

The Architectural Representation through Mapping Controversies

Analysis of the local condition

representación arquitectónica
mapeo de controversias
condición local
visión integral
architectural representation
mapping controversies
integral vision
local condition

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Actualmente gran parte del entorno construido a nuestro alrededor es igual en cualquier lugar. En la arquitectura, a través de modelos estandarizados, se pretende decir a las personas cómo deben vivir, creyendo en el determinismo de los proyectos; sin embargo, la realidad cotidiana es todo lo contrario, es inestable y cambiante. Ante ello, son necesarias las herramientas de representación que nos permitan visualizar esta complejidad. El objetivo de este artículo es reflexionar en torno a la representación arquitectónica a través del Mapeo de Controversias con el fin de explorar las alternativas existentes en una visión integral y dinámica de temas propios de la arquitectura, ponderando la disolución de fronteras entre disciplinas del conocimiento. Se trata de un abordaje alternativo de las relaciones tradicionalmente clasificadas como dicotomías en la arquitectura (cualitativo/cuantitativo, visible/ no visible, naturaleza/ cultura, objetivo/subjetivo, etc.), que desde su naturaleza aislada no permiten visualizar las oportunidades emergentes de su interrelación.

Para mostrar las posibilidades de esta herramienta de representación, se contextualiza un caso estudio en particular: La Reconstrucción de Vivienda por Sismo en la Región de la Costa de Oaxaca; el cual se desarrolla al sur de México entre los estados de Guerrero y Oaxaca (Véase fig. 5). Desde esta perspectiva se pretende hacer análisis integral de la condición local de la vivienda de reconstrucción para así mostrar las cualidades emergentes significativas (humanas o no humanas) que surgen de esta interrelación hacia proyectos de reconstrucción futuros en esta región sísmica. De manera específica se plantea la elaboración de un *Mapa de la Condición Local* como parte de la etapa de investigación en el desarrollo de proyectos arquitectónicos. Este mapeo abierto, libre y alterno según el caso en cuestión; es una oportunidad hacia la humanización del espacio desde la representación arquitectónica.

A big part of the environment built around us is practically the same wherever you go. Architecture pretends to tell people how to live through standardized design models, thus believing in some sort of design determinism, however, everyday life is very different from that, it is unstable and ever-changing. Consequently, it is necessary to have representation tools that allow us to envision this complexity.

The aim of this article is to reflect on architectural representation through Mapping Controversies in order to explore different architectural alternatives in an integral and dynamic way that dissolves the boundaries between conventional areas of knowledge. This transdisciplinary approach moves beyond the traditional relations that have been classified as dichotomies in architecture (qualitative/quantitative, visible/invisible, nature/culture, objective/subjective, etc.) and which, considered in an isolated manner, limit the possibility of emerging opportunities that might result from their collaboration.

In order to show the possibilities of this representation tool, a particular case study is presented: The Earthquake Housing Reconstruction in the Coast of Oaxaca which took place in the south of Mexico, in the intersection of the Guerrero and Oaxaca states (see fig.5). From this perspective, the making of an integral analysis of the local condition on the housing reconstruction in the region is proposed in order to expose the significant emerging qualities (human or non-human) that arise from this mapping towards future reconstruction projects in this seismic region. Specifically, the elaboration of a *Map of the Local Condition* is proposed as part of the research stage in the development of architectural projects. This open, free and alternative mapping according to each case in question is an opportunity for humanized space from architectural representation.

INTRODUCTION

The lack of a wide and integrating vision in the different areas of human knowledge has resulted in multiple problems, to which architecture is no exception. Throughout history knowledge has been separated into different fields so that it can be studied. Nevertheless, the problem does not lie there, but in believing that the different areas of knowledge are in fact separated from one another, thus focusing only in one specific and single area: "In certain accidents and specific places, in some 'areas of interest' of this political academic geography traced by the disciplines and their specialties on the landscape of knowledge." (Martín Juez, 2002, p.130)

In architecture the main representation techniques have relied on a fragmented perception of reality, which have a complex origin related to a lack of an encompassing vision that sees things in an integral and interrelated manner. In philosophical terms, according to Hans-Georg Gadamer: "It is the task of philosophy to discover what is common even in what is different. According to Plato, the task of the philosophical dialectician is «to learn to see things together in respect of the one»." (Gadamer, 1986, p.12) This is why buildings are represented as isolated from ordinary life, local culture, different lifestyles and even the worldview of their inhabitants. For Josep Maria Montaner currently "the mechanistic world still intends to place the instrumental criteria above the human and cultural ones, even if it comes with a look, it increases inequity as well as the risks." (Montaner, 2014, p.12)

