Unfolding Quebrada: Informality as a method
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The Dichotomy of Formality and Informality

The interest of architects in the concept of informality is not new. The debate has shown a polarization between the formal and informal approaches. These approaches can be exemplified with the developments of cities as a tabula rasa or the situations where the designer are completely out of the picture. This dichotomy is challenged by new research groups and projects which display the potentials of finding a balance between the two poles.

Valparaiso has been an important port city in the history and shows urban growth patterns of Western port cities. The modernist grid constitutes the main circulation of the flat area of the city. The city continued expanding towards the hills through quebradas and this urban sprawl appeared mostly as informal and self-managed settlements in occupied territories. The contrast resulted as a neglect towards these areas from the perspectives of the state institutions, rendering them invisible.

Public Space and Democracy

Hannah Arendt sees public life and the political activity as inseparable aspects of the society and asserts that "The polis, properly speaking, is not the city-state in its physical location; it is the organization of the people as it arises out of acting and speaking together, (...)It is the space of appearance in the widest sense of the word, namely, the space where I appear to others as others appear to me, where men exist not merely like other living or inanimate things but make their appearance explicitly."[1]

Nevertheless, the public realm experience today lies far from these idealistic visions. Adrian Blackwell suggests that all property is either owned by the state or the private or a combination of both and "public space is always an appropriation of an existing space over legal space."[2]

Between the years of 1973-1990 Chile was under the military dictatorship of Augusto Pinochet. Strict legislations have been made concerning the use of public spaces which became highly controlled. In 1990 the reign of Pinochet came to an end as a result of a referendum. Yet the process of democratization did not gain momentum until the student strike in 2011.

The students of Chile staged dozens of manifestations demanding lower tuition fees. Perhaps what was on stake, more than the educational reforms, was democracy itself. Alberto Mayol portrays the importance of the strike by asserting that "the dimension of citizenship was postponed, the polis had been suspended. The student movement reactivated the policy, gave oxygen and blood to a society that inhabited a damaged democracy. Most Chileans considered that no progress had been made in democratizing Chile."[3]

On the other hand, in the upper parts of the city, reclaiming the equality happens in different ways because of the invisibility of these areas. Thousands of citizens who don't have an access to the housing market occupy the land, build and self-manage these

[1] Hannah Arendt, The Human Condition, Chicago/London, 1994

[2] Adrian Blackwell, Public Space: Lost and Found, MIT Press, 2017, p.19-38

[3] Mayol, A. (2012). El derrumbe del modelo. Santiago: LOM.

settlements as a result of the state policies. Due to their autonomous nature, these territorial appropriations constitute their own identity, rules, spatialities, representation.

Quebrada as socio-spatial appropriation

Andrea Pino Vasquez suggests that the territorial appropriations "has occurred through the incorporation of the rural land into urban land." This rural character is evident in the everyday life, production habits and the collective memory. Farming and animal breeding is the main productive activity which helps the inhabitants satisfy their basic needs. The elements of the environment such as the houses and gardens are named after rural typologies.

The fact that the 95% of the building on the hills are housing, pushes the community to create their micro-economy. Dwellers try to make their living by selling the goods they produce or providing services such as cleaning, moving goods and constructing. They use their own means to achieve this goal, transforming their houses into working and living spaces.

Nevertheless the majority of the citizens commute to the flat part of the city to meet their shopping and grocery needs, as well as accessing the city services. This transforms the lower part of the city into a meeting point and the urban mobility becomes crucial. The quebradas are well connected to the city thanks to the distance, the road infrastructure and the public transportation. The settlers can easily reach the plan and take the "colectivo" shared taxis back to their neighbourhood. The ease of urban mobility benefits the citizens economically and time-wise.

Nevertheless, this accessibility ceases to exist inside quebradas. The access to the houses is constituted with self-built steep staircases and dirt paths. The lack of an infrastructure in the quebrada becomes problematic in the winter conditions, especially for the elderly and disabled.

Similar to the accessibility, the basic services such as sewage, water and electricity don't arrive in these quebradas depending on the consolidation level as a result of the illegal nature of the area. Looking at the housing policies in Chile can help understanding the situation. Campamento, the informal settlement, is a usual phenomenon that appears in the urban growth of the Latin American cities. 25% of the campamentos in Chile is situated in Valparaiso region and more than 10000 people live in these settlements. Most of these camps date back to natural disasters, 1985 earthquake in particular. The citizens who don't have the necessary means to own a house are left no choice but forming these campamentos.

The appropriation is unplanned, spontaneous and constantly evolving. The settlers build their houses on elevated platforms from the materials they have access to, such as ondulated metal panels, wood, plywood, adobe and mediagua emergency shelters with the help of government. They usually start building with only single room and they expand the house according to the needs and the aspirations of the family.

