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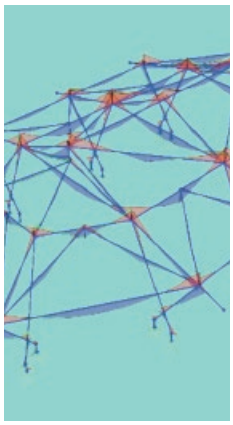

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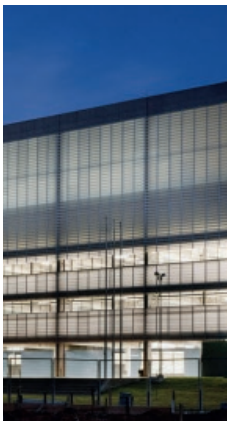

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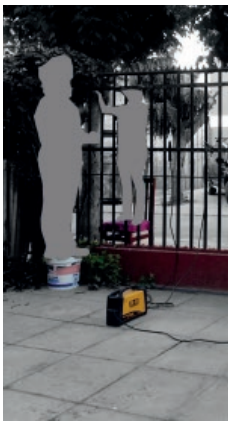

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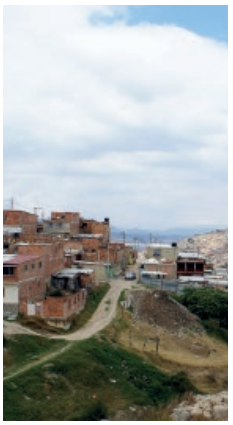

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EDITORIAL

ARQUITECTURAS PARA LA COMUNIDAD EN LATINOAMÉRICA

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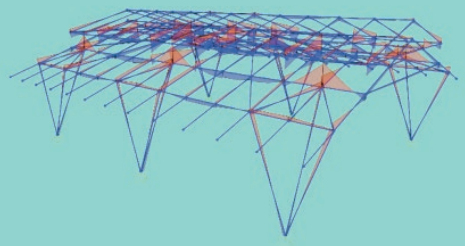

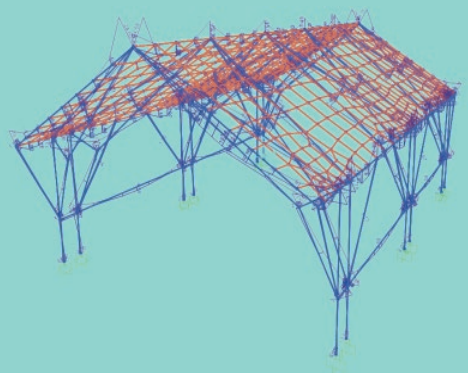

Revista Arquitecturas del Sur, en su número 60, vuelve su mirada a las ARQUITECTURAS PARA LA COMUNIDAD EN LATINOAMÉRICA. En la actualidad, hay múltiples iniciativas institucionales y/o privadas que centran su atención en la resolución de problemas sociales sobre la base de proyectos apropiados, en lo económico, en lo sustentable y en lo morfológico. Se trata de propuestas que disipan de modo contemporáneo las necesidades surgidas en colectividades basales.

Este número busca relevar aquellas obras de notorio carácter público, surgidas en el seno de diversas comunidades; obras que a veces recurren a los materiales tradicionales de los lugares en los que se asientan, para desplegarlos en clave contemporánea.

En este quehacer arquitectónico y urbano, un lugar central lo ocupa la vivienda colectiva, cuyo escrutinio histórico queda expresado en este número a través de la revisión de la importante obra del arquitecto Luciano Kulczewski. En efecto, la arquitectura escolar, como también la arquitectura para el culto y las propuestas de intervención para comunidades barriales, conforman el hilo conductor de la presente edición.

En estos tiempos, cobran cada vez más fuerza nuevas formas de hacer obra: las tradicionales oficinas de arquitectura son reemplazadas por colectivos en los cuales arquitectas y arquitectos definen sus nuevos roles, mancomunados con la participación comunitaria, conformando un espacio social donde los saberes ancestrales son recibidos, compartidos y bienvenidos. En este escenario, centros comunitarios y culturales, talleres de oficios y arquitecturas de pequeña escala para comunidades educativas o productivas, promueven hoy una arquitectura participativa y colaborativa que pone su acento y atención en la comunidad y en lo público. Se trata de extender los beneficios de la comunidad organizada sobre nuevos espacios apropiados que dignifican y valoran el hábitat social; cuestión que celebramos en esta Arquitecturas del Sur N°60.

ARQUITETURAS PARA A COMUNIDADE NA AMÉRICA LATINA

A revista Arquitecturas del Sur, em sua 60ª edição, dirige sua atenção às ARQUITETURAS PARA A COMUNIDADE NA AMÉRICA LATINA. Atualmente, há muitas iniciativas institucionais e/ou privadas que concentram sua atenção na resolução de problemas sociais com base em projetos adequados, tanto do ponto de vista econômico, quanto da sustentabilidade e da morfologia. Estas são propostas que dissipam de forma contemporânea as necessidades que surgiram em coletividades de base.

Esta edição procura destacar as obras de caráter notoriamente público que surgiram no coração de diferentes comunidades; obras que às vezes recorrem aos materiais tradicionais dos lugares onde estão localizadas para darlhes uso ao estilo contemporâneo.

Um lugar central neste desenvolvimento arquitetônico e urbano é ocupado pela habitação coletiva, cujo escrutínio histórico é expresso nesta questão por meio de uma revisão do importante trabalho do arquiteto Luciano Kulczewski. A arquitetura escolar, assim como a arquitetura para o culto e as propostas de intervenção para as comunidades de bairro, formam o fio condutor desta edição.

Nestes tempos, novas formas de trabalho estão ganhando cada vez mais força: os escritórios tradicionais de arquitetura estão sendo substituídos por coletivos nos quais os arquitetos definem seus novos papéis, juntamente com a participação da comunidade, formando um espaço social onde o conhecimento ancestral é recebido, compartilhado e acolhido. Neste cenário, centros comunitários e culturais, oficinas de ofícios e arquiteturas de pequena escala para comunidades educacionais ou produtivas estão promovendo uma arquitetura participativa e colaborativa que coloca sua ênfase e atenção na comunidade e nos espaços públicos. Trata-se de estender os benefícios da comunidade organizada sobre novos espaços apropriados que dignificam e valorizam o habitat social; uma questão que celebramos nesta Arquitecturas del Sur N°60.

ARCHITECTURE FOR THE COMMUNITY IN LATIN AMERICA

Arquitecturas del Sur magazine, in its 60th issue, turns its gaze to ARCHITECTURE FOR THE COMMUNITY IN LATIN AMERICA. There are currently many institutional and/or private initiatives that focus their attention on solving social problems on the basis of suitable economic, sustainable and morphological projects. These are proposals that contemporarily dissipate the needs that have arisen in basic collectivities.

This issue seeks to highlight those works of a notoriously public nature that have emerged within the heart of different communities; works that sometimes use the traditional materials of the places where they are located, to deploy them in a contemporary way.

Collective housing occupies a central role in this architectural and urban development. Its historical scrutiny is expressed in this issue by reviewing the important work of the architect Luciano Kulczewski. In fact, school architecture, along with architecture for worship and intervention proposals for neighborhood communities, form the common thread of this issue.

In these times, new ways of doing work are gaining ever more strength: traditional architecture offices are being replaced by collectives where architects define their new roles, alongside community participation, forming a social space where ancestral knowledge is received, shared and welcomed. In this scenario, community and cultural centers, workshops, and small-scale architecture for educational or productive communities are now fostering a participatory and collaborative architecture that focuses its attention on the community and the public. It is about extending the benefits of the organized community over new suitable spaces that dignify and value the social habitat; an issue that we celebrate in Arquitecturas del Sur N°60.

CONTROLLED VARIETY: THE CASE OF FDE'S PREFABRICATED SCHOOLS IN THE STATE OF SÃO PAULO IN THE 2000s

Variedad controlada: el caso de las escuelas prefabricadas de fde en el estado de são paulo en la década del 2000

Variedade controlada: o caso das escolas pré-fabricadas da fde no estado de são paulo nos anos 2000

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Ferreira, A. de F., & Mello, M. G. (2006). FDE - Estruturas pré-fabricadas- Arquitetura Escolar Paulista. São Paulo: FDE: Director of Works and Services.

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ABSTRACT

During the first decade of the 21st century, São Paulo's State Government, in Brazil, promoted the construction of a series of schools designed by different local architectural firms, using a system of pre-fabricated pieces that allowed adapting the projects to the sites and demands of each region, keeping the budget under control. This initiative allowed building dozens of buildings, relieving the school deficit of the most impoverished regions of the state and promoting the construction of public buildings with great social impact by a whole generation of architects. This paper presents the Prefabricated Schools Program guidelines, promoted by the Foundation for the Development of Education (FDE, in Portuguese) illustrating it with seven projects that showcase the architectural richness achieved by the firms.

Keywords: Schools, prefabricated systems, educational buildings, public works, modular systems

RESUMEN

Durante la década de 2000, el Gobierno del Estado de São Paulo, Brasil, impulsó la construcción de una serie de escuelas diseñadas por varias oficinas en el estado utilizando un sistema de piezas prefabricadas que permitía ajustes de los proyectos a los terrenos y a las demandas de cada región sin perderse el control de los costos de construcción. Esta iniciativa permitió la construcción de decenas de edificios, llevando a la disminución del déficit educacional en las regiones más pobres del estado y a la promoción de la construcción de obras públicas de gran impacto por una generación de arquitectos. Este trabajo presenta los lineamientos del Programa de Escuelas Prefabricadas de la Fundación para el Desarrollo de la Educación (FDE), ilustrándolo con siete proyectos que demuestran la riqueza compositiva alcanzada por las oficinas.

Palabras Clave: Escuelas, sistemas prefabricados, edificios educacionales, obras públicas, sistemas modulares

RESUMO

Durante os anos 2000, o Governo do Estado de São Paulo promoveu a construção de uma série de escolas projetadas por variados escritórios do estado utilizando um sistema de peças pré-fabricadas que permitia adequações dos projetos aos terrenos e demandas de cada região sem perder o controle dos custos de construção. Essa iniciativa permitiu a construção de dezenas de edifícios, aliviando o déficit educacional das regiões mais pobres do estado e promoveu a construção de obras públicas de grande impacto por uma geração de arquitetos. Este trabalho apresenta as diretrizes do Programa de Escolas Pré-Fabricadas da Fundação para o Desenvolvimento da Educação (FDE), ilustrando com sete projetos que demonstram a riqueza compositiva atingida pelos escritórios.

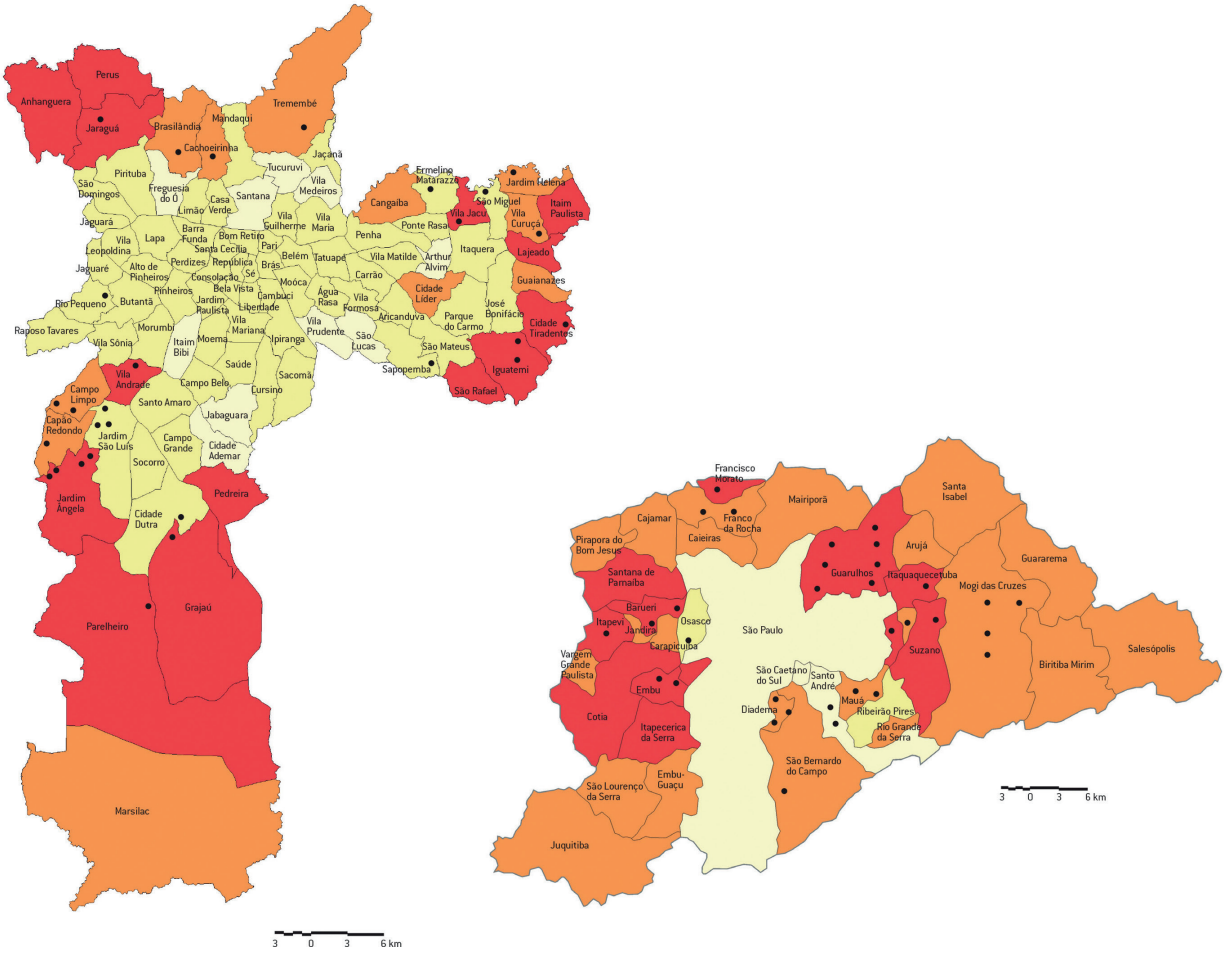
Palavras-Chave: Escolas, sistemas pré-fabricados, edifícios educacionais, obras públicas, sistemas modulares

INTRODUCTION

The Foundation for the Development of Education (FDE) is an institution of the State Government of São Paulo, Brazil, whose purpose is to develop the state's public education. The body was created in 1987 amid the need both for increasing the number of available vacancies in the state educational network, and for discussions on changes in the pedagogical system. FDE, alongside proposing, constructing, and maintaining the educational buildings of the state of São Paulo, is also responsible for managing the programs to use its schools in outside school times, such as weekends, as well as actions aimed at improving school performance and different projects in the pedagogical area.

Between 1990 and 2000, according to the Seade Foundation, even though the total population of the São Paulo capital grew, the number of children and adolescents decreased, reflecting the fall in the region's fertility rate. However, this phenomenon is not homogeneous for all the city's neighborhoods: "while central neighborhoods saw a reduction in child population, some peripheral ones had growth of about 10,000 children" (Ferreira, A. de F. & Mello, M. G., 2006, p.20) in the same period, a phenomenon that could also be seen both in the cities of the Metropolitan Region and in state [Figure 1].

Figure 1
Distribution map of São Paulo educational facilities
Fonte: A. de F. Source: A. de F. Ferreira & Mello, 2006, p. 21



For Ferreira and Mello, it is precisely the cities that grow the most in the state that suffer the most with high rates of violence, making school buildings a target for constant looting and vandalism, demonstrating, according to the authors, the lack of identity these populations have with public properties. In these communities, FDE's strategy was to build architectural objects that reinforce the sense of belonging of the population, seeking to build the buildings on lands central to the community.

However, this strategy comes up against the lack of available building plots in ideal locations, the result of FDE's policy to not expropriate private areas for the creation of new schools. The solution found by the foundation, in these cases, has been the use of areas available on the grounds of schools built in the 1970s and 1980s with poorly optimized projects, usually blocks of land with a poor use of the construction potential. In some cases, it was decided to replace some of the paved area with more intensely occupied buildings, thus covering the demand for vacancies.

The growing demand for the construction of new schools on non-standard land required FDE to create a system that ensures that projects can be built as quickly as necessary, within the required deadlines, without having to give up the spatial quality and symbolic attributes that make the population recognize these new buildings as important parts of their community, thus reducing looting.

For this, they opted to combine prefabricated structures with project and construction management, improving project efficiency both in terms of deadlines and construction quality. Ferreira and Mello point out that this strategy ensured "different architectural solutions for the characteristics of each site" (Ferreira, A. de F. & Mello, M. G., 2006), even using a limited catalog of pre-dimensioned structural parts and technical specifications.

Edson Mahfuz (2009) points out at least two advantages that the adoption of systematic procedures in projects has compared to symptomatic procedures. According to him, first of all, there is a reduction in the amount of solutions needed for formal and constructive problems and, secondly, as a consequence, there is a reduction in arbitrariness in project decisions: "from a first global decision, computerized criteria are defined that guide both the definition of the larger and smaller parts of a project.' (Op. cit. p. 1)

FDE school projects are carried out by third-party architectural firms, chosen in the bidding process based on technique and price. According to Marcela Deliberador, the edicts of the FDE establish that 30% of the score is attached to the service price, while the other 70% is attributed to technique, quantified through "a list of attributes that, according to the institution's coordinators, guarantee the selection of the best available party" (Deliberador, 2010).

The school construction program with precast concrete structures, started in 2003, and allowed a generation of architectural firms to make their interpretation of the needs program and the set of rules established for the compositions, among them, the use of standardized elements for the structural and enclosure system. The reduction of constructive vocabulary and similarity between programs makes the FDE experience a very valuable tool for comparing the production of a large number of São Paulo offices.

> The FDE experience was positive and the teams of architects demonstrated how it is possible to design and build if, beyond measurements and political interference, it was possible to channel efforts for the pleasure of always doing the best. (Gimenez, 2005)

FDE SYSTEM

FDE began the design process for schools built with precast elements with pilot projects carried out in 2003 by the offices Una Arquitetos, Andrade Morettin Arquitetos, MMBB, and André Vainer, who designed four schools in Campinas with the aim of exploring the architectural potentialities of a limited system of industrialized constructive components. From the basic projects delivered by the teams, a tender was held for the construction of the four schools, whose executive projects were to be produced by the companies hired for the work. This experience was behind the standards and standardized procedures for building projects, and established a catalog of building materials allowed in the new schools.

The system of standards and recommendations for FDE projects is summarized in the document *Project: architecture standards*, made available by the Foundation in the category "Project Submission standards". This document, last updated in November 2011, presents the standard procedure for the submission of projects for new schools, upkeep and restoration of FDE heritage.

One of the most striking features of FDE's series of precast schools is the adoption of a limited construction system with components optimized for the needs program. In the text, "the school as a public work", which opens the project presentation manual, the reasons for this are explained: "design decisions should dispense with short-term maintenance", placing upon designers the demand for decision-making that minimizes the need for repairs and replacements of elements throughout the school's life cycle:

> The constructive elements, including the components and FDE services, should be repeated as much as possible in the sense of rationalizing the construction, avoiding exceptions and adaptations, but at the same time producing a unique

> building in its formal, functional and spatial richness. (Foundation for the Development of Education, 2011, p. 1)

In these documents, FDE demonstrates its concern to provide new schools with characteristics that positively insert them into the urban fabric, acting as symbols of the community, which must appropriate the spaces. One of the project strategies that, according to FDE, would enable this appropriation, is the possibility of access to the school's auxiliary equipment, especially the sports facilities. This concern is demonstrated in the guideline that calls for the creation of "independent access for the local community […] outside classroom hours" (Foundation for the Development of Education, 2011, p.2).

The rationalization of educational constructions in São Paulo began, according to Avany Ferreira (2006), in the 1970s with the creation of Conesp which, under the direction of João Honorio, created the devices that were adopted in the precast schools program of the early 21st century. Even if rationalization was adopted in the past for the reproduction of a single project, the lessons of that time served to pave the way that would be explored by the FDE in the future through what became known as the "FDE's ABC":

> This was created in 1976, by Conesp, seeking to rationalize the process. We think that having certain components helps in streamlining the project, as there is no need to detail each of them. It also contributes when it comes to budgeting the project, since the value of the components, both materials and labor, is already known. Rationalization makes it quicker to draw up the budget and, consequently, the work, since there is a large repetition of, for example, frames, doors, etc. (A. D. F. Ferreira, 2006)

Already in the 2000s, changes in the teaching program of São Paulo state schools, which brought the need for covered courts in all schools – in conjunction with the continued use of spaces and appropriation of public property by the community – caused a significant increase in the built volume. For Ferreira, it is precisely the combination of increased demand and the scarcity of large and flat land that led to the almost complete abandonment of the standard project in favor of hiring situation specific projects. However, even if they are unique projects, the deadlines between project and delivery of the work should remain as tight as before. The deadline for the delivery of the school must be a maximum of one year, while the project has, by contract, approximately 50 days from its hiring to begin the work (A. D. F. Ferreira, 2006).

SELECTED PROJECTS

A experiência das escolas pré-fabricadas da FDE iniciou com quatro escolas-piloto construídas em Campinas em 2003 com projetos dos escritórios MMBB, UNA Arquitetos, Vainer e Paoliello e Andrade e Morrettin Arquitetos. Esses projetos foram utilizados como laboratórios para o teste das soluções estruturais, criação dos detalhes padronizados, definição de modulações otimizadas e dimensionamento dos espaços e elementos construtivos que serviriam como referência para as futuras aplicações.

Para o presente trabalho, foram analisadas escolas projetadas por profissionais que fazem parte ou sejam diretamente ligados aos membros da geração de arquitetos paulistas em atuação desde o início dos anos 1990 que ficou conhecida como Geração Sevilha devido ao concurso realizado naquele ano para escolher o representante brasileiro na Exposição realizada na cidade andaluza.

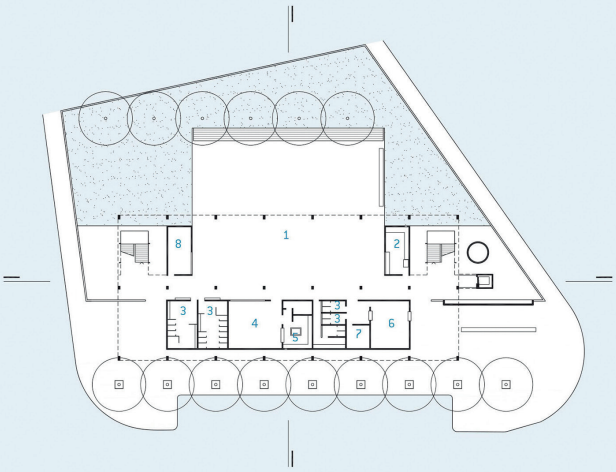
TELEMACO MELGES SCHOOL - UNA ARQUITETOS

The Telemaco Melges school, entrusted to UNA Arquitetos, is located on a trapezoidal-shaped plot located at the top of an irregular block. Its volume consists of seven single spaced square section modules, forming a parallelepiped [Figure 2]. The two modules at the ends are hollow, with only the outer gable remaining, which delimits the volume of the building. The two peripheral modules reveal open stairs that open to the upper floors, where there are two floors of classrooms and, on top of these, the multipurpose court. The ground floor is occupied by services, administrative functions and the canteen, as well as opening to the playground, a square that encompasses part of the pilotis under the classroom block and a portion of the land.

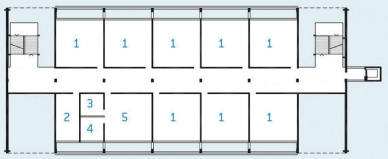
For the architects, the limited dimensions of the site defined the adopted "compact and vertical" preliminary design, a descriptive memorial of the authors. The positioning of the court on the building's roof frees the ground floor for social interaction and the gardens, achieving the inside and outside link requested by the FDE. The freeing up of the ground floor also allowed the architects to create the access control system for the multipurpose court on the roof that is accessed by the stairs positioned next to the side gables, allowing closing the classroom corridors at times when the roof is open to the public.

The floor plan of the two classroom floors consists of a central corridor connecting the two external staircases and rooms on both sides, whose facades received sun protection with translucent

Figure 2
Telemaco Melges School – Una Arquitetos
Source: Kon, 2018C and A. de F. Ferreira & Mello, 2006, p. 21



1:750 TÉRREO/IMPLANTAÇÃO
1. pátio 2. cantina 3. sanitário 4. refeitório 5. cozinha 6. secretaria 7. diretoria 8. grêmio



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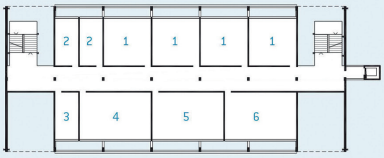
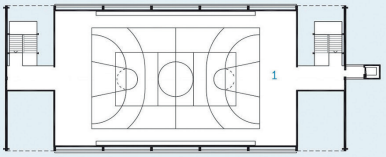
1. aula 2. almoxarifado 3. depósito 4. coordenador 5. professores



1:750 2º PAVIMENTO
1. aula 2. reforço 3. depósito ed. física 4. centro de leitura
5. informática 6. uso múltiplo



1:750 3º PAVIMENTO
1. quadra poliesportiva

plastic shutters, interrupted by two horizontal bands next to the classrooms' roof slabs. According to the architects' report (NOBRE, 2003), in addition to the sun-breaking role, they make the building perceived as a luminous volume at night. The monumentality of the building is reinforced by the continuation of the shield to the roof, also enveloping the sides of the sports court.

The school's supporting structure consists of eight bands of three pillars, two external – located between the plastic shield and the classrooms' body – and a central one, located in the center of the corridor that connects the two staircases. On the roof, this pillar is suppressed, leaving just the two external ones, which support the metal structure that protects the triple height space of the multipurpose court.

CHB CAMPINAS F1-MMBB

The CHB Campinas F1 School, of MMBB, is divided into three strips: in the center the multipurpose court occupies a triple height atrium, which communicates visually with the corridors of the three floors of the two strips of classrooms, deployed parallel to the central space. Vertical movement is directly connected to the external corridors, with stairs located at opposite ends of each row of classrooms.

On the first two floors, only the row of classrooms to the South is occupied, while the opposite side is released in the form of a pilotis that opens to the uncovered courtyard to the north of the site. The space of the pilotis, delimited on one side by the multipurpose court and, on the other, by the garden, although it has a double height, maintains the scale of the site by the repetition of the external wall of the second floor, a strip outside the pillars that divides the volume into two defined zones. The use of walkways positioned on the perimeter of the court makes this central space the focal point of the project, while solving the access control of the pedagogical sector in alternative shifts, when only the meeting area is open to the public [Figure 3].

> Spatiality - especially regarding the creation of the two floors around the central void – is the highlight of the project, since the authors opted for elements of traditional composition, of masonry. (Serapion, 2004b)

The supporting structure of the CHB Campinas F1 makes the composition even clearer by separating the classroom rows; each of them is supported by a set of six precast concrete porticoes, with pillars at both ends and cross beams. Each of these sets supports one end of the metal lattice that covers the multipurpose court. The classrooms are set back from the external facade, leaving the external pillars visible, whose vertical lines are cut only by the wall painted in navy blue that marks the separation of the ground floor from the other floors.