From this perspective, buildings have come to be considered as autonomous and, even in some cases, the interest lies only in their symbolic value and the efficiency of the technology involved in

their construction. For architect Kenneth Frampton the problem is an architectural production based only on the perfecting of technology, where the possibility of creating significant forms is extremely limited. (Frampton, 2002, p.78)

Now, by giving meaning to a building's symbols according to preestablished parameters such as architectural style, the historical period in which it was created or the concept that the designing architect seeks to portray, etc., a predefined, stable and static condition is affirmed: "When a building is tackled through a subtle procedure of sign interpretation, we engage in a search for reciprocal relationships between signified and sign. A building appears to have an independent constant form that is separated from a distinct meaning." (Yaneva, 2012, p.20) However, buildings are more complex than a symbolizing regimen.

Nowadays, in the second decade of the 21st century, the architectural knowledge to this date needs to rethink reality based on the new data. It needs to overcome the disciplinary rigidity so that it can enhance more versatile and adaptable mechanisms that can transform it. [...] Architecture moves forward and evolves as an interdisciplinary knowledge and not as a closed and self-sufficient discipline. (Montaner, 2014, p.8)

The responsibility of representing buildings in a simple and static manner goes back in history and it has very complex roots; from the renaissance representation techniques to the current computer assisted drawing that, even if it has managed to create a more collaborative design among different disciplines, it still limits the integration of qualitative interpretations to their performance measures.

For architect Juhani Pallasmaa, in the last thirty years the predominant architecture points to a visual, showy and collectible image (Pallasmaa, 2014, p.34). It is a type of architecture represented through photography (without people) that turns it into a static and unnatural art, ready for architectural speech (a posteriori). These conditions contradict the complexity of a spatial human interaction: "The judgement of environmental character is a complex multi-sensory fusion of countless factors which are immediately and synthetically grasped as an overall atmosphere, ambience, feeling or mood." (Pallasmaa, 2014, p.230)

From a philosophical perspective representation can be understood as the intentional presentation of an object, be it intellectual or sensorial, belonging to internal or external senses. [...] Representation in its strict psychological definition [...] is an 'update' of sensorial information in virtue not of immediate and exciting perceptions, but of 'vestiges' of previous perceptions. [...] All representations derive from the material provided by the external senses, at least in their latest elements, and the other way around, in the creation of a world image of perception the immediate information of the senses can be combined with the one of representations [...] (Brugger, 1975, p.453)

From what has been analyzed so far, it is easy to say that architecture as a discipline constantly needs representation tools that embrace an everyday life encounter with the inhabitants of a particular area to the envisioning of these encounters in time. However, this complexity has not been successfully portrayed with the current representation techniques. This shows the need of incorporating emerging representation tools that help envision these inherent processes. The questions that follow are how

can we represent the complexity of processes in architecture without using the dichotomic categories of the discipline such as qualitative/quantitative, technology/humanities, tangible/intangible, nature/culture, visible/invisible? How can we represent the existing possibilities in the encompassing perception of problems in architecture?

The answer to these questions is explored through the methodological mapping of controversies developed by the sociologist of scientific knowledge and anthropologist of architecture Albena Yaneva. She has used the theoretical bases of systemic thinking, actor-network theory (ANT) and the Science and Technology Studies (STS) to represent the complexity of processes in architecture. Bruno Latour and Michel Callon, among others, developed the ANT decades ago.

AN INTEGRAL VISION

A systemic vision of architecture implies the creation of its own language. The term architectural (Yaneva, 2012, p.108), has a less stable, undefined, dynamic and implicit concept within that takes place in action. Its nature is complex and interrelated in a way that it represents the combination of technological elements with complex human beings in a susceptible natural environment and a peculiar cultural system that is not linear and stable only temporarily (Martín Juez, 2002, p.32). This definition represents an opportunity of understanding architectural space as a process.

For Albena Yaneva and sociologist Bruno Latour: "The problem with buildings is that they look desperately static. It seems almost impossible to grasp them as movement, as flight, as a series of transformations" (Latour, Yaneva, 2008, p.80). Both authors exemplify this concept with the flight of a bird. Fig. 1



Fig. 1 - Chronophotograph of a flying pelican. Étienne-Jules Marey, 1882. Available on: https://www.researchgate.net/figure/Chronophotograph-of-a-flying-pelican-Etienne-Jules-Marey-1882_fig2_329355092