The community sees their environment as a reward of their efforts and create a deep bond with it. Quebrada is the identity of its dwellers.Apart from the disadvantages, having a garden, relatively big houses, good relationship with the community, closeness to the city center are the significant features of these settlements, which is missing, for example, in the social house developments.

The inhabitants address their own needs and build for themselves because of the limited resources at hand and this leads to the lack of common spaces. However, the presence and the use of commons spaces are the signs of good neighbourhood and social cohesion. Jordi Borja states that "Public space expresses democracy it territorial dimension. It is the space of collective use in which the citizens feel free and equal. (...) It shows its diversity and its contradictions and expresses their demands and their conflict. In public space the collective memory is built."[4]

Appropriation and Community

According to Andrea Pino Vasquez, the appropriation happens in different scales in time[5]. It begins in the urban scale by choosing a suitable place to settle. Then the "taken" land is plotted and distributed between different families. The main territorial division is made with the access paths and bigger public space on usually flat areas suitable to play football.

The process is followed by the single family scale. At this stage the settlers build their houses, which varies from being a single room, a mediagua or a hut. The appropriation proceeds unplanned and illegally.

The neighbourhood scale of the appropriation only initiates after the first two scales are complete. On this scale, the dwellers attempts to improve the living environment with the practice of self-urbanisation of common spaces. The supply of water, electricity, sewage and public services are constituted in this latter stage.

In order to recognize the factors involved in the appropriation process, it is helpful to look at the stages of public appropriation. According to Vasquez, firstly the place is marked with the events of everyday life, such as playing football.[6] Then the place gains identity by being named by distinctive elements in the environment, such as the palm trees which border the court. By defining the borders of the place, the invasion of the area is prevented and finally the place becomes recognized and respected as a public appropriation and a common value. These factors and stages may change in different contexts, but the community and its social dynamics always play an important role. The community has a control of the territory.

In 2014 fire incident, 800 hectare area was burned and at least 2500 houses were destroyed leaving 11000 people homeless. The lack of infrastructure, the lack of care in the landscape, the poor condition of the water stream filled with trash and flammable vegetation such as eucalyptus have worsen the consequences. After the fire, the rehabilitation process has been undertaken with the international support, government organizations beside the NGOs and community based organizations. Most of the houses were constructed as they were previously in a short time. The strength of the community and the potentials of social initiatives can be seen clearly in this example.

Open Design and Participatory Approaches

In the contexts, particularly which the uncertainty of different factors, social dynamics and future is evident, instead of planning and trying to foresee everything, the open design strategies are the key to a sustainable development.

[4] Jordi Borja, Espacio Público y Derecho a la Ciudad, Barcelona: Institut de Drets Humans de Catalunya., 2011

[5] Andrea Pino Vasquez, Lautaro Ojeda Ledesma, Ciudad y Hábitat informal: Las tomas de terreno y la autoconstrucción en las quebradas de Valparaíso, Revista INVI, Volume:78, August 2013

[6] Andrea Pino Vasquez, Quebradas de Valparaiso:Memoria Social Autoconstruida, Santiago, Chile, 2014.

According to Nabeel Hamdi, participatory processes help defining the needs, bringing the people together, excavating the hidden information on site, identifying the conflicts, provides continuity, mobilises interests and resources and reduces dependency. John Turner posits that when dwellers are involved in the construction process, they feel more belonging to it and they tolerate the problems more readily as it is the result of their efforts.

John Habraken developed the open design approach, in which the decision making is distributed between different actors by taking the time into the design process as one of the dimensions of the project. In this way, the architect steps back from the control he/she has over the design and welcomes uncertainty and change.

Reflection

The first part of the research, where i investigate the notions of public/private and formal/informal, I encountered dichotomies which are rooted in the urban understanding of the Western Thought. In the quest of overcoming these dichotomies, i realized that "unlearning" my architectural education was a key.

The distinction between public and private space limits the way we perceive these areas and this binary model struggles to face different contexts. In the context of Chile, it is necessary to acknowledge the third term, *commoning* to deeply understand the notion of public and social dynamics in the space. In connection to the studio's theme "Constructing the Commons", investigating Valparaiso through the lens of common spaces and commoning practices forms the backbone of the research.

The terms *informality* and *alternative* point out to a *formal* and a *normal.* Therefore, formulating these answers happens by opposing the *normal* and as Awan, Schneider and Till suggests "the alternative is always caught in the shadow of the thing that it posits itself against."[7] It is critical to liberate ourselves from this duality, in order to consider these other ways on their "own terms and merits, presenting a new paradigm as to how to operate - a paradigm that has thus far been largely written out of the standard histories of architecture"[8]

Within the conventions of architecture, the individual architect who designs with authority over every aspect of design has been depicted as the ideal model for the practitioners of the discipline. This model excludes the uncertainty by ignoring the multiple actors involved and the temporal, social and legal aspects of the process. As we can see in the examples in Chile and in the rest of the world, the task of the architect can be expanded by inviting the uncertainty and flexibility into the design.

