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SESSION 7
16:45 - 17:45

ROOM C - SALA DE VIDEOCONFERENCIAS

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**Ex+per. Experimentation of
architectural co-design
strategies in fragile contexts**

Ex+per

Experimentation of architectural co-design strategies in fragile contexts

Keywords: co-design, fragilities, spatial education.

Architectural co-design is a crucial field of research today, especially in fragile and at-risk contexts, where rapid transformations and important challenges affect their social and physical framework. To achieve conditions of anti-fragility of communities and places – an urgency related to changing environmental and climate scenarios in increasingly contracted temporalities – a critical reading of participatory practices and community-based approaches is proposed by looking at the topic of experimentation as an operant process of research, verification, and active learning, capable of bringing both designers and inhabitants to new awareness.

The contribution aims to investigate co-design strategies for architecture and their implication in disaster risk reduction (DRR) and climate change adaptation (CCA), focusing on the co-creative and educational potential of their experimentation to trigger or catalyze transformative processes in these fragile contexts. Adopting community-based approaches, it is possible to trigger bottom-up processes projecting any kind of intervention in an *ex-ante* temporality towards risk and introducing the theme of mitigation: this allows the designer to place himself in a less violent position towards territories and inhabitants, an attitude necessary in proportion to the degree of marginality of places. The wide range of perspectives on participatory practices concerning living, anticipates the development of a research methodology applicable to architectural design that is highly adaptable to various social and territorial settings. However, in order to envision it as a design tool attuned to contemporary issues, it is essential to reconsider architectural co-design beyond conventional frameworks investigating its potential expressions (Navarra, 2017, 75). Specifically, given the polysemic dimension of this concept, there is a necessity for a sharing of its meanings, articulating its various facets through a common language. To do so, it is useful to identify the possible declinations of co-design and the levels of experimentation to which different methodological approaches correspond.

- The first and most widespread is the classical approach, which stems from the ideological matrix of 70s, easily identifiable in past experiences. It relies on moments of confrontation wherein residents are viewed as active contributors to project decisions (De Carlo, Marini, 2013): a very common practice for any project that proposes a participative methodology;
- In chronological order, the first forms of co-design occurred in vernacular architecture, with practices of self-construction and rituals that today could be counted in a self-deterministic approach;
- Personalizing space and architecture has become a common practice in modern times. An appropriative approach shifts the designer's focus to the users' needs. Incremental design practices emerge as a potential field of experimentation, particularly related to post-disaster scenarios and their temporal aspects (fig. 1);
- Considering architectural design as a process to build knowledge (Lari et al., 2013), the aim of the architect is to educate communities increasing awareness towards the built environment and social cohesion. In this sense, co-design can adopt a pedagogical approach, considering spatial education as one of the pillars of participatory architecture, especially in risk and uncertainty situations (fig. 2). In this scenario, workshops represent a tool of experimentation to engage both professionals and communities in spatial and architectural exploration;
- If the identity of man presupposes the identity of place (Norberg-Schulz, 1979), it is evident how the physical dimension of architecture can be combined with the social dimension of communities. An ethnographic approach led by the experimentation of fieldwork allows the designer to adopt a vision that relates the space and the individual assuming in addition to a figurative register an anthropological one (Bilò, 2014, 57).

Important moments for experimenting with the aforementioned community practices can be identified in collective activities like workshops, seminars, events, exhibitions, meetings and social networks: these represent the basic tools for defining effective co-design methodologies and for rethinking the relationship between designers and inhabitants. A specific design-driven research methodology, rooted in architectural co-design practices, derives from two significant phases: an analytical-synthetic first one, that addresses issues such as risk assessment, management, and communication, encompassing a typological-morphological analysis of territories; and a participatory second one, focusing on establishing resilient conditions and educating communities to preparedness. These phases are complemented by an ethnographic sensibility, drawing from anthropology, which serves as a valuable tool in co-design activities by combining spatial and social dimensions.

At this point, it is necessary to highlight how processes based on the participation of people aim to bridge not only the hiatus between the architect's specialist knowledge and the inhabitants' good common sense, but also a co-evolutionary gap between communities and territories which is both cause and consequence of those territorial fragilities that afflict especially marginal areas and minor contexts. Placing design hope in the role of communities – entities that are repositories of identity meanings deeply rooted in the places where they reside (Bauman, 2001) – also implies re-tying the futures of inhabitants and places. With this discourse, the scale of co-design shifts from the social to the spatial, from theoretical application to practical experimentation, losing some of its original ideological force, but focusing on properly architectural and landscape design issues. In other words, only through experimenting with participatory practices – that is, identifying co-design as a key to the process of transforming places – architecture can be considered as a space of collective engagement for the revitalization of fragile contexts subject to risk and uncertainty.

