


The role of the User: Architectural Collectives and the participatory project

O papel do Usuário: Coletivos Arquitetônicos e o projeto participativo

El papel del Usuario: Colectivos Arquitectónicos y el proyecto participativo

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Abstract

This article will discuss how architecture and urbanism collectives, when considering user participation in the design and construction processes, can expand the user's role, having them as protagonists. It is understood that this approach is an effective alternative to the traditional approach, in which the user is just a design component, which, in turn, has not proven to be sufficient and adequate to deal with the complex issues that arise in situations of territorial vulnerability. We will discuss parameters relating to conceptions and approaches regarding the role of the user in the design



process. Initially, we will address the role of the user as a component, as established by a modern and European tradition, as opposed to the possibility of the user's role as a protagonist, identified in the work of architectural collectives. In a second moment, we will delve deeper into the notion of architectural collectives and discuss two case studies: the collectives *Escola Sem Muros* (São Paulo - SP) and *Arquitetas da Periferia* (Belo Horizonte - MG).

Keywords: Participatory project; User; Architecture collective; Social vulnerability.

Resumo

Este artigo discorrerá sobre como os coletivos de arquitetura e urbanismo, ao considerar a participação do usuário nos processos de projeto e de construção, podem ampliar o papel do usuário, tendo-o como protagonista. Entende-se que tal abordagem é uma alternativa efetiva à abordagem tradicional em que o usuário é apenas um componente projetual, que, por sua vez, não tem se mostrado suficiente e adequada para lidar com as questões complexas que surgem em situações de vulnerabilidade territorial. Para tanto, discorreremos sobre parâmetros relativos às concepções e abordagens referentes ao papel do usuário no processo de projeto. Em um primeiro momento, abordaremos o papel do usuário como componente, conforme estabelecido por uma tradição moderna e europeia, em oposição à possibilidade do papel do usuário como protagonista, identificado no trabalho dos coletivos de arquitetura. Em um segundo momento, aprofundaremos na noção de coletivos de arquitetura e discutiremos dois estudos de caso: o Coletivo *Escola Sem muros* (São Paulo - SP) e o Coletivo *Arquitetas da Periferia* (Belo Horizonte - MG).

Palavras-chave: Projeto participativo; Usuário; Coletivo de arquitetura; Vulnerabilidade social.

Resumen

Este artículo discutirá cómo los Colectivos de Arquitectura y Urbanismo, al considerar la participación del usuario en los procesos de diseño y construcción, pueden ampliar el rol del usuario, teniéndolo como protagonista. Se entiende que este enfoque es una alternativa eficaz al enfoque tradicional en el que el usuario es sólo un componente del diseño, que, a su vez, no ha demostrado ser suficiente y adecuado para abordar las problemáticas complejas que surgen en situaciones de vulnerabilidad territorial. Dicho eso, discutiremos parámetros relacionados con concepciones y enfoques sobre el papel del usuario en el proceso de diseño. Inicialmente, abordaremos el papel del usuario como componente, tal como lo establece una tradición moderna y europea, frente a la posibilidad del papel del usuario como protagonista, identificado en el trabajo de los colectivos arquitectónicos. En un segundo momento, profundizaremos en la noción de Colectivos y discutiremos dos casos: Colectivo *Escola Sem muros* (São Paulo - SP) y Colectivo *Arquitetas da Periferia* (Belo Horizonte - MG).

Palabras clave: Proyecto participativo; Usuario; Colectivo de arquitectura; Vulnerabilidad social.



INTRODUCTION

User, according to its etymology, is a term derived from the Latin *usuarius* (lat. *usuarius*, a, um), which means “that which is for use.” Thus, the term is classified as: 1. A masculine noun; one who, by the right of use, makes use of something or enjoys its utilities; the users of public Transportation; 2. An adjective; serving, suitable for use.

This term, although so present in the architectural vocabulary, still requires some observations for its role to be properly clarified and valued. Predominantly, traditional architectural design education focuses on an individual process or exclusively on groups of architecture professionals, not sufficiently encompassing user participation throughout the creative process, let alone the construction process. Thus, it proves insufficient to address the complex design problems that arise in different territorial situations, especially in areas of socio-historical-territorial vulnerability.

