



CONSEJAS DE SANTIAGO:
Stories from Santiago, Chile
the social housing experience

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1. FOREWORD

This paper and in-depth photograph study delves into social housing projects in Santiago, Chile, focusing on the comparison of the recently well-known ELEMENTAL projects with some older, weathered projects. It discusses briefly the Chilean social housing policy, describes visits during July 2010 to three less contemporary housing projects: Conjunto Andalucia, Villa Portales, and Los Sauces; four ELEMENTAL projects: Pudahuel, Renca 1, Renca 3, and Lo Espejo; and showcases the other three ELEMENTAL projects in Santiago: Lo Barnechea, Lo Espejo 2, and La Pintana. It attempts to show that despite ELEMENTAL roaring success, there are some factors that they did not take into account simply because they were unable given with what they had to work, that the older projects exhibited. Information was taken from interviews with community leaders, architects, professors, and research from magazines, books and online sources.

Although Latin America has an average 33% slum rate, Chile's is currently 4%. The method of how Chile's Ministry of Housing came to reduce the figure so drastically is outlined in Section 4. Partly is because the government has such a high dedication to ensuring that people can have access to housing if they want it and thus provide a very generous subsidy to those that demand it, in turn leading to new housing being built or older housing being renovated and upgraded.

2. ACKNOWLEDGEMENTS

This work is a result of collaboration with a number of people: professors, architects, students, community leaders, and Chilean locals. I am indebted to Reinhard Goethert, my supervisor professor without which this would not have been possible. He has guided the process from the beginning – application, recommendations – to improving the research focus and supplying contacts in Santiago, Chile. I am grateful to the professors at the Universidad de Catolica for giving me advice, especially Sebastian Gray for getting me started and introducing me to further professors, Sandra Yturriaga for telling me some of the social housing projects other than Elemental's, and Luis Bresciani, part of a former Ministry of Housing cabinet (?), who gave me an overview of Chile's housing policy. I thank Victor Oddo of ELEMENTAL who gave me the addresses of all the sites and some tips regarding them, the community leaders of Pudahuel who granted me an interview, and Juan Carrillo for finding a solution to my problem with acquiring a visa. I also express gratitude to the Escuela Fronteras for improving Spanish, without which I would have been able to understand the locals, to Luis Gamboa, who helped me understand parts of my interview with the locals in Pudahuel, and to two students, Anja and Darren Beriro, who accompanied me on several of the visits to locations I would not have been able to see alone.



Figure 3.1: Panorama of Santiago taken from Cerro Santa Lucia

3. INTRODUCTION: SANTIAGO

Santiago remains a city with an urban divide – but unlike its other South and Central America capital city counterparts, the divide is not as apparent nor is it as wide. Though more than a third of Chile’s population live there (Santiago Metropolitan Area: 6.06 million; Chile: 16.17 million, 2002 Census), it is not a recent trend. The bulk of the population was already in place by the fifties, where a majority were living in shantytown settlements. In the sixties a massive exodus take place thereby removing many of the poorer working-class communities to the periphery of the city.

Over the years, more and more many-storey apartment and office blocks rose up, creating a dense city center. As the city branched outwards, the transportation system became more convoluted and its inefficiencies only added to the increasingly heavy smog in Santiago, a result of the Andes completely encircling the city and in the winter creating a barrier such that there is no passage of air, and making Santiago one of South America’s most polluted cities. A few years ago, the transportation system was completely revamped such that there is now a metro system and a much cleaner and more efficient bus system, making living more at the edges of the city not such a bad thing, sometimes, better, since the air feels a bit fresher and there is greater access to big supermarkets.



Figure 3.4: Southern Santiago, youth embellishing existing graffiti

4. OVERVIEW OF CHILE'S HOUSING POLICY

In the forties and fifties, a mass exodus rushed into the center of Santiago from the surrounding rural areas. Studies done in the 1950s indicated that more than eighty percent of the poor sectors of Santiago's population was concentrated in the central area of the city, the administrative and financial area. Housing was found only in precarious settlements near the Mapocho River and comprised mainly *conventillos* (old houses in poor condition that were subdivided and rented to many families) or *cités* (groups of one- or two-room houses usually connected by a block-long interior passageway). This vista rapidly and radically changed in the sixties, when almost eighty percent of the poor population was living in the northern and southern peripheral areas of the city, not in the central area, and this phenomenon has persisted to the current day. The municipality of Santiago – administrative and financial centre of the city – saw a continuous loss of population in recent decades. In 1952, nearly half of Santiago's pop lived in the central municipality, in 1970, one-fifth. The poor of the central area were slowly pushed out to the peripheral areas, with a corresponding negative impact on their access to urban goods and services.



Figure 4.1: Poorer housing in the La Pintana neighbourhood, Santiago, [Courtesy of Luke Perry]

Forty years ago, the Chilean government provided money to private construction companies to build housing directly for the people. In the 1980s, the government switched to a demand-supply system instead; thus, in response to applications and requests for housing, they gave out sixty percent subsidies, required the families to pay twenty percent their savings prior to buying the house or apartment and for the remaining twenty percent they expected the families to take out loans. This worked initially, but the majority of the families simply could not afford to pay off the subprime loans, leading to a change in policy eight years ago when there was an economic crisis similar to the mortgage meltdown situation in the United States. To ward off bankruptcy, the government increased the amount that they cover through subsidies. The Department of Housing adjusted the percentages' breakdown but did keep the central dogma of the policy intact.

Families in need still fill out an application for a subsidy, must have either the sufficient savings at the time of applying or have a plan in place to get the necessary savings in time for purchase of the home, so they must have an income and a savings account. Thereafter, if approved, they receive a certain amount, conditional on their individual income level. For low-income people — in Chile,

those earning less than USD \$15,000 per annum — the portions to cover costs were adjusted to ninety percent from subsidies and ten percent from savings, with loans completely eliminated, with the caveat that the house not be worth more than USD \$35,000 in value, and no less than a suggested USD \$25,000 value. For the slightly more well-off, with an income higher than USD \$15,000, individuals can petition for houses within the USD \$20–70,000 range, of which twenty percent come from subsidies, twenty percent from prior savings, and the remaining sixty percent from loans.

Thus the first way for a family to seek improved housing is to apply individually directly to the Ministerio de Vivienda y Urbanismo (Ministry of Housing and Urbanism). Another way is for people to organize as a community and consult with intermediaries, usually social real estate non-governmental organizations (NGOs), which will help with the application process, secure the subsidies and use the combined savings of the collective to buy land, and hire architects, contractors and builders for the construction of new homes for the community.

It should be mentioned that rent is neither controlled nor subsidized and that all public housing is privately owned, thus encouraging families to indeed apply for these subsidies. In addition, the transparent process and the fact that virtually no corruption exists is an added incentive. The many construction companies in Chile make for a very competitive environment, although of course some manage to slip under the government's control and hoodwink their consumers regardless of the possible consequences.

The demand for new housing proceeds from the evolving demographics, mostly from new families who lack a house, although the few remaining slums – less than three-four percent in Chile, compared with an average of thirty-two percent in South and Central America, ranging from 21.4 percent in the Caribbean, 42.4 percent in Central America, and 35.5 percent in South America, according to 2001 UN-Habitat figures – are being accounted for and their residents are steadily moving into new settlements. About 50, 000 housing units are built every year.



Figure 4.2: Eastern outskirts of Santiago – in the background are houses that appear self-built or repaired and/or expanded by the owners themselves.

A third type of subsidy exists, implemented in 2005. Of the people with an income such that they require social housing, seventy to eighty-five percent have received subsidies and already own either a house or an apartment, resulting from a major housing stimulus project in the midst of an economic boom in the nineties. However, many of these living spaces want repairs or extensions. People in this category can apply for a subsidy that involves upgrades, for example, redoing the bathroom. Currently, thirty percent of the Ministry of Housing's public budget covers these types of appeals. Although people try to expand in a regular way that would abide by building codes, some of the social housing building types constrain them from doing so. During the nineties, the focus was to increase the social housing stock quickly and more cheaply. The high density and affordability of apartment slabs appealed to the Ministry as an adequate solution, resulting in four to six storey buildings, which did the job of augmenting the supply. However, time proved this resolution unsuccessful considering that people cannot expand. So despite rules stating that municipal permits are required to build and that an authority must check the design plans prior to construction, this has proved to be hard for people to follow through regarding the expenses and difficulties involved. While municipalities do indeed sometimes

impose fines on those that build or expand, albeit not having a permit, in low-income neighborhoods, people look the other way. Obviously this poses a safety problem— but for the rooms that had been checked, nothing happened during the February 2010 earthquake. The ones that had snuck around the guidelines were fairly obvious, with problems ranging from roofs caving in to parts of floors sagging and walls tearing. This third type of subsidy is promoted based on the hypothesis that residents will use it to improve and expand their spaces well, that is, in a more legal way.

Figure 4.3: The terrace-type housing that the government supports and encourages today, Santiago



There is yet another type of subsidy, although this is much rarer and used only when there is no other alternative to solving the issue as it is incredibly expensive. When there is a combined problem with the slab structure of the social housing, the elevated crime and urban conflicts, that is, when the costs for society are greater by keeping the housing project, the government demolishes the existing structure. One case, el Volcan (“the Volcano”), built by the real estate company Copeva — which has since changed its name — grew into a terrible situation for the relatively 3-4,000 people living there and so it was demolished. Luckily this example proved successful, with only thirty-five people of the preexisting population electing to live in a new house in the same *barrio* (neighborhood) and the rest moving to not only seek places closer to their workplaces but to also to leave *Puente Alto* “(High Bridge”, a neighborhood consisting only of social housing and nicknamed by some as *Puente Asalto*, “Bridge of Attacks”). The majority of structures that have been demolished are to the south of the city, the region known for low-income neighborhoods, with some more notorious for crime and safety concerns than others. The problem with this demolishing plan is that while it functions in some cases, it introduces the problem of social segregation, as it is a system less fair than the direct subsidy one.

In the last decade, the designs for social housing have a more flexible future in mind. Townhouses and terrace housing have moved up to be the most popular ideas, as these types of houses provide land, whether it be for garages, gardens, or expansions.