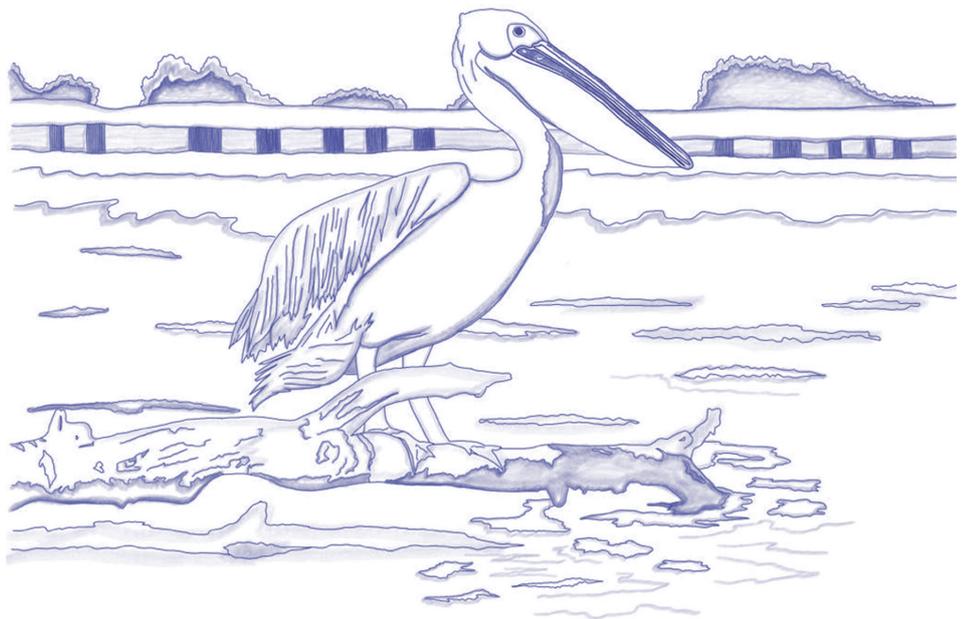


Fig. 2 - Drawing of a static pelican. It does not show anything related to the essential activity of the pelican, that is flying.

shows a series of photograms that help study the mechanical foundations of the flight of a pelican, while in fig.2 the pelican remains static and does not show anything related to the essential activity of the pelican, that is, flying. So that if we were to stick to the representation of fig. 2 we would not have an approximated close understanding of its reality. Based on this it can be asserted that representation mediates our perception of the world, which is why the use of tools that can allow us to unfold reality for a better understanding is paramount.

MAPPING CONTROVERSIES AS A REPRESENTATION TOOL IN ARCHITECTURE

Mapping controversies is a research strategy that allows us to tackle architectural subjects without drawing borders between disciplines.¹ It also gives the opportunity not to focus the representation solely on a unilateral creation of symbols, rather it allows exploring the building and/or the problems

as a series of transformations, passages and experiences.

The word controversy comes from the latin *controversia*² and refers to an opposition between two or more people towards something and the ability to turn this situation around.

Controversies, as seen here, are complex phenomena. Design controversies involve all kinds of actors. Not only are there human beings and human groups but there are also natural and technical, individuals and institutions: beams and dreamers, engineers and protesting students, politicians and roof shells. Controversy displays the design and the social in a very dynamic way; design precedents and communities, political protests and design concerns. The actors never appear alone but in a network. The social and the cultural are to be found as architectural practices unfold, as design happens; they are not outside, far away or beyond architectural objects and processes. (Yaneva, 2012, p.60)

One of the most relevant contributions of this theory is the use of the term 'actor' to refer to autonomous entities that play an important role in the development of processes, be they humans or non-human. This characteristic allows us to trace multiple variables and their relations within the processes: costs, budgets, suppliers, architectural styles, constructive systems, construction material, engineers, lifestyles, worldviews, collectives, protests, visual representations, etc. It is an ethnographical work that can begin with a spark of curiosity: the beholding of an event, a human or non-human actor or even a predictive event that allows the possibility of exploring the object of study from different perspectives that are all documented and interpreted throughout the mapping of the information.