By acknowledging the rural, spontaneous and open character of these settlements, embracing the appropriations over which the designer has no control, the project aims to increase the resilience by revitalizing the landscape, to empower the inhabitants by giving the means of production, to improve the living standards by providing accessibility and infrastructure with the freedom of appropriation and to strengthen the community and encourage the local participation by involving the them in the process.

Facing on the one hand the policies of the government concerning the quebradas of Valparaiso and the lack of investment, and on the other hand the gentrification which is being undertaken in some hills of the city, the importance of collaborating with the inhabitants and formulating participatory strategies become evident. Because of the scale of the intervention

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[7] Nishat Awan, Tatjana Schneider, Jeremy Till, Spatial Agency:Other Ways of Doing Architecture, Abingdon:Routledge, 2011.

[8] Ibid.

and economic limitations, the project can't be overtaken by one group of actors. The strategy needs to be handled in different phases with multiple stakeholders from different disciplines in collaboration with the community organizations. Thus, the role of the architect becomes taking initiatives, bringing the actors together, defining the guidelines, the possibilities and the limits of the expansion through design.

This way of intervening shouldn't be considered as the consequence of the economic shortcomings. The intervention, by carefully examining the context, the collective memory and the site, reveals a new way of development in the quebradas of Valparaiso. The project doesn't only try to improve the conditions of Quebrada Rinconada, but by learning from the commoning practices and the local networks, seeks to be a part of them and aims to create new partnerships, discover new potentials and encourage the other communities to work towards healing their environment which has been neglected and damaged from the 2014 incident.

Rinconada is one of the quebradas which are in the rehabilitation process after the unfortunate 2014 fire. Most of the houses were rebuilt with the help of the community organizations, but there are still ruined foundations, platforms which stay untouched as disruptions on the landscape. The intervention recognizes these ruins as resources to be activated and appropriated as new spaces taking advantage of the horizontal or vertical planes they left behind. This approach can also be applied in the other parts of the city as a healing strategy, rather than considering them only as disruptions.

The water streams have also provided accessibility in the history of the city. Citizens used to lay timber on the water to constitute a path, after that timber bridges and paths took their place. With the construction of Avenida Alemania which connects the hills at the elevation of 100m the water streams have been integrated in the urban infrastructure by canalizing them. Above the 100m elevation where the hills are unconsolidated, the water still runs in the valley, but due to the lack of a sewage infrastructure, the waste is carried by the water stream. My proposal contains a timber pathway with integrated water pipes. The water pipes will be used for grey water and wastewater. The intervention acknowledges the vernacular characteristics and upgrade them with a local infrastructure system. The fact that timber is an accessible material helps sustaining the process and opens it to the community thanks to its familiarity. Giving the people the opportunity to participate and share their mutual knowledge of the material can encourage their involvement.

Maps have been ideological representations, it is used for defining borders, making military plans and leading power.[9] This function of mapping is subverted by the collaborative mapping techniques used in participatory processes, in order to identify the community and getting accurate information about the site. Influenced by the tool, I use territorial mapping in the analysis part. Compiling the interviews with the citizens and their needs and interests, together with my site-specific observations as an architect on the map, transforms it into a collaborative ground.

Investigating the territorial scale in the beginning of the semester allowed me to include multiple voices in the strategy. Since architecture scale is left to the community to appropriate -apart from two areas where centrality and the added values are critical- the important aspect is the flexibility and the openness of the intervention. This capacity emerges from the design of the details and the connections of the structure. Shifting continuously between these different scales has been necessary. A small change in the detail scale has the power of reshaping the territorial scale, and in the same time the requirements which appear in the territorial scale can change the connections of the system. Each decision

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[9] Iconoclasistas, Manual of Collective Mapping, https://issuu.com/iconoclasistas/docs/manual_mapping_ingles

needs to be tested in each scale. Looking out for the sensitive balance in this multiscalar design problem has been a challenging task.

Working in an unfamiliar context brings about a some difficulties naturally. Finding the right tools to obtain an understanding of the context can be challenging, learning the social dynamics can require a deep involvement with the community. But this difficulties can be overcome when the architect keeps his/her intents flexible and open to be negotiated and to be shaped by the context.[10]

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[10] Nishat Awan, Tatjana Schneider, Jeremy Till, Spatial Agency:Other Ways of Doing Architecture, Abingdon:Routledge, 2011.