Figure 4.4: Villa Portales, Santiago

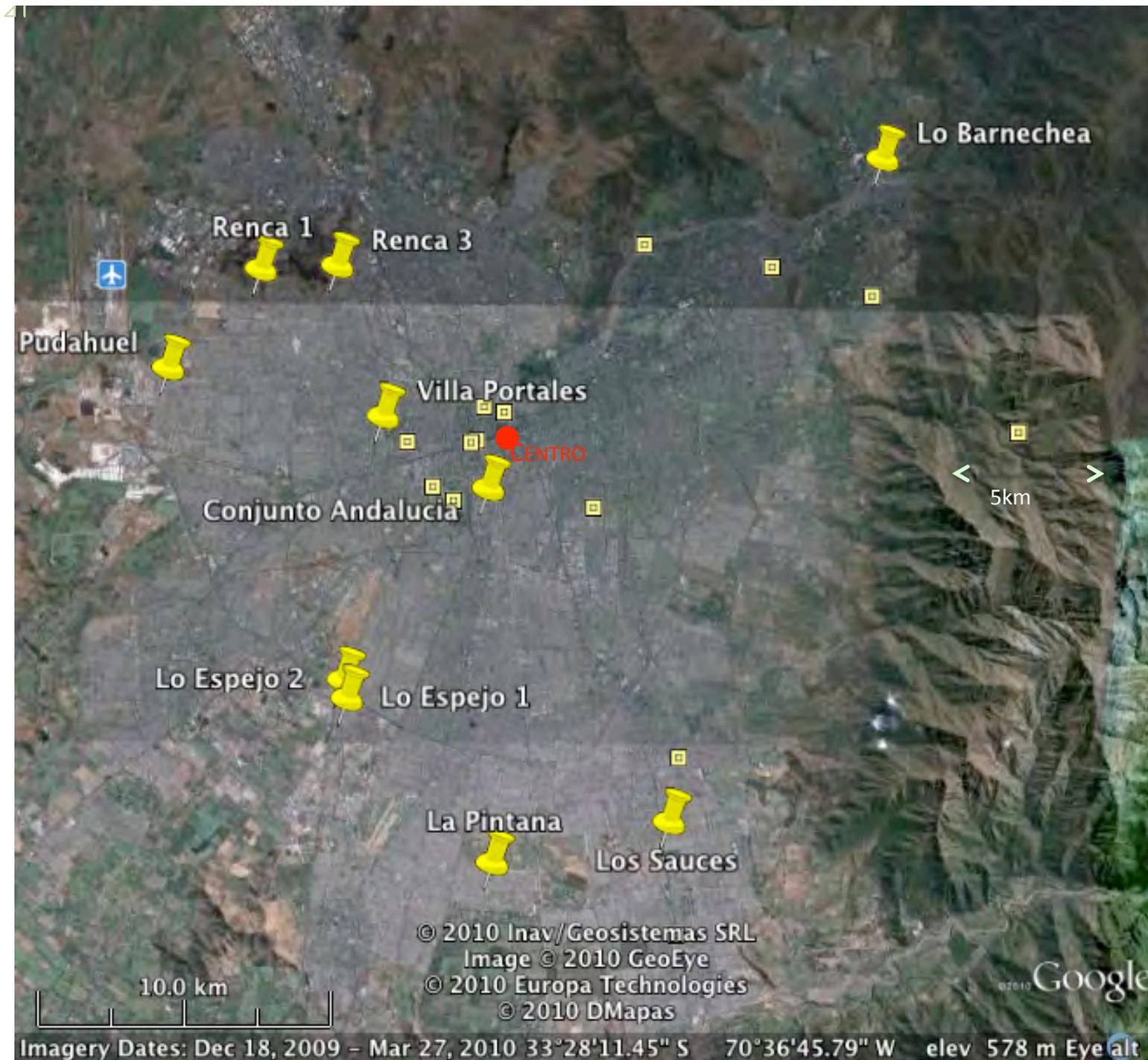


Figure 4.5:
SANTIAGO
METROPOLITAN
AREA SOCIAL
HOUSING SITES

Elemental Projects:

- Lo Barnechea
- Renca 1
- Renca 3
- Pudahuel
- Lo Espejo 1
- Lo Espejo 2
- La Pintana

Older Projects:

- Villa Portales
- Conjunto Andalucia
- Los Sauces

Note: The yellow squares denote places of interest and job hotspots – the center is most densely dotted.



Figure 4.6: Southern outskirts of Santiago – behind the trees and fence lays a slum-type settlement

5. ELEMENTAL

In 2002, the Universidad de Pontificia de Catolica de Chile set up ELEMENTAL as a way to deal with the social housing situation in Chile – most of the slums and *campamentos* had been eradicated, but an innovative method was needed to deal with the remaining lot. And so ELEMENTAL's most crucial priority is a good location, one that will not displace the residents too far from their original location allowing them to keep their jobs, schools, basically, their daily routines. They also consider the following factors highly: form, good construction, density, good quality, and possibility to grow. They use form and the envelope of the building in a strategic way for social housing such that there is an inherent idea to expand to improve the appearance and how everything fits together. They also take advantage of density, thus building the terrace-type houses that the government advocates but building them a bit taller and on slightly more narrow land so as to squeeze in more units.

ELEMENTAL set up workshops to integrate communities – in many cases, fractions of pre-existing *campamentos* have been housed in one project together, or families from old subsidized apartments, and must be all form into one community in order for the housing project to be successful. They formulate rules for growing and expanding. Families have pride depending on their circumstances if they can do extensions or not. Some who have other priorities, for instance, those with five children, will obviously take longer expand and improve their house but thereafter will have to accommodate for the growing family. The majority of the residents who work with ELEMENTAL to build a house are very pleased with the process as a result; of course, there are the singular cases where the people neither have the talents nor the means to procure help, such as an old lady who has no skills nor money to fix little things, let alone expand the whole house.



Figure 5.1: The view from Elemental's office on the 25th floor – it gives the sense of an ivory tower

Generally, ELEMENTAL does not find the communities in need, organizations, such as Un Techo Para Chile or EGIS [Entidad de Gestión Inmobiliaria Social] that have been working together with the communities or individuals themselves, come to ELEMENTAL with the requirements and then they figure out things such as to the actual location and who of the desirable people will actually be able to move there. In some case, clients make housing for their workers, so that they can all live together. ELEMENTAL, on average, builds 300 units each year, with projects ranging all throughout Chile. EGIS establishes a grade for how families or communities can get vouchers (by looking at income) from the government through the subsidies process.



BEFORE RESIDENTS' MOVE-IN AND EXPANSION



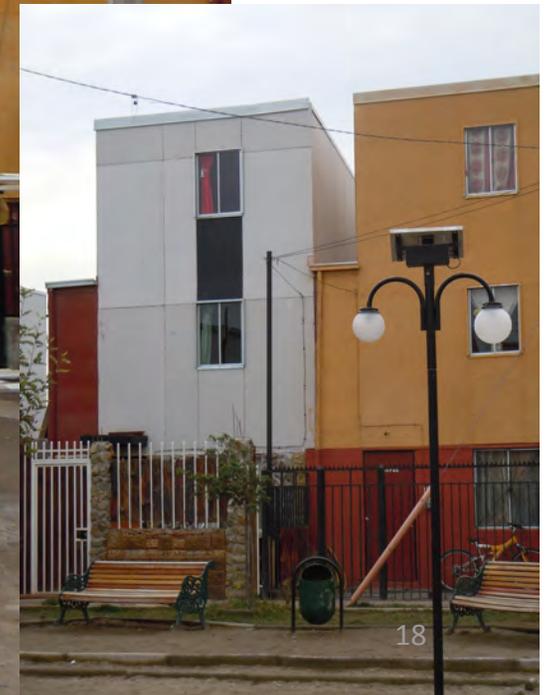
Figure 5.3 (above left): Looking inside the project from the community center
Figure 5.4 (center): Looking into the courtyard

AFTER RESIDENTS' MOVE-IN AND EXPANSION



Figure 5.5 (left) :
Looking through
the courtyard at
the opposite side

Figure 5.6
(below): a corner
that is next to
the red cars in
Figure 5.5



The journey to the settlement in Pudahuel from Centro (“downtown”, center of the city), via first the 407 and then 107c bus, led me and my three companions past a number of different sites and allowed us to glimpse something foreign to us but banal to the locals. As we drove through Centro along the main road Avenida Libertador Bernardo O’Higgins (a street that changes its name four times depending on the region of the city), traveling by a giant outdoor shopping district, a mix of a mall and market, passing universities, the National Library and other historical buildings, moving past Estación Central, one of the biggest bus terminals with connections to outside of Santiago. As we turned and starting driving into Pudahuel, a large residential district, the big supermarkets Lider, Monterrey and Santa Isabel, akin to Target or Walmart, appeared, in a situation similar to New York City—in Manhattan, neither big nor small supermarkets exist, beyond the boundaries of this district, the grocery stores gradually increase. At one point, my Chilean escort pointed out a nondescript apartment block as where the biggest drug deals occur — in that part of town at least. The indistinguishable graffiti denoted the territory of the presiding gang, but the daytime atmosphere, children playing in the basketball courts just visible behind the buildings, gave no obvious hint as to what happened during the night. We proceeded past the

final stop of the blue line on the metro, named for the neighborhood. Finally the seemingly endless row of little businesses gave way to only houses and apartments. Many were obviously the result of government intervention, the slab apartments circa nineties, and the houses terrace-style so as to be able to expand.

More than half an hour later, and not during rush hour, we departed. The project was right opposite the bus stop, and on the same side of the street was an *enseñanza básica* (primary school, for children 8-13 years old) under the St. Ignatius Loyola Educational System.



Figure 5.7: The *enseñanza básica* across the street from the complex

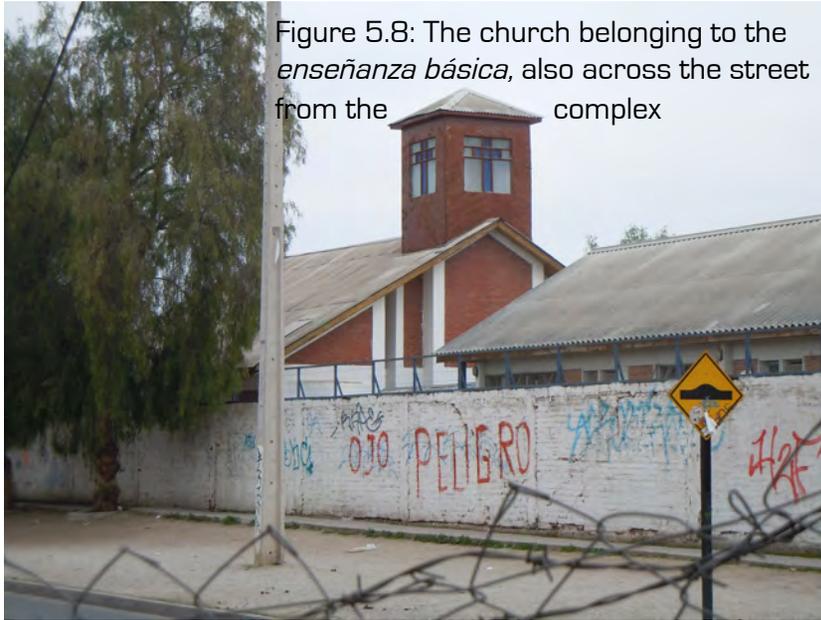


Figure 5.8: The church belonging to the *enseñanza básica*, also across the street from the complex

A thick white washed brick wall provided separation, and although someone had scrawled *peligro* (“danger”), the image of children laughing and shouting painted a scene of serenity and even safety. We happened to catch the return bus right after school had ended, and crowds of kids spilled out of the gates, either setting off to walk home or running up to board the bus, by themselves. The night, however, must tell a different story.

A wrought-iron gate guarded the entrance to the settlement and a matching fence continued along the perimeter for one house length, on both sides of the gate, but then the fence degraded into a simple chain

link, and the damaged sidewalk in front did little to improve appearances.