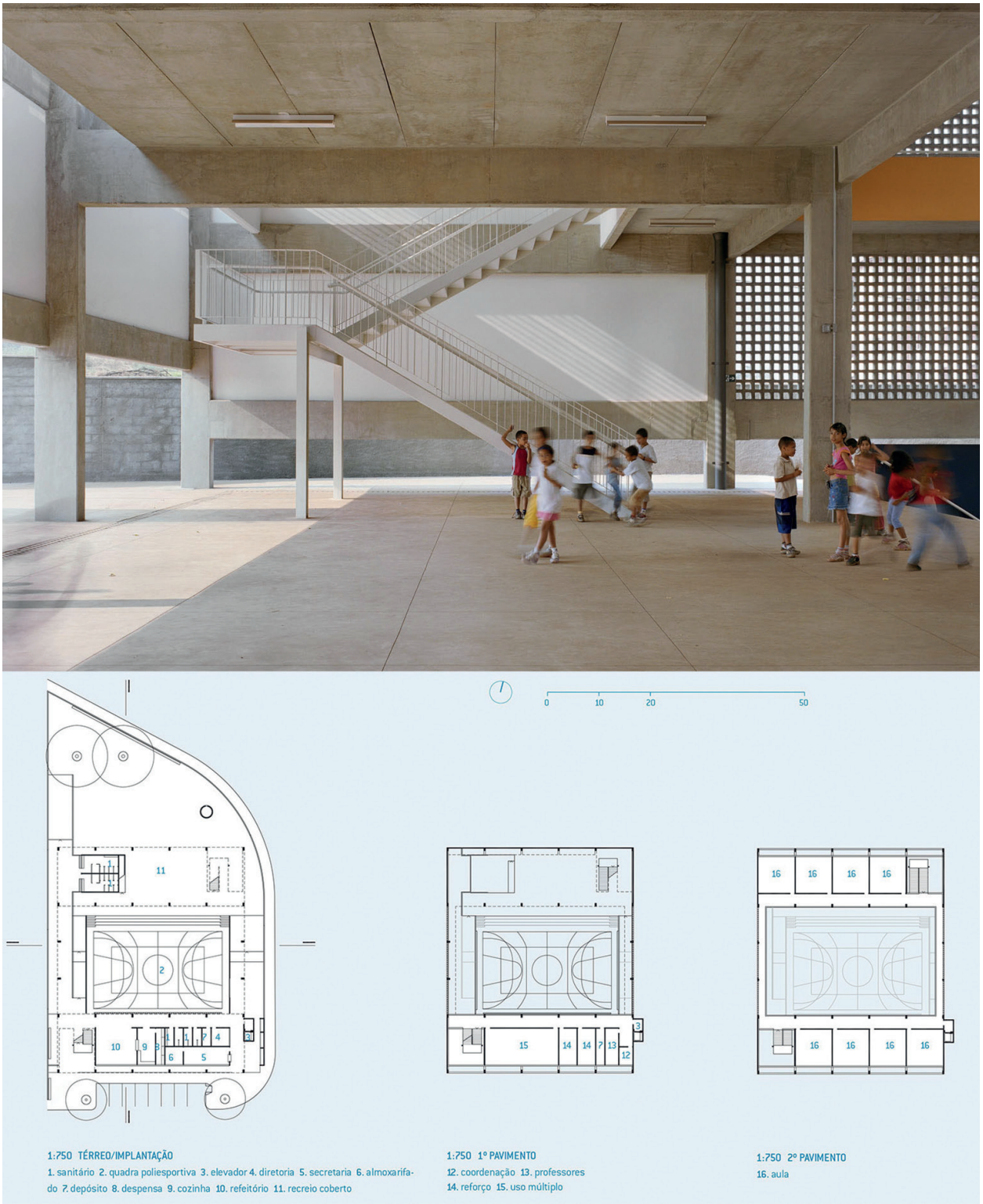


Figure 3
Transition between indoor and outdoor areas, and floor plans.
Source: Kon, 2018A and A. de F. Ferreira & Mello, 2006, p. 68.

ROBERTO MARINHO SCHOOL - ANDRADE MORETTIN ARCHITECTS

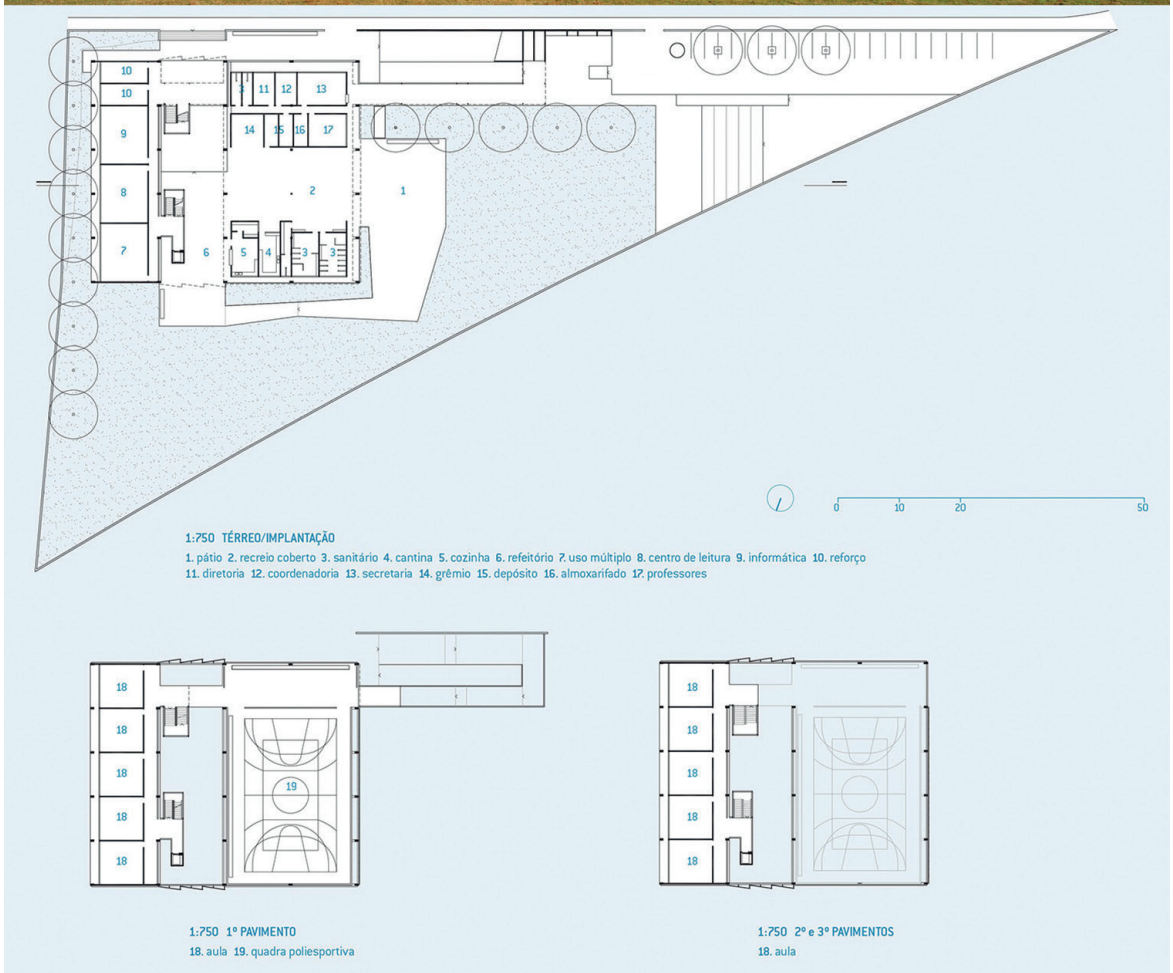
The pilot project carried out by Andrade Morettin Architects – the Roberto Marinho School – comprises the association of two structurally identical volumes occupied in different ways. Each of them is formed by a set of five modules, with two free spans and four high floors, on which a metal roof is supported. Their differentiation is in the use that these spaces receive: on one side, classrooms and a generous atrium; on the other, the sports court, located on the second floor, under which the collective roles are placed, open to the courtyard.

The classrooms are on the four floors in a simple band bounded externally by the grid of pillars and beams visible on the east facade and, internally, by the corridor that opens to the atrium, where the two staircases are. On the ground floor, the volume of the multipurpose court receives a transversal opening connecting the atrium to the external playground, along which it opens to the support functions such as toilets, canteen and administration. Access to the school is made along a walkway to the second floor, next to the multipurpose court, extending over the atrium to the classrooms' corridor.

Fernando Serapião (2004a) uses the analogy between buildings and cities, attributed to Vilanova Artigas, to describe the volumetric articulation of the Andrade Morettin school where a steel box houses the walkway, large and small buildings, while maintaining a frank relationship with the outside, as in the "internal walkway illuminated by translucent tiles" [Figure 4] that cuts the volume longitudinally, connecting one side of the site to the other.

Externally, the school is perceived as a monolithic volume, the result of the use of PVC shutters on all facades except for the east facing one, where the classrooms are. On this face it is possible to perceive the modulation of the structural grid. The west facade is interrupted next to one of the corners, where the access walkway to the second floor slopes the volume. For Fernando Serapião, the envelope using industrialized elements is one of the most interesting aspects of the project by encapsulating the internal volumetric complexity with alternating closure translucency, opacity and exceptional points, such as the main access, marked by vertical sheds, or "gills [that] allow the building-city to breathe" (Serapião, 2004a), in the words of the critic.

Figure 4
Internal walkway and floor plan
Source: Kon, 2018B and A. de F. Ferreira & Mello, 2006 p. 72.



1:750 TÉRREO/IMPLANTAÇÃO
1. pátio 2. recreio coberto 3. sanitário 4. cantina 5. cozinha 6. refeitório 7. uso múltiplo 8. centro de leitura 9. informática 10. reforço 11. diretoria 12. coordenadoria 13. secretaria 14. grêmio 15. depósito 16. almoxarifado 17. professores

1:750 1º PAVIMENTO
18. aula 19. quadra poliesportiva

1:750 2º e 3º PAVIMENTOS
18. aula

CONJUNTO HABITACIONAL CAMPINAS E1 SCHOOL - ANDRÉ VAINER AND GUILHERME PAOLIELLO

The School of the Campinas E1 housing complex, developed by André Vainer and Guilherme Paoliello is located on a rectangular site with rounded edges whose topography configures only a slight slope from one side to the other. The composition adopted by the firm takes advantage of the plot format, by deploying an elongated block in the center of the plot, with uniform spacing of the edges.

The unevenness is taken advantage of by the architects to form the stands that serve the sports court, located on the ground floor. For the architects, the rental of sports equipment on this floor considered the practical aspects of the community using the space and ended up guiding the development of the preliminary design, divided into two blocks, one of which is entirely occupied by this use.

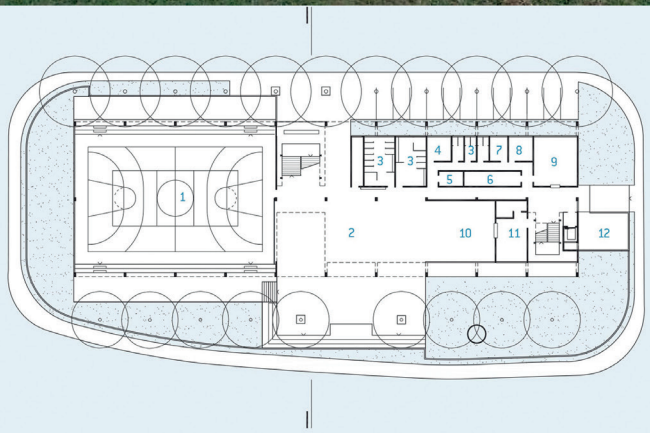
Its floor plan is divided into two blocks separated by the staircase: on one side, the classrooms are distributed on both sides of a central corridor on the two floors above the ground floor, where the administrative and support functions are located; on the other side of the vertical circulation is the multipurpose court, occupying the three floors of the volume. The treatment of the facades reveals the change of use at both ends of the building: in the multipurpose court, the closure of the two upper floors is made with metal screens applied on tubular frames outside the precast concrete structure; in the classrooms, the facade is set back in relation to the pillars, revealing, in depth, the blue painted masonry and tilting frames [Figure 5].

For Nanci Corbioli, the main characteristic of Vainer and Paoliello's design is the plastic articulation between the supporting structure "projected out of the building and aligned with the enclosure of the court" and the volume occupied by the classrooms, "set back from the external contour" (Corbioli, 2004). The facade is assembled in such a way as to create a game between full and empty, alternating hollow spans, with the frames of the classrooms set back, and filled, where the space between the beams is closed with masonry.

UNIÃO DA VILA NOVA III E IV SCHOOL-BAROSSI & NAKAMURA ARCHITECTS AND HEREÑU + FERRONI ARCHITECTS

The building designed by the offices Barrossi & Nakamura and Hereñu+Ferroni houses two schools, one elementary and one high school. The initial demand for the construction of two schools went against the available land: a small plot with an "L" shape, leading the architects to choose to house both schools in a single building with the separation of sports and recreation spaces.

Access to the two schools is made by a staircase that leads to a square, positioned on the larger portion of the land. From this space, students can head to the gates of their respective school, limited on both sides by the offices. In the elementary school, the access floor coincides with the covered playground, which leads to the playground open to the back; in the High School, the ground floor



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1. quadra poliesportiva 2. pátio coberto 3. sanitário 4. depósito 5. mat. de limpeza 6. almoxarifado 7. coordenação 8. direção 9. secretaria 10. refeitório 11. cozinha 12. pátio de serviços

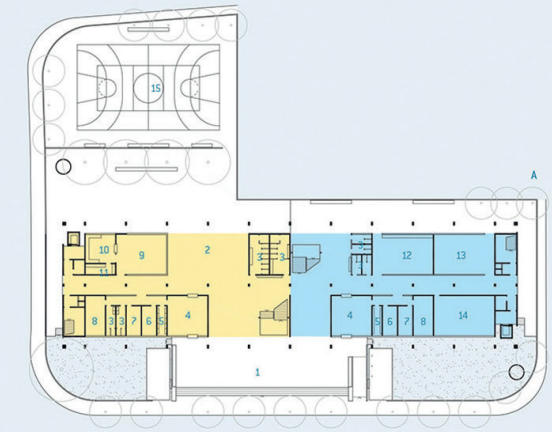
1:750 1º PAVIMENTO

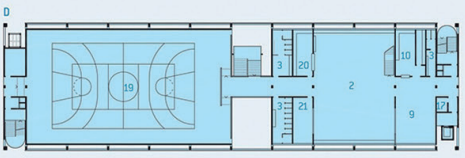
1. professores 2. uso múltiplo 3. aula 4. reforço

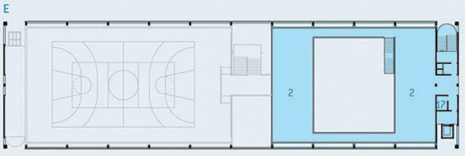
1:750 2º PAVIMENTO

3. aula

Figure 5
Conjunto Habitacional Campinas E1 School -André Vainer and Guilherme Paoliello. Source: A. de F. Ferreira & Mello, 2006, p. 57.







A 1:750 TÉRREO/IMPLANTAÇÃO
1. praça de acesso 2. recreio coberto 3. sanitário 4. secretaria 5. almoxarifado 6. diretoria 7. coordenação 8. professores 9. refeitório 10. cozinha 11. despensa 12. uso múltiplo 13. leitura 14. informática 15. quadra poliesportiva

B 1:750 1º PAVIMENTO
16. aula 17. depósito 18. reforço

C 1:750 2º PAVIMENTO
16. aula 18. reforço

D 1:750 3º PAVIMENTO
2. recreio coberto 3. sanitário 9. refeitório 10. cozinha 17. depósito 19. quadra poliesportiva 20. cantina 21. grêmio

E 1:750 4º PAVIMENTO
2. recreio coberto 17. depósito

EE UNIÃO DA VILA NOVA III
EE UNIÃO DA VILA NOVA IV

0 10 20 50

Figure 6
Exterior view of the school.
Source: Kon, 2018d and A. de F. Ferreira & Mello, 2006 p. 173.

is occupied by multipurpose rooms, leaving the recreational space on the roof. The classroom floors are the same in both schools, occupying five modules of 7.20 meters each and separated by the central stairs, positioned in the central openings leaving an open atrium between the classrooms.

The two lateral gables receive complementary circulation cores, with enclosed elevators and stairs, each occupying half a structural module, which is evident in the longitudinal elevations. In the ten modules occupied by classrooms, the sealing of the internal spaces is set back from the plane of the facade, whose modules between pillars and beams are filled by "10 x 10 cm ceramic hollow elements", protecting the East and West teaching areas from overheating and highlighting the relationship between classroom volume and vertical circulations.

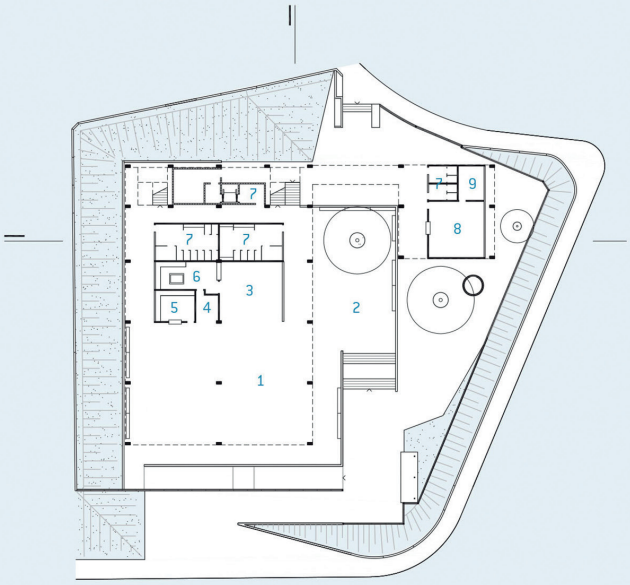
The photos of the built school demonstrate the contrast of scale and construction technique with the surroundings [Figure 6]. For Avany Ferreira and Mirela Mello, the verticalization caused by the grouping of two schools in a building meant "the construction took on a prominent role in the landscape, becoming an important reference in the neighborhood" (Ferreira, A. de F. & Mello, M. G., 2006, p.160), thus bringing the community closer to the institution.

PALANQUE SCHOOL- PIRATININGA ARQUITETOS ASSOCIADOS

Piratininga Arquitetos created its own typology for the implementation of the Palanque school, joining two vertical and independent volumes by an open walkway. The larger block houses the pedagogical functions, with covered playground and canteen on the ground floor, classrooms on the two floors above and sports court on the roof. The smaller block houses mostly administrative functions and special classrooms, such as computer labs [Figure 7].

The union between the pedagogical and administrative blocks is made by a walkway positioned next to the west facade of the two blocks, which are aligned on this side. Next to the walkway, a strip is designed that contains the vertical circulations and toilets, separating the circulation of the classroom areas, which allows access to the court, on the roof, without needing to go into the teaching sector. On the classroom floors, circulation is peripheral and terraced, with the classrooms positioned in the center of the floor plan with their openings facing the corridor.

The two blocks, although structurally independent, use the same compositional system: grid of pillars and beams in apparent concrete form the external volumetry that is sometimes filled with white masonry wall sections, sometimes with hollow ceramic elements. In the corridors, the parapets are made of blue painted masonry, which extends to the walkway, with a supporting structure comprising apparent metal beams with ceramic colored paint.



1:750 TÉRREO/IMPLANTAÇÃO

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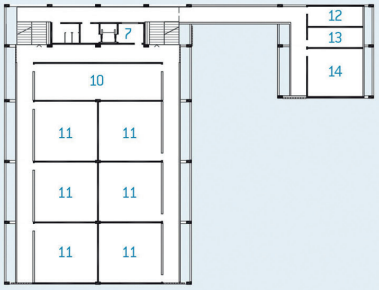

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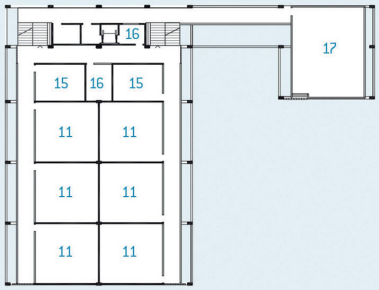

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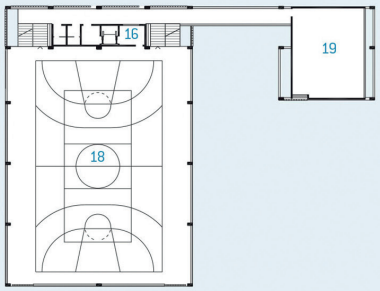
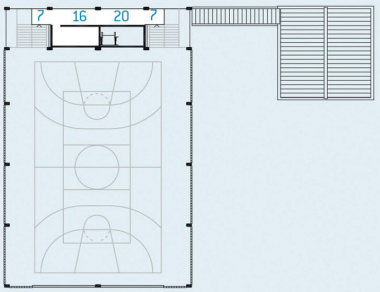


1:750 3º PAVIMENTO

16. depósito 18. quadra poliesportiva 19. uso múltiplo



1:750 4º PAVIMENTO

7. sanitário 16. depósito 20. grêmio

Figure 7
School in Pimentas VII neighborhood- Projeto Paulista de Arquitetura. Source: Projeto Paulista, 2004 and A. de F. Ferreira & Mello, 2006, p. 234.

SCHOOL IN PIMENTAS VII NEIGHBORHOOD-PROJETO PAULISTA DE ARQUITETURA

The school in Pimentas VII neighborhood, in Guarulhos, is organized around a central atrium which opens to a horizontal circulation ring where stairs and elevators are embedded. The circulation is surrounded by classrooms on three sides of the ring, opening to the multipurpose court on the fourth. In the center, the atrium extends under the pilotis, forming the playground and giving access to the court.

The structure is visible on the facade, with pillars and beams marked between the enclosure elements. There are, in this project, four way openings are handled between the structural mesh on the external facade: the complete hollow, present in a large part of the ground floor, giving access to the pilotis; the classroom modules, with half-height masonry and frames up to the roof slab; the 100% enclosed opaque masonry panels, on the Northeast facade, enclosing the classrooms, and, finally, the panels closed with latticework, present in the multipurpose court and in the classrooms to the north of the school. On the atrium facade, the pillars remain external, while the beams are recessed [Figure 8]. In this space, the railings of the vertical and horizontal circulation elements are painted red, highlighting the separation between the fence and the supporting structure.

In the Projeto Paulista de Arquitetura school it is possible to perceive a great care in handling constructive elements, demonstrating a refinement in the articulation of structural elements, enclosures, frames and installations. The adopted preliminary study, with a central playground to which the horizontal circulation rings open, collaborates with the spatiality of the work, bringing visual relations with the site and internally to the school, without this making the construction more expensive. The enclosure elements comply with a series of rules, such as the positioning of frames in the space remaining between the beams of different heights, an alignment also shown in reverse between the latticework and roofing beams.

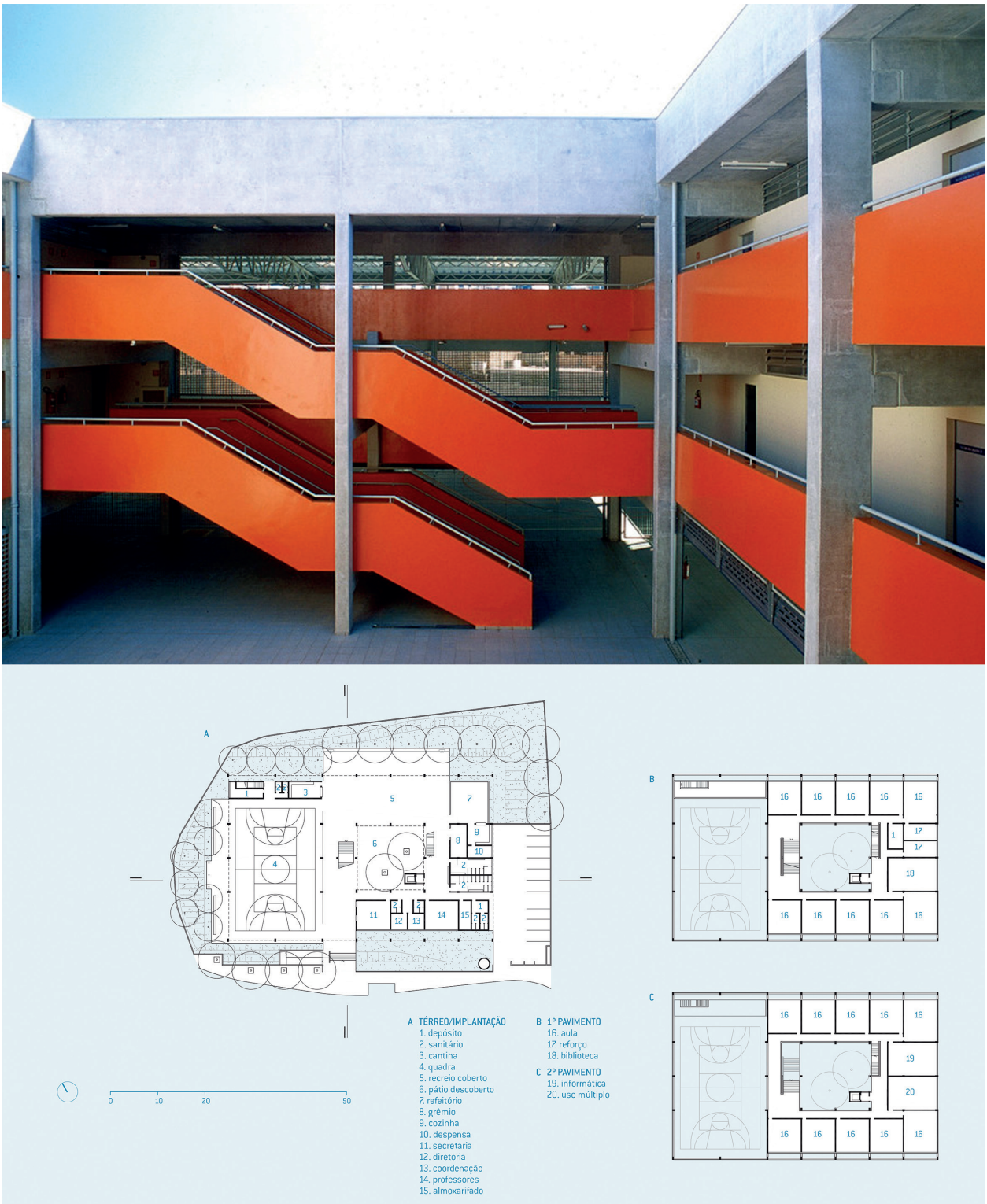


Figure 8
School in Pimentas VII neighborhood- Projeto Paulista de Arquitetura.
Source: Projeto Paulista, 2004 and A. de F. Ferreira & Mello, 2006, p. 234.

CONCLUSIONS

The construction of schools in the size needed to overcome the shortage of classrooms existing in the state of São Paulo at the beginning of the 21st Century, required adopting strategies that facilitate the design, construction and supervision of the units. Since the 1970s, Conesp, which would later be encompassed by the FDE, has been developing techniques that rationalized the process of creating new educational buildings either by outsourcing projects or by adopting standardized building elements.

Before the implementation of the prefabricated schools construction program, the most efficient strategy for the rapid expansion of the education network was the application of standard projects, ranging from projects that had their architectural quality questioned, such as those applied by the FDE itself until the 1990s, to experimental projects such as the Unified Educational Centers (CEU, in Portuguese) of the city of São Paulo, and the Integrated Public Education Centers built in Rio de Janeiro between the 1980s and 1990s with Oscar Niemeyer's project.

As good as the standard projects developed in these programs are, the adoption of unique projects for distinct sites requires terrain that supports their construction. Avany Mello points out that, in the early 2000s, FDE did not have land with the dimensions and topographic attributes compatible with the demands of standard projects, as was the case in CEUs.

It is precisely the combination between rationalization of construction and adaptability to different terrains that brought critical prominence to the schools built by FDE in the 2000s. In 2003, Projeto magazine announced the hiring of the 28 offices that would develop the first schools with precast concrete structures, making a fact that should not be highlighted –hiring of architectural firms to design schools – into encouraging news.

> To create a scale of production, the body determined the standardization of the spans of all units (10.80 x 7.20 meters) and the division of schools into groups of three or four using the same types of prefabricated elements. (Project Magazine, 2003)

The adoption of strict rules both constructively and compositionally, at first, suggests monotony between the built works. However, as Mahfuz (2009) argues, such fear is unfounded, since "the encounter of a system with concrete programmatic and contextual situations always results in singular works". It is from this point of view that the projects for the FDE are most interesting: the variety identified among the different schools demonstrates the possibilities of a restricted lexicon when faced with the demands of the place and the program.

Therefore, the schools produced for the FDE are demonstrative of how a generation of professionals can, as long as suitable oppor-

tunities exist, express their architecture. The set of projects carried out can be seen as evidence of the maturity of Brazilian production at the beginning of the 21st century, applying them in projects with considerable formal investigation restrictions that remain relevant and contemporary two decades later. The architects whose works are shown in this work are part – even if indirectly – of what Fernando Serapião (2019) called the "Seville generation", due to the infamous competition for the choice of the Brazilian Pavilion at Expo-92: professionals from São Paulo whose work began in the last decade of the 20th century under the influence of the movement to revalorize modern Brazilian heritage. The reference to Brazilian modern architecture, which in the early 1990s was labeled extemporaneous, gained strength, passing, as Maria Alice Junqueira Bastos and Ruth Verde Zein (2015, p.291) argue, from a "more or less mimetic appropriation" to a "less literal, more proper and certainly much more creative management of this same repertoire, built on its local tradition, that is, in the architecture of the Paulista brutalist School of 1960-1970". Such references are evident in the vast horizontal planes, the use of structure as a compositional element and large atria present in most FDE schools.

In a certain way, it is possible to say that the budgetary and constructive constraints allow analysis of these objects to be made from the articulation of the elements, making the comparison between them more objective. Thus, the FDE schools form a collection of inestimable quality for scholars of architecture produced in Brazil at the beginning of the 21st century.