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Short reflection on the importance and role of experimentation in the research project

Experiment and experience have the same Latin root: both are derived from *experiri*, a verb composed of the particle *ex* meaning «from, out of, away» and the Indo-European root *per*, which stands for «to attempt, to test». Adopting a design-driven approach, the orientation of the research methodology should identify architectural design as the cultural environment for producing (*ex*) and testing (*per*) theoretical and technical knowledge. Moreover, the parallelism between experiment and experience takes on a significance of considerable interest in the field of architecture: if the purpose of design – an evident process of experimentation in each of its phases – is to build spaces, a reflection on the human experience that these generate turns out to be fundamental.

Another argument for the importance of experimentation in architectural design lies in the fact that it is an iterative process: as well as in science, with the experimental method, we start from observations to reach conclusions through a specific experience – sometimes repeated several times with the variation of the surrounding conditions –, in the same way in the design research it is necessary to interpret the context through architecture, which has the ability to give new meanings to the place in which it stands.

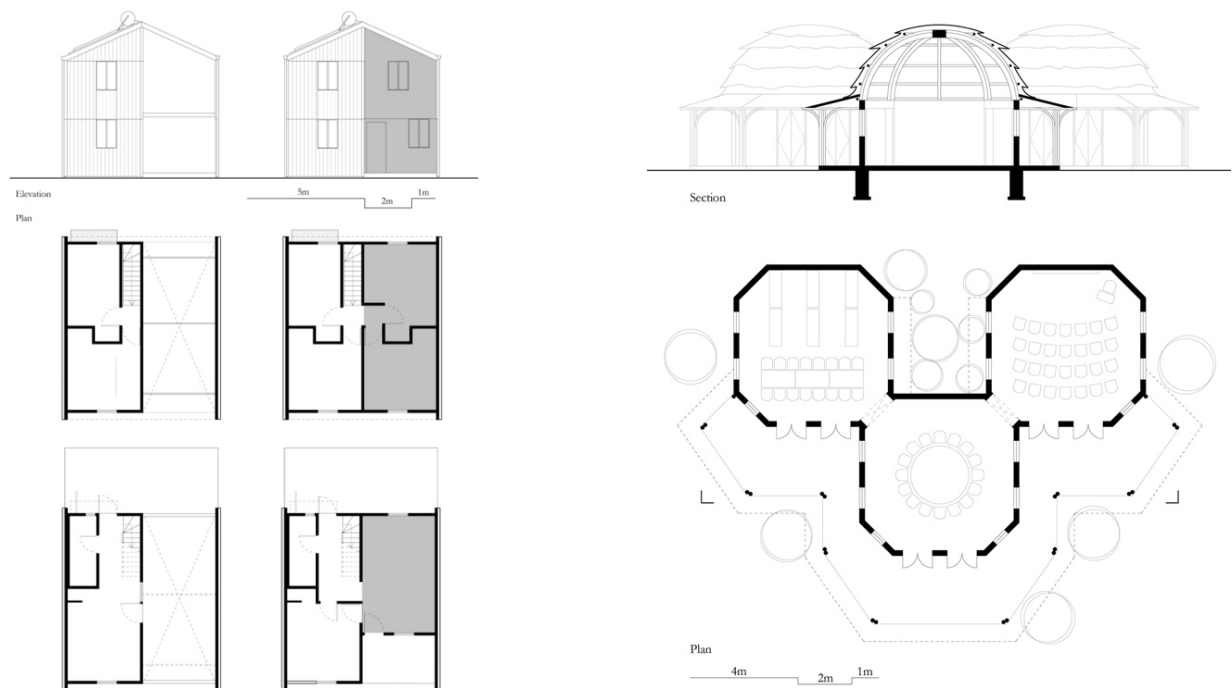


Fig. 1: Alejandro Aravena & ELEMENTAL, incremental design in *Villa Verde Housing*, Chile, 2010. Graphic reworking by the author.

Fig. 2: Yasmeen Lari, education of community in the *INTBAU Training and Resource Center*, Pakistan, 2019. Graphic reworking by the author.