Figure 5.9: The Pudahuel complex, looking through the front gates

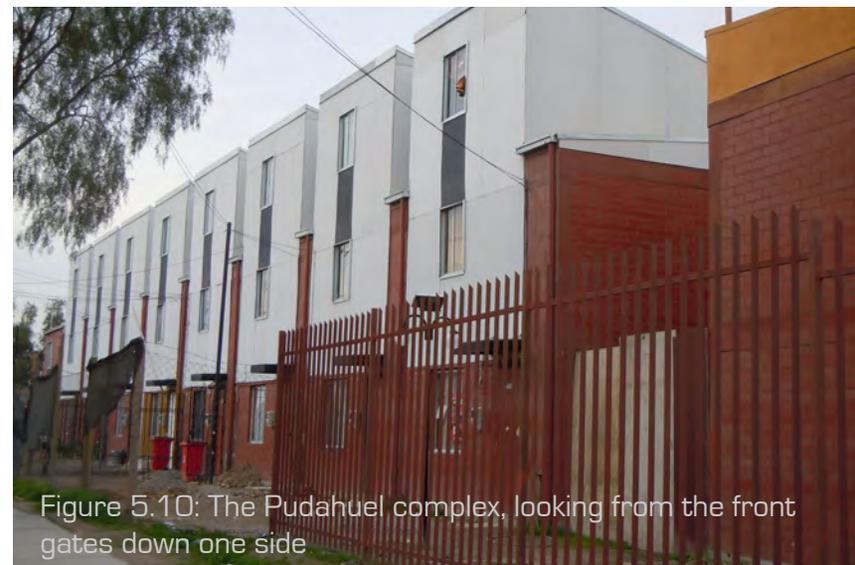


Figure 5.10: The Pudahuel complex, looking from the front gates down one side

Upon stepping through the gate, to the right stood the community center. Corrugated steel lifted it into the air and a wooden lattice covered the patio in front.



Figure 5.11: The community center at rear, a small outdoor gathering place in front and units to the left



Figure 5.13

One house advertised the use of its *telefono publico* (Figure 5.13). coming into the plaza revealed some benches, a playground (Figure 5.14), and cars.



Figure 5.14

Figure 5.12: On the turn into the bigger courtyard exists a small convenience store, with some entertainment as well

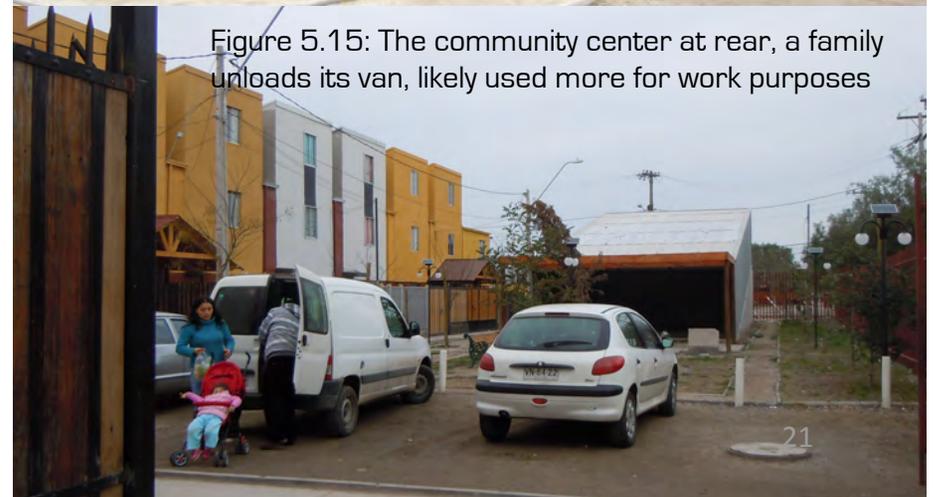


Figure 5.15: The community center at rear, a family unloads its van, likely used more for work purposes



Figure 5.16

One man was piling up wood planks (Figure 5.15) and another was transporting tools from the trunk of a van. Many men who live in the establishment also work in the construction industry and so they are the ones who are now making the expansions.

One of my companions bought several Chilean chocolate bars at the store, thereafter which a conversation ensued. The worker there informed me that the project had only just been finished, on December 31, 2009.

Obviously a lot had been done in the space of the past few months – exterior cladding, expansions, the playground. The worker asked who we were, reluctant to answer any questions. After telling her I was only a student, not someone official from any agencies, she calmed and proceeded shyly. The outside areas: the courtyard, community center, patio and driveways belonged to the whole community, of forty families and roughly 160 people, and as a result it as a whole put in savings and money to improve and upkeep the space. The units belong to the individuals – the entire site is owned by its residents, rather than by the government or a private industry. Further, the community works together on everything, with meetings twice a month, where every proposed change must be run through by everyone, and if someone does not agree, the change will not be implemented.



Figure 5.17

Figure 5.17: The blackboard hanging on the interior of the front gates denotes the next general community meeting

She paused, then told us to follow her. She led us back towards the gate and around past the houses, stopping in front of one that she imparted belonged to the president of the community. Luckily she was in and after being apprised of who I was, came out to weave a clearer picture of the project.

It had started when two pre-existing communities, who had been living in *campamentos* (“slum-like temporary camps”) elsewhere in the same region of Pudahuel, came together. They picked the land on which they wanted to build new houses, and sent five families to live there in temporary housing for two



Figure 5.18: To the left is a shack in which the temporary tenets inhabited while safeguarding the land, it is still adjacent to the newly constructed units

years to safe keep the land while the rest were figuring out to how to make a legal claim. The process is much quicker when the communities possess the energy, motive, and incentive to arrange themselves and talk to an organization as a group. Thus the community representatives picked the social organization Un Techo Para Chile (“A Roof for Chile”) to act as intermediary with obtaining subsidies from the government, locating architects and construction companies. The government intervened at a point and nearly took the land away but they were able to keep it.

Un Techo Para Chile hired Elemental for the design of the complex. Representatives from Elemental showed the committee some of the previous projects to give them a choice as to what to construct; the design they decided on is very similar to that of Renca, the second built project in Santiago. However, they adjusted and improved what they had seen, for instance, utilizing steel beams that ran horizontally, along the gamut of the terrace block in order to save space, rather than using vertical steel beams inside each house. The design and construction proved itself – after the February earthquake, there was no damage, not even any cracks anywhere. The lamp posts in the settlement are solar-powered to minimize dependency on the city.

The president sighed and told us that the newest model in Santiago, Lo Barnechea used Pudahuel's design with their own improvements; there, the roof is an a-frame type rather than slant, leading to more usable space on the third floor.

She bitterly complained that the construction company used in manufacturing had swindled them, that though they paid CL \$20,000,000 (USD \$3,740) for the community center and CL \$40,000,000 (USD \$7,480) for each unit, the materials used and the quality in construction did not reflect those prices. However, the people may

have thought they were scammed but were in actuality unaware of some of the hidden costs. The fact remains that in the contracts, the builders were supposed to finish the back of the houses, but they did not and would not be coerced into doing so. The community went to the bank Santander, incidentally also the bank of Un Techo Para Chile, if they would sponsor the settlement. In the same vein as in Chile's housing subsidy policy, the bank paid ninety percent of the cost while the people the community compiled savings to pay the other ten percent.

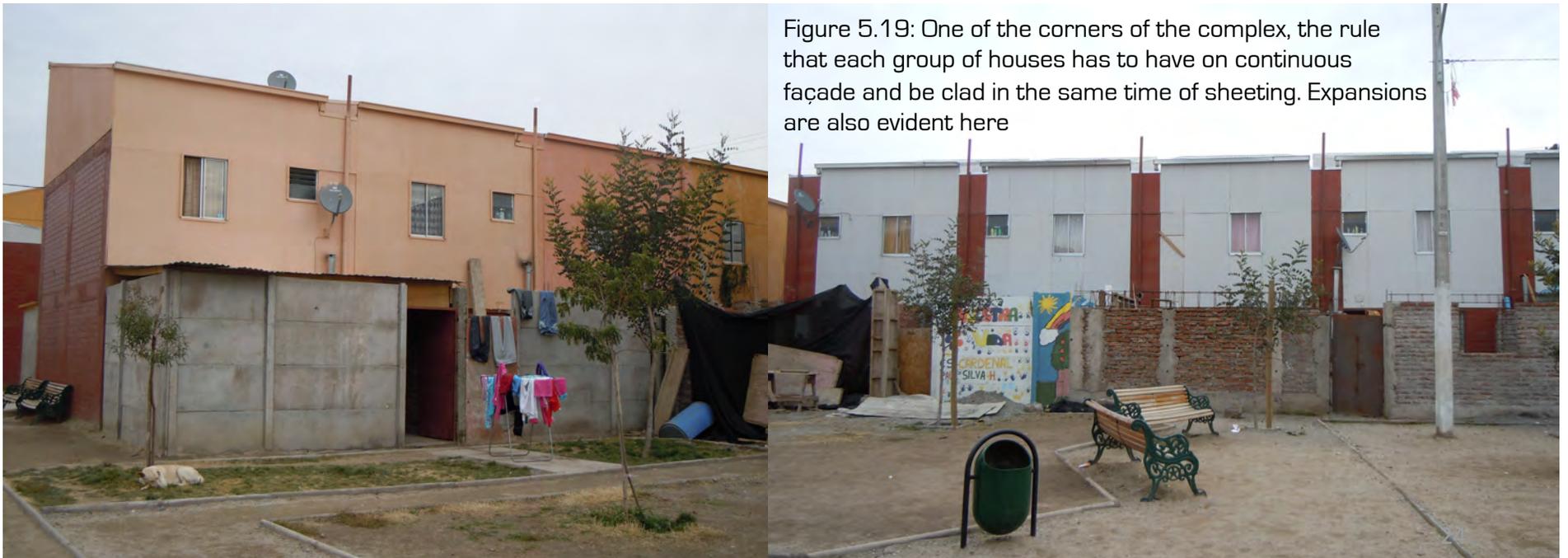


Figure 5.19: One of the corners of the complex, the rule that each group of houses has to have on continuous façade and be clad in the same time of sheeting. Expansions are also evident here

In addition, the construction company was also supposed to re-do the sidewalks but since they did not, the community will have to come together and pay for the construction themselves, to finish the fence, as well. They could not sue since soon afterwards the company dissolved and vanished. Nonetheless, this is apparently not a frequent occurrence in Chile.

The government in place consists of a committee which is chosen every two years — the woman scoffed that it was the previous committee that had chosen the faulty construction company. They have a constitution. People have to live for fifteen years on their site, without selling it or even passing it onto their kid, unless the title owners die, and if they do have to sell it, then they must pay for the land as well , which is more expensive than the worth of the house itself. The houses in one block must all have the same exterior cladding, whether it is the orange or gold toned stucco-like material or the white sheet.

The community works together with their kids to ensure that they do not become *flaites* (troubled youth who make problems). For those at risk, people give them help and resources and point them in the direction of a better path, wrking with JUNDEP (Juventudes para el Desarrollo y la Producción, “Youth for development and Production”).



One of the things the president would have changed if she were to redo the process was to perhaps change the rigid idea that to change something, enact a new amendment or propose an idea required the approval of everyone as this was exceedingly hard. Obviously not everyone would always agree, and in fact, the chance that it happened at all was not often, with the result of people not being able to transform something, sometimes harmless. Over time, though, the rules for what can and cannot be done have become more lax.