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INDIGENOUS STUDENT HOUSING: PERMANENCE, REPRESENTATIVENESS AND THE PARTICIPATORY PROJECT PROCESS

Moradia estudantil indígena: permanência, representatividade e o processo de projeto participativo

Vivienda para estudiantes indígenas: permanencia, representatividad y proceso de diseño participativo

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Indigenous Student Housing Project. Source: The authors.

Laboratório de projetos da Universidade Federal de Santa Catarina (LABPROJ-UFSC), aos estudantes indígenas da UFSC e à comunidade da Aldeia Guarani Yaka-Porã bem como à Pró-Reitoria de Extensão (PROEX-UFSC) pelo apoio institucional para realização do mesmo.

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ABSTRACT

This article presents the project process adopted for the design of indigenous student housing at the Federal University of Santa Catarina, Brazil, and discusses its impact both on the formative process of architecture and urbanism students, regarding the experiences of indigenous students at the University. Aside from the relevance of that architecture as support for the permanence of students in public higher education, its importance as a symbol of shelter and respect for indigenous peoples at the university stands out. For this purpose, a participatory project was built that began with dialogues stages with indigenous students at the university and interactions with one of the ethnicities involved in its traditional territory (its village), for the definition of project guidelines and the needs' program. Subsequently, for the proposal's presentation and discussion, experiences were gathered in the proposed area for the project's implementation and the physical models and drawings were presented, which were used to facilitate dialogue and participation of Indigenous students in the project process. The article presents the path followed, the spatial results of this process, the perceptions of the future users of the space, and reflections on the importance of outreach actions in the training of professionals in the area of architecture and urbanism, valuing the social role of the profession, and building a more sensitive projective repertoire, prepared to consider the human diversity that contemporaneity constitutes.

Keywords: Schools, Indigenous student housing, participative project, indigenous peoples, indigenous architecture, extension project

RESUMEN

Este artículo presenta el proceso de diseño adoptado para el diseño de viviendas indígenas en la Universidad Federal de Santa Catarina - Brasil y analiza sus impactos tanto en el proceso educativo de los estudiantes de arquitectura y urbanismo como en las experiencias de los estudiantes indígenas en la universidad. Además de la relevancia de esta arquitectura como soporte para la permanencia de los estudiantes en la educación superior pública, se destaca su importancia como símbolo de aceptación y respeto a los pueblos indígenas en la universidad. Para ello, se construyó una ruta de diseño participativo, que comenzó con etapas de diálogo con estudiantes indígenas de la universidad e interacciones con una de las etnias involucradas en su territorio tradicional (la Aldea) para definir lineamientos de diseño y necesidades del programa. Posteriormente, para la presentación y discusión de la propuesta, se llevaron a cabo experiencias en la zona propuesta para la ejecución del proyecto y la presentación de modelos físicos y dibujos utilizados para facilitar el diálogo y la participación de los estudiantes indígenas en el proceso de diseño. El artículo presenta el camino recorrido, los resultados espaciales de este proceso, las percepciones de los futuros usuarios del espacio y reflexiones sobre la importancia de las acciones de extensión en la formación de profesionales en el campo de la arquitectura y el urbanismo, valorando el rol social de la profesión y la edificación. un repertorio proyectivo más sensible y preparado para considerar la diversidad humana que constituye la contemporaneidad.

Palabras Clave: Vivienda para estudiantes indígenas, proyecto participativo, pueblos indígenas, arquitectura indígena, proyecto de extensión.

RESUMO

Este artigo apresenta o processo de projeto adotado para a concepção da moradia estudantil indígena na Universidade Federal de Santa Catarina – Brasil e discute seus impactos tanto no processo formativo dos estudantes de arquitetura e urbanismo quanto nas vivências dos estudantes indígenas na universidade. Além da relevância dessa arquitetura como suporte à permanência dos estudantes no ensino superior público, destaca-se sua importância como símbolo de acolhimento e respeito aos povos indígenas na universidade. Para tanto foi construído um percurso projetual participativo que iniciou com etapas de diálogos com os estudantes indígenas na universidade e interações com uma das etnias envolvidas em seu território tradicional (a Aldeia) para definição das diretrizes projetuais e programa de necessidades. Posteriormente, para a apresentação e discussão da proposta, foram realizadas vivências na área proposta para a implantação do projeto e apresentação de maquetes físicas e desenhos utilizados para facilitar o diálogo e a participação dos estudantes indígenas no processo de projeto. O artigo apresenta o percurso trilhado, os resultados espaciais desse processo, as percepções dos futuros usuários do espaço e reflexões acerca da importância de ações de extensão na formação de profissionais da área de arquitetura e urbanismo, valorizando o papel social da profissão e construindo um repertório projetivo mais sensível e preparado para considerar a diversidade humana que constitui a contemporaneidade.

Palavras-Chave: Moradia estudantil indígena, projeto participativo, povos indígenas, arquitetura indígena, projeto de extensão.

INTRODUCTION

Brazil, like the rest of Latin America, is structured from the coexistence of different indigenous peoples. It especially contemplates a diversity of peoples who are increasingly made invisible by the continuous contemporary processes of cultural homogenization. In the field of architecture and urbanism, this context is also seen, mainly through the standardization of spaces for collective use, social housing, and public facilities, often designed from pre-established architectural standards, neglecting cultural, social, and environmental specificities, different in each region of the country, and by designing buildings without considering the local contexts.

The process of colonization of the country, and the hegemonic historical narratives, still lead to a misunderstanding of indigenous peoples by the population, feeding the imaginary with the idea that the place for them is in the reserves/villages, based also on the crystallized image of the culture of these communities. Architecture, as part of this social context, sometimes feeds this perception. However, this study understands culture as the set of human actions, an aspect of social reality, capable of being comprehended, described and represented (Bauman, 2012) and, as such, in a constant process of transformation and re-signification. The indigenous communities establish cultural practices and relations with the territory, sedimented in the present time and, just like other ethnic groups, are in uninterrupted mutation.

The original indigenous peoples of Brazil, are historically expropriated from their traditional lands and are impeded from manifesting their way of living in the contemporary city, to the extent that the surrounding society does not recognize their cultural specificities or their right to the city. The indigenous presence in urban centers is inserted as one of the different coexisting layers and harks back to places of memory: "the Brazilian territory, at the time of colonization, should not be considered as a 'blank sheet, an empty place to be occupied" (Santos et al., 2017, p.126), that is, before cities, these sites were indigenous territories with cultural landscapes and their historical relationships.

Discussing public policies to guarantee the right to the city for indigenous people has become increasingly necessary since, according to the UN-HABITAT program (2011), in Brazil, 39% of all indigenous people living in the country live in urban centers (IBGE, 2010).

But apart from the right to the city, in recent decades numerous movements emerging from the heart of indigenous communities have been identified, to gain the right to education. Pressures for the expansion and qualification of their presence in higher education institutions aroused protests for access and permanence in undergraduate and postgraduate courses. The claim of the right to knowledge, considering socio-economic and cultural particularities and precepts, seeks to guarantee the preservation of the group

through the power of action "in the schools of their communities, in sectors linked to indigenous health policy and other instances of management of their territories, as well as in institutional spaces of social participation" (Nascimento, 2015, p.97).

Indigenous presence in Brazilian universities is recent, a reality that dates back to the turn of the new century. It is a construction of the political agenda of State actions resulting from the demands of the indigenous movement for academic training (Nascimento, 2015). Universities are promoting debates on higher education aimed at indigenous peoples, especially in what related to the differentiated access of socially disadvantaged groups through so-called Affirmative Actions. This debate bubbled up amid the promulgation of the first Law on reservation of vacancies in public universities in Brazil (Melo, 2013). In 2007, the Federal University of Santa Catarina -UFSC- began opening up additional vacancies for indigenous peoples (Tassinari, 2016) and, in 2010, approved the creation of the Intercultural Indigenous Undergraduate Degree Program of the Southern Atlantic Forest.

In addition to that course, the university receives indigenous students from various peoples and regions of Brazil. According to the Department of Affirmative Actions of UFSC (2020), there are about 135 Indigenous students, in 64 undergraduate courses, belonging to 17 ethnic groups. However, indigenous students face numerous challenges to ensure minimum conditions to stay and complete their studies. Accustomed to living close to their relatives, with a community way of life, they say that homesickness and missing their relatives are some of the causes of their dropping-out. There is a need to live with their family in the city, especially for those who have children and are married, the situation of most of the students, especially women (Bergamaschi et al., 2018).

This context shows how necessary a specific treatment is, with sensitivity to the problems faced by indigenous people and a commitment by the entire academic community. It is essential to improve the accommodation and continuity policies, both in the pedagogical and infrastructure spheres, built on the dialogue and involvement of several institutional, technical, and teaching players, but, above all, the indigenous communities.

Indigenous Student Housing appears as a support structure to keep students at the University. A space capable of housing the daily practices of different ethnic groups, considering this diversity on university land. This infrastructure could be understood both by its supporting nature, in guaranteeing more dignified conditions for continuity, and by its potential for strengthening the territorial, economic, and cultural rights of these traditional communities, in order to preserve and promote their customs, their knowledge, and their forms of organization (Gomes et al., 2020).

Responding to the demand in the academic community, a University Outreach project[1] was prepared to develop the proposal for Indigenous Student Housing at UFSC. The project is coordinated by the Projects Laboratory of the Architecture and Urbanism Degree Program (LABPROJ, in Portuguese), where indigenous students who currently live in the provisional Indigenous Housing (Maloca) participate.

The aim of the proposal is the design of a building capable of creating conditions so that their habits, rituals, and way of life are not interrupted during their university life, away from their communities and families. Student Housing and other complementary facilities, like the Cultural Center and park, must be located in places integrated with the campus, and that allow strengthening and enhancing indigenous presence, as well as representing a framework for the integration with the urban space and the surrounding society.

PROJECT AND PARTICIPATION PROCESS

The architectural design process is understood as the set of intellectual activities that involve multidisciplinary knowledge and allow the design of spatial products to meet specific demands, on various scales, but always related to its surroundings and region. It can also be said that the creation process in architecture is a procedure that involves choosing a path to be followed from the many possible possibilities (Carvalho & Reingantz, 2013).

The choice of these project paths has a direct impact on their result, evidencing or weakening the possibility of architecture presenting itself as an aspect of differentiation and affirmation of cultural specificities. In numerous cultures, it is observed that the shape of places, the material used in their constructions, and the method used, reveal cultural characteristics that, absorbed by the space, create in their users a sense of identification and affirm their image before the surrounding societies. Identifying regional schools to serve the specific communities that are included in the proposal is key to enable the association between political awareness and the profession of architect (Frampton, 2013).

Converging with the critical regionalism proposed by Frampton (2013), and searching for an articulated understanding of local contexts, it is fundamental to understand the role of the place as the stage for these diverse and, sometimes, compounded, and contradictory interactions. As Tuan (1983) puts it, the place transcends the limitations of the geometric space since, through social relations, groups attribute value to it. A space becomes a place under the functional impact of the ecological environment, in the human actions established from the modes of production, in the changes, substitutions, and appropriations that serve human activities (Santos, 1985). In the interaction with space, different ethnic groups build meanings and relationships which can, by the influence of the

1 Outreach projects are understood in Brazilian universities as a set of actions that allow the practical articulation of scientific teaching and research knowledge with the needs of the community where the university is located, interacting and transforming social reality.

place, soften or reinforce ethnic borders. Therefore, understanding the sociocultural context and the limitations that shape these places may be the most important aspect to be able to conceive them (Rapoport, 1971).

Given the complexity that the construction of a spatial proposal involves, especially for culturally-specific communities, it is understood that the design process needs to be constantly re-evaluated. Thus, for each stage of the process, it is necessary to analyze the proposed activities and creatively adjust the steps to follow. It is from this relationship of cause and effect that an action and, consequently, a reflexive practice is founded, before, during, and after the action (Schön, 1987).

The multidisciplinarity, which permeates the fields of architecture and urbanism, reveals, in addition to the need for this flexibility of the design process, the need for a professional exercise that opposes the vision based solely on knowledge generated and reproduced in the academic setting. "The domain of specialized technical knowledge is becoming less relevant and there is a tendency to include, within teaching practices, activities that develop skills for collaboration, negotiation, and other similar characteristics" (Aravena-Reyes, 2001). Knowledge marginalized by a central and hegemonic perspective, still very dominant in scientific logic, must be considered, since they are very rich in terms of survival linked to the territory.

Rapoport (1971) expresses the necessity to know subjective aspects of the group an architectural intervention is thought for, emphasizing that architecture must be directed to the interests of the people who will use it. Unwin (2013) goes further into the subject, arguing about the leading role and the involvement of the user, which makes it possible to design identifiable places and strengthen knowledge on the possibilities of spatial solutions, closely adhering to local contexts.

Thus, the figure of the architect is proposed to perform the exchange, relativizing its concepts, knowledge, understanding, and values. In this bias, the practice of the participatory process is found, which can be seen as an opportunity to decentralize project decision-making, inviting users as active agents in the process. The participatory process has been presented as a way of facing the social and political dimension of projects of collective interest, validating the opinion and desires of the users, in order to ensure greater citizenship and democracy in the design of urban spaces (Barone & Dobry, 2004).

When it comes to projects of public and collective interest, the political and social dimensions stand out, and the professional acts as a mediator of divergent longings and desires that still have widespread impacts on life. The need to maintain a democratic participation that welcomes the different directions to follow, breaking

away from pre-formulated concepts for a given situation, is evident.

Participation is more than the distribution of decision-making power or consultation to users, as it starts from a position of the architect, the urbanist, and other professionals, of being affected by other realities, and letting them transform their practices, reflecting this in the design (Guizzo, 2019). Thus, knowledge of the cosmo-vision of different communities, especially indigenous peoples, is essential for an effective work of valuing cultures and autonomies, and to also transform the forms of occupation and relationship with the territory.

Architect Giancarlo De Carlo translated user participation in the design process as a threefold opportunity: offering the inhabitant a choice, broadening their architectural repertoire, and showing the citizen their rights in spatial terms and how to claim them, based on their own needs (Barone & Dobry, 2004). The meaning of participation is to include those who have never been part of decision-making processes, while ensuring respect for the existing space and society, as history, as culture (Barone & Dobry, 2004). Thus, it is up to the project team to think of participation strategies based on the construction of a collective knowledge of the players that allows decision-making. Otherwise, there is a risk that these inhabitants will feel either unable or discouraged from taking part.

The inclusion of other players in the project process becomes a relationship between product and environment, coming from the consideration of a wealth of aspects set through the participation of different individuals with different and local experiences. The resulting participatory project's creation must be something that avoids repeating models that are disconnected from the territory, like idealized standards of what is traditional, to become an expression of greater vitality of the communities involved (Guizzo, 2019). Thus, the product is no longer formulated as an isolated object, and starts being considered as the result of an evolutionary process that reflects the needs and values of the given social context. In this way, architectural production is, apart from a reflection of a context, an agent of its transformation, taking shape and gaining complexity through the participatory process.

PROJECT PATH: APPROACH, INTERACTION, AND PROPOSAL

The collective construction of a concept for indigenous student housing presents itself as a challenge, considering the specificity and complexity of the factors involved. The strategies adopted in this process follow the qualitative approach, which works with a universe of meanings, motivations, aspirations, beliefs, values, and attitudes, corresponding to a deeper space of socio-spatial relations (Minayo, 2011).

The awareness of the limitations and the need for the collective construction of the structuring concepts, guided the design of a project process [Figure 1] that is organically elaborated and in

Figure 1
Project steps.
Source: Preparation by the authors.

continuous development and transformation. In this way, with each proposed activity, the team reassessed the next step to be taken, considering the goals and needs of the project.

The definition of the stages and activities that structured the project started from the understanding of the processes of participatory projects in the area of architecture and urbanism. Considering what it means to design with the users, and not just for them, defines the adoption of a position of thought, that has an impact on the project process and requires different approaches to define the actions and strategies adopted. Therefore, the interaction between designers and the indigenous communities, inside and outside the university, was considered as the main instrument to support the preparation of the architectural project.

From a first roundtable meeting with the indigenous students of the Department of Architecture and Urbanism, at the end of 2017, the approach dialogue began, which aimed at understanding the difficulties and needs of indigenous students at UFSC and at relating these issues with the expectations about the project to be developed.

With the results of these dialogues and the recurring emphasis given to everyday life in the villages, the project team realized that by just listening to the participants, it would not be possible to understand the meanings of this social dynamic in depth, and that it was necessary to seek new forms of work and integration with indigenous communities. At that moment, the opportunity for interaction with the Guarani village of *Yaka-Porã*, located in Morro dos Cavalos (Palhoça-SC) arose, from a demand from the community for the construction of an *Opy* (House of prayer). The location of the village, close to the University, and the contact of some mem-

bers of the project team with leaders of this community, made the activity called, *University in the village*, possible.

This activity, which took place in 2018, idealized the construction of the structure as a collective community effort, using traditional indigenous construction techniques to house, alongside the traditional rituals of the Guarani people, an indigenous school for the children. The experience emerged as a possibility to experience life in an indigenous community, as well as to broaden learning about the relationship with nature and knowledge about autochthonous construction techniques.

After the experience of designing and building with the indigenous community, respecting their traditional knowledge, the pace of the activities, and the relationship they establish with the territory, the main project guidelines for indigenous student housing were established, the first spatial proposal was launched, and coexistence actions and dialogues were organized in the territory.

The *University experiences* activities began with a visit to the current indigenous housing, where the students pointed out the main spatial needs and the difficulties they faced in occupying the site. After this, an experience was held in the area proposed for the intervention, an activity of connection with the territory, exploring the open space recognizing the natural elements present. In an integrated way, the initial spatial proposal was presented using models, designs, and dynamics with the group, for the understanding of the scales of the proposal. The presentation gave way to the debate and allowed defining the intended directions for the project.

Another action was the *Indigenous artwork workshop*, in 2019, organized on two occasions: the first, sharing indigenous knowledge with the academic community through orality, and the second, which consisted of painting indigenous artwork in the building of the UFSC Architecture and Urbanism Department. The main goal of the workshop was to welcome indigenous students to the university space, materializing through paintings, the feeling of belonging to the academic territory, while valuing ethnic diversity.

Reflections on the several interactions with indigenous students, inside and outside the University, led to the identification of Fire as a sacred and symbolic element for all the participating indigenous peoples, an aspect of convergence in the midst of the ethnic diversity present. To map out the area of the proposal as an indigenous territory in the University, the stage of *First materializations* began, where "the Fire Space" was conceived and built, a place for meetings and indigenous cultural and intercultural experiences within the university campus. It was supported by the Architecture and Urbanism Council (CAU/SC, in Portuguese)[2] through Decree 01/2019 - Public Call for the selection of relevant projects, which promote knowledge and strengthen Architecture and Urbanism in the state of Santa Catarina.

2 The Architecture and Urbanism Council is a federal municipality, legal person by Public Law, whose role is guiding, giving orientation, and supervising the exercise of the profession of architecture and urbanism, ensuring the faithful observance of the principles of ethics and work throughout the national territory, as well as striving to improve the work of architecture and urbanism. CAU-SC has promoted actions to encourage research and outreach in the area of architecture and urbanism through calls to sponsor social actions that positively impact the formation of future professionals.

RESULTS

The experiences and knowledge built during each of the actions allowed the continuity of the process, that is, the results obtained in each of the experiences justified and inspired the elaboration of the following step. Below, the results of the actions described, as well as some guidelines and project proposals resulting from them, are presented.

ROUND-TABLE MEETINGS

Through dialogues, the project team was able to broaden its understanding about the ethnic cultural diversity of indigenous peoples and their representativity at the university, as well as to identify the initial conditions for the project, contemplating the specificities for indigenous student housing. These moments allowed approaching and discussing about some spatial expectations, such as the need for a space around the fire for dialogue and the exchange of collective experiences, a shared kitchen, study spaces with silence and privacy, and modular dormitories that could receive from individual students to larger families, respecting ethnic-cultural differences.

As was mentioned above, in reference to community life, socio-spatial relationships in the village and activities developed collaboratively were observed in the discourse of indigenous students, regardless of their ethnic origin. It was identified, therefore, that to contemplate this dimension of community life in the student housing proposal, a direct action with an indigenous community was needed, which would allow the project team to understand this relationship from practical experience. Thus, the stage called University in the village was planned.

UNIVERSITY IN THE VILLAGE: THE CONSTRUCTION OF AN *OPY* IN THE GUARANI VILLAGE, *YAKA-PORÃ*

The main objective of this activity was understanding the community dynamics of life in the village, mentioned by the students as a fundamental and necessary aspect for the housing project. It considered a series of interactions and learning, described below, fundamental to identify meaningful elements behind the launch of more project guidelines.

The indigenous community welcomed the group by starting the activities with a conversation, accompanied by a prayer that asked nature for permission for the intervention that would be made, demonstrating the community's respect for nature and their spiritual relationships.

During the different meetings, necessary until the construction was finished, in addition to teachings on their traditional construction methods, the "time" category needed to be revised by the project team, since the materialization of that space implied the acceptance of the deadlines dictated also by nature, in addition to the planning determined by human agents.

Among the main contributions of the interaction, the relationship established between thinking and doing stands out to, inasmuch as

Figure 2
Construction of the *Opy*.
Source: Preparation by the authors, 2020

the group's dialogue with the available natural resources, guided decision-making on the project, the place where it was executed, and the traditional construction techniques adopted (structure with bamboo ties and clay fastening, as shown in Figure 2). The symbolic character of the open spaces, where the natural environment predominates, was another relevant aspect, as it articulates community life, allows the free presence of children, encourages approaching natural elements such as the river, the forest, the bamboo grove, the waterfall, and strengthens the ties between community and territory.

The fire element appears again as the leading star: in the backyard of the houses, to heat and meet the needs of everyday life; in the construction of the *Opy*, from its symbolic and spiritual power; and as a landmark for the places of gathering, meeting and commemoration of the efforts of all those who participated in the activities of the day. From then on, the presence of fire and open spaces became part of the design guidelines.

The group left that place with a sense of mutual reciprocity and having learned not just about architecture, but about the community's way of life and the relationship built with the territory and sought to resume these reflections in the stage of defining the kick-off of the project.

UNIVERSITY EXPERIENCES

The visit to Maloca, to the provisional housing for indigenous students, in an improvised space of the University restaurant that is closed and goes unnoticed for the rest of the academic community, it became possible to identify some needs of students regarding the space, related to guaranteeing respect, quality of life and the affirmation of their ethnocultural identities.

Based on these first steps and reflections, the team developed and presented the initial project studies, prioritizing freehand drawings and physical models made with natural materials, a strategy that aimed at better approaching and working with indigenous students and that encouraged their participation from the first presentation of the proposal. Following this, a meeting was held in the area proposed for the project. The free exploration of

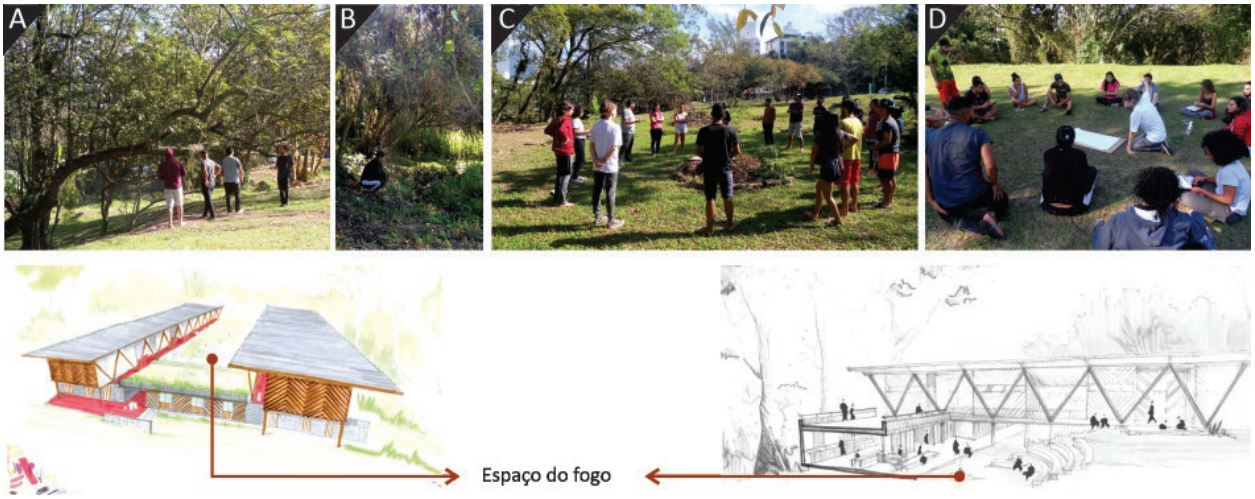


Figure 3
Experiences at the University: presentation of the first project proposals
Source: Preparation by the authors, 2020

space [Figure 3A and 3B] allowed students to interact and identify significant places, sensing their qualities: sounds, vegetation, geographical characteristics, as well as a more sensitive perception of the senses [Figure 3C]. After this, the first housing proposals were presented, connecting them to the space. In circular training with the participants at different points of the site, the relationships of scale between human beings and the natural environment were evidenced, so that their future occupation became understandable, following the building program [Figure 3D].

After the interaction with the physical place, it was proposed to the students sharing with the group which plant species they recognized, the places that drew their attention, as well as other individual and collective understandings. Throughout this activity, it was possible to observe the different perceptions of the space by the indigenous people, who expressed for the first time a familiarity with the space of the university campus, as if they were returning to their places of origin and identity.

The discussion of the project proved to be efficient, the strategy of using freehand drawings and physical models, associated with activities of perception and reading of the environment, natural elements, the scale of the place, from their own bodies in the place proposed for the intervention, contributed to the indigenous students' understanding of the project and the spaces. Apart from understanding the proposal, from that moment the indigenous students felt at the center stage of the project discussion and conception process, openly expressing the representativeness of the proposal considering their desires, pointing out some new demands for the program, and establishing a co-authorship posture with the project team.

INDIGENOUS ARTWORK WORKSHOP

Starting with the organization of a workshop on indigenous artwork, in the SemanARQ[3] of 2019, it was possible to foster an environment of knowledge exchange and integration between indigenous students and other students of the architecture and urbanism course, where their voices and the graphic elements of their cultural identity gained prominence. The workshop began with an opportunity to share knowledge on the culture of indigenous artwork, the traditional symbolic paintings of these peoples, with teaching passed on by the indigenous students, who taught the workshop to the participating non-indigenous students. The second part of the workshop consisted of painting artwork that represented different indigenous peoples of the country, under the guidance of indigenous students, in prominent spaces of the Architecture and Urbanism faculty building, such as its main sitting area [Figure 4].

The artwork workshop provided another collaborative experience and new reflections on the importance of spaces, to strengthen the different identities of indigenous peoples, as well as the representativity of their markings and symbols as an instrument of affirmation of their presence in the territory. Indigenous students expressed feelings of gratitude and pride for the opportunity to paint their markings in an institutional space of the University.

Regarding the project proposal in question, the symbolism of indigenous artwork as an element of identification, belonging, visibility, affirmation, and resistance was evidenced. From the study of this graphic manifestation, it was defined as a project guideline that the architectural language of the buildings would need to have a deep relationship with indigenous artwork: in the composition of the structures, in the elements of the covering, and also in the definition of spaces in the project intended for the free artistic-cultural manifestation of the different ethnic groupings.

3 Academic week of the UFSC Architecture and Urbanism Degree Program.

FIRE SPACE

One of the first guidelines that structured the entire project was the creation of a fire space, as a central, symbolic, social, political, and spiritual element, bringing together the various ethnicities. Starting from the public call, made by CAU-SC, it was possible to

Figure 4
Indigenous artwork workshop.
Source: Preparation by the authors.

materialize an initial proposal for the space, an indigenous landmark in the territory of the University.

The semicircular structure for the fire space was built with the participation of indigenous communities and architecture and urbanism students [Figure 5], and allows the practice of some traditional indigenous daily activities in the students' walking through the University. Its relevance to the students made the fire space the beginning of the materialization of the project, allowing radially making other environments around it.

Highlighted in the comments of the indigenous students who contributed to this project, fire is present in the daily life of the different indigenous peoples, whether as an element of connection, emotional, or symbolic. Keeping their practice in daily university life strengthens the intentions of indigenous students in the academic environment and brings a little "feeling of home" to life at the university. The fire space is the main articulator of the collectivity of indigenous student housing. It was built in 2019, before the start of the COVID-19 pandemic, and awaits for the return of indigenous students to use it and appropriate this space. This place will be maintained and incorporated into the project of the integration space with the academic community, adding to the set of elements that structure and identify the constitution of an indigenous territory on Campus.

