge, light socket, water heater,

cooker, refrigerator, television or video; and the washing machine, or the fuses, the curtain hooks or the safety lock» [32].

Both masters therefore interpret the house as a *machine à habiter*, a functionalist architecture that has to respond to modern living (of Tavora's *Problema da Casa Portuguesa* [33] or Rogers' *Casa a Ciascuno* [34]) without forgetting the characteristics of traditional building, as demonstrated by the numerous projects on the subject by the two authors. It is precisely on the theme of housing that a final point of contact between Ridolfi and Siza can be established; a contact between the drawings of the houses built.

From Siza's words in 2019 we understand that the relationship between the Portuguese and Roman masters came about indirectly through Rogers' *Casabella-Continuità*, one of the foreign magazines that began to arrive in Porto after 1949 [1]. In issues 199 of 1954, 210 of 1956 and 215 of 1957 a number of recent works by Mario Ridolfi appeared in *Casabella-Continuità* including: the INA Casa complex in Cerignola (1950–51), Casa Luccioni in Terni (1951–52) and the Villino Astaldi in Rome (1955–56).

Observing the drawings of the three works mentioned above, in particular the section of the terraced buildings in Cerignola (type E, D), the double-height section of the Casa Luccioni and finally the drawing of the broken line of the window frames of the Villino Astaldi in Rome, we could establish spatial and figurative assonances with three projects by Álvaro Siza, comparing, respectively, the signs of Ridolfi with the section of the row of the SAAL Bouça in Porto (1975–77), the section with the free staircase of Casa Neto (1954–56) and finally the detail of the glazed wall of Casa Beires (1973–76) in Pavia de Varzim.

As there is no certainty of direct relations between the projects, the comparison between the architectures of the two masters is a possible bet, but one that is motivated by the “drawing-thinking” that the two architects have in common and by their similar way of interpreting the same profession: on the one hand Mario Ridolfi with his “lyrical realism” [35] and on the other Álvaro Siza with his “poetic profession” [36]. (Fig. 3).

Fig. 3 Davide Trabucco, *confórmi*, 2017_Mario Ridolfi, Mario Fagiolo, Ufficio Postale in Piazza Bologna, Rome, Italy, 1931–1935 VS Alvaro Siza Vieira, Wohnhaus Schlesisches Tor (Bonjour Tristesse), Berlin, 1980–1984



References

1. Dal Co F (April 2019) Álvaro Siza, una conversazione con Francesco Dal Co, Porto, 6 febbraio 2019. *Casabella* 896: 77–78
2. Esposito A, Leoni G, Maddaluno R (eds) (2022) Fernando Távora diario di bordo. LetteraVentidue, Siracusa, p 477
3. Castagnaro A (January 2010) Ricordo di Rogers *Op Cit* 137: 20
4. De Carlo G (December 1953–January 1954) *Architetture italiane*. Casabella-Continuità 199: 20
5. Gregotti V (June 1956) Alcune opere di Mario Ridolfi *Casabella-Continuità* 210: 22–48
6. Duarte CS (January–February 1957) Três obras de Mario Ridolfi. *Arquitectura* 57-58: 22–25
7. Pinto De Almeida B (ed) (2004) Álvaro Siza - desenhos, Cooperativa Árvore, Porto, p 173
8. Portoghesi P (March–June 2005) Il realismo di Ridolfi. *Controspazio* 114–115: 9
9. Beaudoin L, Rousselot C (February 1978) Entretien avec alvaro siza *AMC* 44: 33
10. Biraghi M (2021) *This is architecture*. Einaudi, Turin, Il progetto come filosofia della prassi, p 80
11. Nicolini P (1983) *La costruzione: percorsi e discorsi* Lotus I:3
12. Biraghi M (2021) *Questa è architettura. Il progetto come filosofia della prassi*, Einaudi, Turin
13. Muratore G (March–June 2005) L'esperienza del Manuale. *Controspazio* 111–112: 82
14. Seoane C, Siza Á (May 2000) Intimità e monumentalità. Intervista ad Álvaro Siza di Carlos Seoane. *Casabella* 678:29
15. Ridolfi M, Calcaprina C, Cardelli A, Fiorentino M (ed) (1946) *Manuale dell'Architetto*, CNR-USIS, Rome. Organising Committee: G. Colonnetti, B. Bongioannini, P.L. Nervi, M. Ridolfi, B. Zevi; Executive Committee: C. Calcaprina, A. Cardelli, M. Fiorentino; General Editing: M. Ridolfi, C. Calcaprina, A. Cardelli, M. Fiorentino
16. Ridolfi M (1943) Il disegno architettonico professionale. *Domus* 181
17. Ridolfi M (1940) Contributo allo studio sulla normalizzazione degli elementi di fabbrica. *Proposta di un sistema per la normalizzazione degli infissi in legno*. *Architettura V*:241–248
18. Ridolfi M (1946) *Il Manuale dell'Architetto* *Metron* 8:35–42
19. Cremascoli R (2016) La prima mostra. In: Cremascoli R, Moschini F (eds) *Alvaro Siza in Italia: il Gran Tour 1976–2016*. Accademia di San Luca, Roma, p 65
20. Robbins E (1997) *Why architects draw*. The MIT Press Cambridge, Massachusetts, p 154

21. Croset PA (2016) La Svolta Di Penaiel: Una Conversazione Con Álvaro. In: Cremascoli R, Moschini F (eds) *Alvaro Siza in Italia: il Gran Tour 1976–2016*. Accademia di San Luca, Roma, p 148
22. Dal Co F (April 2019) *L'uomo-linea*. Un furto a Italo Calvino Casabella 896: 99–104
23. Machabert D, Beaudouin L (eds) (2009) *Álvaro Siza, Uma Questão de Medida, entrevistas com D Machabert e L Beaudouin*. Casal de Cambra, Caleidoscópio, p 17
24. Cellini F, D'amato C (1997) Intervista a Mario Ridolfi, Marmore, 12 novembre 1983. In: Cellini F, D'amato C (ed) *Mario Ridolfi. Manuale delle tecniche tradizionali del costruire. Il ciclo delle Marmore*. Electa, Milano, p 246
25. Angelillo A (2016) *Álvaro Siza: I Recenti Lavori in Portogallo*. In: Cremascoli R, Moschini F (eds) *Alvaro Siza in Italia: il Gran Tour 1976–2016*. Accademia di San Luca, Roma, p 133
26. Teixeira N (2022) Nuno Teixeira interviews Álvaro Siza. In: *Alvaro Siza: in detail II. House Details Architecture*, Lisbon, p 331
27. Collovà R (1983) *Action Building Alvaro Siza Lotus I*:74–77
28. AA VV (March–June 2005) *Frankl. Controspazio* 111/112: 195
29. Siza A (1986) *Premessa*. In: Siza A, *Professione poetica*. Electa, Milano, p 9
30. Biraghi M (2008) *Storia dell'architettura contemporanea II. (1945-2008)*. Einaudi, Turin
31. Di Puolo M (March–June 2005) *Dialogo degli anni '70 tra Maurizio Di Puolo e Mario Ridolfi. Controspazio* 114-115: 154
32. Siza A (1999) *Vivere in una casa*. In: Frampton K. *Alvaro Siza tutte le opere*, Electa, Milano, p 254
33. Tavora F (1947) *O problema da Casa Portuguesa*. *Cadernos de Arquitectura*, Porto
34. Rogers EN (1997) *Una casa a ciascuno*. In: Rogers E N. *Esperienza dell'architettura*, Skira, Ginevra-Milano, pp 71–75
35. Cellini F (1997) *Il significato dei disegni di Ridolfi e Frankl*. In: Cellini F, D'amato C (eds) *Mario Ridolfi. Manuale delle tecniche tradizionali del costruire. Il ciclo delle Marmore*, Electa, Milano, p 13
36. Siza A (1986) *Professione poetica*. Electa, Milan

Constellation XX. Rethinking the Future of Sardinia's Bunkers

Giulia Cherchi , Donatella Rita Fiorino ,
and Maria Serena Pirisino 

Abstract

Standing as silent sentinels along Europe's coasts and national borders, bunkers have gradually become modern ruins, their strategic military function long obsolete. Historically, they have been perceived as marginal elements in urban and landscape contexts. For a long time, they were considered an academic taboo due to their association with the traumatic events of a recent past. However, in recent years, bunkers have been increasingly included in rehabilitation, reuse, and enhancement programs. These initiatives recognize bunkers as part of a broader territorial and historical network, as essential sites capable of reinforcing collective memory and strengthening civic identity. Building on these considerations, this paper presents the first outcomes of *Constellation XX*, a project dedicated to investigating Sardinia's World War II defensive heritage. The project's primary goal is to develop appro-

priate tools that can activate processes of value recognition and enhancement, tools aimed not only at safeguarding and conserving this heritage as a form of historical memory but also at stimulating new ideas and opportunities for the re-appropriation of these places. In this vision, the bunker is reimaged as a key asset in cultural tourism and heritage management strategies. To this end, the project proposes a standardized investigation protocol for these structures based on a research methodology that combines archival analysis, satellite imagery interpretation, and in situ surveys. This approach ensures a comprehensive understanding of the sites. All collected data has been systematically organized into a database and made accessible through a georeferenced GIS platform. By reframing their marginal condition, the project analyses bunkers as a significant landmark, aiming to define the XX century constellations and reinterpret their role as sustainable opportunities for the coastal territories of Sardinia.

G. Cherchi (✉)
Department of Science of Antiquity, "La Sapienza"
University of Rome, Rome, Italy
e-mail: giulia.cherchi@uniroma1.it

D. R. Fiorino · M. S. Pirisino
Department of Civil and Environmental Engineering and
Architecture, University of Cagliari, Cagliari, Italy
e-mail: donatella.fiorino@unica.it

M. S. Pirisino
e-mail: mariaserenapirisino@gmail.com

1 Introduction

Since losing their strategic purpose in the late twentieth century, thousands of military structures across Europe have gradually fallen into neglect. Over time, these remnants of the past have transformed into *modern ruins*,

[22] long excluded from theoretical discourse and reuse initiatives. Among these, bunkers represent a unique case. Built from reinforced concrete, these *monolithic* [22] fortifications were designed to protect and withstand attacks, serving as impenetrable shields for soldiers. Their exceptional solidity has allowed many to survive almost intact, standing as silent sentinels along coastal landscapes. Their relatively recent construction made recognising their historical significance and cultural value difficult, while the traumatic memories tied to the conflicts further contributed to their abandonment. Although a first acknowledgement of their interest already emerged in the mid-seventies, [22] only in recent years has there been a growing awareness of their importance, leading to their inclusion in the field of “difficult” or “dissonant” heritage. Since then, international research has examined them not only from a historical point of view [3, 11, 13, 14, 20, 21] but from multiple perspectives, including sensory perception, [2, 12] geometrical survey and visual representation, [18, 19] construction materials and morphologies, [17] cataloguing, conservation and enhancement [4, 5, 9, 15, 16]. This shift in perspective has fostered recognition of their testimonial and historical value, prioritising their preservation for future generations and transforming them into monuments of collective memory. Yet, many of these structures remain in *limbo*, awaiting the opportunity to be reintegrated into contemporary society and regain their full significance.

Starting from these considerations, this contribution proposes the first result of enhancement project, called *Constellation XX*,¹ [6, 8, 10] promoted by the Italian Institute for Castles as part of a wider and ongoing research on fortified and military heritage in Sardinia, carried out from more than a decade by the Department of Civil, Environmental and Architectural Engineering of

the University of Cagliari, focused on the study of the military systems, of their state of conservation and the construction of possible scenarios of conservation, reuse and cultural enhancement.²

In particular, the *Constellation XX* project investigates the Sardinian World War II heritage, composed of observation batteries, bunkers, tunnels, and support facilities that characterize the Sardinian coastline, both in the urban and landscape context. Built during the IIWW, near the main urban centres and ports, these structures are situated in areas of outstanding scenic value, serving as true landmarks within the landscape. Moreover, their diverse forms and the skilful use of materials demonstrate a perfect integration of architectural design with military and strategic needs, making each bunker a unique artifact. Once lost their defence function, as occurred in other contexts, they have been abandoned. After several decades of neglect, some have disappeared, and others await appropriate conservation and enhancement processes.

Thus, the main project’s objective is to create appropriate instruments able to trigger value acknowledgement and enhancement processes. This aim is not only to safeguard this heritage as a historical memory but also to stimulate ideas and opportunities for re-appropriation of the places, attributing to the bunker a key role in the policies of management and cultural tourism.

To achieve this aim, the project proposes a series of knowledge paths designed to highlight this heritage’s historical, cultural, material, technological and landscape peculiarities. These recognised values will be shared with the community by developing dedicated enhancement itineraries.

¹ This project, promoted by the association *Istituto Italiano dei Castelli ONLUS*, Sardinian Section (non-profit cultural organization founded in 1964), and supported by the School of Architecture of the University of Cagliari, has been selected and funded by Fondazione di Sardegna in March 2024, within the “2024 Annual Call for Proposals. Art, Activities, and Cultural Heritage”.

² The School of Architectural Conservation of the University of Cagliari has been developing a line of research on fortified and military landscapes, also thanks to the collaboration agreement signed on 18 September 2018 with the Ministry of Defence on research and training topics in the field of Engineering and Architecture (Scientific Director of the agreement for UNICA prof.ssa Donatella R. Fiorino, for the Ministry of Defence with Pasqualino Iannotti).

Specifically, the first phase of the project presented herein focuses on developing a knowledge-based methodology for identifying and cataloguing these structures. This approach has been initially tested on a sample within the defensive arc of the city of Cagliari, serving as a case study for broader applications in other geographical contexts.

The project aims to establish a standardised protocol for documenting these artifacts through a research methodology focused on archival analysis, satellite imagery examination, and targeted field inspections, ensuring a comprehensive survey of these sites. The collected data is systematically organized into a database and made accessible through a georeferenced information system in GIS.

By leveraging their marginality, the bunkers are analysed as key benchmarks, to define the XX century *constellations* and reinterpret their role as sustainable opportunities for the coastal territories of Sardinia.

2 Methodology and Tools

As mentioned before, this study contributes to the growing academic and scientific interest in “difficult heritage” and fortified archaeological landscapes, aiming to establish a unified methodology of analysis and cataloguing. At the same time, it fills a gap in the knowledge of World War II structures in Sardinia, an area that currently lacks systematic research. The operative protocol for the heritage in object followed the one already used for historical heritage, beginning with in-depth archival research and following a direct analysis of the architectures previously identified through the found documents.

Thanks to the collaboration agreement between the Ministry of Defence and the University of Cagliari, it was possible to access two files dedicated to the fortifications, stored in the historical archive of the 14th Infrastructure Department of the Army in Cagliari. The first file contains maps of the fortifications, small barracks, and military roads in the area, along with attached lists providing geographical, tech-

nical, and usage information.³ The second file includes technical drawings, plans, sections, and detailed depictions of the various types of military structures across the island.⁴ Although both files are undated, it's possible to hypothesise that they date back to 1948 or later, as the communication included in the files is dated August 7, 1948.⁵ In the first document, the structures represented in the maps are numbered and described in terms of their location, capacity for personnel and weapons, structure, resistance, and function. Specifically, the section concerning the structure includes references to each building type, selected from the list provided in the second document.

The coordinates of the locations where the structures once stood were identified by overlaying the historical map of the structures in the Cagliari area with a current orthophotograph. These were recorded in a GIS database, linking each to its corresponding features from archival documents. A representative sample of 30 structures (from number 66 to number 95), belonging to both the “sea front” and a “land front”, was selected for further analysis through an on-site survey. This allowed the verification of their real existence. The gathered information on the sample was recorded in a cataloguing form, based on the categories used in the cataloguing and inventorying activities of the Italian Institute for Cataloguing and Digitising, of the Documentation of Archaeological, Architectural, Historical and Artistic Heritage (ICCD—*Istituto Centrale per il Catalogo e per la Documentazione, Ministero della Cultura*), as well as the principles

³ *Opere di fortificazione e strade militari della zona di Cagliari*, historical archive of the 14th Infrastructure Department of the Army, Cagliari.

⁴ *Tipi di opere di fortificazione esistenti in Sardegna*, historical archive of the 14th Infrastructure Department of the Army, Cagliari.

⁵ The communication, titled *Ricognizioni lavori di fortificazione*, signed by Chief of Staff Cocco and dated August 7, 1948, refers to a verbal request made by the Autonomous Sub-Directorate of Military Engineering Works in Sardinia, aiming to identify coastal fortifications no longer deemed necessary from a strategic and operational standpoint.

used by the Docomomo for the modern artistic and architectural heritage. The form is structured as follows:

- location;
- architecture and technique: definition of the category, typology, technique, material, and camouflage;
- cultural context: dating and line defence belonging;
- conservation and deterioration: state of conservation and degradation phenomena;
- accessibility and function: location in military restricted areas, physical accessibility, external usability and internal usability, historical use and current usage.

The cataloguing forms were then linked to each structure in the GIS database.

All the information obtained from this investigation gives an overview of the heritage's real state and conservation state. This framework allows for the definition of more appropriate enhancement strategies and itineraries for the Sardinian bunkers.

3 Constellation XX 1.0. First Results in the Defensive Arc of Cagliari

3.1 Historical Background

Due to its strategic position in the middle of the Mediterranean Sea, Sardinia has always been a key outpost, layering different fortified systems over time. When Italy entered World War II, and until the opening of the Eastern Front in 1941, the Mediterranean Sea was the focal point of military operations. Consequently, Sardinia was a crucial strategic base supporting the Royal Air Force and the Royal Navy. When concerns arose over a potential enemy landing on the island, efforts were made to fortify the most vulnerable areas, which were identified as likely targets

of attack. These included the Bay of Cagliari, the Sulcis-Iglesiente region, and the coastline stretching between Oristano and Alghero. The defense works were organised following the directives outlined in the Memorandum 3 CSM *Difesa delle Frontiere Marittime*, a document issued in 1941 by Chief of the General Staff Mario Roatta, which provided guidelines for coastal fortification strategy. Due to the scarcity of materials and limited wartime technology in Sardinia, it was impossible to establish a continuous line of fortifications across the entire region. This constraint forced engineers to carefully select intervention areas, making the most of naturally available resources. As one of the most strategically important and vulnerable locations—both a key military target and the regional capital—Cagliari was equipped with a defence system composed of a “sea front” and a “land front”, the latter designed to prevent circumvention attempts. In addition to the Cagliari—Selargius—Elmas sector (Fig. 1), this defensive arc included two key districts: Capoterra—Villa d’Orri, on the western side of the bay, and Quartu Sant’Elena—Sant’Isidoro—Sinnai, on the eastern side. Construction work continued until the summer of 1943, when the fortifications were completed with the final implementation of anti-tank ditches and minefields. Built under urgent circumstances, the defences featured a simpler design compared to other Italian fortified lines, with many never reaching their intended final form due to the lack of resources. Instead of elaborate and costly structures, the fortifications were tailored to the characteristics of each area, consisting of simple yet strategically positioned strongholds that were well-camouflaged and difficult to strike directly. Each stronghold was surrounded by barbed wire and armed with automatic weapons and anti-tank guns, with additional anti-tank obstacles installed when possible. To reinforce security, a continuous fence connected the strongholds, constantly monitored and integrated with underground telephone cables to ensure reliable communication [1].

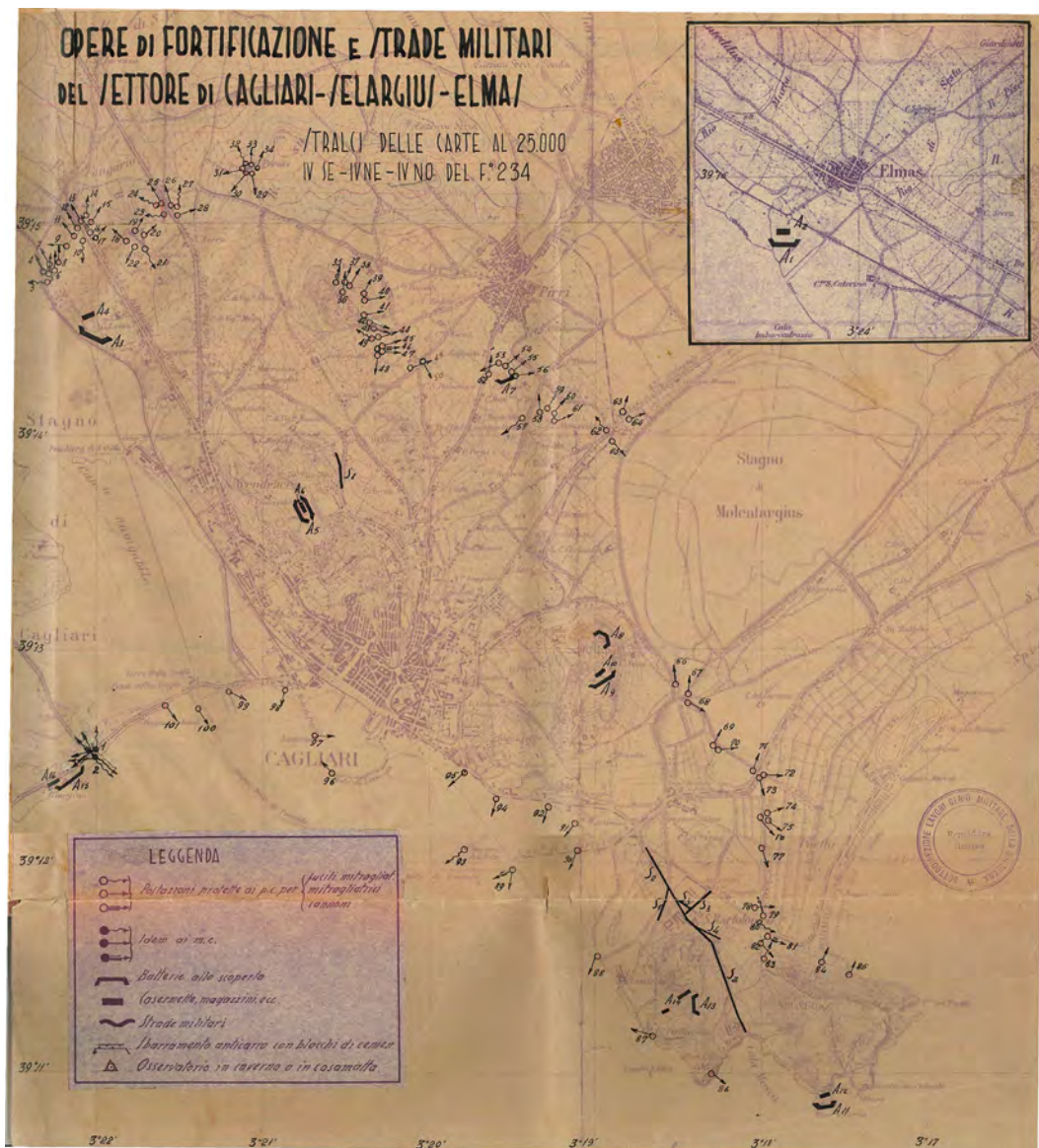


Fig.1 Historical map of the fortifications in the Cagliari—Selargius—Elmas sector. Historical archive of the 14th infrastructure department of the Army, Cagliari

3.2 The Current Military Landscape

As mentioned before, the first part of the project focused on 30 structures to test the research methodology. The location of these structures derives from the superposition of the historical map and the current orthophotograph.

They were part of the Cagliari—Selargius—Elmas sector and were located in the Cagliari Bay (Fig. 2). They were organised in two lines, one running parallel to Sant’Elia and Bonaria’s coastline, corresponding to the seafront, and one stretching between the Molentargius area and the Calamosca promontory, as part of the land front (Fig. 2).

Through the survey *in situ*, it was possible to verify the information about the existing structures, which reach the number of 18. The line currently more preserved is the land front, whose structures mostly fall into the area of the Molen-

targius park. Other architectures belonging to this line are located parallel to the salt marshes and in the Calamosca area. Within the sea front only four bunkers still survive to this day, three in Sant’Elia area and one in the Sant’Elmo pier.

The analysis of the typology of the fortifications resulted in the recognition of four used categories. The most common fortification type, covering almost the entire sample, is the single-weapon emplacement designed for a machine gun or light machine gun (Type A, Fig. 3). This structure consists of a circular-plan casemate with a concrete dome, resistant to small-caliber fire, with wall thicknesses ranging from 1 to 1.4 m. It features six loopholes, allowing for a 360° field of control over the surrounding area. Access to the bunker is provided via a staircase leading from ground level to an underground level, which is connected to the firing chamber by a vertical passage. The widespread use of this model is likely due to its compactness and ease



Fig. 2 The sample within the defensive arc of Cagliari, with a specification of the structures belonging to the sea front and those belonging to the land front. Graphic elaboration by Giulia Cherchi



Fig. 3 Typologies of structures within the case study. Graphic elaboration by Giulia Cherchi

of construction, as well as its ability to blend into the terrain and adapt to various environmental contexts. Depending on specific requirements, the entrance could be located to the side of the vestibule or at the rear, while the dome—the only part visible above ground—could be camouflaged with a stone covering. The variation of the type according to the needs is frequent, with modifications in the position and layout of the staircase and the entrance vestibule, as well as in the height of the firing chamber in relation to the ground level.

Two of the analysed structures within the case study sample are identified as single-weapon emplacements built on a single underground level and resistant to small-calibre fire (Type F, Fig. 3).

This typology, designed for a machine gun, consists of a simple polygonal structure buried entirely underground, except for the front face with two loopholes.

The bunker number 89, which has been demolished, corresponded to a “Stronghold for 47/32 anti-tank cannon—machine gun—light machine gun” (Type H, Fig. 3). This typology is larger and has a more complex internal layout than Type A or F. It was designed to host multiple firing positions and different types of artillery. This type is organized on two levels, one of which is underground, connected by an external staircase and separated by a floor slab approximately 75 cm thick. Thanks to its roof slab, over 3 m thick, this bunker could withstand medium-calibre fire.

Finally, the number 81 refers to an artillery concrete emplacement for cannons (Type I, Fig. 3), which originally featured an open-air position, but has since been modified and closed. This type consisted of two levels: one underground level that housed the support rooms, accessible via a staircase, and one ground level with a barbette platform. The two levels were connected by a second staircase.

The bunkers in the sample are all constructed from monolithic concrete, with steel reinforcements around the loopholes and the most vulnerable edges. Some are camouflaged with stone cladding or concealed within existing structures. In other cases, the camouflage was integrated directly into the design. For example, bunker number 69 was intentionally designed to resemble a water tank (Fig. 4).

Most of the structures are abandoned, with the only exceptions being two buildings repurposed as storage space for fishing equipment (bunker number 88) and as the base for a maritime signal (bunker number 93, Fig. 5). Although they are

generally intact and free from structural damage, those that are easily accessible are often vandalized with graffiti and writings and filled with various kinds of waste.

Eleven of these structures are located in areas without fences, restrictions, or hazards, allowing for close-range inspection. However, only seven have entrances that remain unsealed—neither walled up, barred with grates, nor blocked by soil or vegetation—making internal access possible. In three of these, all situated within Molentargius Park, remnants of wooden structures with stairs and handrails were found. These were originally installed to ensure safer access but are now partially destroyed.

Some of the inaccessible structures lie within military zones or on private property, while others are in remote locations or lack navigable paths (Fig. 6).

During the site survey, twelve of the fortifications identified at the beginning of the investigation could not be located. They had either been demolished, incorporated into new buildings or



Fig. 4 Bunker number 69 in the Molentargius park. Giulia Cherchi



Fig. 5 Bunker number 93 in the Sant'Elmo pier. Giulia Cherchi

infrastructure, or concealed by vegetation, earth, or water. In fact, urban expansion, particularly during the 1970s, regarded these structures more as obstacles than assets to the city.

3.3 Towards New Strategies and Enhancement Paths

The Sardinian coastline is often merged with military landscapes from different ages, forming a historical palimpsest of abandoned structures. As analysed before, this rich heritage, located in highly scenic locations, is mostly abandoned and in a critical state of conservation. To preserve their historical memory and testimony, we must explicitly express their potential as distinctive assets for territorial development and landscape regeneration, especially in areas affected by degradation.

Participation and co-creation are crucial in this process, as it is known that supporting a sense of belonging among local communities

incentivises bottom-up conservation practises and spontaneous care for heritage sites [7]. Education, dissemination, inclusion, and effective communication must be key principles of future enhancement actions. This can be achieved by sharing knowledge regarding the historical, architectural, and testimonial significance of bunkers and organising actions aimed at raising public awareness.

Constellation XX is founded on these premises. It seeks to activate value recognition and enhancement processes, offering strategic guidelines for re-appropriating IIWW heritage landscapes. The goal is to reframe the role of bunkers within cultural tourism and heritage management policies. Building on a solid knowledge base, the enhancement project aims to reestablish connections between these structures and their surrounding urban and landscape environments through the creation of cultural itineraries.

These strategies and itineraries are designed to preserve the authenticity and integrity of

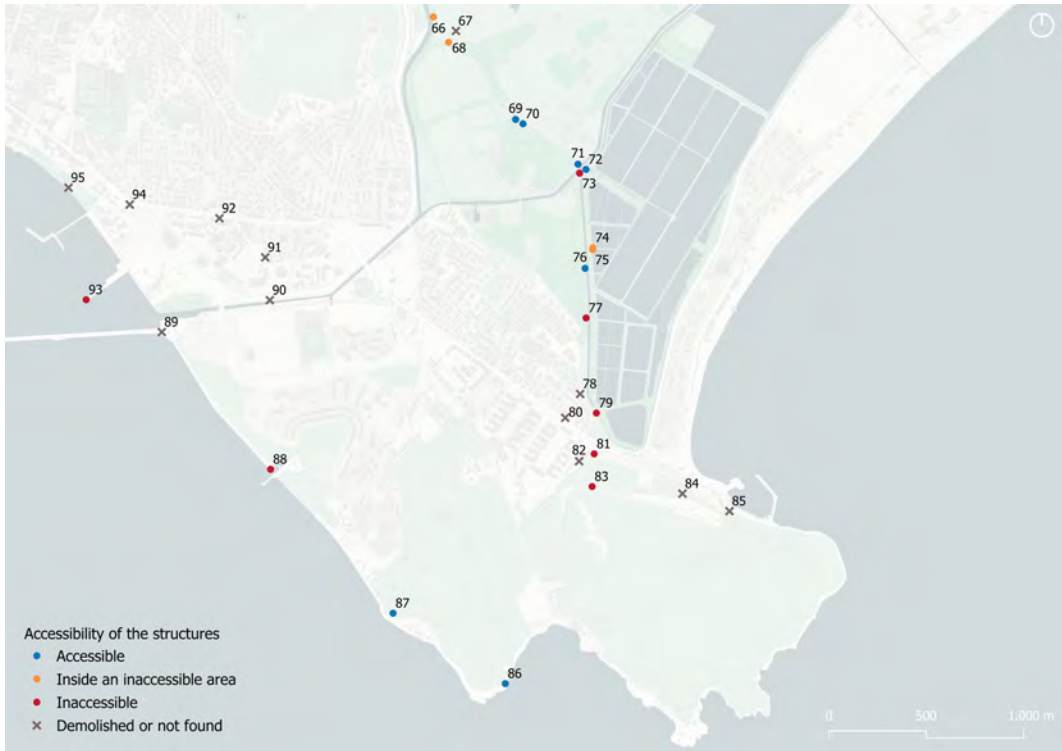


Fig. 6 Accessibility of the structures within the case study. Graphic elaboration by Giulia Cherchi

the landscape system and individual structures while respecting tangible and intangible heritage values.

For the context investigated here, two cultural paths have been identified: one following the coastline and the other inland, corresponding to the two specific segments of the defensive system. The first itinerary is embedded in the urban context of the city of Cagliari, while the second traverses the highly scenic lagoon landscape of Molentargius. In this way, the itineraries can reconnect the scattered structures in a cohesive system, identifying those with sufficient conservation status and accessibility to serve as central nodes in the network. These could potentially host exhibitions or recreational functions.

Different solutions can be proposed for individual sites, depending on their level of accessibility. These include a combination of physical aids—such as signs, brochures, maps, etc.—and virtual and digital tools, made possible by the latest and multiple possibilities offered by

technology—virtual 3D reconstructions, applications, augmented reality, etc. In particular, portable devices like smartphones or tablets are key tools for in situ engagement. These solutions are primarily based on creating multimedia content, visible through mobile devices using tags such as QR codes or similar technologies (Fig. 7).

4 Conclusion

This contribution represents an initial outcome of the enhancement project *Constellation XX*, which focuses on investigating World War II defensive heritage in Sardinia. Specifically, this phase constitutes a preliminary stage in which the research methodology was tested within a limited area: the defensive arc surrounding the city of Cagliari. In this context, a standardised protocol was developed, incorporating archival research, satellite imagery analysis, on-site investigations

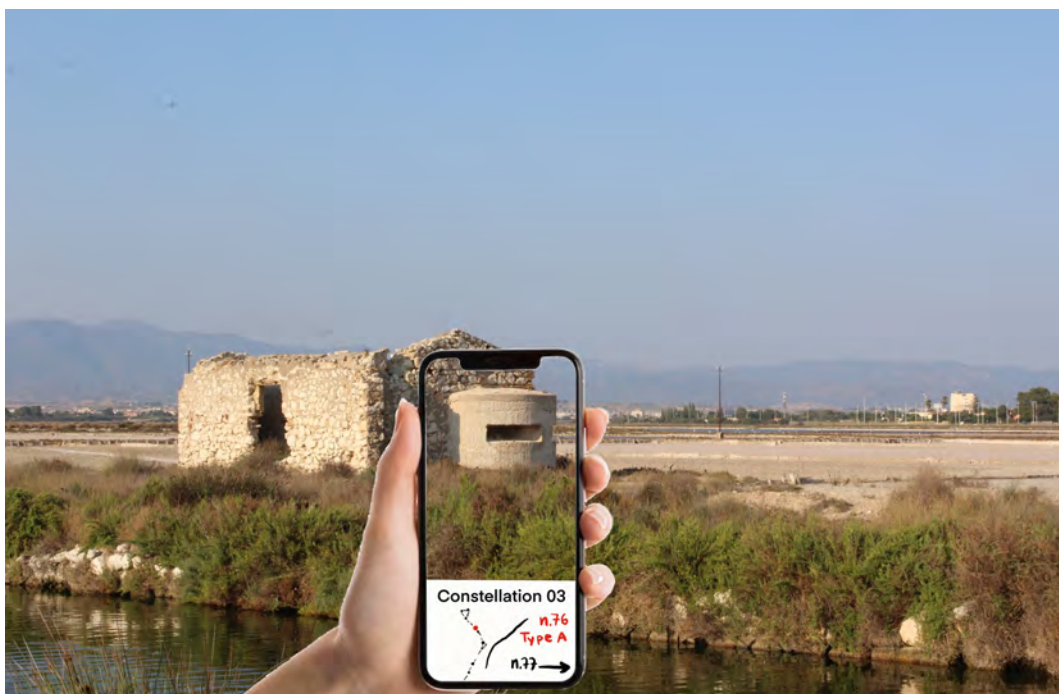


Fig. 7 Example of the display of information on one of the bunkers and the links to the other elements of the same constellation. Graphic elaboration by Giulia Cherchi

and cataloguing to ensure a comprehensive understanding of this heritage. All collected data has been systematically organized into an accessible GIS database. This system allows users to explore the entire network of defensive elements and identify those that, due to their state of conservation and accessibility, can serve as central nodes within a broader system. The project supports pathways of knowledge and conservation through an interdisciplinary and multi-scalar approach. It seeks to develop coherent tools for the enhancement and conscious, participatory reuse of this heritage, involving public institutions, heritage protection agencies, and the local communities that inhabit and shape the territories in question.

Constellation XX also contributes to the broader and often controversial debate surrounding the protection and enhancement of so-called difficult heritage that, while bearing witness to a painful past, should be viewed as an opportunity for territorial development by fully acknowledging its historical and documentary value.

Acknowledgments The authors worked in synergy to redact the contribution. They would like to thank Fondazione di Sardegna and the Department of Civil and Environmental Engineering and Architecture of the University of Cagliari for their support of the project.

References

1. Aresu M, Carro G, Grioni D (2009) Cementoarmato. Bunker-Archeologia nel territorio di Quartu Sant'Elena. Patrimonio storico da tutelare e valorizzare. ALISEA Edizioni, Soleminis
2. Bennett L (2011) The bunker: metaphor, materiality & management. *Cult Org* 17(2):155–173
3. Carro G, Grioni D (2013) Fortini di Sardegna, 1940–1943. Storia di un patrimonio da salvaguardare. Edizioni Grafica del Parteolla, Cagliari
4. Cherchi G, Fiorino DR (2023) Ruins of war for scenarios of peace. The role of bunkers and coastal batteries in the projects of cultural enhancement of the Cagliari Bay. In: Ippoliti A, Svalduz E (eds) *Beyond the gaze. Interpreting and Understanding the*

- city. Proceedings of the conference Aisu International, Ferrara, pp 962–972
5. Cherchi G, Fiorino DR, Pais M, Pirisino, MS (2023) Bunker landscapes: from traces of a traumatic past to key elements in the citizen identity. In: Bevilacqua MG, Olivieri D (eds) *Defensive architecture of the mediterranean*, vol. XV. Proceedings of the international conference on fortifications of the Mediterranean Coast, FORTMED 2023 (Pisa, 23–25 Mar 2023). Pisa University Press, Pisa, pp 1195–1201
 6. Chiri G, Fiorino DR (2021) *Militaria. Architetture e grandi conflitti*. Listlab, Trento
 7. d'Europa C (2025) Convenzione quadro del Consiglio d'Europa sul valore dell'eredità culturale per la società, Faro
 8. Fiorino DR (ed) (2022) *Sinergie*. UNICApres, Cagliari, Percorsi interistituzionali per la riqualificazione delle aree militari
 9. Fiorino DR, Pintus M (2015) *Verso un atlante dei sistemi difensivi della Sardegna*. Giannini Editore, Napoli
 10. Fiorino DR (ed) (2017) *military landscapes: a future for military heritage*. In: Proceedings of the international conference (ebook). Skira, Milano
 11. Gamelin P (1974) *Le Mur de l'Atlantique. Le Blockhaus de l'illusoire*. DANIEL & CIE
 12. Gautrand J (1977) *Forteresses du dérisoire (La pierre angulaire)*. Les Presses de la connaissance, Paris
 13. Hirst P (1997) *The Defence of places: fortification as architecture*. AA Files 34:6–17
 14. Mameli M, Sanjust P (2015) The coastal military architecture of World War II in Sardinia. In: Rodríguez-Navarro P (ed) *Defensive architecture of the Mediterranean. XV to XVIII centuries*, vol II. Editorial Universitat Politècnica de València, Valencia, pp 199–205
 15. Mariotti C, Ugolini A, Zampini A (2018) I bunker tedeschi a difesa della Linea Galla Placidia. *Conservare un patrimonio dimenticato*. *ArchHistoR* 5(9):149–193
 16. Martínez-Medina A, Pirinu A (2019) Entre la tierra y el cielo. *Arquitecturas de la guerra en Cerdeña: un paisaje a conservar*. *ArchHistoR* 6(11):89–125
 17. Martínez-Medina A, Sanjust P (2013) Muro Mediterráneo versus movimiento moderno. I2 - Innovación e Investigación en Arquitectura y Territorio. *Revista Científica*:1–20
 18. Pirinu A (2014) Conservare per ricordare. L'utilità dell'inutile nel paesaggio costiero della Sardegna. *Agribusiness Paesaggio & Ambiente* 17(1):31–37
 19. Pirinu A, Argiolas R, Paba N (2020) UAVs and photogrammetry for landscape analysis of Sardinia's 'modern wars architectures'. In: Barba S, Dell'Amico A, Limongiello M, Parrinello (eds) *S D-SITE*. Pavia University Press, Pavia, pp 306–315
 20. Rassa M (2013) *Cantine, Caverne. Bunkers. La protezione antiaerea a Cagliari durante la Seconda guerra mondiale*, ARSOM, Cagliari
 21. Schlocker G (1975) *Überleben Maschinen, die das Leben verbergen*. Tages-Anzeiger
 22. Virilio P (1975) *Bunker Archéologie*. Edition du Demi-Cercle, Paris

Exchanges Between Portuguese and Italian Architectural Cultures in Contemporary Practice: The Piazza Municipio Metro Station in Naples

Sofia Darbesio 

Abstract

The Piazza Municipio metro station in Naples, designed by Portuguese Pritzker Prize-winning architects Álvaro Siza and Eduardo Souto de Moura, provides an example of cross-cultural exchange between Portugal and Italy in contemporary architectural practice. Located in the core of the historic city centre, this large-scale project represented a deep infrastructural and urban regeneration intervention. During the excavations, multiple archaeological findings were discovered, representing information relevant to the history of Naples. Dealing with the preservation and integration of these elements into the new urban scenario added even more complexity to the construction process. By examining the station's design choices, this paper seeks to outline how the architects' method, rooted in the so-called School of Porto's approach to intervention in historical contexts, shaped a new urban space where different heritage layers coexist and actively contribute to the contemporary city. The analysis will attempt to show how their collaboration with multiple stakeholders and experts—such as Soprintendenza's archaeological officers as well as engineering and

construction companies—led to a final project that fostered sustainable urban innovation. This analysis may contribute to the ongoing discourse on contemporary exchanges between Portuguese and Italian architectural cultures.

1 Introduction

This paper investigates contemporary architectural exchanges between Italy and Portugal, focusing on the Piazza Municipio metro station in Naples, designed by Álvaro Siza Vieira and Eduardo Souto de Moura. The project offers an important example of how modern architecture can interact with the urban environment, combining new infrastructure with the history of the place.¹

¹ This paper is part of an ongoing PhD research within the XXXIX cycle of the Interuniversity Doctoral Programme in Urban and Regional Development at Politecnico di Torino and Università degli Studi di Torino. In the framework of the project PNRR-Next Generation EU, the research is funded by MUR D.M. 117/2023, in line with the objectives of the National Recovery and Resilience Plan (PNRR). It is supported by a thematic scholarship titled "Digital History and Narratives of Contemporary Construction Sites and Interactive Multimedia Solutions to Make and Share History of Sites in Transition" with Supervisor Prof. Rosa Tamborrino (Politecnico di Torino) and Co-Supervisor Prof. Alessandro Ippoliti (Università degli Studi di Ferrara). Prof. Ippoliti is the coordinator of the consultancy group in charge of the restoration project and the archaeological park development in Piazza Municipio metro station.

S. Darbesio (✉)
Interuniversity Department of Regional and Urban
Studies and Planning (DIST), Politecnico di Torino,
Turin, Italy
e-mail: sofia.darbesio@polito.it

The first part briefly introduces Siza and Souto de Moura's approach to historic contexts, based on the architectural and cultural background of the School of Porto.

In the second part, the paper analyses the project through Eight Design Principles extracted from Siza's theoretical production and intersects them with references to Souto de Moura's approach. This allows for a closer look at how the multidisciplinary interaction with Italian stakeholders led to an urban regeneration solution sensitive to the identity of the place.

2 Siza and Souto de Moura's Methods, Rooted in the School of Porto's Approach to Intervention in Historic Contexts

Together with their master, Fernando Távora, Álvaro Siza Vieira and Eduardo Souto de Moura represent relevant figures of Porto's contemporary architectural context [1–3]. For this reason, Siza and Souto de Moura's design for the Piazza Municipio metro station in Naples needs to be framed within the School of Porto's method.² Although the aim of this paper is not to provide an exhaustive overview of this widely studied architectural context, it seems relevant to highlight some main aspects.

Porto's architectural approach to intervention in historical settlements is characterised by the intention to integrate modernity in continuity with the place's tradition. Citing a recurring quote by Távora: «The more local architecture is, the more universal it becomes» [4] (p 164). Considering a key concept inherited by Távora, designing in a critical relationship with the place is a result of a “difficult conquest”, by which he means the need to balance the interplay of multiple operations like invention and interpretation. The process demands not only the archi-

tect's intuition but also an orderly integration of design with its surroundings [5]. In this sense, the so-called *architettura circostanziale* is a central theme of Siza and Souto de Moura's approach.

Hence, Siza and Souto de Moura's design choices are based on the context's understanding, which is informed by an analytical and, at the same time, creative process [6]. The historical and cultural knowledge acquired becomes an integral part of their new project. As Souto de Moura once wrote about Siza Vieira: «The specificity of his work is always linked to the specificity of the “site” as a necessary but not sufficient condition to the act of designing. [...] It is the desire to know history, not with images from the front, but from the inside, in the lucidity of the project, where reason dictates and the “site” accepts, when the “site” informs and the reason gets it right» [7] (p 9). On the same account, Francesco Dal Co explained that a key aspect of Siza's approach is that he perceives opportunities and challenges of places, which he transforms into the materials of his composition, based on the conviction that what is preserved in places is the work of time [8].

In Souto de Moura's work as well, the approach presents a personal reinterpretation shaped by the School of Porto's cultural influences. In his design practice, the place is understood not as a context of meanings to be evaluated culturally but more as a mixed component of artificial and natural elements, available for recomposition and, eventually open to integration [9]. Based on his practical experience, the new architecture responds to contemporary needs, taking advantage of the opportunities given by the place.

A related concept in the School of Porto's method is the relationship between the new design and the historical elements. Reporting a perspective on the matter by Fernando Távora, the compatibility between “ancient” and “modern” is always possible, and the challenges can be overcome by the quality of the relationships established between the two. For this reason, in his works, he uses a variety of principles and forms following the diversity of present situations [10].

In Italy as well as in Portugal, the current debate and practice about “modern” dealing

² This definition is used here for a matter of simplicity, to refer to Porto's main architectural practices, in the same meaning explained by Professor Giovanni Leoni in *Cosmopolitanism versus Internationalism: Távora, Siza and Souto Moura* [4].

with the past are shaped by different intervention approaches. This is also showcased by the diverse terminology used: *recupero/recuperação*, *restauro/restauro*, *conservazione/conservação*, *rinnovo/renovação*, *riabilitazione/reabilitação*, *riuso/reuso*, *ristrutturazione/revitalização*, and other [6]. Álvaro Siza underlines that *recuperação* in Portugal is not a specialised field, and even if it is grounded in a strong historical and scientific foundation, it presents considerations common to any architectural intervention [11]. For this reason, it is interesting to explore when this method is applied in the Italian context, where the restoration is an autonomous discipline with a strong historical and theoretical foundation [12–15].

2.1 Eight Design Principles by Álvaro Siza

Given the premise of a non-exhaustive overview of the architects' approach to historic settings, the proposal is to analyse the Piazza Municipio station in Naples through the lens of the eight *Princípios de Projeto* identified by Siza throughout his theoretical production. They

have been collected and translated by the research group coordinated by Professor Teresa Cunha Ferreira at Faculdade de Arquitectura da Universidade do Porto (FAUP) [16].

They are summarised in the following (Table 1):

An obvious criticism of applying this analysis to Piazza Municipio is that these principles are mainly linked with Siza's figure rather than Souto de Moura's practice, and even if they share the same background, they have distinct connotations. Indeed, a relevant aspect to be considered in the Piazza Municipio design project is the integration of the two architects' approaches into a *unicum*. This is confirmed by Arch. Tiago Figueiredo (their collaborator since the beginning of the project in Naples). He reflects that individually, each architect would not produce the same results as when working together. They complement each other's work through curiosity, and although their work might seem similar, one brings more theory, while the other focuses on sketches and designs [24].

Therefore, the paper will try to outline an interpretation of the design, investigating it through key principles of the two architects' approaches.

Table 1 Eight design principles by Álvaro Siza [16]

	Portuguese	English	References
1	<i>A ideia está no sítio</i>	The idea is in the place	[17]
2	<i>A arquitectura não tem sentido a não ser em relação com a natureza</i>	Architecture has no meaning unless in relation to nature	[18]
3	<i>Arquitectura é geometrizar</i>	Architecture is geometrising	[18]
4	<i>Os arquitetos não inventam nada, transformam a realidade</i>	Architects invent nothing, they transform reality	[19]
5	<i>A beleza será condição absoluta de funcionalidade</i>	Beauty must always remain an absolute condition of functionality	[20]
6	<i>A essência da arquitetura encontra-se pelo movimento</i>	The essence of architecture is found through movement	[21]
7	<i>A arquitetura exige a perfeição do detalhe até à dissolução do detalhe</i>	Architecture demands the perfection of detail until the dissolution of detail	[22]
8	<i>O tempo desenha a arquitetura</i>	Time designs architecture	[23]

(Re-elaboration by the author)

3 The Subway Station Design Choices and Construction Site Process in Piazza Municipio, Naples

«But Naples is not only what you see, in glory or in decay. One can almost feel, beneath one's feet, the breath of an invisible or hardly visible world that has been building the present city for many centuries. A huge, fragmented foundation of many layers, many times overlapping materials, laid by people from different regions and religions. Thus magnificent monuments emerge, which men sometimes uncover by excavating. This accumulated material conditions and directs what is built today».³ [25].

The Piazza Municipio metro station, in the city centre of Naples, is commissioned to the company M.N. Metropolitana di Napoli S.p.A., by the Municipality of Naples, to form the interchange of Lines 1 and 6 of the metropolitan railway service system. The latter is part of an urban transport plan conceived in the 1980s to interconnect the rail and the ground urban transportation network via interchange nodes, with the first segment of Line 1 opening at the beginning of the '90 s. In the early 2000s, the program followed a systemic strategy to combine the stations' design with Architecture, Art and Archaeology [26]. In 2003 it was asked to the Portuguese Pritzker Prize architects Álvaro Siza and Eduardo Souto de Moura to design the station, which was inaugurated in 2015 for the transportation functional part, while the archaeological park and the exhibition area are still in progress.

During the excavation, archaeological findings from the Hellenistic-Roman period to modern times were discovered, adding new insights into the history of the city. As the construction progressed, the design needed to balance the requirements of preserving heritage with those of maintaining the concept of a project, important not only in terms of transport but also of urban planning [27, 28]. Though the project adapted a lot along the way, the original concept remained:

to make the station the main pedestrian connection between the city and the port, connecting with the islands, thus separating the flows by foot from the busy roads around Piazza Municipio [29].

3.1 The Project Analysed Through Eight Design Principles by Álvaro Siza

Considering the design principles as detailed in *Antologia crítica de aforismos* [16] it can be reflected that the first principle (*A ideia está no sítio*) is at the base of the project. Since the beginning, the architects chose to maintain the visual and physical connections between Piazza Municipio and the port area, which historically characterised the square within the Neapolitan landscape. As Siza and Souto de Moura stated, «This visual *continuum*, dominated by the hill and Castel Sant'Elmo, is a fundamental element in the geography of Naples. Preserving it is the main objective of this project» [30] (p 7). The architects addressed the segmented heritage context by designing the new space as a vertical narrative that guides users through different historical periods as they move through the station [31].

On the same line as principle four (*Os arquitetos não inventam nada, transformam a realidade*) the new design is not a self-referential object but has the clear intention of “recomposing the existing” [5] (p 59). For Siza, the architect's signature should not dominate the intervention. Instead, the focus should be on preserving the integrity of what already exists [6]. Similarly, Souto de Moura's approach is based on the idea that no design emerges from nothing but rather builds upon layers of knowledge, historical references, and existing structures. To this aim, the architects investigated the history of the place,⁴ by interpreting multiple historical records. These represent across different centuries the characterisation of the square given by the monumental

³ Álvaro Siza, lectio at Università degli Studi di Napoli Federico II, October 2004 (Translated by the author).

⁴ As explained by Nuno Graça Moura, for Souto de Moura history is not something given a priori, but comes together with the shape of “the confirmation of the project” [32] (p 129).



Fig. 1 *Napoli dal Porto* by Antonio Joli (1700–1777). Beaulieu, coll. Montague of Beaulieu

axiality between the hill of Castel Sant’Elmo and the pier [31] (Figs. 1 and 2).⁵

With a reference to the second principle (*A arquitetura não tem sentido a não ser em relação com a natureza*), it can be traced how the architects reinforced the perception of this linear axis through material choices and natural elements. For example, this is materialised by the two lines of trees parallel to the long blade of light that extends for the main part of the square, providing natural lighting to the underground walkway [27]. Natural light is indeed a recurrent element in the architects’ projects, both in direct and indirect form, as it is visible in Souto de Moura’s metro of Porto and Siza’s museums [33].

As confirmed in the principle n. 3 (*Arquitectura é geometrizar*) the architects relate with the context by identifying its hidden geometry, which often becomes a key element in shaping their architecture [25]. In this case, the geometry regulated the integration of the archaeolog-

ical remains into the new design and helped to deal with the historically relevant buildings facing the new square.⁶ On the other hand, in line with *aforisma* n. 6 (*A essência da arquitetura encontra-se pelo movimento*), for which “flow of shapes and spaces”[16], the geometry followed the flows, to articulate the different layouts of the square and the rectangular shaft (built following transportation logics) using the mezzanine level to reorganise the flows between the underground and upper level [26].

In both Siza and Souto de Moura, the design prioritises historical continuity, integrating past elements into new projects and ensuring they meet contemporary functions. This involves balancing, shifting, and recomposing the ancient materials to align with the new requirements of the place. As per principle n. 5 (*A beleza será condição absoluta de funcionalidade*), a key choice was to use the

⁵ This linearity has been reinforced on the north-west side of the square by the building representing the religious-civil power with the former Church of San Giacomo degli Spagnoli now incorporated into the Municipality’s palace.

⁶ Apart from the landmark of Castel Nuovo, there are different relevant architectures, such as Teatro Mercadante (1748), Palazzo San Giacomo (1825), Hotel de Londres (late XIX century), and different XX-century buildings, like Stazione Marittima designed by Cesare Bazzani (1936) and examples of post-war architecture, like the one of Banca d’Italia (1952).



Fig. 2 The linearity with Castel Sant’Elmo in the current Piazza Municipio. Photo by the author, August 2024

ancient defensive walls, as structural parts of the new station. As Siza explained, the result is not a modern station built next to an archaeological site, but rather a space where part of the ruins has been integrated with new functions. He specifies that actions of reuse were common in the past, and now risk being regarded as a taboo [32]. In line with the eighth principle (*O tempo desenha a arquitetura*) in Souto de Moura’s architecture as well, it can be found a continuity of the past *within* the present and a representation of the past *through* the present [32]. As stated in a technical-descriptive report, the presence and extent of the ruins serve as a guiding element in the project. The archaeological remains are spatially and structurally integrated, contributing to the configuration of the spaces [34]. Indeed, the Bastione dell’Incoronata and the

Viceroyal walls, running parallel to the station’s linear development, not only support the mezzanine’s concrete slab but also play a significant role in characterising the station’s interior spaces. As Souto de Moura highlighted, the heritage elements are preserved by using them, as far as possible, as structuring elements of our 21st-century project [35]. In this way, they are integrated into the everyday life of the contemporary city following the idea that an element is respected because it is useful, today.⁷

Concluding, accordingly to Principios n. 7 (*A arquitetura exige a perfeição do detalhe até à dissolução do detalhe*) where «the whole and the parts generate and influence each other» [16] (p 53), the design has been characterised by the definition of construction details until the scale of the railings and pavements’ elements. Similarly with other projects, where the materials choices are sensitive to local identity, in Naples, the chosen materials are mainly typical of Neapolitan traditional construction culture such as *pietra lavica vesuviana* [34]. Below is the summary of principles analysed in Piazza Municipio metro station (Table 2).