Figure 5.21: Another family entering a car and to the right, my companions, who had come along for interest, checking the meeting time on the general blackboard

Figure 5.22: Looking from the courtyard back towards the entrance; the newly planted trees are seen, the temporary shacks where the “guards” lived can be seen in the back center

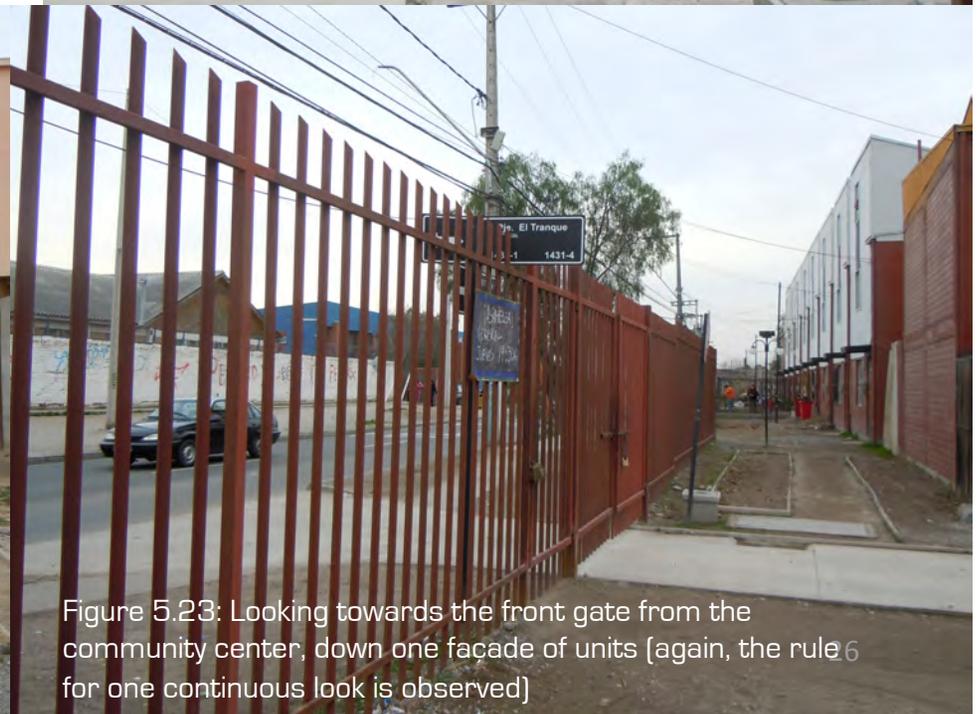


Figure 5.23: Looking towards the front gate from the community center, down one façade of units (again, the rule for one continuous look is observed)



Figure 5.24

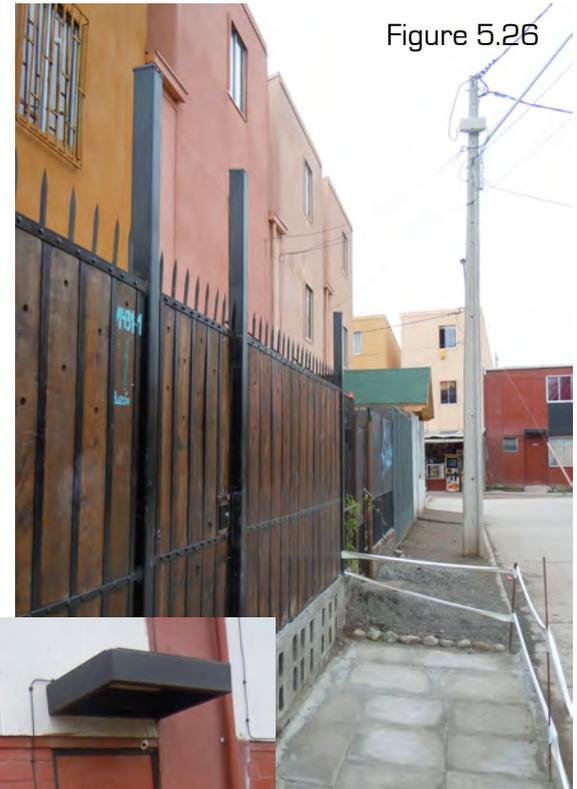


Figure 5.26



Figure 5.25

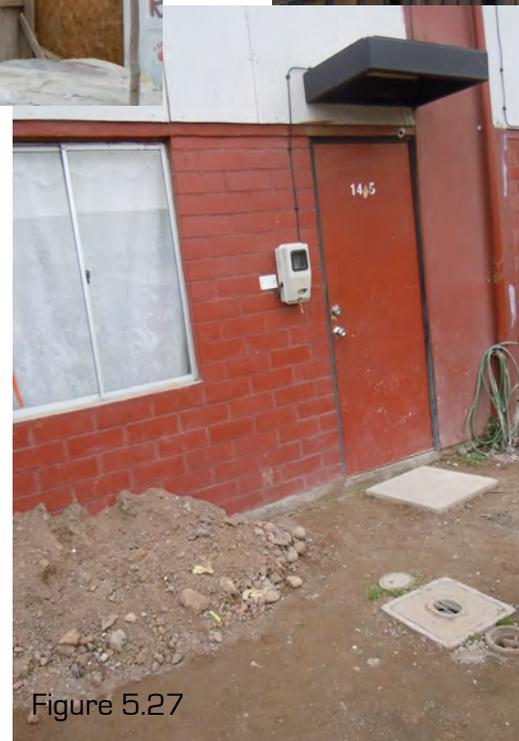


Figure 5.27

FIGURES
5.24-27
EXAMPLES OF
EXPANSION



Figure 5.28: From right, the President, her neighbor, and myself, outside of the neighbor's house. The President's is in the rear, the one initially fenced in. If looking closely to the left of the page, one can see the broken sidewalk that the contractor had promised to fix but conveniently forgot about, and the partially finished fence



Figure 5.29: One of the shopkeepers who initially excitedly provided info and then led me and my companions to the house of the president







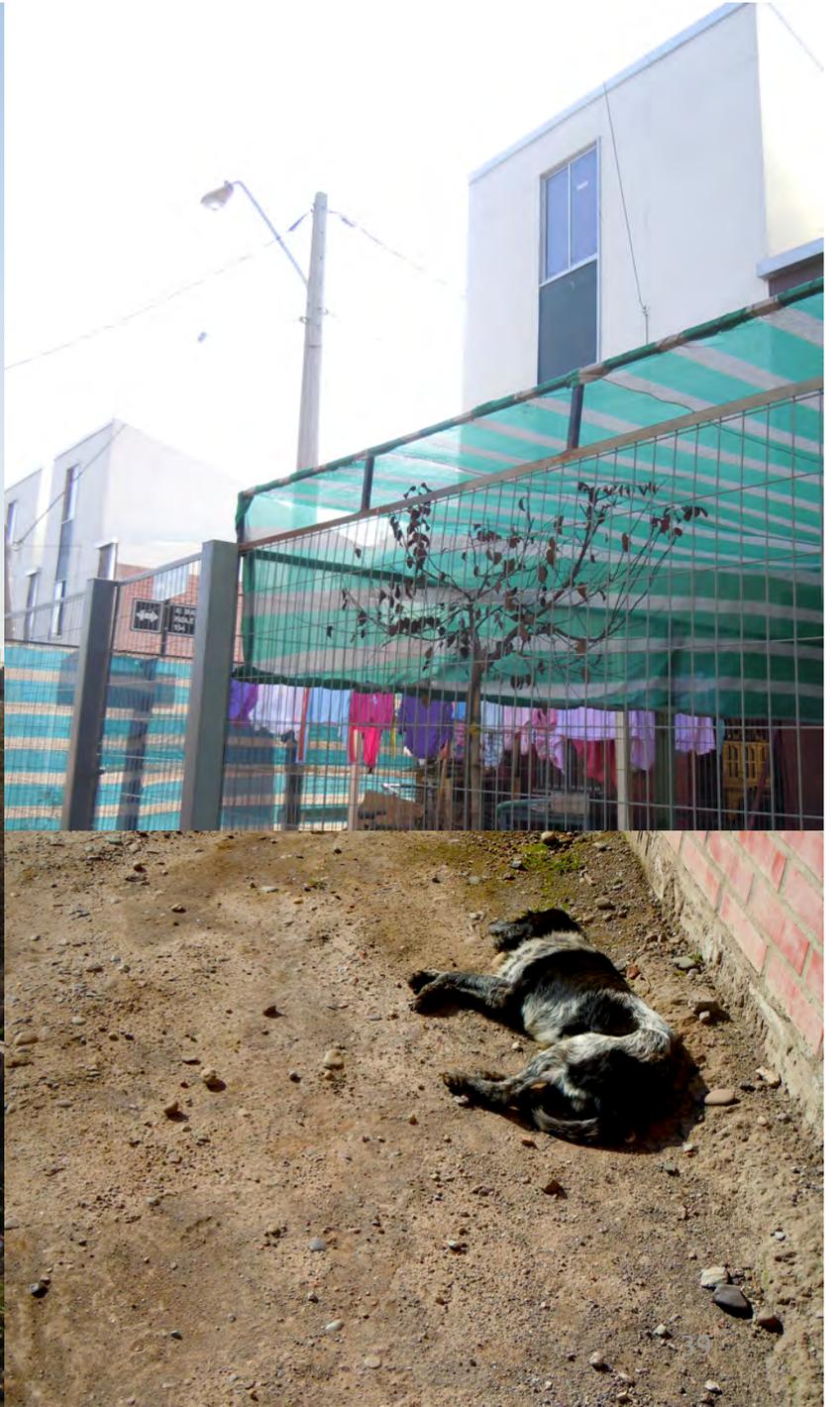


















**CENTRO
COMUNITARIO
LA RIOJA
ESPAÑA**



















RENCA 3

74 housing units + community center
Built 2010

Location:
11 de Diciembre 485, Renca, Santiago

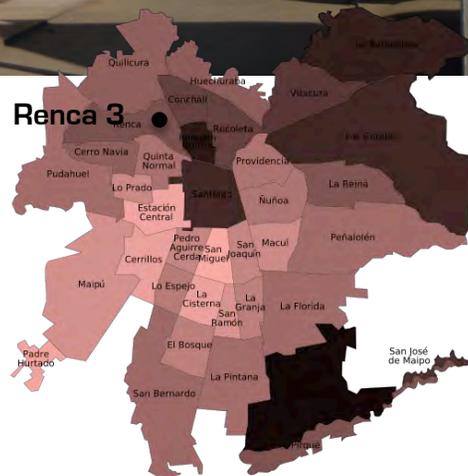
Areas:
Land: 6.824m²
Initial house: 44.11m²
Expanded house: 66.39m²