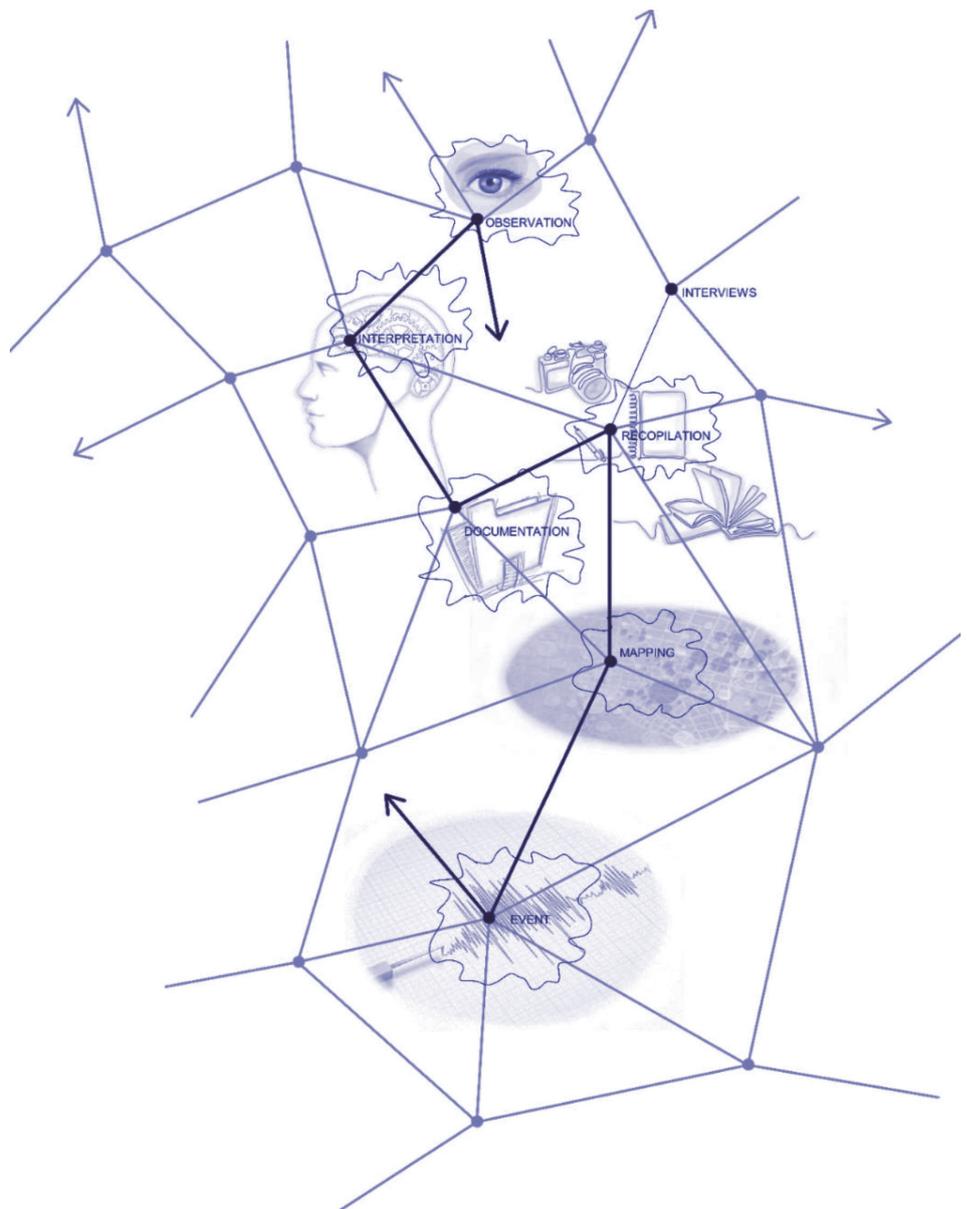


Fig. 3 - Flexibility in the starting point for controversy mapping.

This proposal for the developing of mapping controversies is not linear. It can start at any point depending on the case, along with any necessary repetitions to explore the existing possibilities in the interaction and their representation. And carried out in such a way that, if it is possible to continue, to quantify and visualize the dynamics of the controversy, what happens in the intersections where previously invisible concepts arise can be described, consequently incorporating aspects seldom taken into account in architecture. Fig. 3 shows how this research methodology can have multiple starting points, which go from the

curiosity while observing an event, its documenting, to the particular interpretation of a phenomenon and the visualization of emerging aspects in the form of a map. It is not a rigid methodology; on the contrary, it shapes itself in its definition while displaying previously concealed actors.

The development of mapping controversies in architecture is constantly changing. From this point of view, the architect is not just a technician, but also a humanist, an interpreter of the architectural as a process.