3.2 The Equilibrium Among New Construction and Heritage Preservation: The Dialogue with the Actors of the Process

The design of the Piazza Municipio station has changed and complexified over time. The project required the coordination of diverse experts, including architects, archaeologists, historians, restoration experts, structural/electrical/hydraulic engineers and building companies [34]. The intersection of different disciplines, priorities, and scales of intervention is reflected in the architectural drawings produced during the

⁷ Souto De Moura explains the same approach in his project at San Lourenço de Barrocal (2008–2016): «the only way to preserve heritage was to live with it and use it, because only everyday life is really able to give architecture heritage status» [32] (p 35).

Table 2 Eight design principles by Álvaro Siza [16] in Piazza Municipio, Naples

	Design principles	Applied to Piazza Municipio, Naples
1	The idea is in the place	<i>Visual Continuum</i> within the landscape
2	Architecture has no meaning unless in relation to nature	Integration of natural elements in the new design
3	Architecture is geometrising	Geometry to deal with the complexity of the historic city
4	Architects invent nothing, they transform reality	The act of ‘recomposing the existing’
5	Beauty must always remain an absolute condition of functionality	Risignify historical elements with contemporary functions
6	The essence of architecture is found through movement	Flows that shape the spaces, perceptions and movements
7	Architecture demands the perfection of detail until the dissolution of detail	From the large-scale to 1:1 construction details
8	Time designs architecture	“Heritage as an instrument of invention”

(Elaboration by the author)

construction process.⁸ Following their approach, the architects managed this complexity fostering integration rather than imposing a self-referential vision [25].

A major change in the project was the finding of the Roman harbour quay, discovered while taking down the Angevin-era structures, which were meant to be rebuilt above the roof of the Line 6 station. Because of this, the roof level of the station had to be lowered so that all the historical layers could be rebuilt in the correct order. To achieve this, critical and selective decisions were made regarding which artefacts to preserve, disassemble, and reposition in situ [28]. This consideration reflected a multi-disciplinary approach, combining methodologies from architecture, archaeology, and urban planning to enhance the knowledge of Naples’ urban history while enabling the coexistence of archaeological remains with contemporary infrastructure [28]. The decision on what to preserve is shaped by a process of prioritisation, involving archaeological experts from the Municipality, the *Soprintendenza*, and the Concessionaire. As noted by Arch. Tiago Figueiredo, this collaboration goes beyond the simple identification; it requires finding ways to integrate elements from different periods that historically never coex-

isted but are now part of the same architectural narrative. These decisions involve compromises, not only between different disciplines but also among varying perspectives within the same field [36]. Sometimes decisions had to be finalised with central bodies of the Ministry of Culture, for example regarding whether to conserve the remains in situ and how to valorise them inside the station [27].

A critical choice was indeed to decide whether to leave the ancient remains *en plein air* or to cover them. The architects fostered the hypothesis to leave them uncovered, so that people looking from the square, could see the full story of the site through the archaeological layers recomposed [27]. After discussing it with the supervising authorities, the final decision was to have some parts covered for preservation reasons. The design of the covering (still ongoing) has seen several dialogues about the technology and materials to be adopted between architects—willing to propose wooden structures like in the archaeological sites of Ercolano—and the structural engineers calling for the steel to be compliant with the safety regulations [36].

In a complex framework of strategic and governance decisions, defining roles and responsibilities becomes challenging, as different perspectives and priorities often come into conflict. This is particularly evident in the involvement of stakeholders operating on different timelines,

⁸ The processing of documentation during the construction and final restitution phases led to a huge dataset of materials, which are restricted in access and disclosure.

such as the late involvement of the *Soprintendenza* and research consultants [37, 38].⁹ The architects themselves had to start the design when the Municipio station was shaped by pre-existing structural works, planned primarily with a transport-oriented logic. As a result, the station's layout does not directly align with the urban axes at street level. The project therefore had to resolve these misalignments by using the mezzanine level as a transitional space to reorganise pedestrian flows between the metro system and the city's urban axes [27].

At the question by the Soprintendente Stefano Gizzi about the relationship with the Italian preservation authorities, Siza replies that, due to the high richness of heritage characterising the Italian context, the importance of *Soprintendenza*'s role lies in being responsible for such continuous presence of history. He continues saying that it is very positive, even if sometimes it can become a barrier, but there is always a delicate and shifting balance between people, time, and a given historical moment [35]. On the same topic, Eduardo Souto de Moura acknowledges that working with the *Soprintendenza* can be challenging due to its strong focus on conservation. However, when a reciprocal dialogue is established, the process gains depth and value. He notes that while collaboration with the *Soprintendenza* may initially be difficult, once they recognise the quality of the work, they no longer act as an obstacle or reject proposals outright. The issue of conservation, he argues, is not about preserving an object only for its intrinsic value but serves as a safeguard against the potential mediocrity of the new design [35].

4 Conclusion

The project for the Piazza Municipio metro station in Naples is a relevant case to examine contemporary exchanges between Portuguese and Italian architectural cultures. Highlighting

some key aspects of the design helps to understand how the Portuguese architects dealt with the rich historical layers of the site, drawing from their architectural background. Their approach illustrates the architects' belief in the continuity of architecture, where integration between new design solutions and the historic layers is based on a critical comprehension of the place and the history is actively engaged and can be experienced through the contemporary space. In conclusion, it can be said that the open collaboration with local stakeholders involved and the adaptation of the project during the construction, fostered the conversion of the impediments into opportunities [27], leading to a significant result in developing a sustainable regeneration solution in the historic city of Naples.

References

1. Frampton K (1999) Álvaro Siza. Tutte le opere. Electa, Milano
2. Leoni G, Esposito A (eds) (2005) Fernando Távora. Opera completa. Mondadori Electa, Milano
3. Dal Co F, Graça Moura N. (eds.) (2020) Souto de Moura. Ricordi, Opere, Progetti. Casa da Arquitectura, Porto—Electaarchitettura, Milano
4. Leoni G (2017) Cosmopolitanism versus Internationalism: Távora, Siza and Souto Moura. Cosmopolitanism in the Portuguese-Speaking World, vol 27. Brill, pp 163–219
5. Leoni G (2009) Álvaro Siza, Motta Architettura. Milano
6. Ferreira Cunha T (2017) Sulla cultura della tutela e del restauro in Portogallo. Nota storica e situazione attuale. In: Manfredi C (ed) Le politiche di tutela del patrimonio costruito. Modelli a confronto in Europa. Mimesis, Milano, pp 81–98
7. Ferreira Cunha T, Urbano L (eds) (2022) No Place is Deserted. Álvaro Siza: Ocean Swimming Pool (1960–2021). Edições Afrontamento. Faculdade de Arquitectura da Universidade do Porto, Porto
8. Dal Co F (1999) Álvaro Siza e l'arte della mescolanza. In: Frampton K (1999) Álvaro Siza. Tutte le opere. Electa, Milano
9. Leoni G (2020) (Non) Essere Eduardo Souto de Moura. In: Dal Co F, Graça Moura N (Eds) Souto de Moura. Ricordi, Opere, Progetti. Electaarchitettura, Milano, pp 20–41
10. Távora F (1994) Scuola Superiore di Agraria Convento de Refóios di Lima a Ponte de Lima. Paesaggio urbano. Dossier di cultura e progetto della città 3–4. Maggioli, Milano

⁹In the Italian framework, the “Soprintendenze” are governmental departments responsible for the preservation of movable and immovable heritage, including monuments and landscapes.

11. Siza A (2002) Recuperação e Manutenção. In: Costa A et al. (eds) *A intervenção no Património, práticas de conservação e reabilitação*. FEUP/DGEMN, Porto, pp 18–28
12. Brandi C (1977) *Teoria Del Restauro*. Piccola Biblioteca Einaudi, Torino
13. Torsello B.P (2005) *Che Cos'è Il Restauro? Nove Studiosi a Confronto*. Marsilio, Venezia
14. Carbonara G (2018) *Restauro Architettonico: Princípi e Metodo*. Carlo Mancosu Editore, Roma
15. Casiello S (2018) (ed.) *La Cultura Del Restauro. Teorie e Fondatori*. Marsilio, Venezia
16. Siza A (2023) Antologia crítica de aforismos. In: Ferreira Cunha T, Mendonça H, Coutinho M, Barbosa F, Cruz T (eds) *Princípios de Projecto/Design Principles*. In: Álvaro Siza: Piscina de Marés/Ocean Swimming Pool. Edições Afrontamento. Faculdade de Arquitectura da Universidade do Porto, Porto, pp 51–104
17. Siza A (1979) Notas sobre o trabalho em Évora. *Arquitectura* 132 (Fevereiro/Março): 36. Iniciativas Culturais Arte e Técnica, Lisboa.
18. Siza A (2021) *Imagining the evident*. Monade, Lisboa.
19. Siza A (1980) Interview. *Plan Construction (PAN)*, Ite session (Maio).
20. Siza A (2011) Prefácio. In: Strecht P (2011) *Uma Certa Harmonia – notas sobre arquitectura, urbanismo e saúde mental infanto-juvenil*. Assírio & Alvim, Lisboa, p. 9.
21. Siza A (2014) Porque ama a Arquitectura. In: Neto P L (ed.) (2016) *Luís Ferreira Alves. Fotografias em obras de Eduardo Souto de Moura*. Scopia Editions, Porto, p. 15.
22. Siza A (1995) Sulla pedagogia. In: Angelillo A (ed.) (1997) *Siza. Scritti di architettura*. Skira, Milano, p. 28.
23. Siza A (2008) O Tempo desenha a Arquitectura. In: Morais C C (ed.) (2018) *02 textos: Álvaro Siza*. Parceria A. M. Pereira, Lisboa, p. 22.
24. Intervention by Arq. Tiago Figueiredo in the webinar *Entre Campos: Inflexão*, February 2021, <https://www.facebook.com/casadaarquitectura.pt/videos/conversa-online-entre-campos/720125905367052/>, Last Accessed 26 Mar 2025
25. Santangelo MR (2004) (ed.) *Álvaro Siza e Napoli. Affinità di Gabriele Basilico e Mimmo Iodice*. Electa-Napoli, Napoli
26. De Risi A (2015) Dall'ingegneria alla metropolitana delle tre "A". *Rassegna ANIAI* 1-2:24-37, Napoli
27. De Risi A (2015) Napoli, stazione Municipio: un progetto che... insegue la storia. In: Dell'Aira PV (ed) *Sottosuoli urbani. La progettazione della città che scende*, Quodlibet, Macerata, pp 174–179
28. Ippoliti A (2019) Città storica, architettura e restauro: l'area dei Moli antichi di Napoli. In: *Materiali e strutture. Problemi di conservazione*, vol 8(16). Università Sapienza di Roma, Roma, pp 45–56
29. Dal Co F (2017) *La duplicità del tempo*. Casabella 869:16–19
30. Siza A, Souto de Moura E (2012) Stazione di Piazza Municipio. *Rassegna ANIAI—Dossier La Metropolitana di Napoli* 1–2:4–7
31. Collovà R (2017), Napoli. Una stazione per la metropolitana. *Casabella* 869:20–23
32. Bogoni B (2022) Eduardo Souto de Moura. *Architettura Sulla Storia*. Casa de Arquitectura, Politecnico di Milano, Milano
33. Esposito A, Leoni G, Rispoli M (2023) La Stazione Municipio della metropolitana di Napoli. *U+D. Int J Urban Morphol Design* 20 (X, II sem.):108–115
34. Siza A, Souto de Moura E (2023) Stazione Municipio. Variante generale mezzanino e finiture. Progetto architettonico esecutivo. Parco Archeologico. Relazione Tecnico Descrittiva—Revisione D., Technical report
35. Gizzi S (2013) Editoriale—Intervista a Álvaro Siza Vieira e a Eduardo Souto de Moura. In: *Confronti. Infrastrutture urbane e città storiche*, vol 2 (2–3). Art'em, Napoli, pp 5–15
36. Personal interview with Arch. Tiago Figueiredo, Porto (October 2024)
37. Carughi U (2013) La metropolitana a Napoli. Due casi limite: Municipio e Duomo. In: *Confronti. Infrastrutture urbane e città storiche*, vol 2 (2–3). Art'em, Napoli, pp 75–86
38. Pane A (2020) Metropolitana, archeologia, restauro, progetto: il caso di piazza Municipio a Napoli. In: *Restauro: Conoscenza, Progetto, Cantiere, Gestione*, Atti del II Convegno SIRA, sezione 5.3, "Tutela, pratica, codici e norme. Esperienze". Quasar, Roma, pp 872–885

The Portuguese Italian Architecture Workshop of Paolo Deganello. Project Praxis and ‘Radical’ Achievements

Rúben Manuel Ferreira 

Abstract

Paolo Deganello (b. 1940), 84 years old, is an Italian architect who has actively developed a productive line of reasoning in architecture between Italy and Portugal. He graduated in 1966 from the Faculty of Architecture at the University of Florence. He founded the Archizoom Association studio in Florence with the architects A. Branzi, G. Corretti, and M. Morozzi. As stated in its monography, edited by Maria Milano and published in Portugal (September 2009) with the support of ESAD (Escola Superior de Arte e Design) and Matosinhos Municipality, their studio was referred at the first edition of the Lisbon Design Bienal Experimenta in 1999, mostly dedicated to the group, with the exhibition Archizoom Today and a retrospective about at CCB (Centro Cultural de Belém). He was also a teacher at ESAD between 1998–2013. From this perspective, the purpose of this article is to reflect on Deganello’s activity within the radicalism of the twentieth century and the influence he’s work has had on establishing a project praxis in full practice, and within the school, between Portugal and Italy.

R. M. Ferreira (✉)
CIAUD, Lisbon School of Architecture (FAUL),
Universidade de Lisboa, Lisbon, Portugal
e-mail: rubenmanuelferreira@edu.ulisboa.pt

1 Introductory Hints

Tracing narratives of the built environment can conceptualize a conscience of place and space in architecture. In the case of Italian architect and designer Paolo Deganello (b. 1940), this conceptualization has a side of transdisciplinary and augmented interpretation of ‘architectural narratives’ in Culture from several historical perspectives. And places. Italy, where he was born (Este, near Padua), and initiated his architectural studies (in Florence), creating a trace of thinking, and a ‘radical’ critical vanguard. Portugal, where in his late contemporary critique *modus operandi*, he has been developing a line of reasoning. An apparatus extended from its Italian root, which has, this article will argue, impacted academia and the Portuguese architect’s community (peers).

The outpost of Deganello’s architectural narrative has been delineated to search for a result by *disegno*. Referring to historical architecture and design features, proposals, and experiments. When imagining a formal design strategy in Architecture, Deganello’s narrative collides with the past, sometimes from a utopian position. A clear choice present in the work developed by the group Archizoom Associati, which he co-created in 1966 [1] (p 46), as an answer to political dismay. Radicalism in architecture deals with contemporary history and political cycles. The ‘rule’ of thought, to build references in design, subsequently re-interpreted, with images, layouts,

and principles. Reflecting awareness about social differences, opposing an existing rationalism. The argumentation was imbibed by this political context forfeited by Mussolini and Salazar regimes, in Italy and Portugal.

The context of Deganello's work is a practice of a strong political confrontation. The Italian Radicalism provided a conscienceless comment about the architectural compound. Criticizing design efficiency. The notion of 'workshop' has the significance of internalizing the product of experience and experimentation to search for a research beam. To navigate through that 'rug' of Project and visual narratives, to translate results about the future of architecture, space, and place. Examining the 'record' between the Italian and Portuguese realms.

2 Paolo Deganello in Context: From Florence to the Other 'Extreme'

Analysing Paolo Deganello's eventual influence in Portugal, in cities like Porto or Lisbon, requires a time-lapse flexibility. Historical background paved the cultural realms of both countries [2] (p 229). Paolo Deganello graduated from The University of Architecture in Florence, in 1966 [3] (p 14–17). He collaborated with his urbanism teacher, Ludovico Quaroni, and went to Amsterdam to study the plan of the city, with the support of Leonardo Benevolo, his history teacher. He was 'framed' in the *Italian pensieri*.

His teachers participated in discussions about architecture vanguards and politics. Benevolo, around the 'neo-conservative' ideal city; Quaroni, a sympathizer of PCI (Communist Italian Party), and PSI (Social Italian Party) parties, promoting an updating from the memory of the modernist ideals [3] (p 16). Both teachers helped him understand Modernism working around the urban project and the design of the territory. Open to new ideas, his praxis towards 'planification' and urban metric (tested in Amsterdam), reveals a more 'radical' choice, based on 'architecture as the source to design a territory'.

On this spectrum, that standpoint was parallel to a growing left-wing political side in Italy, and Europe, in general. The student community in Florence was a persuasive environment to build a new architectural 'glossary', which determines Deganello's approach to matters of architectural design. The slogan, "A house with a pool for the working class" [3] (p 17), was the public stamina for student protests against the Modernist slogans: "Forms follow function", by Louis Sullivan; "Less is more", by Mies Van der Rohe [4] (p 277). This transformation is a change in design and Bauhaus 'tradition', that established designing resources should be allocated aspiring to optimization.

The context, moreover, was based on the expansion of architecture's post-modern associated principles. Both words, "design", and, "architecture", were landing in the same place, molded into one another. Illustrating two completely different roles, that were merged and separated in the presence of this new radicalism. "The focus of design shifted from the individual object to its entire social and material environment" [4] (p 278–279).

The scope from 'technical and functional optimization' to 'ecological recycling', the first steps of sustainability. Paolo Deganello is at the core of this transformation, and his work will deflect under this pathway.

The presented Italian Portuguese context for Deganello's creation was developed back in time, based on the political-architectural framework existing between both countries. There was a political regime similarity, an aesthetical resemblance in the manifested architectural language. Resulting from the action sourced to architects traveling in that realm:

"The political relations between Italy and Portugal were fundamental in the methodology of reorganization of society, and therefore also in the relationship they exercised in architecture" [5] (p 84)¹.

This condition for complacency between political regimes was overall, present in teaching and learning environments. In architecture and its 'design' calligraphy developed as a 'response' to

¹ (free translation from Italian, author, 2025).

house needs in the XIX century, for new emerging social groups, and cultural diffusion in the space of Italy and Portugal memories. 'Cities were being transformed' [6] (p 238–242).

The dwelling was researched through a 'diversity of formal and constructive solutions', in size and 'shape', with a neo-renaissance inspiration. The 'Palazzo', the 'villa', the 'villino', or the 'villino a Castello', a type of house with or without a tower, are some of the known formal examples. A possibility for sharing ideas, that beforehand begun (from XVI-XVII), and didn't change dramatically during the Second World War. The context changed, and the aesthetical cultural layout that resulted from this dichotomy.

On the 2nd of June 1946, an institutional referendum was called in Italy, following the end of the War. Nine months after that, when the Italian monarchy 'lacked validation and legitimacy', by accountable chosen policies, a lost war, and previous reputational/damaging alliances with the Nazis, a referendum was called.

This:

"Would give Italians the opportunity to express their opinion on the political regime that should govern Italy, and holding, on the same day, elections for the Constituent Assembly, which would be responsible for drafting the new Constitution" [6] (p 116).²

The answer to the question in the referendum, a 'Monarchy or a Republic?', had several implications. In Italy, Portugal, and between both countries. On the 13th of June 1946, the Italian Monarch departed into exile to Portugal. In an exquisite combination of conveniences, which included architectural ideals. The realm of discussion was by far created. 'The Italian Republic was proclaimed on the 18th of June 1946, after validation by the Italian Supreme Higher Court. 'Justice and peace, tacked by its inevitable consequences', was achieved. Left-wing political policies, that included new architectural models to be questioned, could expand.

Paolo Deganello, six years old when all this took place, having started his professional activity in 1963, and graduated in 1966, already had a

fruitful collaboration between two countries at his 'table'. And the political will, during the advent refusal of the 1933 Athens Charter, for the new language radical architecture movements 'wanted to place' [3] (p 17). Having learned and practiced architecture in Florence, isn't neglectable. Florence was the 'headquarters' of the Platonic Academy in the XVI century, where new 'theoretical discussions' prevailed [8]. A contributing process to create new languages, 'based on the order system in comparison with medieval architecture' demise, initiated there. The bond with building place, in space, and into the world, remains there intact [9] (p 87). Italian architecture fits into the Portuguese space with this particularity.

3 Italian *pensieri*, 'Live' Testing With a Root and Foot in the World Review

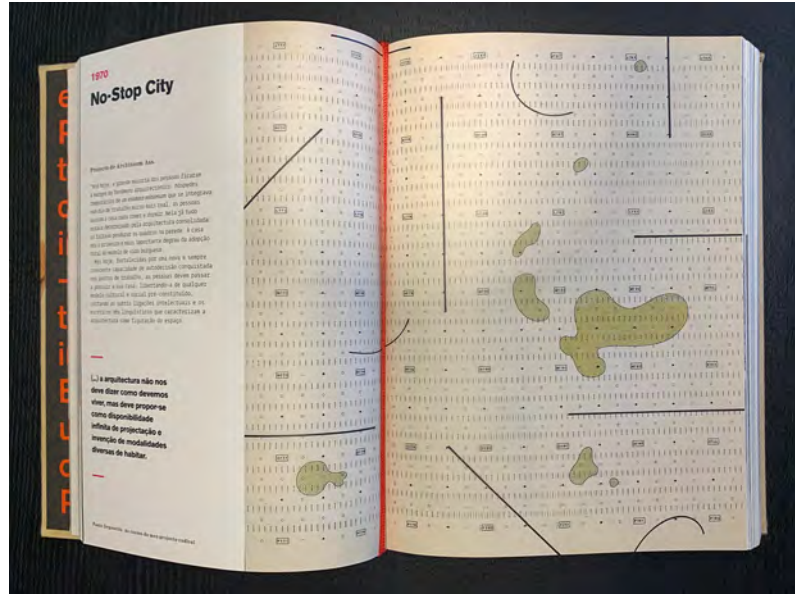
The word "workshop" refers to a discussion and executed practical work about a certain specific subject. Learning is involved through an exchange of knowledge and experience, articulating information that will then be used to support a decision process, action, or new meaning [10] (p 3790).

Is a tool to test how concepts can last. In the case of Paolo Deganello in this article and its argument, the conceptualization of his work as a 'workshop', as an analogy, gives evidence to contextualization through a crafted architecture practice. Deganello was at the epicenter of a discussion in Italy during the 60 s. With Benevolo and Quaroni, his teachers, at one side representing rationalistic 'closed' solutions. And, on the other side, a critique of the established Modernist model defended by the 'Florence radical groups', where Deganello was included [3] (p 17). They enhanced experimentation by design, utopia, in a transdisciplinary perspective of things. He was also working on the relevance of collective memory about context, ethics, and theme [11] (p 86) (Fig. 1).

In this regard, is important to be attentive to 'see the matrix' about the storytelling of a radical attitude in Italy and Portugal. What remains of the influences this type of architectural design move-

² (free translation from Portuguese, author, 2025).

Fig. 1 Non-stop city project in Paolo Deganello's biography. © author, 3 (2025)



ment has had. And discuss the impact of Deganello in making/using the distinction between Design and Architecture in the 60 s, yet choosing to use both nominations in his ‘workshop’. When design became autonomous against the previous ‘mechanisms of power’. With the Archizoom project, and alone, when proposing a “narrative” in architecture. Discussing, and contributing to media archeology about social history, ‘memory of the multitude’, cultural memory, and architectural-design theory [11] (p 86,146) (Fig. 2).

Deganello aesthetically worked at a turning point in architecture and design semantics. Using architectural design as a tool to criticize with a vision for the future, that was generally accepted as having to be different. Without mechanisms of ‘digitalization’, he saw the present as a ‘structure’ to forget, to bind the ‘art’ of architectural design with new against formal architectural principles, who blocked this new conceptualization [3] (p 120). His later product design objects foreshadowed this near future. Trying to integrate technology and ‘raw materials’ with known modernist shapes, changed by design. The realization of a new guide for a new social disruption was well represented by Archizoom Associati supermarket/industrial post-modern envelope Non-Stop City (1970) project. To illustrate the domestic/dwelling

space in the city with a new non-architectural format (no city) is the criticism: ‘You have to live before you consume’. Architecture is not convenience or just taste, it is the pavement for creating new dwelling models for everyone [3] (p 110–117,120–121).

The acceptable critique had a strong impact in Italy, in Portugal, this article argues, countries very much associated with the classical tradition of disegno. Theoretically, Italian Radicalism was mixing and questioning the “command of drawing”, which had previously ‘unlocked the status of the architect’.

The term “design” derives from the Italian disegno, which associates the drawing of a line with the drawing forth of an idea. Disegno allowed the three visual arts—architecture, painting, and sculpture—to be recognized as liberal arts concerned with individual, intellectual labor, a status they had rarely been accorded previously [12] (p 81).

The new proposed ‘status’ of the architect denoted this contrasting sense of awareness, about immaterial architecture separated from an ideal geometric form. ‘In opposition to what happened in Classical antiquity’, and Modernism. A new ‘pure’ criticism, into the limits of space and its design. And the objects presented there.

Fig. 2 Non-stop city project in Paolo Deganello's biography © author, 4 (2025)



Deganello's research with the Archizoom, and as an architect-designer in full practice, had this possible association with providing a narrative, or 'story', about the performance of architecture meanings to pursue [12] (p 89).

Archizoom (dissolved in 1974) 'questioned the role of architecture', created objects to disrupt conventions (Superonda sofa), "encouraging a more flexible approach to living" [13]. The project No-Stop City, is somehow related, close to 'Pop culture' ideals. The 'reconstruct', the response to people's needs, to answer the question: "What if... the modern city is nothing more than a problem which has not been solved?" (Smyth, 2019) Everything is possible, even if it seems impossible, was the practiced slogan. The collective and Deganello refused the status quo in the media they chose to communicate. Contemporary media 'archeology', in progress for a new type of AI (artificial intelligence) command presence, has had different 'discursive practices' [11] (p 159) and platforms. First the Internet, then the Cloud. Now, the Metaverse, with AI emerging as a disruptive paradigm. All contributing to building new architectural memories, and languages. Mostly, in opposition to the past. As in the 'early twentieth century, despite the eclectic language of the Classic models (Figs. 3 and 4).

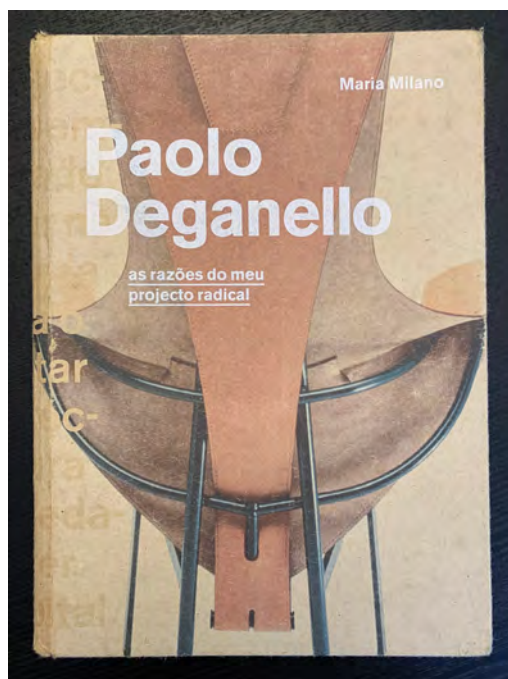


Fig. 3 Paolo Deganello's biography, cover © author, 5 (2025)

In the early twentieth century, the rejection of the historical heritage in design practice led to the purification of the architecture to a crystal purity and an almost complete loss of memory.

Fig. 4 Supernova sofa project in Paolo Deganello's biography © author, 7 (2025)



In project practice, this leads to the purification of the architectural language from the stylistic layers and leads up structure to the crystalline purity [8] (p 6).

‘The most important form to transfer and store information is within the scope of architectural language, and compositional logic.’ Assuming this, and Foucault’s line of reasoning, where ‘memory makes present to be forgotten, giving it a superlative value at the same time’, what remains is the ‘sequence of moments’. Which in the case of a narrative, has an imbibed ‘retrospective view of events’ [14] (p 58). Heritage links with this idea of summarizing objects in retrospect. Immaterial legacy is present, for example, in Museums. Exhibitions, ephemeral spaces, performances, adapted spaces, reconstruct time. The production of unique narratives slightly changes the scope of ‘architecture as an act of physical construction’. Or, in the physical paper book where the immaterial endures architecture ‘fortitude’ [15] (p 28).

Deganello was performing architect-designer scope, prepared to be a voice against capitalistic ideologies and build a ‘moldable’ narrative [16] (p 35–36).

A debate about architecture sometimes ‘without’ architecture. Even if projecting the restoration of the Montecarotto Teatre, in Napoli

(1972), a kindergarten in Lombardy (1978), or a School with natural ventilation (1979). ‘The laboratory for active learning in the child-nature relationship, an opportunity for renewal building typologies [3] (p 154). When participated in the university protests and university occupation by students in Italy, in 1963, was preparing the laboratory for his ‘workshop’. A known conceptual whole, into cultural memory diversification, would eclipse consequently.

4 ‘Contra-Culture’ Frame: Building the Practice of ‘Radical’ Architecture in Portugal

Deganello started his academic work in Portugal in 1999, following an invitation by Maria Milano, to teach at ESAD (Escola Superior de Artes e Design), in Matosinhos (regularly, until 2013). A collaboration was initiated when he participated in a conference (“The Interfaces”) organized by the Portuguese university. He found a ‘fresh’ environment, with people interested in being at the core of a project praxis layout discussion, to address ‘less obvious issues, with an uncompromising critical approach’ [3] (p 487).

uncompromising compromise to matters of architecture design project would present a teaching 'workshop' in a 'dwelling university' by default (his words). It was an important achievement, in his opinion. Some of the student's projects were included in his biography (organized by Maria Milano), attesting to the degree of dedication and completion he pursued, and achieved, in Portugal.

When Paolo reads the art magazine *Cultura Alfabeto2*, number 8, 30th March 2011, in a video posted on YouTube from 2012, filmed at his atelier in Italy, quotes from an article written by Paolo Cacciari, with the title "Green Economy e Sostentabilità". "Architecture is a mercantilist practice", he stated [17]. Then, presents a kitchen table, unique object design possible to 'configure accordingly to taste or needs (Fig. 3).

'Design principles make sense as long as you radically and critically rethink a product in terms of how it's been produced up to that point.' The perception of the 'analog' model (instead of 3D) has, for Deganello, the capacity to find a recognizable path, because more interlaced with that same reality. Applicable when working with the architectural object, as the design object. The sort of investigation Deganello brings to Portugal flats the architectural design scope to a same-page recognition. Architecture and space are the same, as design, the usual 'content'. A perspective of *disegno* as a global tool of conceptualization. *Pensiere*. Criticism. The impact of his presence at ESAD intersects with this posture [18] (p 94). Master and Doctoral grade thesis in the university refer to him, directly or indirectly [19] (p 66,66,68,99,101,104) [20] (p 62,64) [21] (p 107,108).

His 'workshop' has accommodated 'sequences' of narratives as of architectural production. His work delivers on a series of topics, building a material and immaterial cultural body of research with the academic community in Portugal. Not surprisingly, his participation has been more visible in the North of Portugal. Porto (and Matosinhos) was already 'closest to Milan' when he arrived in the 90 s [22] (p 106). In 1940, Porto Municipality hired the Italian architect Giovanni Muzio, replacing Marcello Piacentini, for the urban planification of the city. The most

'classical tradition' of Piacentini, was changed by the rationalistic Modernism of Muzio, influenced by Le Corbusier. The 'language' of Milan. Italian *pensieri* had already gained some ground in Portugal, with the neo-renaissance models [2] (p 241).

They were ready for criticism, for the innovative 'radicalism', besides tradition. In dissemination, integration, media, means, narratives, and style.

5 A Sequence of 'Archeological Events': Dissemination, Integration, Media, Means, and Narratives

Portuguese architecture and architects from the 30 s to 50 s, dealt with changes in the architecture paradigms, accepting these new manifestations of 'style'. Modernist architecture was the 'first stage' of a work against the established political Portuguese regime, within the 'orthodoxy' of the CIAM [23] (p 49) in a post-war scenario. The CIAM³ 7, or "grid Congress" [24] for example, that took place in Bergamo, from 22–31 July 1949, conceived an idea about the 'liberal architect'. Receiving inputs from outside, Portuguese architects revealed an ability to change very drastically between traditional models to formal languages of architecture [23] (p 50). With a 'social perspective on cultural identity, the value of memory, and city design'. This group of concepts was at the least present, when Deganello participated in the Radical movements in Italy, in 1963, producing a particular language and typology that would be decisive for his later 'entrance' in Portugal.

Nevertheless, in the same period that tradition was being questioned in Portugal, it was also listed as a figurative 'element' of something that should be slightly retained. Raul Lino's texts to *Diário de Notícias*, a Lisbon-based newspaper, in the 60 s, reflected this reading of events [25]. The general resonance is about tradition as a historiographic 'envelope' for the future. The book "Arquitect-

³ Congrès Internationaux d'Architecture Modern.

tura Popular em Portugal”⁴, with a first edition in 1961, also reflects that perception [26]. Was initiated with fieldwork in 1956 with several teams of architects [23]. (p 159) And finds a resemblance to represent the ‘Portuguese house’ type. Paolo Deganello aspired for a new radicalism based on refusing Modernist pre-conception, regularity, and formality.

The most vital core of the Radical experience lies precisely in this ability to bring into the project not only social strife but also the need for an architecture that can go beyond its disciplinary statutes, beyond the Modern Movement, attempting to include the new living culture that the ‘68 movements [27].

The cultural realm of Portuguese architecture aspired to integration, implementation, and acceptance under a ‘soft’ political opposition. Somehow this was a clear criticism of the existing models because they were seriously seen as something to accept [23] (p 153–154, 159). Portuguese architects were looking for conceptual (ideological, and critical) intentionality: to question the past, build a new present, and suggest a new future against a dictatorial regime in power (1926–1974). At the same time.

Fernando Távora (b. 1923), quoted in 1947 as saying, “Everything needs to be redone, starting from the beginning” [23] (p 159) Nuno Portas (b. 1934), Manuel Tainha (b. 1922), Conceição Silva (b. 1922), Siza Vieira (b. 1933), and many others, defended the existence of a universal post-modernist future, in Portugal. Both ‘schools’ of architectural thought, in Porto (FAUP) and Lisboa (FAUL), searched this ‘archeology’, that has had several setbacks, developments, and tangible breakthroughs. Portuguese architecture debate was intense, and political, until the late 80 s, when *pensieri* in both schools moved apart [28] (p 59). An intensity that has been superseded by the aesthetical value, accordingly to a more ‘liberal market of demand, and available funds’. Since many Portuguese architects participated in this discussion with a shred of certain evidence, nationally and internationally, the realm of the Portuguese architectural space was able to

contain several nuances, in which the work of Paolo Deganello could fit.

The Universal Lisbon Exhibition Expo98 was also one of those moments where international exchange and research crossed, to widen the space for architecture, design, and other creative disciplines, to present innovative solutions and innovate the city of Lisbon [28] (p 63). Not surprisingly, Deganello reached Porto for ESAD conference procedures in 1999. When the effective balance of the narrative of a great universal exhibition was still active in Portugal’s frame of architectural heritage consolidation, and collective memory. Contextualizing the narrative of Deganello. The ‘structure’ of the media presented on the ‘screen’ of thought [29] (p 5) to make the exhibition, and renovate the city, had some resemblance with the transversal and radical achievements of the Italian architect’s work. Opening space for his presence.

In the same year, 1999, Deganello was for the first time presented at the ExperimentaDesign Biennale, in Matosinhos. Which offered a series of conferences, workshops, and events to understand ‘material culture’ in design and architecture. A narrative about architecture’s role in the Portuguese framework was being established, producing a meaning about how it could benefit the country’s role in European architectural and design cultures. The emergent subjects about explanations ‘play’ a pivotal role when considering the narrative as a tool to build a personification of identity. The realm of a city, or a country, can be changed, or affected, by a chain of events, a circumstance, or a decision. “Making” has several complexities [30] (p 9). Public discourse reflects textual symbolism, content, and interpretation. ‘Crafting’ requires ‘visual documentation’, adding text, images, sound, physical forms, designs, and architectures, can be argued.

The ‘environment’ changes within those parameters. Aggregation occurs in ‘archives’, in different layouts, places, and spaces. The traditional Museum (space for discussion), exhibitions [31] (p 261) in de-contextualized spaces, lectures, and related events, contribute to building the density available in archives, in the private and collective memory, creating a trace of thought,

⁴ “Popular Architecture in Portugal”, author, 2025.

a systematization, selection, and ordering: “The conscious or unconscious knowledge of what connects is added as an imaginative capacity” [32]. Feeding the archeological narrative. The participative process of Deganello’s consolidation in Portugal’s realm, in public events and exhibitions, can be presented, chronologically:

ExperimentaDesign 1999—Archizoom Associati dedicated event; “Porto Futurista”—Norte Shopping, 27th May 2001, Silo space [33], following a workshop by Paolo Deganello and Gilberto Correti, discussing how culture, design, and architecture could merge in the city, creating space to be used freely; ExperimentaDesign 2009—Book launch biography of Deganello’s, by Maria Milano (organizer), in Matosinhos [3]; “Design Maçico”, exhibition/installation at Casa da Cultura de Paredes, for “Art on Chairs” project, 2012; “Abitare Itállia—Icões do Design Italiano”, Porto Design Biennale 2019. Curation by Paolo and Maria Milano, participating in other parallel events, with João Luís Carrilho da Graça (b. 1956), and other professionals; “Art on Chairs.” Project “Duets”, Paredes, Portugal, [34] using wood to produce local design-based pieces. Curation by Maria Milano. Proposed chair to Manoel de Oliveira, by Paolo Deganello. This is a selection.

The support of the Portuguese media (press) articulated Paolo Deganello’s presence. Narrating his role, ideas, and posture. That is very clear in every piece published from 1999, until now. The ‘collection’ of information is assembled in the collective memory, in the archives of Museums, exhibition entities spaces, organizers, or transcribed to paper/digital supports. The exhibition, “The Reinvented Object/The Reinvented City”, on 14th April 2016, in the Italy realm, in the context of the Portuguese representation at the Milan Architecture Triennale “Objects After Objects” [35, 36] with the participation of Deganello, and João Luís Carrilho da Graça, is a confirmation that he was/his, until this date, involved in the elaboration of a cultural, material and immaterial, body of work. Critique, comprehensive interpretation of contemporary problems, and politics, with a social concern about architecture and design. (Fig. 5).

6 The ‘Achievements’: Conclusions

Is it reasonable to confirm that Paolo Deganello influenced Portuguese architectural design culture? And vice-versa? Maybe not *strito senso*. From a formal perspective, he is contemporary to his peers, who graduated at the same pace (1966) and worked along on that moment/period. João Luís Carrilho da Graça, for example, was at the same conference at Porto Design Biennale in 2019. Also, at ExperimentaDesign Biennales, in 1999, which was mostly dedicated to the work of the Archizoom Associati. And, in 2009, when Deganello’s biographical book was presented in Matosinhos, by Experimenta Biennale Presidente, Guta Moura Guedes. Deganello was among those who recognized him and his relevance within the radical principles of architecture from the 60 s. The ‘contamination’ existed, in a contemporary setting.

From a scientific perspective, tracing and measuring how much Deganello influenced or was influenced in Portugal is a difficult task. Certainly, the degree of impact on the Portuguese architectural culture and in Portuguese cultural settings is real. In exhibitions, workshops, presentations, lectures, in the Portuguese press, and academic fields. In Matosinhos, Deganello proposed the ‘new’, to students and co-workers (teachers). Is reasonable to think he was influenced.

Nevertheless, thinking about how he was integrated with the architectural community in Lisbon and Porto, and how these cities passed through Italian Radicalism, is possible to argue that any ‘radical’ architectural shape/form there, is somehow integrated. If not physically, politically. Fernando Távora and Siza Vieira buildings in Porto, could be seen as presenting a more ‘radical’ design, since their choices are sometimes more experimental and off grid. Rationalism/formalism has been combined there, in the same layout of unexpected forms and designs. In Lisbon, the only resemblance with such a radicalism as Deganello defended, by striking gestures—color, shape, materials, can be argued to have been shown by Tomás Taveira (b. 1938).

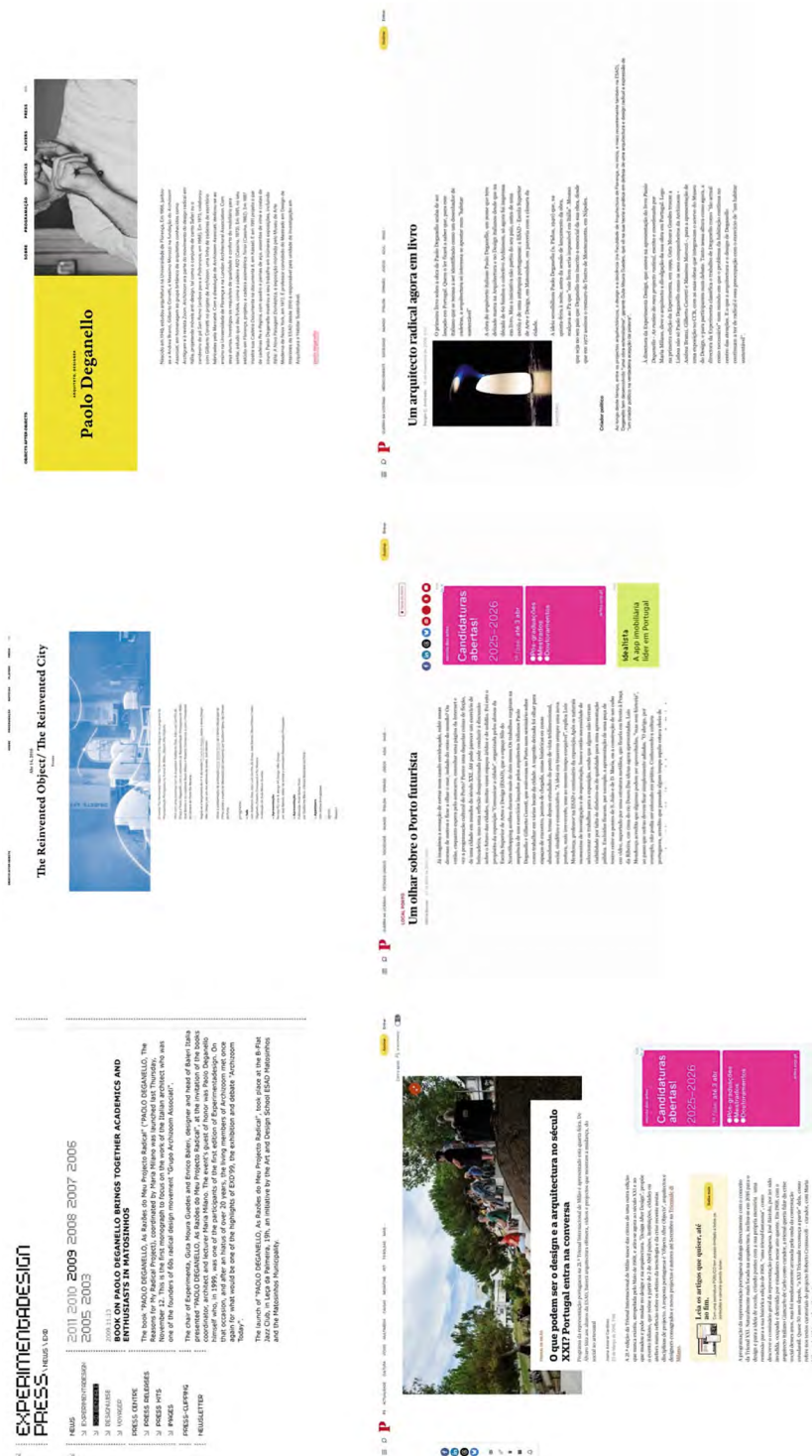


Fig. 5 Paolo Deganello referenced in Portuguese Press (captures) © Author, 8 (2025)

The multifaceted architectural language in his buildings, excluding content, can be said to have such a 'flexibility' that recollects any sort of architectural design radicalism. Which isn't radicalism by default, just formal criticism and mixing realities. To break with order. Italian Radicalism opposed consumption, which in the case of Taveira, is something accepted and seen as necessary [37].

On the other spectrum, Manuel Graça Dias (1953–2019) and Egas Vieira (b. 1962) can also be referenced as having understood Italian Radicalism in Lisbon, proposing buildings, and a narrative (especially, MNG), with a great impact on the city (Headquarters of the Portuguese Architects Association), also in a social perspective. Deganello's influence is based on a continuous interest in remaking the language of the feasible—whether in the context of architecture and the home, of living, or in the design of the city and urban planning itself. That impacted those interested in architecture in the 60 s and beyond.

The Radical Project is, after all, decisive to architecture, confirming that is a practice that has the flexibility to contain codes. Deganello had a diversity of interests and a language/interest in innovation, based on political ideas, in confrontation with the status quo. That defines the 60 s in Portugal. From a symbolic, or immaterial perspective, the 'construct' of memory in the context of a timeline, in a sequence, requires the ability to elaborate a contemporary discourse that connects to the reality of the moment. Able to exercise criticism of that same moment. Assuming the present contains such a critical 'texture', it manifests itself in a variety of ways. Deganello understands these connections well and sees them as necessary to carry out a substantiated criticism. The discursive practice present in his texts, and works—designed objects (design), curation and exhibition design, architectural and spatial design, whether real and/or intentional—combines a set of principles that increases freedom of thought. From postmodernism to contemporary times.

The confrontation he had at the beginning of his career with the remnants of Modernism, partly due to the political support of the regimes of

this formality, manifests in Deganello's critique, outlining an alternative hypothesis for architecture and design. The geography of criticism gathered ideas in practice, leaning towards Europe. The relationship with Portugal occurs at this level of influence, collected locally by different architects and designers. Translates into a connected narrative, not completely measurable in the architectural design projects. Clear, however, in the narrative discussion, the sense of exchange, and some practice of creative design, integrated into the university's intangible heritage [37] (p. 6). The study of his work, together with academic teaching practice, builds a 'symbolic test to the question of temporality', and if it is possible to trace every influence he had, or has, in the actual framework of the Portuguese architecture setting. Archives, teaching, exhibitions, media narratives and dissemination, publication, and scientific production, are different ways of analogue and digital expression. This formulation and knowledge of such an heritage value expresses an ideal of conceptualization. Signaling an Italian and Portuguese collaboration, which began in the XVI century, and endures at a steady pace. Narrating the 'place' and a perspective about a Project praxis, culturally reflective, in the physical and symbolical space of his Portuguese Italian Architecture Workshop.

References

1. Silva B (2018). Ficção e realidade na Arquitetura Radical Italiana. *Revista Poiésis* 39–60
2. Ferreira TC (2007) *Arquitectos Italianos em Portugal. O Século XIX e o caso de Alfredo D'Andrade e Sebastiano G Locati. Estudos Italianos em Portugal* 2:229–244
3. Mliano M (2009). Paolo Deganello—as razões do meu projecto radical (Vol. 2009) In: Joana Santos SA (ed) *Matosinhos, Porto, Portugal: ESAD—Escola Superior de Artes e Design; Câmara Municipal de Matosinhos*
4. Helena Barranha JS (2021) Art, museums and digital cultures—rethinking change. Institute of Art History, School of Social Sciences and Humanities, Universidade NOVA de Lisboa, in association with maat—Museum of Art, Architecture and Technology, Lisbon
5. Pegorin E (2017) *Architettura e regime tra Italia e Portogallo. Relazioni nelle opere pubbliche dello*

- estado novo. Estudos Italianos em Portugal. Estudos Italianos em Portugal—Nova Série 12:83–95
6. Ferreira TC (2017) Ville e villini. casas de arquitectos italianos no portugal de oitocentos Estudos Italianos em Portugal. Estudos Italianos em Portugal—Nova Série 12:233–257
 7. Matos VM (2014) Doctor thesis. Portugal e Itália. Divergências e Convergências em Quarenta e Três anos de Relações Diplomáticas (1943–1986). Coimbra, Coimbra, Portugal: Universidade de Coimbra
 8. Remizova O (2020) Architectural memory and forms of its existence. *J Architect Urbanism* 101
 9. Galimberti J (2022) Born in the occupied universities: the politics of Archizoom, Superstudio and UFO. Unidentified flying object for contemporary architecture: UFO's experiments between political activism and the artistic avant-garde New York. Actar Publishers, Barcelona, pp 87–101
 10. Academia das Ciências de Lisboa and Fundação Calouste Gulbenkian (2001) Dicionário da Língua Portuguesa Contemporânea (vol. II). Lisboa, Academia das Ciências de Lisboa; Editorial Verbo
 11. Hoskins A (2018) In: Digital memory studies—media pasts in transition. Oxon: Routledge, Taylor & Francis Group, New York
 12. Hill J (2013) The ruins of the immaterial. *J Architect Related Arts—Interstices* 14—Immaterial Materialities 81–93
 13. Smyth M (2019). Speculative Edu. Retrieved from The Radical Design Movement. <https://speculativeedu.eu/the-radical-design-movement/>
 14. Chiel van den Akker SL (2016) Museums in a digital culture—how art and heritage become meaningful. Amsterdam University Press, University of Chicago Press, Amsterdam
 15. Sezen B, Sağlam D, Hiz G, Sevinç T (2022) Processes in architectural design—representation, narrative, subjectivity, temporality, spatiality. *UOU Scient J* 3:27–37
 16. Sá TP (2012) Take-away architecture. Master grade dissertation. Porto, Porto, Portugal, Faculdade de Arquitectura da Universidade do Porto (FAUL)
 17. Magazine E (2012) In: My radical project. architecture and eco-design by Paolo Deganello [Motion Picture]
 18. Miranda AF (2013) Descobrir, explorar, apropriar. Tese de Mestrado em Design. Matosinhos, Porto, Portugal, Núcleo de Espaços Urbanos e Interiores (ESAD)
 19. Campos AM (2012) Da Utopia ao Utopismo. Mestrado em Design de Interiores. Matosinhos, Porto, Portugal, Espaço Urbano e Interiores (ESAD)
 20. Parra P (2021). Symbiotic Design—project culture, biological systems and technological systems. PhD Thesis. Lisbon, Faculdade de Belas-Artes da Universidade de Lisboa (FBAUL)
 21. Ramos AR (2014) Anarquia na Cidade—A Arquitectura Viral como Método de Reabilitação da Cidade. Master grade thesis. Matosinhos, Porto, Portugal, Escola Superior de Artes e Design (ESAD)
 22. Trevisan A (2013) Influências Internacionais na Arquitectura Moderna no Porto (1926–1956). Tese de Doutoramento. Valladolid, Spain, Universidad de Valladolid
 23. Tostões A (1997) Os Verdes Anos na Arquitectura Portuguesa dos Anos 50. Faculdade de Arquitectura da Universidade de Porto, Porto
 24. Pierre-Alain Croset AC (2020). On the CIAM 7 grid: from an ideological to a critical tool. *The Plan J* 89–117
 25. Pinto CV (2004) Raul Lino—Não é Artista quem quer. O Independente, Lisboa
 26. Associação dos Arquitectos Portugueses (1980) Arquitectura Popular em Portugal. Associação dos Arquitectos Portugueses, Lisboa
 27. Molinari G (2013) Vista Radical, An Interview with Paolo Deganello. *Fruit of the Forest* magazine
 28. Grande N (2013) Arquitectura portuguesa em fim-de-século: entre o pós-ideológico e o pós-moderno. *Camões—Revista de Letras e Culturas* 55–66
 29. Ruan H (2025). Narrative screen: the role of media architecture internalization in enhancing architectural narratives. *World J Innov Modern Technol* 5–12
 30. Lehmann AS (2012). Showing making: on visual documentation and creative practice. *J Modern Craft* 9–24
 31. O'Donnell NH (2016). Space as curatorial practice: the exhibition as a spatial construct. PhD Thesis. Oslo School of Architecture and Design. Oslo, Norway
 32. Buchert M (2012). Archives. On the genesis of architectural design. Retrieved from TACK: <https://tacit-knowledge-architecture.com/object/archives-on-the-genesis-of-architectural-design/>
 33. Barros M (2001) Um olhar sobre o Porto futurista. Lisbon
 34. Nuno Marques ES (2017) Art on chairs—Uma Estratégia de Desenvolvimento Territorial. Lab2PT—Laboratório de Paisagens, Património e Território Escola de Arquitectura da Universidade do Minho
 35. Cardoso JA (2016). O que podem ser o design e a arquitectura no século XXI? Portugal entra na conversa. *Jornal Público*
 36. ESAD (2016) Milan2016.esad.pt/Escola de Artes e Design. Retrieved from Objects After Objects: <http://milan2016.esad.pt/en/programme/o-objeto-reinventado>
 37. Bastos MB (2022) Mind, creation, and emotion: reinventions in Tomás Taveira's architecture. *PHI—Creating Through Mind and Emotions*, pp 167–172
 38. Tschumi B (1994) The manhattan transcripts. Academy Editions, New York

Architettura Rurale Italiana and Arquitectura Popular Em Portugal: The Responsibilities Toward Tradition

Lavinia Ann Minciaccchi 

Abstract

Among the various points of contact between Portuguese and Italian design culture in the XX century is a shared interest in “minor” architecture. Giuseppe Pagano’s 1936 research on *Architettura rurale italiana* and the Portuguese *Inquérito*, proposed by architect Keil do Amaral in 1947, realized in 1956, and published in 1961 under the title *Arquitectura Popular em Portugal*, both demonstrate a common responsibility toward the rural traditions of their respective countries. This essay aims to explore affinities and differences between these two investigations. While Pagano’s work serves as an “influential model for Portuguese research”, the *Inquérito* takes a step further. Twenty years earlier, Pagano’s operation emerged as a response to the academism of the XIX century, seeking modern architecture’s values in the rural tradition. The *Inquérito*, on the other hand, takes place in the 1950s, where the most dangerous academism is now that of the “modern formalists” who have forgotten that early twentieth-century architecture was born in opposition to that of the past “drawing solutions from the concreteness of phenomena” and not from

“an aprioristically determined cipher”. The two investigations, absorbed at different times, would become the basis for the architectural research in the 1950s in both Italy and Portugal, balancing modernity and tradition.

1 A Common Premise

The renowned research on *Architettura rurale italiana* by Giuseppe Pagano and the *Inquérito à Arquitectura Regional Portuguesa* are among those practices that, throughout the XX century, recognized the need to expand the boundaries of the established discipline by including the rural context and “minor” architecture [1].

Considering the political context –namely, the dictatorship– along with the geographical proximity and the limited industrial development in both countries during the first half of the XX century [2], it becomes evident that both investigations arose from common premises. However, the same cannot be said for their structure, which, in certain respects, diverges significantly, partly due to the nearly twenty-year gap between them. This temporal distance allowed Pagano’s work to become an “influential model for Portuguese research” [3] which is not surprising considering that the magazine

L. A. Minciaccchi (✉)
Rome Program, Iowa State University,
Ames, Iowa, US
e-mail: lavinia@iastate.edu

Casabella was well known in Portugal,¹ and within it, Pagano himself had published several preliminary articles for his research, as well as an notable review [4] of the exhibition. Despite this influence, the time gap undeniably generated differences, altering the architectural, historical and social context in which the *Inquérito* took shape.

