

Heritage and community centre in Matta Sur, Chile

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Abstract

The Matta Sur neighbourhood in Santiago acquired official protection for its heritage value in 2016. It is the largest protected area in the city and one of the few in which vernacular architecture, local lifestyles and community networks withstand the city's rapid urban development. It has a regular urban structure of wide streets framed by continuous facades, which predominantly belong to one-storey homes, organised around a central courtyard. They are built combining burnt or raw masonry and wood and earth traditional building systems, which are now discontinued and often misunderstood, leading to poor interventions which deteriorate the quality of buildings and liveable spaces. The Heritage and Community Centre Project attends the need for comprehensive interventions to approach appropriate conservation of Matta Sur under these circumstances. This project aims, on one hand, to provide a suitable community space within the neighbourhood and, on the other, to set an example for appropriate intervention, management and maintenance of the vernacular constructions in the neighbourhood. All of the process is developed through community-based design and intervention, attending to the role of community organisations in Chile, which have been traditionally responsible for filling the gap between public policies and community wellbeing, particularly in urban contexts, through strong solidarity networks. Through a process of co-design and co-management, the project aims to refurbish a traditional house of the neighbourhood into a community centre in which various community initiatives converge and which allows for these solidarity networks to keep functioning in a contemporary context.

Keywords: community; co-design; urban vernacular.

1. Introduction¹

The Matta Sur neighbourhood is a 189 hectare heritage area within the centre of Santiago de Chile. This extension makes it the largest protected area within the city, which lodges more than 10.000 people in a city of seven million inhabitants. This area was first populated in the early 19th century with spontaneous settlements (Jorquera, 2018) from the west consolidating the east part of Matta Sur between 1898 and 1929

(Flisfisch, 2014), which were regularised from 1875 up to the beginning of the 20th Century; after the creation of the *Ley de Habitaciones Obreras* in 1906 (Pérez, 2017). This law aimed to set habitational standards for low income homes, in a context of rapid growth of urban population within the city.

During this period, plots towards the west of the city, which were closer to the historical city centre, were preferred by wealthier inhabitants, while the current emplacement of Matta Sur was

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populated by workers. The urban area of Matta Sur was divided into regular plots which were 6 to 12 metres wide and several housing ensembles were built through private, cooperative or public developments, with standards which included access to water, sewage and electric energy within homes (Hidalgo, 2002). This development led to the consolidation of a regular urban structure of wide streets framed by continuous facades, which predominantly belong to one-storey homes, organised around a central courtyard. They are built with raw and burnt masonry and wood and earth traditional building systems, combining vernacular construction knowledge with urban and architectural planning.



Fig. 1. JVV Plaza Bogotá headquarters, within Matta Sur (Source: Cristian Muñoz, 2021).

This development progressed into a neighbourhood populated by “small scale merchants, officials and artisans” (Laboratorio Patrimonio Activo in Jorquera, 2018) which during the 20th Century developed its own character and livelihood (Lawner, 2018), in which community networks were an important part of the day-to-day construction of a local identity. The sense of community living, diversity of different social groups and social mobility were characteristic of the area (Laborde, 2015 in Espinoza, 2017).

These community bonds have been the key to different initiatives which seek to preserve the identity of the neighbourhood and the wellbeing of its inhabitants also during the recent history of the neighbourhood: from the initiative of declaring Matta Sur as a typical zone² in 2016

² Local denomination of a heritage protected area.

and community organisation after the 2019 social arisements and during the COVID-19 pandemic. The first succeeded in protecting the area from liberal immobiliary projects linked to rapid urban growth within the city, while the later strongly contributed to supply basic goods to families who struggled maintaining their already precarious jobs during a period of mobilizations within the country and the latter confinement due to COVID-19. The latter was conducted through solidary supply chains and *ollas comunes*³, which in Chile have a long history of helping families through periods of scarcity ever since the saltpetre crisis in the 1930s. These practises are not only a way of providing mutual care, but also a space in which popular cultural practises such as music and dance can be recognised, appreciated and widespread; while community bonds are strengthened.



Fig. 2. Cooking for *ollas comunes* within JVV Plaza Bogotá in Matta Sur (Source: Cristian Muñoz, 2021).

All these activities are deemed to be relevant both for the wellbeing of local communities and for the preservation of heritage ensembles and social tissues, which are interlinked with these cultural practises. In spite of this and however efficient these networks are in providing mutual support, interventions within the physical space of the neighbourhood do not meet the same standards, due to the discontinuation of traditional building methods, lack of appropriate technical support and the absence of centralised policies which are able to provide actualized infrastructure to sustain these activities under changing circumstances. Because of this, the quality of building and liveable spaces has

³ Community kitchens in which neighbours share and cook food.

deteriorated, introducing a breach between the quality of tangible spaces and that of the activities which are developed within them.

The heritage and community centre in Matta Sur project aims to confront the challenge of conciliating new needs of use of heritage spaces with the valorisation of an architectural and building typology which results from the encounter of urban and architectural planning of Santiago with vernacular building knowledge, through a process of co-design which recognizes the diversity of initiatives supported by neighbours while enhancing previously existing community networks.

