

How Do We Work Together? Enhancing the Role of Collaborations in Architectural Design

Elettra Carnelli, Federico Marcolini, Fabio Marino, Rafael Sousa Santos

Collaboration appears to have always been at the heart of architecture: in the complex process of design, architects must involve and be involved with different actors, professionals, and sets of knowledge that contribute to the final project, both in the design and realization phases. Such processes need the support of heterogeneous inputs that often go beyond the sole architectural discipline. Although architecture has its own unique body of knowledge, it needs to engage with other fields to create new insights and syntheses through design, which is, by nature, inherently transdisciplinary and interdisciplinary, based on dependency and contingency.

Indeed, people, circumstances, and unforeseen events influence the architects' plans, while external conditions, such as the economy, legislation, politics, technology, and society strongly shape and affect the built environment (Till 2009). As a result, architectural questions are not exclusively confined to the discipline and cannot be addressed solely from an architectural perspective. They require participation and collaboration between professionals, stakeholders, and researchers with diverse backgrounds. This is evident when considering urgent topics such as climate crisis, globalization, or issues of social equality.

Recently, with the increasing complexity associated with architectural project management, the interplay between architecture and other disciplines has shifted, prompting a rethinking of the architect's role within the design process. In response, architectural offices have undergone structural changes, re-imagined roles and adapted work methods to mirror the evolving demands of contemporary society. In some cases, this shift prompted practicing architects to test and propose alternative working and

Corresponding authors: Elettra Carnelli (ZHAW Zurich University of Applied Sciences and Swiss Federal Institute of Technology Zurich, Switzerland), Federico Marcolini (Politecnico di Milano, Italy), Fabio Marino (Politecnico di Milano, Italy), Rafael Sousa Santos (University of Porto, Portugal); carnelli@arch.ethz.ch; <https://orcid.org/0000-0002-0259-5808>; federico.marcolini@polimi.it; <https://orcid.org/0000-0002-4748-5186>; fabio.marino@polimi.it; <https://orcid.org/0000-0002-5956-2492>; rssantos@arq.up.pt; <https://orcid.org/0000-0002-6220-2631>.

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economic models to better fulfill their social responsibilities, as evidenced by the recent issue of *ARCH+ Unternehmen Architektur* (Kuhnert/ Ngo 2023).

Given the cross-disciplinary nature of problems associated with architectural design, architects need to broaden their training to encompass inherently collaborative and relational skills. This is why it is mentioned in the *Charter for Architectural Education* (UNESCO–UIA 2017) as a pedagogical principle that architects should be trained as generalists – and we can add that they should also be capable of working with specialists, users, and stakeholders, among others.

Despite the increasing interest in exploring the collaborative nature of architecture and spatial disciplines, we see that collaborations in design are not yet widely explored in all areas of architectural design. While the factors and individuals contributing to a specific spatial solution are diverse, they are often overlooked or excluded from architectural discourse, an omission that seems to be reflected in how we comprehend and portray architectural practice. This is indicated by how design continues to be taught in many architecture schools, with many studios maintaining a personal or individual approach to design, and multidisciplinary teams not being as common.

Indeed, a persistent gap between the collaborative essence of architectural design and its representation in discourse and educational contexts can be observed. Acknowledging this disparity should extend beyond recognizing the limits of the discipline; instead, it can serve as a catalyst for constant critical reflection and adaptation. It is precisely from this perspective that we aim to address the topic of collaboration in architectural design within this publication.

For the fifth issue of *Dimensions. Journal of Architectural Knowledge*, we selected contributions that explored the impact of collaboration on architectural design processes and considered the conditions and implications of their integration into practice and discourse. The issue aims to initiate an exchange between theory and practice, contributing to the discussion on collaboration and interdisciplinarity, as well as its application within design practice. For this reason, the issue includes contributions and visual essays as reports from teaching activities, realized or planned architectural projects, theoretical reflections on the topic, and the critical depiction of case studies, all of which adhere to the definition of new roles and modes of practice and address the significance of collaboration in architectural design.