A building is not a static entity composed of symbols, but a flow of trajectories. Architecture is

MACOSPOL mapping architectural controversies_ACTORS DIAGRAM

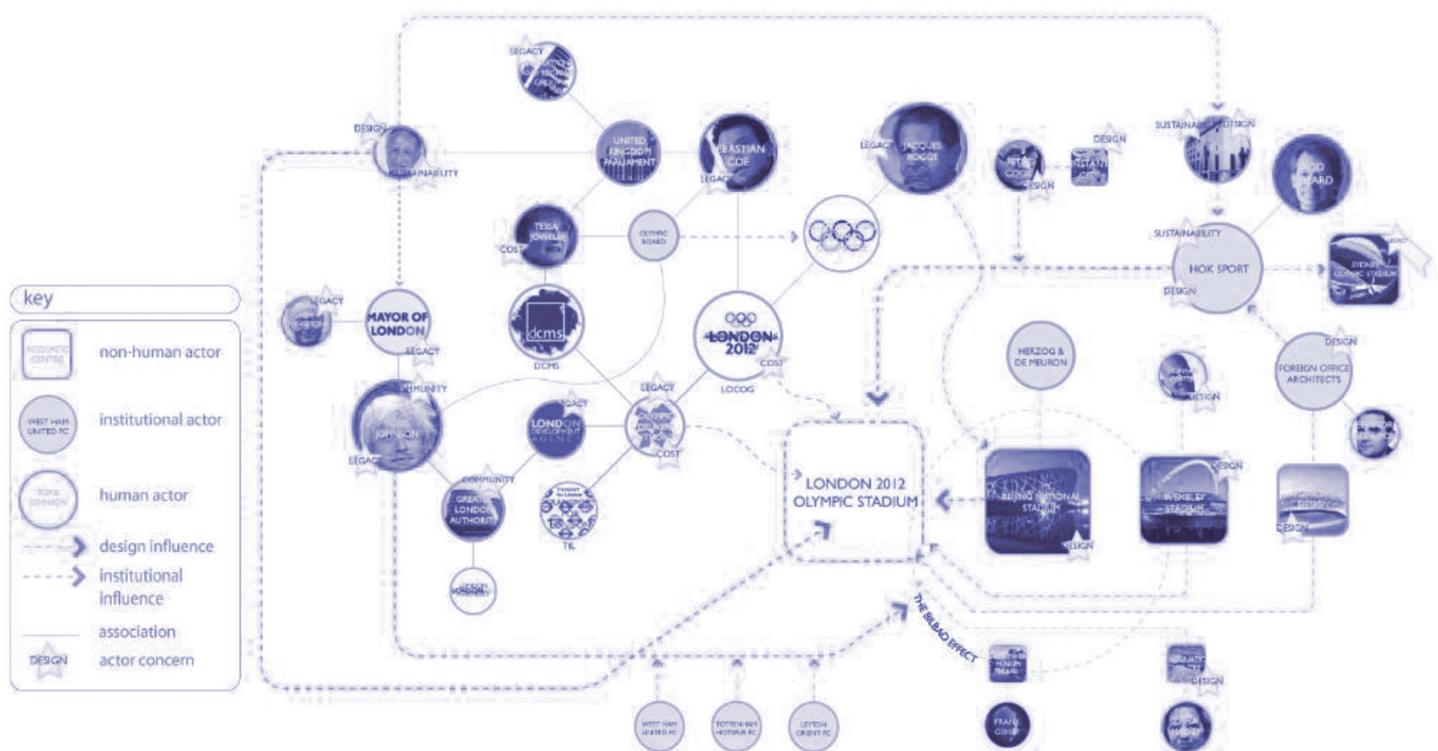


Fig. 4 - Actor Diagram around the design of the London 2012 Olympic Games Stadium. This shows the dynamic relationships between the different types of actors, the nature of their connections (design and influences or associations), as well as the particular concerns of actors. Available on: <https://web.archive.org/web/20150316052959/http://www.mappingcontroversies.net/Home/PlatformLondonCaseStudy>.

made up of the dramas of design and construction. It is composed of forces and events; of different materials and textures; of the discordant voices of its makers; of qualities and substances; of passers-by' noises; and of accidents. A building is not a form but a map of all of these flowing trajectories. It is not a stable materiality, but a fabric changing according to different speeds. It is not a milieu of activities, but a navigational platform. (Yaneva, 2012, p.20)

The London 2012 Olympic Stadium Controversy

Alberna Yaneva exemplifies the use of the mapping of controversies in the design, planning and construction of the stadium built for the London Olympic Games of 2012 (see Actor Diagram on fig. 4). She started tracing the action guidelines for the documenting and mapping with the debate that took place in the media concerning the design,

the functioning and the future of the stadium once the Olympic games had come to an end. This information was supplemented with the gathering of information on the actors, their affiliations, roles, responsibilities, opinions and dates of participation in the debate with reference to the media's attention as well as the initial and end dates of their participation. Through this representation, the actors involved became known, such as the architects, institutions, users, clients, costs, existing buildings, diagrams, drafts, models, among others. In the case of the individual human actors, there is more information about their institutional affiliations, dates of appointment and main interests. As for the non-human actors and institutions, different information is gathered, such as whether they are from the public or private domain, the type of financing, the interest in the project, etc., so that, when necessary, the declarations

are provided with real quotes in order to represent the main point of view or the interests of an actor in the controversy.