2. Junta de vecinos Plaza Bogotá

The heritage and community centre in Matta Sur project originated at the request of the neighbours association (Junta de Vecinos or JJVV) of Plaza Bogotá, a sector within the area of Matta Sur. The headquarter of the JJVV is located in a former home, which is representative of the heritage trades of the area's architecture. This building, which is one storey high and is organised around a courtyard, has functioned as a community meeting place with minimal transformations up to 2019. Events in Chile up to this point, such as the social uprising of 2019 and the COVID-19 pandemic made the need for actualization of this space urgent, in order to meet new needs of encounter and discussion.

The original request of improving existing infrastructure and transforming the former house into a heritage and community centre, together with the previously existing close social tissue, was deemed as an opportunity to develop a process of co-design, as defined by King (1983), in which main stakeholders are neighbours with no previous knowledge on architectural design and a team of technical advisors of the project "Patrimonio Comunitario". The main role of the technical team being the register and analysis of technical information (architectural plans, diagnosis of damage within the building, legal frame, etc.), design of participatory activities

(Arnstein, 1969) that foster deliberative forums (Carson, 2003 in Sannoff, 2006) during the process, as well as the elaboration of deliverable products required to access further funding for construction.

The aims of the design project and specific requests throughout its development were made by the neighbours. These requests exceeded the design of the JJVV headquarters and included the need for educational talks on cultural heritage and management of cultural assets, as well as the request for practical workshops which taught how to intervene in damaged heritage buildings throughout the neighbourhood.



Fig. 3. Design exercise to express needs of the community space (Source: Patrimonio Comunitario Project, 2021).

While the early stages of the project - namely, framing its goals and defining its methodology - were developed with a small group of active neighbours, a general invitation to participate was extended. Invitations were distributed through existing communication channels of the JJVV, through door to door invitations and digital social networks, promoting a snowball sampling strategy. During the first invitation processed, neighbours were also surveyed in order to define topics of interest and help adjust the methodology of following activities. Other neighbourhood associations which used the infrastructure of the JJVV were targeted. This included groups of diverse interests: cooperativa La Minga, Patrimonio Matta Sur, Centro Cultural y Patrimonio Matta Sur, Escuela de Permacultura among others. Most activities were held online, through zoom platforms, due to the pandemics.

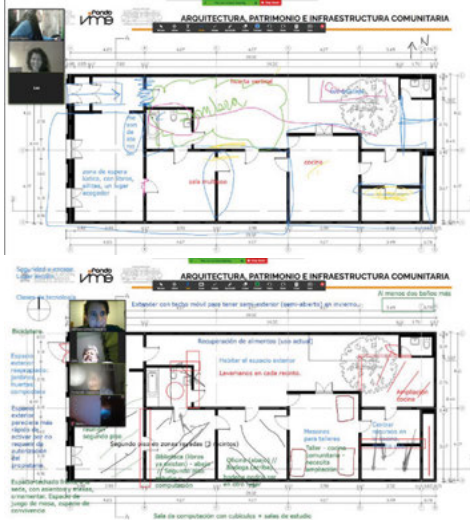


Fig. 4. Design exercise through which neighbours express their ideas of renewal of the JJVV headquarters (Source: Patrimonio Comunitario Project, 2021).

2.1. Design process

Co-design was conducted through eight biweekly meetings in which different stages of the design process were approached:

- Identification of general needs of the community
- Research for references
- First ideas of distribution
- Plan brainstorming
- Exposition of synthesized ideas
- Demonstration of construction techniques and the possibilities of intervention

During each meeting, participating neighbours were divided in smaller groups of three to four people for discussion of specific aspects. Results of each group were exposed to all assistants. Feedback of main results of the previous meeting was given by neighbours before commencing a new meeting, or by the technical team whenever advice on legal or technical aspects was required. This includes, for example, length required by the norm for universally accessible ramps or materials required for structural retrofitting.

While the idea of heritage stood strongly behind the neighbours' discourse, the focus of conservation needs lay on the recovery of aesthetical elements, such as hydraulic tiles and wooden doors and windows. Initially, little explicit mention was made to architectural spaces or distribution, as well as the relevance of the central courtyard within its distribution. In addition to this, expectations regarding the possibilities of transformation of the building were limited at the beginning, showing an underlying idea that the existing building could not be sufficiently transformed to meet demands of use.

During these early stages of the process, the conversation focused on the need for accessibility, green spaces and generation of new spaces to lodge activities with young people (including spaces for study), to expand activities related with cooking and food supply, but without a clear idea of where these new spaces should be. During these first discussions, making smaller the courtyard and eliminating existing vegetation was seen as the only option for enlargement, even if these actions were not desired by the community, who agreed that these actions would diminish the quality of livable spaces.