Client:
Un Techo para Chile

Engineering:
Elemental

Urbanization and specialization:
Elemental and Juan Carlos Díaz

Construction company:
SIESCON







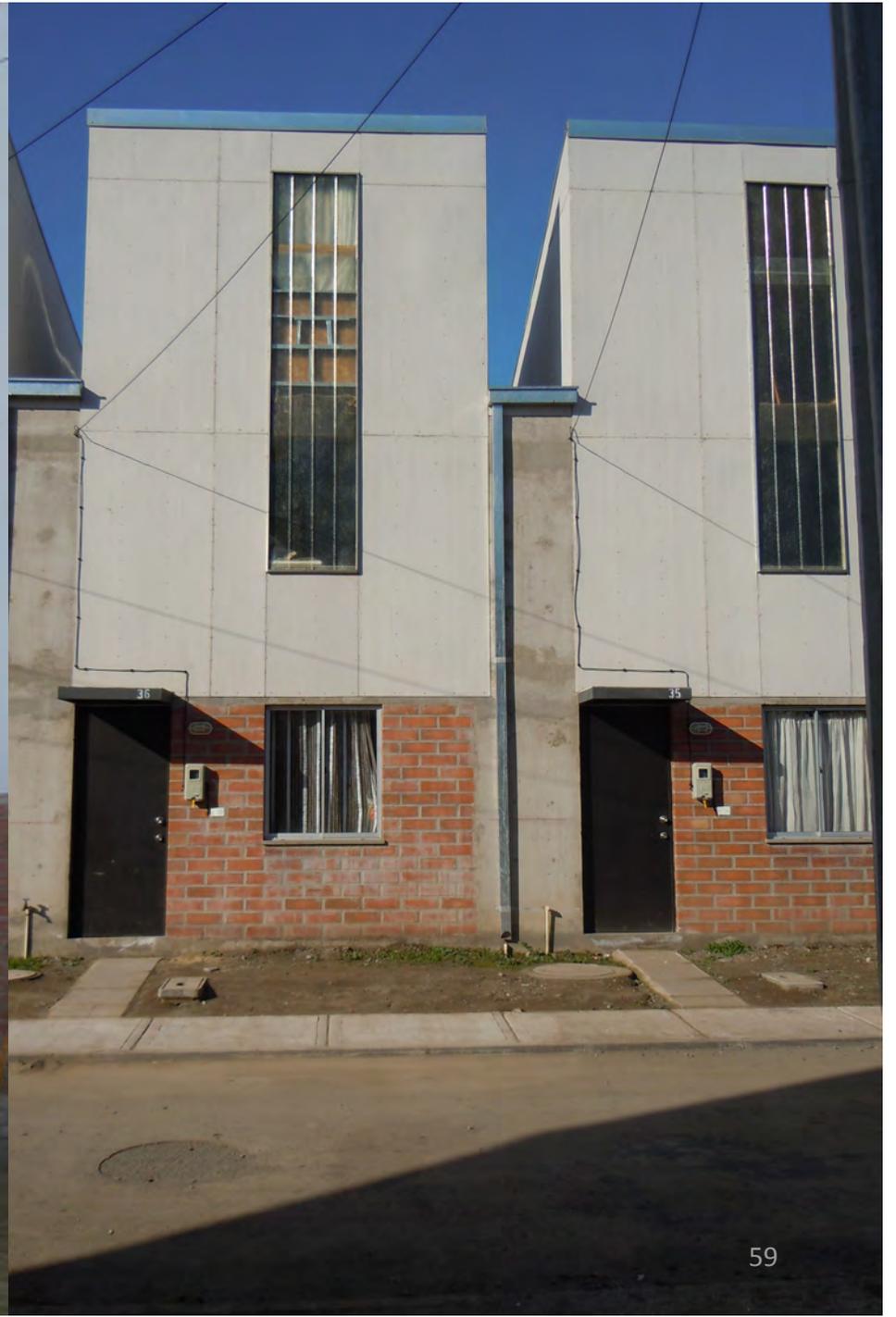


















LO ESPEJO

30 housing units
Built 2008

Location:
Juan Francisco Gonzalez 9461,
Lo Espejo, Santiago

Areas:
Land: 1.568m²
Initial house: 36,2m²
Expanded house: 60,2m² (*)
Initial house: 37,1m²
Expanded house: 68,8m² (*)

Client:
Un Techo para Chile
Engineering:
José Gajardo
Urbanization and specialization:
Elemental
Construction company:
Simonetti



Everyone, from architects at Elemental to professors at the Universidad de Católica, from teachers at my Spanish school to Chilean students, that I asked regarding Lo Espejo told me that it was one of the most dangerous communities in all of Santiago, along with Puento Alto and La Pintana. One Chilean informed me that Lo Espejo's nickname was *la boca de loba* (mouth of a she-wolf), and people not from the area would certainly be mugged. Even cars are frequently attacked, for in that area, for many of the youth, the saying goes that the only way out, since people have no money for university, is through football or drugs.

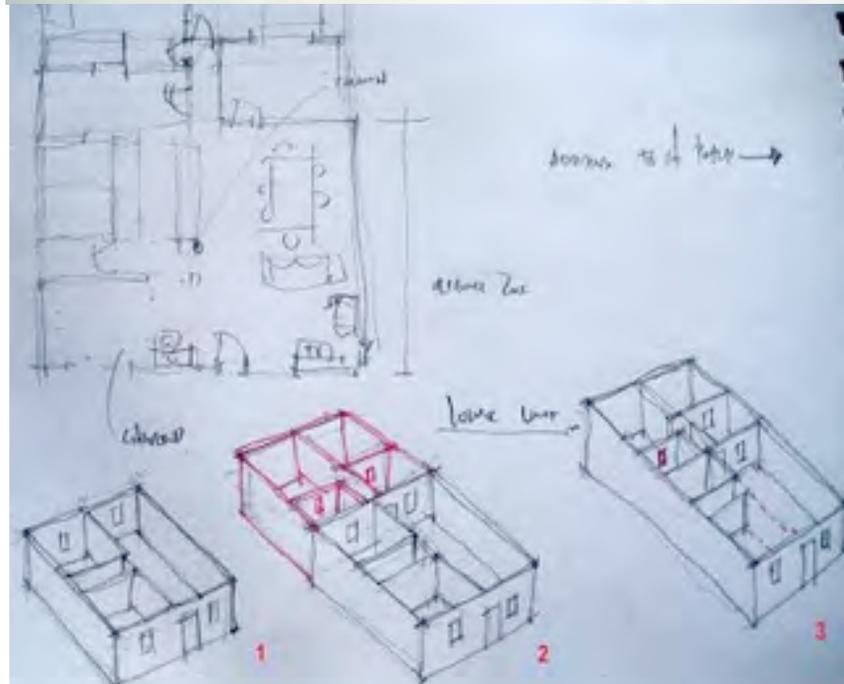
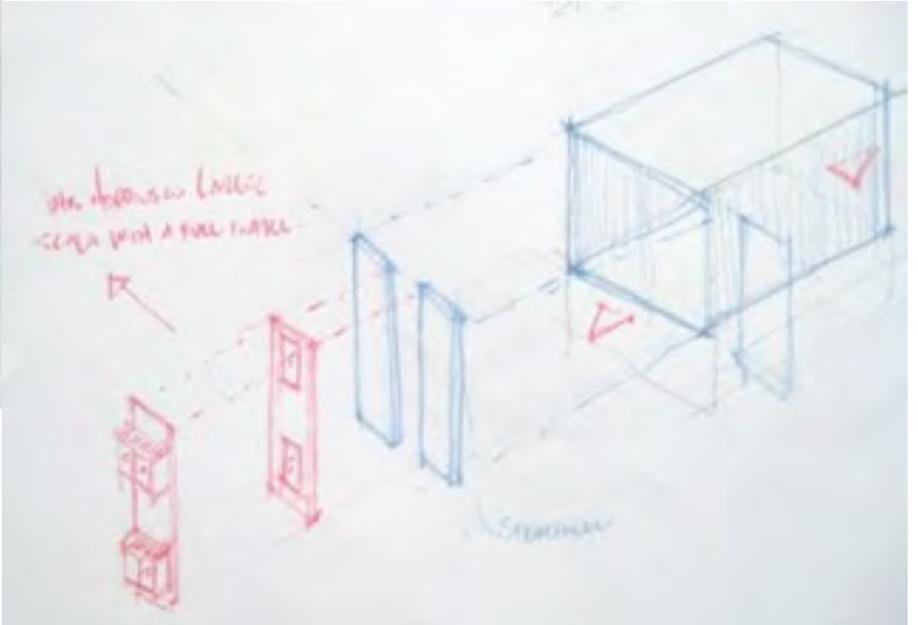
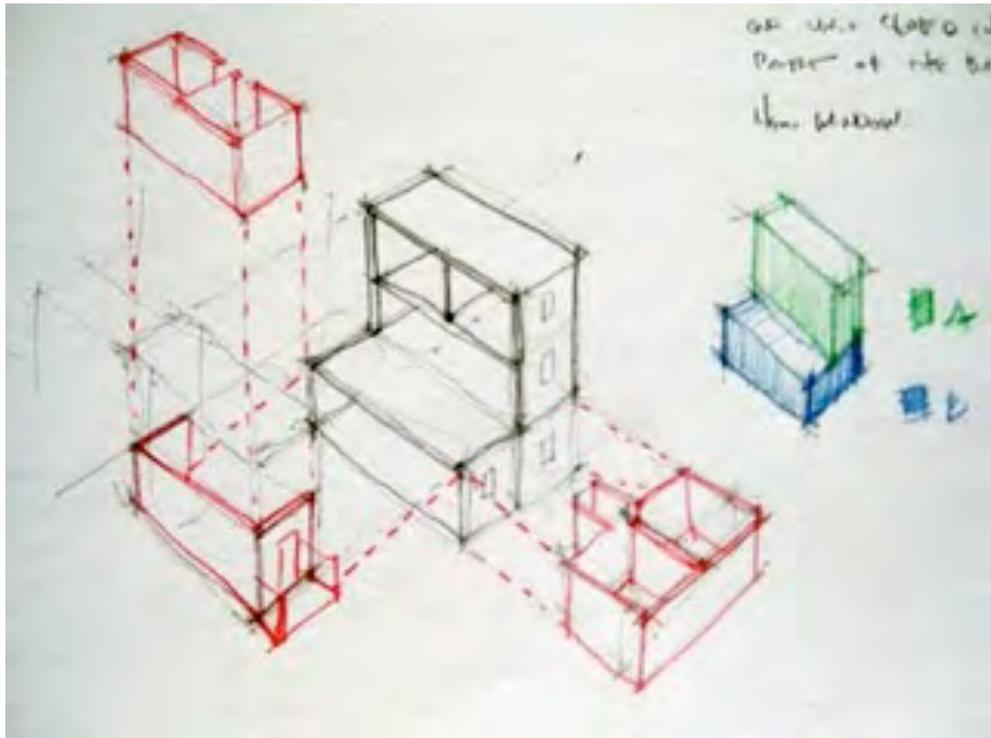
However, one traveler, Luke Perry went and conversed a little with some of the residents from the ELEMENTAL community in Lo Espejo. The community had been living in a campamento near the location of the new project in Santiago. In a similar situation to what occurred with the people in Pudahuel, the community talked to Un Techo Para Chile, which then hired ELEMENTAL. After working closely with the community, ELEMENTAL proposed two schemes. Because Santiago has a much rainier climate than Iquique, which was the project that the community had chosen to model Lo Espejo, builders put up a the roof over the entire

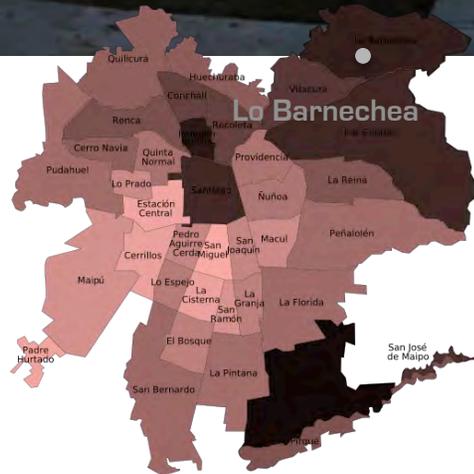
project first. This project differed with Quinta Monroy (Iquique) in that the government essentially funded the additions and the residents were able to completely built out their homes at the beginning.

Luke Perry spoke with Johana, one of the community leaders. She instantly welcomed him into her home and spoke with such passion and fervor about the project and housing. She was completely enthralled with her place. She said she wouldn't change a thing and liked that she could finish the inside however she wanted. Most people had added tiles and paint and their own interior flavor. Additionally, on the outside, one could change out the window and such. Luke also visited Monica Vargas's bottom unit. Three rooms were added in the back before they moved in. She was able to remove one of the walls in the living room to open it up to a larger space.

This project was very much initiated by the community itself and the strong community leaders, women.