While architectural design is developed in isolated offices or in the classroom, distant from the reality of future users, the connection with the real territory is lost, which could awaken a series of important perceptions for adapting architecture to the social and environmental context. According to research conducted in 2015 by the *Conselho de Arquitetura e Urbanismo* (CAU) (Council of Architecture and Urbanism in English) and the Datafolha Institute, it was shown that the architect's service is dedicated to only 15% of society – a percentage represented by the segment with the highest economic power. Data like this demonstrate the urgency of expanding access to architecture and, thus, taking action to ensure that this professional activity fulfills its social and environmental function. In Brazil, a country with high levels of social inequality, the issue of architecture must be addressed internally, that is, from the territory, which naturally implies the inclusion of socially vulnerable areas.

Starting from a characterization of the term “user” as a concept that defines parameters for understanding a design process, this article will, initially, discuss the notions of “user as a component” and “participatory user.” In the second part, delving into the notion of “participatory user,” we will comment on the actions of architectural collectives, particularly in 21st-century Brazil. Two case studies will be presented: *Sem Muros* collective (São Paulo – SP) and *Arquitetura na Periferia* collective (Minas Gerais - MG)¹.

User as a Component vs. User as a Protagonist

It can be considered that there are at least two categories acquired by the User in design processes: the user as a component, treated as just another project element among technical categories; and the user as a protagonist, involved in

¹ In English, *Sem Muros* means without walls; and *Arquitetura na Periferia* means architecture on the periphery.



every stage of the project, with different approaches, and considered in all aspects of the architectural program.

User as a Component

Historically, in the field of architecture and urbanism, the user was considered something external to the project. Several canonical publications – some of which we will address – work with the idea of the user as a mere component, another piece in the machinery that drives the entire project but not taking part in the decisions and choices of the project, being just another element that composes the program of requirements.

The well-known definitions of Ernst Neufert, in the book *Architect's Data* (2011 [1936]), for example, follow a unique standard for the user as a project component, which is the male body at 1.75 m in height. In its 17th edition, *Architect's Data* by Ernst Neufert, constantly updated by his son Peter Neufert, is a publication that has been and still is widely used for consulting parameters on the sizing of spaces in relation to the user, in addition to its function as a support tool for professionals when developing the project. Right at the introduction, in the section titled “Man as a Unit and the Object of Measurement,” the author, Ernst Neufert, explains that the work was a systematization of German standards scattered across various bodies and sectors to assist the work of architects. He emphasizes, however, that the models are not closed and static, and should be adapted according to the situation of each environment and its specificities, meeting the requirements of the program.

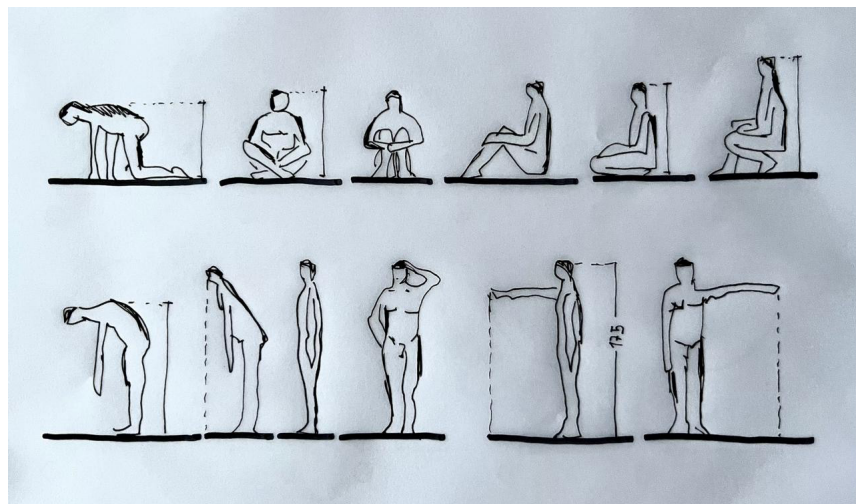


Figure 1: The Standard Man of Neufert, 1.75 m, and His Movement in the Environment.
Source: Neufert, 2011.