GUIDELINES AND PROJECT PROPOSALS

This article presents partial project results that synthesize the initial guidelines built throughout the project process, marked by a set of interactions, with the presence and participation of the users, allowing the project team to approach the cultural context, which feeds the process.

Considering the spatial organization of the different Amerindian villages, as well as their ways of life and relationships with built spaces and the surrounding environment, it is necessary to understand indigenous student housing not only through the built spaces, but through the constitution of a territory, configured by its yards, through the relationship with natural elements, and the environment that surrounds them, as illustrated in Figure 6.

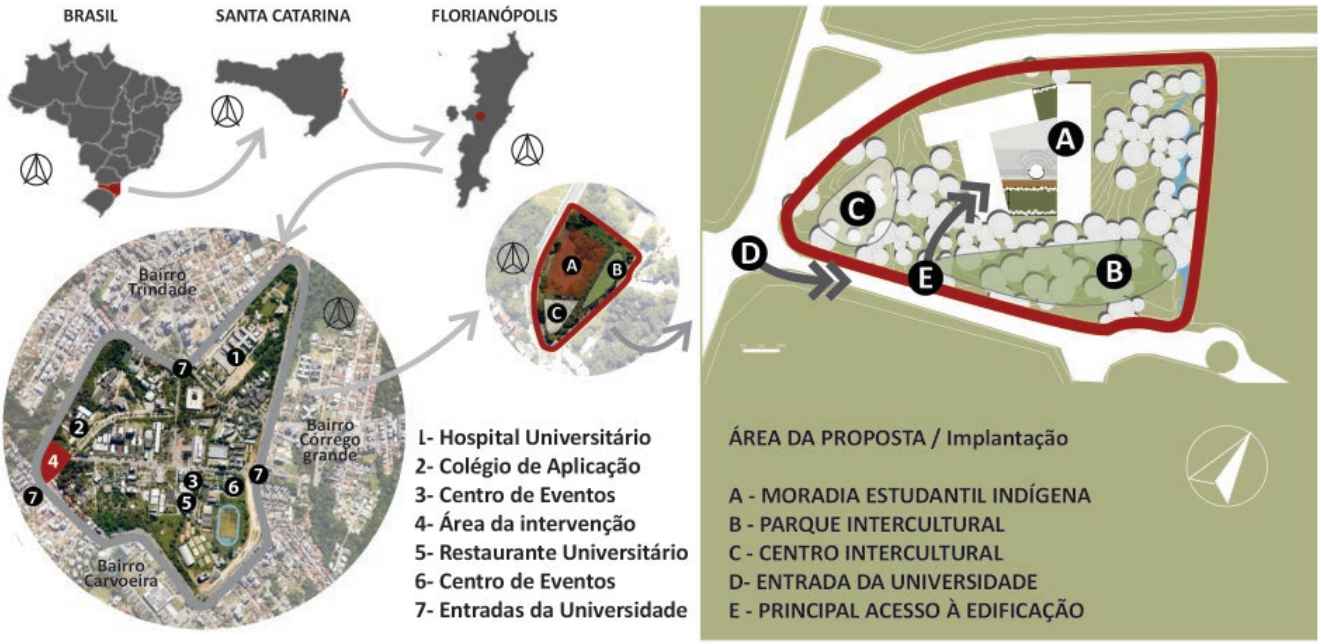
Figure 5
Fire space.
Source: Preparation by the authors, 2020.

Life in the village takes place, a good part of the time, in the open spaces and in connection to the elements of nature, with emphasis on the fire space, because of its structuring, spiritual, and symbolic role. In the transition between the open and covered spaces, close to the fire, the space for collectively preparing traditional food, with typical and regional ingredients, emerges as another integrating space of the housing and reinforces the connection with their origins, as well as allowing the preparation of special meals for children. This space is also thought of as a space of coexistence and integration. The students share their experiences and their cultural identities around the wood-fired stove.

The housing and dormitory spaces [Figure 8A and 8B] show the specificities of indigenous students. Several factors influence the configuration and organization of these spaces, such as ethnic groups, religious differences, nuclear families and even freshmen who newly arrived at the University. The different conditions require the design of spaces capable of adapting according to the needs for use, with special attention to welcome families, couples, or mothers with children. Cultural aspects should also be considered in the furniture, whether by making it possible to use a hammock to sleep, the use of natural materials in the manufacturing of furniture, or the inclusion of equipment such as a wood stove for food preparation [Figure 8C].

As a symbolic framework in the recognition and affirmation of identity, both for the university and for the city, the architectural language of the building and its spaces must reinforce this, to pro-

Figure 6
Location and implementation of the proposal. Source: Preparation by the authors, 2020.



mote a dialogue between the elements, the symbolic and identity, and the architectural space (Figure 8D, and 8E - Pillars-painted with indigenous artwork, furniture made of natural materials, walls covered in different earth shades, referring to the different parts of the country the indigenous students are from). This aspect is manifested in the project through the spaces intended for the artistic-cultural manifestation of artwork [Figures 8B, 8D, 8E and 8F], the structural composition and the use of hardwood in the roof structure, the fire space [Figure 8D], and the relationship between the outside and the inside, which values the relationship with the natural environment [Figures 8G and 8H].

The design of an architecture that has affective and cultural ties with the students, that is recognized as an indigenous space and that allows holding their traditional daily activities in tune with their new needs as a student in university life, favors strengthening conditions of autonomy and identity affirmation [Figure 7].

The set of general guidelines for the Indigenous Student Housing project is understood using the concept of interculturality, of Garcia Canclini (2007), constituted in the relationships, understood as movement, as a historical and social process of meanings. As highlighted by Bergamaschi et al. (2013), the passing of indigenous students through the university is an opportunity for transformation, but also for affirmation of all the differences involved, admitting that intercultural dialogue, promoted in the university space, is part of an asymmetric relationship where indigenous peoples are still seen with prejudices and, in many ways, are discriminated against.

Figure 7
Project studies.
Source: Preparation by the authors, 2020.

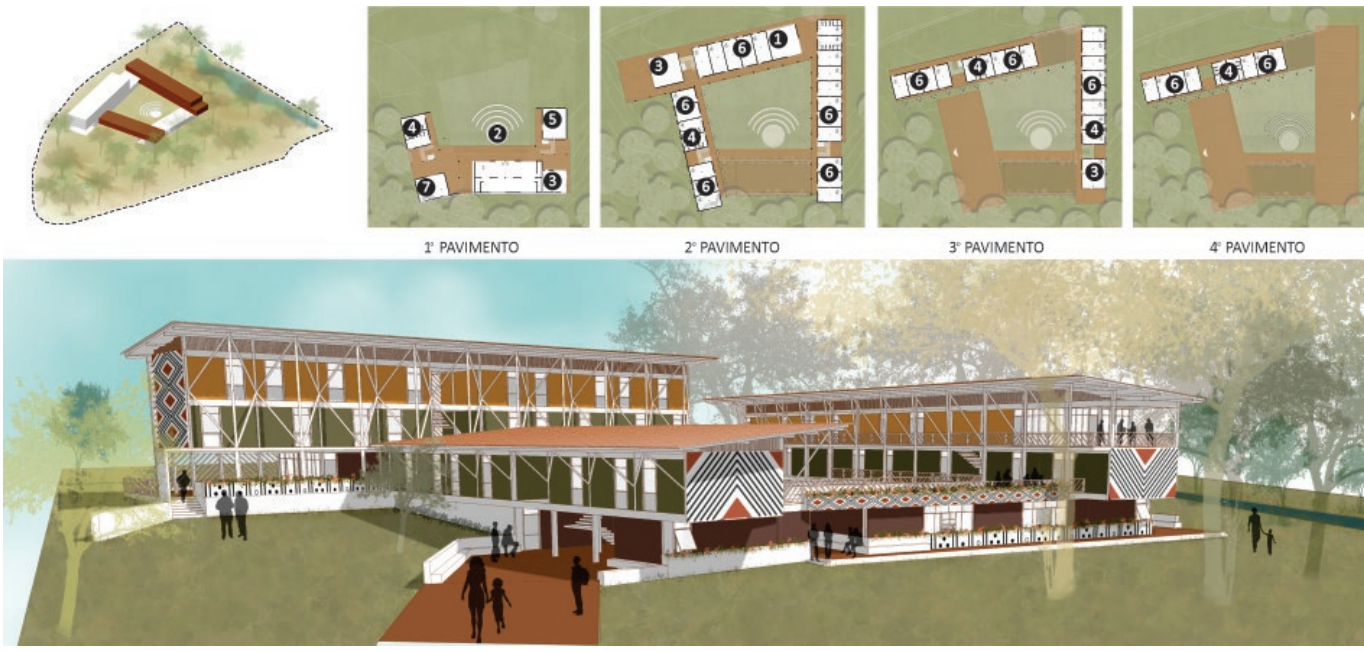


Figure 8
Project study.
Source: Preparation by the authors, 2020.

FINAL DISCUSSIONS AND CONSIDERATIONS

The collective construction of a space to welcome and support the permanence of indigenous students at the University transcends its assistance aspect and contributes to the University in several aspects: it enables the identity affirmation of indigenous peoples through the center stage and autonomy historically claimed in the struggles of the indigenous movement; it contributes to the permanence of indigenous students at the University on campus and in the city; it offers the opportunity to architecture and urbanism students to experience both an experience of social response of the profession and the construction of a project process that considers, in addition to technical knowledge, traditional know-how, the voice and view of users, and the application of the concepts of reflection in action, addressed during the course.

The indigenous presence in the city and in university spaces is an opportunity for the construction of new historical narratives, based on respect and appreciation of their culture and the identity of Brazil. Their participation in this project process affirms the leading role of indigenous communities in the struggle for their right

to higher education and the conditions of permanence, but also strengthens the symbolic character of the presence of indigenous peoples in the urban territory.

The discussions presented in this article are part of a process based on the interface between outreach, research, and teaching, which has been built in recent years within the UFSC, with the collaboration of several sectors of the university and society, especially with indigenous students. This process was built through dialogue, through participatory processes, with an approach attuned to indigenous struggle and resistance, and respecting their ethnic-cultural roots. The project work, which structures the whole process, presents itself as a significant opportunity for the promotion of different forms of teaching and learning, involving students and professors, resulting in the training of architects and urban planners prepared to deal, in a more sensitive and articulated way, with the cultural diversity present in the contemporary city.

Throughout the process, the students expressed the satisfaction of building knowledge based on a real experience and focused on the region where they live. Another contribution to the learning was the possibility of reflections about each stage of the project, to elicit the next action, drawing a collective project path conceived in the direct relationship with the users and with the territory. The project methodology adopted comprises the construction of an organic process, built step by step, together with the users. The position of the project team allowed reflecting on the action and dialogue with users to help build the project process, which presents itself as a contribution to the area of architecture and urbanism, since it indicates that the relationship between thinking and doing, understood mainly in the interaction with the Guarani village, can be brought into the project practice.

The learning resulting from this intercultural dialogue contributes to the construction of a sensitive view to prepare project guidelines for Indigenous Student Housing and other projects in architecture and urbanism, mainly public and collective use facilities, making these meet the demands and programmatic needs of the users and society. The different forms of interactions with indigenous communities and students also allowed developing an architectural language, capable of balancing symbolic and significant aspects from the composition of constructive elements, which are reflected in the material of the constructed spaces.

Architectural and urbanistic projects based on this recognition bring reflections on the social role of the profession and the formation of architects and urbanists for the present and the future, one that is increasingly multicultural and diverse. Public universities have the responsibility to train professionals and citizens able to recognize the human diversity around them and to think of spatial proposals capable of embracing and valuing cultural specificities. It

is understood that this demand can be met in the area of architecture and urbanism, from the adoption of organically-built project methodologies, based on the idea of designing with the territory, with the users, and with society. This perspective implies an intimate, critical, and reflective relationship with local contexts, with people and with every action and project stage carried out.

Architecture acts by weaving threads between people and places, it is part of their memories and can guide future projects. The proposal presented here, both in terms of the description of the process and the materializations resulting from it, faces the challenge and takes on the commitment to facilitate human permanence in the rightful spaces, valuing the diversity of indigenous peoples who will make use of the structure, strongly rooted both in the place and in their communities, and contributes to the training of professionals in the area of architecture and urbanism, so they are able to dialogue with the multicultural contexts present.

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COMMON ARCHITECTURE: LEARNING FROM THE INHABITANTS AND THEIR EVERYDAY PRACTICES

Arquitectura común: Aprendizajes desde los habitantes y sus prácticas cotidianas

Arquitetura comum: aprendizagens com os habitantes e suas práticas cotidianas

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Inhabitants of block 270 working on the improvement of the perimeter fence. Source: María Jesús Amigo (2019).

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ABSTRACT

Over the last decade it has been possible to see growing ties between several architectural groups and urban communities located mainly in territories marked by decay, informality, and inequality. This process has generated a progressive recognition of the value that the daily practices of inhabitants and their communities have in the production of new ways of living, which poses new challenges for the development of the area. Starting from a description and analysis of a neighborhood improvement experience, self-managed by the inhabitants, this article addresses this challenge by proposing the formation of a common architecture, understood as a process of production of spatialities, supported by communalization dynamics that are open to new learnings that incorporate the everyday knowledge of the inhabitants and their communities.

Keywords: Architecture, community, agreements, urban improvement, urban interventions

RESUMEN

Durante la última década es posible constatar una creciente vinculación entre diversos colectivos de arquitectura y comunidades urbanas emplazadas principalmente en territorios marcados por el deterioro, la informalidad y la desigualdad. Este proceso ha generado un progresivo reconocimiento al valor que las prácticas cotidianas de los habitantes y sus comunidades tienen en la producción de nuevas formas de habitar, lo cual plantea nuevos desafíos para el desarrollo de la disciplina. A partir de la descripción y análisis de una experiencia de mejoramiento barrial autogestionada por los habitantes, el presente artículo aborda dicho desafío proponiendo la conformación de una arquitectura común, entendida como un proceso de producción de espacialidades sustentadas en dinámicas de comunalización abierta a nuevos aprendizajes que incorporan los conocimientos cotidianos de los habitantes y sus comunidades.

Palabras Clave: Arquitectura, comunidad, acuerdos, mejoramiento urbano, intervenciones urbanas

RESUMO

Ao longo da última década é possível verificar um vínculo crescente entre diversos coletivos arquitetônicos e comunidades urbanas localizadas principalmente em territórios marcados pela degradação, informalidade e desigualdade. Esse processo tem gerado um reconhecimento progressivo do valor que as práticas cotidianas dos moradores e de suas comunidades têm na produção de novas formas de habitar, o que impõe novos desafios para o desenvolvimento da disciplina. A partir da descrição e análise de uma experiência de melhoria de bairro autogerida pelos moradores, este artigo aborda esse desafio e propõe a formação de uma arquitetura comum, entendida como um processo de produção de espacialidades sustentadas em processos de comunalização aberta a novos aprendizados que incorporam os conhecimentos cotidianos dos habitantes e de suas comunidades.

Palabras Clave: Arquitetura, comunidade, acordos, melhoria urbana, intervenções urbanas

INTRODUCTION

Over the last decade, it has been possible to see growing ties between different architecture groups and urban communities, that are mainly located in territories marked by decay, informality, and inequality. This phenomenon has been driven by professional organizations like collectives, NGOs, and foundations, acquiring growing importance in neighborhood improvement processes. This is reflected in a progressive recognition of the value of informal architecture in the production of the architectural "know-how" and the relevance of professionals as facilitators of community processes, in trends like the community organization for the design and management of housing projects through the collaborative and self-managed work of the neighbors, the development of collaborative platforms for interaction, and the shared learning between diverse neighborhood organizations, among many others.

Said recognition has been expressed in meetings of the area, like the XX Biennial of Architecture and Urban Development, held in Valparaíso between October and November, 2017. Under the title *Diálogos Impostergables* (Undelayable Dialogs), an area of activism was included, that included the participation of different renowned professional groups of national civic activism, as well as social community organizations, fostering an interesting opening to dialog and negotiation with citizens around design processes. According to Magrini and Cancino (2017), this interrelation has allowed exploring and experimenting with new collaborative methodologies for communication, work, and the production of collective knowledge.

In a similar perspective, the XXI Biennial on Architecture and Urban Development, held in October 2019, put a particular emphasis on the relevance that the "run-of-the-mill" has for the area's development, highlighting the value that common, daily, and widespread, but often undervalued and invisible aspects, have for the understanding of the city. This perspective undoubtedly reinforces the possibilities for interaction and exchange with the inhabitants of the territories, recognized as fundamental agents in the production of urban spaces (Urrutia, Coeffé, Villalón, González & Oblinovic, 2019).

In fact, this growing tie between professional groups and urban communities has allowed progressing in a revision of the traditional theoretical and methodological approaches of the area, as well as in the instruments and tools that support it, generating new forms of architectural work in diverse territorial settings. This has promoted the rethinking of the figure of the architect as an individual author and creator, expanding the view towards understanding the collectively produced space.

From this perspective, the current social and health crisis experienced in Chile, resulting from the 2019 Social Uprising and the Covid-19 Pandemic in 2020, makes the revision of these area approaches even more relevant, in the means that a paradox is uncovered between the demands of greater equality, social justice, and citizen rights in public

spaces (Manzi, 2020; Márquez, 2020), facing the reconfiguration of the domestic spaces associated to teleworking and other virtual settings of sociability and spatiality (Ruiz-Hurtado, 2020).

Facing this paradox between the public and the domestic, it is pertinent to underline the relevance of a third socio-spatial order (Giglia, 2012): the "common spaces". Understood as spaces produced from reciprocity, co-responsibility and mutual benefit, these "common spaces" emerge from the practices and relations of collaboration that break through the institutional limits, where groups of inhabitants commit to a same task, producing specific rules and agreements that regulate said production (Letelier, Micheletti & Vanhulst, 2016; Lange, 2018; Lange & Amigo, 2020).

This article describes the construction of a perimeter fence in a social housing condominium located in the Valle de la Luna neighborhood, in the commune of Quilicura, in the Metropolitan Region of Santiago de Chile, as an example of the production of a "common space" among its inhabitants. Through this revision, the challenge is set for the area of progressing towards a "common architecture", where the architectural work becomes a setting for negotiations and agreements between architects, inhabitants, and the production of spatiality.

METHODOLOGY

This work falls within a research process based on an exploratory-descriptive design and a qualitative methodology. The research strategy is based on an ethnographic approach, developed mainly through three complementary techniques: the revision of secondary documentation regarding the territorial context where the case study is located; the passive and participant observation around the spatial interventions made by the inhabitants; and unstructured and semi-structured interviews made to the inhabitants throughout the fieldwork. This was done between October 2019 and March 2020, the transition period between the Social Uprising and the outbreak of the Covid-19 health crisis.

This methodological strategy considers an approach from the comprehensive and critical paradigms of the production of common spaces. The work was done looking at three fundamental criteria for this research: permanent long-term dialog with the inhabitants, the generation of a trust-based relationship with them, and the convergence with active and constant speakers in this process.

The description allows making the relevance of the collaborative work done by the inhabitants of the respective condominium, visible. They developed a spatial intervention aiming at generating conditions of safety and privacy in a neighborhood that is badly hit by problems of violence and crime. However, the same scale of the case in question, is relevant inasmuch as it allows making the importance of the collaborative process experienced by the inhabitants, visible.

RESULTS

The Valle de la Luna neighborhood is in the commune of Quilicura, in the northern part of the Metropolitan Region. It emerged in 1994, as a result of a housing policy that prioritized increasing the number of dwellings, over their quality and their setting (Tapia, 2018; Chateau, Schmitt, Rasse & Martínez, 2020) [Figure 1].

According to the Ministry of Housing and Urbanism (MINVU, in Spanish) (2014), this housing complex is characterized on having the most critical level of vulnerability and decay at a metropolitan level, along with an absence of planning that has had negative consequences on the physical-spatial deterioration, the fragmentation of the social fabric, and on the ownership of the property, due to the lack of administration of its common spaces. The dwellings are laid out in three-floor blocks, set out in pairs, connected using two scissor-type staircases that face one another and that, as a result, give their backs to the other buildings.

Figure 1
Location of the Valle de la Luna neighborhood and the communal boundary of Quilicura, as part of the Metropolitan Region.
Source: Prepared by the Authors.

Co-property D3 is one of the 25 co-properties that the entire neighborhood comprises, and is formed by 2 blocks with a total of 24 apartments of 40m2 each. Over the years, the inhabitants have organized themselves by blocks, a situation that is fostered by the architectural setup of these buildings. In this sense, it is important to highlight the role that the interior passageway between buildings of a same block plays, as this acts as an articulating space of the different movements the inhabitants make, considering that the access to the apartments opens to it. Therefore, this is the main meeting space between inhabitants, and the place where recreational activities and meetings are held to make different decisions.

Likewise, it is important to report that the apartments were handed over with the rough work, they did not have finishings, fences, or paving. For this reason, the inhabitants have regularly met to improve both their dwellings and their shared spaces, providing and designing solutions to daily problems like security, being able to move around without getting their feet wet on rainy days, recreation and parking. In this context, the fieldwork done has allowed identifying a series of interventions and improvement works based on collaborative practices done by the inhabitants of co-property D3 of the Valle de la Luna neighborhood.

Within the improvements identified, the building of perimeter fences in each one of the two co-property blocks [Figure 2] stands out. As the inhabitants themselves say, these were built to mark

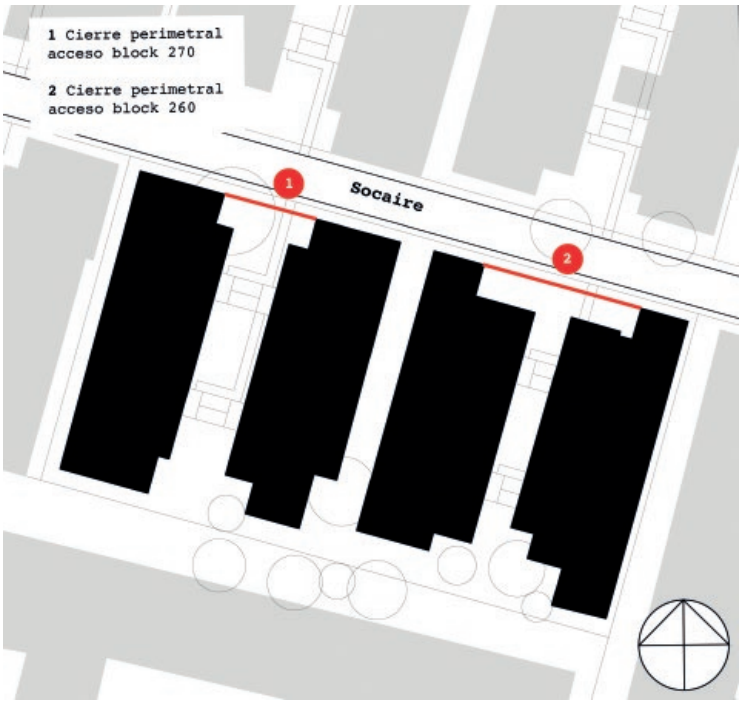

Figure 2
Location of the access perimeter fences of each one of the blocks of co-property D3, Valle de la Luna neighborhood. Quilicura, Santiago. Source: Prepared by the Authors.

them off from one another, and to provide greater security within them, on facing a crime rate that has progressively grown in the neighborhood and its surroundings [Figure 3].

With this in mind, the inhabitants of each co-property block coordinated and decided to build a fence on the access along Socaire street. This decision marks the start of a collaboration process that articulates different contributions among the inhabitants, among which their know-how, time, and work tools stand out.

Once the decision to build the fence was made, one of the inhabitants, who had more experience in purchasing materials due to their work as a construction worker, made a list of what was required to, then, get a quotation. With the amount needed for the work defined, the inhabitants decided to pay an amount of money to cover said cost, which was collected by the delegates, who kept a record of the contributions made.

Figure 3
View from Socaire street of the perimeter access fence for block 270. Fuente: María Jesús Amigo (2019).

Once the budgeted money was collected, two neighbors were put in charge to buy them materials, using their pick-up trucks to transport them. The delegates were then in charge of accounting for the bills with the respective purchases, demonstrating to the rest of the inhabitants the proper use of the money collected.

When the materials had been bought, different inhabitants of the block offered their services as volunteers to build the fence, considering their previous knowledge on welding. Likewise, other inhabitants helped to carry the materials, painting the profiles once installed, or providing food to the workers. All the tools needed for the fence's construction, like saws, sanders, or welding machines, were provided by the neighbors, as well ladders and chairs to reach the higher parts to paint them. The electricity was provided by one of the inhabitants, who was later paid for the respective consumption with part of the monies collected.

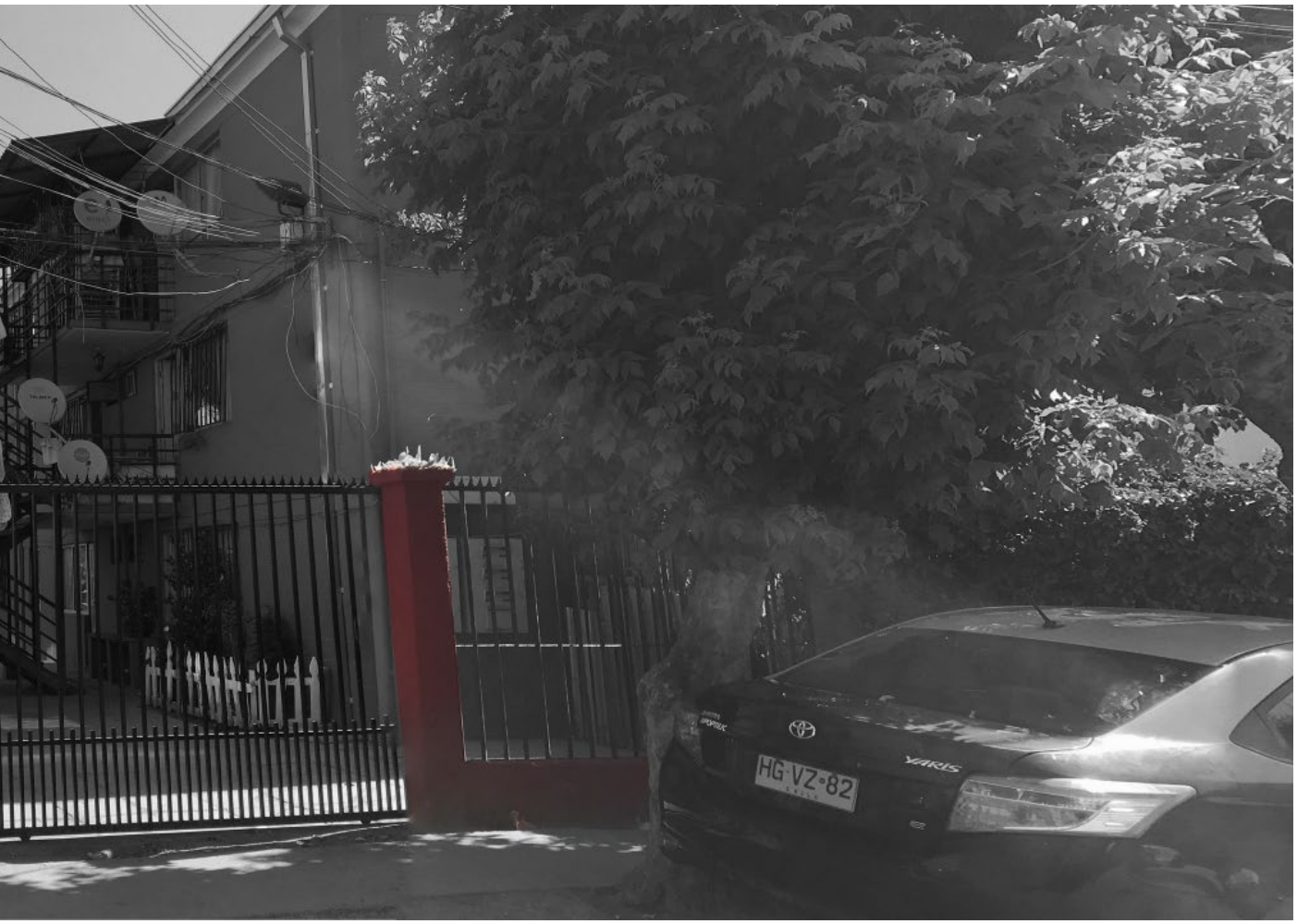

Figure 4
Inhabitants of block 270 working on the improvement of the perimeter fence. Source: María Jesús Amigo (2019).

This description allows establishing the existence of a collaborative process based on the principles of co-responsibility and reciprocity which were present throughout the construction of this fence, manifested in the relationship and coordination that the inhabitants generated to reach a common goal. Likewise, these principles have been sustained over time, being fundamental in its use and upkeep, since the inhabitants established a series of negotiations and agreements, such as always keeping the gate locked, not bashing it when closing it, keeping children from playing with the ball and hitting it, making sure that all the inhabitants had a key, etc. The purpose of these negotiations and agreements is facilitating the use of the fence among all the block's inhabitants, maintaining the security inside, and sustaining its service life over time.