LO BARNECHEA

150 Housing units + Community Center
Built June 2010

Location:
Getsemani 238 , Lo Barnechea, Santiago

Areas:
Land: 25.195 m²
Initial house: 44 m²
Expanded house: 69,2 m²
Community center: 76.6 m²

Client:
Chile Barrio RM, Ilustre Municipalidad de Barnechea

Engineering:
José Gajardo

Urbanization and specialties:
Juan Carlos Diaz - Proyectos Integrales

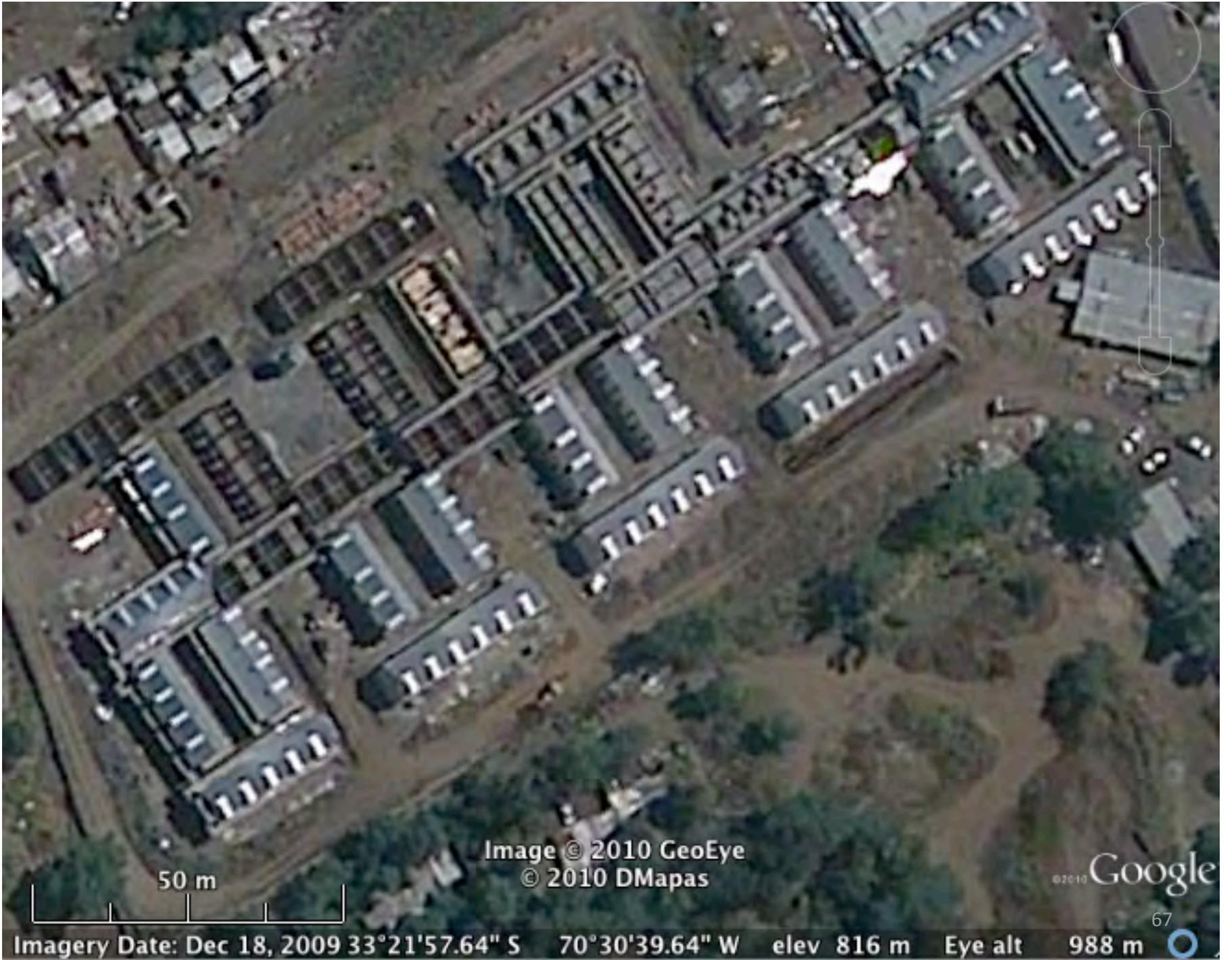
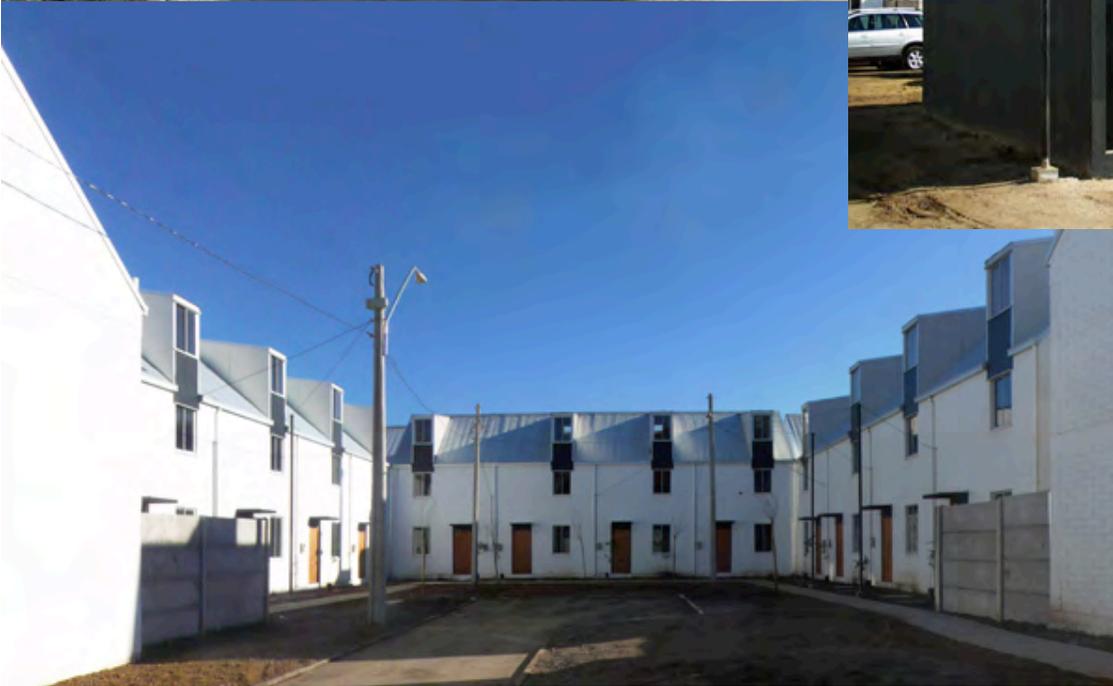


Image © 2010 GeoEye
© 2010 DMapas

©2010 Google

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Imagery Date: Dec 18, 2009 33°21'57.64" S 70°30'39.64" W elev 816 m Eye alt 988 m





LO ESPEJO 2

125 housing units
Built 2010

Location:
Lo Espejo, Santiago

Areas:
Land: 11.860m²
Initial house: 44.41m²
Expanded house: 66.14m²

Client:
Un Techo para Chile

Engineering:
Santolaya Ing.

Urbanization and specialization:
Elemental + JJPi



LA PINTANA

68 housing units
Built 2010

Location:
La Pintana, Santiago

Density:
107 houses/ha

Areas:
Initial house: 44.9 m²
Expanded house: 67.8 m²

Client:
Hábitat para la Humanidad

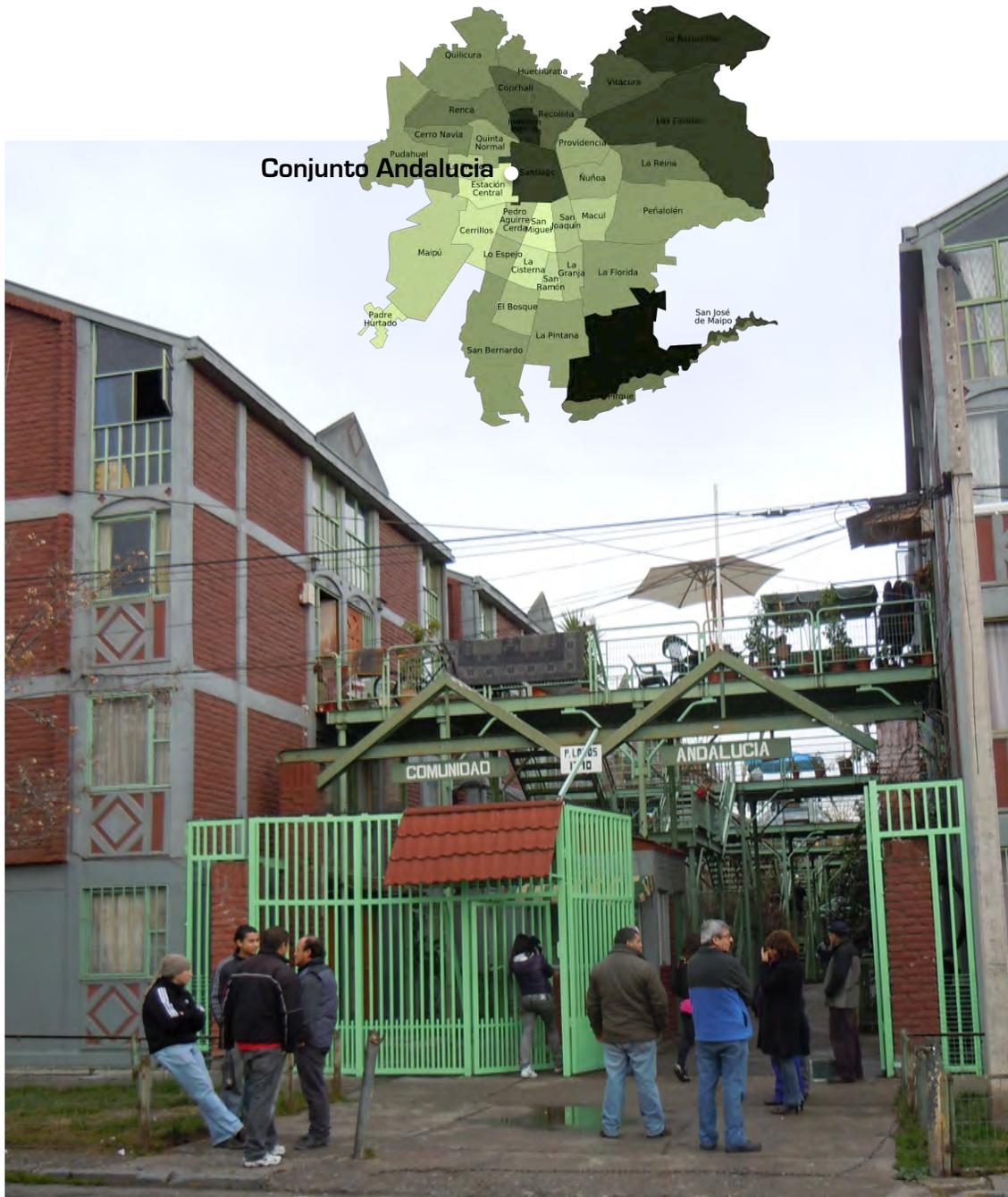
Engineering:
José Gajardo

Urbanization and specialties:
Elemental and Juan Carlos Díaz

Construction company:
Alejandro Gutiérrez

La Pintana is a rough neighborhood, with graffiti murals marking the territories of drug gangs, and with housing mostly self built. The ELEMENTAL project had been completely built in a crisp red and white finish to the same trademark look.