For Le Corbusier (1953 [1948]), in his Modulor proportion method, the male human figure measured 1.83 m in height, articulating units of measurement and



the arrangement of design elements, acting as components for the conception of the ideal functional project of a new era. With this, the definition of the user becomes not only semantic but also established as a unit of measurement.

It is noticeable how the modern movement defined the user in a generic way as the "Ideal Man," one who is capable of enjoying spaces designed to best serve society and within the appropriate function. A programmed life where culture and leisure have designated times and areas for practice and experience. Work and housing are organized so that this "Ideal Man" has the freedom to choose his own path, guided by reason.



Figure 2: Le Corbusier's Modulor, 1946 – The Idealization of the Universal Man.

Source: cFlickr, Eager.

This "Ideal Man," generic and without identity, was the standard model adopted for users of spaces. Generic and without identity because it does not consider differences in gender, race, and age when conceiving architecture, which, within this concept, was understood as the "Machine for Living." The machine is presented as the model in the example of how architectural design methods and construction processes should unfold throughout the entire architectural production system. The simplification of the reading of an architectural project developed with this

approach further reduces the user's significance to merely a conditioning factor of the program of requirements, rather than a determinant, as it should be. Thus, when a standard man is defined, the reduction of the understanding of the user's role and importance in project decisions and choices is firmly established. It is possible to perceive, therefore, how the modern movement positioned itself as the *definitor* of parameters in search of universal models for perceiving the world and based on prototype plans and programs, proposed solutions that, ostensibly, could be used in any territory and in any culture.

The system of proportions, established based on the relationships proposed by Le Corbusier, originates from a revival of other architects who analyze interactions from a numerical perspective and mathematical equations, determining the relationships between human body measurements and their meanings and reflections in nature. However, the expansion of the world and the connection between peoples make local standards no longer adequate. It becomes clear, then, that a common language would be necessary to construct this new world, initiating the standardization process already discussed with Neufert.

User as Protagonist

In contrast to modern architecture, contemporary alternatives aim to recover spatial characteristics that enhance human experience, bringing emotions, sensitivity, and identity to the environment, connecting the user's particularities to the context of habitation.

Understanding how the user is perceived is crucial for changing the scenario. This new user is seen as more than just a part of something larger (society), prompting contemporary architecture to rework old and propose new parameters that integrate notions of collectivity and individual needs. This stands in opposition to the ideals of modernism, which defined the model of a generic individual.

Herman Hertzberger (1991), for example, in his work *Lessons in Architecture*, presents everyday situations in practical experiences where theory connects with architectural elements, which in turn provide examples of the relationship between theoretical content and the built environment, forming the basis of design education. In this context, the architect portrays the role of the user as a fundamental element of the interaction between form and space. For Hertzberger, the relationship between the user and architecture requires an exchange between these two entities in how they behave and interact. The architect's role is to understand how architecture, through its compositions and articulations, suggests the possibilities between spaces, forms, and the user.





Figure 3: Creating spaces, leaving spaces. Montessori School, Delft.

Source: Herman Hertzberger – 1960-1966. p.155.

An example of this shift in perspective is also found in Christopher Alexander's proposal in his book *A Pattern Language* (1977). In this work, Alexander synthesizes everyday situations and elements through a technical and analytical lens, examining the qualities and flaws of certain pattern choices that are reflected and mirrored in the dynamics of urban growth – from neighborhood cores to larger city areas. This mechanism can be used as a planning element in the design process to anticipate choices, being incorporated into the participatory methodology that promotes interaction between architects and users. Through dialogue and the exchange of knowledge based on lived experiences, an approach is established that connects parameters and approaches between architecture and human beings. Thus, the design proposal emerges from the combination of the architects' technical and sensitive principles with the needs and knowledge of the users.