A key characteristic that emerges clearly from the texts preceding or accompanying both investigations is the urgency to offer an alternative to the epidermal and partial reading of tradition, as well as to the academism promoted by dictatorial regimes. Pagano expressed this urgency in 1935 through four articles published in *Casabella*, of which he had been the editor since two years [1, 5–7]. Although the Istrian architect was still aligned with the Regime ideology at that time, and his interests in “minor” architecture reflected the economic and territorial policies promoting “the return to the land”, [8] his articles also contain critiques of “lovers of local colour, folklore” [5] and of “that traditionalism and aestheticism which I denounce today” [9] in order to “preserve from academic fallout –and– immunize from rhetoric” [10]. In 1936, the year of Pagano’s exhibition, the regime inaugurated the Empire, marking its definitive shift from «the representation of a modern state [...] to the depiction of the new Roman Empire» [11], a change that would also be reflected in architecture. Pagano criticized the rhetoric and monumentalism² in

the *Architettura rurale italiana* catalogue, stating that «in the history of architecture we generally study the history of architectural taste through the courtly forms adopted by the major buildings: temples, churches, palaces. [...] In the study of stylistic architecture we are greatly concerned with the “how”, but not with the “why”» [8] (pp 7–8).

In Portugal, where the dictatorship lasted until 1974, this urgency was denounced in 1947 by Fernando Távora in the famous essay *O Problema da Casa Portuguesa* [12] and by Francisco Keil do Amaral in the article *Uma Iniciativa necessária* [13] published in the pages of the magazine *Arquitectura*.

Both essays emphasize the importance of moving toward a conscious reading of the country’s architectural tradition to avoid the «false interpretation of ancient architecture or [...] the superficial study of the forms of history» by rejecting «decorative whims or baroque manifestations» [12], and «the mixing of facades and interiors with typical decorative elements» [13] (p 12). These texts were written in response to the ideal of the “*casa tipicamente portuguesa*” [14], a concept arising from a picturesque reinterpretation of the vernacular heritage, promoted by Salazar and architect Raul Lino da Silva. After a brief period of *Modernismo Effimero*, [15] the 1940s saw the Regime initiate a *stylistic Restoration*, during which some architects, organized in groups³ and at the head of the country’s most important magazines, laid the foundations for an architecture of *Resistência* [16], aiming to reconcile modernity and tradition.

The critique of regime architecture thus becomes a pretext for suggesting a necessary openness to modern architecture. Despite the temporal distance, both Pagano and the archi-

¹ The *Inquérito*’s authors show that they are familiar with the research carried out a few decades earlier: “only a few decades ago, the phenomenon of popular and regional architecture began to intensely interest scholars”, AA VV (2004) Introdução, in *Arquitectura Popular em Portugal*. p XXII. Ed. da Ordem dos Arquitectos, Lisbon. In addition, the ICAT group, of which Francisco Keil do Amaral (promulgator of the *Inquérito*) was a part, had taken over the editorship of the second series of the journal “*Arquitectura*” and frequently republished articles from “*Casabella*”.

² “Pagano had begun to violently attack Piacentini and all Fascist academics. [...] He claimed that our true tradition was not the Roman tradition, as the regime architects proposed, but that of spontaneous architecture, which he went around discovering and photographing with his Rollei 6x6”. De Carlo G (2001) In Bunçuga F (ed) *Conversazioni con Giancarlo De Carlo*. *Architettura e libertà*, Elèuthera, Milano, p 43.

³ Reference is made here to the ICAT (*Iniciativas Culturais Arte e Técnica*) group born in Lisbon in 1946, of which Lisbon architect Francisco Keil do Amaral, among others, was a member and which from 1947 edited the magazine “*Arquitectura*”; and the ODAM (*Organização dos Arquitectos Modernos*) group born in Porto in 1947 that participated in CIAM VIII, IX, X and XI and included Fernando Távora and Alfredo Viana de Lima.

texts involved in the *Inquérito*⁴ identify the rural context of the villages as «the true tradition [...]: clear, logical, linear, morally and formally very close to contemporary taste» [10]. In words not dissimilar from Pagano's, Keil do Amaral also clearly expresses how the study of "minor" architecture can serve as «purer and more coherent source for the definition of a modern Portuguese architecture» [13]. However, this connection is not confined to the observing an aesthetic affinity between early twentieth-century architecture and vernacular volumes, an affinity also acknowledged by others, as evidenced by articles from the GATEPAC [17] group or published in the magazine *Quadrante* [2]. What distinguishes the work of Pagano and the authors of the *Inquérito* is their focus on understanding the «how», rather than the «why». They aim to trace: «how, in each region, the people were able to solve the different problems that the climate, materials, economy and the conditions of life in the region imposed on the buildings, and then understand the extent to which these solutions are valid and current, appropriate in functional and economic terms» [13].

The terms *functional* and *functionalism* recur in the texts of the Istrian architect and will be taken up several times by Keil do Amaral, Távora and the other authors of the *Inquérito*; it is no coincidence that the title of the exhibition set up by Pagano for the 1936 VI Milan Triennale was *Funzionalità della casa rurale*, and only later did the exhibition catalog adopt the title *Architettura rurale italiana*.

In fact, the lesson of rural architecture was to be traced not only in the interesting plastic outcomes of the "minor" built environment but also in their *functionalism*, which was reflected in spatial, technological and material choices that arose in response to climate, available materials, economic and social conditions, and the needs of

the inhabitants. The term *functionalism* is therefore employed with a broader meaning, away from those who considered it anachronistic to refer to construction techniques and materials that were not associated with modern technologies. Moreover, it refers to the needs of the inhabitants, to a socially and morally useful architecture, frequently described as "honest" and "healthy".⁵ In similar contexts, which were underdeveloped industrially, the principles of modern architecture were thus to be found not only in machinist aesthetics but also in the ethical value of the discipline.

Ultimately, by investigating real examples within the territory, the shared objective was to restore to modern architecture a concreteness and an adherence to reality, recognizing the «timeless» tradition deeply embedded in the territories. Indeed, other recurring terms in the texts pertain to the relationship between the formal and spatial outcomes of architecture and the "topography", "climate" [8], and "natural conditions of the regions" [18]. The primary object of both researches is the house, widely present in both countries, studied -albeit through different methods- in relation to the materials, topography, and construction techniques typical of the areas, introducing a different focus on the relationship between the context and architecture.

2 From Image to Experience, Between Artifacts and Territory

The intuitions expressed by Pagano in "Casabella" in 1935 would find a practical manifestation in the famous exhibition at the VI Milan Triennale of 1936 and in the subsequent book *Architettura rurale italiana*, both curated with Guarnerio Daniel.

⁴ The architects who participated in the *Inquérito* are Fernando Távora, Rui Pimentel, António Menéres (Zone 1 - Minho); Octávio Lixa Filgueiras, Arnaldo Araújo, Carlos Carvalho Dias (Zone 2 - Trás-os-Montes); Francisco Keil do Amaral, José Huertas Lobo, João José Malato (Zone 3 - Beiras); Nuno Teotónio Pereira, António Pinto Freitas, Francisco Silva Dias (Zone 4 - Estremadura); Frederico George, António Azevedo Gomes, Alfredo da Mata Antunes (Zone - Alentejo); Artur Pires Martins, Celestino de Castro, Fernando Ferreira Torres (Zone 6 - Algarve).

⁵ «Modern architecture [...] means architecture morally, socially, economically, spiritually, linked to the conditions of our country [...] The physiognomy of a country is not given by the works of exception but by those other many that historical critics classify as "minor architecture". [...] of this "healthy" architecture in the true sense of the word in our country produces almost none», Pagano G, *Architettura Nazionale*. cit., pp. 2-7.

The exhibition, set up in the longitudinal space of the *New Pavilion* at the *Palazzo dell'Arte* in Milan, was primarily a photographic exhibition. The same can be said for the book, where the sized panels containing the images presented in the exhibition are the focal point of the pages, with the essay occupying the lower part and referencing the images only in part. To carry out his research, Pagano traveled across Italy with his Rolleiflex, documenting the “minor” architectures and launching a photographic activity that would accompany him for the rest of his life.

As stated in the introduction to the book, the majority of the photos accompanying the research were taken by Pagano, with a few external contributions. The preferred medium of expression is therefore the photographic image, and the criteria for selecting the buildings are varied: evolutionary (from hay barns to *casoni* (large farmhouse) in the North-East), geographical (Puglia and *trulli*), technological (the evolution of vaulted roofs) and morphological (plastic elements shaping certain architectures, such as stairs, dovecotes, and loggias) [2] (pp 55–56).

The research is conducted as primarily an individual work, with the consequent limitation of not being able to cover all geographical regions and housing types equally, returning a partial picture tied to a single point of view.

The choice to use only photographs, with rare exceptions for drawings [8] (pp 24; 30; 33; 36; 42), also represents a limitation, not only due to the medium itself but also in terms of its application. As Zevi highlights [19], the point of view is always very close to the photographed object, which, even when the frame widens to include more than one element, limits the amount of context shown, neglecting the theme of aggregation. The decision to use only external photos and the minimal presence of plans and sections excludes the interior space entirely. Finally, the total absence of human figures seems to express the intent to present the architectures as a series of autonomous objects, estranged from the daily lives of their inhabitants.

The reason Pagano prefers photography over drawing is to «quickly collect a large amount of documentary material», discarding “any system of illustration as too slow, subjective, and unscien-



Fig. 1 Cover, Pagano G, Daniel G (1936) *Architettura Rurale Italiana*. Hoepli, Milan

tific» [20]. As Federico Bilò extensively argues, the objectivity of photography -or the lack of scientific rigor in technical drawing- can be debated, but it is clear that, despite Zevi’s observations, the photographs suggest possible relationships and interactions between the bodies, the buildings and the spaces themselves [2] (pp 77–81). Not by chance, Bilò perceives in Pagano’s work an ethnographic investigation, perhaps unconscious [2] (p 71), but one that has the merit of identifying from the outset a scarcely explored research area: “minor” architecture. Pagano’s work established a method based on the study of reality and field research, undoubtedly opening the way to those investigations that relate the reading of architectures and the socio-cultural reality in which they are situated. (Fig. 1).

The 1956 *Inquérito à Arquitectura Regional Portuguesa* could also easily be included within the practices of ethnographic investigation: an accurate documentation of a reality that would disappear a few decades later [21].

Already in the 1947 article, Keil do Amaral clearly expresses the objective of his research, which is to «collect and classify elements of the Portuguese architectural tradition for the publication of a carefully documented book».

In 1955, despite the *Inquérito*'s aim was to denounce the pseudo-vernacular architecture of the Regime, it still managed to obtain government funding⁶ and the investigation began in 1956. The field research method, already anticipated in Keil do Amaral's article, is reaffirmed with some variations in the introductory text of the book *Arquitectura Popular em Portugal* [18] (p XXIII-XXV): six teams are formed, each consisting of an architect and two trainees, and the Portuguese territory is divided into six zones of different sizes according to the density of the built environment. Guidelines are established to ensure the uniformity of the research process. The aspects to be analyzed are listed as follows: «land occupation, urban structure, recurring building materials and construction processes, the influence of climate, economy, social organization, and factors in the evolution of buildings and their groupings; and an analysis of the plastic synthesis of these and other conditioning factors» [18] (p XXIV). Moreover, each group was required to carry out the survey only after having first studied the «geology, climate, communication routes, economy, history, ethnography, crops, forest areas, livestock, migratory movements of populations, and other data» [18] (p XXIV).

The field investigation was carried out by various means of transportation -by motorcycle, on horseback or on foot- and lasted three months. Subsequently, the collected material was subjected to further selection, and in 1961, the book was finally published under the title *Arquitectura Popular em Portugal*, "Popular Architecture in Portugal", and no longer "Research on Portuguese Regional Architecture" to emphasize how the investigated reality manifested the coexistence of many different traditions in as many regions.

The book, which from the very first words of Keil do Amaral was the real objective of the

research, immediately appears very different from *Architettura rurale italiana*: two volumes with more than 700 pages, structured in a common manner, divided into six chapters corresponding to the six studied zones. From the territorial scale, the investigation shifts to public spaces or selected architectures, which primarily consist of houses, agricultural structures (drying sheds, barns, verandas, loggias) or chapels. The text alternates with photographs and various types of technical drawings: territorial-scale diagrams, schematic representations of different types of settlements, plans, elevations, sections, details and perspectives.

In investigating settlements within the territory, the authors of *Inquérito* use photographs and plans that synthesize the relationship that the built masses, filled with black, establish with each other and with the topography [18] (pp 25, 29, 33, 37, 149, 166 (vol. 1) and pp. 257, 259, 262, 269, 271 (vol. 2)) (in landscapes such as plains, mountains, or coastal areas). A kind of *figure-ground diagram* where, in some cases, the historical pathways that have shaped the settlement itself are also highlighted [18] (pp 122, 135 (vol.1)). As the scale decreases, the focus shifts to the qualities of certain public spaces [18] (pp 209, 236 (vol. 1) and pp. 37, 38, 41, 274, 277 (vol. 2)) and their "spatial organization"; the plans show the limits of the voids through the portions of build masses that surround them, highlighting their shape, size, accesses points and the hierarchy between compressed and expanded areas.

The investigation of open space is not limited to more urbanized places, but also extends to proximity areas of residential or agricultural structures [18] (pp 43, 51, 126, 127, 151, 152 (vol. 1) and pp. 317, 318 (vol. 2)). The plans become increasingly abstract, with thick lines representing the boundaries and qualities of these spaces: patios with carefully studied proportions, outdoor areas adjacent to houses understood as extensions of the interior, and intimate open spaces generated by the tension between two or more dwellings or between the dwelling and agricultural outbuildings.

Finally, the same care is employed in the analysis of selected architectures, which are described

⁶The Regime saw the *Inquérito* as the tool for a "systematic investigation of the elements of [...] traditional architecture", to confirm the thesis of a national style already present in the country's architecture and "definitively defeat openness to modern currents". See Alves Costa, A.: *A Problemática, a Polémica e as Propostas da Casa Portuguesa*. cit. p. 58.

with plans, elevations, sections and details, that reveal the relationship with the human scale, topography, context, plastic and volumetric qualities, the writing of elevations, the expressiveness of the materials used [18] (p 52 (vol. 1)), the threshold between interior and exterior [18] (p 26 (vol. 1)), the form-structure relationship, and the sequence of interior spaces.

The selected photographs are of various types and go beyond merely recording the spatial-figurative qualities of the architectures under study; they also depict entire settlements, the relationship between architecture and landscape, interiors of special interest, construction details, and scenes of daily life.

From the methodological clarity with which the parameters for the study of rural reality are defined, it becomes evident how, compared to Pagano's research, the cultural context of the *Inquérito* has shifted: we are in the 1950s, and the conclusion of the CIAMs urges a reflection on broadening the boundaries of the architectural discipline. The idea of a *continuity* with history, introduced by E. N. Rogers in the pages of *Casabella-Continuità* starting in 1953 [22], is absorbed by the authors of *Inquérito*,⁷ who, through the study of rural architecture, attempt to highlight the importance of a dialogue with place and tradition.

What emerges from the drawings and texts of the *Inquérito* is the desire to investigate and graphically convey the qualities and "character of space" [16] (p 161), both exterior and interior, at all scales. Here, we can see the influence of Zevi's spatial interpretation of architecture, which, in the public discourse, had been extensively discussed by Nuno Portas [15] (p 738), and would later guide Pedro Vieira de Almeida's essay on the concept of space in architecture [23]. From the descriptions accompanying the drawings and the presence of some perspectives, we can also infer the importance of the perceptual narration in the process of appropriating the studied spaces. This interest in a more phenomenological



Fig. 2 Cover, AA.VV (2004) *Arquitetura Popular em Portugal*. Ed. da Ordem dos Arquitectos, Lisbon

reading of dwelling, connected to experience and the rediscovery of human "measure", understood as a formal response to the needs of the inhabitant, effectively expands the concept of *functionalism*, as had already been intuited by Pagano. Not by chance, during those years, the concept of a "humanized" functionalism was disseminated in the pages of the magazine *Arquitetura* [24].

All these themes -the character of space, its perception over time through movement, the expansion of the functionalism concept, and the artifact-context relationship- would be further explored in the following year's fundamental text by Távora on the organization of space [25]. (Fig. 2).

The *Inquérito* thus not only demonstrates the interest in "minor" architecture already anticipated by Pagano, but it also takes a step forward.

From the Istrian architect, the authors of the Portuguese survey undoubtedly adopt the choice of research subject, the definition of "field" action, and some study criteria such as the form-structure relationship and the morphological evolution of certain typologies or elements. However, the

⁷ The idea of *continuity* is absorbed by the editors of the magazine "Arquitetura". See Duarte, C., Editorial. *Arquitetura* (60) 3-4 (1957).

Inquérito is a collective operation, and not an individual one; in addition to photographs, other tools of investigation and representation are employed, allowing for a full understanding of the spatial qualities and perception of the architectures. Furthermore, the importance of the relationship between the built environment and its physical, social and cultural context, brilliantly intuited by Pagano, is here extensively explored. This interest in the *form of the territory* places *Arquitectura Popular em Portugal* within those studies that “in the 1960s –highlighted– a close connection between architecture, the city and the territory” [26] beginning to investigate the ways in which individual artifacts aggregate within landscapes.

Therefore, it would not be wrong to recall another collective operation that took place more than ten years later, led by Aldo Rossi, Erardo Consolascio and Max Bosshard, focused on studying the reality of the Canton Ticino. As a result of Rossi’s teaching at the Zurich Polytechnic, the research began with the analysis of the housing types present in the territory, then studying their possible aggregations and providing typological surveys of different settlements. Published in 1979 under the title *La costruzione del territorio (The Construction of the Territory)*, this investigation shares with *Arquitectura Popular em Portugal* the fact of being a collective action, field-based operation aimed at studying the real condition of places, extending interest not only to “courtly” architecture but also to “minor” architecture and its relationship with the territory. However, what in the *Inquérito* were small diagrams or out-of-scale representations, here are presented as detailed plans, sections, elevations and axonometrics, revealing how the Portuguese investigation was still *in nuce*, far from the scientific rigor of a treatise on the relationship between building types, urban morphology and territory.

3 Responsibilities Toward Tradition

Despite their common premises, the temporal distance, different cultural-historical contexts, and

the two distinct approaches have led the aforementioned differences between the two researches.

In 1935, Pagano proposed his operation as an alternative to nineteenth-century academicism, seeking the values advanced by modern architecture in the rural tradition; in the 1950s, the *Inquérito*, was born not only in response to the Salazar style, but also to the pale manifestations of the “ephemeral” modernists of the 1930s. The authors of the *Inquérito* had indeed recognized that equally dangerous was the academicism of the “modern formalists”, who drew conclusions «from an a priori determined cipher» [27] forgetting that, as Távora states, «modern architecture was not a style but an attitude» [28].

However, as early as 1935, Pagano has grasped the importance of reading the qualities of architecture in relation to place, the use of materials and construction techniques, in search of those operative constants that could be employed in light of the instances of functionality and formal autonomy derived from modernity. The same constants, not linguistic but “supra-historical” [3] (p 40), sought by the authors of the *Inquérito* in the country’s reality, as both theoretical and practical support for a *third way* between tradition and modernity.

These constants were to be found in “minor” architecture because it was the product of collective knowledge and memory, the outcome of choices that had been layered and selected collectively over the centuries, and not the product of a single author. The common intention behind both investigations was indeed to «overcome the early twentieth century language [...] aimed at expressing authorship», in favour of a search for the discipline of building grounded «in material history, capable of a stronger grip on reality» [3] (p 54).

The realistic approach of the *Inquérito* is revealed in the traits of *resistance* of the architecture designed in those same years by Francisco Keil do Amaral, Fernando Távora and other lesser-known masters such as Alfredo Viana de Lima, João Andresen and Ruy Jervis d’ Athougua where «personal traits lose themselves and blend with the anonymous features of spontaneous architecture, in which the authors do not triumph but rather the

silence of the construction» [29]. In Italy, on the other hand, Pagano's lesson became crucial again twenty years later when, as Marco Biraghi states, it revealed itself as a fundamental premise for that "dialogue with tradition" [30] that characterizes post-war Italian architecture.

References

1. Pagano G (1935) *Architettura Nazionale*. Casabella 85:2–7
2. Bilò F (2019) Le indagini etnografiche di Pagano. *Lettera Ventidue*, Siracusa, p 104
3. Leoni G (2005) Oltre il moderno. In: Esposito A, Leoni G (ed) *Fernando Távora. Opera completa*. Electa, Milano, p 86
4. Carli E (1936) Il "genere" architettura rurale e funzionalismo. *Casabella* 107:6–7
5. Pagano G (1935) Case rurali. *Casabella* 86:9–15
6. Pagano G (1935) Documenti di architettura rurale. *Casabella* 95:18–25
7. Pagano G (1935) *Architettura Rurale in Italia*. *Casabella* 96:16–17
8. Pagano G, Daniel G (1936) *Architettura Rurale Italiana*. Hoepli, Milano
9. Pagano G (1937) Tre anni di architettura in Italia. *Casabella* 110: 2–5
10. Pagano G (1931) *Architettura moderna di venti secoli fa*. *La casa bella* 47:14–19
11. Ciucci G (1989) Gli architetti e il fascismo. *Architettura e città* 1922–2944. Einaudi, Torino, p 157
12. Távora F (1947) *O Problema da Casa Portuguesa*. *Cadernos de Arquitectura* 1
13. Keil do Amaral F (1947) Uma Iniciativa necessária. *Arquitectura* 14:12–13
14. Alves Costa A (1995) Problemática, a Polémica e as Propostas da Casa Portuguesa. In: Alves Costa A, *Introdução ao Estudo da História da Arquitectura Portuguesa*. FAUP publicações, Porto
15. Portas N (1973) A Evolução da Arquitectura Moderna em Portugal, uma Interpretação. In: Zevi B, *História da Arquitectura Moderna*. II vol. Arcádia, Lisbon, pp 705–729
16. Tostoes A (1997) Os verdes anos da Arquitectura Portuguesa dos anos 50. FAUP Publicações, Porto
17. GATEPAC (1935) *Radici Mediterranee dell'architettura moderna*. A.C. Documentos de Actividad Contemporánea 18:31–36
18. AA VV (2004) *Introdução*, in *Arquitectura Popular em Portugal*. p XXII. Ed. da Ordem dos Arquitects, Lisbon
19. Zevi B (1996) *Controstoria dell'architettura in Italia*. *Dialecti architettonici*. Newton & Compton, Roma, pp 9–23
20. Pagano G (1938) Un cacciatore d'immagini. *Cinema*. 59
21. Pereira N T (2000) *Reflexos Culturais do Inquérito à Arquitectura Regional*. J-A 195:69
22. Rogers E N (1957) Continuità o Crisi? *Casabella* Continuità 215: 3–4
23. Almeida P V (1963) Ensaio sobre o Espaço da Arquitectura. *Arquitectura*. 79:15–22
24. Aalto A (1950) *A Humanização da Arquitectura*. *Arquitectura*. 35:7
25. Távora F (1982) (1a ed. 1962) *Da organização do espaço*. ESBAP, Porto
26. Gregotti V (2011) *Architettura e postmetropoli*. Einaudi, Turin, p 38
27. Rogers E N (1997) Le responsabilità verso la tradizione. In: Molinari L (ed), *Ernesto Nathan Rogers. Esperienza dell'architettura*. Skira, Ginevra-Milano, p 270
28. Távora F (2019) Siza antes do Siza. Álvaro Siza l'opera prima. *Casabella* 896: 71
29. Minciocchi L A (2021) *Cinque case in Portogallo*. Indagine sull'architettura di Resistência degli anni Cinquanta. Casa Editrice Libria, Melfi, p 169
30. Biraghi M (2008) *Storia dell'architettura contemporanea II: 1945–2008*. Einaudi, Torino, p 73

Hypotheses about Italian Influences on the Morphology of Modern Architecture in Portugal in the 1950s and 1960s

Caio A. M. Rodrigues de Castro 

Abstract

With the weakening of architectural production influenced by the fascist propaganda of the Estado Novo, a period emerged in Portugal from the 1950s onwards where young architects began to design and debate the profession within the precepts of Modernism. During the 1950s, critical discussions of the Rationalist Modern Movement arrived in Portugal, essentially through reports in the magazine *Arquitectura*, as well as through on-site visits by some Portuguese architects to observe Italian architectural production, in addition to their contact with specialized magazines from this country. These factors contributed to the emergence of a “third way”, leading to the construction of iconic buildings. These are buildings with an admittedly Italian origin, where the influence is sometimes seen more formally in certain architectural elements, rather than conceptually. Through conceptually. Through comparative analysis of a series of case studies of multi-family residential buildings in Italy and Portugal with common idiosyncratic architectural elements, this article sets out to identify and analyze hypothetical direct relationships

between elements present in buildings in Italy that have influenced—either literally or with adaptations—their counterparts in Portugal.

1 Introduction

The dominance of Rationalist thinking within the Modern Movement until the Post-War period is mainly due to the existence of the CIAM (french acronym for Congrès Internationaux d'Architecture Moderne), whose first edition was in 1928, and the latter, in 1956. The sovereignty of this aspect which culminated in the International Style—began to be questioned by a new generation of architects, starting from the ninth edition of the CIAM, which was held in 1953. The Team X was formed at this time, whose concerns were against the universal values of Rationalist Modernism. This was a group of architects that had in common an organicist approach to Architecture, the historical values of a city, and architectural regionalism.

Italy was one of the great stages of this debate, which resulted in two sets of different experiments, one denominated NeoLiberty and based on the Turin-Milan axis, and the other movement, Neorealism, based primarily through Rome. The first movement aimed at a re-adaptation of the architectural elements of History where the buildings were inserted, without however a lockout for new aesthetic experiences, and the second so, in

C. A. M. Rodrigues de Castro (✉)
CIAUD—Lisbon School of Architecture, University of
Lisbon, Lisbon, Portugal
e-mail: caiocastro.ciaud@fa.ulisboa.pt

a synthesized mode, aimed an Architecture with a more popular, and therefore, easily intelligible, language of features, thereby allowing the identification of the users with the space in which they interacted.

It contributed immensely to the debate of this time the launch in 1945 of Bruno Zevi's book called *Verso un'Architettura Organica* in which the author highlights the view that, unlike the hyper-abstract static Architecture closed in itself, the form of the building must be moved and dynamic in order to praise the handling of the user in the space that encompasses it.

This discussion in Italy also echoed in the architectural discourse in Portugal. Debates between Nathan Rogers and Reyner Banham on NeoLiberty [1], were followed by architects in the country [2]. The magazine that published it, called *Arquitectura*, started in January 1957 to be edited by a new direction of young Portuguese architects formed by Frederico Santana, Carlos S. Duarte, José Daniel Santa Rita, and also Nuno Portas, who joined the group in the next issue of the magazine [3].

In the first edition overseen by this group, the magazine *Arquitectura* featured a report on the work of Mario Ridolfi, where it analyzed three of the architect's projects in the city of Terni. In presenting Ridolfi's design vision, the characterization written by Carlos S. Duarte leaves no doubt about his direct criticism of the more purist aspect of Modernism:

«Much of the relevance of thinkers like Geddes lies in the fact that Modern Architecture, originally an idealist and universalist movement, now seeks to reconnect with a lost tradition and pursue historical continuity within a renewed cultural vision».¹

The following year, issue 64 of this magazine features the horizontal housing project at Tuscolano in Rome, designed by architect Adalberto Libera. In 1963, issue 77 of the same magazine presented the Via Cavedone neighborhood in Bologna. These mentions of Italian architecture at the time, along with others, were often originally sourced from Casabella magazine. In

this sense, the magazine *Arquitectura* showed itself as a promoter of the Italian magazine, and therefore «communicates the wish of the editorial board of the journal to divulge in Portugal that atypical Italian Modernism more similar to the Portuguese architectural approach and therefore useful to fuel the national debate» [4]. In the field of theory, in 1959 Nuno Portas (who later, in 1970, would also be responsible for the preface to the edition translated into Portuguese of the work *Storia dell'architettura moderna*, by Bruno Zevi) published in the same magazine the article entitled *The responsibility of a new generation in the Modern Movement in Portugal*,² where he addresses the situation of Team X and summarizes a possible path to be followed by architects in Portugal, by declaring the union of the concerns of the sociological field with those of Architecture, in a clearly Neo-Realist approach to the profession:

«Technological liberation, integration into the pre-existing and changing natural and human reality, adherence to social and personal movements that are more difficult to objectify - this seems to me to constitute a common platform that, together with the conquest of increasingly vast fields of action for the architect (from planning to the details of design) may indicate a new stage of cultural and social rooting».³

In Portugal, architecture at this time oscillated between traditionalist production aligned with the fascist State regime and a more Modern approach, heavily influenced by Le Corbusier. This influence also extended to local interpretations of Brazilian Modernism, which introduced elements such as hollow brick walls and butterfly roofs into the vocabulary of Portuguese Modern Architecture.

The so-called "third way", directly influenced by Italian theory, in which Mario Ridolfi, among others, participated, joined these trends, all of which became part of the production of Architecture in Portugal. It was at this time, in 1958, that Nuno Teotónio Pereira and Nuno Portas visited

² Title translated from the original in Portuguese, called *A responsabilidade de uma novíssima geração no Movimento Moderno em Portugal*.

³ Author's translation.

¹ Author's translation.

Italy, where they became acquainted with the housing experiences of the INA-Casa project. *INA-Casa* program manuals had design suggestions for buildings such as avoiding repetition and achieving spontaneity [5]. Decades later, in an interview in 2013, Nuno Teotónio Pereira reaffirmed the importance that Modern Italian architecture had on his design production, stating that he sought his architectural ideas from foreign magazines, mainly French and Italian ones, as well as from books.⁴

However, while the elements from Brazil that directly influenced the morphology of Modern Architecture in Portugal are well known, the same cannot be said about the influence of Italian Modern Architecture on Portuguese architecture in the 1950s and 1960s. In this regard, there is a gap in the study of architectural historiography in Portugal. Although it is acknowledged that Italian architecture influenced Portugal during this period, the specific characteristics and models that shaped this influence remain unclear.

During the sixteenth century, one of the theoretical discussions in Italy centered on the antagonism between the concepts of *imitatio* and *aemulatio* [6]. The former refers to designing in strict accordance with the primordial sources of classical antiquity, using a compositional language as close as possible to that of the ancients. In contrast, *aemulatio* involves a personal interpretation of this language by the artist, reflecting an adaptation and, consequently, a creation that is less tied to the original references.

By analogy, in this article, the concept of *aemulatio* is metaphorically important as it denotes not a literal copying of models, but rather an assimilation of them. In this sense, the analysis in this article also seeks to understand how the previously identified models of post-war Italian architecture were adapted by Portuguese architects to suit the specific requirements of

their architectural programs. These characteristics were then compared in pairs of buildings, highlighting their common features and, in the case of Portugal, showing how these features were either directly incorporated or adapted to the buildings.

2 Comparative Analysis

2.1 Case A

Building A1: The set of 5 buildings (Fig. 1) with a square plan in the so-called Villaggio Due Madonna in Bologna, located in Via Gaetano Tacconi, was designed in 1953 and inaugurated in 1956. The project was developed by architects Plinio Marconi, Alberto Legnani, Eugenio Montuori, Luigi Vagnetti, and Renato Venturi. The use of brick as an external cladding element refers to the tradition of Bologna, where monuments such as the Basilica di San Petronio, the medieval due torri, and the Santuario della Madonna di San Luca make use of it. The structural system has a strong presence in the visual perception of the building, consisting of reinforced concrete columns and beams, which contrast with the red brick used. The columns have a greater visual hierarchy than the beams, as they are superimposed and in high relief in relation to them. The roofs of the buildings reference Latin architectural traditions, having a configuration where all four façades are read as a classical pediment. The use of a roof is an uncommon feature in Modern Architecture, and the same can be said about the emphasis on the corners. In this case, the corner is not the result of the intersection of two perpendicular façade planes, but rather a diagonal fold that connects them, within which a window appears. The window itself, being more vertical than horizontal, also diverges from more rational Modernist models and echoes traditional solutions. The diagonal forming the corner is also present in the balconies and other small protruding volumes of the façade.

Building A2: The set of four identical buildings in Aveiro called *Torres Vermelhas*, with a square-

⁴ Interview with Nuno Teotónio Pereira by Teresa Marat-Mendes and Maria Amélia Cabrita, conducted within the scope of the theme of the origins of Urban Morphology in Portugal and the Survey on Popular Architecture, Lisbon, May 31, 2013. Available at: <https://nunoteotoniopereira.pt/ensaio/quem-mexeu-nisto-antes-de-mim-foi-o-nuno-teotonio-pereira/>



Fig. 1 Above: Aerial view and ground level views of Villaggio Due Madonna. *Source* from right to left: © Microsoft Bing Maps; PatER—Patrimonio culturale dell'Emilia Romagna; Bologna.online. Below: Aerial

view, floorplan and groundview of Torres Vermelhas. *Source*, from right to left: © Microsoft Bing Maps; Private collection; Courtesy of photographer Cláudia R. Santos

shaped floor plan, was designed by architects José Carlos Loureiro and Luís Pádua Ramos in 1966 and was only inaugurated in 1975 (Fig. 1). The structure intentionally exposes the system that forms it, though it differs from the case of Bologna by having the columns hidden by the brick that covers the façade. However, it also has a strong expressiveness in terms of the tectonics of the beams, with the exposed reinforced concrete providing the building with a sense of horizontality while at the same time containing the form. In this way, the projection of the balconies in relation to the square floor plan is never visually perceived as something exogenous to the object, and it is aesthetically an absolutely cohesive object. Just like the buildings in Bologna, those in Aveiro reclaim the traditional roof morphology, in a clear rejection of rationalist precepts where the solution would have been a flat slab. However, certain notable differences exist between the two cases. In Aveiro, the eaves are always parallel to the façade line, with the gable end existing only above it, crowning the area of the

stairwell and elevator shaft. The use of the overhanging eaves refers to traditions of anonymous Portuguese architecture, but it is also present in palatial buildings. As a result, the roof's slope is only perceived from a certain distance from the building. Quite notable in all the buildings of the complex is the presence of balconies with their vertex protruding and accentuated. This is also a characteristic present in one of the buildings in Bologna. Despite this morphological similarity, there are noticeable differences in details between the two, with the perimeter beams in reinforced concrete in Aveiro extending to support the aforementioned balconies. Another common feature in both the Bologna and Aveiro buildings is the relationship of the volume with the intersection of the façade planes, where the corner also plays a prominent role in Aveiro. However, it differs from the Bologna experience in that the glass panels (present in a volume that protrudes from the rest of the building) are visually perceived as independent from the rest of the building's openings. This

is because they have no equivalent elsewhere on the façade except at the corners themselves.

2.2 Case B

Building B1: The building complex on Viale Etiopia in Rome was designed in 1949 by architects Mario Ridolfi and Wolfgang Frankl and built between 1951 and 1954 (Fig. 2). The structural system, made of reinforced concrete, strongly contributes to the building's identity by emphasizing the grid of beams and columns, thus creating a cohesive yet restrained object. In contrast to this rigid grid, some towers feature recesses in an intermediate floor, where the masonry walls are set back, visually highlighting the structure. This design concept recalls proposals by Le Corbusier, such as the *Unité d'Habitation* in Marseille, which has a similar recess used for shops. In Ridolfi's buildings, the

recesses serve as balconies for the apartments and are located on the fourth and ninth floors. There is a clear intention for these recesses to have expressive value, as they feature successive diagonal walls with varying angles, interspersed with straight walls parallel to the concrete grid. The top of the building is a hybrid between a flat slab and a traditional roof. This arrangement can only be fully understood from aerial views; at street level, what stands out from the volume, crowning it, is the slope of the metal sheet-covered roof. Due to its color, it blends with the reinforced concrete of the building's beam and column system, which has a similar tone. Inside the roof, there were originally storage spaces for each apartment, as well as communal laundry rooms. In the open-air section, but still within the perimeter of the roof, which serves as a wall, there were clothes-drying areas for the building's residents. Additionally, behind the roof are the areas housing the water tanks and elevator motors.

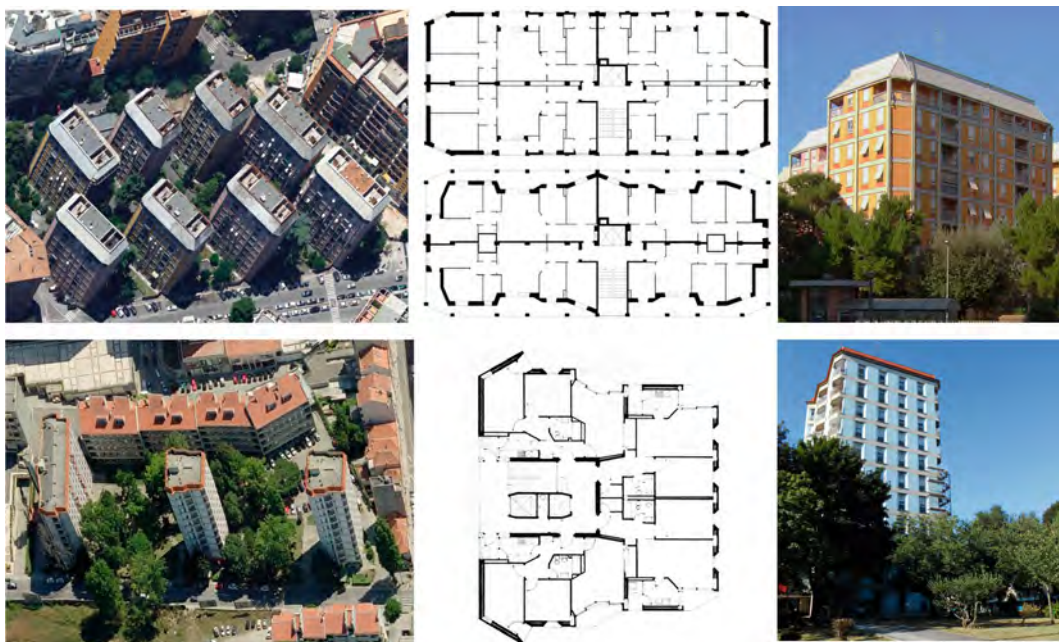


Fig. 2 Above: Aerial view, floorplan and ground view of Viale Etiopia's towers. Source from right to left: © Microsoft Bing Maps; Simone Censi, extracted from <https://archidiap.com/opera/case-a-torre-in-viale-etiopia/>;

Photograph by Gabriele De Micheli. Below: Aerial view, floorplan and ground view of Luso Lima's Towers. Source, from right to left: © Microsoft Bing Maps; Private collection; Photograph by Caio R. Castro

Building B2: The building complex of Luso-Lima on Rua da Alegria in Porto, designed by José Carlos Loureiro and Luís Pádua Ramos, comprises various types of structures, ranging from low-rise buildings with four floors to towers (Fig. 2). It is a project dating from 1960 that was only fully completed in 1968. The entire layout features a composition of masses with smaller buildings that create a blend of various scales, combining the concept of towers with horizontal buildings that interact with one another. It differs from the more rigid precepts of the Athens Charter in the sense that the buildings are not entirely set within an orthogonal grid. In this respect, it resembles what was built in the Villaggio Due Madonna in Bologna, where the towers are also surrounded by lower linear buildings. In fact, the hypothetical influences that led to the creation of the towers in the Luso-Lima Complex have diverse origins. A certain resemblance to the towers on Viale Etiopia is quite notable. The same structural expressiveness of exposed reinforced concrete beams is present, as is the use of vertical windows. In the four-story buildings, the window sills are tiled down to the floor, just like in Ridolfi's towers. This feature reinforces the intentional verticality of the openings. In both these lower buildings and the three towers, there is also a connection of spaces that links the vertical circulation area to the view of the surrounding landscape. However, the configuration of the elevator and stair core in this area differs from the rest of the floor plan compared to the buildings in Rome. The most iconic common feature of the towers on Rua da Alegria, in relation to the previously mentioned buildings in Rome, lies in the use of a volumetric form with a stylized hip roof shape. In this case, ceramic tiles are used to blend with the typical roofing material of nineteenth-century buildings in Porto, where the same material is present. Apart from the materiality, there is a difference in the roof's morphology, although this is not visible from street level. Unlike the towers on Viale Etiopia's complex in Rome, the roof in the Porto complex does not have any accessible area. In fact, behind the ceramic tile perimeter lies another roof, with a gentler slope and made

of asbestos tiles. This roof actually provides the necessary weather protection against rain, while the surrounding tile perimeter serves solely to achieve the appearance of a traditional roof. Unlike the Roman buildings, where the roof offers usable space behind the perimeter membrane, here there is an unexploited opportunity to create something similar. As mentioned, the influence manifests only in the use of the external appearance of the existing roofs on Viale Etiopia.

There is, in this approach, a fundamental application of the previously described neo-realist concept introduced at the beginning of this article: endowing the form with elements familiar to popular lexicon, with function being a secondary consideration. Similarly in this vein is the use of tile to cover the exterior walls of the towers, clearly alluding to Porto's nineteenth-century buildings. This design choice by José Carlos Loureiro is comparable to Mario Ridolfi's approach, in which he used painted plaster evoking a palette of yellows and reds commonly found in the Baroque buildings of 17th- and eighteenth-century Rome.

If the roof is the immediate connecting link between the buildings on Viale Etiopia and those on Rua da Alegria, there is also an implied relationship due to the angularity of the façades. In Rome, this angularity appears in the recessed upper floors; in Porto, the angles occupy the street-facing façade and its opposite counterpart. These angles create a different perception of the structure depending on the observer's viewpoint. The large diagonal wall that joins two perpendicular façades seems to directly reference the corner concept of the Viale Etiopia buildings, while in other respects, the relationship between the buildings is less explicit. Since the use of angles was at that time a relatively unexplored feature in Modern Architecture in Portugal—differing from the Italian context—and taking into account the hypothetical influence architects of the Luso-Lima complex intentionally drew from the concept of the buildings in Rome, it freed itself from the constraints of a structural grid. This allowed greater freedom in defining the buildings' volumes, making angularity one of its most prominent expressive elements.

2.3 Case C

Building C1: The six buildings located on Via Campegnà in Naples (Fig. 3) were designed in 1954 by Mario Ridolfi and Wolfgang Frankl and were constructed between 1956 and 1957. They consist of a rectangular layout measuring 16 meters by 13 meters. Although the detailed floor plan of the units was not found by the author, photographs show that in some towers there is a connection between two isolated towers via elevated corridors. Each tower consists of a ground floor and an additional six stories. The towers are slightly raised above ground level on a base, allowing the ground floor to have a small terrace with independent access, thanks to staircases descending from this terrace to the general ground level. As in other projects involving Mario Ridolfi, the corners are set diagonally, served here by balconies. These balconies, triangular in shape, recreate the virtual intersection of the perpendicular wall planes on the tower facades, showcasing a sophisticated formal design. This creates a visual effect as if the wall has receded, leaving only the floor with a 90-degree angle. A distinctive feature of the roof is an overhanging reinforced concrete eave, which also acts as a parapet. Some sections are made of hollow ceramic bricks. The roof extends beyond the flat slab line of the building, detaching itself from the facade plan, thus adding

significant aesthetic appeal on a large scale. In the bathrooms, there is an unusual diamond-shaped window that is not found elsewhere in the building.

Building C2: The set of three buildings (Fig. 3) in the Olivais Norte neighborhood in Lisbon was designed in 1957 by Nuno Teotónio Pereira, Nuno Portas, and António Pinto de Freitas. The buildings were inaugurated in phases between 1961 and 1968. The vertical circulation scheme, separating the volumes of the two blocks while simultaneously linking them through the flooring, was inspired by the Keeling House in London, a project by Denys Lasdun. In terms of appearance, however, the Olivais Norte building retains a feature common to several buildings in Italy—including the one in Naples mentioned earlier—by using vertical windows, though these are mixed with horizontally extended windows. In fact, any noticeable influences from Via Campegnà's buildings in Naples are limited to specific elements in the morphology of the buildings. One of these elements is the use of diamond-shaped windows, which, in the case of the building in Olivais, take on the form of a rotated square. These windows protrude from the façade plane, framing them and, at the same time, creating a sense of completeness with the high-relief concrete panel located on the same façades. This reflects a concept of a total work of art, where the visual



Fig. 3 First two pictures on the right: Aerial and ground level of Naples buildings. Source © Microsoft Bing Maps; Censimento delle architetture italiane dal 1945 ad oggi—Direzione Generale Creatività Contemporanea del Ministero della Cultura. First two pictures on the left: Aerial

view and ground view of Olivais Norte building in Lisbon. Source: © Microsoft Bing Maps; Photographer Renata Macedo de Sousa from Behance: <https://www.behance.net/renatamacedodesousa>

arts and architecture are closely interconnected. Unlike in Naples, here the windows are not used for sanitary facilities but as a secondary opening to the main room of the apartment. In the history of architecture in Portugal, a similar element—a small opening in the façade to provide interior light—exists in the civil multifamily architecture of the Joanine period and is present in some eighteenth-century examples in Lisbon. These were used to light stairway access, typically in circular or non-rotated square shapes, thus bearing no resemblance to those used in Olivais. Another element present in the Olivais buildings, which likely shares a connection with the Naples project due to its similarities, is the roof, which has a similar morphology. In the Lisbon building, the reinforced concrete roof serves not only as an aesthetic feature but also houses storage units for the apartments. Like in Naples, there is an aesthetic intention to dematerialize the visual weight of this element. While in Naples, this effect was achieved with hollow ceramic bricks, in Lisbon, small horizontal slits near the top of the roof—also serving as vents for the storage units—fulfill this aesthetic function. From certain viewpoints at ground level, these slits appear above part of the main roof volume, creating the impression that a separate roof volume is perched atop the one below. This ambiguous perception adds to the visual richness of the building as an architectural object. Finally, access to the Olivais buildings is via an elevated platform, which aligns with the building's ground floor and is reached by a small staircase. It is a solution morphologically very similar to what occurs in the ground-floor apartments of the building on Via Campegna, which, like those in Lisbon, are also slightly elevated above ground level. In both cases, the intention is to access the difference in level with a staircase that ends at a spacious intermediate area, which then connects to the building's entrance door.

3 Conclusion

Notwithstanding the specific individual characteristics common to the buildings grouped in the paired-set analysis, there are features that are universal and shared by all the buildings studied. One of these pertains to the use of diagonals as an expressionist formal device and as a defining element of the spatiality of walls and floors. This strategy deliberately avoids the orthogonal perception of form, thus preventing the arrangement of space as a grid composed of two axes. This represents a clear intention to provide unusual sensations to users and external observers in the public space.

Another common feature of buildings constructed in Italy during the analyzed period, also visible in their counterparts built in Portugal and examined in the text, is the widespread use of openings, both in doors and windows, whose height exceeds their width. This morphological solution dates back to pre-industrial traditions and can be seen in both palatial buildings and ordinary civic constructions of the old city. In the context of the second half of the twentieth century, such openings serve as a direct critique of the dominant Rationalist Modernist thought, which favored horizontal ribbon windows. At the same time, this approach reflects an appreciation for morphological elements of the past, integrated into a broader aesthetic that, while still Modernist, is open to engaging with historical architectural values. From the user's perspective, the fact that the openings follow the vertical proportions of the human body suggests a deliberate intent to both avoid abstraction and facilitate the resident's identification with their living space.

Still within the realm of reclaiming traditional aspects, there is also an emphasis on the crowning of buildings through the use of multi-pitched roofs, which acquire a strong expressive presence in the overall architectural composition. In clear opposition to the flat slab roof solution, the use of

traditional-style pitched roofs serves as a means of endowing buildings with a language that feels more familiar to users. At the same time, a top section marked by prominent and visible roofs clearly delineates the conclusion of the architectural composition, transforming the building into a visually finite object.

References

1. Banham R (1959) NeoLiberty, the Italian retreat from modern architecture. *Arch Rev* 747:231–235
2. Milheiro A (2007) A tradição em Brazil Builds (1943) e seu reflexo no Inquérito à arquitetura popular em Portugal (1955–1961). In: Gitahy M, Lira J (ed) *Arquiteses 1. Tempo, Cidade e Arquitetura*. Annablume Editora, São Paulo, p 149–174
3. Correia NO (2012) início da 3.^a série da revista arquitetura em 1957 a influência das leituras de casabella-continuidade e architectural review. *Revista de História da Arte* 10:79–93
4. Minciaccchi I L (2019) From ‘Casabella’ to ‘Arquitetura’—The Italian influence on Portuguese Post-CIAM debate. *Revisiting Post-Ciam Generation. Debates, proposals and intellectual framework*. Porto: CEAA/ESAP-CESAP: 232–250
5. Escudero D (2020) Personalising architecture: the contribution of neorealism to Italian architecture through the INA-casa programme (1949–56). *Arch Theory Rev* 24(1):86–109
6. Payne A (2000) Architects and academies: architectural theories of Imitatio and the debates on language and style. In: Clarke G, Crossley P (eds) *Architecture and language*. Cambridge University Press, pp 118–133

Urban Design

Utopian Matrix in the Problematic of the 21st Century City: A Multifunctional Modular System and Its Experimental Application in Lisbon

Raquel Cruz Barbosa , Ana Marta Feliciano ,
and António Santos Leite 

Abstract

Different dynamics inherent to the 21st-century city collectively converge into a theoretical matrix aimed at rethinking contemporary systems for urban centers, their pre-existing structures and respective communities. As a result, a multifunctional modular system emerges, conceived as a utopian possibility applicable anywhere and generating diverse elements, components and typologies. On a generic and site-independent level, the cubic module is proposed as the most fundamental framework. In its experimental stage, potential aggregations are adapted to the specific context. In Beato, near the former Military Maintenance area, ruptures and discontinuities persist between the religious and residential fabric, the industrialized landfill and access to the riverside, occupied by the Port of Lisbon. This fragmented territory in Eastern

Lisbon, defined by urban voids, is selected as a case study where the modules are applied and tested in practice. Mediating between speculative exploration and site-specific transformation, the project investigates the utopian potential of modularity through contextual adaptation, particularly within Lisbon's evolving urban landscape.

1 Utopian Matrix in the Dynamics of the Contemporary City

In an increasingly occupied and urbanized post-modern, post-pandemic world, cities are confronted with new challenges in integrating their communities. As we progress further into the twenty-first century, the need to rethink and implement solutions¹ intensifies—from combating climate change and navigating technological advancements to promoting environmental sustainability, addressing social inequalities and responding to humanitarian crises driven by the expanding refugee population.

R. C. Barbosa (✉) · A. M. Feliciano · A. S. Leite
FAUL—Lisbon School of Architecture, University of
Lisbon, Lisbon, Portugal
e-mail: raquelcruzbarbosa@gmail.com

A. M. Feliciano
e-mail: amfeliciano@fa.ulisboa.pt

A. S. Leite
e-mail: amleite@fa.ulisboa.pt

A. M. Feliciano · A. S. Leite
CIAUD—Research Centre for Architecture, Urbanism
and Design, University of Lisbon, Lisbon, Portugal

¹This article is based on the following master's thesis: 'Do Utópico ao (Experimentalismo) Tópico. Um sistema modular multifuncional para a requalificação do Beato em Lisboa/From Utopia to Topical Experimentalism. A multifunctional modular system for the requalification of Beato in Lisbon', Raquel Cruz Barbosa, 2024; authors' note.

The city, an urban phenomenon in constant change, evolution and perpetual transformation [1] that responds daily to its users, serves as a framework for reflections arising from the ongoing advancement of society. In this context, three key issues are highlighted as contributors to the possible formulation of a utopian, and therefore generalized, matrix² for the development and reinterpretation of urban areas belonging to the present millennium.

«They are too many of us on earth, and there will continue to be more and more of us on this small planet where space is precious. The problem still evoked a rational solution: ‘concentrate’». [2].

The need for concentration is a condition for establishing an active and diverse city, often less valued in residential and peripheral areas [3]. Neuman states that the concept of a compact city is characterized by diverse uses and functions, as well as the reuse of vacant buildings [4]. A dense and occupied urban structure, when planned and energized, generates efficiency in land use, encourages the formation of new communities and fosters an infrastructural fabric conducive to the local economy.

«And mobility, already the move from polluting fossil fuel propulsion to cleaner, quieter electric power. The mobility of people, of goods and information that will magnify critical importance of climate change». [5].

In defining the paradigm of the contemporary city, Cacciari highlights human behavior’s aspiration for ubiquity through technology and the internet, reducing physical distances while continuing to depend on urban spaces to function [6]. To promote active citizen mobility, the creation of areas that prioritize pedestrian and cycling

routes not only supports sustainable urban development but also enhances the role of pedestrians while contributing to reduced fossil fuel consumption in terrestrial environments [7]. Expanding urban mobility options through increased availability of soft mobility systems, such as bicycles and public transport, helps mitigate the exclusive and seemingly indispensable reliance on private vehicles.

«We have, thus far, taken it for granted that buildings should be designed to fulfill one specific purpose. In spite of the fact that the concept of multi-functionalism must be approached with caution, it offers useful possibilities». [8].

The concept of multifunctionality in spatial organization aligns with the principles of the Metabolist movement, as illustrated in *Investigations in Collective Form*, where Fumihiko Maki argued that cities require elasticity and flexibility, introducing the term ‘Megastructure’ [9]. Jacobs emphasizes the importance of diverse land use, ensuring that residents’ basic needs are within walking distance of their homes [3]. The notion of a modern city polarized by distinct functions reveals a mono-functional pattern linked to restricted and localized circulation flows. To promote greater freedom and vitality, fostering functional hybridity [7], flexible and adaptable, encourages an integrated living experience that counteracts centralized exclusivity (Fig. 1).

A Utopia? «No one can expect to found new cities» [10]. «Let us accept the city as an ambiguous and polymorphic hybrid body» [11].

If in the past, for architects, the idea of design, planning and construction was, by excellence, the primary method of contributing to the development of new cities, today, with increasing territorial urbanization and its documented heritage, rehabilitating and requalifying the city based on its pre-existing structures can be seen as one of the contemporary utopias—an attempt to insert networks, flows and systems in ways that enable their coexistence. This process may, in turn, involve adding or redesigning, overlapping, expanding and diversifying languages, while also generating new flows that integrate the ‘new’ and the ‘old’.

² Although the term ‘Utopia’ has adopted various meanings and interpretations throughout history, in the context of this investigation, the concept is clarified based on its etymological and thus original origin, stemming from the semantic construction developed by Thomas More. The word ‘Utopia’ derives simultaneously from the greek Outopos, meaning ‘No Place’, and Eutopos, meaning ‘The Good Place’. In this sense, its application assumes two variations: a generic construction independent of topos as a place and a paradoxically possible yet unattainable idealization; authors’ note.



Fig. 1 The system's generating module, in *'Do Utopico ao (Experimentalismo) Tópico. Um sistema modular multifuncional para a requalificação do Beato em Lisboa'*, ©Raquel Cruz Barbosa, 2024

2 From the Utopian to the Topic: From the Generic System to the Identity City

A system, beyond its generality and objectivity, serves as a means of generating knowledge. On a generic, utopian and site-independent level, a multifunctional modular system [12] is presented as a possible response to the analyzed assumptions. In this context, the concept of the module «as a measure that regulates the proportions of a whole» [13] emerges as a concrete materialization of the conceptual matrix, translated into an autonomous unit, where the Platonic cube³ is understood as the fundamental piece of the entire system. (Fig. 2).