Along with this, it is worth mentioning that the position the perimeter fence has, is not by chance, as it was decided together with all the block's inhabitants, considering the boundary with the paving of the passageway, as well as the other perimeter fences built in neighboring blocks. This decision was based on a tacit agreement between the inhabitants of different blocks, who consider that those who position their fence "further forward" than the line

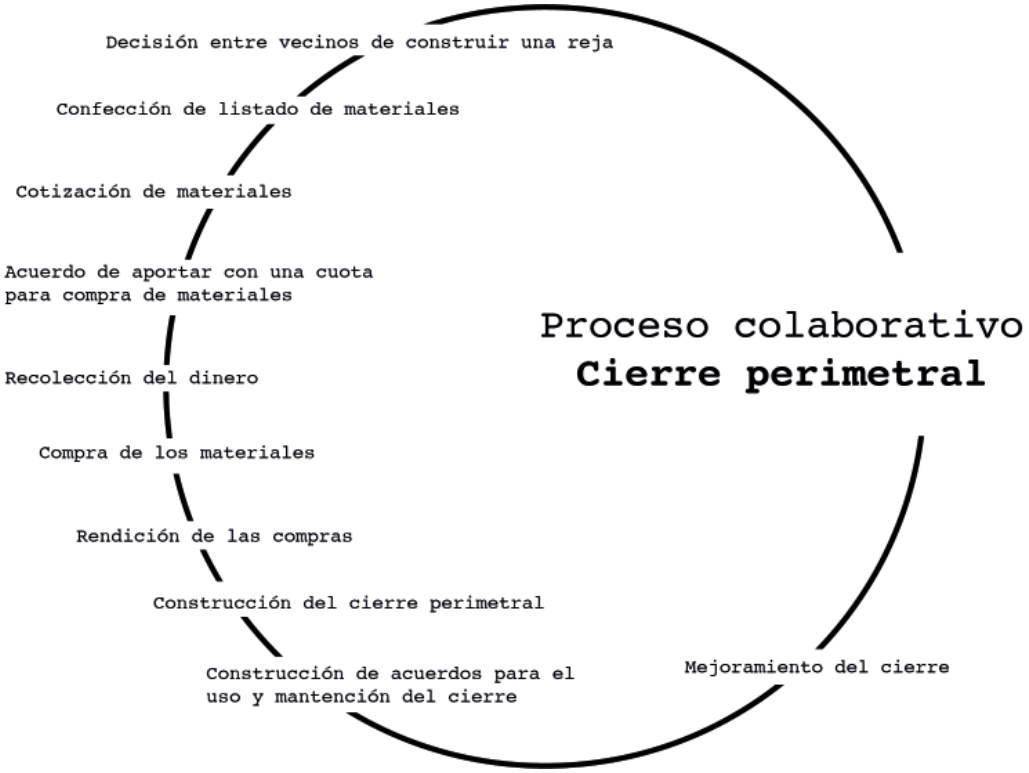

Figure 5
Daily practices involved in the collaborative process to build the perimeter fence. Source: Prepared by the Authors.

of the rest, are "taking over" a space that does not belong to them, regardless of whether the co-property legal-administrative boundary states otherwise.

In addition, it is possible to see that the fence has had repairs and improvements over time, like for example, the installation of wooden cleats between the bars, which impede visual contact between the outside and the inside the block for greater security [Figure 4]. These interventions have been managed and materialized by the same inhabitants who, just as happened during the construction process, came together to buy the materials, made a collection to gather the necessary funds, bought the materials, and carried out the required repairs.

Starting from that presented on the production of the perimeter fence, it is interesting to discuss about its conception as a "common space". This conception does not just acknowledge the importance of the collaborative process involving the inhabitants, but it also reveals different communalization practices that make its materialization and maintenance possible through negotiations and agreement, which demonstrate their agency capacity to improve their neighborhoods [Figure 5].

DISCUSSION

Understood as "common space", the perimeter fence allows questioning the traditional ways of conceiving and understanding architectural projects and constitutes a production of spatiality that does not require architectural knowledge for its production (Elorza & Mattioli, 2020). This consideration does not assume a deliberate exclusion of architecture in the production of "common spaces", but rather opens an area of learning for developing it and, certainly, for the formation of ties between architects and inhabitants and their communities. In this line, and with the goal of focusing the analysis of the case study, as well as the learning that emerges from its production process, three considerations associated to its minor, tactical, and communal nature are proposed.

A first consideration indicates that a perimeter fence like the one described, can be conceived as a work of "minor architecture". Following the definition proposed by Stoner (2012), the denomination of "minor" is not used to underestimate architecture, but rather invites thinking about it beyond its traditional codes and standards, considering the ways in which the inhabitants organize their daily lives, and that, given its daily, singular, and circumstantial nature, often end up becoming invisible.

This conception of minor architecture, applied to cases like the one described, makes understanding the discipline as an area of action that can be developed not just by architects, and that is not just focused on observing the work made as a product and result. From this approach, minor architecture leaves the architects in a horizontal relationship of negotiation and collaboration with the inhabitants and their communities, in a shared production process of common spaces.

The perimeter fence can be understood as a minor architecture project inasmuch as it promotes forms of sociability and spatiality based on practices of mutual co-responsibility and collaboration, fundamental values of common spaces, that invite the architect to join in and collaborate in collective initiatives and not to emphasize their individual authorship. Thus, minor architecture constitutes a way of understanding architectural work that is nourished from the daily knowledge of the inhabitants.

A second consideration highlights the tactical nature of a minor project like the perimeter fence. Following the suggestions made by De Certeau (2000), said "tactical" nature is based on those daily practices, that allow solving infrequent and circumstantial, but recurrent problems over time, that stand out from those strategic ones focused "from a subject of willingness and of power", which are consolidated through a future long-term project, and that traditionally have supported the rationalist conception of Latin American cities. The collaborative process described assumes, in this sense, a tactical nature too.

The tactical nature is associated to spontaneous, informal and/or self-managed spatial interventions, that have marked the develop-

ment of cities throughout their history, revaluing their incremental and emerging nature. Although these have always been developed by the inhabitants, they currently have a renewed recognition associated to the recovery approaches linked to the right to the city and dwellings (Lefebvre, 1969).

The case described emerges from the knowledge the inhabitants have (Jirón, Lange & González, 2020), which is not necessarily visualized, recognized, or valued by technicians and professionals linked institutionally to the development of architectural knowledge, that predominate over the design and planning of public and private spaces.

A third consideration allows understanding the perimeter fence as a "common space", following the outline developed by Ostrom (2011), who underlined the historic capacity of the inhabitants to manage natural and cultural resources efficiently, generating self-management protocols, that are respected over time and sustained on social bonds of trust. From the same perspective, Laval and Dardot (2014) highlight the importance that said protocols have in the formation of urban communities, and their capacity to "commonly" handle resources that are not necessarily traded in the market.

In this way, daily social practices are key in the constitution of "communalization" processes, based on principles focused on sharing, looking after and producing together; principles expressed in a set of norms and rules that organize their production and management, and that are decided collectively (Tan, 2015). These rules are built socially, are updated, and are permanently transformed through daily practices, restricting the use of said assets for personal or commercial purpose by the members of a community.

In the case of the perimeter fence, the inhabitants collaborate not just with work, knowledge, monetary resources, and construction materials, but they also settle negotiations and agreements that allow them to keep it operational in an orderly fashion, forming a hybrid socio-spatial order between the public and private spheres.

In brief, the minor, tactical, and common nature associated to the perimeter fence, invites progressing towards an understanding of architecture associated to forms of appropriation, welfare, and solidarity historically developed by the inhabitants and their communities. Just as Boano and Astolfo (2015) say, architecture is facing the task of overcoming the double gap between professional design and the daily act of survival. From a similar point of view, Peliowski (2017) questions the architecture-centered paradigm, considered as an "omniscient creator", where their collaborators are subordinate to their artistic vision. For this author, architecture is just the result of the imaginary of the architect, but that it is a cultural, social, and historically influenced and defined event, the result of politization processes where technical, economic, and social aspects are related. For this reason, the discipline's focus must be in the production conditions associated to the content of the built work, rather than in its shape.

CONCLUSIONS

The progress experienced by architecture over the last decade, in terms of ties with the inhabitants and their communities, constitutes an important area for observation and learning in the area's development, while opening multiple challenges for its consolidation. One of these challenges is the recognition of the production of common spaces as architectural projects and areas for architectural intervention, supported by the daily practices of the inhabitants and based on their daily knowledge, and not on the expert knowledge and/or the creative architectural leading role. Said recognition opens the need to progress towards the formation of a common architecture, that considers the redefinition of the traditional project and theoretical frameworks.

From this point of view, architectural intervention is not conceived as that which triggers a process of social transformation of the setting, but rather one that is preceded by a social transformation that supports the architectural intervention, driven from a history which, in some cases, translates into years of struggle in the territories, so that the spatial intervention can effectively take place and be projected over time. As a result, the discipline becomes a support that promotes that local organizations can be developed, providing technical tools and accompaniment policies.

Likewise, the formulation of an architecture of this kind invites reflecting about the relationship there is between "the legal" and "the legitimate" in the production processes of common spaces. Considering that in Latin America there is a high tendency towards informality, the production of common spaces is generally placed from the legitimate, and not from the legal. In this sense, in the most vulnerable sectors of the city, there is a right to build that is more legitimized, as most Latin American cities have been built based on informality, where many of their inhabitants have been excluded from the formal systems and processes of urban development.

This distinction between the legal and the legitimate also forces rethinking the importance of the daily knowledge that the inhabitants and their communities use for the production of common spaces. As is known, said daily knowledge is often made invisible from the position of the expert and professional knowledge. A common architecture should, ultimately, consider a complementary relationship between both types of knowledge, handled through negotiations and agreements that emerge directly from the communality of the inhabitants.

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LEARNING TO LIVE WITH OTHERS THROUGH DESIGN. COMMUNITIES OF PRACTICES AND MINOR KNOWLEDGE

Aprender a vivir con los otros a través del diseño. Comunidades de prácticas y saberes menores

Aprendendo a conviver com os outros por meio do design. Comunidades de práticas e saberes menores

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Interiors of Taller El Litre. Source: Group 1: Constanza Ríos, Matías Hernández and Paula Ulloa.

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ABSTRACT

Questioning the ways in which we have understood architectural practice up until today, reconsidering this, is not a just a challenge for professional practices and the materialization of "other works". It is also the responsibility of the educational sphere, in the sense of broadening the way we teach and learn about architecture. Through a recent teaching experience, focused on some "communities of practice", located in the hills of Valparaíso, it is proposed in this article, to imagine a more relational, affective and inclusive future for the area, that perhaps is less "humanistic" and more human or even "much more than human". The wording of the workshop, *The good arts of living "with" others "through" design*, alluded to design as a set of practices that fundamentally affect our ways of being together, capable of articulating alternative and certainly local ways of living. The aim of the workshop was to make room in the debates on architecture, for those subjects not represented by the most common methodologies and knowledge inherited from Modernity. Faced with them, the course called for a more inclusive and relational type of "minor knowledge", capable of better interpreting the eco-dependent and interdependent condition that characterizes our radical being in the world. Therefore, it sought to problematize the present of architecture from a committed approach of design to these "communities of practice" and their "minor knowledges". Not because they are necessarily better, but because they include a greater quantity and diversity of forms of life.

Keywords: Project didactics, communities of practices, minor knowledge, pluriversity, critical pedagogies

RESUMEN

Cuestionar los modos con que hasta ahora hemos entendido el ejercicio arquitectónico con el fin de volver a pensarlo, no es un desafío exclusivo de la práctica profesional y de la materialización de "otras obras". También es responsabilidad del ámbito formativo en el sentido de ampliar el cómo enseñamos y aprendemos arquitectura. A través de una experiencia docente reciente, centrada en las "comunidades de prácticas" localizadas en los cerros de Valparaíso, se propone en el siguiente artículo imaginar un futuro para nuestra disciplina más relacional, afectivo e inclusivo; quizás menos "humanista" y más humano o, incluso, "mucho más que humano". El enunciado del taller, Las buenas artes de vivir "con" los otros "a través" del diseño, aludía al diseño como un conjunto de prácticas que afectan fundamentalmente a nuestras maneras de estar juntos, capaz de articular formas de habitar alternativas y ciertamente locales. El objetivo del taller fue el de dar cabida en los debates de la arquitectura, a aquellos sujetos no representados por las metodologías y los saberes más habituales heredados de la Modernidad. Frente a ellos, el curso convocó un tipo de "saberes menores", más inclusivos y relacionales, capaces de interpretar mejor la condición ecodependiente e interdependiente que caracteriza nuestro radical estar en el mundo. Así, se buscó problematizar el presente de la arquitectura desde un acercamiento comprometido del diseño a estas "comunidades de prácticas" y a sus "saberes menores". No porque estos sean necesariamente mejores, sino porque incluyen a una mayor cantidad y diversidad de formas de vida.

Palabras Clave: Didáctica proyectual, comunidades de prácticas, saberes menores, pluriversidad, pedagogías críticas

RESUMO

Questionar as formas como temos até agora compreendido o exercício arquitetônico com o intuito de repensá-lo não é um desafio exclusivo da prática profissional e da materialização de "outras obras". É também responsabilidade da esfera educacional no sentido de ampliarmos a forma como ensinamos e aprendemos arquitetura. Mediante uma experiência de ensino recente, centrada nas "comunidades de práticas" localizadas nas colinas de Valparaíso, propomos neste artigo imaginar um futuro para a nossa disciplina que seja mais relacional, afetivo e inclusivo; talvez menos "humanista" e mais humano ou até "muito mais do que humano". O título do curso, *As boas artes de viver "com" outros "por meio" do design*, aludia ao design como um conjunto de práticas que afetam fundamentalmente os nossos modos de estar juntos, capazes de articular formas alternativas e certamente locais de habitar. O objetivo dessa oficina foi dar lugar nos debates da arquitetura aos sujeitos não representados pelas metodologias e saberes mais habituais herdados da Modernidade. Face a eles, o curso convocou um tipo de "saberes menores", mais inclusivos e relacionais, capazes de interpretar melhor a condição ecodependente e interdependente que caracteriza o nosso radical estar no mundo. O objetivo final da oficina foi, portanto, problematizar o presente da arquitetura a partir de uma abordagem comprometida do design a essas "comunidades de práticas" e aos seus "saberes menores". Não porque estes sejam necessariamente melhores, mas porque incluem uma maior quantidade e diversidade de formas de vida.

Palavras-Chave: Didática projetual, comunidades de práticas, saberes menores, pluriversidade, pedagogias críticas

INTRODUCTION

Change is needed to produce healthier, more optimistic, and more engaging architecture school graduates. Change must occur to proactively address the changes in the world and practice. Change must happen to elevate the value of architectural education.
(Koch, Schwennsen, Dutton & Smith, 2002, p. 4)

From the current uncertainty emerges a series of questions about how architectural work is understood and valued, but also about how it is taught and learned. On one hand, the national pandemic context, after the social uprising, has unveiled the inequalities that have perpetuated for decades in the built habitat. On the other, the emergence of new paradigms offers the university exciting alternatives, so that the architects of the future can redefine their role before society. However, and despite the implementation of initiatives to promote improvements in higher education like the Bologna Process (1999) or Tuning Latin America (2005), the systematic contributions, and especially the qualitative ones from architecture, are still lacking.

Through recent teaching experience and research, this article proposes imagining a future for the area that is more relational, affective, and inclusive, perhaps less "humanist" and more humane or even "much more than humane". The experience that is presented as case study falls within the so-called "critical pedagogies" (Giroux, 2007), and seeks to test out new ways of doing, collaboratively and committed to the local contexts and their "communities of practices" (Wenger, 1999), to thus rethink the role of design through the so-called "minor knowledge" (Braidotti, 2020). These perspectives cited here remind that, in times of profound transformations and sociocultural crisis, the profession and its educational practices should be constantly revised, analyzed, and reformulated (Teymur, 2011). The challenge is important and does not suppose a linear itinerary. In addition, both architectural thinking and practice are involved, and of course, their educational basis.

Almost a decade ago, Preston Scott Cohen (2012) said that for architecture it was no longer enough to teach how to use the new tools, but that it was necessary to investigate "how to learn to be part of a new world" (Greene, Scheerlinck & Schoonjans, 2012). The authors share the idea that, to address these changes "it is necessary to start from the bottom, through education" (Awan, Schenider & Till, 2011). Thus, bearing in mind that this is the most powerful tool to manage the changes required in architecture (RIBA/Stanfield, 1999, p. 1, in Mondero, 2003), the implementation of the workshop in question, would assume that its scope, in the words of Nieto regarding Stengers (2005), "would not reside solely in its final productions, but rather in the type of ecologies that they deploy, their rituals, their capacity of empowerment, that capacity

to make us do" (2018, p. 16). In this sense, one of the fundamental intentions of this project was to consider the architecture workshop as a laboratory for testing, using specific exercises, the alternative participation of architectural design in contingent matters. Doing so, also by claiming the value of affections and the particular aspects of the contexts and their players, to encourage the possibility of a less destructive relationship, and not one that is purely analytical of architectural matters with the world.

A PRINCIPLE TO RECONNECT THE UNIVERSITY WITH THE LOCAL SETTING

The *Advanced Projects Workshop* taught at the Federico Santa Maria Technical University of Valparaíso during the second semester of 2020, led by the authors of this work, is proposed as a case study. It was a workshop held during the pandemic, lockdown, and under the online teaching modality. The title of the workshop, *The good arts of living "with" the others "through" design*, alluded design as a set of practices that fundamentally affect our ways of being together, our ways of subjective, private, and clearly local ways of living. From the research and the architectural project, the workshop proposed to problematize and debate, from Valparaíso, on how architecture could participate in these *good arts of living "with" the others*.

As "others", the workshop invited considering any of the players repeatedly excluded from hegemonic architectural stories or "absent peoples" (Braidotti, 2020), located on the hills of Valparaíso. Starting from a markedly ecofeminist approach (Herrero, 2018), the intention was to rethink architectural practices from a profound eco-dependent and interdependent condition of human beings, that problematizes precepts as embedded as tabula rasa, the blank sheet, or the autonomy of our ways of doing things. From this point of view, design becomes an activity exclusively performed by experts "outside" reality, to be understood as a relational practice typical of our elemental ways of being in the world, that allows a connection with other beings and entities.

Therefore, the main goal of the workshop was delving deeper into this approach to design practices as ones of relationship or neighborliness; of sewing the social fabrics and of valuing the environmental and cultural values of each community. Where the knowledge "that matters" is no longer exclusively transmitted by the area, but rather all those "minor knowledges" that, paradoxically, are the backbone that guarantees stability and continuity for the ways of being together.

The principle of the workshop was articulated based on three conversations or issues that, as a theoretical header, invited to consider the area from a closer , more affectionate, and certainly, less resolute way, in order to approach the non-hegemonic and, even dissident, forms of community

LIVING INTERTWINED

The hills of Valparaíso have a topography, climate, and historicity that has shaped particular ways of life. Far from the modern ideals of territorial occupation, the material reality of Valparaíso can be better understood from location-specific micropolitics that test the tools of architectural action and research. Some aspects of modern societies, like individualism, the maximization of economic benefit, or the progressive obsolescence of life cycles, complicate a comprehensive understanding of this type of material settings. The course was set around these particular *porteña*[1] realities, not because lasting issues are solved, but rather because the caring capacity of typical design practices is shown, beyond their final products.

LIVING CONFINED

Theoretical perspectives around eco-feminism have shed light on the need to think as eco-dependent and interdependent beings. But it was the recent pandemic lockdown that has shown the relevance for architectural design to take on the radicality of these terms and the importance of the relationships of care for all human development. To a certain extent, the pandemic seems to have questioned the "modern" distinction between productive and reproductive space, promoting all kinds of hybrid experiences and emergency designs to escape daily life. The course tried to explore the opportunity that these changes imply for design.

LIVING WITH OTHERNESS

The ways of making architecture that have been more widespread -which are those "taught and learned" more in architecture schools- were consolidated through the 20th century based on the premise of what the world is or must be. Supported by an unlimited horizon of progress and the confidence in the emancipating capacity of design, these narratives focused their efforts in a universal individual that can be associated to a white, healthy, western man, in a productive and reproductive age. An atemporal man, without a specific story, unequipped of the infinite particularities that reality comprises. For modern architecture, the functionally diverse, elderly, children, pregnant women, migrants, caregivers or unemployed are just irrelevant singularities. And the same happens with all those racialized, naturalized, or impoverished subjects.

On the other hand, the principle set out that the conversations are articulated around three blocks of works, that, in reality, "hide" three methodological shifts in the traditional way of addressing the architectural project:

AFFECTIVE RECORDS

At the beginning, each group of students had the mission to make visible and bring together, in the workshop, the three conversations proposed, starting from the evidence -ways of living or

1 Porteña is a name given to the people of Valparaíso

singular communities – found on the hills of Valparaíso - ways of living outside the official narrative of the city. Specifically, the students located and recorded the informal or formal participation of the different design practices in the formation of those ecosystems, as well as their relevance in supporting the community, to *laboratorize* them throughout the course.

MATERIAL SPECULATIONS

In the next step, each group had to make progress in the production of a set of material tests, able to creatively participate in the chosen communities. These participations through the material, had to aspire to escape the problem-solution equation, where architects first diagnose the problems to then solve them through design. Instead, the same design practices worked as a laboratory, where the roles between objects and subjects were subjected to unforeseen adjustments. These material speculations aimed at celebrating and/or collaborating with the particular ways the respective communities have of being together.

EMANCIPATION STORIES

In this final block, it was possible to address the important role of fiction for the architectural project, in its quality of hypothesis about what the agreements related to our ways of living with the rest will be. In this vein, the course aspired to problematize the hegemony of the design expert, which normally has minimized the relevance that countless "other" forms of hybrid design, like the "accessory" or the "hand-made" in the hills of Valparaíso, have for the cohesion of the community. Each group proposed their own stories on the impact of design for their respective communities, and relived how the architectural project can be transformed in a political setting, whose criteria of success are no longer linked to the capacity of solving design issues, but rather to their capacity of extending the range of new alternatives of being together.

METHODOLOGY

From a critical approach, which is subscribed to specifically from the teaching exercise, it is worth remembering that Fraser (2005) targeted two key requirements for the progress of architecture, namely: being critical of the society where one works, and the need of criticizing one's own methods of practice and production. From this angle, the methodological proposal assumed that the radicality of our present progresses towards the awareness already taken onboard in that the role of architects must be rethought and updated, as well as those of the educational institutions. It must not be forgotten that both the university and the museum are the two most paradigmatic institutions of the project at hand, whose set of knowledge and ways of knowledge are exactly those questioned by the aforementioned crises and emergencies. It is also assumed that the exercise of architecture has been broadened and mutated, constantly affected by the complexity of the habitat, the economic acceleration, the greater labor mobility, and the demand for specialization, as well as by the democratization of design processes (Busta, cited in Carta, 2016). According to Monedero (2018), just like two hundred years ago, probably the sense of architecture was very different, within a hundred years said sense will change and it will be something else. It is the current one that must be of concern.

It is in this framework that a tuning takes place with the peripheral approach that Silvio Carta (2016) associates the becoming of social studies within architecture, and that Ibelings (2004) places as a post-crisis period of the construction, characterized by the attention to other architectural facets that are not directly related to the physical dimension of architecture, like history, theory, or critique. This emphasis, which could be labeled as transdisciplinary, is not far from the founding (or re-founding) mission assigned to the university as a space specifically focused on learning and research. As can be anticipated, these reflections invite to rethink the resolving or "solutioning" relevance of architecture, instead of a more empathetic and collaborative exercise, while being particularly interested in the processes that architecture promotes, and not just in its results.

UNA METODOLOGÍA PARA RECONCILIARNOS CON LOS OTROS

The course aspired to turn the workshop experience into a lasting, located, and incarnate experience. Namely, it sought to become a small community of learning practices that were as horizontal as possible regarding its relationships. One where professors and students, emerging, peripheral, and traditional knowledge, as well as area-based ones, or the same communities identified, would occupy a position of similar relevance within the teaching-learning dynamic.

The workshop itinerary was organized based on group work throughout the semester, reinforcing the eco-feminist, systemic and collaborative approach that did not emphasize singular "talent" or "authorship", so typical of project workshops. With two virtual sessions per week, the course pivoted based on the three aforementioned conversations, and was organized into three work blocks that, as has been explained, were outlined as three methodological movements [Figure 1].

Figure 1
Three conversations and three methodological movements for a principle.
Source: Own Preparation.

The key contribution of the small investigations made, laid in the fact that it was not the team of professors who provided relevant information for the workshop, but on the contrary, these three work hypotheses had to be verified or rejected by the contributions that the students -regarding their contexts and/or communities- could consider. This continuous dynamic of formulation and evolution allowed students to address knowledge as an unattainable state, continuously crossing through political, ethical, and affective dimensions that make it one with the subjective positions from which it is known and acted upon.

Other methodological contributions tried out in the workshop were addressing the design from the rejection of the problem-solution structure, and the approach to the work using ethnographic tools as a possibility to escape from the *tabula rasa* or the classic image of the context and of the *genius loci*. Facing the recurrent theoretical abstractions in the principles of project workshops, ethnography, from perspectives like "participating observation", allows visualizing the deeply relational dimension of community living, as well as its articulations with the medium and all types of living, material, and symbolic entities.

After some initial sessions, where each student had the mission of detecting alternative communities, specifically located in Valparaíso, to show them in the workshop, the formation of 5 groups with three members each was agreed. Aiming at always keeping the voices, interests, and particular skills active for the joint work, the collaborative dynamics that made the appearance of good results possible, was the horizontal debate not circumscribed to the limits

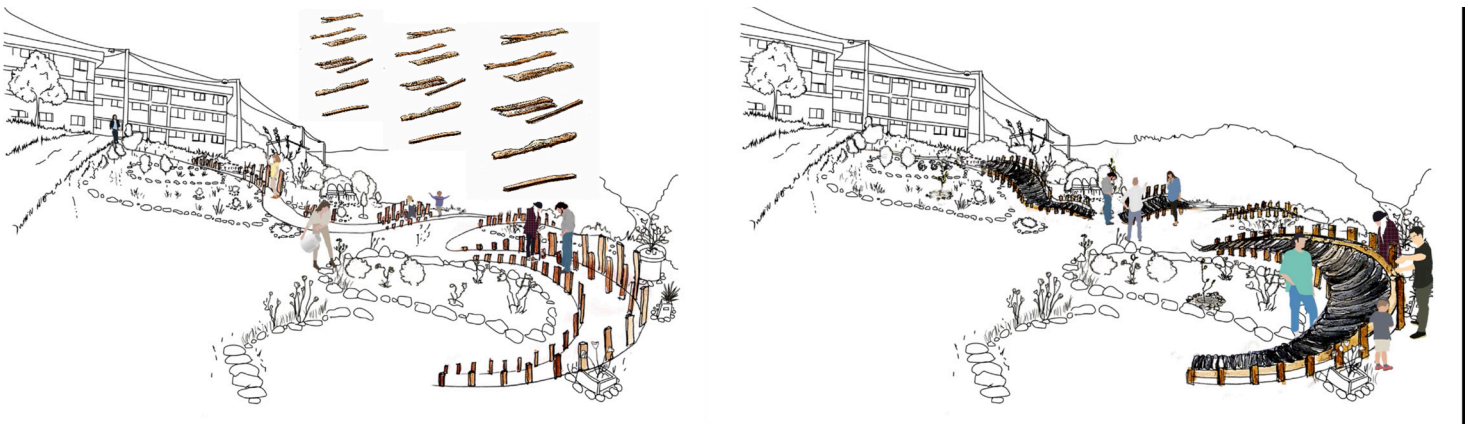
of each group, but open to each and every one of the workshop participants. Thus, there was hardly any room for expressions of "my project" or "our work", in favor of a shared consideration of the workshop throughout this teaching experience. In one way or another, the intention was to think about a certain "cartographic" dimension of the workshop, where each group had to represent a particular form of living, but whose general goal was to record the enormous diversity of the types of community present in the given context.

RESULTS

In line with what Marta Serra (2020) suggests, this course managed to present, to the students and communities involved, the need of preparing professionals capable of practicing architecture using the commitment of "rebalancing inequality, making plurality visible, and acknowledging the complexity of our future society". Also convinced that teaching does not just offer this possibility, but rather that it is an institutional commitment. Specifically, in this course, the following was attained to: (i) comprehend the potential that a small dump offered to a group of neighbors for their community, environmental, and affective reactivation; (ii) accompany the closure of a dwelling and a family workshop of artisans that, from the particular aspect, tries to contribute to the neighborhood area; (iii) accompany the collaborative designs in a fledgling urban orchard, that highlights the productive ties of a hill in Valparaíso; (iv) share the aspirations of a transgender community under lockdown; and, finally (v) collaborate with an "okupa" community in the city plan.