In Brazil, still in the period dominated by the idea of modern architecture, Sergio Ferro emerges as one of the first references discussing the housing production method in the country. Ferro addresses the relationship between architectural design, the construction system of housing, the working conditions of laborers in the production chain, and the alienation caused by the lack of integration of the user in decision-making processes.

It is also worth highlighting the role of Lina Bo Bardi and João Filgueiras Lima, known as Lelé. Architect Lina Bo Bardi, throughout her career, develops and broadens her perception of the role of people and popular identity in the production of architecture. When invited to lead the Museum of Modern Art in Salvador, Bahia, between 1950 and 1960, with her research and tireless search to understand that art, Bo connected with popular wisdom and developed various exhibitions on the topic. In 1976, she began collaborating with André Vainer and Marcelo Ferraz, designing the Church of Espírito Santo do Cerrado in Uberlândia, Minas Gerais, a project where popular participation was also a prominent feature throughout the entire design process, which concluded with the completion of the work in 1982 (INSTITUTO LINA BO BARDI, c2012-2013). In 1977, she began the project for the Sesc Pompeia Leisure Center, undoubtedly an ode to the user. According to Montaner (2001, p. 18), her work

It is a foretaste of certain aspects in the discussion on the participatory issue and the concepts of popular know-how in the construction process, and how to perceive historical cultural matters when designing as relevant scholarly and scientific knowledge for the improvement of design strategies. "Through mimesis, her work reconciles with nature and with the user

Meanwhile, Lelé, with his human and technological architecture, within technical specifications and highly rationalized parameters, manages to elevate the role of the user to a higher level, making them a central element in the development of his projects. This is evident in several projects of the Sara Kubitschek hospital network, where the architect establishes relationships of proportion between the environments, the scale of users in relation to the spaces, and various pieces of furniture, in addition to the magnificent humanization of the hospital environment. These are some of the attributes used by architect Lelé, who, anchored in technique and prefabrication, is able, in a sensitive and human way, to insert the user into the design process as the protagonist of the built space, even with an extremely technical and rationalized construction method behind it.

Architecture Collectives of the 20th Century

Currently, we have the proposal of Collectives as a powerful alternative to the traditional method of architecture studios. This proposal is even recognized by members of the Scientific Committee of the International Union of Architects (UIA) in the article 'Collective: the way of thinking and doing architecture in the 21st century' (2021), which states that:

The collectives have been active in presenting proposals for the contemporary city. I also think that it is a form of professional organization that responds to the challenges young people face when entering the job market. These are affinities that come from university and bring together people with the same purposes (our translation)

Overall, the collectives value the idea of collaborative, participatory work, expanding the diversity of perspectives in the approach and formulation of proposals. In most cases, the user becomes part of all the links in the chain through the various stages of the design process. One of the principles of the collectives is the understanding that architectural education should be based on the experiences of know-how and learning by doing, using the resources and materials available on site. This offers the concrete possibility of transformation in the way the community and its people appropriate and internalize the knowledge. They rely on dialogue, the exchange of experiences, and mutual learning throughout the participatory design process, with active listening and a



constant process of reevaluation regarding how to intervene in the territory and its consequences

In the Collectives, methodologies are mobilized dynamically and begin to function according to the spirit and activity of each situation, community, client, or user group. This new relationship between theory and practice by architects, from the possibility of experiencing the construction process and forms of action as a retrieval of certain fundamental and cherished principles of architecture, allows not only issues of form and structure to be part of the architectural debate, but also that the subject itself – the user – plays a central role in the discussion about the process and program of needs of the project. Next, we will delve into the case studies of the Coletivo *Sem muros*, in São Paulo state, and Arquitetura na Periferia, in Minas Gerais state.

***Sem Muros* collective**



Figure 4: Group activity of manual work on the construction site with the community and the Sem Muros collective during the immersion in Jardim Damasceno.

Source: Júlio Gadelha, 2018.