The proposal is based on a cubic module with dimensions of $4 \times 4 \times 4$ meters, allowing it to support various functions⁴—Housing, Public

Space and Infrastructure. This cube can be reconfigured into numerous typologies and aggregations, enabling transformations over time. Multiple system modules are interconnected to generate a dynamic whole. In addition to the mentioned uses, the base module is further subdivided and customized into three distinct components: Structure, Technical Infrastructure and Interior through variations in materiality, typology and functional organization. The housing modules are presented as expandable and extendable units. Public space modules incorporate commercial areas and landscaping elements such as green spaces and walkways. In addition, the infrastructure modules address level differences, load support, water and energy supply, as well as connections between technical spaces.

³ An attempt was made to establish a metric assumption derived from a structure whose Platonic origin would justify a pure and ideal regularity as well as constant repetition; authors' note.

⁴ In the context of this research, it is observed that following the definition of the module as a multifunctional space, it is essential to consider that residential areas in the Portuguese

context require a minimum ceiling height of 2.40 m. On the other hand, public spaces intended for commercial use require a minimum ceiling height of 3.00 m, as stated in the General Regulation of Urban Buildings/Regulamento Geral das Edificações Urbanas. Therefore, to enhance the proposal's adaptability and ensure comfort for both users and the required technical and infrastructural needs, it is concluded that four meters represent the viable exterior dimensions of the cubic base module; authors' note.

In a real-world context, the module can be adapted, aggregated and applied to various locations in an experimental attempt to globalize it. The primary placement criteria focus on urban voids as spaces where the modular system can be positioned and establish a relationship with pre-existing elements, whether urban or natural. In this context, the Beato area in Lisbon was selected as the implementation site.

Lisbon's Eastern zone, characterized by hill-side slopes descending towards the riverside area, is defined as a blend of urban, rural and religious elements, with some areas of significant occupation [14]. It was in the Chelas Valley and Xabregas, both within Beato, that prominent palaces and convents were gradually replaced by factories and industrial zones.

The *Convento das Freiras Grilas* was demolished to be replaced by the Military Maintenance, which initially operated as a food industry unit in 1897. Its size and heritage value designate the complex as one of the most significant in the city, characterized by its ensemble of silos and former factories linked to cereal milling, bread, pasta and biscuit production, canning, coffee roasting and grinding, sugar refining, slaughterhouse and sausage production, dairy and butter production and wine processing [15]. Currently, the former Military Maintenance hosts the Beato Innovation District, an initiative of the Lisbon City Council designed to support creative and technologic-based companies. The adaptive reuse of warehouses for new industries reflects a broader trend that is progressively reshaping the city, revitalizing former industrial hubs through projects related to culture, dining, commerce and technology [16].

3 Experimental Application: The System in Lisbon's Beato Area

Although the region of Beato is currently experiencing various urban and social transformations, several issues persist—notably the absence of connectivity between the historical area and residential zone, the industrialized landfill and the

riverside area occupied by the Port of Lisbon. This disconnection, attributed to existing urban infrastructures such as the railway line, *Avenida Infante D. Henrique* and secondary road networks, has resulted in spatial ruptures and discontinuities particularly impeding access to the waterfront area.

The starting point for addressing this issue arises from the concept of addition and overlapping a new structure that rests on the terrain and interacts with the city of Lisbon and its pre-existing elements, forming a secondary circulation level that gradually adapts to the site's topography. (Fig. 3).

Consequently, new connections are fostered between built structures and various urban voids, particular emphasis on the northern area of the former Military Maintenance, the current Beato Innovation District and the riverside area of the *Sotagus* Terminal. As part of the requalification strategy three new elevated axes—Connections I, II, and III—are introduced running perpendicular to the existing road and railway networks. These 'Elevated Streets' serve as the primary circulation routes of the structure, acting as a unifying framework that links the various built environments. At the same time, several cylindrical nodes are anchored to the ground, enabling the infrastructure to change elevation or direction as it interacts with the city.

The central area of the urban strategy converges, in a second conceptual phase, on the creation of a circular plaza adjacent to the prominent pre-existing element: the silos of the former Military Maintenance. This plaza takes the form of an urban auditorium that functions simultaneously as a multifunctional public space and a water collector, serving as a social and functional core.

Parallel to the river, four programmatic bands are proposed comprising residential buildings and mixed-use spaces for commerce and services. Access to the elevated circulation level is provided through cylindrical nodes designed for pedestrian and bicycle entry. At ground level, a network of pedestrian paths, green spaces and water reservoirs completes the exposed urban environment (Fig. 4).

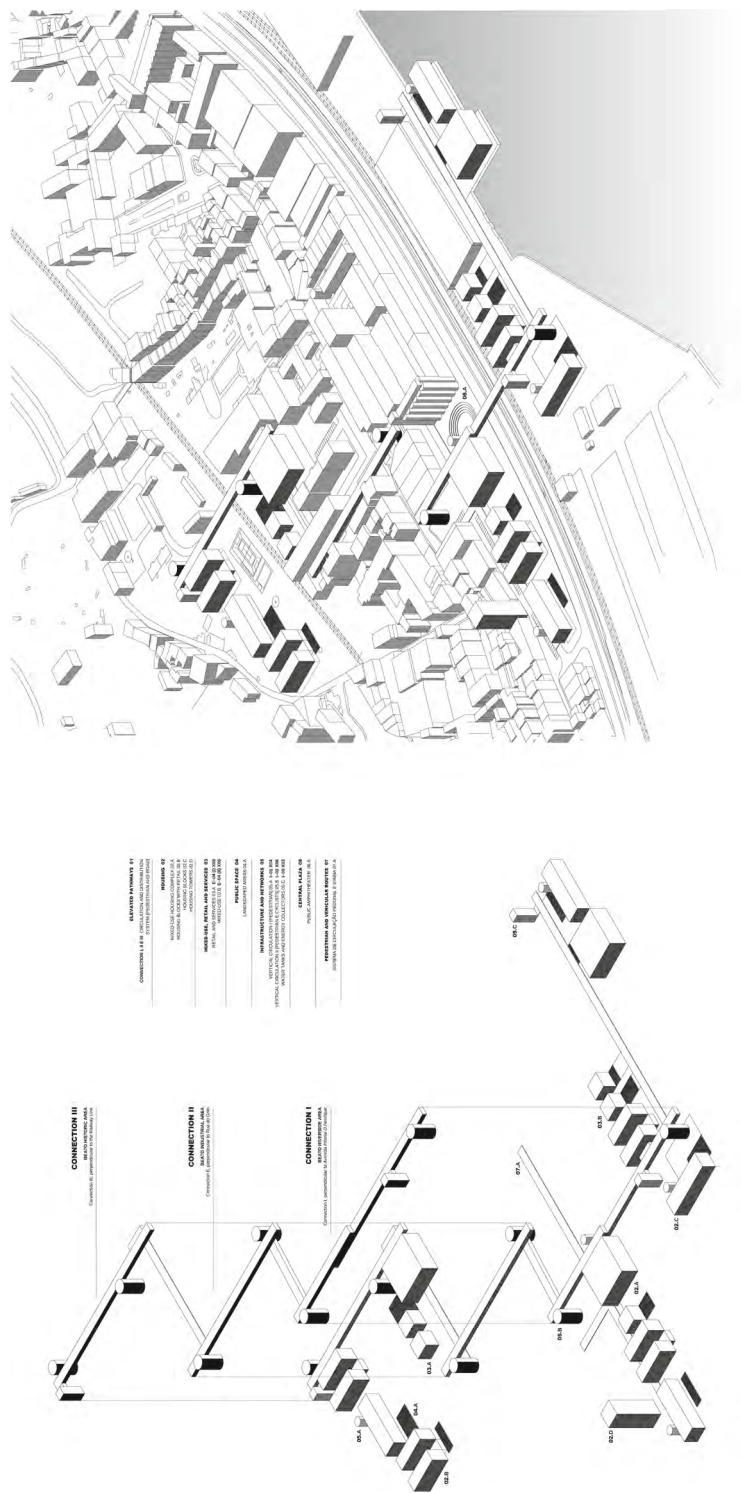


Fig. 3 The system adapted to Beato in 'Do Utópico ao (Experimentalismo) Tópico. Um sistema modular multifuncional para a requalificação do Beato em Lisboa', ©Raquel Cruz Barbosa, 2024



Fig. 4 Multifunctional complex in '*Do Utópico ao (Experimentalismo) Tópico. Um sistema modular multifuncional para a requalificação do Beato em Lisboa*', ©Raquel Cruz Barbosa, 2024

Among the proposed aggregation possibilities, focus is placed on a multifunctional complex⁵ shaped by the interplay of solid and void spaces. Each solid element within the complex corresponds to a residential, commercial or service space, while each void forms a garden area or circulation space. This concept introduces the idea of suspended boxes, as there is no visible overlapping of volumes between different floors. This conceptual approach supports diverse uses by inhabitants and allows for the building's evolutionary and regenerative potential over time. The main access points are connected to the developed walkway—the previously mentioned 'Elevated Street'.⁶ This connection is accessible from multiple points within the plan, with the most direct access located at ground level near the residential complex.

⁵ Complementary experimental hypothesis to the already established 'row' and 'left-right' typologies, also developed from the system and proposed within the urban strategy; authors' note.

⁶ This connection establishes two levels at different heights, linking the Convento do Grilo, the 'plaza' and buildings located near the former Military Maintenance silos and the riverside area; authors' note.

On the floor in contact with the natural topography, priority is given to multifunctional spaces corresponding to the base units E-02 and E-04, intended for commercial and service use. In the central area of the project, a modular structural 'void' allows for the ventilation of the entire building, resulting in a space with zenithal lighting that culminates in a visitable garden at ground level.

In the residential floors, two housing typologies corresponding to the base units H-06 and H-08, two-bedroom and three-bedroom, respectively, are developed in detail, each with its specific adaptation. The aim for the dwellings' interior was to create a free-flowing space concept by concentrating the apartment cores within functional walls, using panels as movable elements and ensuring organizational flexibility according to the user's preferences, as well as spatial and locational conditions.⁷

⁷ Each module ensures access to the infrastructural shafts, as both the floor and the ceiling contain the bases that house the technical support systems. Whenever necessary, the opaque vertical walls function as vertical shafts, allowing for greater flexibility and adaptability within the apartments, authors' note.

Thus, every two floors feature a gallery-style corridor providing access to duplex apartments. Consequently, the units on the 1st and 2nd floors of the complex are accessible from the first level of the 'Elevated Street', while those on the 3rd and 4th floors are accessed from the second level of the same walkway. Accordingly, the system's modules are adapted locally: modules H-06 (A) and H-08 (A) retain their base form on the 3rd and 4th floors, with access via the lower level of the duplex, while on the 1st and 2nd floors, they are inverted into a variation of H-06 (B) and H-08 (B) with access from the upper level of the duplex. Additionally, the building is recognized as an evolving system, meaning that each 'void' can potentially be occupied as an extension of the corresponding unit. The same principle applies to the number of floors, which may vary according to residents' needs within the structural load limits.

Assuming the local, port and industrial character as a determining factor and considering the constructive definition of the modular structure itself, the use of a metal framework is proposed as the generative construction principle for all modules. This structure is common throughout the entire proposal; nevertheless, depending on the building type, it may be either visible or concealed according to the chosen cladding material. For the 'Elevated Street', the selected materiality involves alternating reflective screen panels with polystyrene and glass plates to provide transparency. Conversely, for the featured multifunctional building, the priority is to expose the structure, highlighting the programmatic volumes with cladding in wooden panels and *viroc* cement boards. Regarding the technical infrastructure elements, light steel framing systems are employed to manage these installations.

To conclude, the modular system's relationship with the pre-existing context is ensured by

positioning the metal modules on a concrete base or support pillar that levels terrain irregularities, adapting to the site's topography. (Fig. 5).

In architecture, a noticeable duality emerges—from one perspective, there is a tendency to theorize about the project, whether for an idealized world or the inherent complexity of contemporary reality; from another, practical intervention objectives are established with utilitarian and material aims.

In this context, the pursuit of a project that addresses a real-world issue arises primarily from the understanding that designing 'without place' or for an imaginary or idealized setting is, in essence, the design of a system—a framework that enables the organization, proposition, and transfer of knowledge. Given the Earth's tangible reality, characterized by challenges and adversities, the themes of the city and 'inhabiting' emerge as key motivations for developing a system that is both modular and multifunctional—a structure broadly adaptable to diverse contexts. This investigation is part of a design exercise that, starting from the minimal, matrix-based, Platonic and ideal unit—the cubic module—seeks to introduce complexity through its aggregation into structural components capable of forming countless combinations. The resulting design stems from an experimental process marked by progress and setbacks, aiming to structure and consolidate adaptable elements that respond to the three essential functions required to shape the urban environment—Housing, Public Space and Infrastructure.

Therefore, this investigation ultimately aims to explore the utopian and speculative potential of modularity through the implementation of the multifunctional system in a specific context and experimental approach, with the Beato area in Lisbon serving as the central case study.

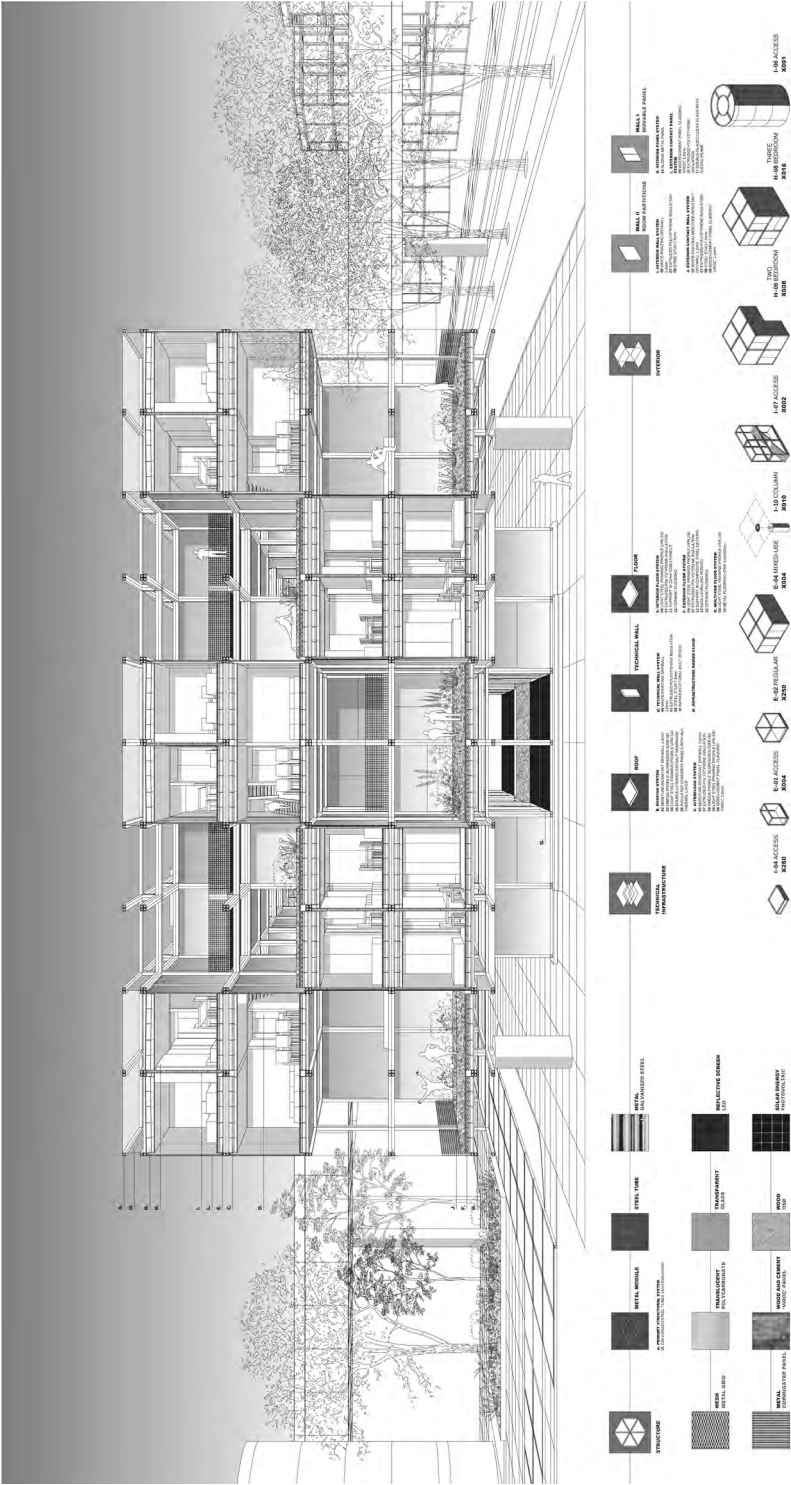


Fig. 5 Constructive components of the multifunctional complex in 'Do Utópico ao (Experimentalismo) Tópico. Um sistema modular multifuncional para a requalificação do Beato em Lisboa', ©Raquel Cruz Barbosa, 2024

Acknowledgements This work is financed by national funds through FCT—Fundação para a Ciência e a Tecnologia, I.P., under the Strategic Project with the reference UID/04008: Centro de Investigação em Arquitetura, Urbanismo e Design.

References

1. Rossi A (1966) *A Arquitetura da Cidade*. Edições 70, Lisbon
2. Borsi F (1997) *Architecture and Utopia*. Edições Hazan, Paris
3. Jacobs J (2000) *Morte e Vida das Grandes Cidades*. Martins Fontes, São Paulo
4. Neuman M (2005) The compact city fallacy. *J Plan Educ Res* 25(1):11–26
5. Foster N (2021) On the future of cities in Pandemics—on cities Masterclass series, the Norman foster foundation
6. Cacciari M (2010) *A Cidade*. Editora Gustavo Gili, Barcelona
7. Farias H (2023) *Arquitetura(s) entre o Rio e a Cidade*. Reflexões sobre a valorização urbana de uma frente de Rio. Fundação Serra Henriques, Lisbon
8. Maki F (1964) *Investigations in collective form*. Washington University, St Louis
9. Feliciano A (2015) *A Metáfora do Organismo nas Arquiteturas dos Anos Sessenta—a obra dos Archigram como manifesto de um novo habitar*. Caleidoscópio, Lisbon
10. Bourdin A (2010) *O Urbanismo depois da Crise*. Livros Horizonte, Lisbon
11. Leite A (2022) *Reabilitação ou Arquitectura*. Reflexões sobre a Reabilitação Urbana e Arquitectónica. Caleidoscópio, Lisbon
12. Barbosa R (2024) *Do Utopico ao (Experimentalismo) Tópico*. Um sistema modular multifuncional para a requalificação do Beato em Lisboa. Tese de Mestrado em Arquitetura, Universidade de Lisboa, Faculdade de Arquitetura
13. Porto Editora. módulo no Dicionário infopédia da Língua Portuguesa. <https://www.infopedia.pt/dicionarios/lingua-portuguesa/módulo>. Accessed 15 Mar 2025
14. Consiglieri C, Ribeiro F, Vargas J, Abel M (1993) *Pelas Freguesias de Lisboa*, Lisboa Oriental: São João, Beato, Marvila, Santa Maria dos Olivais. Câmara Municipal de Lisboa, Lisbon
15. Custódio J, Folgado D (1999) *Caminho do Oriente*, Guia do Património Industrial. Livros Horizonte, Lisbon
16. Baraldi C (2021) *Como Marvila virou cool? Um olhar para a conversão criativa cultural da antiga zona industrial de Marvila*. Dissertação Final de Mestrado em Estudos Urbanos, Universidade de Nova de Lisboa, Faculdade de Ciências Sociais e Humanas

The [Italian] Debate on the City at Centro Cultural de Belém

Rodrigo Lino Gaspar 

Abstract

Italy and Portugal share a sense of marginality of historical voyages which enabled the creation of intense cultural crossovers and the exchanges of ideas. The Centro Cultural de Belém is a clear example of a place that works based on its local identity, blending non-aligned cultural references with international tendencies. The selection of the project for the cultural centre is presented by Portuguese architect Nuno Portas confronting two examples of Lisbon's urban history: Baixa Pombalina or Avenidas Novas. Italian architect Vittorio Gregotti or Portuguese architect Gonçalo Byrne? Both start from the idea of a grid shaping the city. However the ultimate decision was whether to prioritise the territory of architecture or the architecture of the city. In other words, whether to focus on city-making or building a monument. This article addresses the issue of scale in the architecture of the city, examining the Italian debate and its impact on the field of architecture in Portugal. To this end, we carried out bibliographic research in publications and press articles, the institutional archive was consulted, and the authors of the final proposals were

interviewed: Manuel Salgado and Gonçalo Byrne. How did the review of post-war urban transformations, in Aldo Rossi's critic of the *nuova dimensione* translate into practice? Is the notion of *city-making* related to the theoretical works of L'Architettura della Città and Il Territorio dell'Architettura? Is Centro Cultural de Belém a product of the concrete relationship between the form of architecture and the city, or the architectural form of the territory?

1 Place

Placed on the outskirts of Lisbon, Belém became a politically significant and historically important space. From the departure of the ships of the Descobrimentos (Age of Discoveries), to the commemorative propagandistic exhibitions of the Estado Novo dictatorship and more recently, Portugal's accession to the European Economic Community, these events have shaped and formed the palimpsest of the place.

«The initial constructions on the site where the Centro Cultural de Belém will be built, played a significant role in the image of the monument and presented highly modern solutions for the urban planning of their time». [1] (p 128)

The construction of the Jerónimos Monastery in the sixteenth century is widely regarded as the catalyst for the monumentalisation of Belém. Followed by the Torre de Belém as a celebration on the discovery of the sea route to India.

R. L. Gaspar (✉)
CEACT/UAL, Lisboa, Portugal
e-mail: rodrigolinogasper@gmail.com

Universidade Autónoma de Lisboa, Lisboa, Portugal

The Convent of Bom Sucesso was founded about 1640, around a centralised plant church based on Serlio. About 1720s, King João V grouped existing houses to form the Palace of Belém, the current siege of the President of the Republic.

These spaces survived Lisbon's 1755 earthquake, an event that led to the establishment of the king and his court in the neighbourhood. Ever since, Belém has become the siege of power, historic significance and major transformation. Jerónimos underwent a campaign of restoration, integrated in the 1880s' historical nationalist discourse. These restoration works became highly controversial, due to the collapse of a monumental central tower, designed by Italian set designer Giuseppe Cinatti. In the same decade, after years of study, the Port of Lisbon began earthworks to accommodate a new port and industrial area as the railway line to Cascais was laid, reaching Lisbon by the turn of the century.

In the 1940s, the Estado Novo dictatorship brought an urban revolution to Belém. The construction of Marginal road to Cascais pointed the direction of the expansion of Lisbon through Belém. The Encosta do Restelo urban plan was the first housing settlement to be developed, on part of the expropriated fields behind Jerónimos' Convent [2]. The river front would be the stage for a national exhibition. *Exposição do Mundo Português* [3] involved most Portuguese architects in the design of an enclosure set around a new monumental urban space in front of Jerónimos, the Praça do Império.

At the end of the exhibition most temporary pavilions were dismantled, but the idea for a permanent building remained. Several plans were developed around the idea of building an Overseas Territories Palace [4] (p 42). Unfulfilled, in 1960 the government chose to rebuild permanently, the temporary boat shaped pavilion of the 1940 exhibition, *Padrão dos Descobrimentos* [5]. The occasion was accompanied by an exhibition designed by Frederico George, inside the remaining Popular Art pavilion, whilst developing the project of the Navy Museum [6], west of Jerónimos.

In 1988, the resulting urban void facing Praça do Império and Jerónimos was chosen by the Portuguese government as the site for a large

cultural facility, Centro Cultural de Belém (CCB) to host the first Presidency of the European Economic Community.

2 Marginality or Contact Zone

The condition of marginality established by Kenneth Frampton in *critical regionalism* [7], as an architecture of resistance, resulted in the attention and international recognition of the work of Álvaro Siza and Carlo Scarpa. However, the paradox of defining a local culture with universal scope, admits a cross-cultural field. The notion of *contact zones*, first established by Mary Louise Pratt [8] as spaces of cultural negotiation and adaptation, allows for the introduction of a more multicultural, multi-authorial and polycentric approach. Applied to the field of Architecture by Avermaete and Nuijsink [9] (p 354), *contact zones* suggest we can attain new perspectives in the history of architecture by analysing their mechanisms—competitions, exhibitions, congresses, meetings.

The Centro Cultural de Belém competition might be regarded as an intentional *architectural contact zone*, in the extent that it was the desire of the commissioner and an objective of the competition programme, to bring Portuguese architecture in contact with other global cultures. This event marked a significant milestone, it was the first international competition in Portugal, where Portuguese architects had the opportunity to engage with their peers from other geographical areas.

The role of actors involved, and their network of relations is fundamental to understand the process of this *architectural contact zone*. The solutions to the common design problem at Centro Cultural de Belém competition helped respond to the broader condition of marginality of architecture production in Portugal.

The historical marginality of Portugal was imposed by the Estado Novo (1933–1974), a dictatorship modelled after the Italian fascist regime, and conditioned by the international isolation provoked by the Portuguese Colonial War. Despite the regime's nationalist narra-

tive, some architects striven to establish international contacts before the Carnation Revolution of 25 April 1974. Architects like Fernando Távora, Nuno Teotónio Pereira or Nuno Portas created an alternative culture in Portuguese architecture through their voyages, their presence at international exhibitions and conferences. The circulation of magazines such as *L'Architecture d'Aujourd'hui*, *Casabella* and *Architecture Review* created an alternative culture in Portuguese architecture [10].

Portuguese magazine *Arquitectura* was the central platform for the introduction of alternative ideas, especially after 1957, when a new generation took over, concerned with the actuality of international debate. In the first issue of the new editorial team, Nuno Portas contributed with an article about Carlo Scarpa and presented Bruno Zevi's magazine *L'architettura. cronache e storia*. The section of Foreign Magazines provided a critical collection of articles from similar publications [11], displaying the actuality and awareness on international projects and debates, like the Rogers/Banham dispute.

In the field of architectural editions, Nuno Portas contributed with several books, *A Arquitectura para Hoje* (Architecture for Today) in 1964, *A Cidade como Arquitectura* (The City as Architecture) [12] in 1969, and the chapter *Evolução da Arquitectura Moderna em Portugal* (The Evolution of Modern Architecture in Portugal) in the translation of Bruno Zevi's *Storia dell'Architettura Moderna* in 1973. The same editor was previously responsible for the translation of *Saper vedere l'architettura* to Portuguese in 1966, the year *Il Territorio dell'Architettura* [13] by Vittorio Gregotti and Aldo Rossi's *L'Architettura della Città* [14] were published. In his books, Portas was writing his thoughts on several international references from the field of architectural theory to sociology, applying them to the specificity of the Portuguese context.

Vittorio Gregotti's relationship with Portugal presumably began in the 1968, *Pequeno Congresso de Vitória* architects' meeting [15]. Alongside Oriol Bohigas, Rafael Moneo and Peter Eisenman, Nuno Portas gave an introductory lecture on Álvaro Siza's work in the

Portuguese architecture context. Siza presented his recent work in a session for the exhibition and discussion of projects [16]. This contact zone started a connection that would enable the publication of Siza's work in Italian magazines.

Portugal established democracy on the exact same day as Italy, only 29 years later. 25 April celebrates the *Liberazione d'Italia* of 1945 and the Carnation Revolution of 1974. With the fulfilment of the democratic regime, the world discovered this small country on the margins of Europe, favoring the dissemination of Portuguese architecture. International magazines such as *L'Architecture d'Aujourd'hui*, *Lotus International*, *Casabella* and *Domus* published projects from the SAAL programme (*Serviço Ambulatório de Apoio Local*) [17], discovering the figure of Álvaro Siza [18], whom Vittorio Gregotti labelled an unfashionable architect [19].

In 1974, Nuno Portas was appointed Secretary of State for Housing launching the first democratic housing policies. Among cooperatives, urban renewal, and large-scale development contracts, the SAAL program [17] was distinguished as the architects first response to the Revolution and the housing deficit. Following the housing example case of Quartiere ZEN Palermo, Portas invited Vittorio Gregotti to develop a similar housing project in Portugal.

The city of Setúbal played a central stage in the response to the housing problem, as an *architectural contact zone*, between Italian and Portuguese architects. The young Portuguese architect Manuel Salgado worked at the Planning Office of the City Council to coordinate urban commitments. Five SAAL operations underwent in the city, as the most renowned, Casal das Figueiras, was coordinated by Gonçalo Byrne [20].

At the same time, government agency *Fundo de Fomento à Habitação* developed a large-scale public housing project led by José Charters Monteiro [21]. Graduated from the Politecnico di Milano, he invited Aldo Rossi to design a housing complex labelled '*Bacalhau*', the cod, a fish much appreciated in Portuguese culture. The construction of this new expansion area of the city through architecture, resulted in the defini-

tion of an urban grid of blocks and elements from the historic city. The project contains references to Pombaline rationality in the creation of new cities, and the Italian debate on cities and suburbs. However, the long volume that outlined the profile of Bela Vista hillside would never be built.

3 City-Making or Monument-Making

In December 1986, newspaper *Diário de Lisboa* published an article about the mayors project for a tower that threatened Jerónimos [22]. The controversy between Lisbon City Council, the Association of Architects and the Portuguese Institute of Cultural Heritage led to embargo of the project. The president of the Heritage Institute, António Lamas, invited Manuel Costa Lobo to coordinate a Safeguarding and Enhancement Plan for the Ajuda-Belém area. The major impact would be the choice of location for the large cultural facility that would serve the celebrations of the 500 years of the Descobrimentos. It would also respond to the need for facilities to house the 1992 Portuguese Presidency of the Council of the European Community.

«Lisbon is deprived of its river; let's save Lisbon» stated the President of the Republic, Mário Soares at the launch of the “Ideas Competition for the Renovation of Lisbon's Riverside Area” in November 1987 [23]. Nuno Teotónio Pereira, president of the Association of Architects, had brought together the city's main political institutions. Manuel Salgado won the prize for the Belém Monumental Zone and a mention for the Santos/Santa Apolónia Riverside Front [24]. Following this competition and given the accumulated knowledge on the historic area of Belém, Vittorio Gregotti invited Manuel Salgado to form a partnership.

In January 1988, the Portuguese Government announced the decision to promote the construction of a cultural centre between the Jerónimos Monastery and the Torre de Belém. Newspapers reported the need to renovate Praça do Império and provide the area with a museum, a meeting centre and complementary facilities with recre-

ational areas and entertainment venues like hotels, shops, art galleries, restaurants and cafés. The idea of creating a large cultural building came from the Portuguese government's political desire to leave a mark, similar to the Centre Georges Pompidou in Paris. The French government policy of the *Grands-Projets* was highly publicised in Portugal throughout the 1980s decade, with two exhibitions on the subject at the Gulbenkian Foundation in 1979 and 1985 [25].

The competition was organised in two stages: the first, involved simple ideas comparable to a basic programme, to be submitted until 30 May. The composition of the jury was announced to registered competitors in Information No. 2 of April 1988, naming António Lamas, Charles Delfante, Costa Lobo, Frederico George, Leslie Martin, Pierluigi Nicolini, Fernando Távora and Nuno Portas. Of the 100 registrations, 53 proposals were delivered, from which the jury selected the teams led by Renzo Piano, Jean Tribel, Jean Pistre, Manuel Tainha, Gonçalo Byrne and Vittorio Gregotti for a second phase. With the withdrawal of Renzo Piano, the winner of the second phase was announced on 19 December 1988.

In the Architects' Association journal, *Jornal Arquitectos*, Nuno Portas published his “Statement by a Member of the Jury” [26] (p 6), in which he argues the final choice of the jury. In search of a posteriori justification, he states that the choice in the first stage of the competition was based on ‘a certain urban understanding of architecture’. In the second stage, he reveals the jury's hesitations between the Gregotti and Byrne solutions, between two parties of Lisbon's urban history. A common point between the proposals is the ‘plan’ attitude around a grid layout in relationship between public spaces and the surrounding morphology. However, criticism of Gregotti's choice on the formal unity of *Baixa Pombalina* stems from the citadel effect, as architectural unity prevails (Fig. 1). Byrne's proposal, based on the uncertainties of Avenidas Novas, is criticised for the fragmentation of the work, in a more urban idea than an open and pluralistic process of city-making (Fig. 2).

The competition projects were exhibited at the painting gallery of Palácio Nacional da Ajuda in April 1989. Critic Paulo Varela Gomes cate-

Fig. 1 Vittorio Gregotti and Manuel Salgado's team proposal architecture model for the 2nd stage of the CCB competition, depicting the urban proposal of a grid of streets, squares and open public spaces structured by an urban axis. The perpendicular streets separate buildings according to program: institutional offices module, conference and auditoriums, exhibitions spaces, shops and hotel module. 1° prize. *Revista Arquitectos* 2, May–June 1989, p. 53



Fig. 2 Gonçalo Byrne's team proposal architecture model for the 2nd stage of the CCB competition, depicting the urban proposal structured by a perpendicular and a diagonal axis, connecting historical monuments. The Institutional building faces the existing square, exhibition spaces face south, conference auditoriums lay between the two axis, pointed by three small cubic volumes. 2° prize. *Revista Arquitectos* 2, May–June 1989, p. 57



gorised the proposals by awarding prizes «the prize for fixation goes to Tomás Taveira, the prize for light to Jean Tribel, the prize for monumentality to Arsénio Cordeiro, the prize for style to João Paciência, the prize for performativity to Pistre, and the prize for audacity to Manuel Graça Dias» [27] (p 71R). He concluded that «the jury, in choosing Gregotti, opted not to take any risks» (p 71R). The final decision was to choose a grid that produces urban architecture, between the *territory of architecture* and the *architecture of the city*, in the hypothesis of city-making or building a monument.

4 The Scale of Architecture of the City

In Centro Cultural de Belém (CCB) exhibition catalogue [28] (p 77), Vittorio Gregotti refers to the competition's relevance in the actuality of the debate on architecture, «due to the ambiguity that arises between urban design and monumental buildings». In an interview for this article, Manuel Salgado states that this was an urban project where architecture comes second, affirming that the main objective of the project was to “*fazer cidade*” (city-making).

The main problem that arose during the competition was the relationship with the surrounding context. In other words, it was the geographical condition of the place, in relation to the river, the open landscape and hill, as well as the physical conditions and formal relationship with the Jerónimos, the Torre de Belém and the Convent of Bom Sucesso. A structure was needed to organise the surroundings, creating a series of views and a continuity between outdoor spaces. The building proposal should operate a transition in scale between the domestic and fragmented scale of Rua Bartolomeu Dias and the monumentality of the large space of Praça do Império.

«When Gregotti arrived in Lisbon on 24 April 1988, he brought with him the foundational blueprint for an architectural territory» [29] (p 168). The author of *Il Territorio dell'Architettura* [13], editor of *Rassegna* and *Casabella* magazines, defined the organisational solution for the complex as the foundation of a Roman city. The “ground project” he proposed with Salgado designed a topography of public space, with morphological typologies of the city—boulevard, square, staircase, street. The solution of raising the ground floor allowed a better view of the Tejo River, but above all, it avoided the excavation of underground floors below the water table. The entire project would be carried out using a draconian metric, according to Salgado, which generated a proportion specific to the project and a modular rationalisation that the entire project respects (Fig. 1).

In interview, Gonçalo Byrne refers to “*fazer cidade*” (city-making), originating in the post-war reconstruction of Europe, which in Portugal resulted in the Olivais and Chelas Plans [30]. The meaning that Nuno Portas gives to the expression is based on the revisionism of the urban planning practices of the Athens Charter, in connection with the Italian debate on cities. The aim of his proposal for the CCB was to create a piece of city.

Byrne’s strategy was based on the creation of a new geography, in an “architectural skeleton” that aims to combine the programme of a large cultural centre with the monumental characteristics of the site. Considering the monu-

mental complex as a whole, it proposes a strong urban component of hierarchical public spaces, playing with different scales of the city. The proposed two major public axes intend to establish a connection between Jerónimos and the Torre de Belém, favouring this diagonal as an urban and visual connection in relation to the second distributive axis, perpendicular to Praça do Império (Fig. 2).

The notion of “*Fabrica urbana*” (urban fabric), taken from the Italian language, constructed a grid, the ground of the city, where the programme is divided: a meeting centre in front of Praça do Império, auditoriums between axes, an exhibition centre overlooking the Tejo River and a group of tower buildings for support facilities, which mark the beginning, middle and end of the Jerónimos-Torre de Belém route.

“The city takes on the dimension of a monument through its actions”. Byrne states that in the relationship between city-making and monument-building, the aim was to create a piece of city that would assert itself as a monument-like layout. Unlike Gregotti’s static project, here the option was for an “open work”.

Between figures such as Aldo Rossi and Vittorio Gregotti about the Italian debate on urban issues and the city, Gonçalo Byrne states that his architecture is closer to Gregotti’s theory. On the overall, one might realise that Byrne’s proposal is rooted on the form of the architectural territory, like the establishment of a city of Greek foundation. As for Gregotti/Salgado’s proposal, it is anchored on the form of an urban artefact, with the geometric rigour of a Roman forum.

5 La Nuova Dimensione Della Città

Manfredo Tafuri refers to “*la nuova dimensione*” (the new dimension) as a recurring slogan in the debate of the 1960s [31]. The urban renewal of American cities provoked strong opposition in the press and publications by Jane Jacobs and Lewis Mumford, among others. In Europe, the defence of historic centres became a cause to prevent demolitions. The subject of urban growth and renewal

dominated disciplinary discourse during the crisis of the modern movement.

In Italy, the intense debate took place within the triangular relationship between particular agents and their spheres of influence in Milan, Venice and Rome. Ernesto Nathan Rogers, editor of *Casabella* magazine and professor in Milan; Giuseppe Samonà, director of IUAV in Venice and author of publications on urban planning; Ludovico Quaroni, professor in Florence and Rome and author of the *INA-Casa Tiburtino* and *La Martella* projects, would represent the main participants in the debate [32].

Urban planning conferences were the main stage for architects to exchange ideas and criticism. In 1959, at the conference “*Il volto delle città*” (The Face of Cities), the term “*la nuova dimensione*” was used for the first time. In 1962, Giancarlo de Carlo organised an interdisciplinary seminar on the relationship between the new dimension and the idea of “*la città regione*” (the city-region). The idea of “*città territorio*” would be explored in a series of university seminars in Rome and an experimental project between architecture and urban planning for the Centro Direzionale di Centocelle.

The Centri Direzionali programme, publicised and published in *Casabella- Continuità*, aimed to restructure large areas on the outskirts of cities, similar to Central Business Districts. After Centocelle, the 1962 Turin competition attracted proposals for urban discourse, including Aldo Rossi and Gian Polesello’s *Locomotiva*. Amongst these, Kenzo Tange would emerge as the designer of the Centri Direzionali of Bologna and Naples [33].

At the 1965 meeting of the *Istituto Nazionale di Urbanistica*, different positions of the *nuova dimensione* became evident: De Carlo spoke about the organisation of the territory; Gregotti spoke about the relationship between architecture and landscape; Tafuri criticised the role of architectural and urban utopia; Rossi presented an attack on the new urban scale, accusing urban planners of technicality and mystification of mobility systems. The criticism was directed squarely at the projects of Kenzo Tange and the Centri Direzionali.

Vittorio Gregotti suggested that the role of architecture is to give meaning to the physical and cultural environment to reveal a place. The conceptual design idea he proposed relates architecture to the territory, understood in terms of its scale, topography, material, and infrastructure. In his book *Il Territorio dell’Architettura* [13], the role of architecture is to create an intervention that mediates, recognises, and reveals the qualities of the landscape.

Aldo Rossi participates directly in the debate on the size of cities, developing his opinion through projects and articles for *Casabella* magazine. After arguing that architects should work where the breaks between old and new are most legible, he identifies the conditions of neglect and degradation in the suburbs to conclude that the term “city” is insufficient to describe the urban form and suggests the term “metropolitan area”. In 1966, Rossi concluded the debate on urban scale in his book *L’Architettura della Città*, considering the “city as architecture”. [14] (p 168).

6 The City as Architecture

For the reissue of the book *A Cidade como Arquitectura* [12] (p 205–206) in 2007, Nuno Portas wrote an introduction to the original edition. He justified the choice of title, which “paraphrased the titles of the seminal books by Aldo Rossi (The Architecture of the City) and Vittorio Gregotti (The Territory of Architecture)” (Fig. 3). Rossi’s discourse is summarised in the model and conviction of the canonical city. The contemporary city of the new dimension of urban territories is associated with Gregotti’s discourse. The object—the city—is recognised beyond the intense disciplinary discourse, in research from other scientific fields, taking his Restelo neighbourhood project as a practical example.

The book was the result of a thesis written for academic exams for the position of permanent architecture professor at the Lisbon School of Fine Arts. Passed over in favour of another thesis, the competition sparked controversy among students, leading to an editorial in *Arquitectura* magazine that referred to the academic crisis.

Fig. 3 Three books on architecture from Gonçalo Byrne's archive. The first book *L'Architettura della Città* by Aldo Rossi features a red and white abstract cover design, the second edition from 1970. The second book, *Il Territorio dell'Architettura* by Vittorio Gregotti has a cream cover with bold black orange text, the first edition from 1966. The third book, *A Cidade como Arquitectura* by Nuno Portas, shows a black and white image of an urban model, the first edition from 1969. Arquivo Gonçalo Byrne, 2025



Portas' thesis was published as a book in 1969, in an effort to overlap architectural theory and the reality of the city. He mentions the work of Le Corbusier, Hilberheimer and Samonà as fundamental, and then refers to publications focused on the "construction of city space", in order, Rossi's *The Architecture of the City*, Gregotti's *The Territory of Architecture*, Quaroni's *Tower of Babel*, Blasi's *Urban Structure of Architecture* and the Smithsons' *Urban Structuring*.

Throughout the book, references to these theoretical works are evident, to summarise the relationship between architecture and the city, understanding the need to "give structure and form to the entire scale of architectural space" [12] (p 14). Portas proposes "urban architecture" on a scale in relation to the territory capable of "establishing sites that are significantly anchored and anchoring". [12] (p 15).

This is the first time that the expression "*fazer cidade*" (city-making) appears in writing. In the book *Imaginar a Evidência* [34] (p 119), Álvaro Siza refers to the Malagueira aqueduct and the notion of "another scale", indicating a possible connection to the need to *city-making*. Rossi's reference to the expression "*fatto urbano*" can be interpreted in several ways: recent studies point to the double meaning of the word "*fatto*" in Italian,

as a fact existing in reality or the past tense of the verb "*fare*" (to make). [35] (p 33).

The fact is that in 1969, Nuno Portas had access to the original Italian version of Rossi's book. The translation into Portuguese would occur in 1977, by the hand of João Charters Monteiro [36], following the International Architecture Seminar in Compostela where Aldo Rossi was highly celebrated. Coincidentally or not, it happened after the 1976 Venice Biennale *Europa-America. Centro Storico—Suburbia* [37], organised by Gregotti, with the presence of figures like Aldo Rossi and Álvaro Siza, among others.

Portas' "justification" [26] (p 6) points to issues that will be reflected in the CCB competition debate. The conditions of the site and the programme pointed to a proposal that would act between the historic city and the contemporary territory, in an operation that would give meaning and form to the urban void of the city-territory, in a layout of common space as a structuring element of the city.

Portas admits that the most fascinating aspect of the CCB competition conditions was the combination of monument and site, either existing or to be built ("*feito ou a fazer*") [26] (p 6). The jury's verdict in December 1988, published in the press, refers to the Gregotti/Salgado proposal as

the one that best met the competition's objectives. Regarding Gonçalo Byrne's proposal, it mentions the interesting urban section, although with the risk of dispersion and consequent loss of unity (Fig. 2).

But by publishing his testimony in the Architect's Association Journal, Nuno Portas exposes the doubt on the choice of the final project. Who would he really choose? Gonçalo Byrne as Ressano Garcia, the engineer responsible for Avenidas Novas? Or Vittorio Gregotti/Manuel Salgado as Eugenio dos Santos, the architect of the chosen plan of Baixa Pombalina?

After much controversy in the press, the Centro Cultural de Belém was inaugurated in 1993 as a political building. Today, it is a work of the city and a major cultural hub of the country. However, time has prevented the construction of the last modules of Gregotti's project (Fig. 1), postponing urban connections with part of the surrounding area. The CCB is a product of the relationship between the form of architecture and the city, but the relationship with the architectural form of the territory has yet to be completed.

References

- Rossa W (1989) Elementos da Estrutura Urbana de Belém até ao século XVIII. In: AA.VV.: concurso para o projecto. IPPC, Lisboa, p 128
- Almeida P (2015) Bairro(s) do Restelo: Panorama Urbanístico e Arquitectónico. Caleidoscópio, Lisboa
- Acciaioli P (1998) Exposições do Estado Novo 1934–1940. Livros Horizonte, Lisboa
- Martins JP (2023) (org.) Sombras do Império. Belém: Projetos, Hesitações e Inércia 1941–1972. Tinta da China, Lisboa
- Almeida P (2002) A Arquitectura do Estado Novo. Livros Horizonte, Lisboa, pp 113–126
- AA.VV (1993) Frederico George, Ver pelo Desenho. Câmara Municipal de Lisboa/Livros Horizonte, Lisboa, pp 131–149
- Frampton K (1983) Towards a critical regionalism: six points for an architecture of resistance. In: Foster H (ed.) The anti-aesthetic. Essays on postmodern culture. Bay Press, Port Townsend, Washington, pp 16–30
- Pratt ML (1991) Arts of the contact zone. Profession, pp 33–40
- Avermaete T, Nuijsink C (2021) Architectural contact zones: another way to write global histories of the post-war period? Architectural Theory Rev 25(3):350–361
- Esteban-Maluenda A, Figueiredo R (2021) Learning from the opposite? Iberian J Glance Aust. Fabrications 31(1):24–53
- Figueiredo R, Seco R (2022) Ressonância e reinvenção: debate e prática urbana... Proyecto, Progreso, Arquitectura 27. E. Universidad de Sevilla: 64–81.
- Portas N (2007) A Cidade como Arquitectura, 2nd edn. Livros Horizonte, Lisboa
- Gregotti V (1966) Il Territorio dell'architettura. Feltrinelli, Milano
- Rossi A (1982) The architecture of the city. The MIT Press, Cambridge
- Correia N (2010) A crítica arquitectónica, o debate social e a participação portuguesa nos Pequenos Congressos—1959/1968. Revista Crítica de Ciências Sociais, p 91
- Dias T (2025) Teoria e Desenho da Arquitectura em Portugal, 1956–1974: Nuno Portas e Pedro Vieira de Almeida. Instituto Marques da Silva/Afrontamento, Porto, pp 185–193
- Bandeirinha J (2007) O Processo SAAL e a Arquitectura no 25 de Abril de 1974. Imprensa da Universidade de Coimbra, Coimbra
- Ramos e Silva C E (2016) A Divulgação Internacional da Arquitectura Portuguesa 1976–1988. PhD thesis in architecture presented at Faculdade de Arquitectura da Universidade do Porto. Available in: <https://hdl.handle.net/10216/87676>
- Gregotti V (1972) Architetture recenti di Alvaro Siza. Controspazio 9:22–25
- AA.VV (1979) SAAL Setúbal. Cidade-Campo 2:61–101
- Bandeirinha J, Castela T, Aristides R, Alves J (2018) O Fundo de Fomento à Habitação de 1969 a 1982: ordenamento, alternativas e mercado. In: Agarez R (ed) Habitação Cem Anos de Políticas Públicas em Portugal 1918–2018. Instituto da Habitação e da Reabilitação Urbana
- Anon (1986) Torre de Abecasis volta a ameaçar face dos Jerónimos. Diário de Lisboa, Lisboa
- Anon (1987) Concurso de Ideias para Renovação Ribeirinha—Presidente faz apelo para se salvar Lisboa. Diário de Notícias, Lisboa
- AA.VV (1988) Lisboa, A Cidade e o Rio: Concurso de Ideias para a Renovação da Zona Ribeirinha de Lisboa. Associação dos Arquitectos Portugueses, Lisboa
- Grande N (2000) Centro Cultural de Belém, Lisboa 1959–1969—Grands Travaux em Belém. In: Batista L (ed) Arquitectura em Concurso. Dafne, Porto, pp 82–93
- Portas N (1989) Gregotti ou Byrne: Eugénio dos Santos ou Ressano? Depoimento de um membro do Júri. J Arquitectos 74/75:6
- Varela Gomes P (29) Os Espaços Perdidos. J Expresso 70–71R

28. AA.VV (1989) Concurso para o projecto. IPPC, Lisboa, pp 77–80
29. Grande N (2018) Manuel Salgado entrevistado por Nuno Grande. In: Grande N (ed) CCB Vinte e Cinco Anos. Fundação Centro cultural de Lisboa, Lisboa, pp 168–173
30. Gaspar RL (2021) Chelas urbanization plan. *Estudo Prévio* 20:118–128
31. Tafuri M, Dal Co F (1980) *Modern architecture*. Harry N. Abrams, Inc. Publishers, New York, pp 391–410
32. Lobsinger ML (2006) The new urban scale in Italy: on Aldo Rossi's *L'architettura della città*. *J Architectural Educ* 59(3):28–38
33. Lobsinger M-L (2011) City, periphery, territory. In: AA.VV, Aldo Rossi, *La Storia di un Libro. L'architettura della città, dal 1966 ad oggi*. Iuav/Il Poligrafo, Padova, pp 76–79
34. Siza Á (2000) *Imaginar a Evidência*. Edições 70, Lisboa
35. Scrivano P (2024) Crossed glances: architecture and criticism astride geographies. *Cadernos ProArq* 43:25–54
36. Rossi A (1977) *A Arquitectura da Cidade*. Cosmos, Lisboa
37. Raggi F (1978) *Europa-America: architetture urbane, alternative suburbane*. La Biennale di Venezia 1976, Edizioni La Biennale di Venezia, Venezia

The Value of the Cultural and Urban Matrix of a 'Marginal' Mediterranean South. Geographical, Historical and Cultural Reasons for the Qualification of a Way of Life

António Santos Leite  and Ana Marta Feliciano 

Abstract

Reflection on the recognition of the cultural and urban matrix of a 'Mediterranean South', a recognition that confronts and marginalizes it, by its apparent 'chaos and irrationality', with a complementary matrix from Northern Europe. First, there is a physical differentiation, recognizable both by the climatic contrast and by the observation of a more 'topical and organic' matrix, which better adapts to the Mediterranean orography, as opposed to a more 'utopian and abstract' matrix, present in the 'generic planimetry' of northern Europe. Secondly, the historical and cultural issues also conditioned the settlements, highlighting the dangers present in the cities near the Mediterranean, although protected by defensible redoubts, and the North, by its planimetry, of internal places articulated with trade by great rivers. Third, religious issues are also important, highlighting the importance of Protestantism for a greater differentiation of a Mediterranean Roman-Catholic world. Finally, it is evident the permanence

of these matrices in contemporary life, highlighting differences between 'Mediterranean cities' such as Rome or Lisbon and the different characteristics of northern cities such as Berlin or Antwerp. With these findings, it is argued that the diversity and 'marginality' attributed to the Mediterranean matrix is mismatched, because it qualifies less normative areas that allow a freer and identity world.

Let us begin with a vague and diffuse look. Let us begin with the recognition of a marginal matrix of 'chaos and imperfection' that is created, even if partially contradicted by its primary generality, with the Latin population of a Europe of a miscegenated and very diverse Mediterranean South; «What is our Mediterranean? Thousand and one things at the same time. Not a landscape, but countless landscapes. Not a civilization, but several overlapping civilizations. Not a sea, but a series of seas» [1]. In fact, let us begin by recognizing the shadows of a very rich and diverse millenarian miscegenation, an ethnic and cultural miscegenation created by a poor soil, by a 'warm amenity' climate and by the intense exchanges allowed by an 'ecumenical' [2] sea, highlighted by the 'local diversity' induced by a vigorous orography that contrasts, because «geology explains the great abundance of mountains through the solid space of the Mediterranean» [3], with a more

A. S. Leite (✉) · A. M. Feliciano
CIAUD—Research Centre for Architecture, Urbanism and Design, FAUL—Lisbon School of Architecture, University of Lisbon, Lisbon, Portugal
e-mail: amleite@fa.ulisboa.pt

A. M. Feliciano
e-mail: amfeliciano@fa.ulisboa.pt

‘utopian planimetry’ of a generic, fertile and cold Northern European territory.

From this recognition, let us try to understand some of the reasons that can justify and value, the matrix of chaos and imperfection, also considered as irrational, which is recognized today by the Northern people in ‘our South’, objectively in the way we live and construct, physically and metaphorically, the identity places where we live. That is, let us try to explain here the current specificity of a ‘mediterranean’ [4] sociocultural marginality, understood without a pejorative sense and in a broad, but concrete architectural sense, which matricially tends to distinguish us from the Northern Europe.

In fact, despite all the permeabilities and exceptions, because the particularities of history sometimes changes the more organic evolution of places, it is evident in the life and Mediterranean inhabiting, despite all its hypodamic Greek-heritage, a substantive difference compared to the more austere and rational northern cities and its architectures, because «the Mediterranean is at the same time a terrestrial zone and one of those vast domains of civilization that can be demarcated in the surface of the continents» [5]. Indeed, when we compare today a paradigmatic city of ‘our South’ with a generic ‘Northern city’, tends immediately to emerge significant differences, because a more undisciplined local organicity of the cities of the South, which adapts better to their differences and differentiated orography, is opposed to another urbanity, more utopian and more rigorously planned; or rather, it opposes to a more abstract rationality that could be better and more easily defined in a more austere and generic place.

And so, it is both for this immediate confrontation with the physical support of these different settlements, as for the fact that, necessarily interdependent of this primary physical matrix, a cultural differentiation was grounded by an ancient historical depth. Indeed, we are facing different realities, either by an immediate physical geography, which climatically implied in the South the need for water and shade and, in the North, a pressing need for light, either by an effective historical and cultural differentiation, which

was determined by the tumultuous palimpsest of everything that had happened there.

In fact, fundamental to the understanding of this reality was the pre-industrial sociocultural sedimentation of these places, being sure that, even by the insecurity that characterized many of their old times, the territories of the South, if they were close to the rich ecumenical and commercial centrality of the Mediterranean, they were also close to all the dangers and dangerous ambitions that came from there. According to Orlando Ribeiro «the Mediterranean is, as the name indicates, a sea between lands [...] more exactly a sea between mountains», being its most habitable territory only «a narrow land between the mountain and the sea» [6]. Therefore, except for the hegemonic times of some great empires that imposed a generic security, the people and civilizations of a Mediterranean Europe always were confronted with an ambivalent need. In fact, if they needed to take advantage of the sea because their economic activity depended on it, at the same time they were also forced to locate their settlements in defensible physical strongholds that would protect them from the dangers that the same sea brought them. Thus, this reality associated with the rugged Mediterranean orography, made by the antithesis of lowlands and high places, contributed to a greater specificity and differentiation of the places. (Fig. 1).

In contrast, in Northern Europe this reality has tended to be factually attenuated, not so much by the fact that there are no dangers, although in a more remote time they are less populated places and therefore less disputed, but mainly because the geographical conditions determined that this protection could take place in places far from an immediate maritime proximity. Indeed, although there are numerous exceptions, the settlement of populations in Northern places have tended to move away from the coast, by the generic planimetry of its orography and the physical protection of great lagoon barriers, and because its inland places, by specific river conditions, could be more easily articulated with the coast and with the transregional trade by large rivers.