CONJUNTO ANDALUCIA

Architects: Fernando Castillo Velasco / E. San Martín, P. Wenborne y P. G. Pascal, de Chile; E. García, J. M. Asencio y M. Guerrero, de España; y Ernesto Labbé y Gloria Barros por el MINVU de Chile

120 housing units + 1 community center
Built 1991

Location:
corner of Pedro Lagos and Lord Cochrane,
Santiago, Santiago

Expansion:
From 2 or 3 floors vertically up 55m

Construction and Financing:
MINVU Y Comunidad Andaluz.

Density: 800 hab./he

In contrast to all of the ELEMENTAL projects, Conjunto Andalucía is close to the center, only a convenient half hour walk or ten minutes by metro. Three blocks from a major street, Av. San Diego, it is within easy reach of plenty of stores and market areas – although twice a week, a fresh market with fruit, vegetables, fish, meat and dairy comes to a street adjoining one of the borders of the community. And while there are big apartment blocks to the north, making it a highly developed region, once one turns off the main street, one has to walk through a slightly more run-down area, with graffiti adorning walls and loiters standing around. The church adjacent to the community lends the site some more credibility, though, and the thick iron gates and tall brick wall formed by the outside of the units lend a forbidding look. However, this project is located on land that used to be on the periphery of the city and thus the quality of the housing was quite poor.

The community is not a grand sprawling complex; though there are 120 units, these are compact, with either 2 or 4 floors (the ones with four floors have one unit on top and one on bottom). The exterior staircases branch out to accommodate travel to eight units, starting off as one staircase that splits in the middle in two opposing directions, up to the third level. The landing of the stairs becomes a patio that some turn into a garden.

The units are not free to expand beyond their exterior, with the exception of some of the units along the periphery, which have one unit, where some have put up an overhang over their front yard and others using it as a greenhouse or even an extra room. Otherwise, all the units in the middle look alike – there is no room for creativity or freedom of expression. The idea is this would signal equal conditions for all the people in that none has any more hierarchy than any other.

In the middle of the complex is a a center pavilion, the blocks of buildings lead to this center point. Though there are several exits, the entrance is at the front, with a security guard in a booth. A building adjacent to the pavilion contains a library, a kitchen for community use, an event hall and a meeting room, so that the community can meet regularly to discuss any rules, events, et cetera. A playground is in front. Small small businesses have sprung up in the first floor of some of the units close to the entrance – a food café, a salon, and a calling center.

Although kids run and play freely, the atmosphere is a bit grim. When I visited, people were standing about in the interior corridor as if waiting for something. Some were interacting and socializing. It appears that the intent of the design – to provide at the center a space such that the people had a greater chance to meet and create bonds, and thus to generate an atmosphere of participation and

collaboration that contributes to the development of the area and its residents – was successful.





The windows and insides show that the walls are incredibly thin



The lamps use energy-efficient light bulbs to diminish energy costs.











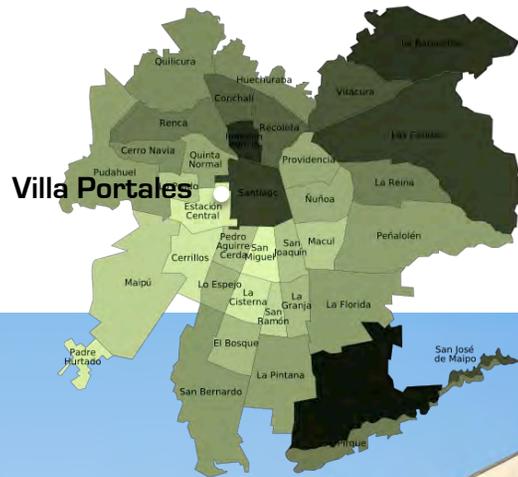






Because the units are very close to one another and compact, there is no room for cars, resulting in the lucky few auto owners to park in the streets adjoining the complex.





VILLA PORTALES

In construction:
1954 - 1966

Architects:
Bresciani, Valdes, Castillo, Hridobro

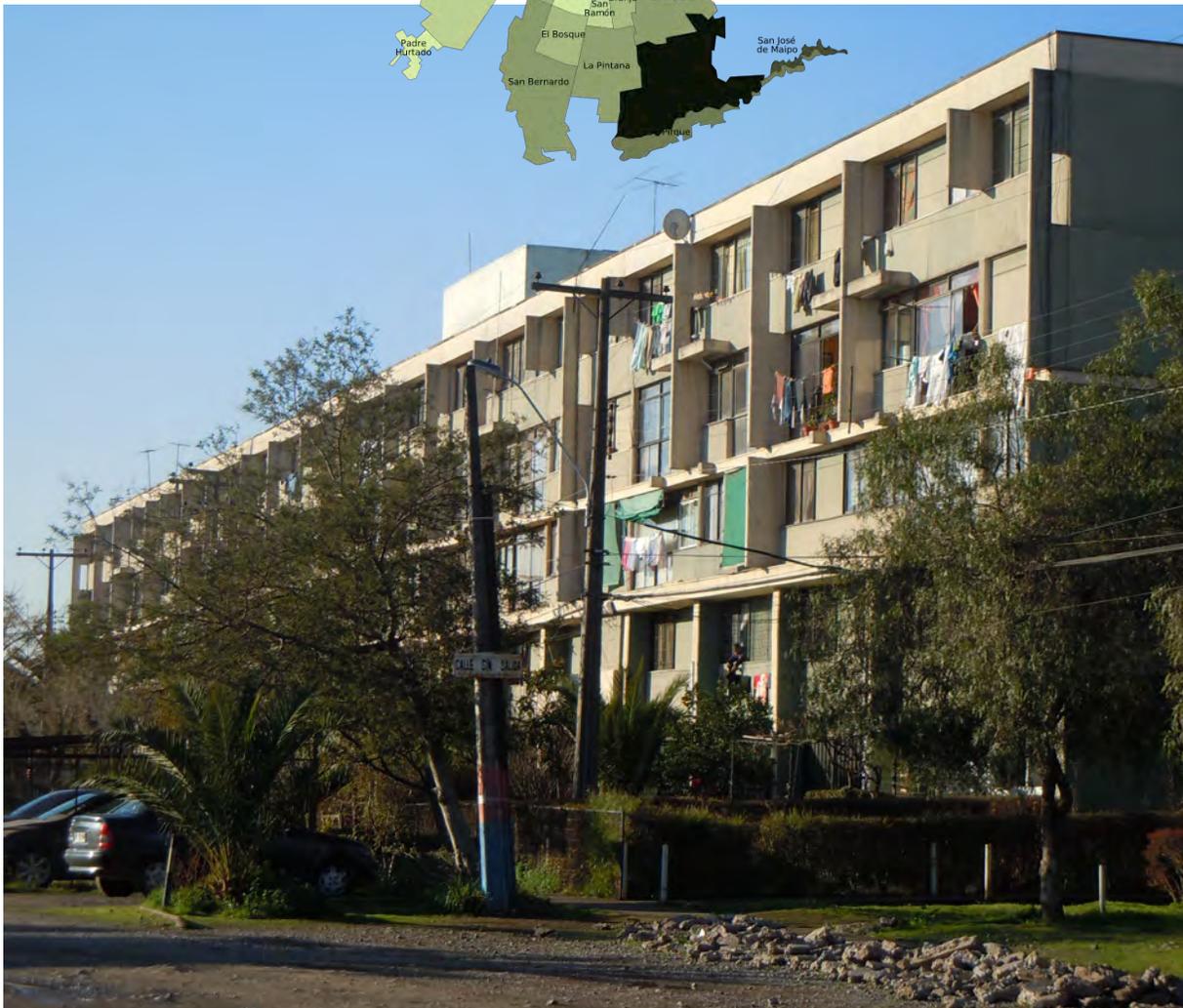
Location:
Av. Portales y Av. General Velasquez
Santiago, Santiago

Population:
6,000

No. of Units
1860
1500 Apartments
360 Houses]

Expansion::

Density: 360 hab. / he





TERRENO INSTITUCIONAL

QUINTA NORMAL

AV. PORTALES

ESTADIO MARISTA

U. DE SANTIAGO

U. DE SANTIAGO

U. DE SANTIAGO

AV. ECUADOR

AV. GERL. VELASQUEZ

CIRUELO

NOGAL

PLATANO

JACARANDA

MANZANO

SAUCE

PEUMO

CERESO

PERAL

EL ARRAYAN

DURAZNO

LIMON

LAS ENCINAS

PASEO CENTRAL

EL BELLOTO

DAMASCO

HIGUERA

ALAMO

NARANJO

LAS SOFHORAS

MATUCANA

Image © 2007 Digital Globe
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ALAMEDA GRAL. BERNARDO O'HIGGINS

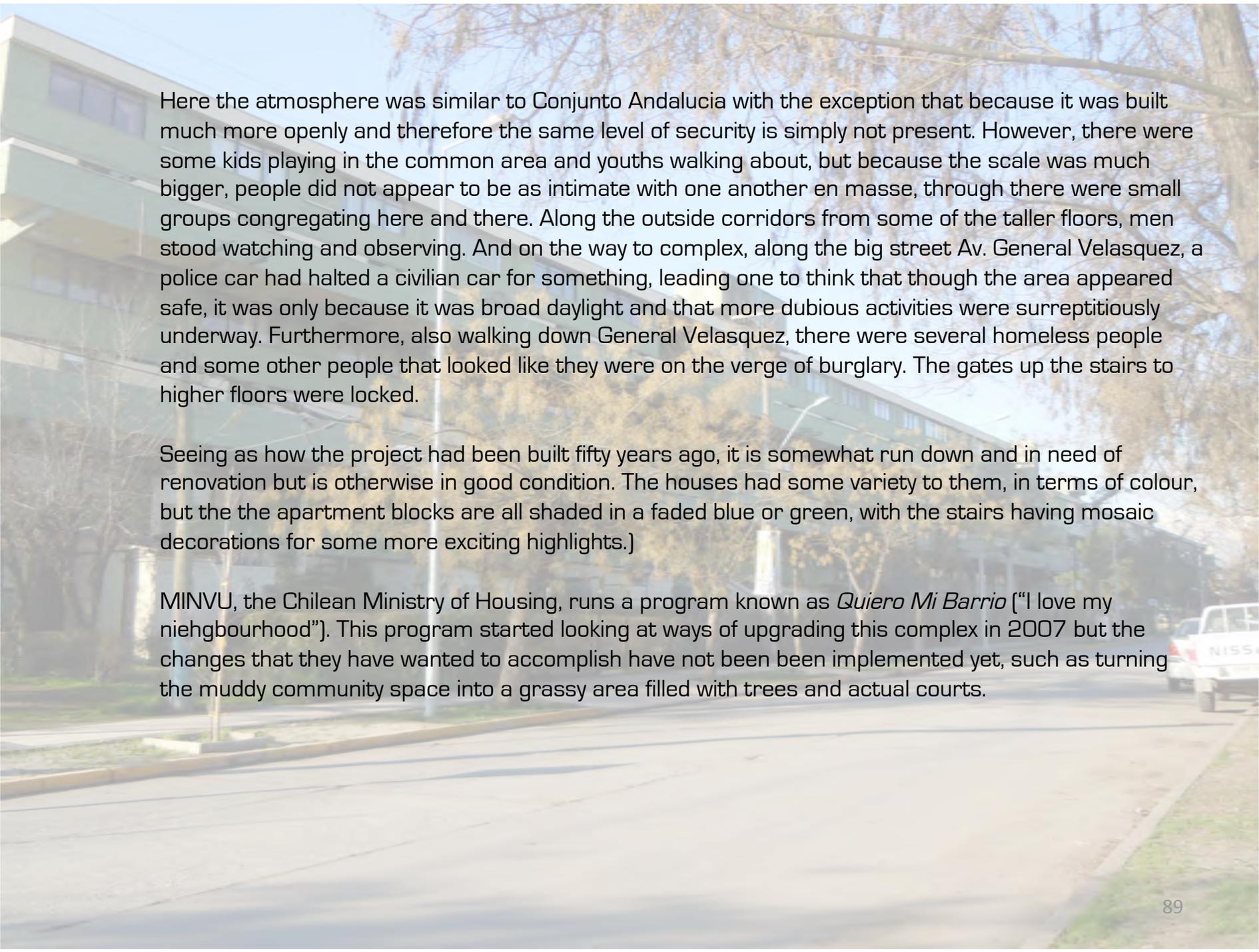
Google

The project was conceived at a time when the Chilean government began its slum reduction program and right before it started moving the poorer classes to the peripheries of the city rather than accommodating them close to the center.