To sum up, the first three examples are described below in greater detail, with the intention of illustrating the concrete scopes of the workshop, and the results that best show the matters of interest for this research.

Figure 2
Looking after a Dump. Images of the progress.
Source: Own preparation.



TAKING CARE OF A DUMP: PLAYA ANCHA CLIFFS

This work focused on a micro dump close to apartment blocks, alongside the cliffs in Playa Ancha, using the figure of Hermosina: a mother, retired art teacher, weaver, an early bird, gardening fan, and single. A cheerfully "unproductive" person, it could be said. The negative perception that Hermosina and her neighbors had of the dump worsened during the pandemic to such an extent, that the remote idea of reappropriating it, cleaning it up and looking after this space began to grow during the lockdown. Quickly, the neighbors organized to handle the needs of the dump, incorporating this work into their daily activities, and converting it into a space for socialization. Progressively, the care work of this space provided a new opportunity for tires, offcuts, and all types of materials that were brought into the community in relatively complex design practices [Figure 2].

The unforeseen time availability meant, for this community, a meeting experience with the dump that, according to their comments, led them to learn to look after plants, insects, and even the waste, as well as to value intangible aspects like shade, the horizon or the incessant "playachino" wind. The mutual care taken onboard by the neighbors and other non-human beings, led to a process of recognition of the possible links of the community that could be achieved through the shared design [Figure 3]. In this informal care process, the sensitivities of each being were activated, without aspiring to solve the problems in a welfare manner, with the process prevailing above any other consideration. The three students of this group would soon be taken by a collaborative experience that forced them to rethink their role as "expert" designers from the beginning, as the architectural skills were just a small part of the implications required.

Figure 3
Looking after a Dump. Material speculation images. Source: Own preparation.

EL LITRE NEIGHBORHOOD. WORKSHOP ON EL LITRE HILL

Figure 4
El Litre Neighborhood. Images of the progress. Source: Own preparation.

Figure 5
Images of the final proposal, El Litre neighborhood. Source: Own preparation.

El Litre is a family community of artisans who live in an old precarious building, located on a steep slope. In this space, which has acted as a residence and workshop for almost 100 years, a fashion designer and hat maker cohabit with a bicycle mechanic and other artisanal trades. Recently, the development of advanced construction technologies, alongside the encroaching property pressure on this type of slopes, has led to the imminent eviction of this community, under the goal of building "social" dwellings which, paradoxically, are not capable of sensitively harmonizing with those already living there, but that rather have arrived to form an ensemble that permeates into the social fabric of the adjoining neighborhoods.

Under this scenario of the imminent disappearance of the El Litre Workshop, the group of students, in what was an initial intuitive gesture of solidarity, began a process to record the routines and daily landscapes of its inhabitants, seeking to position the design practices as neighborhood practices capable of tying together the past and future through certain narratives where memory, emotions, and care could occupy their own space [Figure 4]. Throughout the workshop, the pain of the process and the need of concentrating the efforts of the community in political activism were excluding our group of students from a closer possibility of participation. The physical confinement also complicated the integration to the communities' life flows, which led to a proposal that sought that memory and affection could play a relevant role in the design of the future public spaces of the neighborhood, whose potential as a breeding ground for free use activities would offset the loss of individual production spaces and perpetuate the artisanal knowledge present there [Figura 5].

RE COMMUNITY ORCHARD, CORDILLERA HILL

The hills of Valparaíso are characterized by the lack of cultural, welfare, and recreational infrastructure, whose design is complicated further still by the complex topography of its slopes. Over the years, some of the remaining sites have been appropriated by neighborhood groups for all kinds of community projects. The work of this group focused specifically on the incipient emergence of an orchard located on Cordillera Hill, where the architect group, Re, had already started some actions to complement another series of improvements on the hill.

The group of students got involved in the neighborhood community meetings, to understand their dynamics and to debate about the alternative ways where architecture could take part in them [Figure 6]. This was a theoretical-practical speculation exercise, that tried to articulate the needs of the community with participative design activities, which often found great difficulties to adapt the classic tools of architecture to open processes. However, this course was actually related to the meeting with this type of "real" situations that are difficult to anticipate, of great uncertainty, and that demand a decentralized decision making, or simply one that is less hierarchical. Facing this, this group added as a participating voice, that of insects and other beings of the ecosystem [Figura 7].

It seems pertinent that the dynamics of a project workshop are capable of guaranteeing lasting learning. However, this can only be achieved when people go through significant experiences that appear to conflict both the role of the students, and that of architecture itself, regarding the area in charge of handling the material transformations of the surroundings. In this sense, for the goal of tracing a collective cartography of the invisible communities of

Figure 6
RE Community Orchard. Images of the community and the process. Source: Own preparation.

Figure 7
RE Community Orchard. Images of the final proposal. Source: Own preparation.

Valparaíso, the contributions of the students seem to go beyond the classic system of evaluation by contents. What must be done, then? It is felt that here another important shift was in action, that of centrally handling the processes of the students' work over the final results, closely examining their respective immersions in the communities, the adaptations they had to make to their architectural instruments, elasticity, and resilience of their positions and preconceptions, etc. For this purpose, it was important to have the help of self-assessment and trans-assessment questionnaires, which socialized the quality standards that the group was lining up (Brown & Glasner, 2003).

Along this same line, it is proposed that, in order to "assess" this type of workshops, the ideal dynamic would be one that allowed *a posteriori* rewriting the principle of the workshop. So, it would try to elude the anticipation of possible results imagined *a priori*, to be able to value and extend the range of the unexpected and of what really happened. Thus, the assessment process would also reverse some biased ideas of what "an architect must be", something that in the words of Fernando Pérez (2015) hides a fallacy, since "what exists is a group of diverse traditions, articulated in the exercise of architecture, and in access to architecture. That is to say, architects have not all taken the same route to become architects. And, on the other hand, they do not do the same when the do architecture."

DISCUSSION AND FINAL REFLECTIONS

In accordance with R. Susskind and D. Susskind (2016), one of the keys to target a sustainable evolution of the area, in times of profound changes, consists in reorienting the ways in which practical knowledge of professions like architecture take, is transmitting this to society. In this sense, the experience of the workshop allowed trying out a series of educational practices that are in tune with some pedagogical approaches from a gender perspective (Niculae, 2012), whereby commitments are made from eco-feminist thinking. Here, aspects like the attention to collaboration over authorship, or the process over the project results, are referred to; to the relational aspects that articulate the socio-material reality over that worked upon; to the affective and care dimension that mobilizes the practices of informal design; to the fostering of the conditions that favor the presence of life in our daily practices, or to the resistance on facing the conditions of segregation and exploitation of nature and of human beings (Herrero, 2018; Puleo, 2013).

This same intuition about the educational flow of the contributions of the feminist epistemologies can be extended to the what Rosi Braidotti calls "minor knowledge". That is to say, all those sets of knowledge treasured by peoples, cultures, and communities that have not formed part of the colonial knowledge -part of the university institution- and that have mainly been developed by "absent peoples", or those excluded from the official narratives of Modernity, as well as all those unregulated or even dissident subjects, regarding the most renowned forms of life. Braidotti (2015), in her analysis on contemporary knowledge, and her proposals for "pluriversity", appeals to the need for much more inclusive and affirmative institutions. And both the feminist and decolonial and antiracist studies, among others, show countless evidence of how contemporary knowledge is escaping the limitations of the area, opening a way through non-institutional channels, often more involved with the realities it relates itself through the practices of getting to know.

Progressing towards a more relational understanding of knowledge that involves talking, for real, about the practices of getting to know more that the constituted knowledge transmission practices, is the invitation being made from multiple fronts. It is because of this that it has been of interest that the future architects who take the workshop meet certain "communities of practices", that embody pragmatic ways of resisting the destruction of life, promoted by the most extreme ways imposed by neoliberal accelerationism, especially in the Latin American context. The approach of the course must problematize – and this happened – the tools with which architecture is connected to the world, inviting making the instruments transversal, to improve their scopes in some contexts where expert architecture is under suspicion. It is considered that this approach is especially relevant because often thinking is inse-

parable from our practices. This is a type of *knowing-doing* practice, that is closely involved with the development of the communities where it acts, and therefore, it is permanently pierced by ethical requirements.

For Braidotti (2015), getting to know this nature forces evolving towards a "pluriversity", capable of gathering a greater amount of practices and knowledge without hegemonic purposes, and capable of resisting a present in crisis. But the intention is not to be naive. What is sought is the presence in the university, and in architectural practices, of these "minor knowledge" not because these are necessarily better, but because they include a much greater amount and diversity of forms of life. This is also a matter of historical justice and opportunity. In fact, in these an opportunity lies for a more auspicious future.

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COMMUNITY BUILDING FROM THE RESIGNIFICATION OF PLACES OF WORSHIP . A PROPOSAL FOR THE URBAN FRINGES IN LATIN AMERICA

Construcción de comunidad desde la resignificación del equipamiento de culto. Una propuesta para los bordes urbanos en latinoamérica

Construção de comunidade a partir da ressignificação do equipamento de culto. Uma proposta para as bordas urbanas na América Latina

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ABSTRACT

The urban fringes of Latin American cities are the result of the accelerated growth that entails the formation of new settlements, that do not meet the basic needs of their inhabitants, and where the facilities have lost their meaning as a space to build the social and urban fabric. Starting from this problem, this text addresses the development of a place of worship that incorporates the concept of device as a piece of social articulation. The proposal starts from the analysis and diagnosis of the area and proposes two intervention scales under the "option generator model" (Carvajalino-Bayona, 1985) framework. The first consists of the improvement of the neighborhood in its main urban structures, while the second consists of the development of the architectural project that integrates worship activities with the dynamics of the neighborhood, from a multifunctional perspective. In this sense, urban relationships are strengthened, but at the same time, give continuity to the reflection raised from the design, where the participatory process is an opportunity to build dialogue and social fabric between the players involved, which in this case are part of communities in conditions of vulnerability.

Keywords: Urban fringe, community facilities, urban improvement, community participation, flexible design

RESUMEN

El borde urbano de las ciudades latinoamericanas es resultado del acelerado crecimiento que conlleva la formación de nuevos asentamientos que no suplen las necesidades básicas de sus habitantes, y donde el equipamiento, ha perdido significado como espacio constructor del tejido social y urbano. A partir de esta problemática, el texto aborda el desarrollo de un equipamiento de culto que incorpora el concepto de dispositivo como pieza de articulación social. La propuesta arranca del análisis y diagnóstico del sector y plantea dos escalas de intervención en el marco del "modelo generador de opciones" (Carvajalino-Bayona, 1985). La primera consiste en el mejoramiento del barrio en sus estructuras urbanas principales y la segunda, en el desarrollo del proyecto arquitectónico que integra las actividades de culto con las dinámicas del barrio desde una mirada multifuncional. En este sentido, las relaciones urbanas se fortalecen, pero a su vez, dan continuidad a la reflexión planteada desde el diseño, en la cual el proceso participativo es una oportunidad de construcción de diálogo y tejido social entre los actores involucrados que, en este caso, forman parte de comunidades en condiciones de vulnerabilidad.

Palabras Clave: Borde urbano, equipamiento comunitario, mejoramiento urbano, participación comunitaria, diseño flexible

RESUMO

As bordas urbanas das cidades latino-americanas são fruto do crescimento acelerado que acarreta a formação de novos assentamentos que não atendem às necessidades básicas de seus habitantes e onde o equipamento perdeu seu significado como espaço de construção do tecido social e urbano. A partir desta problemática, o texto aborda o desenvolvimento de um equipamento de culto que incorpora o conceito de dispositivo como peça de articulação social. A proposta parte da análise e diagnóstico do setor e propõe duas escalas de intervenção no âmbito do "modelo gerador de opções" (Carvajalino-Bayona, 1985). A primeira consiste na melhoria do bairro em suas estruturas urbanas principais e a segunda implica o desenvolvimento do projeto arquitetônico que integra as atividades de culto com as dinâmicas do bairro numa perspectiva multifuncional. Neste sentido, as relações urbanas se fortalecem, mas, por sua vez, dão continuidade à reflexão levantada a partir do projeto, de acordo com a qual o processo participativo é uma oportunidade de construção de diálogo e tecido social entre os atores envolvidos que, neste caso, fazem parte de comunidades em condições de vulnerabilidade.

Palavras-Chave: Borda urbana, equipamento comunitário, melhoria urbana, participação comunitária, projeto flexível

INTRODUCTION

The problematic stated around the importance of facilities as binding links between social fabrics, and the need for forming spaces for living in marginal sectors of the urban fringes, is opened within this research. However, when these processes consider the community and the variables that characterize each context, architecture can be the element of communication between the territory and the community and, at the same time, it allows rethinking, from design, the way of making facilities looking to new dynamics for their social articulation[1].

Under these conditions, on proposing the development of a facility, it becomes necessary to include the notion of device as a set of relations that go beyond the idea of the architectural object, that is to say, a "network of knowledge/power where the school, barracks, convent, hospital, prison, and factory are circumscribed, and not each one of them separately" (García, 2011, p. 2), to attend the needs of a specific community. And although this vision suggests an articulation between the role of the building and the idea of de-

1 This text is part of the research process of the graduate project "*Un equipamiento de culto como dispositivo en el borde urbano de Soacha*" (a place of worship as a device in the urban fringes of Soacha) (Romero, E, 2019), developed as a project with emphasis on research and tied to the research incubator in Analysis and Project, attached to the Design Faculty of the Catholic University of Colombia; an initiative which, in this case, seeks the articulation of institutions with problems in real contexts, and the generation of ties between academic programs and research activities, through the participation in the incubator.

Figure 1
Ángel de la Guarda Chapel, located in the Bellavista Baja neighborhood, at the time of the proposal.
Source: Edwin Romero (2019).

Figure 2
General view of the Bellavista Baja neighborhood, in the municipality of Soacha, to the southeast of Bogota. Source: Edwin Romero (2019).

vice, the central idea focuses on the resignification of the facility as a community meeting place for the population in the urban fringe sectors [Figure 1].

The area where this project takes place is located in the municipality of Soacha, to the southeast of the city of Bogota, in the Sucre Citadel, comprising the neighborhoods of San Rafael Alto, Buenos Aires, and Bellavista Baja, characterized by the presence of social conflicts and environmental issues like mass scale removal, the lack of basic sanitary infrastructure, and the contamination of the old Terreros reservoir by raw sewage. This is added to insecurity, high poverty indexes, difficult living conditions and accessibility, derived from its origin outside the planning processes (Municipal Mayor's Office of Soacha, 2018) [Figure 2].

RESIGNIFYING FACILITIES ON THE URBAN FRINGES

En *La arquitectura de la ciudad*, Aldo Rossi states that "it is logical to assume that the success of residential complexes is related to the presence of public services and collective facilities…" (1966, 0. 52), and he mentions facilities as structuring and structural components of the city, of great value when it comes to building the urban space or making an improvement plan in sectors that so require. These, likewise "play a double role as, apart from providing essential services, they contribute to the construction and the strengthening of collective life" (Franco & Zabala, 2012, p. 12); and even though the facilities are destined to a specific role, their purpose transcends the fact of covering needs, to a more valuable part for a city. However, in recent years, facilities have been characterized by being spaces imbued with specific roles that cover a program proposed by the local governments for their construction within an urban fabric, sometimes built without the consent and accompaniment of the community, in processes that ignore the real needs of a population group.

FACILITIES AS DEVICES

Urban facilities are edifications that cover specific needs of a population with the role of being

> Primary components of the city structure, that contribute to its organization and planning from their strategic value, particularly in non-consolidated urban settings, where their role, identity, and meaning are crucial for the effective articulation with the urban fabric (Ovalle & Páez, 2017, p. 44).

On the other hand, the device is understood as a set of networks that handles an urgency, in this case, of a community (García, 2011), but one that is not always manifested in an architectural edification. To find the mid-point between the facility and the device, namely what brings the functional and formal notion of the facility together with the open and undetermined aspects of the device (Vega, 2017), the notions of flexible and multifunctional are added, starting from which the inhabitants can have a facility as an institution that, at the same time, includes activities assigned by the community's own dynamic.

However, when considering a place of worship, where liturgy is mixed with educational, cultural, health events, money raising events, among others that are more community based, the physical space is an open component that is always available to create and formalize projects for the economic growth of the population, and not to just mitigate the shortfalls in basic services, but rather to build a social fabric focused on improving their quality of life.

PLACES OF WORSHIP AND THE COMMUNITY

The most important factor during the formation process of the city and the neighborhoods is the community. Facing the generalized lack of opportunities and the amount of unsatisfied basic needs, this represents the joining of the people towards a given end, which constitutes an important factor in the development of architectural, social, and economic projects for the benefit of specific sectors. In many cases, and in this scenario,

> The neighborhood is, therefore, the "basic unit" for the identity of a community that, with some physical-spatial or socio-economic variations, builds a direct relationship between the fabrics of a population, and the cohesion and identity of a community, as an alternative formula to reduce the initial precariousness of these sectors (Ovalle & Páez, 2017, p. 47).

Within them, the people always seek the benefit for their setting. There is a leader, and people that help their leadership for the advance of the neighborhood and to carry out works

> for most of the members of a community, in a given context, the interest on quality of life begins. There is insistence in that it is necessary to stop focusing on the shortfalls, and to begin working on personal growth, the realization of potentialities, the subjective welfare, and other similar topics. (Ardila, 2003, p. 162).

It is in this context of the urban fringe, of community organization and work, where many facilities are developed without planning, and whose purpose is to mitigate the problems and to provide opportunities to their inhabitants to access spaces for education, health, trade, and where the places of worship act as a binding element for communities, where from their leaders to the young being educated, they take part in the creation of new meeting spaces. In these marginal spaces, interventions by local governments are not commonplace; non-governmental organizations have a greater presence, like foundations, architecture firms, or higher education institutions which, from academia, focus their energy on community work to develop the projects. Despite this, within these processes, the question arises about how to develop a contemporary place of worship.

METHODOLOGY

This project is developed using the concept of resignification in places of workshop and work with the community, following the methodology based on the "opinion generator model", outlined by Weber and Pyatock (1976) and, in particular, that retaken by Carvajalino-Bayona (1985), which consisted in performing a specific process for working with communities from academia, comprising two fundamental parts. The first consists in the analysis and diagnosis of the place, which involves a general proposal for improving the neighborhood and defining the possible projects to be done in the future. The second part comprises developing a place of worship through dialog and participation processes with the community (Díaz Osorio, 2019).

The work is summarized in a proposal from two scales of intervention, at a neighborhood level and at an architectural object level, which are developed together through four processes done in chronological order [Figure 3] :

1. Approach to the problem. This is a first approach to the community to get to know the place. This work begins with a scheduled visit to the neighborhoods of Sucre Citadel, as well as to its communal leaders, to hear their opinions, and to listen to the needs identified over time.
2. Research and knowledge. During this process, information is obtained from previous research about the urban, social, and architectural components of the neighborhood which, later, are analyzed and summarized in a diagnosis. This is the main contribution for the neighborhood improvement proposal
3. Generator of design ideas. Here, the first approaches of architectural design are made from the interaction with the community of each neighborhood, to whom these will then be presented to. It is at this point where reflection is made about the role of the place of worship in the construction of the city and its influence on the inhabitants. To address this, a search is made of the standout projects in similar contexts, to identify strategies for its development and adaptation (Pava, Betancur & Páez, 2018) which, along with participative design, allow determining the opportunities that places of worship can provide. The parameters considered for the development of a similar project are: location, morphology, urban fabric, organization, community, material, spatiality, and appropriation.
4. Concretion and evaluation. Finally, each one of the different options generated are evaluated by the community in a presentation where one is chosen to be developed, together with one of the assigned professionals. This development is participative: the community expresses their needs and expectations for the project, monitoring it, and evaluating and approving the final project.

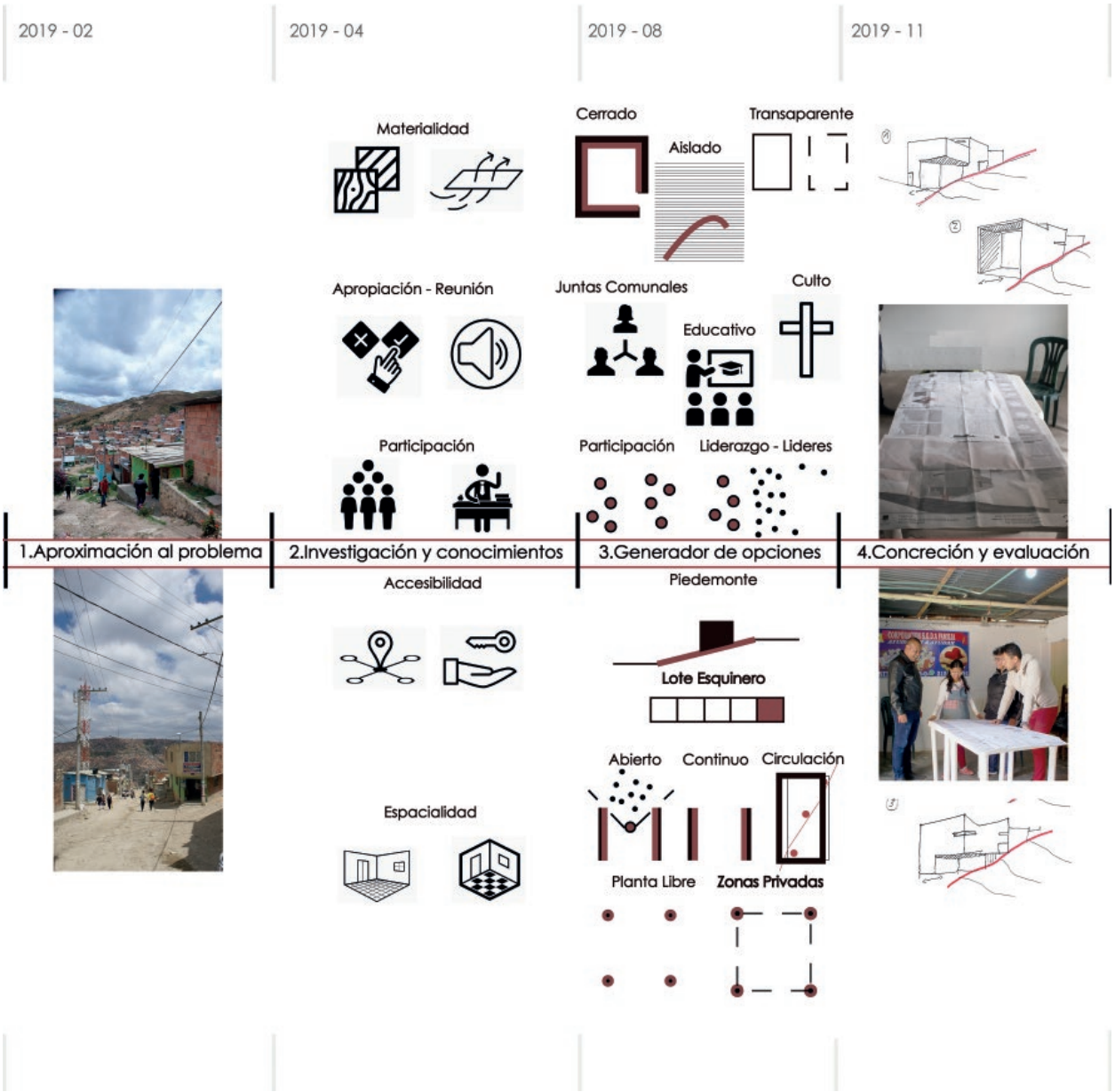

Figure 3
Summary of the work methodology, in chronological order, of the work done with the communityFuente: Source: Edwin Romero (2019).

RESULTS

From the academic point of view, the approach to these urban fringe contexts, and the interaction with real users and problems, outlines an exercise that brings academia and communities together in participative processes that enrich learning, in a relationship of reciprocity that transcends the academic sphere. The results of each one of the processes. presented methodologically, are presented below.

APPROACH TO THE PROBLEM

A field trip is made during the first phase of the project, which is a key exercise for its development, because it opens the panorama and creates a space for communication with the community in an exploratory phase. The gathering of information onsite was divided into several issues that, as overlapping layers, allow seeing the problems present in the neighborhood. In this measure, accessibility, the main ecological structure, natural risks, the public space, the network of facilities, land uses, road structure, state of consolidation of the dwellings, and the demographic information are aspects to identify problems and needs, looking to make a design proposal at a global scale.

RESEARCH AND KNOWLEDGE

This study by layers allows building a scenario of Sucre Citadel and the Bellavista Bajo neighborhood, where the following conditions were found:

- Accessibility: The two main access roads and the entire road network is in a poor state. Within the neighborhood, there is a central access road, which runs from the lower part alongside the lagoon, to the improvised public transportation station located in the upper part of the neighborhood. Likewise, the transportation systems are currently bus companies with inter-municipal routes, together with an informal network that carries inhabitants from the lower part of the neighborhood to their homes.
- Facilities: The neighborhood has three facilities that try to cover the needs of more than 3,000 inhabitants, showing a complete deficit in the basic services.
- Land uses: 70% of the sites are habitational, 29% have a mixed use, and 1% are destined to facilities.
- State of consolidation: The buildings are classified following their level of consolidation given by the state of the construction and the floors built. In this way, 51% correspond to single floor constructions, 25% to 2 floors; and 15% to 3 floors; with 80% having a high consolidation level, 15% a medium one, and 5%, low. Starting from the diagnosis of the consolidation levels it is determined

that the low consolidation sites are susceptible to being intervened, in order to replace their current use for new dwellings or to build public space and possible facilities.

The neighborhood improvement proposal comes from these approaches, focused on the welfare of the inhabitants regarding the environmental, cultural, and educational aspects, as well as the road infrastructure, public space, improvements of dwellings, and trade [Figure 4]. In this way, the intention is to improve accessibility using different alternatives, like the creation of a road network formed by sidewalks and roads, the recovery of the main ecological structure by using residual free spaces and reforestation with native species, to improve the environmental component. On the other hand, the 79 dwellings with low consolidation are relocated within the neighborhood, and by releasing areas for public space, this passes from 0.3m2 to 1.7m2 of public space per inhabitant. As for the facility network, the idea is to strengthen the existing ones and to add a place of worship, and another with a cultural approach, both located on community sites.

Figure 4
Bellavista Baja neighborhood improvement proposal: On the left, the analysis and diagnosis plan of the area, prepared on five key aspects: main ecological structure, accessibility, public space, facilities, and the state of consolidation of the existing buildings. The plan on the right summarizes the improvement proposal at a neighborhood scale, emphasizing the network of basic facilities needed and their articulation with the public space and the ecological structure.
Source: Plans prepared by Edwin Romero (2019).

GENERATOR OF DESIGN IDEAS

The reflection outlined around the role of the place of worship led to the selection of a range of projects that share their situation on the urban fringe of Latin American cities, where analysis was applied to establish conditions like the distribution of activities and the conditions of localization. The projects chosen are:

- Cueva de luz Sifais (2016) - Architect Entre Nos Atelier - La Carpio, San José (Costa Rica).
- San Miguel Archangel Chapel (2011) - Architect Javier Corvalan – Villa Elisa, Asunción, (Paraguay).
- La casa de la oración ("*the house of prayer*") (2018) - Architect Natura Futura Arquitectura – Babahoyo (Ecuador).
- El Faro Chapel (2013) - Coovite Architecture Cooperative – Medellín (Colombia).

In addition, these projects are characterized on having similar problems and appearances to those of the project being developed, from their scale to problems like security, the abandonment by local governments, and the lack of resources. Each proposal focuses on resolving problems without ignoring their inhabitants in the design and construction of the project, and where the participation of the community is the main factor, in order to create a sense of belonging to weave the social fabrics. Likewise, this exercise allows making place of worship projects in urban fringes visible, which includes the diversity of activities as a common factor, adjusted to the needs of the community [Figure 5].