Using the generic term of 'actors' we designate all beings enrolled in the controversy, human and non-human. We identify relevant online sources and map the actors' relationships through various 'actorial diagrams' [...]. To identify the actors, we read online sources and ask ourselves if the presence or absence of an actor makes any difference." (Yaneva, 2012, p.90)

For the representation of the stadium's design and construction stages in time, stages in the history of the project were selected and were seen as nodes and explained through interactive diagrams that show text and schematical representations of the relations among the main actors. The diagrams focus on particular intersections of the trajectories and concerns of different actors.

The dynamic of the controversy is captured in a series of stories that can be told when unravelling each node of the diagram.

THE CONTROVERSY AND ITS SPATIAL POSSIBILITIES: EARTHQUAKE HOUSING RECONSTRUCTION IN THE COAST OF OAXACA

What kind of inquiry on architecture can start from a simple sparkle of curiosity, followed by a quick Google search and, eventually, by a thorough library investigation? An inquiry, that gradually engages in a retrospective analysis of the recent debates surrounding a building's design. (Yaneva, 2012, p.68)

The housing reconstruction in Mexico is controversial and shocking in itself because of its own complexity. In this section, the specific reconstruction of the Costa Chica region is tackled. This area is located at the intersection of the states of Guerrero and Oaxaca in the South of Mexico. The reconstruction took place in 2013 as part of the governmental program created to deal with the damages caused by the 7.5 Richter scale earthquake on 20 March 2012. This earthquake was felt in Mexico City and other areas of the country, and it significantly affected the buildings located in the epicenter, which is the area of the field study presented here: Costa Chica (see its geographical location in fig.5). Around 37,500 houses were structurally affected by this earthquake, which is why it is considered one of the most intense earthquakes that has taken place in the history of Mexico.³

An earthquake does not just affect the buildings of the area, it is also a traumatic and

disturbing event for the people that experience it since it happens suddenly and interrupts everyday life (Žižek 2014, p.16). It is an event that mobilizes a great amount of people who seek to reorganize their lives (and their housing) in a solidarity way according to the possibilities and within their means. On March 20th, 2012 the federal government declared a state of emergency for 19 districts in the state of Guerrero and 28 in the state of Oaxaca. Thus, the housing reconstruction project was a reaction to this declaration and it implied repairing and reconstructing over 40 thousand structures that were affected by the earthquake and its aftershocks. Now, this undertaking cannot be explained by just taking into account the qualitative data.

Controversy mapping aims to provide an answer to the following questions: what aspects influence the housing reconstruction design, whether from a local or a prefabricated perspective (which is also part of the governmental reconstruction program)? How do people live in their rebuilt home? What is the current usage of the reconstructed housing? How did the everyday life needs of their inhabitants impact upon their reconstruction? How can

we make a cartography of the changing dynamic of the everyday relations of the actors involved? In order to answer these questions, a *Map of the Local Condition* of the study case was created (see fig. 6) which was based on observation, documents, and interpreted information about field work carried out during the investigation of the reconstruction of housing by the earthquake in the Costa Chica Region.⁴ Based on the obtained information, an attempt to acknowledge key processes is made that remain invisible for the traditional architectural area analysis.

The aim of mapping is to explore the spatial experience of the inhabitants of a specific area while acknowledging both human and non-human actors, their importance and their interrelations. This approach involves the perspectives and concerns of the actors, in such a way that their voices are the ones that are heard, instead of the researcher's preconceptions: "The purpose of the cartography is not to teach actors what they are incapable of understanding but to learn from them how to observe their collective existences." (Yaneva, 2012, p.4) The aim is to incorporate the complexity of