During the first stages of the design, neighbours typically focused their first proposals in interventions within the street area immediately next to the JJVV, since intervening outer space seemed to them simpler than intervening the construction itself, due to the permits which are required to do so. This street gardens called "Platabandas" are also the first approaches from the neighbours to public space intervention for the benefit of the community (Nuñez & Alvarado, 2020)

To approach these limitations, the technical team developed icebreaker activities focused on the opening of creative processes and the revision of examples of other interventions or new community spaces. These were

complemented with explanations of processes to obtain permits and other projects carried out in the neighbourhood which had managed to value different aspects related with the JJVV. In this context, leaders of the Jardines del Barrio Matta Sur and other projects were invited to expose their experiences. This information helped designs to become more ambitious and flexible.

During this process, the courtyard acquired a central role, as the largest available space to hold meetings and also a space which and a new consensus was reached to maintain existing vegetation. The solution for providing larger spaces for new activities was the flexibilization of inner spaces. For this, movable panels were designed to substitute existing walls, enhancing the relationship between inner spaces and with the central courtyard.



Fig. 5. Axonometric of the final proposal (Source: Patrimonio Comunitario Project, 2022).



Fig. 6. Plan of the final proposal (Source: Patrimonio Comunitario Project, 2022).

2.2 Intervention prototype

The development of the design process and complementary activities provided a favouring context for the development of an exemplary intervention within a *tabique de adobe en pandereta* (Guzmán, 1980) wall in the JJVV headquarters.

This system is found in inner walls throughout Matta Sur and consists in 2 x 4 “to 4 x 4” structural wooden frames infilled with adobe blocks of 10x30x48cm to 10x30x60cm set vertically and held in place by iron wires, diagonally nailed to the wooden structure. Damages in this wall are also typical to the whole neighbourhood and are often overlooked or poorly approached in interventions within homes, leading to a deterioration of their bearing and isolation capacity. Wooden elements were infested by xylophagous insects, particularly in lower and higher areas of walls, in which humidity levels were high due to water infiltration from the roof and capillarity from the ground, linked to alterations of floor levels and materials. Metal wires were corroded and some adobes of the infill were missing, making the wall vulnerable to seismic activity.

Students from DUOC UC⁴ diagnosed these elements and intervened a 5 metre long wall as a prototype for their own learning process and to show neighbours appropriate intervention techniques which could be used in their own homes: fumigation, substitution of damaged elements, retrofitting of humidity barriers and reposition and reinforcement of earthen infills. These interventions took place two days a week during a four month period, in which neighbours could follow the process and participate. Two meetings were held to transmit the technical principles of the intervention among neighbours.

⁴ Students enrolled in the Restoration of mixed system course of the Restoration of Heritage Assets Degree.



Fig. 7.a. Stone foundations and damage in bearing wooden elements in original walls (Source: Authors, 2021).



Fig. 7.b. New foundations and retrofitting process in sample (Source: Authors, 2021).

2.3. Funding and management

Broadcasting of the project's activities through social networks, even if intended for neighbours, also called for participation of institutional stakeholders who spontaneously approached the JJVV and the responsible of the “Patrimonino Comunitario” Project. Where previous institutional links were based on the funding of day-to-day costs within the headquarters, new opportunities of collaboration were detected among municipal offices: gardens, environment, and the recently created city and heritage department, as well as the semi public CORDESAN (Corporation for the Development of Santiago). These units usually carry out parallel

work in each of their areas of expertise and rarely converge or are informed of each other's activities.

In parallel, funding for the first stage of building works was awarded from the Ministry of Culture and Arts. The request was conducted through neighbourhood organization Centro Cultural Patrimonio Matta Sur, using the products which resulted from the co-design process.

3. Conclusions

The participative design process allowed for common thought of neighbours regarding the needs and potentialities of the JJVV headquarters. Design decisions which modified the space achieved better consensus even if they not always met individual requirements or expectations, which is deemed to ease sustainability of the project in the future. At the same time, the process allowed for neighbours to gain a wider perspective of the possibilities of their own homes.

Even though participation was relatively high considering that all design activities were developed online due to the COVID-19 pandemic, the participation of elderly people who didn't have the support of younger relatives to access digital platforms for participation felt excluded from the process. The development of offline activities and the continuous presence of students within the headquarters after the end of quarantines allowed for the better integration of these members of the community, who finally accessed information regarding the project, even if they could not participate in the design process itself.

The virtuous collaboration between neighbours and students of different expertise and the recognition of handcraft work by students of DUOC UC was particularly valuable in a national context in which technical studies require visibilization and there is still little expertise regarding maintenance and restoration of traditional wood-earth constructions. Not only is there a will to establish a more permanent link with the institution, but neighbours and students

established direct contact, leading to the possibility of mutually beneficial collaboration in the future, as well as job opportunities for recently graduated technicians, who may approach lower cost interventions within the neighbourhood. Even if neighbours do not consider themselves fit to approach restoration of their homes, they declared better understanding of technical requirements for intervention and enlarged their available networks to approach this issue.

As for the prospective continuation of the project, funding for a first building stage has been recently granted (January 2022) and construction works should commence at the end of this year. Funding was granted directly to a neighbourhood association, which will be accompanied by the technical team. During this process, community participation meetings will continue and the development of better and more specific management capacities are expected.

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