Regarding the development of the facility itself, this is done on two strips of land of 6 meters in length by 12 meters in depth, where the first is a corner plot and is empty, and the second is adjoining, with a maximum slope of 23%, and is owned by the Anglican community. Together, there is a site of 144 m^2, where the maximum height permitted is 3 floors, depending on the width of the street. The adjoining plot is occupied by a dwelling with a low consolidation that acts as a community diner, a meeting place for the community, a parochial house, and a center for worship. In this context, and following the aforementioned "generator of options model" methodology, three proposals are presented:

- Proposal 1: Two independent volumes limited by the size of the entire sites and considering the urban morphology of the place and the shape of the current block.
- Proposal 2: Two volumes connected and related to the topography and with the main opening of the chapel to the street, to allow extending the space towards the outside. The maximum height is 3 floors, and it considers the roles and space of the chapel.
- Proposal 3: A stereotomy integrated to the context, following the idea of a "massive, rocky, weighty architec-

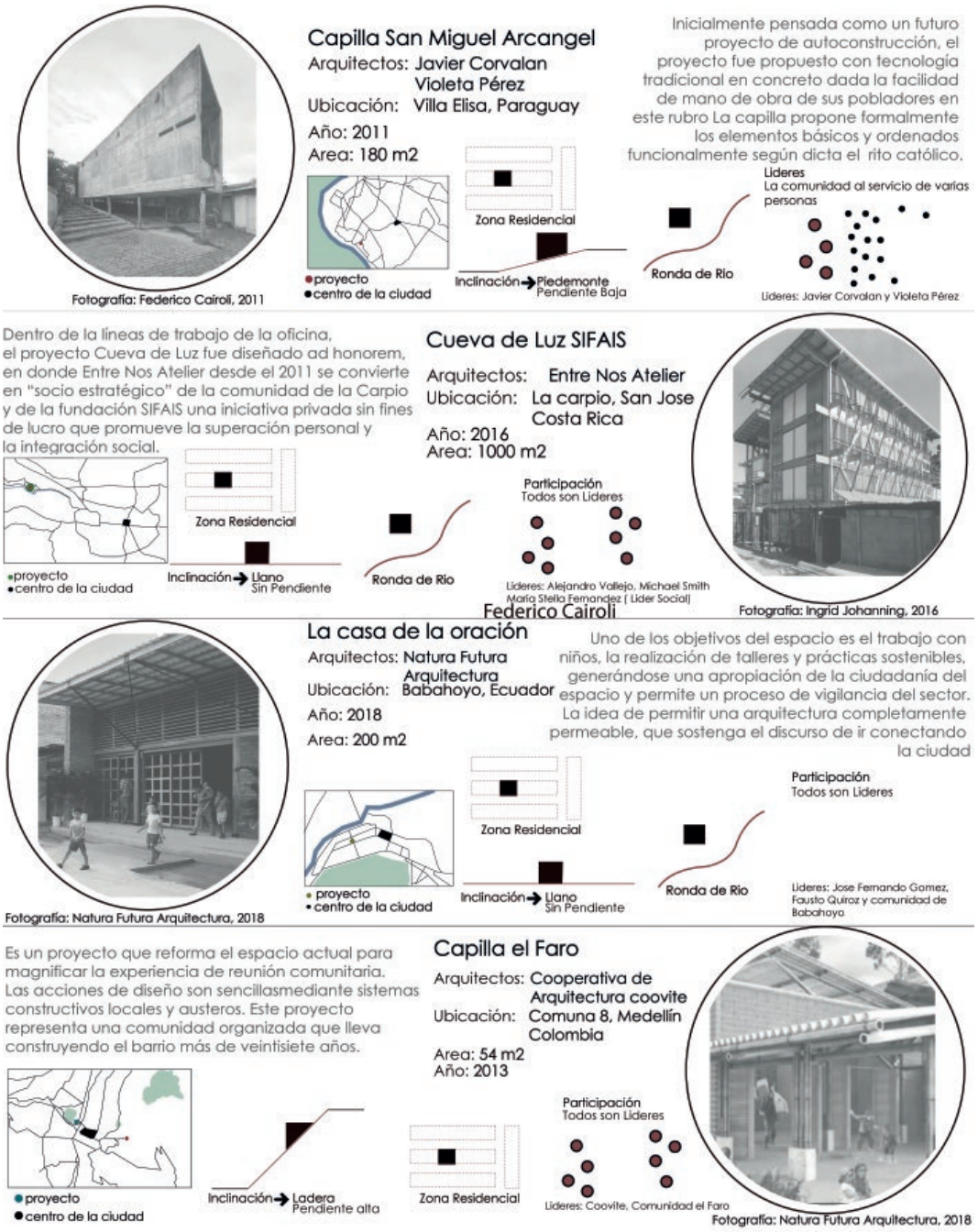

Figure 5

Analysis of places of worship projects located on the urban fringes of Latin American cities. Source: Sketches prepared by Edwin Romero using planimetric information and photographs of the projects (2019).

ture, placed on the land as if it had been born there. It is architecture that seeks the light, which perforates its walls so that the light comes in. It is the architecture of the podium, of the base. That of the stylobate. It is, summarizing, the architecture of the cave" (Baeza, 1997, p. 2). In the final image, the volume is suggested with subtractions in the chapel's opening and in the indoor spaces. This model is characterized on having natural lighting in its spaces, and

Figure 6
Layouts with the different design options studied with the community for the development of the place of worship.
Source: Edwin Romero (2019).

where it aside from connecting to the topography of the place, a relationship with the urban shape is sought.

For the community, this proposal is the best one, because of its shape, functionality, management of natural light, and its implementation, which it was chosen as the new place of worship for the Bellavista Baja neighborhood's community [Figure 6].

CONCRETION AND EVALUATION

The project comprises an urban proposal focused on improving the surrounding streets and the construction of the facility. The intention is to connect the sidewalks with the project and the design of the specific property, both for the public space and inside the building. The permeability, as Henao Quintero (2015) suggests, establishes a sensitive limit between the building and the public aspect for the comfort of the passersby, and merges the first floor of the building with the public space of the context. Having an open corner allows that the space is extended, and, in special events organized by the community, the roads are integrated to the project. In this way, the relationship with the context outlines a sensitive boundary (Muñoz & Gutiérrez, 2019), that welcomes the project and the different spaces it forms.

The chapel is located on this ground floor room, as the most accessible point from the sidewalk. Inside, it has a main altar, the sacristy, and the place for the congregation [Figure 7]. In this way, the chapel is part of the public space, integrating both the congregation and the passersby in a single space, and where the two activities blur their boundaries beyond the property separation, marking a key position facing the immediate context. Added to this, the zenithal handling of natural light generates an image of secrecy and discretion towards the outside.

DISCUSSION

This work looks to highlight the importance of places of worship as a structural element of the city and its visions as a monument in the city (Rossi, 1966), recognizing its meaning within a social fabric that, from the analysis of a set of projects in similar contexts, shows that these are forms of intervention which the communities on the urban fringes need in order to solve different

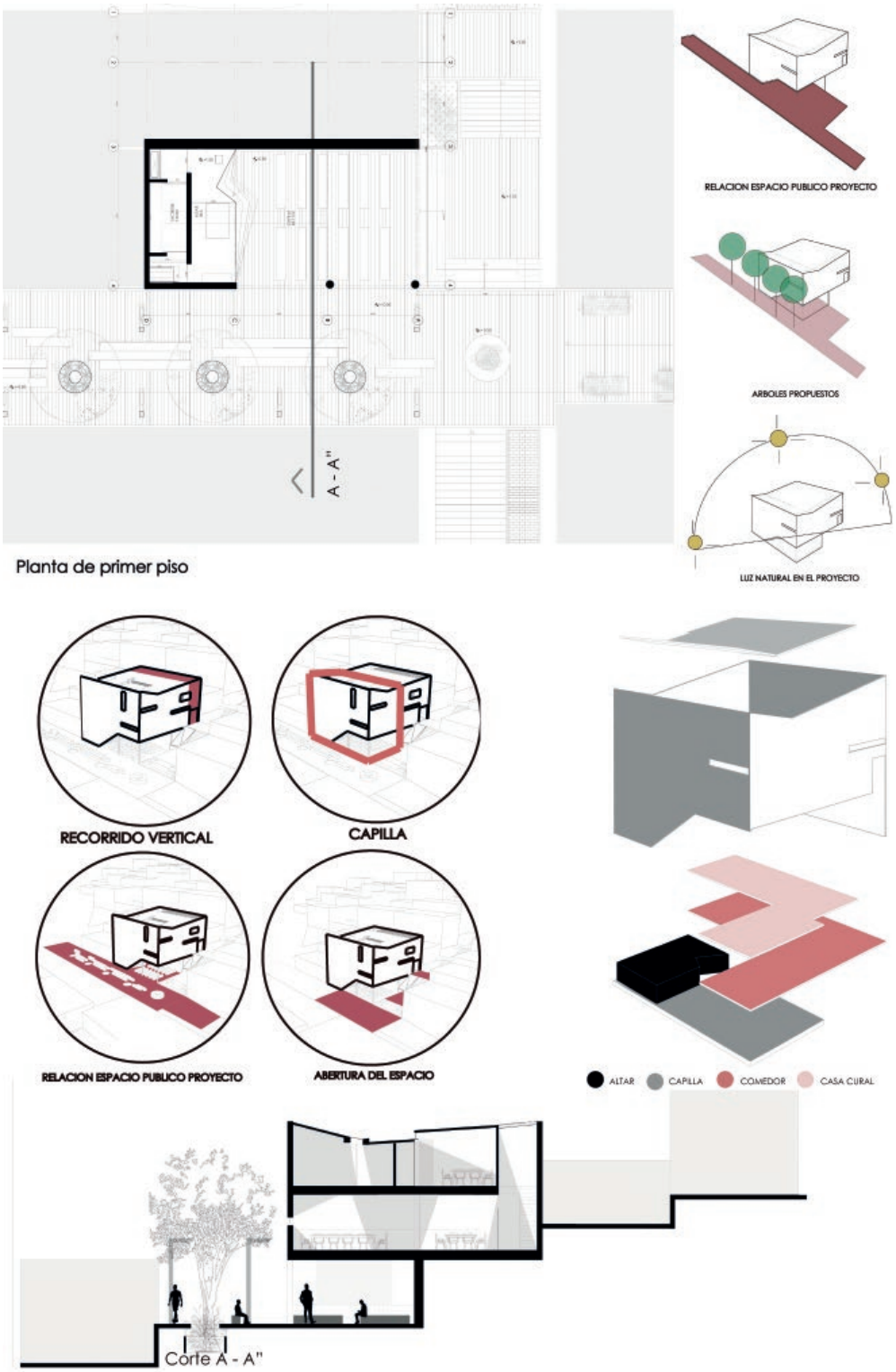

Figure 7
Layouts of zoning and relation of the activities with the public space. General floorplan of the first floor and A-A cross section. Source: Drawings made by Edwin Romero (2019).

problems, and to cover needs that have existed since the creation of these neighborhoods. This idea is one of the alternatives to recover the role of the place of worship as a structural element when thinking and building the city, in this case, for a community that, on considering their needs, establishes priorities when proposing facilities-devices, as a way of suggesting projects from the community participation.

Multifunctionality takes an important role in resignification, as facilities and as devices. In fact, when the equipment offers multiple roles and uses, it breaks the scheme of its utilitarian nature and becomes an element of interest, integration, and development for the community which, on some occasions, can be materialized in an object or being part of the network that the community builds, which can act as a

> "machine for seeing and speaking, that works coupled to given historical systems of enunciation and visibility (…). For example, the prison would be an optic machine that allows seeing without being seen, a role that must not necessarily be transported to other devices like, for example, a social movement, a literary genre, a scientific discourse, or a rule of law, that are not inscribed in a system of visibility, but rather of enunciation or, more specifically, where the leading one is enunciation over visibility (García, 2011, p.4).

CONCLUTION

The contribution of this project resides in transcending the idea of facility, on incorporating the concept of device as a structuring component that fosters the sense of belonging in the community. On making them take part in the process, this increases their interest in the project, making opinions and presenting points of view about what is considered as the most suitable option for their neighborhood. Concretely, the community intervened here manifested interest for a multifunctional facility, which would abandon their component for worship, would attend the urgent need of spaces for community use, like educational workshops, theater plays, communal meetings, political events, or activities of the public entities, etc. The religious use for mass and catechism is maintained as another element that contributes from its construction and appropriation in the social fabric of the neighborhood.

On incorporating the concept of device, it is possible to make that the facility acquires a privileged value in the work with communities in unplanned neighborhoods, and that the field of action is extended from the professional view present in this urban fringe contexts. There, where currently this situation of marginality prevails, and where an architectural intervention of this nature allows providing continuity to the solution of the problems there are, thanks to the strong attachment of its inhabitants, and its potential sense of organization of the community work.

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IDENTITY AND INCLUSION. THE HOUSING COMPLEXES MADE BY THE CHILEAN ARCHITECT LUCIANO KULCZEWSKI (1922-1956)

Identidad e inclusión. Los conjuntos de viviendas realizados por el arquitecto chileno Luciano Kulczewski (1922-1956)

Identidade e inclusão. Os conjuntos habitacionais do arquiteto chileno Luciano Kulczewski (1922-1956)

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Façade survey, unidentified housing estate.
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ABSTRACT

Luciano Kulczewski was a professional who played a key and distinctive role in the first half of the 20th century, a period considered as crucial for the development of Chilean architecture, since it is the moment that brought the advent of modernity to the country. One of the most eloquent illustrations in this regard is the corpus, that collects more than a dozen housing complexes aimed for the middle and the working classes. Today, we recognize in these solutions not just the fact that they are in sync with the web of social, political, cultural, and economic processes that characterized the beginnings of the past century in Chile, but that they also have, among their most notable merits, having been conceived in terms of what we would understand today by "inclusion". This article seeks to investigate these parameters, which range from urban proposals - that approached the city in "inclusive" terms - inasmuch as they did not push for these housing proposals to be in the metropolitan peripheries - to more particular issues, such as the stylistic management of homes as a tool to serve identity causes, in order to achieve the integration of the user with their environment.

Keywords: Garden cities, housing complexes, architectural identity, social inclusion, cooperative housing

RESUMEN

Luciano Kulczewski fue un profesional que cumplió un rol clave y distintivo en la primera mitad del siglo XX, período que se considera crucial para el desarrollo de la arquitectura chilena ya que es el momento en que se produce el advenimiento de la modernidad en el país. Una de las ilustraciones más elocuentes a este respecto es el corpus constituido por más de una docena de conjuntos habitacionales destinados a los estratos socioeconómicos medios y populares. Hoy reconocemos en estas soluciones no solo el hecho de que se hallen en sincronía con la trama de procesos sociales, políticos, culturales y económicos que determinaron los comienzos del siglo pasado en Chile, sino que tienen también, entre sus méritos más destacables, el haber sido concebidas en términos de lo que hoy entenderíamos por "inclusión". El presente artículo busca indagar en estos parámetros, que abarcan desde las propuestas urbanas -que se aproximaban a la ciudad en términos "inclusivos", en cuanto renunciaban a relegar estas propuestas habitacionales hacia las periferias metropolitanas-, hasta cuestiones más particulares, como era el manejo estilístico de las viviendas a guisa de herramienta puesta al servicio de causas identitarias, con el fin de lograr la integración del usuario con su entorno.

Palabras Clave: Ciudades jardín, conjuntos habitacionales, identidad arquitectónica, inclusión social, viviendas en cooperativa

RESUMO

Luciano Kulczewski foi um profissional que cumpriu um papel fundamental e distintivo na primeira metade do século XX, período considerado crucial para o desenvolvimento da arquitetura chilena por ser o momento em que ocorre o advento da modernidade no país. Uma das ilustrações mais eloquentes a esse respeito é o corpus formado por mais de uma dúzia de conjuntos habitacionais voltados para as camadas socioeconômicas médias e populares. Hoje reconhecemos nessas soluções não apenas o fato de que estão em sintonia com a teia de processos sociais, políticos, culturais e econômicos que marcaram os primórdios do século passado no Chile, mas também, entre seus méritos mais notáveis, o fato de terem sido concebidas em termos do que entenderíamos hoje por "inclusão". Este artigo busca investigar esses parâmetros, que vão desde as propostas urbanas, que abordaram a cidade em termos "inclusivos" – na medida em que desistiram de relegar essas propostas habitacionais às periferias metropolitanas –, até questões mais particulares, como a gestão estilística das moradias como ferramenta ao serviço das causas identitárias, no intuito de conseguir a integração do usuário com o seu ambiente.

Palavras-Chave: Cidades-jardim, conjuntos habitacionais, identidade arquitetônica, inclusão social, habitação cooperativa

INTRODUCTION

In the early 20th century, when the processes of modernization were being consolidated in Chile, the figure of Luciano Kulczewski García (1896-1972) stood out in the field of architecture. His work, translucently, reveals the challenges that his work had for society and the Chilean State. His architecture and urban proposals manifest not just a formal and plastic effort of renewal, but also the intention of understanding the ethical and social project that the avantgarde carried. With this willingness, the empowered middle class emerged as a relevant player, playing a key role in the challenges that the country would go through at the turn of the century. In that framework, amid a stale oligarchy that had dominated the political sphere until then, and the struggles started by the proletariat, the middle classes felt the need to build a space of identity that was their own[1]. In that sense, and only from a mediatic aspect, his productive body has managed to be individualized by the community, and thus acknowledged as part of the national urban imaginary (Harris, 2016).

In an attempt to outline the strategies behind this statement, the arguments gathered in this article will focus on the housing complexes that, targeting the middle and working classes, were led by Kulczewski. The suitability of these examples is in sync with the renewal that the destabilization of the social and cultural processes the country had been experiencing since the 19th century implied, but it is also about proposals which, in hindsight, were resolved under what today we could characterize as "inclusive" [2].

The first inquiries made for the research presented here, began with the study of historiographic sources that addressed the best-known creations of Kulczewski in this regard, namely, the neighborhoods of Catedral (1923), Madrid (1925) for the NCOs of the Cavalry (1926-1928), Los Castaños (1927-1930), Comunidad Keller (ca. 1930) and the Virginia Opazo complex (1941-1944). It is worth saying that said texts were never accompanied by the original planimetries, which is why the investigation took more than two years in the technical files of the communal Works Directions (DOM, in Spanish), of the Ministry of Public Works and of Aguas Andinas (where the search was more successful). The plans of the facilities obtained there were the sources which, along with onsite work, allowed making digital planimetries, part of which have been incorporated to this article.

The result of this patient examination is that a series of up until now unheard-of Kulczewski works came to light, doubling his known body, among those, the housing complexes of Santo Domingo street (1922), Esperanza street (1923), the Esperanza cité[3] (1923-1924), for the NCOs of the Tacna Regiment (1927-1928), Emilio Delporte Worker's Cooperative (1929), the National Savings Fund (1930), General Saavedra (1944-1945), Pintor Cicarelli Street (1945-1952), and finally, the complex of the commune of Vitacura (1956) [Table 1].

1 For middle class and identity, see Méndez & Bazoret (2012).

2 For a recent analysis of this phenomenon, see Duk & Murillo (2016), and Afacan, Y. & Afacan S. (2011).

3 A cité is a group of houses that share an interior patio in the form of a passageway.

On the other hand, to these fifteen creations, which share the fact of all having been built in the country's capital, the complexes built in the provinces are added: the collective buildings for workers of Arica, Iquique, Antofagasta, and Tocopilla (1939-1940), and the housing complex of Isla Teja (1939-1940), in Valdivia. These works will be addressed more underhandedly, in the understanding that the role Kulczewski had in their materialization was rather that of a political manager, as an administrative director before

Table 1.
Residential complexes by Luciano Kulczewski.
Source:Prepared by the Author.

Complex	Years	Client	N° of dwellings	Commune	City
Housing on Santo Domingo Street	1922	Alejandro Guttmann L.	6	Santiago	Santiago de Chile
Housing on Esperanza Street	1923	Alejandro Guttmann L.	8	Santiago	Santiago de Chile
Esperanza Cité	1923-1924	Alejandro Guttmann L.	31	Santiago	Santiago de Chile
Housing on Catedral Street	1923	Alejandro Guttmann L.	6	Santiago	Santiago de Chile
Housing on Madrid Street	1925	Alejandro Guttmann L.	15	Santiago	Santiago de Chile
NCOs of the Cavalry School Neighborhood	1926-1928	National Defense Fund	113	Ñuñoa	Santiago de Chile
NCOs of the Tacna Regiment Neighborhood	1927-1928	Chilean Army	26	Santiago	Santiago de Chile
Los Castaños Neighborhood	1927-1930	Police Welfare, Social Security, and Support Fund	85	Independencia	Santiago de Chile
Emilio Delporte Workers Corporative Neighborhood	1929	Emilio Deporte Arturo Prat Workers Cooperative	39	Providencia	Santiago de Chile
Keller Community Neighborhood	ca. 1930	Emilio Keller Portales & Demófila Portales	28	Providencia	Santiago de Chile
National Savings Organization Neighborhood	1930	National Savings Fund	9	Providencia	Santiago de Chile
Collective Buildings for Arica's Workers	1938-1940	Obligatory Workers Insurance Fund	110	Arica	Arica
Collective Buildings for Iquique's Workers	1938-1940	Obligatory Workers Insurance Fund	80	Iquique	Iquique
Collective Buildings for Tocopilla's Workers	1938-1940	Obligatory Workers Insurance Fund	110	Tocopilla	Tocopilla
Collective Buildings for Antofagasta's Workers	1938-1940	Obligatory Workers Insurance Fund	110	Antofagasta	Antofagasta
Isla Teja Housing Complex	1938-1940	Obligatory Workers Insurance Fund	56	Valdivia	Valdivia
Virginia Opazo Complex	1941-1944	Armed Forces Social Security Fund	33	Santiago	Santiago de Chile
General Saavedra Neighborhood	1944-1945	Lucía Yánquez Cerda	8	Independencia	Santiago de Chile
Pintor Cicarelli Street Housing	1945-1952	Different owners	7	Independencia	Santiago de Chile
Housing in the Commune of Vitacura	1956	Viviendas Metrópoli Ltda Cooperative	70	Vitacura	Santiago de Chile

the Obligatory Workers Insurance Body (Galaz-Mandakovic, 2011; Harris, 2020).

It was pertinent, considering the transformations that these complexes have seen, to seek in the collections of historic photographs, images that could reveal their original appearance. Likewise, magazines and written press from the period were reviewed, be these specialized architecture publications or magazines. As a result of this task, a series of works that are being identified and analyzed are now available. These sources also provide the few first-hand testimonies we hear of the architect. Although, as will be seen, these are discourses coming from a political role, showing glimpses of his idea of the work of an architect, and his way of conceiving the city.

Exceptionally, as of the 1960s, the visionary attitude of academics like Fernando Riquelme and Óscar Ortega, interested in the work of Kulczewski —running against the strict rulings of the overbearing international style- led to the appearance of articles and a monographic book (Riquelme, 1996). Several research works made by their students are added to these, where that of Enrique Burmeister (1969) stands out, whose merit is having made an extensive interview with the architect, today compulsory reading for anyone studying his legacy.

During the reflection that accompanied the systematization process of the information gathered, it became clear that the housing complexes built by Kulczewski transversally had, among other values, having been conceived under parameters that today would be defined as identity and socially inclusive. The purpose of this article is precisely drawing attention to the effectiveness of the procedures that allowed these achievements.

ORNAMENT AND IDENTITY

One hundred years ago, the work of Kulczewski appeared as a pioneer in different senses. Back then, as the main cities of the country were in a full process of metropolitization, the concerns of the authorities and the architects were mainly linked to the idea of mixing progress and development, i.e. inclusive and sustainable cities-. In this way, the issue of housing for the middle and working classes began to be faced for the first time, a matter that would mean that the projects of Kulczewski were considered referential in this day and age. The careful management of the scale of his proposals at an urban level, and especially their formal treatment, are the elements on which the pedestal occupied by the architect rest. In his work, each house was individualized by the layout of the ornamental elements of the façade, favoring, in this way, the identification of the user with their residence; a resource that would face a crisis with the arrival of the Modern Movement. As Kulczewski himself expressed: "the dwelling must be well located, considering the work needs of its occupants, be well built, fun, comfortable,

and beautiful, regardless of its cost" (Burmeister, 1969). Hence, this sensitivity became an operation that allowed him to integrate the apparent contradictions that the plural and singular entailed, in the context of residential typologies.

The goal of the alluded ornamental handling was humanizing architecture and favoring the sense of identity. Thus, his complexes were set up, in general, using a limited variety of standard dwellings, but that, in regards to formal handling, were unlimited. However, this did not imply the loss of a unitary sense, just like the architect explained:

> … [I am] completely against the proletarianization of the common man. On the contrary [,], I want to raise him up. That's what led me […] to making all of these neighborhoods with houses that are different from one another, but within a common resemblance. (Burmeister, 1969)

It is fair to remember that this operation was quite widespread at its time, but for the Chilean setting, Kulczewski constitutes one of its standout exponents.

Following the line of thought set out by Palmer (1984), using his interpretation of the essay *Character and composition, or some vicissitudes of architectural vocabulary in the nineteenth century* (Rowe, 1980), a desire to work the compositive and formal features of a building would seem to be acknowledged even in the work of the architects of the first half of the last century, to the service of that which the authorities of the 18th and 19th centuries defined as "character" (Palmer, 1984, pg. 9-11). In his essay, Rowe outlined how the rationalist critique has expunged this term from their vocabulary – from Viollet-le-Duc onwards- as part of the historic revision made in the text, thus establishing that character entailed the expressive sufficiency that a work must have in order to transmit "the impression of artistic individuality and symbolic or functional externalization, of the goal it was destined for" (1980, p. 65)

Going against the grain of the theoretical principles, which at the time were being forged in Germany, Kulczewski did not want to renounce the communicative principles that had singularized architecture of recent centuries. Reliant on its power as a vehicle of cultural communication, Kulczewski seems to have used the idea of character associated to the composition and ornament of dwellings, which not only must appear as such, but rather that they must also have a quality that was distinctive or identity-based of the set of social groups they targeted (Harris, 2018).

> The notion of character was thus left insolubly associated to that of social consensus, because it unified differences,

> and marked the existence of groups and collectives with common interests and shared wishes. Making the character a primary category was not an innocent act, as it guaranteed that the architecture embodied these values of consensus in a built materialization thereof, in representative and outspoken buildings (Quesada, 2014, p. 6).

Anti-academic language was expressed in Kulczewski through the formal syncretism that characterized his decorative language. Taking elements from both the historicist tradition and the architectural avantgarde, he created his own imaginary from bizarre juxtapositions (Harris, 2018). The overall originality of this practice is what gave these complexes an undeniable distinctiveness.

The practice of Kulczewski of leading stucco-plasterers onsite in the ornamentation, which was projected naturally and directly, was coming to an end (Harris, 2018). Working alongside those doing the work, promoting the value of decorative arts, was something that made Kulczewski proud. As Torrent and Atria (2015) mention, this work had an ideological background, on being associated to the pioneering socialist currents of the 19th century: "Many of his stylistic approaches could be dominated by an ideological interest in the relationship between craftmanship and architectural production, closer to the ideas of an integrated whole [Gesamtkunstwerk] than those of the French traditional decorative art" (2018, p. 38).

LEGISLATIVE FRAMEWORKS

Trying to argue the reason why the housing complexes of Kulczewski are considered as models in the context of Chilean architecture, is a subject that must be seen from different angles. In an inferential sense, the analysis on these urban developments, allows acknowledging the materialization of state policies that sought, from the beginning of the last century, to encourage the building of affordable housing by private agents. In the case of Kulczewski's interventions, most of them were concreted for Armed Forces employees and worker cooperatives. As Burmeister (1969) confirms, without providing dates, Kulczewski could have worked as an architect of the Police Direction, an example of this work being the Santiago Police Stadium in 1925, today demolished, while he also worked as an architect for the State Railroad Welfare Department (Riquelme, 1996).

The legislative scenario that led to the housing cooperatives in Chile was the Affordable Housing Law of 1925, Decree in Law N°308, which replaced its predecessor of 1906. This regulation was promoted by the State as an essential measure to resolve the housing shortage in the country, where these organizations had a fundamental role, as Hidalgo mentions:

> Housing cooperatives are placed, for the first time, on an important pedestal to solve the shortage of housing. The contribution that the employee and worker entities could provide to solve this shortage, was considered as one of the key points of the law (2005, p. 121).

Under its control, more than 6,000 houses were built up and down the country. In Kulczewski's professional work, this law would allow him to pursue his social concerns, materializing affordable residential complexes for diverse cooperatives and organizations, exceptionally working with private projects. In the decade after the law's passing, a total of more than 300 affordable homes would be built [Table 1].

> A city that in the 1920s reached half a million inhabitants, would without a doubt require managing the housing issue, both from the opportunity for private investment, and from public promotion. This was a professional sphere that Kulczewski exceptionally capitalized on, particularly under the opportunity that the new institutionality provided -the affordable housing Law of 1925, but surely also because this was where his ideals of a better society came to life (Torrent & Atria, 2015, p. 28).

New housing policies formulated in 1936 were brought to fruition in the works that Kulczewski would manage as the administrator of the Obligatory Workers Insurance Organization, between 1939 and 1940. These laws appeared as a result of the State's interest to modernize coordination among the levels that they could organize, set the technical terms and conditions of this housing legislation, and likewise generate concrete solutions. In this way, the Popular Housing Organization is created (Law N°5950), whose purpose was to jointly handle the work set out by the Workers Insurance Organizations.