The *Sem Muros* collective is a collaborative studio that considers reflection on architectural practice as essential to the development of its proposed projects. The group operates under some basic principles: low-impact architecture, permaculture philosophy as a guiding framework for design choices, an engaged relationship with users and their participation in the development of project phases through attentive listening and open dialogue, and the construction process as a form of knowledge – that is, the technique of making or learning by doing. Participation is not treated as a separate project component, but rather as an intrinsic part of the design process. The working environment is also seen as a space for learning and reflecting on the paths and possibilities for transformation that architecture can trigger.

Among its many activities, the *Sem Muros* school project at the end of 2017 stands out. In this project, the collective moved towards the construction of a Cultural Pavilion in Jardim Damasceno, a peripheral neighborhood in the city of São Paulo. To achieve this, the collective launched a crowdfunding campaign to raise funds for purchasing materials and building the cultural space. We had the opportunity to actively participate in this process, as participants, collaborators, and supporters, from the fundraising stage through the full immersion activities held in January 2018.

During the immersion in Jardim Damasceno, the general idea for the Cultural Pavilion project was developed in stages alongside the residents, while the final design was detailed by the architects at the studio before construction began. Throughout the immersion, numerous activities were carried out: workshops to build the bamboo structure of the pavilion, a participatory master plan with children, youth, and the elderly from the surrounding area, discussion circles covering topics such as waste management, education, and the environment, along with dynamics focusing on behavior and self-awareness. All these practices and theoretical discussions were deeply connected to the participatory work carried out throughout the day. There was a sincere concern with perceiving one another and working together – from design to execution, from architect to user.



Figure 5: Development of the collaborative design for the Jardim Damasceno Cultural Pavilion. Source: photo by the author, 2018.

The collective's proposal for Jardim Damasceno offers a reflection for society at large—and for architecture professionals in particular—by highlighting the need for change in the design process. As we have seen, traditionally, the project was often understood as something abstract, only later to be inhabited and utilized by users. In other words, it is necessary to recognize the architect as part of a larger whole, acting as a collaborator in the process, a technician, a catalyst for the group's creativity, a graphic facilitator, and, at times, an active participant.

The participatory discussion about the same territory, but through different perspectives, enriched the reading of space. The contrast in spatial perception between those who



lived in the area and those who were there only temporarily during the ten-day immersion revealed a rich melting pot of possibilities for transformation. The construction of a collaborative and participatory project should always begin from this basic premise: the diversity of actors in terms of gender, social class, age, race, among other criteria. (Gadelha; Lotufo, 2019, n.p., our translation).

With this project, therefore, the collective proposes that the architecture professional should no longer be seen by the user as someone with full and absolute control over the process or who makes all the decisions, but rather as a partner in the collective construction of an intention — a special participant who master's the necessary tools to enhance the final product.

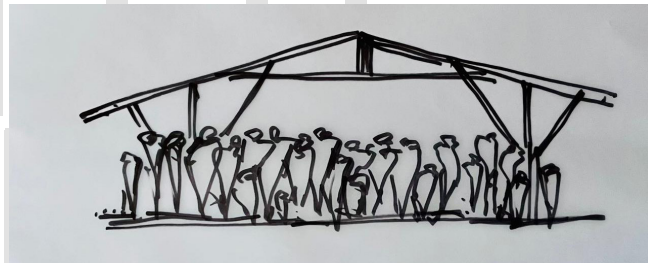
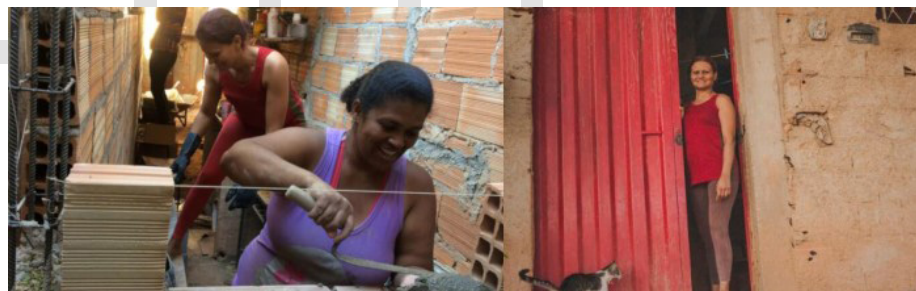


Figure 6: Group responsible for the renovation of the Jardim Damasceno cultural space.