Fig. 1 The contrast between 'Mediterranean South' and Northern Europe—view the 'mediterranean village' of Minorì, Amalfi cost, and Rotterdam city (before 1940)

Thus, for this ancient and interdependent physical and cultural context, there are deep reasons that began to be delineated, because different realities created an effective differentiation of living and dwelling between the North and the South Mediterranean, reasons that would obviously also be reinforced by religious differences that over a wide time will be defined and redefined.

Therefore, much in the territories of these pre-industrial Europe would happen and change, in an impulse that would lead us without return from a polytheistic paganism to a hegemonic Christianity and then by the 'antagonistic omnipresence' [7] of Islam and successive schisms, schisms that would lead to the separation between the Eastern Church and the Roman Church in the West, or even, from the sixteenth century, to radical Lutheran Protestantism [8] which will also consequently drive an intransigent counter-reform. Moreover, this dichotomy between a Mediterranean Southern Europe and a so-called Northern Europe, could never be truly ignored, since for us, this effective opposition in the practice of the same faith, would lead to accentuating different ways of understanding the world, reality that had direct reflections in their ways of life and in their constructed worlds.

In fact, if the Roman counter-reform advocated a collective and a unitary vision of praising God, Protestantism centred its religious practice on a contained and austere individual relationship, a practice without indulgences and without 'privileged mediators' [9], everyone was respon-

sible before God and also for him, before himself and his community. That is, it impelled an individual experience of greater rigor and austerity that, would consolidate as a matrix to determine a more demanding and literate society, even because religious practice also tended to imply the reading of the Bible [10], reality that will condition the ways of life and that is present in 'our time', increasingly secular and globalized.

Moreover, and now approaching our global contemporaneity, we cannot ignore for this differentiation the effects of very different economic and commercial practices, the fact that trade in Northern Europe has depended more on a liberalism that allowed greater free initiative. Indeed, instead of southern Europe, where the state powers were more centralizing, in the North, especially in England and in Deutschland and in part of the cities of the old Hanseatic league, tended to promote a trade freer of constraints. This fact, associated with the infinite expansion of European and colonial markets in the seventeenth and eighteenth centuries, stimulated another way of trading and an agro-industrial 'revolution and mechanization', which accelerated irreversibly an artisanal world with many traces of medieval organization.

Because of these changes, a hegemonic industrialization began in the territories of the North, expanding from there to the whole European continent, although the regions of the South Mediterranean, by its peripheral marginality due to this new economic-industrial polarization, have initially become less permeable to these changes.



Fig. 2 Social and cultural contrasts—view of a street of Naples, 1902, and “A protestant family during dinner”, Flemish school, sec XVI

Indeed, far from an initial industrialization, the South tended to maintain the traces of a more traditional economic activity, which is why, the huge expansion of industrialized cities in the nineteenth century began to happen in the North, so it would also be there that began a new, more streamlined planning that responds to the new urban realities. Because of this situation it would reinforce the abstraction of a greater rigor and standardization of their cities, with inevitable reflections in the ways of life, a reality that contributed to the reinforcement of its differentiation in front of the ‘more organic’ urbanizations of the south since there, the urgency of change was less intense. (Fig. 2).

Therefore, simplifying, even because to the reasons evoked many others could have also been associated or perspectivated, determinant were the reasons that shaped these ‘two worlds’, reason for which, without manichaeism or unacceptable primary ethnocentrism, we can validate, with a certain degree of constancy, what is commonly recognized as different. In fact, the tacit cultural dichotomy between the North and the South that, objectively conditioned the way we build and inhabit our world, a reality that is consolidated and synthesized paradigmatically in the city, because it is the most complex expression of human habitation, tends to be based in fact on a complex palimpsest of physical and historical-cultural reasons. According to Rykwert, although we consider them «as a natural phenomenon, governed by a law of growth or expansion inde-

pendent, uncontrollable and sometimes unpredictable, the truth is that its growth does not obey to inscrutable inner impulses» [11].

Thus, understanding what differentiates us, even today in our ‘digital and global contemporaneity’, one can reinterpret this difference that is recognized between the two matrices and two ways of life, as something culturally innate, legitimate in the ways in which we live and build the places where we live. Therefore, this reality leads us to justify and value, not only the generic and rational sense of order and northern perfection, that would become a dogmatic vox populi, both with the Positivism of the nineteenth century and with the Modern Movement of the twentieth century, but also with the identity matrix of chaos and imperfection, considered as undisciplined and apparently irrational, which tends to be pejoratively recognized by the North culture about ‘our South’.

From this interpretation, we can recognize and defend the reasons for our differences and also recognize the value and the reasons and identity of our ‘Mediterranean matrix’ [12], repeatedly considered as socio-culturally marginal, understanding it in a broad and qualified architectural sense—an organic experiential sense that, differentiated and identitarian, distinguishes us from a more generic and anonymous matrix that characterizes the North of Europe. From this recognition, we do not have complex to value and legitimize some of the reasons that can justify, for us qualitatively, the most effective cultural aspects of a

'mild' South life, features that dialectically counterposes to a 'colder' Northern life; a seemingly more irrational, more permissive and more undisciplined experience that, more independent of a strict and normative efficiency, allows environments of greater freedom and diversity, promoters of a more free and identitarian humanity.

Indeed, to the constraint of the normative, even if it is not programmatically intentional, 'our South' tends to allow more mild and ambiguous experiential realities, because, by its organic matrix, it has always had difficulty in adapting the order and unicity of the normative, so 'indisciplinarily', it adapts more freely to individual needs and the particularities of their 'deep historical' places.

Thus, when we think of cities in these 'two different worlds', for example Rome, Naples, Marseille, Barcelona [13] or even Lisbon and compare them with Berlin, Bremen, The Hague, Antwerp or even Brussels or Paris [14], it appears immediately, even recognizing all the paradoxes and ambiguities that always exist, their different urbanities and ways of life. (Fig. 3).

Therefore, even recognizing the organic transversality that generally happens in all historical centres, although in 'Mediterranean cities' these are more conditioned by the orography and the sea and in the northern cities by the line of the rivers, the prevalence of the differences evidenced is easily recognized, identifying in the South urban patterns less homogeneous and more conditioned by the relief, and in the North, the

presence of more abstract and generic patterns, less conditioned by this same factor, because their settlements take place in a more uniform and planimetric orographically territory.

However, obviously, this does not mean that we do not recognize in the so-called Mediterranean cities fragments of an effective geometric rationalization as paradigmatically seen in the Cerda Plan of Barcelona or in the Baixa Pombalina of Lisbon. However, these factual evidences of the circumstantiality and discontinuities of history do not cancel the generic matrix that we previously stated, because also these urban realities had to adapt physically and culturally to their particular realities, fact that is translated, either by a less articulated planning between its different urban fragments, or above all by the discontinuities between its paradigmatic 'rational fragments' and its genetic organicity, reality that, despite a partial and paradigmatic appearance, does not cancel the contamination of an omnipresent historical-cultural matrix that establishes very particular urban experiences.

It is so, and in the background beyond partial or mimetic geometric facts that can be recognized apparently between cities, this is not the most profound and most significant.

In fact, when we approach to a more effective and humanized daily life, looking at the way it is built and the concrete experiences associated with the matrix of these urbanizations, the differences are actually more expressive between the 'Mediterranean South' and a 'European North'.



Fig. 3 Original project of the Cerda plan, 1859, and aerial view of Lisbon where the contrast between the geometric grid of Baixa Pombalina and the organic grid of the Castle area is visible



Fig. 4 Different cultural identities—view of a ‘warm street’ in Lisbon and a ‘cold street’ London

In fact, for immediate physical reasons, because the South amenity tends to contrast with the cold climatic demand of Northern Europe, and by all the socio-cultural factors resulting from the historical-cultural palimpsest, it tends to be evident distinct ways of life between South and North, situations that have been conforming the urbanities and experiences of each place.

It is true that the life of cities never remained unchanged, because all cities were and are ‘living organisms’ in permanent mutation, especially since in the present, we are confronted with a time particularly conducive to profound transformations. Indeed, today we live the omnipresent stimuli of change of a new digital and globalized time. These transformations are influenced by imaginaries linked to an increasingly grow of virtual media, because television, streaming, social networks or advertising linked to a ‘common man’ induce the rapid acculturation to new urbanities and new lifestyles. By other point of view, these changes are caused by unavoidable migratory dynamics, occasional or permanent, that confront the cultures of the places with other realities that are foreign to them. This situation, regardless the positive or negative judgements that can be made about it, condition and mischaracterize in a partial but effective way the habits and ways of life from each place.

However, despite all these contemporary factors of homogenization and accelerated transformation, the cultural heritage that we previ-

ously pointed out and justified, continues to impose itself, by its effective matriciality, as an important factor. That is, despite all the accelerated changes induced by ‘our time’, they have not yet invalidated an effective differentiation, because generically the acculturation of divergences is still mainly conditioned by the matrices of places, that one continues to recognize between a more ‘organic Mediterranean culture’ and a more rational culture, which tends to characterize the North of Europe. In fact, it is paradigmatic how they are today commonly mediatized in the cinema or in generic and omnipresent advertising, even if this sometimes happens in a primary and stereotyped way, the characterization of realities that were and are still culturally very rich and differentiated. (Fig. 4).

So, having arrived here and returning to the beginning we can maintain that, despite the primary marginality that is sometimes attributed to the Mediterranean matrix of the South, sometimes considered as ‘irrational, chaotic and imperfect’, the truth is that it is also used by many of those who marginalize it, either to mediatize content of happiness and well-being, or as desired imaginaries for their freedom, diverse or leisure experience. Therefore, linking to them contents that become, of course, also synonyms of qualified and identitarian ways of life that, as it could not fail to happen, today gain an unavoidable global visibility in realities as desired and seductive as those that are promoted by a ‘Mediter-

anean tourism' or, even more generally, as idealizations of experiences and urbanizations more humanized.

Thus, to finish this reflection on the differentiation between a more 'topical and organic' matrix of a Mediterranean South and a more 'utopian and rational' matrix of a Northern Europe, without wanting or being able to make value judgments, because the difference more than a reductive reality is always a complementary process, it tends to qualify a determinant cultural matrix that we consider unavoidable and very relevant. Therefore, understanding the value of 'our Mediterranean matrix' in its deep geographical, historical and cultural reasons, rather than seeking to subjugate or cancel it by its normative deviations and apparent defects, we sought here to recognize and potentiate it for its potent and potential characteristics, being certain that, when we recognize it by a more humanized look, wins expression the value of its effectiveness as a qualified reference of a desired way of life.

Acknowledgements This work is financed by national funds through FCT—Fundação para a Ciência e a Tecnologia, I.P., under the Strategic Project with the reference UID/04008: Centro de Investigação em Arquitetura, Urbanismo e Design.

References

1. Braudel F (1987) O Mediterrâneo o Espaço e a História (ed. orig. (1977) *La Méditerranée—l'espace et l'histoire*). In: AA VV, O Mediterrâneo (ed) Teorema, Lisbon, p 6
2. Assuming here from the Greek its meaning of *oikoumene*—the civilized world, the known world; author note
3. Braudel F (1987) O Mediterrâneo o Espaço e a História (ed. orig. (1977) *La Méditerranée—l'espace et l'histoire*). In: AA VV, O Mediterrâneo. ed. Teorema, Lisbon, p 12
4. This Mediterranean specificity is not strictly limited to its physical geographical definition, and should be extended to effective cultural transition zones, areas that necessarily include the South and a significant part of the coast of central Portugal; author note
5. Ribeiro O (2018) *Mediterrâneo; Ambiente e Tradição*. ed. Fundação Calouste Gulbenkian, 4ª ed., Lisboa, p 37
6. Ribeiro O (2018) *Mediterrâneo; Ambiente e Tradição*. ed. Fundação Calouste Gulbenkian, 4ª ed., Lisboa, p 46
7. It is important for the matrix definition of Europe, from the seventh century, this omnipresence of Islam, either because they occupied for many centuries vast regions of this same Europe, or mainly by its antagonistic character in front of a Christianity that wanted and would become hegemonic; author note
8. Here, only partially can be associated with English Protestantism, Anglicanism, because this for political reasons came to have its own features, features that did not separate it either from a clergy, but above all from a hierarchical royal authority; author note
9. The protestant doctrine affirmed as *Solus Christus*, that is, that Christ was the only mediator between God and men; author note
10. One of the reasons for this greater literacy in Northern Europe, is directly related to Protestantism, because the requirement that each person relate directly with God, implied a more individualized reading of the Bible, necessity that generally drove this fact; author note
11. Rykwert J (2006) *A Ideia de Cidade; a Antropologia da forma urbana em Roma, Itália e no Mundo Antigo*. (ed. orig. (1976)) editora Perspectiva, S.A: São Paulo, p XLI
12. Obviously, this Mediterranean specificity is not strictly limited to its physical geographical definition, but should be extended to effective cultural transition zones, areas that necessarily cover the South and a significant part of the coast of central Portugal; author note
13. Although the so-called Plan Cerda is today hegemonically matricial to the city of Barcelona, the truth is that this city maintains in many of its ancient places and in its experiences an organicity and diversity deeply linked to a characteristic Mediterranean living; author note
14. Although its matrix is generically Roman-Catholic, these cities are recognized as characteristics of rationalization that approximate them in a generic way to the most paradigmatic cities of the North; author note

Porto COVO: “New Cities” Urban Heritage and “New” Enlightenment in Southern Europe

Paulo Pereira  and João Firmino

Abstract

After the 1755 Earthquake, the reconstruction of Lisbon in the context of the government of the Marquês de Pombal (1750/1756–1777), adopted an urban planning formula with an Enlightenment matrix (Baixa de Lisboa: Manuel da Maia, Eugénio dos Santos, Carlos Mardel, 1756–57). Shortly afterwards, we saw the application and decline of this type of program in “new” cities, such as Vila Real de Santo António (Vila Real de Arenilha), in the Algarve (Reinaldo Manuel dos Santos, 1774). But it is also worth noting the incomplete creation of the small town of Porto Covo (Henrique Guilherme de Oliveira, 1794), in a process of internal colonization of the territory of Sines (Alentejo). Some radical options are then theorized, such as the one that José de Figueiredo Seixas (?–1773) proposes in his curious Treatise of Ruação, seventeenth century XVIII) or partially built, such as Manique do Intendente, near Lisbon (attrib. Fortunato de Novaes, 1791). In Brazil, broad territorial expan-

sion projects are highlighted, with new axes and expansions based on the Enlightenment program (Rio, Macapá, Mazagão, Vila Bela, S. João de Parnaíba, Portalegre...). It is a process that has antecedents and parallels in the actions of Carlos VII or Fernando IV, and in Italian urban proposals in the southern regions, such as, Santa Eufemia, Cortale, Seminara, Palmi, Mileto, Borgia, San Lorenzo, Servigniano or San Leuccio (c.1770–1800).

1 Introduction

The intersection of urban-territorial biographies is related, in this article, as one of the main methods of spatial approach. By comparing these two Mediterranean universes, it will be possible to conjecture a critical reflection on the condition of architectural practices carried out, essentially, in the second half of the twentieth century XX. Similar urban planning programs will be analysed here in theoretical, practical, geographical and cognitive terms. This article focuses precisely on the coastal housing constructions that populated both the Portuguese coast—with a focus on the Alentejo coast—and the Italian coast—with a focus on the south of the peninsula.

Even though we are faced with territories that have been continuously inhabited almost uninterruptedly since prehistoric times [1], something is urgent in the contemporary winds. The unbridled and uncontrolled economic growth achieved by

P. Pereira (✉) · J. Firmino (✉)

CIAUD, Research Centre for Architecture, Urbanism and Design, Faculdade de Arquitectura da Universidade de Lisboa, Lisbon, Portugal
e-mail: pjgp@netcabo.pt

J. Firmino

e-mail: joao.firmino@museusemonumentos.pt

the most recent stages of modern capitalism has its express manifestation in space and urbanism. Based on the critical exercise of the urban epistemological crisis that we are experiencing [2], our main objective will be to understand the condition—which we will understand here as posthumous, as we will see later—of the relationship in which the stated urban objects hold, nowadays, in relation to what these built clusters emanate.

The choice of cities with Enlightenment roots is justified by what is found below in this document. It will, however, be relevant to elucidate what is understood by the Enlightenment movement, as well as its relevance in contemporary times. «a critique of the dogma of progress and its corresponding forms of credulity, returns us to the roots of the Enlightenment as an attitude and not as a project In the midst of supermodernity, in the era of the acceleration of life and all its forms and expressions» [3, p. 39], it will be relevant, before trying to define an ideological-constructive tendency, to understand our contemporary condition. To this end, let us look at the work and words of Marina Garcés, in which the author invokes the insufficiency of the movements of the twenty-first century in relation to the present day: «In addition to the modernity that designed a future for everyone, and the post-modernity that celebrated an inexhaustible present for each one, our time is also that of the posthumous condition: we survive, one against the other, in a time that only diminishes» [3, p. 14]. History accelerates [4]. With her, life. However, we find ourselves faced with a condition that cannot be understood as alive. Part of an unsustainable economic system in which we, helplessly, survive: «The posthumous condition is [...] a death that does not cease, a condemnation that will not reach the end of time, that transforms itself into temporality.» [3, p. 34].

It is within this excess of the present that the need arises, as a community, to find a new ray of light that dictates the most correct path—or at least, the least erroneous—for us, as a community, to follow. It is therefore relevant here to revive some of the premises that were felt in the enlightened Europe of the twentieth century XVIII. We will see in the following chapters how these ideas were applied to space and territory during the

period mentioned. It is important for us here, however, to emphasize the Enlightenment not only as a utopian project for a human being who is no longer one—and perhaps never was—but rather as a matrix of positions and attitudes. As modernization programs reveal their own conditions and limits, a position is needed that critically addresses these same programs. Pay attention once again to the words of Garcés «precisely because it is a critique of the dogma of progress and its corresponding forms of credulity, it takes us back to the roots of the Enlightenment» [3, p. 39].

To try to narrow down our possibilities in the present century, a brief inquiry into what these coastal urbanities were and how they arrived at the present day will be relevant.

2 Brazil Builds

It can be said that before the urgency caused by the reconstruction of the capital city of Lisbon after 1755's mega-earthquake [5–9], the Portuguese Empire had already put into practice the precepts of a highly productive rational urbanism, independent of the Spanish *damero*, in actions of “external” colonization, such as those in Amazonas, and those in Mato Grosso (Fig. 1) [10–12] and more recently, the studies of Renata Melchior Araújo [11] prove this to us, as well as the effort in training engineers that resulted from the creation of Classes, or Schools, in the immense and gigantic colony. Paulo Ormindo de Azevedo drew attention to a fact that would occur: «It would be very interesting to analyze the reciprocal influences of these two Movements (...)» [10, p. 62].

The same could be said of some of the Italian ventures from the period of Spanish domination in Naples during the Bourbon dynasty (Charles III and Ferdinand V), which seem to be more derivative of prior knowledge of the Portuguese adventure in the jungle than a materialization of pure treatises, although with the contribution of the Iberian experiences of Andalusia and its new foundations. In this case, it is an “internal” colonization, like a moment (and a movement) of reflux, of what was experienced about twenty years earlier



Fig. 1 Amazonas colonization process (author's own image)

in the foreign colonial space of Hispanic America and the Portuguese Brazils (plural).¹

The process had been in the works since the time of D. João V. Beatriz Bueno says: «By calling on Azevedo Fortes to perform this function, D. João V aimed primarily to promote the mapping of Brazilian territory in order to support future negotiations with Castile, since the world map and the dissertation presented by Guillaume Delisle at the Royal Academy of Sciences in Paris in 1720—“Determination Géographique de la Situation et l'étendue des différentes parties de la Terre”—publicly indicated that the Colony of Sacramento was not part of Portuguese territory, as was previously thought. The results of the French surveys carried out by triangulation, with precise latitudes and longitudes, were thus a warning sign regarding future problems of sovereignty, forcing the King, ministers and technicians to become aware of the need to

study geography, triggering an entire process of exchange of men, treaties, atlases and instruments between Portugal and the model dissemination centers of that time.» [12, p. 115].

At this time, two astronomical observatories were also installed, one at the Colégio de Santo Antônio, led by Giovanni Battista Carbone (1694–1750), a Jesuit based in Portugal, who would assume a prominent role as an advisor to the king in all matters, and obviously in what was his specialty, astronomy. With Domenico Capassi and Francesco Mussara, who accompanied him on his journey to Lisbon in 1722, the king's intention was to commission him to carry out astronomical observations in South America—certainly as a result of cosmological and astronomical agreements, but also to help resolve the already long-standing problem of correctly calculating longitudes for the purposes of improving maritime navigation and, above all, in delimiting the territory of Brazil, in a dispute involving the crowns of Portugal and Spain.² Knowing about the work of the Society of Jesus, it is not surprising that, for example, in Italy, Ludovico Muratori cautiously referred in his work *Il Cristianesimo felice nelle missioni dei padri della Compagnia di Gesù nel Paraguai*, published in 1743, to the “reductions” of the Indians as a more human (and rational)

¹ Azevedo warns us: «we cannot compare Brazilian colonial urbanism, including that of the eighteenth century, with that of Hispanic America. These are entirely different facts, which reflect very different political, social and cultural contexts. The conquest and colonization of Spanish America were highly militarized and centralized. They represent the continuation of the movement for unification and national affirmation, with the expulsion of Moors and Jews, massacres and looting. It is, to a large extent, a process of domination, acculturation and reurbanization, as had occurred in the South of Spain, since the Aztecs and Incas were urbanized peoples.» [10, p. 63].

² Carbone would remain on the continent, and would be invested with the status of «royal mathematician»

process than a divine one in the configuration of the habitat valences that they contained as communes.

However, the largest survey campaigns would be carried out by “urban planning officials”, if we can call them that, since the work of the expedition sent by D. João V in 1750 was decisive—“*scientific-military expedition organized in Lisbon in 1750 for astronomical and geodetic studies in Portuguese America*” under the command of Miguel Ângelo Blasco (engineer, who would later become field marshal and chief engineer of the kingdom) and the team of foreigners who accompanied him, such as Johannes Andrea Schewebel (captain engineer), Gaspar de Cronsfeld, (or Gronsfeld) Manuel Fritz Gotz or the Italian Henrique António Galuzzi, one of the most industrious.

Renata Araújo points out that «the organization that took place in the sixteenth century was the basis on which all future structures that the region underwent were created. The map that Galluzzi drew with the division of the parishes served, in the nineteenth century, to delimit the municipalities created during the Empire. In the same way, the large captaincies of Grão-Pará and Rio Negro gave rise to the imperial provinces and, later, to the states of the Republic» [11, p. 111].

The new foundations were named after many other towns in metropolitan Portugal in a typically colonialist process, but they correspond to an unprecedented and very influential Pombaline urban reform in history. Araújo’s seminal study tells us about the central role that three of these great towns would end up playing: «Macapá is the most representative example of the reform project model, as an ideological program and as a form. It is the planned town, designed with a precise method (...) In the squares, in the names of the streets and in the urban form, one can read the allegories of the royal power that established the town. [...] More than that, the town is, in itself, an allegory of the city, in essence, that was intended to be created in the region.”; [...] Belém is the capital. The seat of power, the only city that actually has that title. [...] Vila Nova de Mazagão represents the utopia that nourished the urban Reform program. It is the village of the

non-colonists, of those who refused to take over the territory as a space for work and culture» [11, pp. 109–112].

3 New Spain in Iberia

For Spain, the *Nuevas Poblaciones* of Andalusia come from an impulse of “internal colonization” with an impact on the Sierra Morena and the area of Seville and Córdoba. This is the main reason for an experience that also had a social engineering character while promoting the economy or depended on it. At that time, there was experience from the foundations of colonial cities in Spanish South America and from the old *Ordenaciones*, then from Philip II, as we will see later.

The process of *Nuevas Poblaciones* began, however, in metropolitan Spain, and was intended for the wasteland and infertile spaces of the southern kingdoms or provinces, with urban planning outside this area, namely, El Ferrol/La Madalena, in Galicia, as early as 1762 (project Jorge Juan). He sought to attract foreign settlers, initially Flemish, German and Swiss. The workers of this process that can be considered reformist, led by the Bourbon monarchy, and in this case depending on the initial initiative of Charles III of Spain, included thinkers such as Pedro Rodríguez de Campomanes, Count of Campomanes (1723–1802), Miguel de Múzquiz, Pedro Pablo Abarca de Bolea. Count of Aranda, and the most vigorous ideologist and responsible person, who would become Intendant of the New Towns, D. Pablo de Olavide (1725–1803) [13, 14]. The headquarters was established in 1767 in La Carolina with a sub-delegation in La Carlota in 1768. In total, in the Sierra Morena³ and in the territory of Jaen—the *Nuevas Poblaciones* –, as well as in the *desierto* of Córdoba (between Ecija and Córdoba) and in the *desierto* of Moncolva, (between Ecija and Carmona)—the *Nuevos Estabecimientos* several parishes (which we can equate to cities) and 44

³ Aldeaquemada, Arquillos, Carboneros, La Carolina, Guarrmán, Miranda del Rey, Magaña, Montizón, Navas de Tolosa, El Rumblar y Santa Elena, with southern dependent “aldeas”, La Carlota/Luisiana, Fuente Palmera y San Sebastián de los Ballesteros and associated “aldeas”

villages were created. The terms of distribution of these clusters were stipulated in the *Foros de Las Nuevas Poblaciones* authored by Olavide, although the distances set out there were not always respected.

Some examples are of considerable urban monumentality, such as Arquidona (1780, designed by António Sevillano and Francisco de Astorga y Frias), or San José de Aguilar (later, designed by 1803), and in the meantime it is clear that the foundational practice was extending to other regions outside the limits established in 1768. However, around 1810 the population stabilized. In reality, new municipalities had been created and, although in some cases the towns founded did not survive, many became important places in the context of Inland Spain.

It is worth noting that some of the urban solutions may have, on the one hand, been influenced by the foundational work carried out by the Portuguese in Brazil and by the Spanish in the South American colonies, but it is also almost certain that they would come to influence the few new foundations that took place in Portugal, the most important of which, although incomplete, was that of Manique do Intendente, as will be seen later.

Overall, and taking into account the political situation of the reign of Charles III of Spain (r. 1716–1788) and Philip V of Spain [Philip I of Naples (r. 1751–1825)], Southern Italy would find itself facing a need for reconstruction that would have been inspired, in many aspects, by the Brazilian experience (as suggested by Eugenio Battisti [15]) and, above all, the Spanish experience.

4 Calabria Eighteenth Century New Towns

In Calabria and the densely populated Kingdom of Naples, the famine of the mid-eighteenth century and the oppression created by the restoration of the feudal power of the barony, although opposed by the monarch, did not prevent the excesses of those under Ferdinand IV. The backdrop was created for a crisis that worsened in 1783 with

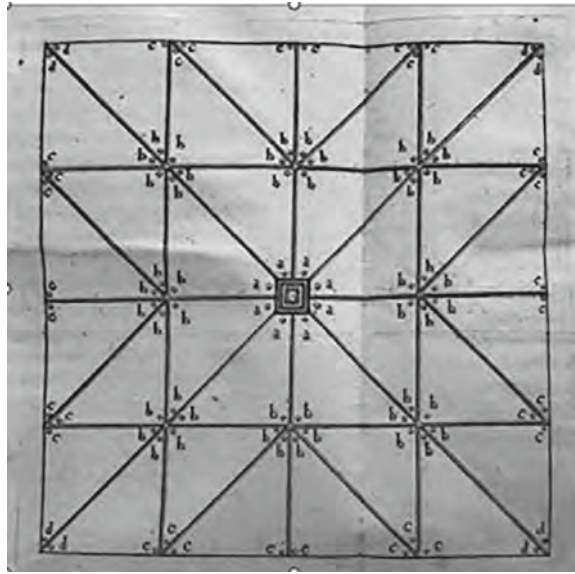
the terrible earthquake that victimized the entire region with a brutal impact. Its effect led the government to embark on a policy of reconstruction and promotion of new settlements, seeking to rebuild the foundations of a rural but productive society, essential to the wealth of the Empire. The New Southern Italian Foundations were born from this process.

However, they were rather guided by rationalist and non-ideal solutions, despite a geometrically and rigorously calculated organization, bringing together in these proposals the solutions attested in different parts of Italy, namely in Sardinia, but not only, also inspired by initiatives carried out in the New World. Immediately, in 1783, the campaign to create or reform settlements was launched.

It should be noted that Monsignor Giovanni Francesco Maria Cacherano di Bricherasio (1736–1812) will propose a curious scheme, if we wish, to call it fully neoclassical and antiquity-like, in what is called "Agro Romano" (Fig. 2). It is not difficult to believe in the influence of the Spanish procedures of the *Fueros de Olavide*, looking at the organization of the settlements of the "Nuevas Poblaciones" and the theoretical hypothesis of di Becherasio. In this, a city center or similar, with a square plan (metaphorically, orthogonal) dominates a territory determined by a solid reticulated centuriation, one would say imperial and Roman, with interdependent villages and the due distribution of settlers, the so-called *Piano de Popolazione*, brought into existence late, in 1785, but certainly in gestation before the Calabrian Earthquake of 1783.

There was already a very serious reflection on cities in Italian treatises and in philosophical writings that would influence, throughout the eighteenth century, the design options for the creation of regular cities and orthogonal urban planning in the Italian Peninsula, with earlier solutions—in fact one of them influencing the reconstruction of Lisbon—such as that of Turin, and with repercussions in the proposals for Trieste. The names of many of the thinkers, and architects in some cases, who helped to create a dispersed matrix but with considerable effect, including in the expansion of consoli-

Fig. 2 Project Agro Romano by Giovanni Francesco Maria Cacherano di Bricherasio, 1785 (Biblioteca Nazionale Centrale, Firenze—Public Domain)



dated cities or their alteration, are known, such as Ludvico Antonio Muratori (1672–1750) or Giovanni Carafa di Noja (1715–1768),⁴ but not forgetting, with vigor, the fundamental role that we would find in the foundation of the unavoidable Francesco Milizia, and his influential treatise *Principi di Architettura Civile* (1781), which marked successive generations of architects [16]. Demarcating itself from the Baroque, it moves towards more literary than technical propositions for questions of ideal beauty, tending towards balance and the reconfiguration of the very concept of “landscape”, where the need for a return to Greco-Roman purity emerges in a curious dialectic.

For the city, although it is aligned with polygonal plans in order to satisfy the needs of fortification, it proposes regular layouts and perpendicular streets in a grid of grids based on proportion, controlled subdivision and construction in keeping with the nobility to be imposed on the urban organism, understood even, following

Marc-Antoine Laugier (1713–1769) whose writings it was directly influenced by, as a forest (“*una città è come una foresta*”).

This process affirms the rationality of the urban form and its functionality. Something that the Enlightenment had embraced with vigor. In this process of rebuilding *Calabria Ultra*, the monarch, Ferdinand IV, did not dispense with the advice of his closest expert in economic matters, a mercantilist, Ferdinando Galiani (1728–1787). In the manuscript of this advice that remains to us, we can see the indications that will be reflected in the Instructions for Engineers commissioned in Calabria later in 1786, of controversial authorship, also in manuscripts (Biblioteca Nazionale di Napoli, Bibl. Prov., MS 66). The solution for the construction of new cities in new places owes much to these documents and the thinking associated with them, and to which are added the treatise-like reflections of his younger brother Berardo Galiani (1724–1774), who published (in 1758) and commented on Vitruvio’s *De Architectura*.

In response to the Calabrian devastation of 1783, these were the solutions found for the new cities, many of them by Vincenzo Ferraresi (1741–1799). In this context, the “new” foundations of Gallina (Sant’Agatha in Galina) (1783), Palmi (proj. De Cosiron, 1783), Santa

⁴ Lione Pascoli (1674–1744), Giovanni Gaetano Bottari (1689–1775), Francesco Orsini von Rosenberg (1723–1796), Pompeo Neri (1706–1776), Angelo Tavanti (1714–1782), Giovanni Francesco Pagnini (1714–1789), Francesco Maria Gianni (1728–1821), Leonardo Ximenes (1716–1786) or Giovanni Fabbri (1752–1822).

Eufemia di Sinopoli, Bagnara, Borgia, Seminara, Mileto, Cortale Superior (by all: proj. Vincenzo Ferraresi, 1783), Bianco, Filadelfia (formerly Castelmonardo, proj. Giovanni Andrea Serrao, 1783–1787), Reggio Calabria and the innovative proto-industrial settlements of San Leucio (in the north), Cervia and Campomaggiore Vecchia. At this time, as Clementina Barucci points out [16], Milizia’s writing would refer to a «system of armed walls with wood», based on Antiquity. «An analogous system of online architecture, which is *impiegato* greater than the Lisbon building after the earthquake of 1755, the cage or the Pombaline gabbia, named after the Minister Marchese of Pombal (1699–1782) who presided over the city’s rich building» [16, p. 251], a type of structure that would be used in Calabrian buildings and which appears illustrated in the 1758 edition of Vitruvius by B. Galiani.

It is worth noting that the plans of some of the cities drawn by Ferraresi were published by Giovanni Vivenzio (1747–1819), a court physician and author of *Istoria e teoria de’ tremuoti*, from 1783, and a curious parallel can be found with the publication of the important *Tratado da Conservaçam dos Povos* by the Portuguese. Private physician to Catherine of Russia, António Ribeiro Sanches (1699–1783), as an appendix to the 1757 edition, after the mega-earthquake in Lisbon and which contains considerations on the founding of cities in a more generalist key, following Vitruvius and Alberti alone. The pages dedicated to earthquakes are part of the scientific literature of the Enlightenment period.

5 Manique do Intendente (Azambuja)

Indeed, Manique do Intendente [17]. It was founded in 1791 but with the death of its promoter in 1805, the construction process was abandoned. The authorship of the layout is attributed to Joaquim Fortunato de Novais, whose biography is unknown, apart from having studied in Rome, certainly around the year 1785, with a grant from the Intendant Diogo Pina Manique (1733–1805), head of the police and fierce opponent of the ideas

of the French Revolution, who intended to found a spinning mill here and the city would be the desirable framework for the necessary population, creating an urban and industrial hub in this area of the moorland between Alverca and Azambuja, served by canals and rivers.

Cátia Marques [18] reconstructed the layout of Manique do Intendente. With good arguments, he puts forward two alternatives for the overall layout, both suggesting the planned existence of a second square, with the central axis of the urban block being the Palace-Church and the road leading to it (Fig. 3). Even more than the expression of the building, it is important to highlight the program here. Vast and ambitious, one would say utopian [18].

This would follow an inspiration that unfolded in the various “new cities” of Calabria, among them San Leucio (1773–1794), designed by Francesco Collecini, and promoted by Charles III’s minister, Bernardo Tanucci, (later implemented during the reign of Ferdinand IV), an industrial complex intended for the manufacture of silk with interdependencies between functions assigned to various buildings, such as the *cuculliera*, for raising silkworms, the cowshed, the *canetteria*, the housing wings for the workers, and the Palazzo Belvedere itself, restored and reconstructed.

It can also be placed in parallel with the new Portuguese cities founded in the Amazon and Mato Grosso, some of which with the assistance of Filipe Strum, such as Silviz and the fascinating Serpa (BNP), [19] the latter with clear parallels with Manique, given its hexagonal square (twice the diameter of its European counterpart) (Fig. 4).

Now, a similar process is already taking place in Manique. Not so much the pattern that, precisely, Cátia G. Marques detected in the surrounding cluster of the main square and palace, but rather the large portion of agricultural land, duly divided into lots, which is located to the north of the town. The orthogonal regularity of the land division that served as the basis for the establishment of farms maintained by Azorean migrants is clear, and the measurements of these lots indicate the existence of a base grid with a side of half a

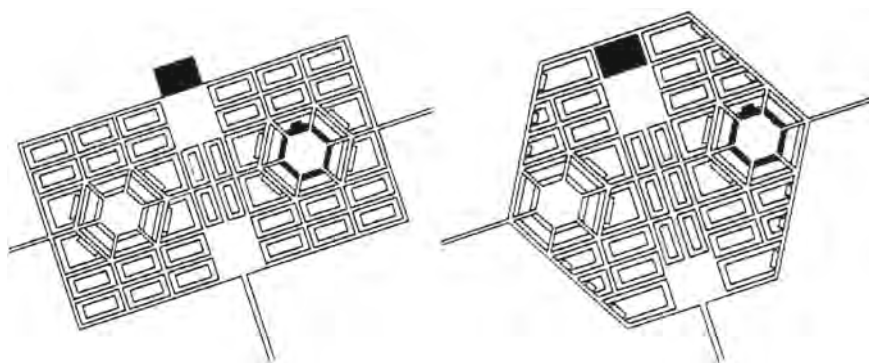


Fig. 3 Alternative proposals for the urban layout of Manique do Intendente according to Cátia G. Marques. In black, the completed segments (adapt.) (<https://estudogeral.uc.pt/handle/10316/24309>)

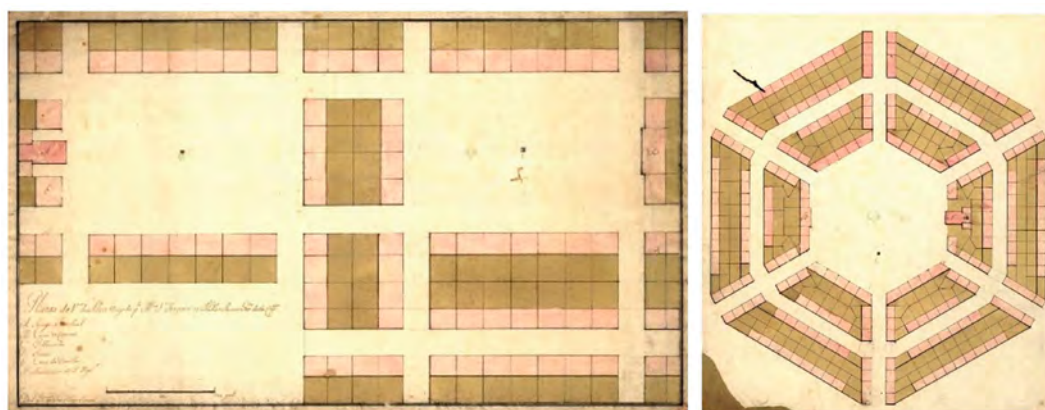


Fig. 4 Plans of Siliviz e Serpa (Amazônia), designed by Filipe Strum (Biblioteca Nacional de Portugal—Public Domain)

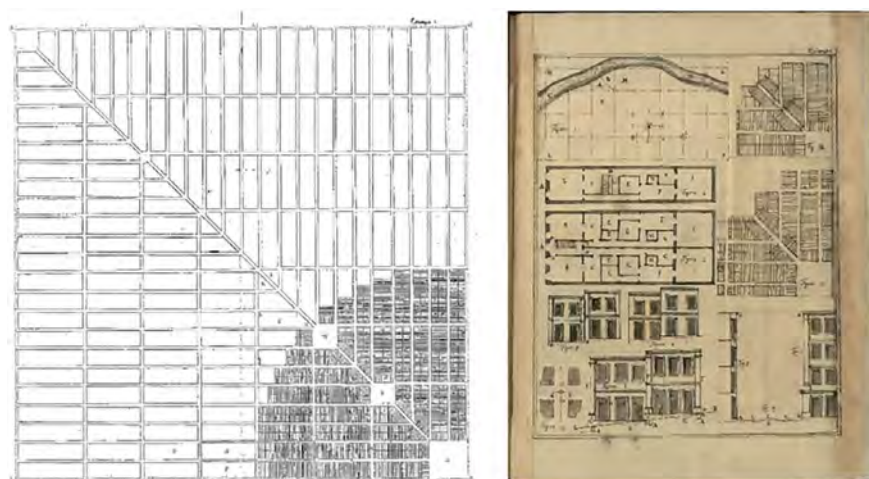


Fig. 5 José Figueiredo Seixas, *Tratado de Ruação*. Draining system (left) and parcels and plots, elevations and plans (direita) (Biblioteca Nacional de Portugal—Public Domain)

league. The toponym of the area or place is also eloquent: “Quebradas”.⁵

At the time, or a little earlier, a Portuguese treaty that remained in manuscript to be, certainly, improved and completed, adopted a geometrically rigid scheme of territorial division as a proposal for the integral registration of the kingdom of Portugal: the *Tratado de Ruação* (Treaty of the “Streets”: a twisted translation) by José de Figueiredo Seixas (act.1732/1734–1773), dated around 1762 [20, 21]. In this treaty, with a frankly “utopian” incidence, the proposal for cadastral registration is put forward, in which the entire territory, at different scales, including regions, agricultural fields, roads, cities and streets, is subjected to a process of cartographic abstraction of Cartesian matrix [22]: «and in this way, the entire Kingdom being demarcated by equal squares, it will look like a checkerboard, and each square in itself demarcated with the regular corresponding plots divided with squares, streets and roads, will look like a garden» [21, p. 138] (Fig. 5).

Regarding Seixas, we cannot forget the most well-known Spanish literary-urbanistic “utopia”, which was very possibly known to Seixas, Fortunato de Novais and Diogo Pina Manique.

6 Porto Covo

If Lisbon inaugurates an urban planning formula, which, although not completely new, constitutes a “centralized” paradigm that tends towards the standardization of “street” systems (soon theorized in works such as those of José de Figueiredo Seixas), we soon see the extension and numerous declinations of this type of program to other “new” cities or (new parts of) old cities, such as Vila (Vila Real) de Santo António (de Arenilha), in the Algarve (1774, Reinaldo Manuel dos Santos) [23]—the most direct heir of the reconstruction of Lisbon—Porto Covo (eighteenth century, Henrique Guilherme de Oliveira).

To obtain a valid understanding at an urban planning level, a historical-urban analysis of two towns will be carried out in a systematic

manner. The original plans for each of the locations will be studied, what was—or was not—built within the Enlightenment and—implicitly—utopian proposal; as well as a contemporary critical reading of the methods on which the most recent constructions are based.

In the last years of the twentieth century XVIII, an urban planning test with an admittedly Enlightenment character was then put into practice. According to the practices of the time, this was carried out by the bourgeois Jacinto Fernandes Bandeira (1745–1806), judge of the Palace, owner of the Porto Covo Palace (completed 1793) in the Lapa district of Lisbon, pre-romantic mythological signs of its abundant income (project by Joaquim de Oliveira, and allegorical frescoes by Cyrillo Wolkmar Machado with a Pompeian flavour). Considering the growing importance of the place that today is Porto Covo, as a coal port—a relevance that would have been developing over the most recent centuries, Jacinto Bandeira will then acquire the “Herdade de Porto Covo” for one thousand and two hundred thousand réis. In a royal registry dated July 12, 1794, the establishment of a modest urbanization in the Alentejo province is reiterated. In this same document, a map is mentioned, António Quaresma [24] will assume that it is a *Mappa de configuração do terreno e Porto Covo quie se pertêde Habitar, e Cultivar e a Planta da Nova povoação de Porto Covo* (Map of the configuration of the terrain and Porto Covo which belongs to Inhabit and Cultivate, and the Plan of the New Town of Porto Covo). These are some of the few graphic references we have about the village of Porto Covo until the emergence of photography.

The Fig. 6 shows a place that never was. Henrique Guilherme de Oliveira, an architect integrated with the Enlightenment-Pombaline urban planning premises and techniques, proposes organic organicity in which intimacy and the relationship with the soil are maintained. The caption shows the different expected functionalities in relation to the economic activities that were intended for the place: warehouses for coal and fishermen, barns, public buildings, town hall, as well as the respective equipment: market, inn, and also the residents’ homes, the latter having a

⁵ To be read as, “parcelas” or “fracções”.

greater presence. In the central blocks you can see the Church, facing Praça do Pelourinho, and the Hospital facing the opposite square. We are faced with symmetrical squares, regulating an orthogonal layout, which will fall back on Renaissance ideals.

Also pay attention to the touch of the urban plant with the cliff. Following coastal fortifications as a response to corsair harassment, this object is understood as pragmatic.

However, according to Quaresma, the sketched design could not even be properly constructed as it does not correspond either in form or scale, nor in the layout of the town, to the existing space. It is interesting, however, that this rationality is applied to abstract assumptions, disregarding the understanding of the geomorphological conditions of the territory.

The Spaniard José Cornide, in 1799, 5 years later, would mention, according to Quaresma the «12 to 14 small houses called Porto Covo due to a cove formed between two cliffs of land and ending in a sandbank to which a stream runs down» [24, p. 45].

Even though there were objective plans for the occupation of the space in the colonizing endeavor of coastal Alentejo, the texts and notes written by various authors in the following years (Frei Manuel do Cenáculo, 1794 and the José Cornide, 1799) have little to say about the recent location of Porto Covo. There are only brief references made to a warehouse and the excerpts focus essentially on the coal capacity of the Alentejo port. According to Quaresma [24, p. 37] the second author also mentions «and it is brought [the coal] from the interior of the country by trucks from Campo de Ourique and other parts». The most interesting aspect is precisely the contact maintained with the hinterland, inserting the represented location into a larger reference system, going beyond its own dimension.

The dynamism of trade on the Alentejo coast will be particularly increased. Nevertheless, with the birth of this new town, located practically in the center between Sines and Milfontes, «it was part of an economic reform that sought to increase national production and reduce dependence on foreign countries. And just like that town, it was

associated with an Enlightenment urban planning intent» [24, p. 39].

In Fig. 7 (not signed, not dated, not to scale), it is possible to observe a pragmatic rationalization of the territory. Areas designated for each type of crop (cereals, rice, olive groves and vineyards), as well as scrubland—for the purpose of extracting wood and pastureland. It also refers to a water mill and it is possible to see the *casas dos guardas* and the *caza da venda*, used, respectively, for coal and wine. Also note the existing representation of Pessegueiro Island and the Fortress. Its fanciful nature implies that the author would not have on-site knowledge of the space he would be representing.

7 Cidade Nova de Santo André

If Porto Covo was left incomplete—and very much so—other times emerged on an unexpected horizon.

In 1971, it was decided to create a deep-water port with a value of −28, “hydrographic zero”, in the Bay of Sines, north of Porto Covo and immediately at the tip of Sines, where the bay is home to a very old village and a medieval castle. If medieval and late medieval Sines is an interesting but partial example of regulated urban planning, the installation of the port would require the creation of a new town, intended for the workers who worked there for a 10-year cycle, to later become a residential city for the countless workers of the project.

The port began to be built in 1973, and after several vicissitudes related to decisions of annexed industries and changes in the political cycle with the end of the Estado Novo dictatorship, the project became an essential point for accessing deep-draft vessels to the western European coast. After the cycle of thermal energy production and large refineries, the port essentially serves as a large container depot and has several liquid bulk and petrochemical terminals.

We find ourselves facing a modified, humanized and industrialized landscape, of great impact, and even with “monumental” elements, in the sense of their gigantic size: «Large piers were needed, and the sedimentary gabbro of Monte

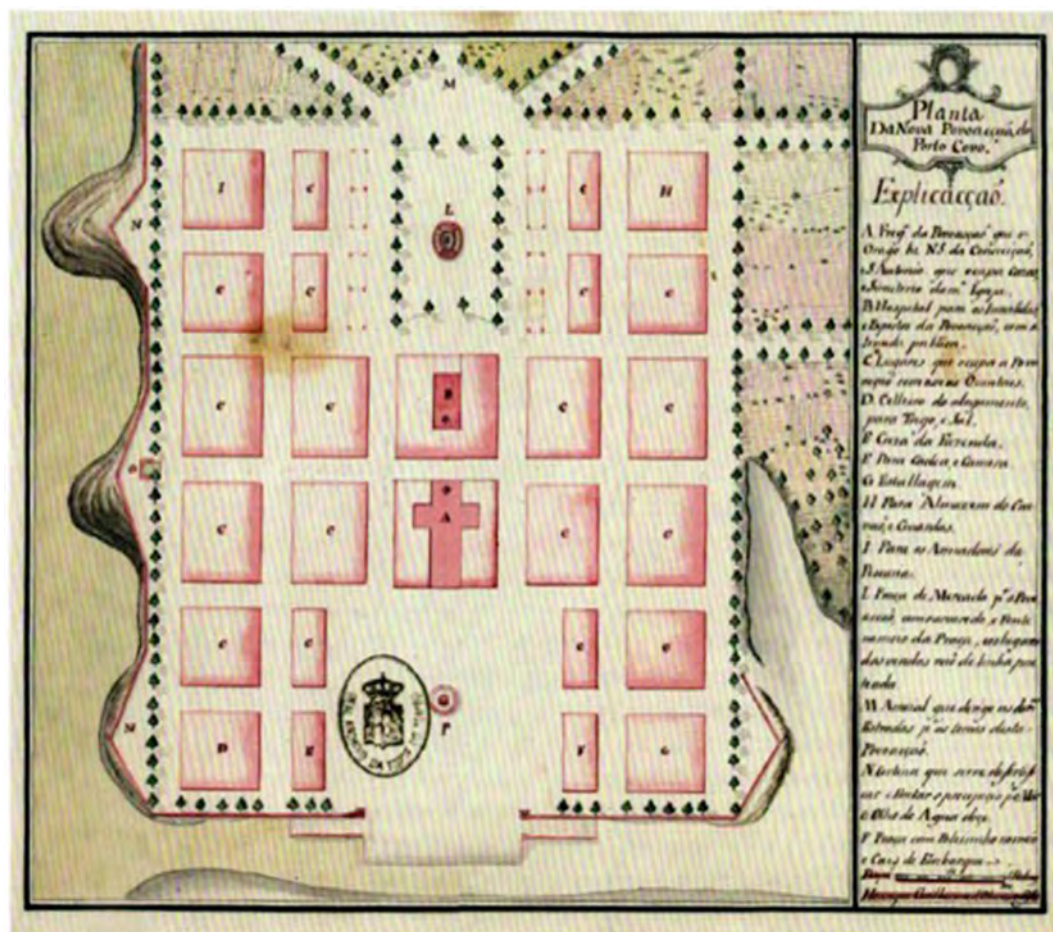


Fig. 6 Plan for Porto Covo (Arquivo Nacional da Torre do Tombo—Public Domain)

Novo came as particularly important for the endeavor. A curious aspect must be recognized: the gabbro that allowed the first agricultural settlement of Neolithic communities became the same basis where contemporary land use for industrial settings and even mining activities developed. As Mumford puts it, agriculture “creates a balance between wild nature and man’s social needs,” while he considers mining as a “disorganized and inorganic” (Mumford, 1961, p. 450) destructive agent. Understanding of that landscape—as it exposed all the megaliths that we are now cogitating upon.

The granitic gabbro responsible for providing prehistoric communities with the much needed land fertility—and therefore survival, now acts

differently, in a worldly manner, but also quite similar as a dramatic return and curious twist, since the same gabbro is the constituent of both the landfill and of the structure sustaining those great pillars that enable industrial activity—thus providing a new and different life to the landscape» [25, p. 280].

The newly needed village is located north of the town of Sines and the Port of Sines and in line, inland, with the town of Santiago do Cacém. Its name derives from the old village of the same name, now approximately 3 km away from the new parish, and from the Santo André Lagoon, which today constitutes a Nature Reserve. But the “city”, with the status of a parish, is now imposing itself on the landscape of the Sines hinterland.

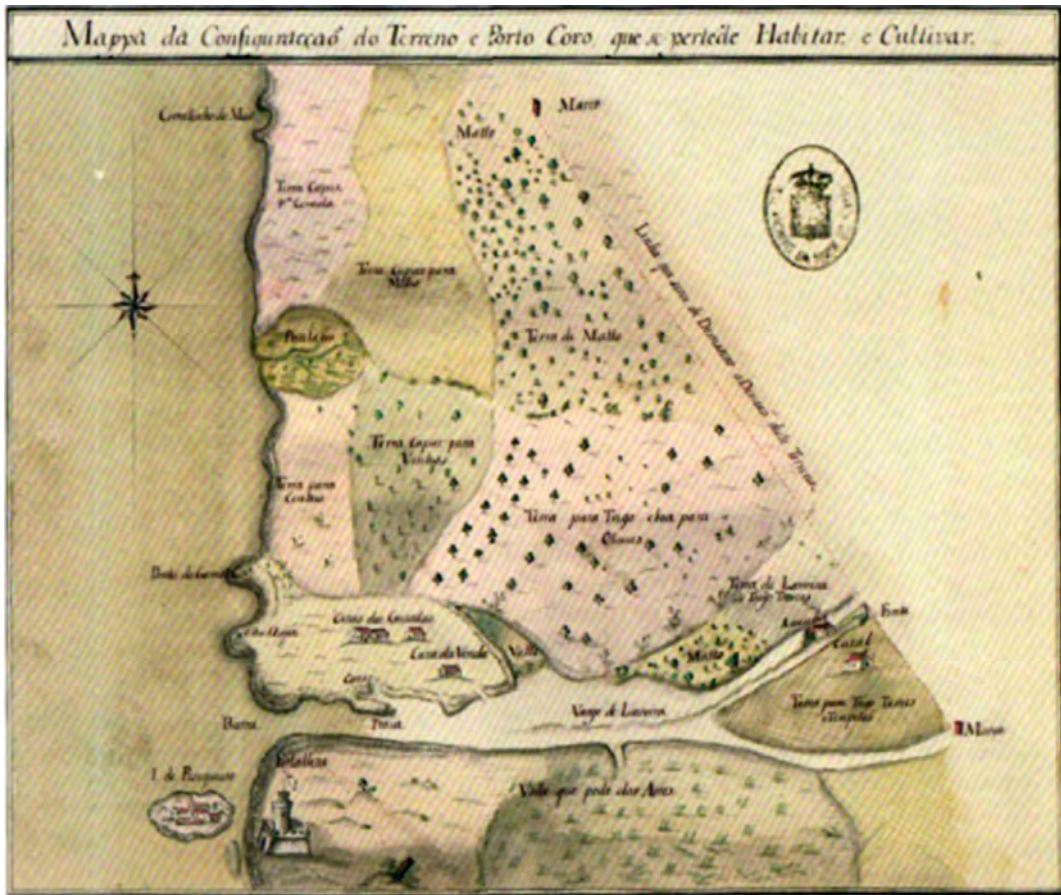


Fig. 7 General plan of the area surrounding the city (Arquivo Nacional da Torre do Tombo—Public Domain)

Its planning dates back to 1973 and was based, at the time, on the most modern metric and mathematical calculation methodologies, already translated into the computational environment, with its first person responsible being Architect Guilherme Cândia Martins, one of the fathers of the project in view of the possible choices. He would later be joined by the dean of Portuguese urban planners, Arch. Faria e Costa (1906–1971). Later, in a more advanced phase of development of the design and the beginning of its construction, the architect Silva Dias (b. 1930) [26, 27] took over the definition of the area, subdivision, fabric and urban grid. The interventions in the various components of the construction phase depended on the order, with each area/neighbourhood, with its respective subdivision and expression, being

by different authors (we here follow the study of Ana C. V. Henriques).

It is home to around 10,000 inhabitants, almost all of whom are involved in port, industrial and logistics activities, despite being located on agricultural land, constituting a small semi-rural metropolis. In this aspect, its assumptions are similar to the new eighteenth-century foundations, and it has the same value in terms of spatial settlement.