In the speech made by Kulczewski, as spokesman of the Government in the First Pan-American Congress on Social Housing, held in Buenos Aires in 1939, he stated that:

> Ingenuity and ink are spent on finding solutions that range from implausible material to absurd planimetries, like burial niches; or sites are sought which, due to their price, are surrounded by wastelands and landfills on the outskirts of the cities, creating new and cruel differences for housing. Affordable housing districts are formed, which evidence yet further the contrast between the happy and the hapless, upbraiding once more, the misery of the latter. […] The Chilean Government, the Workers Insurance Organizations consider that the housing policy must provide hygienic,

> comfortable, and beautiful housing, that tends to rebuild the home, the working-class family, and with it, recover for society something that is fair and harmonically organized (cited by Anonymous, 1939, pg. 199/93-200/94).

It is important to highlight that the introduction of the term "hygienic" in the speech, reflects the way in which state policies had been impacted by the modernizing processes associated to housing construction (Aguirre, 2011, p. 58). Likewise, over time, concepts like that of "beauty" would be excluded from the rationalist vocabulary.

MODERN CITY AND INCLUSION

From the words of the architect, words are also cited that, regarding the urban situation, the location of these complexes had to be materialized on centrally located urban areas, to thus avoid segregation. This aspect did nothing more than reflecting the state positions of the time, as can be taken from the opinion of the President, Pedro Aguirre Cerda, in his speech on housing policy:

> In my opinion, the employee and the worker must live inside the cities, so that they all have the civilizing benefits of schools and libraries, of electricity, drinking water, sewerage, transportation, etc., so that the working class feels like a social component, as worthy and respectable as all citizens forging the public wealth are (cited by Galaz-Mandakovic, 2011, p. 59).

Of a similar sort, the housing complexes of Kulczewski will illustrate the way of how the modern metropolis was expanding. For the particular case of Santiago de Chile, while complexes like those of the Yungay Neighborhood [Figure 1], and Madrid street, show the incursions of the architect into the historic hub (González, 2019; Fuentes, 2009), and after 1926, housing complexes in the new communes that would emerge on the outskirts began to be built, particularly in the Providencia and Ñuñoa communes, linked to the "garden city" concept [Figure 2]. Palmer discusses this issue in his monograph on the matter, on stating that Kulczewski's works are among the first settlements articulated using the fledgling notion of neighborhood (1986, p. 71).

Intervening in such diverse contexts would force the architect to, on one hand, pluralize his urban agency strategies and, on the other, to be associated to an innovative outline of housing. If in the historic hub he used the traditional terraced housing, on urban land between party walls, and organized around indoor yards, in later urban developments, he opted for block housing, which would adapt better to the large gardened urban land [Figures 3 and 7]. This process gradually gained ground, as the neighborhood for the

Figure 1
Axonometry of the complexes in Barrio Yungay. 1. Santo Domingo Street, 2. Esperanza Street, 3. Cité Esperanza and 4.
Source: Javier Vargas Martínez.

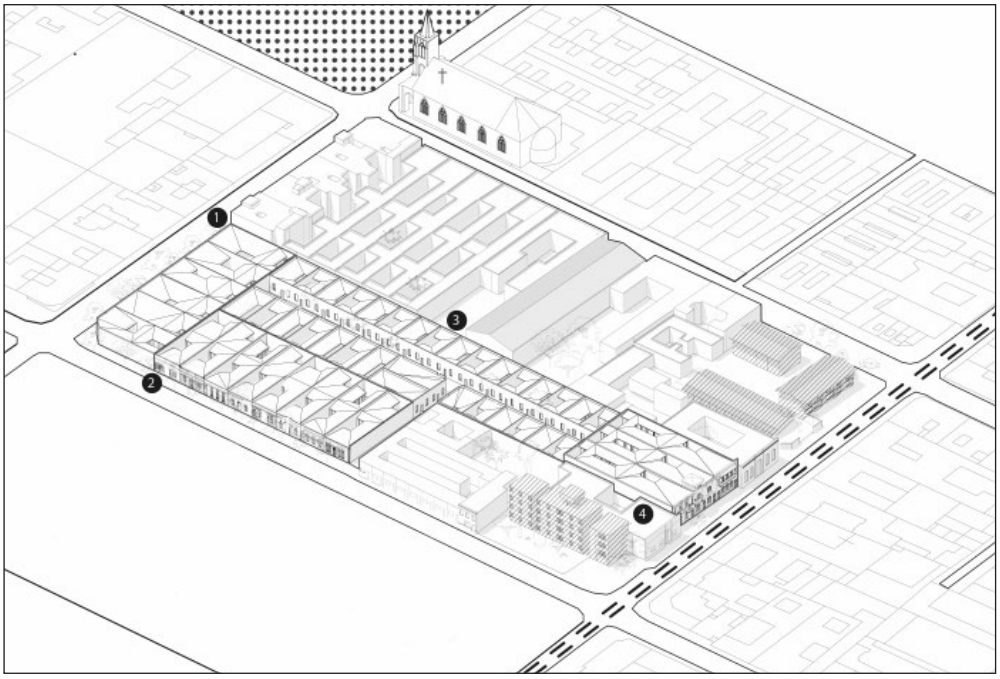


Figure 2
Population Keller Community, north pavement.
Source: Kulczewski Archive, Chilean Architecture Archive, University of Chile.

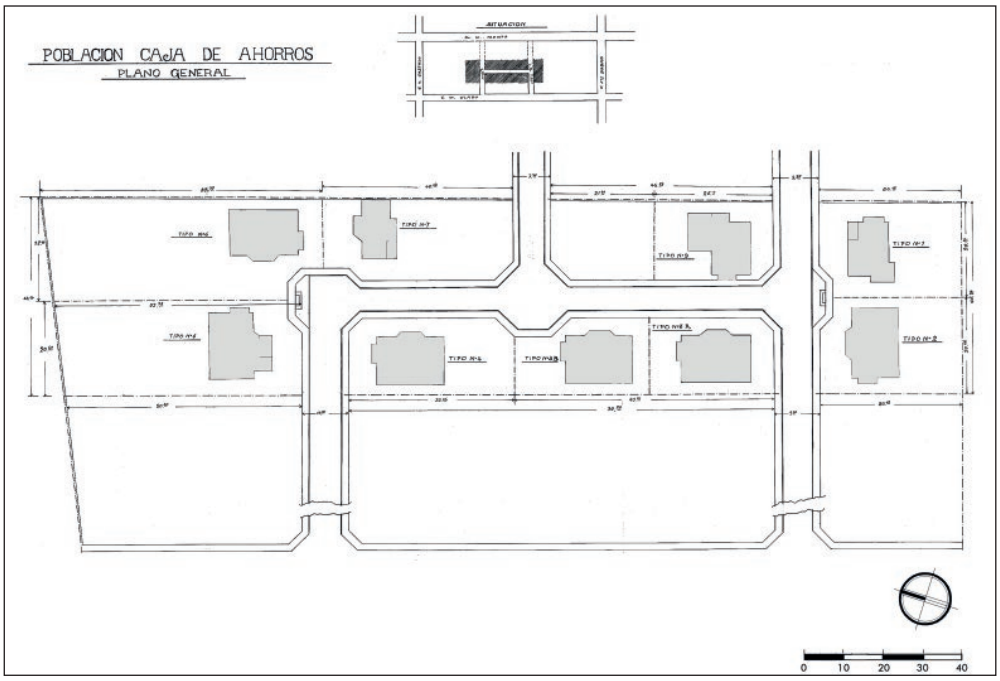


Figure 3
National savings bank population, overview. Source: Plan from the Aguas Andinas Technical Archive, intervened by Raúl Pacheco Aravena.

Figure 4
Cité Esperanza, general view. Source: Photograph by the author.

NCOs of the Cavalry School and the Keller neighborhood would confirm [Figure 2], which were built in the aforementioned eastern communes. In these cases, although the complexes were built using the principles of the garden city, and each house has a front and back yard, the constructions do not abandon the terraced layout, forming continuous blocks.

Continuing with the idea of emphasizing unity, Kulczewski opts for a type of urban operation that involved the creation of small complexes, laid out using smaller streets and passageways inserted within large blocks. While in the interventions in the historic hub, the architecture adopted the concept of "cite", which is a set of dwellings, generally with a continuous façade, that face a private common-use space, connected to the main street through one or several accesses [Figure 4], in the garden neighborhoods he would organize them considering the route drawn out by discrete inside streets. This peculiarity, apparently transversal to all his works, would turn his complexes into "small microcosmos" [4], with a certain degree of spatial autonomy regarding their context [Figure 5].

> The housing project was central in his activity as architect, and it was therefore, the one that shaped the city. […] The key was in the definition of the complex through a route, to fully take advantage of the urban land, but with a greater definition of the design, by using the large lines of the urban shape. (Torrent & Atria, 2015, p. 34).

4 For a critical revision of this term, see Eliade (1988); and, regarding the city, a similar argument is styled in Kostof (1991).

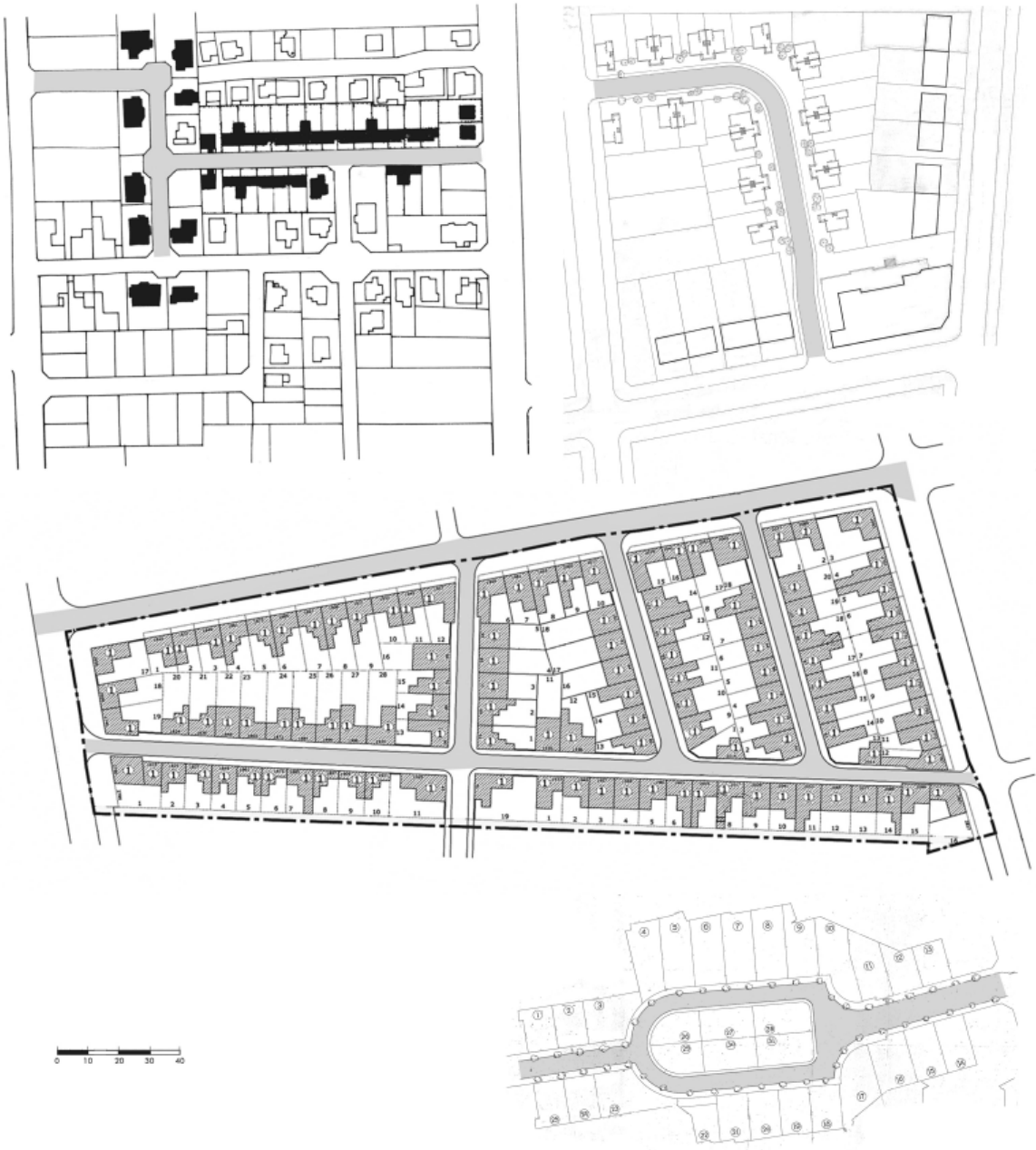
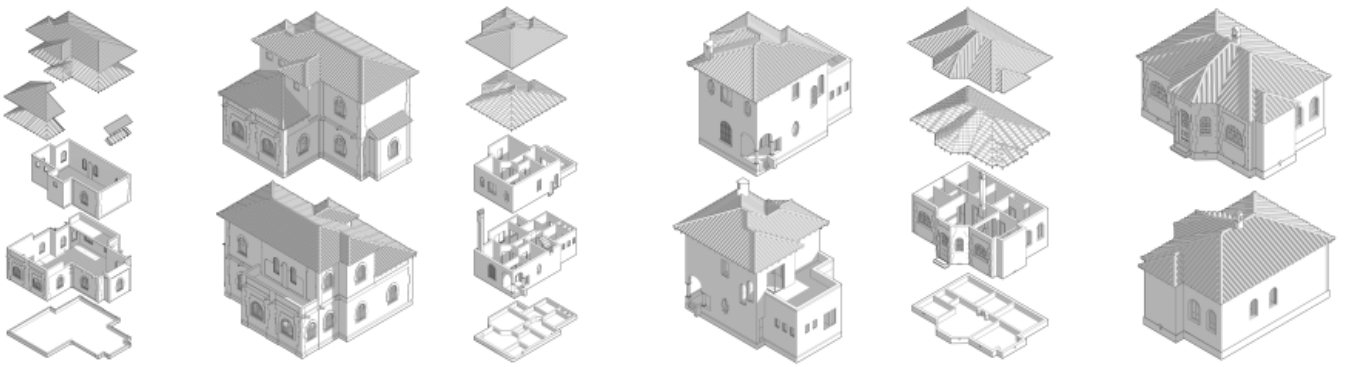


Figure 5
Comparative analysis of the road structures of some of the housing complexes designed by Kulzcewski. Keller and Caja Nacional de Ahorros, 2. Población de Suboficiales, 3. Conjunto Calle Pintor Cicarelli, 4. Conjunto Virginia Opazo and 5.
Source: Plans from the corresponding Technical Archive of the Municipal Works Directorate, intervened by Raúl Pacheco Aravena.

This type of routes is openly indebted to the artistic principles proposed by Camillo Sitte, as Kulczewski sought to create meaningful and protected places that would favor the integration or inclusion of their residents. From this perspective, for his strategy of conceiving recognizable urban shapes, favored by a clearly defined row of housing, the handling of access thresholds would be added, that would allow their residents to become aware of when they were entering or leaving the place.

Given that the idea of street, as an organizing element, was formed by means of aligning the houses, in those others, conceived as a townscape, the entrances are manifested by setting the dwellings on the corners of the access roads, forward or askew. Different strategies can be seen, in the thresholds created in the community of Keller street, the most successful in this aspect, where large lights would be erected on the access arteries, which, like lighthouses, guided their inhabitants [Figure 2]. Another solution, as can be seen in the National Savings Organization neighborhood complex, is the treatment given to where the streets meet, whose corners are beveled, and which together form an octagonal widening [Figure 3], obtaining, in this way, that "the entrance or exit to and from the neighborhood and to each one of its streets [is given] though a figure that marks a kind of relief, like the hallway in older houses" (Palmer, 1984, p. 71).

Figure 6
Population of Caja Nacional de Ahorro, axonometries of dwellings: type D (1154 Alberto Decombe Street), type C (788 Luis Barros Valdés Street), type B (1155 Alberto Decombe Street). Source: Carla Vega Osorio.



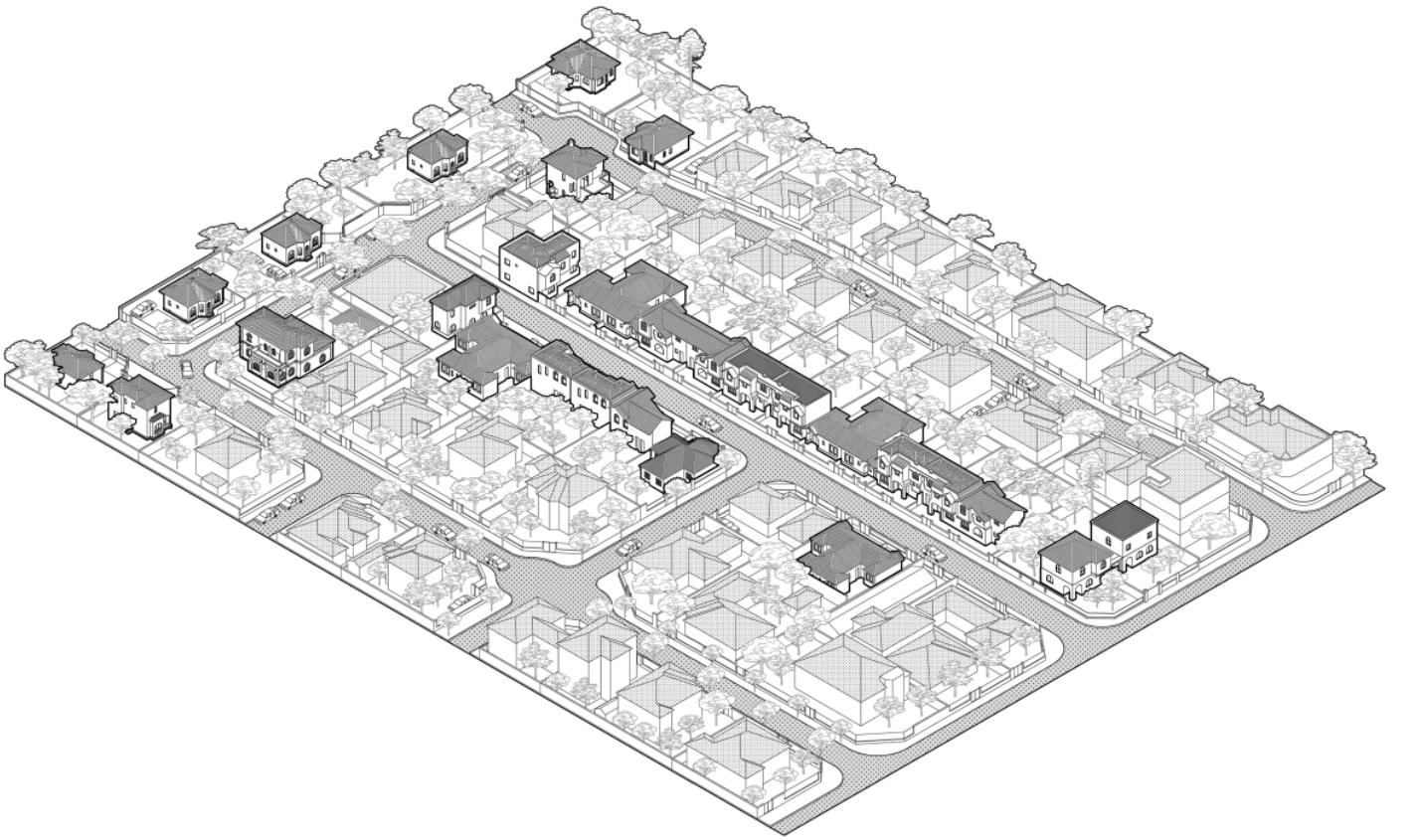
Another aspect that needs to be highlighted is the scale management of the dwellings, which manages to transmit towards the public common space, a character of intimate privacy. Architecture, understood as a place of protection, gains strength on appreciating these complexes understanding that Kulczewski, with his design, was forming the modern habitat, the place of shelter and wellbeing for working families, which correspond to the core of a new national project that his countrymen and women had been raising as the century emerged.

One aspect mentioned, which should be underlined on recapping, is the way in which, on echoing the foundational principles that were associated to architectural modernity, Kulczewski, used a given number of standard dwellings whose variants were defined, at the same time, by the setup of their indoor spaces [Figures 6 and 7]. This operation had a greater scope than the purely formal- namely, offering a morphological variety that avoided the plastic monotony inherent to neighborhood design-, as the determining element of this diversity was related to the different footprint of the dwellings, allowing the inclusion of buyers from different economic classes into the same complex. And even when the origins of some of these were linked to the military or police worlds, in them, Kulczewski managed to give room, in the same setting, to the members of different ranks, on using different typologies.

Figure 7
Caja Nacional de Ahorro population, section along General Córdova street.
Source: Carla Vega Osorio.

Many of the strategies that would allow discriminating the different housing types, at an ornamental level, are also connected to economic aspects. On mainly being affordable houses, the economy of resources would only allow variations in the structural solutions and rhythms of the openings (linteled or following different types of arches) [Figure 6], and in the stucco decorative elements, placed on walls and false gables. The morphological variations were limited to the generally limited types, and always to dwellings of up to 2 floors [Figure 2]. It would only be in some later complexes, for the well-off middle class, like the set of dwellings in the commune of Vitacura, and the National Savings Organization neighborhood, that Kulczewski could give himself the luxury of playing with a greater number of mutations. In fact, it is in the latter where he had information on the owners beforehand, as such, on adapting the solutions to their varied needs, the volumes of the houses ended up having to be heterogeneous [Figures 3, 6 and 8].

Figure 8
Axonometry of Keller Community and National Savings Bank Populations. Source: Carla Vega Osorio



FINAL COMMENTS

With the advent of post-modernity, one of the aspects that has been questioned is the traditional definition of what we understand by "place". This has been summed up both in the critique that was made towards some of the Modern Movement proposals, and in the current issue highlighted by the virtual spatiality, "the crisis of place". In this unsatisfactory context, it stands out that there are communities which proudly externalize the benefits of the places where they live, converting Kulczewski in the most mediatic architect in the country.

What has been argued in this article is endorsed by the actions of the residents in the analyzed complexes, who have known how to acknowledge the urban and architectural value of their own homes, organizing them to achieve the category of Typical or Picturesque Zones, a heritage designation given by the State to protect neighborhoods or housing complexes that are representative of the evolution of human communities, and that stand out due to their stylistic units, material or construction techniques. Pérez de Arce mentions the following in this regard: "in these spaces, Kulczewski achieves an acceptance that few architects have had in our medium. At least from the space of the street, these appear as properly preserved spaces, showing a real affectivity" (1997, p. 78). Said distinction, although it has allowed the preservation of these complexes, does not allow fully protecting all the environmental nature of their immediate surroundings. There, the common trait that characterizes the neighborhood groups is that of being empowered to face the threat that the advance of the 'housing capital' in their territory, expressed in the high-rise buildings" (Olguin, 2018, p. 27). The shadows of enormous apartment towers tend to be projected in these neighborhoods, not just defacing the appreciation of the urban landscape, but also symptomizing the increase of housing density that severely threatens the intimate scale of the complexes.

As DoCoMoMo Chile proposes, in the voice of Horacio Torrent; it is necessary that the popular recognition of heritage values has room in the organizations that propose State Protection Laws, and, eventually, private parties. This, even more so, if the current discussion that the Culture Commission of the Chilean House of Representatives has, to modify Law 17.288 on national monument of 1970, is considered:

> The [historic conservation] request is always accompanied by a claiming condition, that assigns historic, social, and even economic values to these urban sectors or complexes, as a defense against the threat of the profit expectation. It is basically, the acknowledgment that the population makes of a material condition, because it carries its memories of community, but more than that, because it involves a series

> of meanings associated to the daily life that they do not want to lose (2018, p. 11).

Contrary to the logic that the scientific discourse uses, the origin of this research has become a telling argument when it comes to concluding. In a talk on Kulczewski, made by Fernando Riquelme on May 27th, 2012, in the Gabriela Mistral Cultural Center (GAM, in Spanish), for Heritage Day, Paulina Uribe Campos, resident and the main promotor to safeguard the Cavalry School NCOs neighborhood- action that led to its declaration as Typical or Picturesque Zone in May 2007- asked for the floor to comment on the privilege it had been for her to live in a complex designed by the architect. Said valuation was based on the fact that, although this complex was formed by affordable dwellings, Kulczewski had known how to give them a sense of beauty linked to the "style and aesthetics of the time". This prerogative of building "trendy" homes was something that, according to her, in those years was only reserved for high class residences. Due to her unquestionable certainty, this testimony is an eye-opener regarding the analytical vision that has been used to address these works.

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Considering the title is often used for subject indices, it should be concise and informative, include translations into the two other obligatory languages (Spanish, English and Portuguese), and not exceed fifteen words. When there is a subtitle, it should be included immediately below the title and include the translations into each language.

2. ABSTRACT

The abstract may contain a maximum of 300 words (in Spanish) and a minimum of 150 (in Spanish); in addition, it must be translated into the two other obligatory languages (English/Portuguese). It should synthesize the objectives of the research, the methodology used, and the most important conclusions, and emphasize the original contributions made.

2.1. Palabras Claves / Keywords

The submission must include 5 (five) keywords. In all cases (and especially in terms of the architecture/urbanism disciplines) they must be selected from the Network of Architecture, Art, Design and Urbanism Libraries' Vitruvio Controlled Vocabulary webpage, available at https://vocabularyserver.com/vitruvio/. If the terms are from other disciplines, they should be chosen from the UNESCO Thesaurus.

3. TEXT

Articles should be written in Spanish, Portuguese or English, on letter-size paper, with 2.5 cm margins, in Calibri size 11 font, with 1.15 line spacing. Manuscripts may be up to 5,000 words in length, including in-text citations, footnotes, the reference section and table/figure titles, notes and captions. It is suggested that content be organized according to the IMRaD structure (Introduction, Methodology, Results and Discussion) plus conclusions and bibliographic references. A writing style appropriate for scientific and academic publications should be used, with special attention to correct spelling and punctuation.

4. TABLES

Tables include additional information that when necessary broadens the content of the text with data or statistics. If used, tables must be cited in the text and should be numbered sequentially with Arabic numerals. They should be included in the article near where they are referenced, as in the following example:

"Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat (Tabla 1). Duis aute irure dolor in reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla pariatur."

4.1. Table Requirements

4.1.1. In a file separate from the text, include the title of each table in the article. The file in MS Word format

should be named "Tables", be written in Calibri size 11 font, with 1.15 line spacing, and in the case of multiple-line titles there should be a hanging indent after the first line.

4.1.2. Tables should be listed according to their numbering, including a brief description and the source of the information. For example:

Table 3: Chronological evaluation of temperature increase in adobe walls. Source authors

Table 4: Increase in humidity in winter months in adobe walls. Source authors

4.1.3. Each table should be attached individually as a separate file, which should be named according to the table and number, i.e. (Table 1).

4.1.4. Tables will only be accepted in the following editable formats: .doc, .docx, .xls, and .xlsx. PDF, PPT, JPG and TIFF formats will not be accepted.

5. FIGURES

A maximum of 8 (eight) illustrations may accompany the article text and should be of an appropriate quality for printing. Advancement through the article evaluation process is conditional on strict compliance with the following requirements, Arquitecturas del Sur reserves the right to not publish images that do not comply with this requirement

All illustrations (such as images, maps and/or photographs) will be referred to as "Figures", and should be numbered consecutively with Arabic numerals in their corresponding place in the text, as in the following example:

"Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat (Figura 2). Duis aute irure dolor in reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla pariatur."

5.1. Figure requirements

5.1.1. In a file separate from the text, include the caption of each figure in the article. The file, in MS Word format, should be named "Figures", be written in Calibri size 11 font, with 1.15 line spacing, and in the case of multiple-line captions there should be a hanging indent after the first line.

5.1.2. Each figure should be attached as a separate file and named according to the figure and number, i.e. (Figure 1).

5.1.3. Figures should be sent in separate files in JPG or TIFF format, with a minimum resolution of 300 dpi, and a minimum length of 20 cm on the smaller side.

5.1.4. If it is convenient and only in order to improve understanding of the article, images together with their captions may be incorporated into another additional file in DOC or PDF format that does not exceed 8 MB in size.

6. CITATIONS AND BIBLIOGRAPHIC REFERENCES

This section must include all of the references cited throughout the text. It should have a minimum of 20 references, a third of which should be no older than 5 years. All references and bibliographic citations should conform to APA formatting rules (https://normasapa.com/category/referencias-y-bibliografia/).