Source: photograph by Tatiana Zaratin, 2018

Arquitetura na Periferia collective



Residents renovating Simone's house with the Arquitetura na Periferia collective.

Source: Arquitetura na Periferia, n.d.

The *Arquitetura na Periferia* Collective emerged from architect Carina Guedes de Mendonça's realization, dating back to her undergraduate years, of the poor quality of housing in the outskirts of Belo Horizonte. Guedes deepened her reflections within the research group at the School of Architecture at the Federal University of Minas Gerais (UFMG), and in July 2014, she presented her master's thesis entitled "Architecture in the Periphery: An Experience of Technical Assistance for Groups of Women." In it, Guedes expresses her intention to practice necessary architecture—an architecture of urgency—and her desire for this action to become



a concrete tool for the empowerment of women's leadership in the construction of their homes, as well as in the participatory development of local communities that are more supportive and aware of their rights and responsibilities as citizens.

Over time, Guedes and her partners refined their methods and expanded their outreach to include a greater number of women in vulnerable situations. To give the program greater visibility and to establish a stable funding stream—ensuring ongoing projects were not interrupted and identifying more families with women as heads of household—the team developed a communication strategy to publicize the collective's philosophy and working method. This strategy is grounded in a participatory design process and in female community construction and training, through workshops, lectures, and events. To that end, a dedicated channel was created on a crowdfunding platform to receive ongoing donations for the program. Since 2015, the project initiated by the *Arquitetura na Periferia* collective has been carried out through the *Arquitetas Sem Fronteiras* – ASF Brasil Association.

We are a project aimed at improving housing conditions for women living in peripheral areas, through a process in which they are introduced to design and construction planning practices and techniques, and receive microfinancing so they can independently and efficiently carry out renovations on their own homes. Rather than providing a finished product, our goal is to foster the participants' autonomy by enhancing their ability to analyze, discuss, envision, plan, and collaborate—ultimately leading to increased self-esteem and confidence. OUR MISSION: To produce and share information and knowledge, strengthening community bonds through women's protagonism in all its diversity. Above all, we are people who believe in the transformative power of working towards a more just world. We have operated independently since 2014, relying on resource mobilization and the establishment of partnerships that enable us to continuously grow and expand our reach. Since 2015, the project has been implemented through the association *Arquitetas Sem Fronteiras* – ASF Brasil, an organization that develops various initiatives and projects related to the production of urban and rural spaces in collaboration with communities and social movements. In 2018, with the project's growth, *Arquitetura na Periferia* was institutionalized through the creation of the Institute for Women's Support and Innovation (IAMI), which aims to house new projects dedicated to gender equity and the fight against social inequalities. (*Arquitetura na Periferia*, 2020, n.p., our translation)



The group believes that the appropriate term to refer to the architecture professional is “facilitator” rather than “designer.” The process developed by the group begins with the training of women in socially vulnerable territories. With the collaboration of other women, they can renovate their homes—or a part of them. The design process, or facilitation, involves guiding the user to take measurements of her home and draw it as best as she can. This initial drawing is then adjusted in conversation with the architects and later redrawn to scale by the architect using computer software. Once the scaled floor plan is printed, the drawing is brought back to a conversation with the user, who receives a furniture kit in the same scale to study the best spatial configuration. After defining the arrangement, the project is finalized with the preparation of a construction budget and a list of materials. Before construction begins, short training workshops—such as laying bricks, mixing mortar, plastering, etc.—are offered by the coordinator of the collective’s operations herself. In this process, the architect clearly acts as a facilitator, and the space is transformed and perceived by the user, who plays an active role throughout.