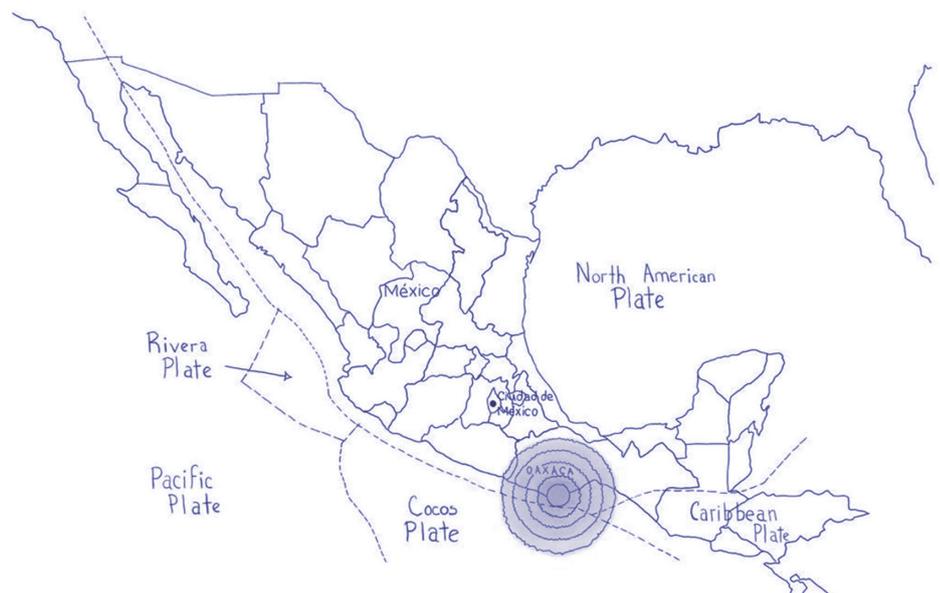


Fig. 5 - Epicenter zone between the limits of the state of Oaxaca and Guerrero: In the Costa Chica Region.

is an outdoor-space, thus being open and big, whereas the kitchen in the prefabricated housing reconstruction consists of a single kitchen-breakfast-bar of 2.00 x 0.6m. From this perspective it is impossible to have a harmonious relation among the actors.

Also, the average temperature in the region is 30°C, with a minimum temperature of 18°C and a maximum one of 42°C. It has a warm and semi-humid climate with rain in the summer. The temperature recorded within the prefabricated housing reaches 45 °C, mostly because of the polyvinylchloride (PVC) in the walls. Consequently, people find it uninhabitable to be indoors at noon (the hottest time of day) because of the high temperatures. On the other hand, traditional clay walls with wooden beams and tile roof housing has been restored depending on the economic situation of its inhabitants, who have improved it in time and have gone back to living in it once again. In this form of housing, domestic life is lived outdoors. The house is divided by two corridors, one that leads outside, all the way to the street, and the other one leads inside, to the yard which becomes an extension of the indoor space, which is a versatile space that is not physically bound by any wall. This makes the yard the compositional axis for activities that take place during the day. Some of these activities are of African origin such as making pottery, traditional dances, or even family celebrations. Other activities are weaving, baking in traditional ovens and preparing food outdoors (see fig. 8). In the yard, animals for the inhabitants consumption are bred, and it is also a place to store wood required for the cooking. Since there is no drainage system, the toilet is outside, next to a septic tank. For all these reasons, traditional housing has multiple descriptions, and it is considered an ever-changing space that is constantly transforming itself.



Fig. 7 - Contrast between prefabricated reconstruction housing and traditional adobe housing.