But the only intention is to add some critical thought, of observation and not of contestation—far from it—to the current options, especially because this is not a generic city” or a spontaneous and random informal process... Thus, constituted within the New City there are many other small “villages”, with at least 11 neighbourhoods: Bairro Azul (1972–1973, Faria e Costa),

Flores (c. 1974–1978), Atalaia Norte, Atalaia Sul (1974–1978, project by Silva Dias), Pôr do Sol (1974–1978, Ilva Dias) Torres (beginning in 1978), Serrotes (c. 1980, Ruy d’Athouguia), Bairro Petrolgal (beginning in 1976), Porto Velho (1978, with Vassalo Rosa), Liceu (GTH, 1978–1979), Panteras (c. Pica Pau (1978–1982, Paiva Lopes), Horizonte (1982), Pinhal (1982, Tomás Taveira), and Parque Central (green zone, in fact the only one contemplated). Kevin Lynch, as Silva Dias recognized, it is worth recognizing the maintenance of some curiously persistent elements in the creation of a new urban fabric (Fig. 7).

One of them is the predominant structuring of space according to a cardo-decumanic system, here only with a distributive and pragmatic purpose. These two axes act as a disciplinary element, as occurs in “new” enlightened cities. But from the outset, the dynamics of post-industrial gregarious urbanism will naturally impose different logics. What can be said is that the New City as a whole acted as a settlement plan through a multi-centre scheme. In effect, based on a conception that is intended to be homogeneous, a radial scheme is created, formatted by the highway, creating urban pockets in which the urban fabric differs. Several neighbourhoods are thus created, with different urban design assumptions, and by different architects, creating considerable polynuclear variability. These neighbourhoods are like “villages” added to the “intendencias” of the “nuevas poblaciones”.

We know we exaggerated this comparison/contrast (Fig. 8).

8 Final Reflections: Ghosts of a Future, Past Enlightenment

The urban experiences revisited throughout this text, focusing on the Alentejo Coast and passing through the Latin-Mediterranean universe and part of the “New World”, all present a rationalist and humanist intention—from both a social and dimensional point of view—and of appropriation of the territory: principles that sought to harmonize the disposition of human beings in time

and space. However, these urbanities are nowadays essentially obliterated by all modern industrialism or consumed by unbridled tourist movements, or even in a state of abandonment and collapse. Using Garcés expressions, one could say that Enlightenment motivations are in their posthumous state. Fossils of a bygone era.

In the village of Porto Covo, conceived within a rational and geometric settlement, its unfinished Enlightenment status faces the urban organicism corresponding to the fishing needs of the place, which in turn clashes with the most recent subdivisions destined for single-family housing units, villas. Meanwhile, Sines and the entire industry that revolves around it, is reborn as the neoliberal antithesis of its own design. A landscape conceived with a logic of logistical and material efficiency, in which the human scale inevitably becomes secondary; calling into question the very logic that frames it.

In the twentieth century, with the foundation of the urbanization of Vila Nova de Santo André—founded with the purpose of housing new industrial workers—it emerged as a bastion of the contradictions present in the optimism of modern urbanism. We are faced with a construction that, on the one hand, presents, in its intention, the aim of creating a “new city”, much in the image of the Enlightenment experiences, on the other hand, it moves away from its design genesis, abandoning the orthogonality of the blocks. We find ourselves before a city whose spirit is dead—or perhaps was never born. The urban multicentrally plan succumbs to an ad hoc expansionism that promotes a stratification of the communities present. A parochialism that, when read as a whole, does not fulfil its function as a significant agent. A disoriented territory whose population exists only as a reference to the lifestyle of its surroundings, making it difficult for it to rescue or find a meaning that fulfils it.

What we are left with are precisely ghosts of a past enlightenment. Attempts at rational application of cadastral systems (league by league as previously mentioned) on the territory evolve and are readapted to the needs of capital. This rampant and seemingly endless neoliberal growth absorbs and digests Enlightenment prac-

Fig. 8 Actual plan Cidade Nova de Santa André by Ana Carolina Varanda Henriques. Red showing the mentioned neighbourhoods (<http://repositorio.ulsiada.pt/handle/11067/3774>)



tices—but not premises—and regurgitates them back to the population, not necessarily serving the population that will be affected by them. The social cohesion and urban harmony so sought after by Enlightenment thought subsists today in a reduction of urban strategies as a zoning and control tool.

It will also be relevant to address the issue of scale. Something that was expertly addressed and considered in the Enlightenment proposals—see the dimensions and the way in which the areas are distributed in the various urban proposals presented throughout this document—which is now lost.

We have not only a direct confrontation between the intimate routes originating from the medieval and late medieval period with the inhuman scale verifiable in the various industrial areas (each of the three main industrial areas mentioned occupies a lot whose area is equal to or greater than the city of Sines itself).

Not only is the late medieval heritage placed in conflict, but the entire Enlightenment urban heritage—quite proliferate on the Mediterranean coast—with industrial hyper development.

The territorial equity was, at least, an intention of the Enlightenment authors—with the attempts to integrate the hinterlands (Brazilian towns, the *poblaciones* of Andalusia, etc.) through the colonizing grids in the territory; it is lost in urban modernism whose main concern today is global infrastructure—with the need to create new accesses to new pilgrimage sites—which ends up fragmenting the territory, as can be seen in the desolate layout of the city of Vila Nova de Santo André, a city that is, in its entirety, a suburb.

This work is financed by national funds through FCT—Fundação para a Ciência e a Tecnologia, I.P., under the Strategic Project with the references UIDB/04008/2020 and UIDP/04008/2020.

References

1. Silva CT, Soares J (1981) Pré-História da Área de Sines. Gabinete da Área de Sines, Lisboa
2. Brenner N, Schmid C (2015) Towards a new epistemology of the urban? *City* 19(2–3):151–182
3. Garcés M (2004) Novo Iluminismo Radical. In: Orfeu Negro Lisboa, pp 14–39
4. Augé M (2018) Não Lugares: Introdução a uma antropologia da sobremodernidade. Letras Livres, Lisboa
5. França JA (1966) Lisboa Pombalina e o Iluminismo. Imprensa Nacional da Casa da Moeda, Lisboa
6. França JA (2004) O Pombalino e o Romantismo. Presença, Lisboa
7. Gonçalves C, Helena CB (2005) O Grande Terramoto de Lisboa. Gradiva, Lisboa
8. Moita I (ed) (1982) Exposição Lisboa e o Marquês de Pomba, vol 3. Museus Municipais de Lisboa, Lisboa
9. Teixeira M, Valla M (1999) O Urbanismo Português (Séculos XIII—XVIII). O projecto de Manuel da Maia. Caleidoscópio, Lisboa
10. Azevedo PO (1998) Urbanismo de Traçado Regular nos Dois Primeiros Séculos da Colonização Brasileira. In: *Colectânea de estudos 1415–1822. Comissão Nacional para as Comemorações dos Descobrimentos Portugueses*, Lisboa, pp 39–70
11. Araújo RM (1998) As Cidades da Amazônia no Século XVIII: Belém, Macapá e Mazagão. Faculdade de Arquitectura da Universidade do Porto, Porto, pp 109–112
12. Bueno B (1998) A Iconografia dos Engenheiros Militares no Século XVIII: Instrumento de Conhecimento e Controlo de Território. In: *Colectânea de estudos. 1415–1822. Comissão Nacional para as Comemorações dos Descobrimentos Portugueses*, Lisboa, pp 87–118
13. Barrado Delgado JM, Cueta Aguilar MJ, Félez JA et al (2019) La cartografía histórica como instrumento de análisis territorial. El caso de las nuevas poblaciones de Sierra Morena (Jaén, España). In: Domínguez JAM, Llamas Chávez JL (eds) Hélices y anclas para el desarrollo local. Universidad de Huelva, Huelva
14. Hamer-Flores A (2019) Más allá de nuestras fronteras. Un mapa de las Nuevas Poblaciones de Sierra Morena impreso en el siglo XVIII. *Boletín del Instituto de Estudios Giennenses* 219:59–73
15. Rosso del Brennam G (1998) Storia della Città Storia delle Utopie, de San Leucio all’Amazzonia Pombalina. In: *Colectânea de estudos 1415–1822. Comissão Nacional para as Comemorações dos Descobrimentos Portugueses*, Lisboa, pp 71–86
16. Barucci C, Corsani G, Palazzuoli PL (eds) (2020) Principi Urbanistici Degli Stati Italiani dalla Metà del settecento alla restaurazione, Storia dell’urbanistica III, 12. Edizioni Kappa, Roma, (ref.), p 251
17. Calado M (2008) Praças Reais em Portugal. Projectos, realizações e influências. In: Faria M (ed) Praça Reais. Passado, Presente e Futuro. Horizonte, Lisboa, pp 229–238
18. Marques CG (2004) Manique do Intendente. Uma vila iluminista, Tese de Mestrado, Faculdade de Ciências e Tecnologia da Universidade de Coimbra, Coimbra
19. Planta da Villa de Serpa erigida pelo Ill.mo Sr Joaquim de Mello e Povoas Gov.or desta Cap.nia (...) por Strum F “BNP, AHU, “Rio Negro”, caixa 1, doc. 62 (CDU 918.1–17(084.3) 912”17”(084.3))
20. Moreira R (1989) Seixas, José de Figueiredo. In: Pereira JF (ed) Dicionário de Arte Barroca em Portugal. Editorial Presença, Lisboa, pp 443–444
21. Moreira R (1984) Uma utopia urbanística pombalina: o tratado de ruação de José de Figueiredo Seixas. In: *Pombal Revisitado*, vol II. Editorial Estampa, Lisboa, pp 131–144
22. Gomes LM (2006) Geometria nos traçados urbanos de fundação portuguesa: o Tratado da Ruação de José Figueiredo Seixas. Tese de Mestrado, Instituto Superior de Ciências do Trabalho e da Empresa, Lisboa
23. Horta Correia JE (1997) Vila Real de Santo António. Urbanismo e poder na política pombalina. Faculdade de Arquitectura da Universidade do Porto, Porto
24. Quaresma A (2023) Porto Covo—O Iluminismo no Litoral Alentejano. Câmara Municipal de Sines, Sines, pp 37–45
25. Firmino J (2025) Territories metamorphosis and landscape interpretation throughout the Holocene in Alentejo’s Western coast. In: Kong SM, Monteiro MR, Neto MJP (eds) Creation, Transformation and Metamorphosis. CRC Press, London, pp 277–281
26. Henriques ACV (2017) O plano urbano da cidade nova de Santo André: da ambição à realidade. Universidade Lusíada de Lisboa, Lisboa, Tese de Mestrado
27. Martins CG (2020) Santo André. Planeamento de uma Cidade Nova, Conceitos e métodos. Caleidoscópio, Lisboa

Fernando Távora in Guimarães: Urban Project and the Maturity of a Concept for Preserving Historical Heritage

Fernanda Vierno de Moura 

Abstract

The city of Guimarães played a central role in Fernando Távora's practice during the 1970s and 1980s. In addition to the rehabilitation of the Convent of Santa Marinha da Costa (1972–85) and the “Casa da Covilhã” (1973–76), the architect also developed the General Urbanization Plan (1979–82), advised the Local Technical Office (GTL), and carried out projects such as the restoration of the “Casa da Rua Nova” (1984) and the rehabilitation of four squares in the historic centre (1983–95). In 1980, he gave a lecture on the concept of heritage and the value of the degraded medieval area, emphasizing the importance of its preservation. By then, Távora had already contributed with a Study for the recovery efforts in the Ribeira-Barredo area of Porto and had consolidated his stance on built heritage, treating the rehabilitation of historic buildings as a “tweezer-like work”. Among the external influences on his approach to urban intervention, the ideas of the Milanese school stand out, reinforced by his five trips to Italy between 1947 and 1964, as well as the promulgation of the Amsterdam Declaration (1975), an international document that introduced the concept

of “integrated conservation” following the successful case of Bologna. The outstanding intervention in the historic centre of Guimarães found in Távora its driving force, an aspect this article seeks to explore.

1 Introduction

The city of Guimarães played a significant role in the practice of architect Fernando Távora during the 1970s and 1980s. In addition to his proposals for the rehabilitation of emblematic buildings—such as the Convent of Santa Marinha da Costa (adapted into a hotel between 1972 and 1985) and the “Casa da Covilhã” in Fermentões (1963–1988)—Távora also developed the PGU (Plano Geral de Urbanização, or General Urbanization Plan, 1979–1982) and advised the city's GTL (Gabinete Técnico Local, or Local Technical Office) in managing urban planning for the historic centre. His contributions included major projects such as the restoration of “Casa da Rua Nova” (1984) and the rehabilitation of four central squares (1985–1992).

By this time, Távora had already consolidated his principles for intervening in built heritage. In addition to his ongoing work in Guimarães, he had already undertaken other interventions in historic buildings, including his own residence, “Casa na Foz do Douro”, in Porto (1950–), “Casa de Além” in Lousada (1956–1967), and “Casa da Igreja in Mondim de Basto” (1958–1961) [1]. He

F. V. de Moura (✉)
Centre for Architectural Studies (CEARQ), University of
Coimbra, Coimbra, Portugal
e-mail: fernandavierno@hotmail.com

also provided consultancy services during the first two years of the Ribeira-Barredo rehabilitation program in Porto (1975–1976), which was based on his 1968–1969 *Study for the Urban Renewal of Barredo* (ERUB). According to former collaborators from his office, rehabilitation was, for Távora, a “delicate task”, akin to working with tweezers, in order to preserve the structural integrity of the historic buildings he intervened in. His approach, seen as extreme at the time, even defended maintaining structural inclinations as long as they did not compromise stability—an intervention method that ensured authenticity but was unfortunately not adopted after his consultancy ended in Porto.

Beyond his practical experience, Távora’s theoretical maturity in the fields of architecture and heritage preservation was also shaped by his attentive observation of international practices, particularly in Italy. Between 1947 and 1964, he visited the country five times, during which he was exposed to the ideas of the Milanese school of the 1950s and 1960s. These served as both a model and an inspiration for addressing similar architectural challenges in Portugal, allowing him to avoid the bucolic and vernacular styles endorsed by the Salazar regime [2, p. 102].

Among the Italian influences in his work, one of the most significant was the urban rehabilitation plan for the historic centre of Bologna, initiated in the 1960s and strongly implemented from 1969 under the leadership of architect and urban planner Pier Luigi Cervellati. This project became a landmark for urban rehabilitation policies in European cities. Another notable reference was the restoration of the “Castelvecchio” Museum in Verona, led by the renowned Italian architect Carlo Scarpa from 1957 to 1975. This intervention harmonized the castle’s historical architecture with modern elements, creating an exhibition space that balanced the old and the contemporary [3].

Távora’s concept of urban intervention was also deeply influenced by the reflections of Italian architects who emphasized preserving urban morphology, historic lots, and building typologies. Among his key references was Aldo Rossi, who, in *L’Architettura della Città* (1966), chal-

lenged modernist paradigms of the ideal planned city. Rossi proposed a vision in which the city is an artifact shaped by its continuous history, arguing that preservation fosters urban continuity and identity. He highlighted the importance of identifying fixed and rational elements in history to reinforce the character of a place, landscape, or monument.

This article aims to explore Távora’s approach to intervening in Guimarães’ historic centre, emphasizing the uniqueness of his work in the Portuguese context. His method was multidisciplinary, involving an integrated operation across three scales: the territory, the urban space, and the urban lot. The intervention was carried out within an intermediate timeframe and was heavily reliant on private-sector participation in rehabilitating the built environment. A key element in its implementation was the “Integrated Rehabilitation and Revitalization Plan for the Historic Centre of Guimarães”, whose guidelines were derived from the city’s General Urbanization Plan. This was an urban project in which territorial planning concepts were juxtaposed with historical heritage preservation strategies.

2 On the Preservation of Historical Heritage

On May 2, 1980, the same year the General Urbanization Plan was being developed, Távora gave a lecture in Guimarães on the concept of heritage and the importance of its preservation. He emphasized the value of the medieval area, which contained deteriorated buildings with the potential to become high-quality housing, and argued that heritage appreciation should extend across the entire city. He also stressed the need to foster modern architectural value, which was, at that time, still absent in Guimarães.

At a time when the recognition of so-called “minor” heritage was still evolving, Távora argued that the concept of heritage went beyond national monuments, encompassing everyday buildings—an idea in line with the 1964 Venice Charter. He highlighted that the destruction of historic urban landscapes creates a sense of instability in people

and that preserving Guimarães' architectural heritage did not mean conserving underdevelopment. On the contrary, it stimulated a comprehensive social revaluation, addressing the physical, psychological, financial, and social aspects of urban life.

Távora also underscored the importance of heritage education in raising public awareness of collective responsibility. He maintained that before any intervention, it was crucial to clarify fundamental questions such as "What is heritage?", "Why preserve it?", and "How should it be preserved?". For him, preservation should not mean stagnation but rather the dynamic appreciation of historical assets in harmony with the city's evolution. The issue of heritage conservation is linked to a problem of creativity, to a problem of creating new heritage. The concept of heritage is one that should evolve as the city evolves [4].

This approach balanced individual interests—such as those seeking to modernize their buildings—with the enhancement of collective spaces, including the expanding city. It advocated a global perspective on urban planning. The PGU sought to extend architectural quality beyond the historic centre, avoiding fragmented urban landscapes. As an example of this vision, Távora cited his project for the Convento da Costa, in which he adapted an old building for new functions, incorporating contemporary elements without compromising its architectural identity.

3 The General Urbanization Plan

The General Urbanization Plan of Guimarães, developed by Fernando Távora and Alfredo Matos Ferreira, aimed to regulate "forms of promoting the orderly growth of the urban fabric and the protection of the surrounding landscape and environment, with the goals of improving the quality of life of its inhabitants and preserving its heritage" [5, p. 2]. It was referred to as a "General Plan" because it was conceived as "above all, a synthesis plan, in which efforts were made to reconcile unity and variety, the general and the particular, function and design, reality and imagination, the past and the future" [6, p. 4].

Commissioned in 1979 by Guimarães' first democratic municipal government, the plan was developed alongside the establishment of the Office for Urban Planning and Management to oversee its implementation. Completed in three years, it comprised written documents (Descriptive Report and Regulations) and graphic materials, produced with the collaboration of architects from Távora's studio and specialists in various fields, such as economics, sociology, urban history, and engineering.

The plan did not cover all 73 parishes of the municipality due to economic disparities and disorganized urban occupation. Instead, its scope followed Decree-Law 328/72, encompassing the city's core, the Veiga de Creixomil, and Pavidém, while also planning for the development of secondary centres such as Vizela, Taipas, and São Torcato. The objective was to ensure their autonomy, preventing uncontrolled urban sprawl and its associated negative impacts.

From its inception, Távora advocated for simultaneously developing detailed plans for areas of the city with a certain unity. As a result, 12 detailed plans were created, developed in collaboration with other architects selected by him. These plans defined road layouts, building heights, preservation guidelines, and public space arrangements. The historic centre was placed under his exclusive responsibility.

The alternation between the general view and the specific one was one of the fundamental principles of this plan, reflecting the methodology always present in Távora's works: first, urban conditions for different city zones were established; then, detailed plans and volumetries were developed; and finally, specific architectural interventions were proposed.

The PGU also expanded the concept of heritage, including not only classified monuments and buildings but also everyday urban and rural elements, such as simple constructions and natural landscapes.

In the study of the territory, great emphasis was placed on the values of urban form, analyzed both in its current configuration and its pre-existing condition. This analysis was carried out by a large team, which investigated the city's growth over

time. The work involved creating maps representing this transformation, with special attention to the Roman period and the formulation of hypotheses. For this purpose, the current city map was used, and from this, buildings were progressively removed in the graphic base—first the 20th-century buildings, followed by those from the nineteenth and eighteenth centuries—until, through a regressive method, the original land configuration was reached [7].

This diagnosis of urban growth processes allowed Távora to reinterpret the city's history and make his proposals. He developed urban restrictions for different areas, defining construction zones and volumes aimed at ensuring the correct reading of the pre-existing fabric, measures that were somewhat rigid but intended to ensure order and harmony in the modern city within a logic of continuous modernization.

The plan also included the creation of an external circular road to connect various urban centres, facilitate access to the main roads of the municipality, and provide future linkage with Porto. Furthermore, it aimed to remove traffic from the city centre. Fernandes [8, p. 184] highlights that Távora considered the disorderly expansion that began in the medieval era along routes emanating from the city walls, which resulted in a linear and dispersed growth, in contrast to the compact core of the walled town. His plan sought to reorganize this morphology, creating a new, cohesive, and recognizable urban entity.

4 Consultancy on Public Projects and Urban Management

In the 1980s, the historic centre of Guimarães was in an advanced state of degradation, marked by abandonment and poor housing conditions, with public spaces in the streets and squares being used as parking lots, to the point that the area was considered the “garage” of the city. This situation resulted from the post-war accelerated urbanization, the return of Portuguese from former colonies, and facilitated mortgage credit, which spurred real estate speculation and rising rents in the cities. To curb this increase, the govern-

ment froze rents in 1974, but this measure harmed property owners, who faced difficulties in maintaining their buildings, exacerbating urban decay [9, p. 34]

The lack of financing and the impact of rental laws prevented the rehabilitation of the historic centre, a situation that only changed in the following decade with the presence of European investments and new urban recovery policies.

It was in this context that the General Urbanization Plan of Távora and Matos Ferreira emerged, and, as mentioned above, the guidelines for the historic centre were included in one of the detailed plans. These guidelines were outlined in the document titled “Urban Renewal Plan for the Central Zone of Guimarães”, developed in August 1981.

In January 1982, the General Urbanization Plan was delivered, but it was not implemented due to changes in government strategies for the region, which prioritized the development of the provisional norms of the Municipal Master Plan, whose guidelines covered the entire municipality.

Nevertheless, in October 1983, the mayor, Manuel Ferreira, invited Távora to discuss the creation of the Historic Centre Office, with the participation of architect Alexandra Gesta. He became the Consulting Architect for this office, conducting four monthly visits to the Municipal Headquarters, where he guided studies, issued technical opinions, and set guidelines for the team.

In July 1984, at the request of the City Council, Távora received a letter from the Ministry of Housing and Public Works requesting an “Integrated Plan for the Rehabilitation and Revitalization of the Historic Centre of Guimarães”. As a consultant, he carried out several urban rehabilitation projects that integrated this plan, consolidating principles already present in the PGU. Among the first, the Project for the Rehabilitation of Praça do Município stood out.

In 1984, Távora also coordinated the recovery of Casa da Rua Nova, preserving its spatial typology, original structure, materials, and construction techniques. The intervention followed a meticulous method, without detailed plans, contrasting with the common practice of the time to “destroy the old façade and make one in concrete “more or less similar”, as happened

with the building now known as the Hotel da Oliveira and with houses restored by the National Monuments [10, p. 111]. Távora referred to this type of meticulous intervention as “crutch architecture”. In his project, the windows were kept in their original form, only with shutters, without the introduction of glazed frames, and the old tiles were reused, being cleaned and reattached with copper clamps, with the only innovation being the addition of a waterproof membrane beneath them.

Based on the structure created for the Historic Centre Office in 1983 and the success of the rehabilitation of Casa da Rua Nova, the City Council eventually supported, in 1985, the creation of the GTL (Gabinete Técnico Local, or Local Technical Office), under the implementation of Decree 4 SEHU 85, with financing from the PRU (Programa de Recuperação Urbana), a Government program for Urban Recovery, renewed every three years upon the submission of work results. The GTL, led by architect Alexandra Gesta, pursued four fronts: interventions in municipal buildings, interventions in public spaces, support for private initiatives, and technical monitoring of works in private properties. The organization established by the Central Government provided for the creation of inventory sheets, essentially creating a safeguard plan. However, due to limited resources, the decision was made to prioritize direct monitoring of interventions, solving cases individually. This model ensured the continuity of the GTL until 2007, when the system was abolished in Portugal. The strategy involved the gradual decentralization of management, granting the GTL autonomy to define standards for rehabilitations and to act directly in the licensing of works in the historic.

Távora’s consultancy for the Guimarães City Council lasted until 1989. His work in the city reflected a distinctive approach to handling heritage. He paid meticulous attention to the details of the built environment, from paints and woods to door finishes, and also showed concern for the city’s development, for how it grew. Thus, what can be termed the “Rehabilitation Plan for the Historic Centre of Guimarães” was based on

the premise of having a historic centre continuously integrated with the city, a functional urban unit, even if morphologically differentiated and maintaining its formal specificity [11, p.12]

5 The Urban Project in Guimarães

Under the consultancy of Távora, the GTL expanded its role to develop its own projects. After the rehabilitation of Casa da Rua Nova (1984) and Praça do Município (1985), interventions were carried out in spaces such as Praça de Santiago (1990) (Fig. 1), Largo João Franco (1994) and Largo da Condessa de Juncal (1995) (Fig. 2), the latter two developed within Távora’s office. These revitalizations aimed not only to recover historical characteristics but also to reestablish the connection between different temporal layers of the city.

The development of these projects can be considered the true “Plan” that the architect created. It is an Urban Project, which can be defined as a strategic action plan. Initially, general guidelines are established through the General Urbanization Plan. Then, detailed plans are developed, which do not draw the architecture but outline it through general definitions of areas and volumes. Next, projects are developed for the historic centre, including interventions in public spaces, culminating in the exemplary rehabilitation of an urban lot. The strategy is maintained throughout the process, with the Municipality responsible for controlling the architecture to be developed at each stage. This control takes place through the urban management of the GTL, which oversees project licenses and provides technical support for works carried out by private property owners. It is a scale of information around the broader purpose of continuously rehabilitating the historic centre of the city.

A defining characteristic of Távora’s work is the conception of the city and architecture as a continuous experience. In his writings and professional practice, he emphasized this integration, avoiding a rigid separation between the fields of Architecture and Urbanism.



Fig. 1 Praça de Santiago (Photo by the author)



Fig. 2 Largo da Condessa do Juncal (Photo by the author)

Távora's Plan placed the recovery of the historic centre within a broader urban plan, covering not only the historical fabrics within the walls but also industrial expansion areas and neighborhoods from the 1930s-40s. Fundamentally, it rejected urban sectorization, preventing

the recovered historic centre from becoming an isolated and functionally distinct space. The goal was to ensure the spatial continuity of the area with the rest of the city.

This set of actions aligns with Manuel de Solà-Morales' definition of "Urban Project" [12].

It is defined as having complex content, overcoming the mono-functional use, user, and design proposals (plazas, highways, building typologies). Additionally, it operates at an intermediate scale between architecture and planning, where urban and architectural scales are interconnected, and urban architecture is delineated independently of building architecture. It is also achievable within a limited timeframe of a few years and produces territorial effects beyond the intervention area, with significant public investment components and multifunctional programs aimed at collective use.

Solà-Morales established these principles from an analysis of a series of works by modern architects who made committed interventions in existing cities, in a direction distinct from the proposition of new and alternative cities. While he does not mention Fernando Távora, we can certainly include the Portuguese architect in this “other modern tradition”, as seen in projects that Távora previously developed for complex urban contexts, such as the project for Avenida da Ponte in Porto in 1955, the project for the civic centre of Aveiro in 1962–68, and the (unrealized) Study for the Urban Renewal of Barredo in 1968–69.

6 Final Considerations

The successful rehabilitation of Guimarães’ historic centre had Fernando Távora as its principal theoretical and design reference. As Aguiar [13, p. 1] recalls, the model adopted by the Gabinete Técnico Local was pioneering in Portugal, prioritizing the “conservation of urban heritage” in contrast to the “urban renewal” of the 1960s and the “facadism” approach prevalent until the early 1980s.

Despite the financial limitations of the 1980s, the methodology adopted proved flexible, dispensing with a formal Safeguard Plan and evolving into a Management Plan, which remains in effect today.

The execution of public projects coordinated by Távora also served as a strategy to encourage owners of deteriorated buildings to undertake restoration works, thus reducing the need for

expropriations and direct municipal investments. Unlike other cities, such as Porto and Bologna, which resorted to these resources, Guimarães invested in a model of negotiation with property owners and architects, restricting cadastral changes such as the “coupling” of houses and the increase in the volume of buildings, and also banning demolitions followed by concrete reconstructions. These guidelines not only preserved the medieval urban structure but also prevented real estate speculation in the area, ensuring that the intervention was “a process of maintenance and not of substitution of the existing,” as largely happened in the Barredo operation in Porto [13, p. 3].

Another distinguishing feature was the integration between rehabilitation and participatory management. Throughout the process, the City Council organized public debates with architects such as Álvaro Siza, Eduardo Souto de Moura, Gonçalo Byrne, and Távora himself, seeking to share international experiences, ensure transparency in public investments, and involve the population in preserving the city’s identity values. This approach reinforced the idea that the rehabilitation should not transform the historic centre into an isolated space, but keep it integrated into the urban dynamics [14].

It is important to recall here the concept of Integrated Conservation, which matured after the emblematic experience in Bologna and was widely discussed in the 1970s. This principle is part of the 1975 Amsterdam Declaration, promulgated by the Committee of Ministers of the Council of Europe. Although not explicitly mentioned in the project report, Távora’s strategy for the rehabilitation of Guimarães’ historic centre reveals an approach consistent with this concept, articulating the conservation of historical heritage with urban planning and emphasizing the need to consider both the Historic Centre and the periphery when seeking urban solutions.

Integrated conservation is the result of the combined action of conservation techniques and the search for appropriate functions. Historical evolution has led to degraded centres of large cities and, at the same time, abandoned villages becoming reserves of cheap housing. Their restoration should be carried out in a spirit of

social justice and should not lead to the exodus of all residents of modest means. Integrated conservation should, therefore, be an essential premise in urban and regional planning [15].

Between the beginning of the PGU preparation and the completion of the fourth revitalized square in the historic centre, 16 years passed. During this time, urban management was tested and deepened under Távora's coordination. This methodology matured and continued in force for many years thereafter.

The importance of this ongoing work was so great that the UNESCO architect responsible for the report that approved Guimarães as a World Heritage Site in December 2001 required the Mayor to ensure that the Gabinete Técnico Local (now the Historic Centre Division) remained and continued to regulate interventions in the historic centre, under the threat of not granting the designation. To this day, the influence of this office remains evident, as it continues to guide the Municipality on what is permissible in the area [16].

The General Urbanization Plan was essential in defining the guiding principles for urban rehabilitation implemented by Fernando Távora in partnership with the Gabinete Técnico Local in Guimarães. Thus, we can say that, although it was not officially approved in 1982, the concept of the PGU was certainly put into practice and guided the entire process of rehabilitating Guimarães' historic centre.

References

1. Ferreira Cunha, T., Ordóñez-Castañón, D., Fantini, E.: *Novo - Antigo, Fernando Távora: obras*. FAUP/ Afrontamento/Fundação Instituto Marques Silva, Porto (2023).
2. Liverani, G. *Contesto e Progetto: Influenze Italiane sull'architettura di Fernando Távora*. Ph.D. thesis, Università di Bologna, Bologna (2017).
3. Bricolo, F.: *Carlo Scarpa and the story of Castelvecchio. Narrative analysis of the Sculpture Gallery*. In FAMagazine. Research and projects on architecture and the city, july-december 45/46. Università di Parma. Parma (2018).
4. Amaro das Neves, A.: "Do Património e da Sua Defesa, por Fernando Távora". *Memórias de Araduca Blog*, Guimarães, Apr 24, 2018. <http://www.araduca.blogspot.com/2018/04/do-patrimonio-e-da-sua-defesa-por.html>. Accessed 3 Dec 2025
5. Távora, F.: *Plano Geral de Urbanização de Guimarães - Regulamento*. Fundação Instituto Marques da Silva, FIMS_FT_0207, Porto (1982).
6. Távora, F.: *Plano Geral de Urbanização de Guimarães - Memória descritiva*. Fundação Instituto Marques da Silva, FIMS_FT_0207, Porto (1982).
7. Oral report by the architect José Bernardo Távora on November 20, 2024
8. Fernandes, E. *Encontrar o futuro na história. O Plano de Urbanização de Guimarães (Fernando Távora, 1982)*. In: Atas da 5ª Conferência Internacional da Rede Lusófona de Morfologia Urbana. PNUM 2016 - Os espaços da morfologia urbana, pp 177–187. Guimarães (2016).
9. Oliveira Lopes, D. *A Reabilitação Urbana em Portugal-Importância Estratégica para as Empresas do Setor da Construção Civil e Obras Públicas*. Master's thesis, Faculty of Economics of the University of Porto, Porto (2013).
10. Frazão, M. "Conversa com Miguel Frazão". In Cunha Ferreira, T., Ordóñez-Castañón, D., Fantini, E. (eds) *Novo-antigo, Fernando Távora: conversas*, pp 106–121. FAUP publicações, Porto (2023).
11. Gesta, A. *Gabinete Técnico Local de Guimarães: Uma experiência original*. Cadernos Municipais: Revista de Acção Regional e Local 7(37), 11–18. Lisboa (1986).
12. Solà-Morales, M. "The urban project". In: Zardini, M. (ed.), *Manuel de Solà. Progettare città/Designing Cities*. Electa, Milano (1999).
13. Aguiar, J. "A experiência de reabilitação urbana do GTL de Guimarães: estratégia, método e algumas questões disciplinares". In: Morais, M., Vaz, M. (coord) *Guimarães: património cultural da humanidade - cultural heritage of mankind, vol II*. Câmara Municipal de Guimarães, Guimarães (2002).
14. Oral report by the architect Ricardo Rodrigues and archaeologist Paula Ramalho on January 31, 2024
15. Council of Europe. *The Declaration of Amsterdam*. Congress on the European Architectural Heritage, Amsterdam, October 21–25 (1975).
16. Oral report by the architect Miguel Frazão on November 28, 2024

Luso-Italian Constellations. Overcoming the Consolidated Heritage

Stefanos Antoniadis 

Abstract

Manipulating objects with the gaze without being able to touch them, rearranging found elements according to new relationships, abstracting their form from their origin, and practising cosmography; these may seem like far-fetched, enigmatic formulas, remote from our lives and time, with no practical application and of doubtful utility. Not so. These are operations that belong to us and have existed since the dawn of time, when man looked up at the firmament and, setting aside the nature of celestial bodies, traced virtual lines between them, drawing mythological figures and noble animals. Idleness? Creative whim? An idle exercise? Not at all: Embellishing the celestial vault made it possible not only to formulate magnificent tales but also to establish civilised values, measure time, orient oneself at night across unfamiliar terrain, and navigate without losing one's bearings. In the same way, one can approach Lisbon, Olisipo, and discover counterintuitive dynamics, apparent yet profound links, subtle yet evident cross-references, and physical, geographical, and cultural trian-

gulations in a Luso-Italian cosmology—not without its Greek component—a pillar of our Western culture.

1 Down with Truth!

In the times in which we live, the fact that we no longer lead an existence under perfect and incorruptible pre-Copernican crystal spheres or determined by pure Platonic innate ideas has become, to put it mildly, more than a shared feeling. Terms such as truth, objectivity, origin, genealogy, identity, and heritage have—fortunately—gradually eroded to the point of accepting more open and tolerant abstractions. However, a few neo-realist and neo-modernist tail twists persist in support of an immanent truthfulness that is out there, that resists despite everything. Without falling into the apologia of weak thinking and the cultural marketing of “everything is valid”, in this redefinition of paradigms that also and above all involves the city as the main expression of our civilisation, it becomes helpful to engage in the twofold healthy exercise of confrontation and measure. It matters little to take sides for the original, the primitive, the true, or for the later, the derived, the exported with varying degrees of deviation: what matters is to be able to read the fragments of the contemporary, rewrite them in metric and thus trace ever new constellations for a growing, open, and tolerant society.

S. Antoniadis (✉)

Lisbon School of Architecture and CIAUD—Research
Centre for Architecture, Urban Planning and Design,
Lisbon, Portugal

e-mail: stefanos@fa.ulisboa.pt

To tell the truth, this virtuous propensity is not reduced to an exclusively contemporary convenience but constitutes the soul of an advantageous metaphysical approach—in the Popperian sense [1]—that underpins ante litteram the scientific thinking already in the archaic and classical ages, which can and should be helpful to today as well, as whenever there is a need to update paradigms. “It is true that Popper defines science as the class of verifiable propositions, but far from banishing metaphysics, he thinks that uncontrollable metaphysical speculation is an early stage in forming bold, more controllable conjectures” [2, p. 52]. The beating motions of confrontation are founded—as far as we are concerned—on that damnable but mighty Western predilection for the phenomena of optics, which is not reducible to the praise of appearance or the propensity for superficiality; on the contrary: it is the ability and technique to control form. There is no doubt that in the constitution of knowledge, the refinement of theories and techniques for observing light projections (starting with Plato’s Myth of the Cave), similarities, analogies, homologies, and homotheties have played a decisive role. It was by observing the possible relationship between objects of a different nature and scale that Thales was able to calculate the height of the pyramid of Cheops, although we have no evidence to ascertain whether the Greek mathematician had provided a conscious explanation for this [3, p. 37]; similarly, Pythagoras, observing the tiles of a floor,¹ understands the fundamental relationships of right-angled triangles at the basis of disciplines such as topography and surveying; moreover, it is evident that in Galilei, considered the father of modern science, formulations are more a matter of appearance than assertion, or rather: intuition, observation, and description of facts coincide in a single act transcending the use of instrumentation—a crude telescope—and behavioural practices—a stakeout of only five months [4, p. 53]—effec-

tively insufficient to support an entire paradigm [5] that only later, with the development of new ancillary scientific disciplines and methods of analysis, would find truly valid and rigorous (we would say “true”) evidence to support it. After all, the ability to weave conscious relationships between things, whether of formal correspondence or cause-effect, has always differentiated us from beasts. When the first human beings look up at the vault of heaven at night, they do not retrospectively investigate the origin and true nature of celestial bodies. On the contrary, with apparent incongruity and superficiality—so much so that they literally flatten the entire universe—they engage in extravagant comparative games between animals and points of light, moreover with such a degree of abstraction that it is challenging—for us contemporary individuals sadly unaccustomed to this type of operation—to recognise an ox or a horse in a handful of stars. With a certain amount of genuine and poetic disregard for the truth, it mattered little whether a point of light was a white dwarf, a red giant, a pulsar, another galaxy at a sidereal distance, a planet, or an asteroid. It mattered little whether the celestial bodies, when measured individually, were of incomparable size to each other. What was important was to draw lines, triangulate remarkable points, and draw. And we would be mistaken if we thought that this was a mere embellishment of the sky or a pastime: it was the production of a form, it was cosmography—putting order in chaos –, it was manipulating things “without being able to touch them” (we still cannot touch the stars) in such a way as to construct stories and references useful for not getting lost during a nighttime journey through the glades, for not losing one’s way in navigation, for measuring harvest time, for imprinting and transmitting memories and values (Fig. 1). The same triangulation games that today underpin the algorithms that enable—for example—facial recognition in the most sophisticated digital and artificial intelligence applications.

It is with this in mind that we should train our “conscience of the eye” [6] in the face of complex phenomena such as the extraordi-

¹ In this case, we are talking about legend, but this is of little importance as it once again highlights the nature of speculative observation and consequent simple intuition.

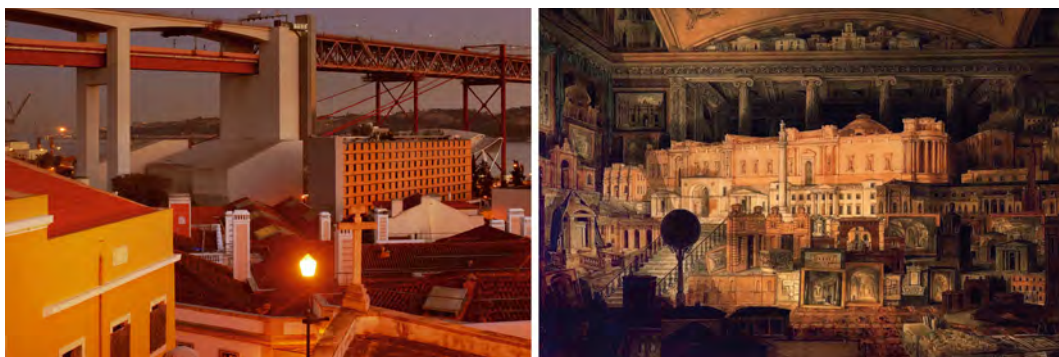


Fig. 1 The built landscape as heritage. (Left) *Architectures of Alcântara*, Lisbon, Portugal, from the parvis of the Santo Amaro Chapel (photograph by the author, 2021). (Right) *Architectures of Sir John Soane*

(original title *Architectures.—in the English style.—of the XIX Century*), watercolour by Joseph Michael Gandy, 1818 (detail). Source Wikimedia Commons, public domain. Composition by the author

nary and powerful relations between peoples and cultures, favouring the prospective afflatus too often eroded, when not crushed, by the retrospective investigation of things and people.

2 Nothing is Heritage, Everything is Heritage

The interference of disciplines and retrospective visions in reading our physical and cultural geographies is a reasonably evident assumption, especially in Italy. In this case, simplifying, it seems that the old enjoy, per se, a fast track to the attribution of value. This relatively consolidated approach is often not confronted with a systematic and multidisciplinary evaluation of knowledge transfer and ends up—as we all know—in a self-referential constraining mechanism built more on definitions and crystallisations than on interpretations and potentialities. To continue with the felicitous celestial metaphor, instead of mapping out constellations, one delves into the rigorous cataloguing of planets and stars without bothering too much about composing a form and, more often than not, even expecting celestial bodies to stand still. Preserving, tying up, and blocking are all typical operations in the patrimonial sphere. Many times, in a process of exaggerated distillation of what is heritage, one ends up in the most serious misunderstanding of the modern state: exchanging

ends for means. In addition, there is probably another, perhaps more interesting and not unrelated one: the consolidation of a specific type of value recognised and sought after by the masses, underlying the fomentation of this uneducated and insensitive global tourism. A phenomenon that resumed as it was, if not with greater intensity, after the Covid-19 pandemic (despite those who claimed that nothing would be the same as before) and that spread like a swarm across Europe to see, in a nutshell, the same things. In a kind of restoration of medieval spatiality, represented as a simple and single line rather than as a network,² the traveller knows only points A (departure) and B (destination) of their pilgrimage. Exactly as the tourist moves through the Portuguese capital nowadays from the Castle of São Jorge to the Tower of Belém, basically ignoring what lies on either side (as well as overloading the 15E tram line).

The harbour landmarks along the Tagus River on one side and the objects that dot the Margem Sul—with the possible exception of the Cristo Rei—on the opposite side, all fundamental vocabularies that contribute to the formation of Lisbon's contemporary landscape, are not taken into

² A spatial perception and fruition in which the two polarities of the route are known, while everything that exists in the portions of the plane not intercepted by the line on which one moves is denied, in a certain sense, existence in both the mental and physical map of places (often placing the famous inscriptions *hic sunt leones/hic sunt dracones*).

account at all. Finally, it is pointless to be surprised if this vision of cultural heritage also generates doubtful and contradictory stresses on such founding values of our civilisation as property, public use, state property, and inhabiting: as long as we persist in using terms borrowed from law and economics to define something cultural instead, a dangerous manipulation of reality³ is at least guaranteed. Exemplifying this is the Italian case, inconceivable to many foreigners, in which the coastal heritage, in this case, the maritime state property, has been transformed into the uninterrupted occupation of the beach by private establishments downstream of a much-debated system of concessions. It is evident that the driving force, as well as the goal, of every establishment, is money and profit, and not the protection of the landscape as a value nor the transfer of a related legacy of knowledge.

Yet if there is one thing that recent—and current—crisis scenarios (among others, the Covid-19 pandemic and the conflicts in Ukraine and the Middle East) have taught us in the field of cultural heritage, it is precisely a revision of the concept of heritage [7, pp. 45–46]: habitually little-considered architectural and formal devices (banal terraces, movable veranda enclosures, ordinary patios of apartment blocks with concrete conglomerate seating between common hedges and every other feature of the much-criticised residential neighbourhoods of the 1970s to the banal IKEA bookcases) were suddenly elevated to providential and indispensable places and forms for the living metabolism and mental health of citizens. At the same time, monuments, museums, institutions, schools, and places of thought were eclipsed or were, in any case, mortified by questionable implementation provisions that favoured dog grooming in university departments, hideous signage, barriers and generally horrendously anti-aesthetic devices. The war conflicts only further stress these paradoxes: even the most basic daily need and the smallest occurrence of normality take on the tones of the most precious heritage for a

human being and the community in which they live, as do the greatest extensions of the urban body: infrastructure.

What, then, are the forms of our civilisation? What is our legacy? Everything is helpful in life and memory; everything is heritage. But the unveiling of this everything is anything but simple and certainly depends on our ability to observe and name things.

3 Old and New Constellations

It is therefore unquestionable that, a bit like what happened with the recent conscious semantic extension of the concept of landscape, heritage should be understood in a much broader way and include the set of environmental, urban, rural, infrastructural and landscape elements and systems formed through long-term co-evolutionary processes between human settlements and the environment, which contribute to their historical permanence and the formation of the region's identity [8]. This dynamic, which our ancestors knew very well but to which we are less accustomed, is also due to the progressive delegation of many operations of reading and rewriting the territory to automatic representation procedures. As Francesco Venezia argued in a *lectio magistralis* held in Padua some years ago,⁴ the entire ancient landscape used to come to life to help and support the installation of life. At least two stories highlight this condition, which is always valid both in crisis scenarios, as we would define them today, and in “regular” human activity. While anxiously awaiting the fate of Troy, Clytemnestra, in Mycenae, assures the elderly Argive notables that she has received certain news of the city's fall thanks to a formidable relay of light signals that bounce from Mount Ilium to the Achaean city (Aeschylus, 458 BC). In the space of a night, semantic content—among other things, with no possibility of setting up fake news,

³ According to the Sapir-Whorf hypothesis, human thought is shaped by language, leading speakers of different languages to think differently. Consequently, it is language that manipulates reality, and not the other way around.

⁴ Francesco Venezia. *Lectio Magistralis*, Aula Magna del Bo, organised by the Corso di Laurea Magistrale in Ingegneria Edile-Architettura (IEA) dell'Università degli Studi di Padova, 23 March 2018. Fully viewable at the link: <https://www.youtube.com/watch?v=3Ukf4MgUcXE>.

given the binary nature of the signal: either there is light, or there is not—travels for hundreds of kilometres because a form has been produced, a luminous design superimposed on the Aegean archipelago, a constellation. And in this triangulation, the entire landscape comes to life and becomes the messenger of an event. Peaks, stacks, swamps, and towers but also gods, lamp-bearers and guards assume equal dignity and all contribute to the formation of a known and manageable (in this case literally) landscape.

On the other side, the Ionian Sea, the Greek colonists of Syracuse instead invented that the Alpheus, a modest watercourse in the western Peloponnese—the same river diverted by Hercules together with the shorter Peneus in his fifth labour to clean the immense stables of King Augeas—flows into the island of Ortygia, on the other side of the Ionian Sea, contrary to its real (yet illusory) estuary. According to the myth, the river, in reality (or fiction), does not pour its waters into the Gulf of Kyparissia. Instead, it crosses the sea like a karst current to re-emerge at the Fonte Aretousa in the Sicilian city. A reading that manipulates the perceived form of the landscape so strongly was typical of the colonists of Magna Graecia, who then lived this surprising dimension of dialogue between the different physical fronts of the Mediterranean. A geographical cosmetic designed to feel closer, every day, to the motherland, drastically reducing the formation of nostalgic emotions.

This cosmetic mechanism of triangulation between notable points, especially coastal ones, is what lies at the basis of the geographical-cultural “miracle”⁵: an operation that allowed us to mirror the inlets and to mirror ourselves between the segments of landscape that made up our history and our geography.

⁵ The “Greek miracle” is the formula with which Eduard Zeller, in his essay *Die Philosophie der Griechen in ihrer geschichtlichen Entwicklung dargestellt* (1844), summarises the distinct way of seeing the world in Greece in the sixth century BC and which was also taken up, without completely refuting it despite his intentions, by Jean-Pierre Vernant in *Les origines de la pensée grecque* (1962).

4 Lisbon: From Marginal Planet to Reference Star

If in the Mediterranean the Gulf of Kyparissia is practically the same as that of Gaeta [9, p. 99], the Syracusans easily recognised the Peloponnese in Sicily, Ulysses always found new adventures or a woman at the other end of his short crossings, and Theseus managed to find the route home even when drunk at the helm of his sailing boat—not to mention the parties he had getting lost among the islands of the Aegean⁶—despite the Meltemi, once you leave behind the banks of the Tagus estuary, probably to be considered the real Pillars of Hercules,⁷ there is very little to celebrate or joke about.

Nothing, however, prevents us from engaging in this healthy game of building heritage through forms and constellations on a smaller, more controllable scale: that of the Tagus estuary. Especially by looking at and reflecting on that less accredited coast, the southern bank of the river, Margem Sul, “a necessary space to refer to, which, we can say, is introduced as a third party between the being of the village [of the city, in this case] and its questions” [10, p. 93]. Apart from two taverns appreciated by tourists and the small river terminal for the ferry service that connects it well to the capital, the stretch of coast a few kilometres long from the easternmost tip with the red lighthouse of Cacilhas to the first silo plants beyond the Ponte 25 de Abril still appears today as an incredible and alienating ghost town completely abandoned and without any particular revitalisation operations underway: an inverted image of the teeming capital on the opposite bank. It is a tract

⁶ According to Greek mythology, the islet of Palatia is the place where Theseus, son of Aegeus, king of Athens, and Ariadne, daughter of Minos, king of Crete, stopped to “rest” after killing the Minotaur. Theseus, however, left, leaving the woman, as they say in the Italian formula, *in asso* (in Nasso/Naxos).

⁷ It is no coincidence that the architect Charles Correa placed two imposing columns overlooking the Atlantic Ocean at the edge of the public space of the Champalimaud Foundation building complex (Charles Correa Associates, 2011–2024), beyond the Belém Tower.

dotted with “poetic reaction objects”⁸ capable of triggering a creative process.

The first is a battered control tower for naval traffic, clearly visible from the dock, which rises with the features of a stately column of an ancient water gate that has been orphaned by its sister, which, instead of raising a statue or a flag like the much more famous pair of columns in Piazzetta San Marco in Venice, shows a rusty metal skeleton as an acroterion. The second structure is the immense LISNAVE crane bridge, an enormous urban gate that can be observed from the opposite bank or while navigating the river, acting as a counterpart to the Arch of Triumph of Rua Augusta in the opposite Praça do Comércio. Furthermore, the large Π of the crane corresponds to the large horseshoe of the buildings in the aforementioned square, placed vertically rather than horizontally.

Walking along the Ginjal pier towards the west, you come across an extraordinary structure that breaks the monotony—without any negative connotation of the term—of the riverfront: the former Hugo Parry & Son shipyards from 1838. The area, called Cubal, is a morphological singularity with great visual impact: it corresponds to a small, unbuilt, flat surface, a gap of about one hundred metres in the curtain of long buildings facing the pier, between the river to the north and the cliff face to the south. At this point, the tuff front has been cut and tamed using a robust concave dam in reinforced concrete, which encloses a large part of the asphalted open space, once a work area. A protective work that served to prevent debris from falling from the cliff, to free up space for the accommodation of boats pulled up on dry land, and to optimise the supply of natural light from the south, which was hindered by the awkward shape of the relief. If this system had been conceived to increase the usability of the space at the foot of the cliff, the concrete shell’s casting reassured the builders about the tuff base’s mechanical characteristics. Industrial buildings were therefore built above the cliff, at an altitude of + 36 m, as an exception to the settle-

ment practice of the coastal segment, whose only possible development was represented by the pier along the river. It was a factory for the production of cod liver oil, also abandoned today, built in 1950 on the top of the first cliff step, which only later, in 1986, was identified as “one of the most important archaeological sites in the area. This is the site of Almaraz, where excavations provide evidence of two distinct periods of occupation: one by indigenous populations of the Bronze Age (eighth century BC) and later by a Phoenician commercial base (seventh to sixth century BC)” [11, p. 19]. Among the parallelepiped buildings that make up the complex, there is one that has remained without a roof and that turns its shorter facade crowned by a tympanum towards the river. This building, paradoxically the most ignored of all, is the most powerful object, which weaves singular relationships with the context and sensational references with other objects of our history located in distant places. It overlooks the Tagus estuary as the Parthenon looks at the Bay of Salamis (Fig. 2). The large striped surface of the artificial fossil shell of the Cubal, in turn, depending on the observation points, becomes the fortified wall of an acropolis, especially in relation to the revealed temple or the steep cave of an ancient theatre. The famous Cristo Rei stands out just before the Ponte 25 de Abril. The stately monument, which certainly does not need to undergo accreditation procedures like the aforementioned warehouse, dialogues surprisingly well with vulgar elements such as the much-maligned standardised umbrellas of the bars along the river on the Portuguese capital side. The immense, bristling, rigid reinforced concrete base of the statue and the closed, immeasurably smaller, rippled canvases appear as terribly similar objects and draw an alienating profile of multiple Cristos Reis in series (Fig. 3).

Pushing further west, crossing the Ponte 25 de Abril, between Porto Brandão and Trafaria, the most recent technological storage facilities, this time functioning, build other unexpected formal relationships with objects curiously placed opposite on the other bank. The Repsol Gás Portugal plant is located exactly opposite the town of Belém, which in 1940 saw the construc-

⁸ “Objects à réaction poétique”, Pierre Jeanneret (Le Corbusier), 1931.

Fig. 2 Contemporary Parthenon. Former cod-liver oil factory (1942) above Ginjal Pier, Almada, Portugal (photograph by the author, 2016)



Fig. 3 Cristos Reis along the Tagus riverfront, Lisbon, Portugal (photomontage by the author, 2023, based on photographs by the author, 2016)





Fig. 4 Cassiopeia. The W constellation of white spheres among the Centro Regional Vida Popular (1940), Belém, and the spherical liquid gas storage

tanks of the Repsol Gás Portugal plant (1994), Porto Brandão, Portugal (photograph by the author, 2016)

tion of the *Exposição do Mundo Português*. In particular, the white spherical tanks for storing liquid gas enter into a relationship with the white spheres at the edges of the body of water of the Centro Regional Vida Popular. Together, they reveal a dormant W-shaped constellation just like Cassiopeia, which, with its *lineamenta*⁹ [12, p. 19–21], holds together the banks of the Tagus (Fig. 4). And like the stars of the firmament, it matters little if the nature of these objects is for some exclusively functional while the essence of others is mere decoration: together, they constitute a grouping of homogeneous elements of the contemporary urban vocabulary capable of orienting, delighting and astonishing the observer, transcending categories of genesis, era, use and scale. Finally, there is another possible pairing between the different elements of the two waterfronts before the Atlantic Ocean finally opens up: the famous Belém tower dialogues with the tower of the cluster of

grain elevators of the Trafaria Cereal Terminal (Fig. 5). Observing the most extreme edge of the Margem Sul from the roadstead on which the famous seventeenth-century tower stands, one can appreciate how the formal analogy is made possible above all by the presence of less esteemed appendages that legitimise each other: the questionable wooden pier that serves as a walkway to access the monument for tourists and the elevated structure of the conveyor belt for loading and unloading cargo ships (serial movements that, among other things, would also authorise provocative allegories).

Even further west, past the charming town of Cascais, we find the Boca do Inferno: a rocky inlet with caves and bare stones on the sea, similar to the same rocky conformation that the Syracusans had chosen as the true (fake) estuary of the Alpheus (Fig. 6).