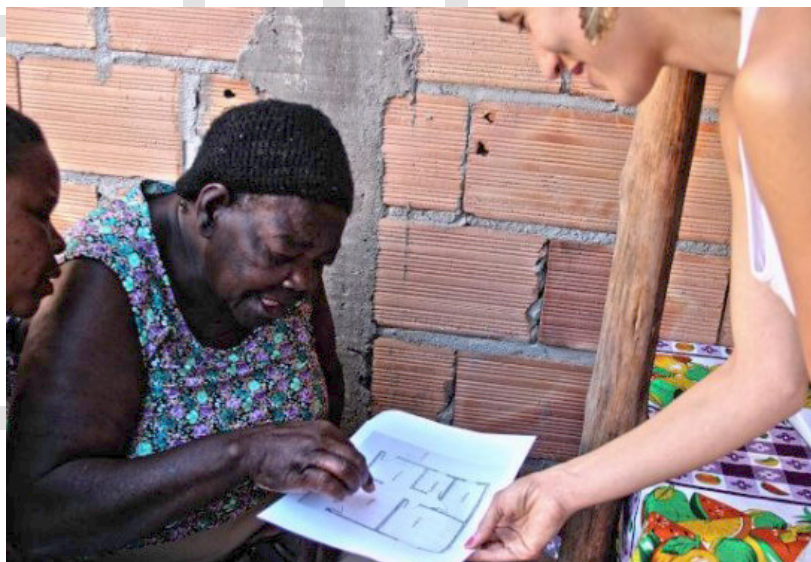


Figure 9: Project discussion between members of the Arquitetura na Periferia Collective and resident users.

Source: Arquitetura na Periferia, n.d.

FINAL CONSIDERATIONS

By examining different ways of working with the notion of the user within the field of architecture and urbanism, it was possible to observe that the tradition rooted in modern European frameworks tends to approach the user as a component. In contrast, a shift in this perspective can be noted within Brazilian modernism and, more broadly, in contemporary architecture, where the user is regarded as a participant. In this sense, the work of collectives currently stands out.



The way Architecture Collectives work with users, throughout their design processes, points to renewed approaches to the project conception process in architecture. Technical knowledge and popular knowledge are articulated to address the complex design problems arising from urban territorial vulnerability. In general, collectives value the idea of participatory work, expanding the diversity of perspectives in the approach and formulation of proposals. In most cases, the user becomes integrated into all links of the chain throughout the various phases of the design process

Ultimately, the shift in coordinates in the work of the architect brought about by these collectives is highly significant. There is a transformation of two traditional core elements: authorship gives way to process and collectivity, rejecting the individualistic predominance of the author's ego; and the work, once recognized solely in the constructed building, in the object, is now understood as a process that can materialize in programming, consultancy, mediation, advocacy actions, itinerary planning, rehabilitation efforts, committees, publications, videos, expression through new media such as websites and blogs, and many other activities. The actions of these collectives advocate for the necessity of architecture and show that it can be developed through a wide range of different paths (MONTANER 2017, p.155, our translation).

This renewed relationship between theory and practice among architects, made possible by the opportunity to engage directly with the construction process and new forms of action—seen as a recovery of fundamental principles dear to architecture—not only brings questions of form and structure into architectural discourse, but also positions the subject, the user, at the center of discussions about the design process and programmatic needs. These characteristics were identified in both case studies presented. For both collectives, *Sem Muros* and *Arquitetura na Periferia*, the core of their action lies in active listening. A space is opened to first hear what the user has to say and understand their expectations, so that the entire project can be conceived through dialogue and participatory means.

What these initiatives share is a process that values participation and collective thinking around specific situations, while also expanding the range of possibilities for interpreting, perceiving, and acting upon the principles and foundations that govern architecture in its interaction with the user. This approach is essential for addressing the complex design challenges that emerge in contexts of urban territorial vulnerability. The case studies also demonstrate that a participatory design model does not suppress individual choices; rather, it can enhance identity and embrace the diversity of situations both in the design proposal and in its response to the project problem. Ultimately, they reinforce the idea of the user's participation in the design process—not merely as a constraint for the



programmatic requirements or as a design component that determines scale and proportion, but as a subject, an essential part of the design process.