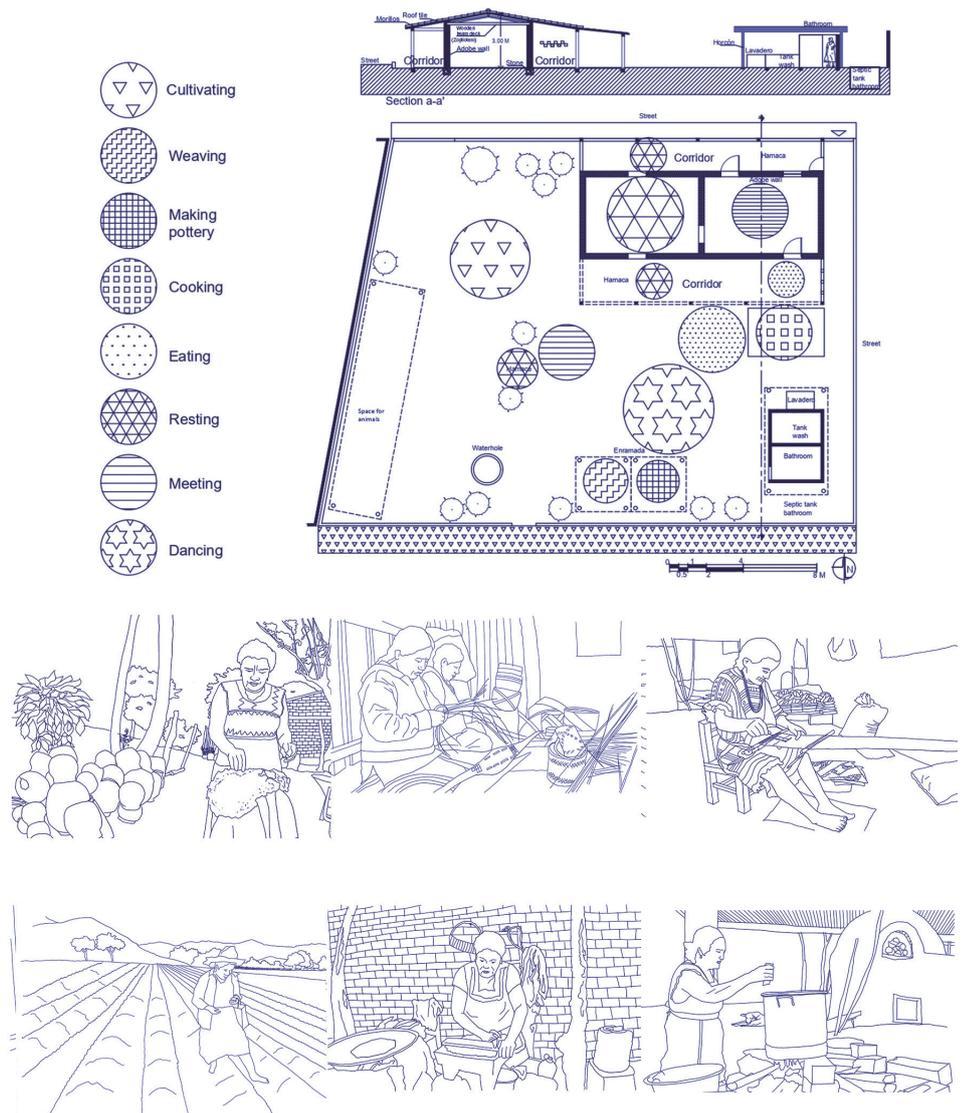


Fig. 8 - Daily activities in the yard of the traditional house of the Coast of Oaxaca.

CONCLUDING REMARKS

The mapping controversies gives us multiple possibilities to interpret and represent the multiple things that affect architecture. This tool allows us to approach different variables (human and non-human actors) that are emerging, in the sense that they cannot be seen in an isolated manner. These variables are the result of their interaction and are an important part of a broader picture: everyday life. Buildings, architects, the architectonic, the construction, construction materials, institutions, budgets, etc., are all interrelated, which is why neither isolated and static frameworks exist, nor static constructions. From this perspective, isolated building construction does not work; for it goes against the changing nature of things that ends up absorbing it and a "space appropriation" takes place instead, with the inhabitants adapting the objects to their daily needs. These modifications go from relocating a sofa to using things in a different way from that originally intended. Therefore, as architects, it is paramount to think of space as embedded in a dynamic and interrelated network such that it is possible to envision the existing possibilities towards creating an integral design by interpreting, documenting, relating and representing the various possibilities.

Mapping controversies is a tool that can be useful to the architect in any stage, for it allows a more flexible approach than the rigid concept of "site analysis" in order to interpret it as something changing, unstable and in constant transformation. In this way, an initial approach to the place will allow us to understand the network of relations in which our design will be inserted. Mapping the local conditions helps us to have a harmonic building construction by envisioning the

all the opportunities that exist potentially in the design.

The main advantage of mapping controversies is that it can be used in any stage of a project development, such as the feasibility study or the story of a building throughout time, to name but two examples. But, the possibilities become endless. Also, mapping controversies using the current digitalization techniques can contribute greatly to envisioning the infinite web of possibilities that result from different encounters, where each intersection can be the starting point of another one.

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NOTES

¹See Albena Yaneva's definition about Controversy Mapping in 10.09.2013 Albena Yaneva: Mapping Controversies in Architecture [online conference]. Moscú:Strelka Institute, 2014 [Consulted: 28, February,2022]. Available on: <https://vimeo.com/83424572>

²See the definition of "controversy" in Real Academia Española [Online]. Madrid: Asociación de Academias de la Lengua Española, 2022 [Consulted:15, February,2022]. Available on: <https://dle.rae.es/controversia?m=form>

³See Gobierno federal y de Guerrero ofrecen apoyos por sismo sin oportunismo [Online]. México City: Expansión, 2012 [Consulted:15, February,2022]. Available on: <https://expansion.mx/nacional/2012/04/09/calderon-visita-en-guerrero-el-epicentro-de-los-sismos-de-marzo>

⁴For more detailed information on the development of this case study, the interviews and the documented information during the field study see: Claudia Montalbán. Culturas locales y sus respuestas espaciales : La reconstrucción de vivienda por sismo en la Región de la Costa de Oaxaca. Mexico: Master's thesis, National Autonomous U of México (UNAM), 2018.