The issue is structured into five thematic categories, namely: »Approaches«, »Tools«, »Teaching«, »Interactions« and »Narratives«. Each category includes two contributions alongside an interview in the closing section. The first section, »Approaches« uses concrete examples of more or less explicit collaborative methods and practices that involve users, planners, and specialists, and that enhance the comprehension of a specific context and make constructive contributions to both the context and its community. These approaches aim to suggest potential ways to translate theory into action. For instance, Ayesha Müller-Wolfertshofer and Benedikt Boucsein's contribution involves identifying and documenting various layers of collaborative functions and individuals within a section of the informal settlement Dharavi (Kumbharwada) in Mumbai. Through meticulous on-site explorations, the authors aim to demonstrate how hybridity, rooted in a specific place, can be employed and interpreted for a sustainable transformation of urban areas. The visual essay by Maria Francesca Lui focuses on the synergistic integration of technological innovation and traditional techniques within the design practice of *Harquitectes*. This approach explicitly and proactively promotes collaboration with a diverse range of experts and specialists, identifies design principles and energy management concepts, and adapts them to contemporary needs. The dialogue between Federico Marcolini and Nuno Graça Moura delves into Nuno's experience as a collaborator in Eduardo Souto de Moura's architectural office and his co-author on some recent projects. It highlights the bridge between studio design and on-site execution, all rooted in the distinctive environment of Porto, and illustrates an ongoing dialogue between Souto and his collaborators as a rich exchange of ideas, that melds formal and informal interactions within the workspace.

In the »Tools« section, the exploration of the practical aspects of architectural collaboration continues, investigating how the discipline's own instruments, such as digital and analogue models, can be used to establish deeper synergies. The contribution by Jana Hartmann and Dennis Häusler examines the potential of the 1:1 scale model, with a focus on its possible applications and uses. The authors highlight the consequent capacity of 1:1 models to foster deeper interactions with future users and designers within the context of the participatory design process. The relationship between physical and virtual dimensions, mediated by the »digital architect« in the production of knowledge linked to cultural heritage, is addressed in the article by Güzden Varinlioglu. Their work initiates a reflection on how interactive experiences influence an individual's perception and their comprehension of space and

heritage. The section concludes with an interview with Claudia Mainardi and Giacomo Ardesio from the collective *Fosbury Architecture*, in which they present the instruments and strategies of the group's collaborative design approach, together with its practical implications.

Enhancing the relevance of collaborations in architecture inevitably requires an emphasis on education. Within the »Teaching« section, the two contributions highlight collaborative teaching experiences in different institutions and contexts. Asma Mehan and Jessica Stuckemeyer reflect on how fostering collaboration within the design studio, particularly in the specific case of adaptive reuse, can lead to the development of a design approach that is culturally focused, contextually grounded, and democratic. Benedikt Boucsein, Isabel Glogar, Marco Kellhammer, Stefanie Ruf and Mareike Schmidt, from the professorship of urban design at the Technical University of Munich, provide a comprehensive overview of their ongoing teaching formats involving collaboration and address the urgent climate crisis within urban design education. The role of collaboration in architectural design education is then explored in a conversation with Sofie Pelsmakers. The communication acknowledges the complexity and broad scope of the significant challenges that architecture must address, including the climate crisis, the possibilities of multidisciplinary design and how it can be developed both in schools and architectural research.

Embedded within collaborations are the intricate interactions among the numerous actors involved in the design process. The »Interactions« section explores these relationships and their consequential impact on the final output, whether it be a villa in Sardinia, as in the case of Michela Bonomo's contribution, or a computer program, as described by Pablo Miranda Carranza. Michela Bonomo's reflection on the genesis of *La Cupola* by Dante Bini addresses the pivotal relationship between the architect and the client, Michelangelo Antonioni. This dynamic led to a surprising hybridization of architectural language within and beyond the example of the building. On the other hand, Pablo Carranza's close reading of the code of the Palladio software investigates how design principles, presented as so intrinsically human, can be translated into the mechanized operations of a computer program. The section ends with an interview with Salvatore Licitra, founder of the *Gio Ponti Archives*. Gio Ponti's grandson broadens the discourse on the Milanese architect's interdisciplinary creativity, expressed through impressive collaborations with artists and artisans, and reflects on two enduring

duos, the associate and wingman engineer, Antonio Fornaroli, and Ponti's daughter Lisa, deputy director of *Domus*.

Finally, the section »Narratives« presents a selection of concise contributions that scrutinize collaboration and explore its effectiveness and impact through exploratory and speculative approaches. Oliviero Vitali and Rocco Vitali's narrative takes us on a design and physical journey, deepening the intricate relationship between the architect, the craftsman, and the client; João Quintela and Tim Simon-Meyer from *Atelier JQTS* explores the possible dialogue between the human body and the built environment and emphasizes its role in the realm of design. Hannah Rochelt reflects on the significance of references and their interpretation in her project proposal for Munich's Südliches Bahnhofsviertel. Debasish Borah's visual essay questions the power dynamics and implications of collaborations between government and social institutions by using the perspective of residents of Salmora village in Assam, India as the focal point of the contribution.

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