Moreover, the spaces utilized by these Architecture Collectives — whether physical in their studios, itinerant in communities, or virtual across digital platforms— embody a transformative spirit and new approaches for dealing with the complex design challenges posed by urban territorial vulnerability. The concept of open communication, based on clear dialogue between architects and users and active community participation from conception to execution, is fundamental to shifting the paradigm of teaching and learning in Architecture and Urbanism programs in Brazilian higher education institutions.

REFERENCES

- ALEXANDER, C. *Notes on the synthesis of form*. 9th ed. Cambridge: Harvard University Press, 1977.
- ALEXANDER, C. *Uma linguagem de padrões*. A pattern language. Porto Alegre: Bookman, 2013.
- ARELLANO, M. Sobre o deslocamento do corpo na arquitetura: o Modulor de Le Corbusier. *ArchDaily Brasil*, 24 fev. 2019. Tradução: Julia Daudén. Disponível em: <https://www.archdaily.com.br/br/911962/sobre-o-deslocamento-do-corpo-na-arquitetura-omodulor-de-le-corbusier>. Acesso em: 22 dez. 2020.
- AULETE. Usuário. *Dicionário Aulete Digital Houais*. Disponível em: <http://www.aulete.com.br/usuario>. Acesso em: 10 out. 2020.
- CONSELHO DE ARQUITETURA E URBANISMO DO BRASIL (CAU/BR). Comparativo dos censos de arquitetas e arquitetos e urbanistas do Brasil 2012 (I) e 2020 (II). *Cau/BR*, 2020. Disponível em: <https://caubr.gov.br/wp-content/uploads/2021/12/Comparativo-Censo-2012-2020.pdf>. Acesso em: 23 fev. 2024
- FERRO, S. *O canteiro e o desenho*. São Paulo: Projeto editores associados, 1979.
- FERRO, S. *Arquitetura e trabalho livre*. Coleção Face Norte, v. 9. São Paulo: Cosac Naify, 2006.
- GADELHA, J. B. IV JORNADA DISCENTE DO PROGRAMA. Programa de Pós-graduação Mackenzie. São Paulo: FAU-Mackenzie, 2018.
- GADELHA, J. Relatoria nos anais do Fórum ATHIS. *Athis*. 2019 Disponível em: <http://www.athis.org.br/forum-athis/>. Acesso em: 10 out. 2020
- GADELHA, J.; LOTUFO, T. Estratégias de projeto participativo em áreas de vulnerabilidade social. In: ENANPUR, 17., 2019. *Anais...* Disponível em:



<https://xviiienanpur.anpur.org.br/anaisadmin/capapdf.php?reqid=128>.
Acesso em: 24 fev. 2024.

HERTZBERGER, Herman. Lições de arquitetura. São Paulo: Martins Fontes, 2. ed., 1999.

LE CORBUSIER. *El modulator*. Buenos Ayres: Poseidon, 1953.

LE CORBUSIER. *El modulator 2*. Buenos Ayres: Poseidon 1962.

MENDONÇA, C. G. de. *Arquitetura na periferia: uma experiência de assessoria técnica para grupos de mulheres*. Dissertação (Mestrado em Arquitetura e Urbanismo) – Universidade Federal de Minas Gerais, 2014.

MONTANER, J. M. *Depois do movimento moderno*. Arquitetura da segunda metade do século XX. Barcelona: Editora Gustavo Gili, 2015.

MONTANER, J. M. *Do diagrama às experiências, rumo a uma arquitetura de ação*. Barcelona: Editoria Gustavo Gili, 2017.

NEUFERT, E. *Arte de projetar em arquitetura*. 17. ed. Barcelona: Editora Gustavo Gili, 2011.

NEUFERT, P.; NEFF, L. *Casa apartamento jardim*. Projetar com conhecimento. Construir corretamente. 2. ed. Barcelona: Editora Gustavo Gili, 2007.

UIA2021RIO. Coletivo: a forma de pensar e fazer arquitetura no século XXI. *Uia 2021 Rio*, 2021. Disponível em: <https://www.uia2021rio.archi/coletivo-a-forma-de-pensar-e-fazer-arquitetura-no-seculo-xxiN113pt>. Acesso em: 10 jan. 2021.