Based on these intellectual speculations, it is easy to transform the animated territory into a prospective, rather than retrospective, landscape that sees the project as the main way to protect the value of things. So why not turn to an artist to place a statue of Ulysses in the shed above the Cubal, illuminating its facade so that the pediment of this temple of contemporaneity welcomes, with

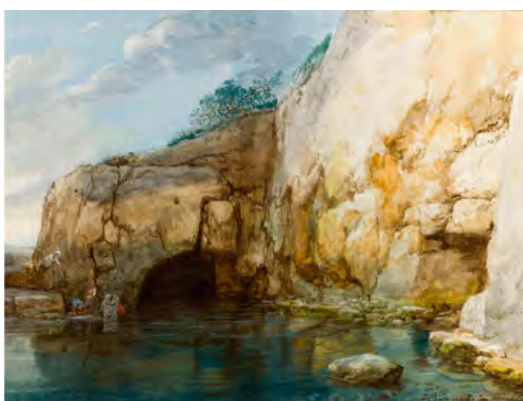
⁹ Expression, derived from the Latin term *lineamentum* for “figure” and “form” made of lines equivalent to the Greek concepts of scheme, *morphé* and *typos*, which Leon Battista Alberti uses to define the design process par excellence, focusing on the first chapter of his first book.



Fig.5 Water Gate. The Tower of Belém (1515) and the grain elevators of the Silopar Cereal Terminal (1986), Trafaria, Portugal (photograph by the author, 2016)



Fig.6 The mythic source and its echo. (Left) *Boca do Inferno*, Cascais, Portugal (photograph by the author, 2025). **(Right)** *Boca de Aretousa* (original title *La fontaine*



d'Aréthuse, à Syracuse), by Jean-Pierre Houel, 1777 (detail). Source Wikimedia Commons, public domain. Composition by the author

its iconic presence, the ships that slowly slide in and out of the port of the city of Ulysses? And then another that creates many small Cristos Reis to be placed on top of those umbrellas of the bars along the Tagus. In addition, a selective lighting system could be envisaged that emphasises the white spheres of Belém and the silos of Porto Brandão, and so on.

Here, for obvious reasons, the game of triangulations aimed at building constellations is limited

to a handful of kilometres. But nothing prevents it from leveraging Lisbon and being repeated and declined to infinity—a bit like the motto of the University of Lisbon says: “da [U]lisboa para o Mundo”, in further echoes of self-similarity and re-signification, capable of animating the entire landscape known as the myth of Alpheus and Aretousa. A game in which it is not only permissible but advisable to unite wheat and people, dams and theatres, warehouses and temples,

Christs and umbrellas, elevators and stars because it is precisely “by mixing olive trees with whores, springs with fortune-tellers, goats with stars, rivers with young men, quarrels with loves, the sea with virgins, death with horses, [making] a general mess of stories and shows, proverbs and truths where nothing is understood, [that] everything becomes fun and possible” [13, p. 31] thus generating the miracle.

References

1. Popper KR (2002—1st edn. 1963) *Conjectures and refutations: the growth of scientific knowledge*. Taylor & Francis, London
2. Hacking I (1987—1st edn. 1983) *Conoscere e sperimentare*. Laterza, Roma-Bari
3. Marcacci F (2009) *La piramide di Talete*. Mathesis (3)
4. Galilei G (1937) *Le Opere*, vol. XI. Tipografia di Barbèra G, Firenze
5. Feyerabend PK (1975) *Against the method. Outline of an anarchistic theory of knowledge*. New Left Books, London
6. Sennett R (1990) *The conscience of the eye: the design and social life of cities*. Alfred A. Knopf, New York
7. Antoniadis S, Beltran Borràs J (2023) Chi si ferma è perduto. Dal progetto di difesa culturale alla cultura della difesa del progetto. In: Bagnoli L, Antoniol E (eds) *La difesa dei beni culturali negli scenari di crisi. Strategie di salvaguardia e tutela del patrimonio culturale*. Anteforma Edizioni, Conegliano
8. Magnaghi A (2000) *Il progetto locale*. Bollati Boringhieri, Torino
9. Antoniadis S (2019) *Sulla costa. La forma del costruito mediterraneo non accreditato*. Anteforma Edizioni, Conegliano
10. La Cecla F (2005) *Perdersi l'uomo senza ambiente*. Laterza, Bari
11. Acerbi E, Morini C (2015) *L'altro margine. Ricomposizione e rigenerazione tra roccia e acqua: un centro enogastronomico sul Tejo*. Tesi di Laurea in Architettura (relatore: Faroldi E). Politecnico di Milano
12. Orlandi G, Portoghesi P (eds) (1966) *L'Architettura (De re aedificatoria)* [Leon Battista Alberti, 1443–1452]. Il Polifilo, Milano
13. Sottsass E (2019—original work 1960) *Pietre cadute sui prati*. In: Codignola M (ed) *Ettore Sottsass. Molto difficile da dire*. Adelphi Edizioni, Milano
14. Zeller E (1844) *Die Philosophie der Griechen in ihrer geschichtlichen Entwicklung dargestellt*. Fues's Verlag, Leipzig
15. Vernant J-P (2019—original work 1962) *Le origini del pensiero greco* (trans: Carraro P). SE, Milano

On the Margins of House and Body: Affinities and Coexistences in Álvaro Siza Vieira's and Marco Frascari's Architectural Design Thought

Luís Carlos Bucha 

Abstract

The House, as an entity, an architectural fact, and an object of study that codifies the mental dimensions woven into the brain of the architect who conceives, designs, and inhabits it, is something that occupies reflection on architectural design practice. In all these dimensions, the House motivates the drawing of margins, of boundaries for reflection that foster affinities and harmonious coexistences between brains that generate architectural thought and practice. Thus, when we take the gesture of drawing, materialised by the architect, as a possibility to pour out a universe of “unconscious memory” that configures the House, it is essential to focus on a ‘conscious’ projection of this spatial universe, building, in itself, a Body that thinks, designs and inhabits it. This paper aims to dwell on the accounts around this notion of House, based on the notes produced by two minds, which appear to be on the margins of each other and for whom the idea of House was a subject of constant reflection: Álvaro Siza Vieira (born 1933) and Marco Frascari (1945–2013). By exploring these affinities and coex-

istences, which provide a (re)encounter of stimuli for the lines of thought of these two architects. The connection between the two architects and the elucidative nature of drawing emphasise their importance in architectural thought. Keywords: House-Body; Álvaro Siza Vieira; Marco Frascari.

Keywords

House-Body · Álvaro Siza Vieira · Marco Frascari

1 Prelude

“All gestures—including the gesture of drawing—are charged with history, unconscious memory, and incalculable, anonymous wisdom.

It is necessary not to neglect this practice, so that the gestures do not become tense and, with them, everything else” [1, pp. 37–38].¹ Álvaro Siza Vieira “An architect’s brain is primarily an organ for homeostasis—a center that collects and collates responses on body states and acts to maintain constancy of the internal milieu. This notion [...] allows the images of the human and the built bodies, assisted by memory and reasoning, to become the fundamental core of architectural consciousness” [2, p. 67]. Marco Frascari

L. C. Bucha (✉)

CITAD—Centro de Investigação em Território, Arquitectura e Design, Universidade Lusíada, Lisbon, Portugal

e-mail: luiscarlosbucha.arch@gmail.com

¹ Translated by the author.

2 House

The House, as an entity, an architectural fact, and an object of study that codifies the mental dimensions woven into the brain of the architect who conceives, designs, and inhabits it, is something that occupies reflection on architectural design practice.

Given the importance of this architectural fact, it is therefore interesting to reflect on the inter-relationship between thought and design practice, proposing an ‘architecture’ based on the notion of House. That is, the conceptualisation of an architecture of ‘interface’, of margin, in which it is understood that it will be possible to accommodate a dimension of proximity, a possibility of self-reflection, proposing a dialogue, an encounter, in the margin, between two minds, between two architects: the Portuguese Álvaro Siza Vieira (born 1933) and the Italian Marco Frascari (1945–2013).

To introduce this possibility of encounter, it is essential to reflect on the meaning of House as an entity, drawing on the understanding outlined by both architects.

Álvaro Siza Vieira believes that “living in a house” is very different from “building” it, as the architect points out:

“My idea of a house is that of a complicated machine [...]”.

Living in a house, in an authentic house, is a full-time job. The owner of the house is simultaneously a firefighter on duty [...]; a nurse [...]; a life-guard, master of all arts and professions, an expert in physics and chemistry, a lawyer—or else one cannot survive” [3, pp. 133–134].²

Faced with this somewhat ironic account, Siza indeed prefers a second option, that of “building a house”, since this is a path that invites him to adventure, as he himself explains, reinforcing his understanding of the House:

“Building a house has become an adventure. It takes patience, courage and enthusiasm.

The design of a house emerges in different ways. Sometimes suddenly, sometimes slowly and painstakingly. It all depends on the possibility and

ability to find stimuli—the architect’s intricate and definitive crutch.

The design of a house is almost the same as that of any other: walls, windows, doors, and a roof. And yet it is unique. Each element is transformed in relation to others.

At certain moments, the design takes on a life of its own.

It then becomes a volatile animal, with restless paws and uneasy eyes.

If its transformations are not understood, or if its desires are satisfied beyond what is essential, it becomes a monster” [4, p. 25].³

3 House as ‘Monster’

Following this metaphor drawn by Siza—the project of a house as a ‘monster’—it makes perfect sense to invoke the perspective and understanding of Marco Frascari, establishing a meeting of affinities and coexistences between the two architects, based on the same metaphor. In his book *Monsters of Architecture: Anthropomorphism in Architectural Theory*, published in 1991, the Italian architect and architectural theorist proposes an interpretation of this notion of ‘monster’, with a close and curious affinity reflected, as we have seen, in Siza’s imagination, advancing, in this interpretation, with the exaltation of the enigmatic power that the notion of ‘monster’ conveys:

“[The] monster changes its form, assuming different aspects in response to diverse stimuli and within varying contexts. [...] [The] idea of monsters baffles any precise conceptualization; nevertheless, monsters are recognizable as enigmas better left unsolved. Their enigmatic quintessence leads to a core of knowledge that is at once continuously available but also infinitely obscure. [...]. Monsters demonstrate the architectural project where the arrow of premonition is shot by the image of the body; this is a corporeal construing of the constructed world” [5, p. 13].

In Frascari’s view and understanding, the ‘monsters’ do not necessarily refer to terrifying creatures from mythology or fantasy literature. Still, instead of *embodied meanings*,⁴ that is, a

³ Translated by the author.

⁴ For a more detailed understanding of this concept, we suggest consulting Part III of the book *The Meaning of*

² Translated by the author.

universe of corporeal meanings present in the associations between the human body and architectural forms.

By proposing this intersection, this 'dialogue' based on the crossing of Álvaro Siza Vieira's and Marco Frascari's thoughts, in one way or another, it is intended to reveal an understanding of the notion of House, going beyond its primary meaning, that is, its mere objectual and functional dimension inherent to a living space, and then understand it as a dynamic, almost 'living' entity.

Siza's thought on the House, from the outset, as a "complicated machine" [3, pp. 133–134] that requires the full dedication of those who live in it, in a way, proposes a House that is an organism, an active spatial device and, in a way, also with a will of its own. This 'machine' is therefore not a static object; it requires constant commitment and adaptability from those who inhabit it, on the various scales and dimensions allocated to this plural notion of House. Siza, considering that building a house is therefore "an adventure" [4, p. 25] that requires "patience, courage and enthusiasm" [4, p. 25], emphasises the unpredictable and often challenging nature of giving existence to this entity, the House.

Álvaro Siza introduces the metaphor of the house project as a 'monster'. Initially, this 'monster' is described as a being that takes on a "life of its own" [4, p. 25], transforming itself into a "volatile animal, with restless paws and uneasy eyes" [4, p. 25]. This metaphor resonates deeply with Marco Frascari's understanding of this 'monster', which, as far as architecture is concerned, refers to the concept of embodied meanings and enigmas. For Siza, if the transformations inherent in the act of design are misunderstood or his desires are over-satiated, it becomes a true 'monster' in a negative sense—perhaps heavy, dysfunctional or alienating.

Frascari's perspective is particularly insightful in the sense that the architect understands that these 'monsters' defy, as we have seen, precise conceptualisation, preferring that an enigmatic

veil remain ever-present in architectural design thought. According to the Italian architect and thinker, their enigmatic nature paradoxically reveals knowledge that is both accessible and incomprehensible. This idea is in line with that of Siza, who understands that the House has a life of its own, with desires and transformations that may not always be apparent or easily controllable in the initial iterations of a project, as he himself recently attested in an interview conducted by Portuguese gallerist Miguel Nabinho:

"A house should not be a conduit for acting in a certain way. What it should have is an openness that allows for the use of that house, which must always be [something] open. A house means many different things to different people. It is a place for rest; a place for protection; a place for social life [...]; it is a space for solitude, which is also necessary [...]. A space does not have to be designed for solitude, or designed for social life... The space must be comprehensive in relation to a certain unknown mode of use. It cannot be an obstacle" [6].⁵

4 House as Body of Reflection

The notion of House as an element deeply intertwined with Frascari's vision of the Theory of Architecture, which alerts us to its importance in the context of a practice increasingly guided by the power of the image alone, devoid of space:

"The theory of architecture is not something to which the professional gives very much thought. As the making of buildings has become increasingly a complex technical enterprise, professionals have become increasingly isolated in their designs, both from the bodily presence and the embodiment of human habits in edifices. They are interested only in what [Walter] Benjamin called a tourist appreciation of architecture. Professionals are not interested in the tactile and invisible dimensions of architecture: for them, the visible range is dominant because it is the only one that can be photographed" [5, p. 31].

For Frascari, Architecture, and by extension, the notion of House, are deeply interconnected with the human body. And this is not only because the human body is viewed as the measure, scale, and model that guides the whole, but also as an instrument that stimulates the architect's gener-

the Body: Aesthetics of Human Understanding (2008), by American philosopher Mark Johnson (born 1949).

⁵ Translated by the author.

active brain, taking advantage of the generative power of metaphor.

The House, more than an object, evokes a space that invites us to enter into a mental reflection, particularly that of its inhabitant, a conceptualisation of an architecture of ‘interface’, perhaps metaphorical marginalia that takes us through the meanderings of thought.

Thus, one enters a dreamlike realm in which Álvaro Siza and Marco Frascari ‘dialogue’ with each other around this ‘monster’ that is reflected in the House; that is, in Architecture as a reflection of its anthropomorphisation of architectural design thinking.

In all these dimensions, the House motivates the design of margins, of boundaries of reflection, which establish affinities and harmonious coexistences.

Drawing, as a gesture, unlocks what our visual and interconnected capacity cannot achieve; in essence, reaching what lies on the margins of a way of seeing the world, understanding it, transforming it through records that contain within themselves a source of knowledge, memory, metaphors that would otherwise not be transmitted with the spontaneity and imperfection, restlessness and iteration in which drawing finds its home. Thus, it goes beyond the mere two-dimensional reproduction of a given moment. Drawing involves a condition of revelation of a given space–time, always guided by a unique way of understanding the world.

This condition of ‘revelation’ in drawing echoes in the etymology of the word “monster”, derived from the Latin term *monstrare*, which means “to show”, making visible what is invisible. This act, this gesture of interface, is ultimately the purpose of drawing as a mechanism of representation, in the understanding woven by Marco Frascari:

“Therefore, [...], monsters are hermeneutical because they unveil the chiasm ruling the things of architecture through the meaning embodied in architecture. Monsters are on the margins of written texts but they are also the marginalia of visual texts [...]. They are the joint between physical reality and artistic expression. Architecture is not an art but an understanding of arts that enables men to produce tangible expressions. Architecture is the monstrous

frame of the ‘depiction’ of life. Consequently, the architect addresses and produces the physical, and perhaps metaphysical, frameworks of any interart relationship; without architecture no interrelation can take place” [5, p. 17].

The House, as an entity, an architectural fact, and an object of study, resonates with Marco Frascari’s general narrative of his theoretical vision of architecture, which emphasises the body, imagination, and the narrative and symbolic value present in architectural detail on its various scales.

“[The] human body is the appropriate creative expression for the development of an architectural form. In this way, we acquire a useful tool for activating the imagination and applying the meanings and reasons that are necessary in architectural production” [5, p. 7].

5 Epilogue

In summary, as one gravitates in this reflection between the margins of the House and the Body, both in the momentum of Álvaro Siza Vieira’s drawing and architectural practice, and in the momentum of Marco Frascari’s writing and theoretical incursions, the theme of the House, as one can see, as an architectural fact in the broad sense, motivates the drawing of margins; that is, the drawing of boundaries of reflection woven by generative brains (in this case, by the brains of two architects) that express themselves both through drawing and through words. These two types of graphic expressions coexist in perfect dialogue in both cases.

On the one hand, in Álvaro Siza Vieira, one can understand that the idea of House emerges from a *continuum* between drawing, words and architectural fact, allowing us to gauge, in part, the architect’s line of thought as a body that draws and designs the House. This *continuum* of graphic forms, as Portuguese psychoanalyst Carlos Campos Morais points out, manifests itself in “[a] writing-writing, a figurative drawing, a sketch-drawing, a design-drawing, a sculptural drawing, a geometric drawing, [...] a volume drawing, a house [...] ... A writing, a drawing, an object, a flow, a *continuum*” [7, p. 7].⁶

⁶ Translated by the author.

In this way, Siza's gesture, in drawing this House in *continuum* and imbuing it with an "unconscious memory" [1, pp. 37–38], manifests a thought and practice of design based on a principle of openness. With this openness, we sense that Siza views this House, this potentially "volatile animal" [4, p. 25] as comprising expectant spaces; spaces waiting to be something more, in assumed indefiniteness, and, in this capacity, receptive, like a being, a living Body.

On the other hand, in Marco Frascari, the idea of House manifests itself through a theoretical elaboration that elevates it to the status of an enigmatic 'monster', a place of *embodied meanings* where the human body and the architectural fact meet and influence each other. In this gesture of understanding, one believes that Frascari can view the House as a Body of Reflection, that is, a space that echoes our physical and perceptive dimensions, revealing itself, through design, as an act of *monstrare* the invisible.

In turn, these two gestures—Siza's intuitive and iterative drawing and Frascari's theoretical and insightful reflection—in their uniqueness and complementarity, configure an architecture of margin, of interface. Thus, this perspective proposes a reading of the House as a Body, as a complex entity that is revealed simultaneously through graphics on paper and layers of thought, in a constant balance between the visible and the invisible.

Acknowledgements This work is supported by FCT - Fundação para a Ciência e Tecnologia, I.P. by project reference <UID/04026/Centro de Investigação em Território, Arquitetura e Design> and DOI identifier <<https://doi.org/10.54499/UIDB/04026/2020>>.

References

1. Siza Vieira, Á. (2009) A importância de desenhar. In: 01 Textos. Civilização, Porto.

2. Frascari, M. (2011) Eleven exercises in the art of architectural drawing: slow-food for the architect's imagination. Routledge, London.

3. Siza Vieira, Á. (2009) Viver uma Casa. In: 01 Textos. Civilização, Porto.

4. Siza Vieira, Á. (2009) Construir. In: 01 Textos. Civilização, Porto

5. Frascari, M. (1991) Monsters of architecture: anthropomorphism in architectural theory. Rowman & Littlefield, Savage, MA

6. Screen (2024) SEM TÍTULO—entrevista com ÁLVARO SIZA VIEIRA conduzida por Miguel Nabinho. https://www.youtube.com/watch?v=zZ2gaoUn_Ss. Accessed 14 Nov 2025.

7. Campos Morais, C. (2009) Sem paredes, nem portas, nem janelas. In: 01 Textos. Civilização, Porto.

Fiction, Futurism and Architecture

Carlos Henriques Ferreira 

Abstract

In the early decades of the twentieth century, the imaginations of futuristic architecture and cities emerged. Several proposals and projects were closely linked with the artistic vanguards of the period, including cubist, expressionist, supremacist, and futurist explorations. European artistic renewal and progressive architectural utopias reveal the visions of a futuristic city, confronting the reality of new skylines in American cities. Fiction and architecture reveal interconnected effects, including the influence of futurism and the modernist movement from Italy, seen in architectural works like those of Luís Cristino da Silva in Portugal. The artistic expressions, aligned with futurist manifestos, were accompanied by creations that presented the possibilities of a new technological world, through authors such as Virgilio Marchi, Antonio Sant'Elia, and Mario Chiattone. We also include the innovations in modernist affirmation by Henri Sauvage, August Perret, among others. The influence of a significant legacy in numerous avant-garde works at the beginning of the century is recognized, especially in its relationship with early cinematic

fiction, as seen in films like *Metropolis*, *Just Imagine*, and *Things to Come*. The interaction between Italian futurism, cinematic fiction, and modernist architectural production reveals a fascinating field of study, especially after nearly a century and highly relevant in the current context.

1 The Artistic Vanguard Movements and Fictional Architectures of the Early Twentieth Century

The beginning of the twentieth century faces tensions between historical and heritage values and a desire for renewal through new artistic expressions. The explorations of forms of communication and representation, beyond the use of conventional perspective, reflect a formal and chromatic dynamism through planes that decompose and shift, or forms that operate through superimposition, subtraction, or juxtaposition. Many of these experiments are revealed through collages that reference the artistic vanguards, with significant reflections on architecture and its relationship with fictional cinematic production.

Particular emphasis is placed on the influence of movements such as expressionism, futurism, cubism, suprematism, constructivism, and neoplasticism, among a significant range of explorations that seek to represent the value of

C. H. Ferreira (✉)

Lisbon School of Architecture, CIAUD, Research Centre for Architecture, Urbanism and Design, Universidade de Lisboa, Lisbon, Portugal
e-mail: cferr@fa.ulisboa.pt

movement and simultaneity, capturing a diversity of perspectives in time through multiple focal points. Some of these movements originated in the early century, reaching their peak in the 1920s and 1930s, and in some cases, extending into the second half of the twentieth century. This period is marked by profound artistic changes referenced by historical vanguards, with protagonists often organized into movements and trends of ideological convergence. The theoretical foundations are proclaimed through manifestos, seeking to allow followers to identify with a collective identity [1].

With a large and diverse artistic production, it is not free from strong contradictions, particularly the search for a unified and organized artistic project, accompanied by innovation through various experiences and forms of individual expression. In the expressionist movements that emerged in Germany in the first decade of the century, we find attempts at distorted images, with a certain appeal to childish models, but closely tied to themes of the contemporary society of the time. In these experiments, contradictions appear between form and meaning, between signifier and content, exploring sinuous, angular contours with strong contrasts in the play of light and shadow. These exercises can be recognized in the paintings of Munch, Constantin von Mutschke-Collande, Otto Dix, or Lyonel Feininger. This search for formal dynamism through undulating or angular forms can be found in the architecture of Erich Mendelsohn or Rudolf Steiner.

In Italy, the Futurist movement, led by Filippo Marinetti, stands out with its fascination for social and artistic renewal, emphasizing the inadequacy of traditional pictorial and literary tools as a response to the dynamism of the modern world. The dangers of perspective are criticized as a structural representative of contemplative, static habits, which are not expressive of the movement that surrounds us. Unlike expressionism, futurism does not rely on distortion techniques. The Futurist manifesto, launched by Marinetti in 1909, presents a set of premises, of a propagandist nature, centered around the idea of a gap between the rapid technological development and the cultural void, which requires a violent, renewing will to change the social order [2].

We find significant artistic expressions such as the simultaneous visions of the painter Boccioni in 1912, or the visions of Sant' Elia's futurist architecture in his *Città Nuova* of 1914, recognizing a certain influence of Otto Wagner and the Viennese Secession [3].

During this period, we also witness the birth of Cubism, which sought to represent the hidden structure of objects and things, in search of their generating geometry. Among the precursors of the movement, we find Picasso and Braque. Other artists such as Delaunay and Malevitch also play a significant role in the development of Cubism. In architecture, we find a very distinct dialectic of this influence and its counterpoint with purism in the works of Le Corbusier, especially in his projects with Jeanneret, such as the *Villa de Monzi* (1927) and later the *Villa Savoye* (1929–31).

From the range of trends in the first decade of the century, we move towards new explorations marked by greater abstractionism, with a focus on the developments of Russian Constructivism, Neoplasticism, Suprematism, and the artistic context of the Bauhaus and the influence of Gropius [1]. The artistic vanguards, incorporating the expressionist and abstract paintings of Kandinsky, Malevitch, Mondrian, T. van Doesburg, or the works of Schlemmer and Moholy-Nagy, contribute to new perspectives and forms of representation, alongside their various impacts on the urban landscape, as seen in the examples of Boccioni, Feininger, or Fortunato Depero (Fig. 1).

In architecture, beyond the importance of Le Corbusier's purism, we highlight the works of Adolf Loos and Frank L. Wright, such as the *Robie House* (1909), a proposal for a set of towers for *St. Mark's-in-the-Bowerie* (1929), and later *Falling-water* (1936) or the Johnson & Son complex (1936). Notable works also include the *Schröder House* by Rietveld (1924), the *Café L'Aubette* by Van Doesburg (1928–29), or the *German Pavilion for the Barcelona Exhibition* (1929) by Mies van der Rohe, among others.

Between industrial affirmation, the classical legacy, eclectic historicism, and the decorative exploration of Art Nouveau, positions of anti-historical nature began to emerge, appealing to the formal resources of new materials, valuing



Fig. 1 Umberto Boccioni (1912) simultaneous visions, Lyonel Feininger (1924) church of minorities, Fortunato Depero (1930) skyscrapers and tunnels

their appearance in a more refined, transparent, and abstract form, with reflections on the projects of the future metropolis and in fictional cinematic creation.

2 The Architectures of the Metropolis Between New Paradigms and Fictions

The artistic vanguards reveal the dynamism and expressions of social, political, and economic unrest during the period. The visions of constructing the contemporary metropolis and the architecture that support it reflect the effervescent spirit of industrialization and capitalism. Between the reality of the new building scales in American cities and the European futuristic projections, imaginations and representations feed into each other, revealing a greater dynamism in the way the city and architecture are viewed, marking new urban landscapes.

In this context, we highlight some authors who reference paradigm shifts, particularly the contributions of Louis Sullivan in 1891, through his concerns with urban planning and architectural aesthetics emerging from the new tall buildings. Sullivan's contributions, through essays like "Tall Buildings Artistically Considered," point to possibilities for the composition of the new city,

anticipating zoning regulations that would create the "wedding cake" effect in skyscrapers—the Setback Skyscraper.

The new metropolis at the start of the century feeds the imaginations of authors like Hugh Ferriss, revealed through his drawings and the publication "The Metropolis of Tomorrow" (1929), which marks a reading of the American city's architecture under construction at the time and its future perspectives, having a significant influence on comics and cinematic fictions.

Within the artistic vanguards, the spirit of renewal proposed by the Futurist movement stands out, including contributions from several architects, notably Antonio Sant'Elia, through his drawings for *La Città Nuova* and the *Futurist Architecture Manifesto* of 1914, calling for each generation to have its own city.

The city of Sant'Elia's revealed the changes of modernity from Milan, at the beginning of World War I, and the opportunity for realizing his social, technological, and artistic ideas, in a glorification of the Machine Age. In his representations, we can recognize various inspirations and resources, from American cities to the Viennese influence of Otto Wagner. Marking a will for renewal and integrating the *Nuove Tendenze* of Italy, Mario Chiattoni and Virgilio Marchi's proposals are also highlighted, with Marchi being closer to German expressionism than to Milanese rationalism [4].

In a period when Art Deco played a leading role, the French avant-garde contribution is noteworthy, with new explorations by Henri Sauvage and Auguste Perret. Notable projects include the stepped complex in front of the Seine (1928), the proposals for Porte Maillot, both by Sauvage, and Perret's pioneering use of reinforced concrete, in examples such as the building on *Benjamin Franklin Street* (1903) or the *Notre-Dame de Raincy Church* (1922–23).

Between the margins of Italian Futurism and French Modernism, we find several authors in Portugal, among whom we highlight the importance of Cassiano Branco. Highly versatile and innovative, he reveals himself as a multifaceted architect, with projects such as the *Cineteatro Edén*, the *Hotel Vitoria*, which is closely related to the rationalism of Adalberto Libera, and particularly visions for the new city, with proximity to Sant' Elia's Futurism and Henri Sauvage's Modernism, in projects such as the 1930 urbanization proposal for Costa da Caparica [5].

The works and avant-garde narratives, including the industrial city proposals by Tonny Garnier, urban visions by Le Corbusier, the towers of F. Lloyd Wright, and the proposals by Cornelis van Eesteren, among others, later become a strong inspiration for many of the kinetic fictions of the modern and international spirit between the wars and especially in the post-war context. This path towards the urban landscapes of futuristic fiction can be seen in a great variety of drawings and projects (Fig. 2).

The metropolis at the beginning of the century and its futuristic projections reveals new building scales, fueled by horizontal and vertical movement speeds, through steel structures and their potential for connection with suspended bridges and elevators. It is a "Vertigo" metropolis of movement and multiple levels above and below the ground, considering the conquest of artificial lighting, the movement of cars, airplanes, and transatlantic. It is the place of a new technological monumentality [3], fueled by class conflicts, ideologies of order, and a tremendous effort to control the imbalances that arise between social uprooting and the demands of technological development.

Among the futuristic and modernist architecture that contribute to the construction of the metropolitan landscape, there is a dynamic and inspiring space in the creation of cinematic fiction, fueled by a strong will for cultural renewal. New perspectives are explored, primarily through aerial views, powered by the possibilities of photographic and cinematic recording. The metropolis is simultaneously both an inspiration and a product of itself, considering the approaching speed of construction, renovation and recording of its transformation into multiple focuses [4].

3 Cinematic Fictions and the Architectures of the Futuristic City

Fiction, accompanied by the new perspectives of photography and cinematography, is revealed in a very particular way in the period between wars. Cinematic fiction, establishing deep connections with the artistic avant-gardes of the time, presents us with visions of the future supported by ongoing technological progress and the perspectives of innovation that oscillate between utopia and dystopia.

Some of the fictions of the interwar period reveal numerous contradictions and ambiguities, fueled by the fascination with metropolitan growth and the fears of human subservience to its own creative and technological ingenuity. Industrial development and social utopia are often accompanied by dystopian scenarios, between the destructive potential of technology and the ideals of social, architectural, and urban renewal.

It is within this context that we highlight three references of cinematic science fiction, as a tribute to the achievements of kinetic art in cinema and its relationship with architecture, particularly in the phase when cinema gains a voice—the transition from silent to sound cinema [6]. We refer to *Metropolis* by Fritz Lang from 1927, *Just Imagine* by David Butler from 1930, and *Things to Come* by William C. Menzies from 1936, films, respectively German, American, and British, with the last based on a fictional work by Herbert Wells.

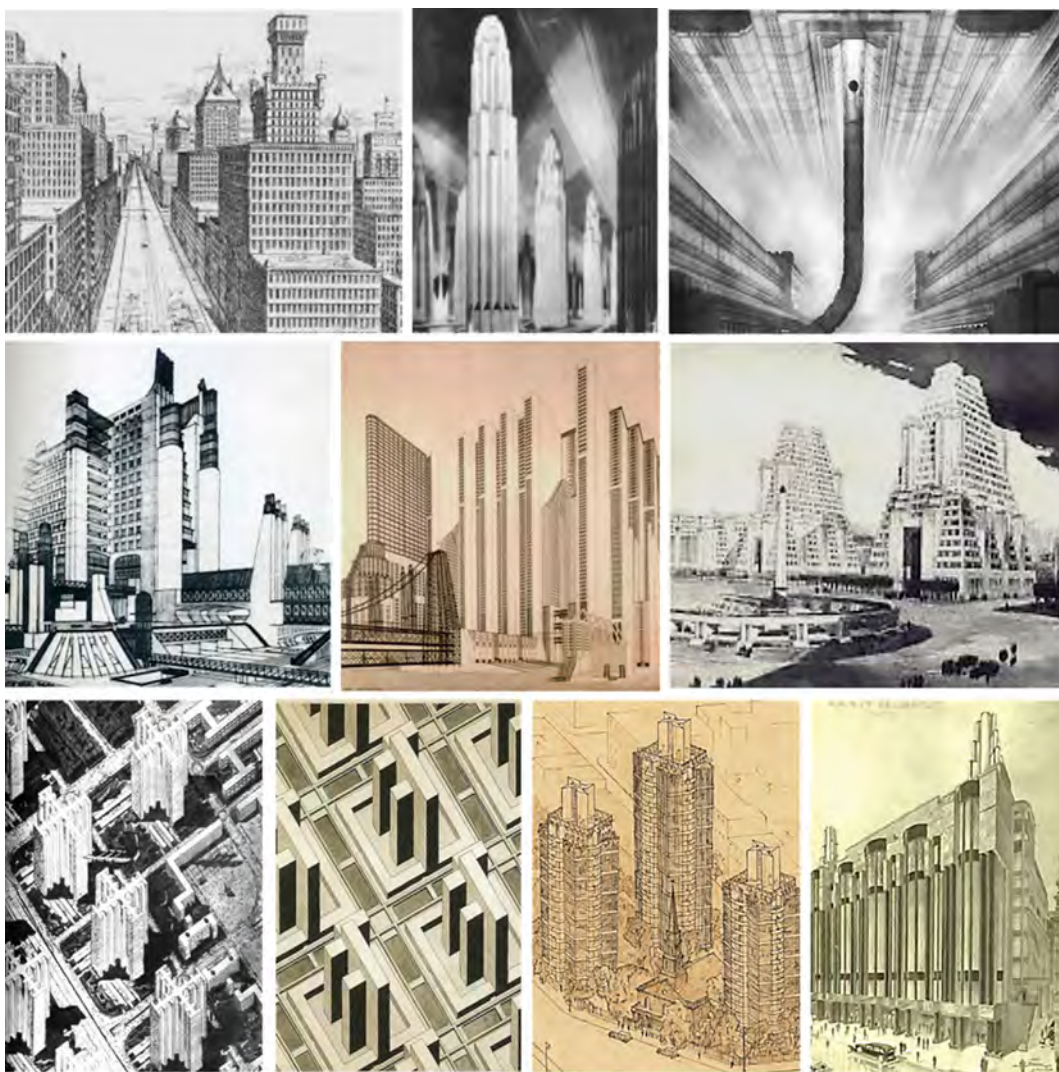


Fig. 2 Louis Sullivan—Setback Skyscraper (1891), Hugh Ferriss—The Metropolis of Tomorrow—drawings (1929), Hugh Ferriss—The Metropolis of Tomorrow—drawings (1929), Antonio Sant Elia—La Città Nuova (1914), Mario Chiattonne—Metropoli Moderna (1914), Henry Sauvage—

Porte Maillot (1931), Le Corbusier—Plan Voisin (1925), Cornelis van Eesteren (1926), Frank Lloyd Wright—St. Mark's in the Brouwerie (1927–31), Cassiano Branco—Eden Teatro (1930)

These three works of fiction, distanced by about a decade between two of them, reference the aftermath of World War I and the concerns on the eve of World War II, in a prophetic vision of the latter. The readings that can be extracted from these works are diverse, complex, and rich, in their relationship between artistic expressions, architectural and metropolitan creation, and technological, political, and social dynamics. Like

any artistic creation, their outcome is always open to various interpretations, extending over time as food for critique and a resource for new creations. In this brief dissemination space, distanced by almost a century from the first work, more than an exhaustive description of the films—which can probably be accessed through various search engines or Artificial Intelligence resources that characterize our time—we aim to highlight

aspects that cross through all three works and the value of fiction in the construction of the imaginaries of architecture and the future metropolis.

In *Metropolis* by Fritz Lang from 1927, we recognize a work open to successive interpretations and critiques over time, revealing the expressionist influence, supported by the artistic graphics of Erich Kettelhut, which can be associated with the temporal proximity of the drawings from *The Metropolis of Tomorrow* by Hugh Ferriss. More than the interpretations of social critique, or even the notable production of sketches and models involved in the film's production, it is the transformation of the gaze upon the contemporary metropolis that changes. The possibilities of traveling through multiple focal points and environments, in a quick transition between aerial views and underground, claustrophobic scenarios, where light and shadow play predominate, reveal an artistic creativity strongly linked to expressionism.

Between the artistic avant-gardes and the prominence of the American contemporary metropolis in construction, with the new skylines of Chicago and New York, reality and fiction blend together and feed Fritz Lang's imaginations in a Euro-American metropolitan simulation. The historical-symbolic explorations of a Tower of Babel, the aspirations of Louis Sullivan in controlling the urban aesthetics of skyscrapers, or the *Ville de L'avenir* and *Rue future* of 1910 by Eugène Hénard, are mixed as possible resources for the scenographic creation of *Metropolis* in a fascinating recombination [4]. The juxtaposition and contrasts between the expressions of a more refined and austere architecture, reflecting the modern movement and the Bauhaus of Gropius, alongside eclectic historicist heritages and the valorization of Art Deco in early skyscrapers, can still be recognized.

In another cinematic work, *Just Imagine* by David Butler from 1930, we find the strong scenographic impact of skyscrapers, seeking, however, to explore a more generous environment. This science fiction musical reveals a vision of the future New York for the year 1980, in settings created by Stephen Gooson and Ralph Hammeras, which earned a nomination for Best Art Direction

at the 1931 Oscars. The same sets were reused in the *Flash Gordon* and *Buck Rogers* serials. In the imagined metropolis' views, we recognize the influences of futurists and the expressions of Hugh Ferriss, already somewhat distanced from the approval of the 1916 "Zoning Law" urban regulation, which would lead to the scaling and setback of skyscraper volumes—the pyramidal effect. The new metropolis expressed itself as the contemporary Babylon of a technological civilization in the Machine Age. The kinetic nature of this fiction reveals the contagion of the modernist implantation ideology, accompanied by the valorization of free urban spaces between buildings and an architectural composition strongly linked to Art Deco, much in vogue in then-recent examples like the Empire State Building (1930), referencing the tallest building in the world at the time. Between the alternating focus on skyscrapers and futuristic apartments, the terraces stand out, where flying cars land. These landscaped terraces represent a desire for the contemporary metropolis, which would eventually be realized in future examples such as the Rockefeller Center (1933).

In this cinematic fiction, surrounded by the proliferation of individual aerial transportation, "flying cars" stand out, somewhat resembling current drones. Despite the focus on these transportation systems, several levels of connection and movement forms between buildings and urban spaces are distinguished. In the urban landscapes of *Just Imagine*, a future emerges where the sound of kinetic fiction appears in urban movements between buildings, but also inside apartments, through the signaling sounds of messages on devices and communication systems or integrated and reversible furniture elements.

The futuristic metropolis seems to assert itself between the new scales of the American city, social dystopias as a reflection of the still-recent memories of the first world conflict, and the imaginaries of architectural and urban renewal through a modern movement with international aspirations. In the prophetic context of World War II, the film *Things to Come* by William C. Menzies, from 1936, was created. This cinematic work expresses an alarming message about the destructive effects of war, revealing ruined cityscapes, with particular



Fig. 3 Fritz Lang (1927) *Metropolis*, David Butler (1930) *Just Imagine*, William C. Menzies (1936) *Things to Come*

emphasis on some of their symbols and destroyed monuments. With a scenography that involves the social and physical reflections of destruction, we find in the final part of the film a narrative about the construction of the future city, “Everytown”. This renewal project indicates the ambition and controlling power of a new social, architectural, and urban order through industrialization and the modernist ideology, close to the exalted futurist manifestos through a surprising kinetic simulation.

The renewing seduction is no longer dominated by the imagery of conventional American skyscrapers but through an underground city of several levels, not clarifying an apparently well-defined plan by its great architect—the Cabal character. The new city is profoundly industrialized and influenced by appeals to prefabrication, and the concept of the house as a machine for living, as seen in Corbusier’s ideas through *Vers une architecture* (1923). There is also the strong presence of machines and moving objects, referenced in

the avant-garde constructivist expressions, close to László Moholy-Nagy. The visual effects of modernist kinetics do not always reveal an explicit purpose, with more importance placed on the rhythms of assembly lines and mass production.

The new buildings, compared to previous fictions, reveals a greater amplitude of glass panels and metal structures that allow for remarkable effects of transparency and light plays, emerging in the supposed underground city (Fig. 3). More distanced from the references of Louis Sullivan, this kinetic fiction is supported in Corbusian purism, Gropius’s transparency, Frank L. Wright’s dynamic planes, Mies’s open spaces, and the fluidity of Alvar Aalto, referenced through one of his furniture creations—*chair 31*.

The futuristic “Everytown” seems to oscillate between influences of Italian futurism and German expressionism, accompanied by new icons of modernism. In a creative process of inventing the future, we find objects and techniques that seem to approach or even anticipate

the great projections of current-day images, either through flat indoor screens resembling *LCDs* or holographic projections of political propaganda.

There is greater harmony between the more refined interior scenes, the furniture, and the exterior space. The clothing used by the characters takes particularities that express a certain proximity to Roman imperial garments. This work, based on Herbert Wells' fiction, anticipates the developments of World War II, revealing the desire for a new futuristic and modernist aesthetic that would successively assume the new scales and speeds of architectural production in the post-war period.

The three works express the effects of contagion between the artistic avant-gardes, architectural exploration in the transition from the influence of Art Deco to modernism, and the metropolitan dynamism, through the multifocal gaze proposed by the futurists, occupying a privileged space in cinematic fiction as an experiment for the future.

4 Final Considerations

The search for connections between art and technological and scientific developments in the early twentieth century allows us to question the tensions between heritage legacies and the new forms and speeds of artistic and architectural production towards the future. Highlighting the relevance of the Futurist movement, with particular emphasis on the Italian manifestos, we find a strong desire for social and political renewal with aesthetic expressions of a turbulent time that involved the two major world conflicts of the twentieth century.

In this context, the relationships between fiction, technological developments, and artistic production reveal paradigm shifts, with an emphasis on the importance of changes in space-time relationships resulting from new multifocal dynamics.

Fiction becomes a product of contamination and interaction between emotional and rational conflicts, emphasizing the relevance of representative examples of this spirit, with a particular

focus on the importance of cinema and its kinetic expression.

The three selected examples of cinematic fiction indicate the concerns about the commitments of the contemporary metropolis, about its dialectics, between technological power and social and human balances. Supported by a period of strong creative dynamism, fueled by the early century avant-gardes, these urban and architectural fictions revealed by the cinematography of the time leave numerous questions and interpretations open.

A century from these cinematic productions, we still recognize the strong presence of their enthusiasm and suspicions, of the imbalances between the power of human ingenuity and the ability to implement and manage it intelligently and prosperously. These are the dynamic games, where the legacy of the artistic avant-gardes, particularly Italian Futurism, awakens us to the creative and destructive capacity that proves to be recursive, sometimes emerging between nostalgia, resignation, and a certain apathy. In periods of great change, where technological and social revolutions are referenced, the imaginaries of recreation and the contaminations between fiction and reality emerge as an opportune space for the revision and reflection of future projects and places.¹

References

1. Frampton K (1981) *História crítica de la arquitectura moderna*. Gustavo Gili, Barcelona
2. Pizza A, Garcia M (2002) *Arte y Arquitectura Futuristas (1914–1918)*. Caja Murcia, Valencia
3. Giedion S (2004) *Espaço, Tempo e Arquitetura*. Martins Fontes, São Paulo
4. Dethier J, Guiheux A (1994) *Visiones urbanas, Europa 1870–1993. La ciudad del artista, la ciudad del arquitecto*. Centre de Cultura Contemporània de Barcelona, Barcelona
5. Pinto P (2015) *Cassiano Branco 1897–1970, Arquitetura e Artificio*. Caleidoscópio, Lisboa
6. Rodrigues A (1999) *Cinema e Arquitectura. Cinemateca portuguesa—Museu do cinema*, Lisboa

¹ This work is financed by national funds through FCT—Fundação para a Ciência e Tecnologia, I.P

A Look at the Frozen Time of the Italian and Portuguese Outskirts by Gabriele Basilico

Laura La Rosa

Abstract

The peripheries are the protagonists in the work of architect-photographer Gabriele Basilico—urban landscapes that have either undergone transformation or are on the cusp of change. The focus of his images is never the architectural object itself, but rather the life that surrounds it, which reveals often hidden aspects such as emptiness or states of abandonment. The contrast within the scene's centers on the duality—old versus new—of urban expansion. In his praise of slowness, Basilico's photographs strive to reach the essence of vision, seeking a possible meaning within place. What emerges is a revelation of photography itself: each image becomes a project—not only in intention but also in composition—like a drawing imprinted on film. This compositional technique recurs across his works in both Italian and Portuguese cities and succeeds in highlighting morphological characteristics and visual *leitmotifs* repeated with the same seriality as his photographs. This paper aims to analyze the typological traits shared by the cities photographed in Italy and Portugal, conceiving the city as a place where countless gazes intersect, and fragments of memory surface from distant places, constructing a

visual narrative that photography seeks to return through a new form—a new interpretation of reality.

1 The Idea of the City in the Work of Gabriele Basilico

The experience that definitively establishes the connection between photographer Gabriele Basilico and Portugal occurred in 1996, when he was invited to participate in the collective project *Uma cidade assim*¹ in Matosinhos. The invitation came from Tereza Siza, sister of architect Álvaro Siza, a prominent figure in both Portuguese architecture and photography. This project allows us to identify key elements of Basilico's ideology and approach in relation to the city and photography, outlining a visual investigation method that is applicable in other contexts as well. This approach, in fact, is the result of a process matured through experience and the refinement of specific photographic codes, which have become essential tools for analyzing and representing the urban landscape.

The project, which included contributions from photographer Augusto Alves da Silva and featured Álvaro Siza's drawings, aimed to investigate the urban reality of Matosinhos

L. La Rosa (✉)

Freelance professional, Turin (TO), Italy
e-mail: lauralarosa3@gmail.com

¹ *Such a city*, sponsored by the Câmara de Matosinhos, 1996.

through different modes of representation—namely drawing and photography—highlighting the transformations of urban space and the relationship between architecture and memory. The goal was not merely to address architectural questions, but to build a cultural connection with place and to find a shared way of interpreting the landscape and the traces of human presence. In short, the intent was to reflect on the collective heritage embedded in spontaneous architecture that defines the soul of a place, embracing both personal daily routines and shared social rituals [1].

Already renowned for his sustained interest in urban landscapes, Basilico shared with Siza a similar conception of the city—as a unified entity in which transformations over time do not signify rupture but instead mark stages in an ongoing evolutionary process. Drawing on the reflections of Aldo Rossi, the city is understood as an urban fact—a product of accumulated human and social experiences, a complex system where «every place is undoubtedly unique, precisely to the extent that it shares certain affinities or analogies with other places» [2, p.146] rendering concepts such as identity or foreignness relative.² The individual elements of this urban language cannot be considered in isolation; they must be seen as parts of a larger whole. Buildings must be understood in relation to the urban fabric in order to preserve continuity with tradition.

In this light, what Basilico seeks through the photographic act is a kind of “unity of vision” [2, p. 147] understood as a representation that is both direct and symbolic. This objective is often achieved through subtle modifications of perspective, allowing for a coherent reading of space. The image’s construction is not limited to photographic strategies such as symmetry, frontal emphasis, or the balance between solid

and void; rather, it involves an aesthetic reduction aimed at discovering an underlying order within the complexity of the real. This visual coherence—often not immediately perceptible—does not solely reside in the observed subject, but emerges through the act of seeing itself, in which the photographer’s eye becomes a tool for interpreting and revealing urban space. Basilico explores the image’s ability to bring together the various layers of the city—to unify them within a temporal dimension or, conversely, to highlight the tensions and discontinuities embedded in the urban landscape.

2 Matosinhos. The Project

The task assigned to Basilico within the Portuguese project was to document the city of Matosinhos—Álvaro Siza’s hometown—through photography. Once a major industrial hub focused on fish processing, the city now presents an urban landscape made up of abandoned warehouses, industrial buildings, and modest residential structures. These remnants reflect both the decline of an economic model and the potential for urban regeneration. Basilico’s images, therefore, serve as both a visual documentation and a reflective inquiry into place.

His photographs, in classic black and white, form a kind of visual narrative, portraying the city in its most essential and unadorned form. The sequence unfolds like a walk through the streets and neighbourhoods, gradually constructing an inventory of the city’s components. Each frame bears witness to the architectural and social stratification of the urban environment, offering not just documentation, but also an evocation of memory and transformation. Among the photographs, a striking image depicts a row of low, single-story houses arranged symmetrically «like an improvised little theatre» [3, p. 5] (Fig. 1). These buildings—closer to informal settlements than to formally planned structures—are modestly finished, with plain plastered facades. The public space in front is shaped by daily life: laundry hanging outside becomes a sign of domestic occupation and an assertion of presence. In the back-

² Ogni luogo è certamente singolare proprio nella misura in cui possiede sterminate affinità o analogie con altri luoghi, anche il concetto di identità e quindi di straniero è relativo. [...] Ho sempre affermato che i luoghi sono più forti delle persone, la scena fissa è più forte della vicenda. Questa è alla base teorica non della mia architettura, ma dell’architettura. [...] Credo che il luogo e il tempo siano la prima condizione dell’architettura e quindi la più difficile. [8, p. 158]



Fig. 1 Matosinhos © Gabriele Basilico/Archivio Gabriele Basilico

ground, almost hidden, looms the silhouette of an industrial shed, creating a visual and conceptual contrast between the domestic and industrial, the lived and the obsolete.

Following this sequence, other images depict streets where small residential buildings stand alongside newer multifamily housing—evidence of the city's evolving urban fabric. Front-facing shots of abandoned industrial sites reveal broken windows, rusted iron, and faded signs—structures missing roofs or entire walls, as if frozen mid-collapse. Even marginal elements such as dry-stone walls that delimit undeveloped areas take on symbolic significance. Tall grass growing freely in these interstitial spaces suggests patches of landscape untouched by construction—remnants where nature resurfaces as a quiet witness to the passing of time.

Despite the complete absence of human figures—characteristic of Basilico's mature period—the neighbourhood does not feel abandoned. The presence of cars, traffic signs, and storefronts conveys the sense of a momen-

tary suspension of life, rather than its absence. Basilico's photography captures not only the built landscape but also the tension between presence and absence, between memory and expectation.

A similar attention to the relationship between built space and landscape can be found in the photographs Basilico dedicates to the port of Matosinhos, which appears imposing and majestic compared to the smaller scale of the town that faces it (Fig. 2). The port, with its iconic black cranes lined up along the docks, becomes a privileged vantage point for analyzing the connection between the city and the sea—between the urban fabric and the horizon. The sea, which marks the city's edge, is framed as a «natural boundary, a vast plane compensating for the solid ground» [4, p. 80]. Through a strongly geometric visual structure, Basilico explores this marginal zone—this urban periphery—posing the question of how the city ends and how the natural seascape begins. The interaction between these two types of space becomes a key to understanding the dynamics of



Fig. 2 Harbour of Matosinhos © Gabriele Basilico/Archivio Gabriele Basilico

urban transformation and the ways in which the city relates to its geographic horizon.

This reflection is rooted in a path already undertaken by Basilico during an earlier project focused on documenting the French coastline. On that occasion, the photographer developed his ability to stretch the duration of observation, seeking a prolonged engagement with the landscape and refining an analytical approach to territorial representation. That work was part of the *Mission Photographique* de la DATAR, an initiative commissioned by the *Délégation à l'Aménagement du Territoire et à l'Action Régionale* between 1984 and 1989. The program involved Basilico, alongside other photographers, in an analysis of the French landscape during the 1980s, with the goal of documenting both the transformations and the elements of continuity that define its identity. The mission was conceived to explore new visual languages for representing a territory in rapid transition, at a time when urban planning was in crisis and new models of development and settlement were urgently

needed following the decline of the industrial era. The project addressed major social and economic phenomena—such as population growth, rural exodus, and mass urbanization—processes which, in such an accelerated context, required urgent visual documentation before change became irreversible. In this sense, photography was not just a tool for documentation, but also a means of critical reflection on the mutation of the landscape and the construction of collective memory.

The photographic experience of Matosinhos is characterized by a more intimate and contemplative approach compared to the one conducted in France a few years earlier. Nevertheless, Basilico is able to convey—almost effortlessly, thanks to his maturity and years of research on the urban landscape—a profound ability to capture the city in a suspended time, in the total absence of people, where he could fully embrace the slowness of the gaze. This project also reveals a particularly meaningful aspect of Basilico's approach to the city: the ability to develop a familiar vision of urban space, as though he were able to internalize and then

translate, through his lens, the perception of the city as lived and narrated by Álvaro Siza himself. This connection was made possible by their direct experience of walking through the city together—an encounter where Siza's personal narrative and urban memory intertwined with Basilico's visual sensitivity. That relationship enabled the photographer to portray the city not merely as a collection of volumes and constructed spaces, but as a stratified organism, rich in meaning, where the subjective and the collective dimensions merge into a unified interpretation.

3 The Margins and Peripheries

Within this reading, a specific interest emerges—shared with architect Álvaro Siza—for the peripheries and the broader context. The peripheries are seen not merely as marginal areas, but as places of ongoing transformation, where beauty is «difficult to find with an analytical spirit, because the periphery is a confused, chaotic, and decaying place. What Gabriele finds in these places has to do with time, which slowly brings things together, and with an immanent beauty. It's not about details or formal qualities. It explains the discomfort all architects feel when seeing their work completed. In fact, only the introduction of the work into its context, its 'aggression' toward the city, and the passage of time can reveal the deeper meaning of things, which never lies in the drawing or in the design choices themselves» [5, p. 217].

Basilico demonstrates a particular sensitivity in capturing the spontaneous character of the settlements he photographs, which often result from unregulated growth rather than structured urban planning. These are spaces where the city develops according to its own internal logic, and where the act of inhabiting takes on fluid and adaptive forms—shaped by the daily needs of the community and deeply interwoven with the surrounding context. This interest in the peripheries is not limited to Portuguese cities but recurs across all urban contexts that Basilico photographs and documents. Through his atten-

tive gaze, he seeks out points of contact between different cities, identifying analogies and relationships that emerge from the spatial configuration and the evolving urban landscape.³ His images become true urban portraits, captured in their entirety and complexity. It is no coincidence that Basilico avoids isolating architectural fragments or abstracting them from their surroundings: his photographs do not focus on magnified details or extreme close-ups, but rather on entire buildings and the spatial relationships they create among one another. Often, the visual absence of a building within the photographic frame is represented by the projection of its shadow, indirectly suggesting its presence and emphasizing the interconnectedness of architectural elements within the broader urban structure.

Another distinctive and unique element of the Matosinhos project—within Basilico's overall body of work—is the parallel between his photographic medium and the graphic language of Álvaro Siza (Fig. 3). On one hand, Siza's sketches are defined by decisive, essential lines aimed at conveying the nature of places. These drawings can almost be read as visual narratives of memory—representing what the eye captures in a holistic glance, rather than offering a detailed depiction of reality. On the other hand, Basilico's photographs adopt a similarly rigorous, geometric, and selective composition, attentive to the urban context.

In both approaches, the visual syntax is clear and direct, devoid of unnecessary elements. Siza, with precision and a kind of chaotic harmony, decides what to include in his sketches; likewise, Basilico makes equally deliberate choices in defining the limits of his visual field, carefully selecting what to include and exclude from his representation.

What we witness is a revealing of photography, and a deeper understanding of it as a true visual project—not only in terms of intent but also in the construction of the image itself. Each photograph is the result of a process of selec-

³ «Riflettendo a posteriori su tutti questi viaggi, questi paesaggi urbani, questo andar per luoghi, mi sembra che una condizione costante sia l'attesa di ritrovare corrispondenze e analogie». [8, p. 114]



Fig. 3 a, b Matosinhos. Comparison between Basilico's photographs (on the left) © Gabriele Basilico/Archivio Gabriele Basilico; Siza's drawings (on the right) ©Alvaro Siza/ Archivio Alvaro Siza

tion and synthesis, where composition becomes a structuring element, comparable to architectural or graphic design—like a drawing imprinted on film.

4 The Experience in Porto

From both a professional and artistic maturity standpoint, the work carried out in Matosinhos is significant for two main reasons: on one hand, it is the result of a rich body of photographic experience accumulated up to that point; on the other, it represents a further engagement with the Portuguese territory. Despite his well-known aversion to air travel, Basilico had in fact already visited Portugal the previous year, in 1995, to produce a reportage on the city of Porto (Fig. 4). Even in this experience, the resulting images offer a portrayal of the city that departs from more iconic or tourist-oriented representations, favoring instead a more analytical reading—focused on the stratification of the urban fabric and on the relationship between the various scales of inhabitation.

One of the most striking aspects of the Porto photographs is the city's complex topographical configuration. Basilico precisely captures the structure of a city built on multiple levels, marked

by a rhythm of solids and voids, buildings closely packed together, and sudden openings that reveal glimpses of the Douro River, interwoven with narrow alleys, staircases, and sloping planes. The river appears repeatedly throughout the images, not merely as a backdrop but as a true boundary that defines the city. Just as he had done with the sea in Matosinhos, Basilico explores the relationship between the city and its riverfront, capturing the façades of buildings overlooking the water, the bridges connecting the two banks, and the port infrastructures that testify to Porto's historical and economic relationship with maritime commerce. His framing often emphasizes the balance between the built environment and the natural landscape, showing how the river is not simply a border, but a vital element that both crosses and structures the city.

As in many of his other photographic endeavors, Basilico does not limit himself to documenting the historic center or the most representative monuments. Instead, he moves toward marginal zones and transitional areas—those between the consolidated urban fabric and the more peripheral districts. He often prefers to juxtapose buildings with one another, rather than presenting them strictly in relation to their immediate surroundings. The images portray industrial buildings, abandoned infras-



Fig. 4 Porto © Gabriele Basilico/Archivio Gabriele Basilico

tructures, and housing blocks that narrate the city's ongoing transformations.

In his visual account of Porto, Basilico offers a reading devoid of formal artifice, laying bare the reality of the city in all its detail. The façades of the buildings present themselves as mosaics of materials, styles, and temporal layers. The city emerges as a living organism, where every construction bears the marks of time: peeling walls, weathered plaster, windows and balconies that silently testify to human presence and the everyday use of urban space—even though, once again, the human figure is physically absent from the images.

The city appears almost suspended, as if in a state of waiting, yet never abandoned. The empty streets, silent squares, and façades rendered in black and white create a quiet atmosphere that encourages a more attentive observation of the urban structure—free from distraction.

5 Photographic Codes and Observation Method

Emptiness—understood not as mere absence, but as a constitutive element of urban space—plays a central role in Gabriele Basilico's photographic research, as already seen in the projects discussed thus far. It takes the form of a constructed space, a place dense with memory and past events, a silent protagonist that guides the composition of the image. Silence and the absence of human figures are not perceived as subtractions, but rather as tools through which the photographer constructs a visual narrative capable of revealing what would otherwise remain unseen. As Basilico himself affirms: «I photograph emptiness as a protagonist in its own right, with all its lyricism, with all its strength, with all its humanizing power of communication, because in architecture, emptiness is a

structural, integral part of its being [...] Only in emptiness and in silence is it possible to feel and to see what is not normally seen or felt» [2, p.101].

This perspective took shape in Basilico's earliest works, most notably in Milano. *Ritratti di fabbriche* (Milan: Portraits of Factories), one of his most emblematic projects and a fundamental milestone in his career, through which he developed a method of observing the urban landscape that would become a hallmark of his work.

The project dates back to 1978, when Basilico was commissioned by the National Institute of Urban Planning to conduct a photographic survey of the city of Milan, his hometown. In his writings, Basilico often recalls the anecdote tied to the creation of these images, describing a Milan that was unusually clear and luminous: «The city was almost deserted, and an extraordinarily strong wind had cleared the horizon: it was a day of exceptional brightness, one of those rare days that amaze Milanese people because the mountains are so visible it feels like you could reach out and touch them» [7, p. 51].

This scenario—uncommon in a city typically characterized by poor visibility—certainly contributed to the visual clarity and precision that distinguish the final work.

The objective of the project was to read the entire urban fabric in relation to the industrial buildings—documenting the productive architectures that, over the course of the twentieth century, had taken shape within the city. This may well have been the working experience that sparked Basilico's enduring interest in urban peripheries, a theme that would define his entire career. The photographs are strongly influenced by the typological approach of Bernd and Hilla Becher, with predominantly frontal and symmetrical shots in which the buildings emerge with an almost analytical clarity. The images portray mostly disused industrial façades, surfaces marked by time, opaque glass windows, and metal structures outlining rigid, repetitive geometries—photographs that often resemble technical drawings in their sharpness and geometric definition.

From a methodological point of view, *Milano. Ritratti di fabbriche* stands at the crossroads

between systematic cataloging and industrial archaeology. The use of a neutral visual register, devoid of dramatic emphasis or subjective interpretation, results in an image of the city as a living archive of historical layers. The apparent simplicity of Basilico's compositions reveals a remarkable ability to read the territory: each shot not only documents but interrogates the relationship between architecture, production, and urban transformation.

In this project, emptiness takes on an even more intense meaning, charged with contrast: factories—traditionally associated with productivity, labor, and social life—are immortalized in a state of suspension and silence, a condition of absence that enhances the documentary value of the image. This unbiased, observational approach was later consolidated throughout Basilico's career and adapted to different urban contexts, such as the city of Beirut, where photography becomes a tool for investigating a landscape marked by destruction, yet still full of traces of life and collective memory.

Despite the theoretical depth one might attribute to his method, Basilico always rejected a rigidly structured conceptual approach, avoiding any predefined theoretical framework. Instead, his photographic practice is defined by a series of visual codes—a way of seeing, selecting, and recording the surrounding world. His goal was never to construct an altered version of reality, but rather to offer a clear and recognizable representation of the urban landscape, working with the visible in order to make the invisible perceptible.

In this view, photography is not limited to documentation but becomes a tool of revelation: through a neutral and unbiased gaze, the photographer is able to capture the deep structures of the city, their relationships, and their transformations over time [6, pp 334–343].

This ability to read territory and architecture translates into a method that, while never formally declared as such, was consolidated through consistent practice. Basilico approached urban preexistence without prescriptive intent but with constant attention to those recurring patterns and analogies that emerge across different cities. His gaze is capable of identifying a universal dimen-

sion of urbanity, one that transcends geographic specificities to reveal deep connections between built spaces and the human experiences that inhabit them.

This quality is especially evident in his images, where the specific city is not always immediately recognizable: each shot, though rooted in a precise context, seems to belong to a broader narrative in which the relationships between architectural and urban elements take center stage. Basilico works on these silent connections between spaces, documenting reality with a neutral and measured approach, aware that the urban landscape is never static, but subject to constant transformation. Light, the passage of time, and social and urban change render each photograph a unique and unrepeatable document, thus justifying the need for a serial approach to the representation of the city and the urban project.

Unlike many of his contemporaries who focused on capturing the decisive moment or fleeting episodes of urban life, Basilico built a visual method based on slowness and contemplation. In an era of increasingly rapid urban change, his work stands as an example of extraordinary maturity—an invitation to rediscover an analytical gaze upon the city and to interpret it with critical awareness.

His approach offers a layered reading of built space, where every element becomes a witness to an evolving story. The relevance of his photog-

raphy in a world increasingly fast-paced and stereotyped encourages us to pause—to step back from the frantic flow of action in order to better understand reality. As he himself states: “What always matters is the possibility of creating a new sensibility. A new sensibility with which to interpret the conformed, chaotic, and indecipherable world that lies before us.” [2, p. 148].

References

1. D’Alfonso M (2016) In: Basilico G, Siza A (eds) *Matosinhos. Non c’è architettura senza luce*. Corsiero Editore, Reggio Emilia
2. Basilico G (2007) *Architetture, città, visioni. Riflessioni sulla fotografia*. In: Lissoni A (ed). Bruno Mondadori, Milano, pp 145–152
3. Siza T (2016) Basilico G, Siza. *Matosinhos. Non c’è architettura senza luce*. Corsiero Editore, Reggio Emilia
4. Basilico G (2023) *Il mistero dei porti. Scritti e conversazioni sulla fotografia 1970–2012*. In: Valtorta R (ed). Dario Cimorelli Editore, Milano, p 80
5. Siza Á, Basilico G, D’Alfonso M, Soares J (2023) *Il senso dello sguardo nel progetto. Scritti e conversazioni sulla fotografia 1970–2012*. In: Valtorta R (ed). Dario Cimorelli Editore, Milano, p 217
6. Basilico G (2013) *Abitare la metropoli*. Contrasto, Roma, pp 334–343
7. Basilico G (1981) *Milano ritratti di fabbrica*, SugarCo, Milano, p 51
8. Basilico G (2023) *Scritti e conversazioni sulla fotografia 1970–2012*. In: Valtorta R (ed). Dario Cimorelli Editore, Milano, pp 114–158

Portugal Fim de Século: The Project for Costructing the Country's Image in the *Encontros de Fotografia* in Coimbra (1993–1996)

Sebastiano Antonio Raimondo 

Abstract

This essay examines the evolution of the **Encontros de Fotografia de Coimbra** within the context of Portugal's cultural transformation following the *Revolução dos Cravos* (1974). After decades of isolation under the **Estado Novo** dictatorship—which had relegated photography to purely functional roles or the conservative aesthetic canons of pictorialism—the country faced a profound “representational void.” Established in 1980 within the Academic Association of Coimbra by **Manuel Miranda, Fernando Zeferino, and António Miranda**, the *Encontros* became, between 1993 and 1996, the epicenter of a new national “iconographic foundation.” Under the direction of **Albano da Silva Pereira** and the curatorship of **Tereza Siza**, and influenced by **Pedro Miguel Frade's** philosophical thought on the concept of *espanto* (astonishment), the festival evolved from a mere exhibition platform into an **epistemological laboratory**. By analyzing the manifesto-edition *Jardins do Paraíso* (1993) and the subsequent regional missions (1994–1996)—*Itinerários de Fronteira*, *Terras do Norte*, and

Sul—this research explores the construction of a visual cartography of contemporary Portugal. A central axis of this study is the critical comparison with the landmark Italian project **Viaggio in Italia** (1984), conceived by Luigi Ghirri. While the Italian initiative operated through “**subtraction**” to deconstruct an already saturated and monumental imaginary, the Portuguese project functioned through “**construction**,” establishing an unprecedented visual repertoire for a nation lacking a systematic modern inquiry into its territory. Drawing on archival research and original interviews conducted by the author with Pereira and Siza, the essay outlines the legitimization of photography as an essential tool for critical reflection on identity and collective memory.

1 Introduction

This study is part of a doctoral research project in Architecture of Contemporary Metropolitan Territories at Iscte—University Institute of Lisbon. Due to the limited systematization of the state of the art on this subject, the investigation is based on a direct research methodology. This approach integrates the analysis of previously uncatalogued archives—including the CAV in Coimbra and various public and private funds—with a substantial body of original inter-

S. A. Raimondo (✉)

DiPA, Accademia di Belle Arti di Palermo, Palermo, Italy
e-mail: sebastiano.raimondo@abapa.education

Dinâmia'Cet, ISCTE – Instituto Universitário de Lisboa,
Lisbon, Portugal

views. Specifically, dialogues with Tereza Siza (Matosinhos, February 16, 2020) and Albano da Silva Pereira (Coimbra, May 30, 2022) have provided deep insights into the operational dynamics and theoretical orientations of the *Encontros de Fotografia de Coimbra*. Contemporary Portuguese photography evolved at a slow and fragmented pace, grappling with institutional voids, cultural resistance, and a delayed process of artistic legitimization. As observed by Rui Prata [1] and Mariana Gaspar [2], for a significant portion of the twentieth century, photography was primarily relegated to documentary and functional roles, remaining isolated from international avant-garde movements. It was not until the latter half of the century, propelled by key events and initiatives, that the medium achieved autonomous artistic status. These milestones included the *Inquérito à Arquitectura Regional* (Regional Architecture Survey, 1955–1957), the photobook *Lisboa, Cidade Triste e Alegre* (1959), the establishment of the National Photography Collection (1989), the rise of specialized festivals and exhibition spaces, and, most crucially, the *Encontros de Fotografia de Coimbra*.

While the arrival of photography in Portugal in the nineteenth century was remarkably swift, as noted by Gaspar, its consolidation as an independent art form was stifled by a conservative cultural climate. Pictorialism dominated—supported by the photographic salons of the *Grémio Português de Fotografia*—imposing a formalist model that for decades hindered Portuguese photography from aligning with the experimental trends emerging internationally.

One of the first significant ruptures occurred in 1959 with Victor Palla and Costa Martins' publication of *Lisboa, Cidade Triste e Alegre* [3]. Though overlooked at the time, the book is now recognized as a foundational work of Portuguese photography. Its narrative structure, influenced by cinema and literature, pioneered a photobook approach that would later be regarded as one of the twentieth century's most original. Nevertheless, its initially lukewarm reception reflects the difficulties the medium faced in gaining legitimacy within the national art scene. The creation of the Portuguese Institute of Photography (1968) and

Ar.Co—Center for Art and Visual Communication (1973) marked progress in technical training, yet artistic photography remained absent from traditional academies.

It was during the 1980s that Portuguese photography underwent a qualitative leap, catalyzed by the *Encontros de Fotografia de Coimbra*. The event emerged within a political and cultural landscape profoundly shaped by the transformations following April 25th and the tensions of the *Processo Revolucionário em Curso* (PREC). The *Encontros* originated from the Center for Photographic Studies (CEF), a project launched in 1974 within the Academic Association of Coimbra (AAC) at a time when the university was a site of intense political mobilization. Under the direction of Albano da Silva Pereira and the curatorship of Tereza Siza, a pivotal figure in the *Encontros'* inception, maintained a deliberately neutral stance, refusing to allow photography to be instrumentalized for ideological ends. In 1982, one of the event's first achievements was an exhibition based on the book *Lisboa, Cidade Triste e Alegre*, produced in collaboration with the newly founded *Galeria Ether*, established by the critic and historian António Sena.

This position set the *Encontros* apart from other cultural movements of the era, which frequently aligned photography with revolutionary political discourse. As Portuguese photography continued to contest the legacy of “*salonismo*”—a conservative exhibition model associated with the *Estado Novo* regime—Pereira and his collaborators aimed to break with tradition and synchronize Portugal with international contemporary trends.

Over the years, the *Encontros* became a definitive reference point, introducing major international figures—such as Duane Michals, Robert Frank, Neal Slavin, and Joel-Peter Witkin—to Portugal while fostering emerging local talent. The event effectively integrated photography into the Portuguese cultural panorama, encouraging greater appreciation from galleries and collectors. Following the Coimbra model, other photography festivals arose, such as the *Encontros da Imagem* in Braga (1987), *FotoPorto* (1988), the Vila Franca de Xira Biennial (1989), and the Cerveira Biennial, which began including photog-

raphy in 1986. These events solidified a national exhibition circuit, promoting both contemporary production and historical research. As Rui Prata emphasizes, these meetings were essential for legitimizing photography within cultural institutions, contributing to its growing acceptance as an artistic language.

Another vital milestone was the 1989 creation of the National Photography Collection, an initiative of the Secretariat of State for Culture. Curated by Jorge Calado, the collection aimed to build a representative archive of both Portuguese and international photography, providing a foundation for future exhibitions and research. However, as Gaspar points out, the collection suffered from a lack of institutional support and remained virtually invisible for decades, first stored at Serralves and later at the Portuguese Center of Photography.

The 1990s marked a period of consolidation, with the founding of the Portuguese Center of Photography (CPF, 1997) and the increasing presence of the medium in museums and galleries. Authors such as Daniel Blaufuks, Luís Palma, José Manuel Rodrigues, and António Júlio Duarte gained international recognition, while photography found its way into private collections, such as the Berardo Collection and BESart. The emergence of the BES Photo prize and the inclusion of photography in art fairs bolstered its market position, though it remained incipient and reliant on a small number of investors. Despite this consolidation, a theoretical void and a lack of systematic representation of the territory persisted. The *Encontros* sought to fill this gap by evolving into a true **epistemological laboratory**, shifting their focus toward a philosophical reflection centered on the thought of Pedro Miguel Frade. By highlighting the philosophical and perceptive dimensions of photography, Frade helped transform the *Encontros* into a space for questioning, rather than merely celebrating, the image. His thought remains relevant today, as it facilitates a broader understanding of photography as an event that continuously reshapes our perception of the world and the images that represent it (Fig. 1).

2 *Figuras do Espanto and the Encontros de Fotografia*

The 12th *Encontros de Fotografia de Coimbra*, held in 1992, marked a milestone in the critical reflection on photography in Portugal by paying tribute to Pedro Miguel Frade. Frade's innovative and critical thought deeply influenced the event's programming, consolidating a theoretical approach that extended photography beyond its technical or documentary character. His premature death that same year gave the tribute an even more symbolic weight, further reinforced by the posthumous publication of his book, *Figuras do Espanto: A Fotografia Antes da Sua Cultura* (Figures of Astonishment: Photography Before Its Culture), edited by José Afonso Furtado [4].

This work compiles articles Frade wrote for the *Sete Ponto Sete* supplement of the *Diário de Lisboa* (1986–1987) and his master's thesis defended at the *Universidade Nova de Lisboa* (1989). In this text, Frade argues that before becoming a cultural object integrated into artistic circuits, photography was a phenomenon of **astonishment** (*espanto*)—a pure visual impact that preceded any attempt at aesthetic or functional categorization.

His approach diverges radically from traditional readings that reduce photography to mere technique, historical record, or artistic expression. Instead, Frade investigates the medium's primordial impact in the nineteenth century, interpreting it as an event that challenged established forms of perception and the representation of reality. This inaugural moment, marked by wonder and **estrangement**, occurred prior to any institutional or cultural assimilation.

To analyze this transformation, Frade employs an “**archaeology of the modern gaze**” within a Foucaultian framework, examining how photography fits into a long process of the rationalization of vision. According to the author, photography did not represent an abrupt rupture but rather a continuation in the evolution of visibility technologies—part of a lineage of technical devices that reshaped how humanity understands the world.

Fig. 1 Coimbra 12 August 2022. Photograph by Sebastiano Antonio Raimondo, captured during an interview with Albano da Silva Pereira



Furthermore, Frade establishes a critical dialogue with Roland Barthes, specifically with *Camera Lucida* (1980), contesting Barthes' attempt to isolate a single photographic "essence." For Frade, such a search overlooks the **polysemic** nature and the multiplicity of uses of photography, while simultaneously rejecting a purely mimetic conception of the image.

Frade's influence extended beyond the purely theoretical realm, shaping the very modes of discussing and exhibiting photography in Portugal. While the *Encontros* had already positioned themselves as a space for research since 1985 under the direction of Albano da Silva Pereira, this theoretical orientation acquired absolute centrality starting in 1992 with the curatorship of Tereza Siza. The tribute to Frade during the twelfth edition was not merely a commemorative act, but an explicit signal of a commitment to the criticism and theorization of the medium.

Subsequent editions reflected this perspective even more radically, structuring exhibitions and debates that explored photography as a cultural, technological, and epistemological phenomenon. Frade's legacy thus transformed the *Encontros* into a **device for interrogating the image**, rather

than merely celebrating it. His thought continues to allow for a broad understanding of photography as an event that continuously reshapes our perception of reality and the images that represent it (Fig. 2).

3 *Jardins do Paraíso: A Manifesto of Landscape Photography*

The exhibition *Jardins do Paraíso* (Gardens of Paradise), held in 1993 at the *Encontros de Fotografia de Coimbra*, marked a turning point in the development of a new approach to landscape photography in Portugal. More than a mere exhibition, the project functioned as a visual manifesto, challenging traditional conceptions of territory and its representation.

Theoretical reflection on landscape photography was a constant presence during the four years in which Albano da Silva Pereira and Tereza Siza directed the *Encontros* (1993–1996). A fundamental moment of this period was the collective exhibition *Jardins do Paraíso*, accompanied by a catalogue containing seminal theoretical texts by Gabriel Bauret (the exhibition curator), Gabriele Basilico, and Lewis Baltz.

Fig. 2 Matosinhos 13
March 2020. Photograph
by Sebastiano Antonio
Raimondo, captured during
an interview with Tereza
Siza



The event brought together some of the most influential names on the international scene in Coimbra: Robert Frank, Gilbert Fastenaekens, Larry Fink, Hiroshi Sugimoto, Mimmo Jodice, Luigi Ghirri, Boyd Webb, Ruth Thorne-Thomsen, Emmet Gowin, Mark Klett, Humberto Rivas, John Davies, Jorge Molder, Chris Killip, and Hamish Fulton, alongside Basilico and Baltz themselves. Hosted at the Anthropological Museum of the University of Coimbra, the exhibition proposed a method of visual inquiry into the country that would guide the construction of the Portuguese landscape until 1996.

The general catalogue of the 1993 *Encontros*, featuring a photograph by Luigi Ghirri on its cover, emphasized the connection to Frade's thought in its introduction:

«The general atmosphere of the *Encontros* is one of undeniable photographic renewal. These are, in fact, figures of astonishment (*espanto*), those photographs that insinuate a new philosophy, a new attitude that unsettles even the most initiated viewer. There is a powerful connection with things and places, an intensely emotional search for exchange, for give-and-take, which shakes every trace of photography-as-truth...» [5].

The survey model adopted was explicitly inspired by the **Mission DATAR (1984)**, the French state initiative that had redefined European documentary. Drawing on historical projects such as the 19th-century *Mission Héliographique* and American survey traditions, the Mission DATAR became the paradigm for moving beyond purely descriptive photography and deepening a critical engagement with contemporary space.

In his essay *Uma vez mais, a paisagem* (Once more, the landscape), Gabriele Basilico contrasts this approach with Henri Cartier-Bresson's "decisive moment," instead claiming the necessity of a "**necessary slowness**" in observation. This prolonged period of contemplation allows the landscape to be understood not as a natural datum, but as a transformed space. Moving away from photojournalism, Basilico positions photography as a tool for revealing the transformation of nature into landscape.

Gabriel Bauret, in *O espírito dos lugares* (The spirit of places), deepens this distinction by citing Pierre de Fenoyl (a DATAR photographer): just as one does not drink the same water from a spring twice, one never looks at a place in the same way. The landscape redefines itself with every gaze, and the relationship between

observer and space becomes an act of symbolic appropriation.

This perspective resonates with the ideas of Roland Barthes, who conceived of reading as a truly creative act—a notion that can be directly transposed to the photographic field. This approach is fully manifested in *Por baixo da praia: o asfalto* (Under the beach: the asphalt), the essay by Lewis Baltz, a pivotal figure of the **New Topographics** movement [6]. Baltz advocated for a neutral photography, stripped of ideological or aestheticizing pretensions; for him, the photographer's task does not lie in glorifying or romanticizing the landscape, but rather in portraying it with an **objective and almost clinical detachment**. This vision is shared by Gabriele Basilico, who eschews sentimental or subjective perspectives in favor of a rigorous and balanced representation between the observer and the investigated space.

Basilico observes how the unusual stasis of traffic on the Po Valley at twilight lends the scene an almost surreal quality, prompting a reflection on the constant transformations of the territory, accelerated by pollution and uncontrolled urbanization. The photographer's gaze persists as an instinct aimed at visually reorganizing chaos: for Basilico, photography should not limit itself to a moral or political judgment but serve as a cognitive tool to understand disorder.

Baltz, in turn, questions the ownership and documentation of the American landscape. While the European tradition links territory to classical mythology and religious allegory, in the United States, the land was sacralized as a symbol of national identity. For a century, American photography fueled the myth of the “untouched wilderness,” but between the 1960s and 70s, it became evident that such iconography no longer reflected reality. Photographers like **Robert Adams** began to explore a landscape deeply scarred by the advance of late capitalism, where nature appeared compromised by urban infrastructure. **Topographic Photography** emerged in this wake, prioritizing an aesthetic devoid of rhetorical dramatization. Baltz describes this new condition as a “New Territory”: a desolate environment that, having started as typically American,

had become global, replicating itself in urban peripheries worldwide.

The constant presence at the *Encontros* of Italian masters such as Basilico, Jodice, Ghirri, and Chiaramonte consolidated an aesthetic and methodological bridge between Portuguese photography and iconic projects like *Viaggio in Italia* (1984) and *Esplorazioni sulla via Emilia* (1986). The spirit that animated the *Encontros de Coimbra* between 1993 and 1996 aligned itself programmatically with this tradition, expanding the boundaries of landscape photography and redefining its critical relationship with the national territory (Fig. 3).

4 *Viaggio in Italia* and Portugal Fim de Século

The projects *Viaggio in Italia* (1984) and *Portugal Fim de Século* (1993–1996) share a common ambition: to rethink the representation of territory through photography, although they emerge from divergent contexts and adopt distinct methodologies. While the former, conceived by **Luigi Ghirri** [7], sought to subvert the established visual imaginary of Italy by distancing itself from monumental and touristic representations, the latter—directed by Albano da Silva Pereira in collaboration with Tereza Siza for the *Encontros de Fotografia de Coimbra*—proposed a photographic survey of Portugal structured as a mosaic of authorial and documentary perspectives.

Although both projects are rooted in the tradition of **photographic missions**—inspired by historical initiatives such as the Farm Security Administration (1930–1940) and the Mission DATAR (1984)—their approaches to the landscape differ substantially, reflecting contrasting conceptions of photography's role in shaping the memory and identity of a territory.

While *Viaggio in Italia* operated as an **exercise in deconstruction**, challenging the conventional iconography of the Italian landscape, *Portugal Fim de Século* aimed to fill a **representational void**, creating an unprecedented visual

Fig. 3 Cover of the general catalogue of the *Encontros de Fotografia*, Coimbra, 1993. Image by Luigi Ghirri, reproduced from the original publication for scholarly and critical reference



repertoire for the country. Ghirri's project arose from an oversaturation of images and proposed an alternative gaze, shifting focus from major monuments to marginal spaces, urban voids, and the banality of the everyday. Conversely, the Portuguese project, addressing the absence of a complete and modern photographic record of the territory, orchestrated a collective effort to build an inventory of the nation—albeit without claims of exhaustiveness.

The way each project relates to the landscape reveals profound methodological differences. *Viaggio in Italia* rejects grandiosity and spectacle, adopting a contemplative and analytical approach influenced by the **New Topographics**. In that project's imagery, Italy appears devoid of visual hierarchies: an interior, an anonymous

facade, or a deserted street assume the same status as a historic center, affirming an **"aesthetic of the banal"** that dismantles traditional visual narratives.

Portugal Fim de Século, while also rejecting spectacle, does not rely on a homogeneous logic. Its plural character reflects the diversity of the participating photographers' approaches, ranging from anthropological documentarism to more experimental and subjective styles. Structured around three major regional missions, the project revealed a multiform territory while grappling with the inherent limits of any visual inquiry: the impossibility of total representation and the inevitable **subjectivity of the gaze**. Pereira and Siza understood that photography is not a neutral reflection of reality, but a process of interpreta-

tion where every image is the result of choices and omissions. Rather than a systematic inventory, the project became an open field of investigation into the Portuguese territory.

The aesthetic influences of each initiative also reflect the different cultural contexts of Italy and Portugal. *Viaggio in Italia* engaged in a dialogue with Pop Art, conceptual art, literature (notably Gianni Celati) and the cinema of Antonioni and Wim Wenders, incorporating references that expanded its critical dimension. Its goal was not merely to record the territory but to question how it had been represented over time. In contrast, the *Encontros de Fotografia de Coimbra*, lacking a single stylistic axis, welcomed a multiplicity of visual proposals. Some photographers followed a more anthropological and landscape-oriented line, while others explored more subjective and expressive approaches. This diversity prevented the project from adopting a rigid documentary structure but broadened its interpretive scope, granting it a visual richness that moved beyond the mere cataloging of Portuguese space.

Despite these differences, both projects share a critical stance toward landscape photography. In *Viaggio in Italia*, the photographic gaze operates by **subtraction**—stripping the Italian landscape of its monumental weight to reduce it to its essential banality, redirecting interest toward everyday and **interstitial spaces**. In *Portugal Fim de Século*, photography assumes a function of memory and archive, yet one devoid of the illusion of objectivity, recognizing the fragmentariness of its readings as a hallmark of Portuguese identity.

If *Viaggio in Italia* marked a turning point in rethinking landscape photography in Italy, *Portugal Fim de Século* played a key role in legitimizing photography as a tool for territorial reflection in Portugal. Notably, the connection between the two projects is not only ideological but practical: the participation of Ghirri, Jodice, Basilico, and Chiamonte in the Coimbra Meetings underscores the continuity between the two initiatives.

Both projects reject spectacle and propose a renewed gaze on the landscape. The Italian

project works **from the inside out**, deconstructing an already established imaginary, breaking with iconographic tradition, and redefining Italy's contemporary visual paradigms. The Portuguese project works **from the outside in**, constructing a new visual cartography of the country and filling a representational gap by creating an unprecedented visual repertoire for a nation that, until then, lacked a comprehensive photographic survey. Thus, despite their differences, both projects are part of a broader movement of landscape photography renewal in the 1980s and 90s. Whether through the irony and critical distance of *Viaggio in Italia* or the plurality of perspectives and the construction of a new imaginary in *Portugal Fim de Século*, both demonstrate that photography is not just a record of space, but a tool for reflecting on identity, memory, and the way we perceive the world around us (Fig. 4).

5 The Construction of the Portuguese Landscape (1994–1996)

The four-year period between 1993 and 1996 represents the pinnacle of theoretical and operational coherence for the *Encontros de Fotografia de Coimbra*. Under the direction of Albano da Silva Pereira and Tereza Siza, the festival did not merely exhibit images but initiated a genuine process of **iconographic foundation**. This period was defined by a resolve to fill the “representational void” that afflicted Portugal, utilizing photographic commissioning as a tool to construct a new territorial identity.

One of the festival's first conceptually driven projects, *Jardins do Paraíso* (1993), explored the landscape as a cultural metaphor, reflecting on the interaction between humanity, territory, and memory. The exhibition brought together major international figures such as Robert Frank, Lewis Baltz, Mark Klett, and Hiroshi Sugimoto, alongside the Italians Luigi Ghirri, Gabriele Basilico, and Mimmo Jodice, whose approaches to archi-



Fig. 4 Page 47 of the catalogue *Terras do Norte*, *Encontros de Fotografia*, Coimbra 1994. Image by Gabriele Basilico, reproduced from the original publication for scholarly and critical reference

itecture and urban space deeply influenced the project's philosophy.

This edition should not be viewed as a simple survey, but as the actual theoretical manifesto of the *Encontros*. It outlined a "philosophy of the gaze" that would find practical application in the missions of the following years. This vision aligns with the reflections of Robert Adams in *Beauty in Photography*, specifically in the chapter "Truth and Landscape":

Gardens are, in effect, very similar to landscape images, sanctuaries not of nature but of truth. An etymological reflection found in Kenneth Clark's essay on landscape—"paradise" is a Persian word meaning «walled place»—I believe expresses well

what the photographer sees through the viewfinder of his camera before pressing the shutter. His vision is that of a traveler observing the landscape through a window, a vision built upon local geography, but immobile and clarifying [8].

These "walls" are not a limitation but the very condition of photographic vision: the gaze of the traveler seeing through the edges of the **framing** reveals, within a fragment of territory, that which will remain of it: its representation, its form as an image that endures beyond its own physical existence.

The collective body of the final three editions constitutes a mission that transformed the *Encontros* into a true observatory of change. Pereira and Siza understood that mapping Portugal

meant creating a national “**visual consciousness**” through three fundamental stages:

- **Itinerários de Fronteira (1994):** Focused on the central region and its geographical complexity. The mission was divided into thematic axes—Coimbra, Routes, Mountain Frontier, Temporal Frontier, and Coastal Frontier—highlighting the tensions between tradition and modernity.
- **Terras do Norte (1995):** Extended the documentation to the North of the country. With a strong presence of photographers such as Gabriele Basilico, Mark Klett, and Larry Fink, the mission reflected on the impact of architecture and urban development on the landscape.
- **Sul (1996):** The final part of the trilogy, covering Lisbon, the Alentejo, the Algarve, and the islands. It featured authors like Giovanni Chiaramonte, Marcello Fortini, and Cristina García Rodero, alongside parallel projects such as *Lisboa* (with Paulo Nozolino and John Davies) and *Alentejo Sagrado* (José Manuel Rodrigues), exploring the relationship between landscape and spirituality.

While Ghirri’s Italy needed to “**subtract**” images from a saturated imaginary, Pereira and Siza’s Portugal needed to “**add**” reality to an absent one. The 1994–1996 missions thus fulfilled the function of granting the country the right to be looked at in its **naked contemporaneity**, transforming theoretical *espanto* and Frade’s legacy into a consolidated practice of territorial representation.

These projects generated a monumental photographic archive, yet they raised crucial questions: can photography truly map an entire country, or does it always remain hostage to the author’s subjectivity? This debate, already central to *Viaggio in Italia*, culminated in an institutional split in 1997. Albano da Silva Pereira proposed an expansive model based on continuous production in Coimbra, while the government opted to establish the *Centro Português de Fotografia* (CPF) in Porto,

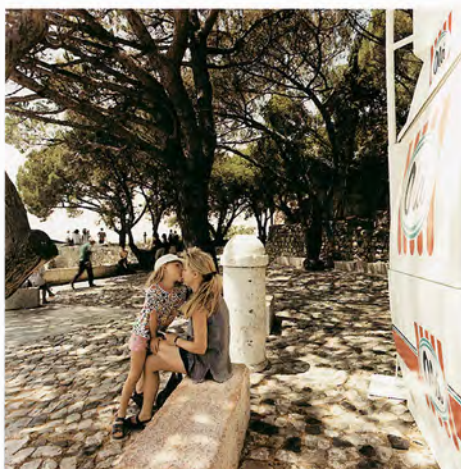
appointing Tereza Siza as director. This choice prioritized the preservation and organization of the archive, ensuring that the visual memory of the *Encontros* would not be lost.

The *Portugal Fim de Século* project (1993–1996) remains one of the most ambitious efforts of visual mapping in Europe. The *Encontros de Fotografia* continued for three more editions. After the suspension of the 1999 event, the festival inaugurated a biennial format in 2000. However, only one edition was realized in this phase: the *Mnemosyne Project*, curated by Delfim Sardo. Characterized by a decisive openness toward the interdisciplinarity of visual arts, the project was explicitly inspired by Aby Warburg’s *Atlas*, marking a final, ambitious chapter in the history of the event (Fig. 5).

6 Conclusion

The *Encontros de Fotografia de Coimbra*, under the direction of Albano da Silva Pereira and Tereza Siza, played a crucial role in transforming the status of photography in Portugal between the 1980s and 1990s. Through an ambitious and innovative program, the event legitimized photography as an autonomous artistic expression, breaking with the documentary and functional tradition that had dominated much of the twentieth century.

More than a simple exhibition platform, the *Encontros* established themselves as a laboratory for critical and theoretical reflection. The contribution of thinkers such as Pedro Miguel Frade and Tereza Siza was decisive in framing the image within a philosophical and epistemological perspective. In this context, the 1993 *Jardins do Paraíso* edition stands out as the theoretical manifesto of this evolution. We have proposed to interpret the spirit of that edition through the reflections of Robert Adams in *Beauty in Photography*: the landscape image can be understood as a “**walled garden**.” The margins of the frame are not a physical limit, but that “**walled place**” (the etymological paradise) that allows the photographer to isolate a portion of the world to extract a clarifying vision. This interpretive key allows



Giovanni Chiaramonte

Fig. 5 Page 44 of the catalogue *Sul, Encontros de Fotografia*, Coimbra, 1996. Image by Giovanni Chiaramonte, reproduced from the original publication for scholarly and critical reference

us to understand how the festival did not seek aseptic documentation, but a true philosophy of the gaze.

The effectiveness of this theoretical framework found its proof in the field through the body of photographic missions (1994–1996): *Itinerários de Fronteira*, *Terras do Norte*, and *Sul*. These projects demonstrated that landscape photography, far from being a simple reproduction of the territory, is a tool for cultural interpretation and construction. Through dialogue with international authors—from the masters of the *New Topographics* to the exponents of *Viaggio in Italia*—the *Encontros* challenged conventional representations of Portugal, questioning the relationship between image, identity, and collective memory.

The critical function assumed by photography in these editions rejected spectacularization in favor of an analytical and reflexive approach. The authorial nature of the images produced dismantled the idea of a neutral inventory, suggesting that every representation of space is, ultimately, an **intellectual construction**.

Although the *Encontros de Fotografia de Coimbra* came to an end in 2000, their impact has been lasting. The event paved the way for new initiatives and contributed to the creation of an exhibition and editorial circuit dedicated to photography, actively shaping Portuguese visual culture. Its disappearance marked the close of a chapter, but its legacy continues to influence contemporary photography in Portugal.

Revisiting these initiatives is not merely an exercise in memory, but an opportunity to reflect on issues that remain relevant today: photography's ability to represent the essence of a place and the perennial tension between objective data and the author's subjectivity. What remains is the awareness that mapping—conceived, through the etymology of map, as an invitation to discover the world via an equitable exchange between a receiving and a giving culture—offered these missions a tool to represent places and preserve their nature, much like a garden. This process transforms the photographer's subjective experience into an autonomous reality, capable of enduring beyond its own physical presence.

References

1. Prata R (2008) A génese da fotografia contemporânea—década de 1980. Faculdade de Belas Artes da Universidade do Porto, Thesis
2. Gaspar M (2013) Retomar percursos que o tempo interrompeu—Uma leitura dos encontros de fotografia de Coimbra. Faculdade de Ciências Sociais e Humanas, Universidade Nova de Lisboa—Thesis
3. Palla V, Martins C (1959) Lisboa, Cidade Triste e Alegre. Círculo do Livro Lda, Lisboa
4. Frade PM (1992) Figuras do espanto, A Fotografia antes da sua Cultura. Edições ASA, Porto
5. AA VV (1993) Encontros de Fotografia, catálogo geral 1993, p 9. Coimbra
6. Jenkis W (1975) New topographics, photographs of a man-altered landscape. George Eastman House, Rochester
7. Ghirri L, Leone G, Velati E (1984) Viaggio in Italia. Il Quadrante, Alessandria
8. Adams R (1995) La bellezza in fotografia—saggi in difesa dei valori tradizionali. Bollati Boringhieri, Torino, p 10. Free translation by the author, from the Italian edition

In the Marginality of the Slit and the In-Between Place: Lucio Fontana's *Concetto Spaziale* and Álvaro Siza's Santa Maria Church

Ana Vasconcelos 

Abstract

Through the concept of 'marginality', 'slit' and 'in-between' as border, interstitial and imprecise spaces, and definitely dialogical, we reflect on the form, space and meaning of the 'in-between place' in Fontana's *Concetto Spaziale* and in Siza's Church, in a dynamic and reciprocal exploration between art and architecture, idea and its materialisation, tradition and innovation, order and transgression, harmony and conflict, as polarities made intentionally present in both works. Through the *Concetto Spaziale* we reflect on Fontana's recognition of the 'cut', the slit or the perforation as a sign of liberated space, of the unlimited meaning of space, of the value of emptiness, of transgression and the known, and of the awareness of another dimension of an unexplored world, which emerges as another concept in art and as a new meaning in the cultural universe. Through the Santa Maria's Church, a work with vernacular, modernist and expressionist roots, we reflect on Siza's intrinsic reading of the architecture of a church as a religious meeting place, highlighting the importance of the marginality of the 'slit', the 'forces of place'

and his 'sliding theory', which intentionally intersect and dialogue. Both are presented as dialogical fields that generate a subtly 'restless' or tense formal relationship, translated spatially and symbolically into a dynamic of transgressions, conflicts and ambiguities, yet order, balance and harmony are present in an integration of tradition, innovation and contemporaneity. In the marginality of its slits an inspiring 'in-between place' is built which assumes itself as the interstitial, dialogical and imprecise boundary in its multiple dimensions.

1 Lucio Fontana's *Concetto Spaziale*

Lucio Fontana, born in Argentina and educated in Italy, was an early member of the *Association Abstraction-Création*¹ (founded in Paris in 1931) [1, p 357] defending abstract, neutral, non-figurative and monochrome art, but developing his own ideas about the irrational and

¹ The Association Abstraction-Création founded in Paris in 1931, whose motto was the defence of 'abstraction with freedom', its aim was to organise manifestations of non-figurative art, challenging the growing proscriptions on abstract work by the totalitarian regimes of Stalinist Russia and Nazi Germany. Hans Arp, Albert Gleizes, Jean Hélion, Auguste Herbin, Frantisek Kupka and Georges Vantongerloo were part of its organising committee, which between 1932 and 1936 promoted the publication of five annual books (Cahiers).

A. Vasconcelos (✉)

CIAUD, Research Center for Architecture, Urbanism and Design, Lisbon School of Architecture, Universidade de Lisboa, Lisboa, Portugal

e-mail: anav@arqs.pt; av@fa.ulisboa.pt

promoting 'synthesis in art' through his work and teaching, which culminated in the writing of his radical *Manifesto Blanco* [1, p 642–647] with his students, originally published in 1946 in Buenos Aires, where he lived and taught during the war years. It was a manifesto in favour of abstraction and freedom, and of 'a new art that is more in harmony with the needs of the spirit at a time when the painted canvas and the sculpted figure no longer have a *raison d'être*' [2, pp 278–283]. Contrary to the hitherto conventional distinction between the arts, and inspired by the concepts of the 'inform' and 'base materialism' defended by Bataille, through his work, research and teaching, Fontana defends and proposes a 'synthesis in art' between, for example, painting, sculpture, installation and architecture, or between the avant-garde and kitsch, consciously transgressing the traditional conventional categories of the arts.

His concept of *Spazialismo* (Spatialism) and all his previous and subsequent research and work, based on the idea of manifesting space or the spatial condition, and on the idea of 'an art in which our idea of art cannot intervene', comes from all this conviction and hope in abstraction and a synthesis of the arts and architecture, expressly taught and defended in his Manifests - *Manifesto Blanco* and the subsequent *Manifestos dello Spazialismo* (1947, 1948), comes a conviction that is marginal to any convention established until then. In his *Movimento Spazialismo* (Spatialism) and *Movimento per L'Arte Concreta* (Movement for Concrete Art), formed in Milan with Bruno Munari, Mario Soldati and Mario Nigro from a combination of realism and conceptual, materialist abstraction, Fontana declares, through words, diagrams and the various *Concetti Spaziali*, that 'the real conquest of space by man is the liberation of the horizontal line'. A conviction and proposal similar to that of his contemporary Barnett Newman, whose work praises verticality and eliminates horizontality in painting. Through these Manifestos and Movements, spatialism became an international movement with a proposal to integrate art and architecture, inspiring many post-formalist tendencies of the late 1950s and heralding conceptual art and installation art afterwards.

In the works in the *Concetto Spaziale* series (Fig. 1), Fontana adopts the title 'concept' with the intention of literally introducing the concept into the work, indicating that the work has given up on representing anything, in other words, the work only presents, and therefore the concept becomes visible. The same applies to the word 'spatial', where the space of the canvas and the entire environment become the protagonist of the work and has no defined boundaries. And he uses a third word in the title, for example the word *Attese*, 'waiting', in the case of the works *Concetto Spaziale, Attese* (Tagli's series, cut canvases), to indicate a state of mind, a feeling, an existing condition or a sensation that relates and unites artist, work and spectator in a single ambit and spatial osmosis where, present and in front of the spatialised canvas, devoid of drawn content but imbued with serenity and infinite possibilities, they are asked to remain in suspension, waiting for something to reveal itself, in an 'intermediate and in-between' space to be explored and in the intentional introduction of the concept of 'open work'.

Attese, La Fine di Dio and *Natura* (Fig. 2) are striking works from Fontana's *Concetto Spaziale* series, a performative, abstract, conceptual and monochrome series that, from lightness to density, has inspired the work of many artists such as Yves Klein, Piero Manzoni, Banksy and others. In *Attese* (1961–65), which means 'waiting', 'wait' or 'expectation', the monochrome canvas, often white, red, bluish or golden, features precise and vehement vertical cuts, slightly arched, which create the sensation of greater or lesser depth and invite the expectant viewer to contemplate and enquire the mysterious and unprecedented space beyond the surface of the canvas. In *La Fine di Dio* (1963–64), which means 'the end of God' or, more accurately, 'the end of the uniquely transcendent God', the oval, monochrome canvas is perforated by multiple holes or excavations, suggesting, according to Fontana, a connection with the whole, the cosmos and creation. In *Natura* (1959–60), the dense and heavy bronze sculpture, in a crumpled spherical shape, with a deep fissure or incision, proposes to explore and express a relationship between nature and culture through a



Fig. 1 Lucio Fontana's *Concetto Spaziale: Attese* (1961–65); (author's picture)



Fig. 2 Lucio Fontana's *Concetto Spaziale: Attese* (1961–65); *La Fine di Dio* (1964); *Natura* (1959–60); (author's pictures)

performative act of creation-production of form, space and matter, which becomes, in evidence and objectivity, the work's material.

The 'cut', the fissure, the slit, or the perforation, and its multiple sensitive variations of light and shadow on the surface of the canvas and in the depth of space, is recognised by Lucio Fontana in the 1950s as the sign of liberated space, which emerges as a new element in the specific field of painting, as a new concept in art

and as a new meaning in the cultural universe: the canvas itself, until then considered neutral, is perforated, torn or pitted, it becomes active, an intermediate element between the material and the immaterial, between the present and the absent that now becomes present. By literally breaking with the canvas, Fontana reflects and shows the world another reality not yet recognised at that time by Western culture: what lies beyond the surface of the painting, what is not seen but exists,

a new space between the canvas and any other element, the unlimited meaning of space, the value of emptiness, the awareness of another dimension of an unexplored world.

Fontana's *Concetto Spaziale* represents and presents a conscious break with the traditions and conventions of painting and sculpture, where cutting (*Tagli*) and perforating (*Buchi*) the canvas are vehement and revolutionary gestures to create a new space. A monochromatic, abstract and performative slit-space or perforated-space of fissure and rupture, of repetition and difference, of action and reflection. A physical and conceptual 'in-between space' (*space-figure and space-concept*) [3, pp 36–49] with undefined boundaries that are as revealing as they are enigmatic, which challenges traditional artistic conventions and explores the dimensions of space and materiality. A space that is discovered beyond the traditional surface of the painting, which opens up to the infinite, the occasional, the event, the known and the unknown, waiting and expectation, and silence, transforming the canvas into a multidimensional and expanded, spatialised object; with the *spatialist* proposal of dialogically integrating tradition and innovation, art and architecture, science and technology, culture and nature, space, time and movement/action, and bringing about a new conception of art and perception of reality. An environmental art and a multidimensional notion of reality, which breaks with the object, with the figurative, with the illusion of the representational, and with the boundaries between the arts, in favour of performance, installation, the abstract and the monochrome. An artwork of liberation that was, along with Alberto Burri's, the most original and radical in Italy in the 1950s, inspiring an art of conceptual abstraction, independent of the gestural spontaneity of European informalism, and evoking the end of modern art.

Fontana's *Concetto Spaziale* is an 'in-between place' with more or less defined boundaries, a place that is conceptual and material, visible and invisible, sacred and profane, where concept, form, space, time and movement (the action of the author and the expectant spectator) manifest themselves in a single condition or reality: a literally interstitial place, where work, research and *poiesis*

are inspired and merge, to generate and conquer a spatial quality that is as evident as it is enigmatic; a possible and paradoxical place between the part and the whole, action and stillness, order and transgression, ambiguity and tension, painting and sculpture, figure and abstraction, presentation and representation.

2 The Church of Santa Maria by Álvaro Siza

Contrary to the proposal of the *Tagli* of Fontana's *Concetti Spaziali* where only the vertical line or condition is praised, in the church of Santa Maria by Álvaro Siza the marginality of the slit appears literally and symbolically, on the one hand, in an evocation of horizontality, evident in the shape of the long horizontal window of the nave, through which natural light enters in a direct and striking way, and a direct and transparent dialogical perceptual relationship is established between the interior space and the street, the landscape, the urban and the everyday. On the other hand, and as in the *Tagli*, the slit, formalised by the large spatialised opening of the church's main entrance, enhances and evokes verticality, as well as a dialogical, formal, spatial and perceptual relationship between earth and sky, dense matter and subtle spirit, Man and God, marking and emphasising the longitudinal axis of the single nave, which joins the entrance to the altar. (Fig. 3).

This work synthesises a dialectical reflection on the relationship between Man and God, the relationship between the everyday world and the hermetic world, the relationship between immanence and transcendence or, more simply, the relationship between earth and heaven. It is a reflection that is literally materialised in the Church in the geometric relationship that is established between the horizontal and vertical directions, in a combination of elements and spatial-formal structures that, with different characteristics or qualities, generate an architecture that is as simple, stripped and peaceful as it is complex and subtly tense. In other words, an architecture that builds and research a place of relationship and encounter, formal and cultural, 'subtly tense



Fig. 3 Álvaro Siza Vieira: Santa Maria Church (1990–1997), Marco de Canaveses, Portugal; (author's pictures)

and ambiguous', manifested above all in its interior spatiality: the deformed curved wall and the angular walls; the two distinct towers, one empty/hollowed that formalises the baptistery and the other with the staircase and bells, more traditional; the different types of natural lighting, which are evident between a subtle/zenith quality and a more localised, direct and horizontal one.

In a subtly restless and ambiguous formal and symbolic relationship, the architecture of Siza's church gives primacy to 'space', interrelating the clarity and objectified simplicity of the forms with the complexity of the dynamics of the forces of the spatial system made up of contradictions and ambiguities. This is an architecture that is intentionally committed to the value and spatial conquest of configuration, where movement and temporality are essential factors, corroborating what Giuseppa Di Cristina [4, p 79] argues:

« The final conquest of architecture is space. Space is generated according to a kind of logical position of the elements, or according to a combination that generates spatial relationships; the formal value is then replaced by the spatial value of the configuration. What is important is not so much the appearance of the external form, but its spatial quality and therefore the topological geometry of non-rigid figures without "measures". This is not something purely abstract that predates architecture, but is the trace left by this mode of action in the spatial concretisation of architecture » [4, p 79].

An architecture spatially translated into a dynamic of conflicts and ambiguities where, however, simplicity, balance and harmony are present, in the formal and material stripping, in the simplicity and domesticity of the environment, and in the welcoming and communal feeling of its interior.

The church of Santa Maria is spatially, conceptually and symbolically constituted in this 'in-between ambit/field' of more or less imprecise limits, which integrates and expresses Siza's intrinsic reading of what the architecture of a church can be, as a religious place of encounter and communion, considering its morphology, spatiality and contextualisation in its various qualities, both visible and invisible, highlighting the importance of the 'forces of place' for this project. It is a work with vernacular, modernist and expressionist roots, which values both aspects of traditional portuguese architecture and modernist and contemporary assumptions, where Siza proposes a 'sliding theory' whose quality is knowing how to adapt to the circumstances and times of the place, which is naturally established in a dialogical relationship with the design process.

The church of Santa Maria is established in a dialogical architectural condition that encompasses aspects related to the place, the traditional church, domestic architecture and contemporary architectural culture, where harmony is established in conflict and, paradoxically, builds an inspiring space of communion, an 'in-between

place' between order and transgression, tradition and innovation, sacred and profane, presence and absence:

If I think of Siza's work—an extreme case—I attribute its quality to the cultivation of this sense of abstraction. It doesn't matter that he is imbued with poetic resonances alien to him and adopts traditional forms. When he remembers, through his architecture, environments and spaces from the past, the fine filter of his memory brings them back new and endowed with an unsuspected beauty. It's a rare ability to synthesise the avant-garde with absent tradition [5, p 33].

3 Final Considerations

In both *Concetto Spaziale* and Igreja de Santa Maria, the exalted marginality of the slit, by questioning the full-empty, figure-deep, surface-depth, negative-positive, interior-exterior, known-unknown relationship and, consequently, by exploring the concept of interstitial/in-between as a dialogical condition, ambivalently values the space that is 'inside', 'outside' and 'between', legitimising itself as a physical, conceptual and symbolic in-between space.

In both works, the slit or cut, which breaks with the conventional or the established, functions as a physically, conceptually and symbolically interactive place (albeit in Siza's church in a more serene way), bringing to individual and collective consciousness the value of the 'between' as a dialogical scope and limit, of the space 'between forms' or of the forms 'between spaces'.

Within this understanding, the condition of the slit appears in Siza's church as a proposal capable of displacing existing formalisms and symbolism (through the long horizontal window or the large entrance door), alluding to a new concept of space-form and religious/sacred place whose boundaries are intentionally dialogical and subtly imprecise. In the same way that Fontana's slits, fissures and perforations (*Tagli* and *Buchi*) are an evocative statement for a new freedom of reflection and understanding of space on canvas and in art.

The condition and marginality of the slit in both works, which is constituted as a dialogically

dynamic spatial, conceptual and symbolic entity, opens the possibility of exploring and investigating a new concept of space and spatiality in artistic discourse and architectural design. Through its marginal condition, inspired and realised as a proposal to reduce or transgress established incorporated and conventional meanings, both *Concetto Spaziale* and the Church of Santa Maria reveal a physical, conceptual and symbolic *in-between place*, as the agent of a new spatial condition in art, church architecture and culture.

Both works are presented as dialogical ambits that generate a subtly 'restless' or tense formal relationship, translated spatially and symbolically into a dynamic of transgressions, conflicts and ambiguities, yet order, balance and harmony are present in an integration of tradition, innovation and contemporaneity. In this interaction, they build an inspiring intermediate place between the mystical and the profane, order and transgression, ambiguity and tension, harmony and conflict, presence and present absence, which ambivalently valorises what is 'inside', 'outside' and 'between', and which assumes itself as an interstitial boundary in its multiple dimensions.

These works reflect (or intuit) the premises of the current *zeitgeist*/spirit of time: a shift from schemas of objects to relationships towards more holistic, transdisciplinary, systemic or complex thinking [6] and a new collective awareness of reality, which heralds a crisis of perception, a paradigm shift and new values [7]. Another way of feeling and perceiving the world, places and spaces is emerging, which is gradually changing the way we think about and design art and architecture, and consequently the way we interact with it.²

References

1. Harrison C, Wood P (eds) (1992) Art in theory 1900–1990. In: An anthology of changing ideas. Blackwell, Oxford, UK

²This work is financed by national funds through the FCT—Foundation for Science and Technology, I.P., under the Strategic Project with the references UIDB/04008/2020 and UIDP/04008/2020.

2. Fontana L (1987) Manifiesto Blanco. In: AAVV. Lucio Fontana. Exhibition catalogue. Edicions du Centre Pompidou, Paris
3. Sanna J (1987) Espace-figure et espace-concept. In: AAVV. Lucio Fontana. Exhibition catalogue. Edicions du Centre Pompidou, Paris
4. Emmer M (2004) Mathland—from Flatland to Hyper-surfaces. Birkhäuser, Basel
5. Navas JG (2000) Abstracción vital. DPA-documents Projectes d'Arquitectura16. Edicions UPC, Barcelona
6. Morin E (2001) Introducción al pensamiento complejo. Gedisa, Barcelona
7. Capra, F (2011) O ponto de Mutação—A Ciência, a Sociedade e a Cultura Emergente. Cultrix, São Paulo