Villa Portales, like Conjunto Andalucia, is very centrally located. It is less than a five minute walk to a huge LIDER (a supermarket chain that is similar to that of Wal-Mart or Target), ten minutes from the nearest metro station and bus station departing to other cities – there is a tradition for Santiago locals to leave for the weekend to somewhere with fresher air – and about three minutes to the nearest local bus station. The Universidad de Santiago de Chile and technology buildings encircle the complex. It is five minutes from Av. Libertado Bernardo O’Higgins (a street that changes its name several times as the street’s length bisects the city and thus passes through several different regions of Santiago), a bustling main street that can take one anywhere easily. It is practically adjacent to the Autopista Central (“central highway”), a good thing for those with car, to new development, namely, by the real estate company Fundamenta, and to entertainment: cafes, bars, etc.; at the time of my visit, there was a Russian Ice Circus five minutes away. The community even has a fantastic, unobstructed view of the Andes Mountains – in fact, this location could not be better.

The twelve big buildings are spaced out in a checkerboard type fashion, and in between there are a number of terrace houses, spaces for parking, and one bigger space is perhaps used for football games and community meetings (there are two low buildings towards the middle). A couple of convenience stores provide quick access when a resident may only need one or two things.

Although the houses allow for some basic expansion (room in the front and in the back), and the gardens in front of the apartments on the first-floor level can be turned into a garage, a patio, or an extra room, the majority of the apartments did not permit for any extensions. Some residents expanded regardless and constructed balcony like rooms. The apartments, ranging from one to two floors, were spaced out among five-six floors, depending on the block. The ones at the top had balconies built in as part of the design and really could not expand any further.



Here the atmosphere was similar to Conjunto Andaluca with the exception that because it was built much more openly and therefore the same level of security is simply not present. However, there were some kids playing in the common area and youths walking about, but because the scale was much bigger, people did not appear to be as intimate with one another en masse, through there were small groups congregating here and there. Along the outside corridors from some of the taller floors, men stood watching and observing. And on the way to complex, along the big street Av. General Velasquez, a police car had halted a civilian car for something, leading one to think that though the area appeared safe, it was only because it was broad daylight and that more dubious activities were surreptitiously underway. Furthermore, also walking down General Velasquez, there were several homeless people and some other people that looked like they were on the verge of burglary. The gates up the stairs to higher floors were locked.

Seeing as how the project had been built fifty years ago, it is somewhat run down and in need of renovation but is otherwise in good condition. The houses had some variety to them, in terms of colour, but the the apartment blocks are all shaded in a faded blue or green, with the stairs having mosaic decorations for some more exciting highlights.)

MINVU, the Chilean Ministry of Housing, runs a program known as *Quiero Mi Barrio* (“I love my neighbourhood”). This program started looking at ways of upgrading this complex in 2007 but the changes that they have wanted to accomplish have not been implemented yet, such as turning the muddy community space into a grassy area filled with trees and actual courts.













big middle community area – useful for playing football maybe or parking cars (however, no grass, unkempt and muddy) – in the very middle, buildings organized around this “park”



advertises hung at opposite site for events happening in square

for the most part, no graffiti – except for one closed store

UNIVERSIDAD DE SANTIAGO
DE CHILE
FACULTAD TECNOLÓGICA
AV EL BELLOTO 3735









LOS SAUCOS

Architects: Francisco Vergara, Aldo Bravo

Location: Avda. Vicuña Mackenna and
Elisa Correa, La Florida, Santiago

Construction details:
843 units of 66 m² each,
57.123 m² in total

Total Area: 10,99 ha

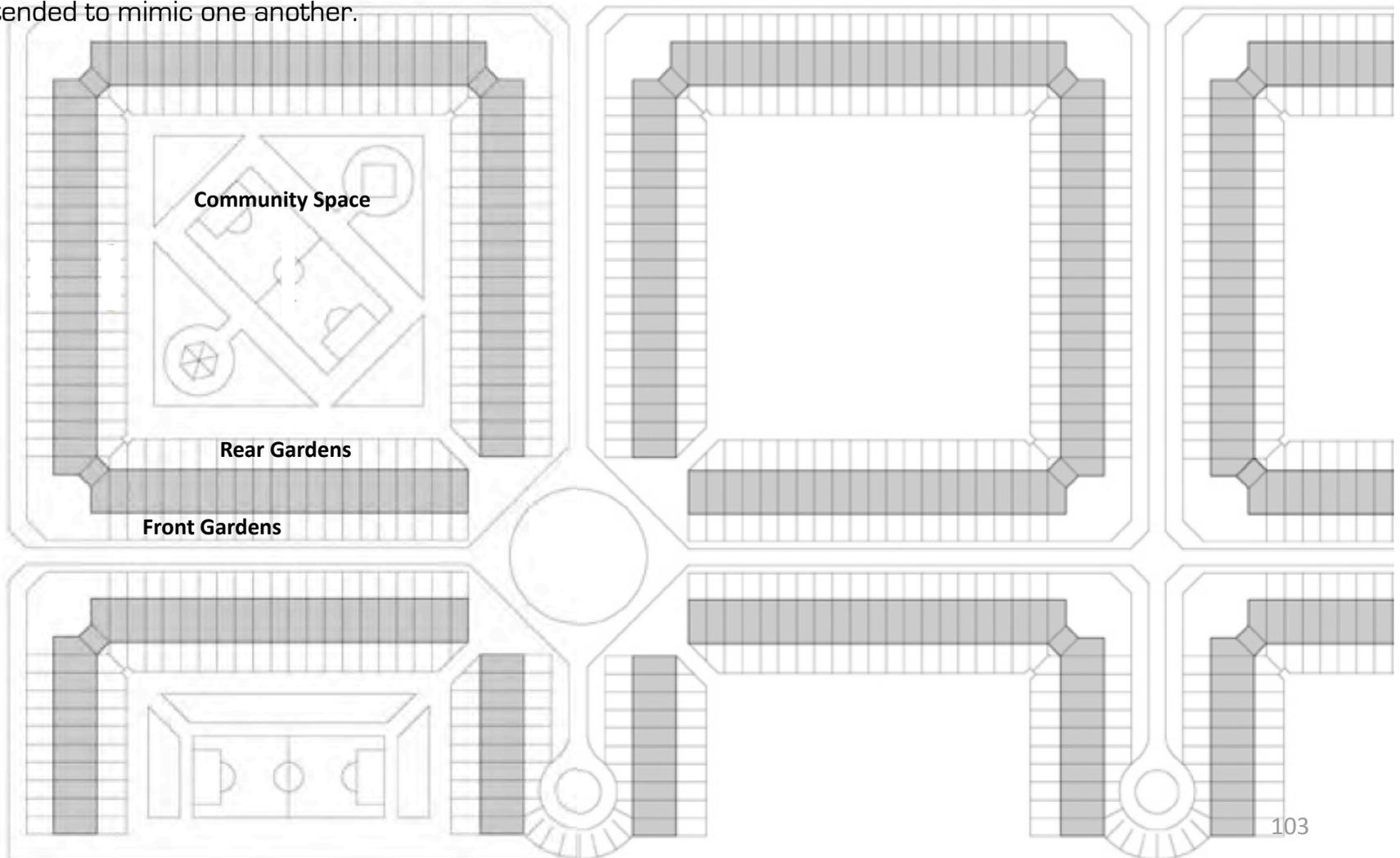
Finished built:
1984, 2 years in construction

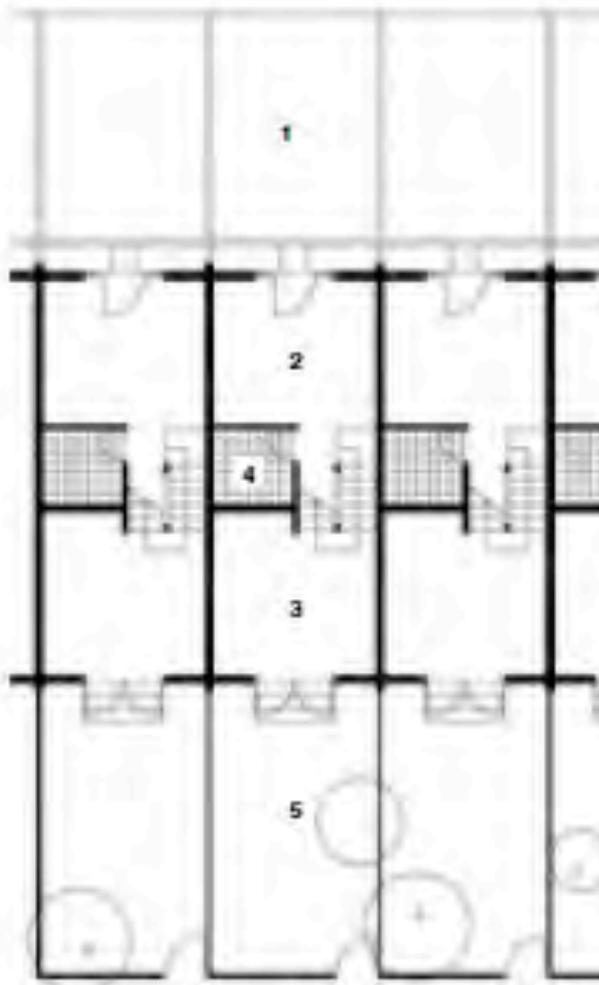
Client: Inmobiliaria El Alba
Structural Engineering: Eduardo Zegers
Construction: G.O.P.

Out of the three older social housing projects, Los Sauces was the furthest from the city, taking fifty minutes by metro from the center. Located in the southern part of the city, which is a region traditionally known for mostly having governmental housing or cheaper quality type housing, and thus has more dangerous areas. However, though the actual journey by metro or bus takes a long time, once arrived, the metro stop is one block away from the entrance to the complex. Here the the metro line is above ground and looks quite futuristic, a long continuous, snaking, floating line that has stopping points every so often, which act as hovering loading docks for workers and residents to depart and arrive. In addition, its gates open up to Av. Vicuña Mackenna, another main road that runs through Santiago (perpendicular to Av. Libertado Bernado O'Higgins). It too is close to a major supermarket of the name Moneterrey, so in essence, albeit the fact that this site is the furthest, it has similar amenities close by and its incredible vicinity to the metro stop allows for quicker transit.

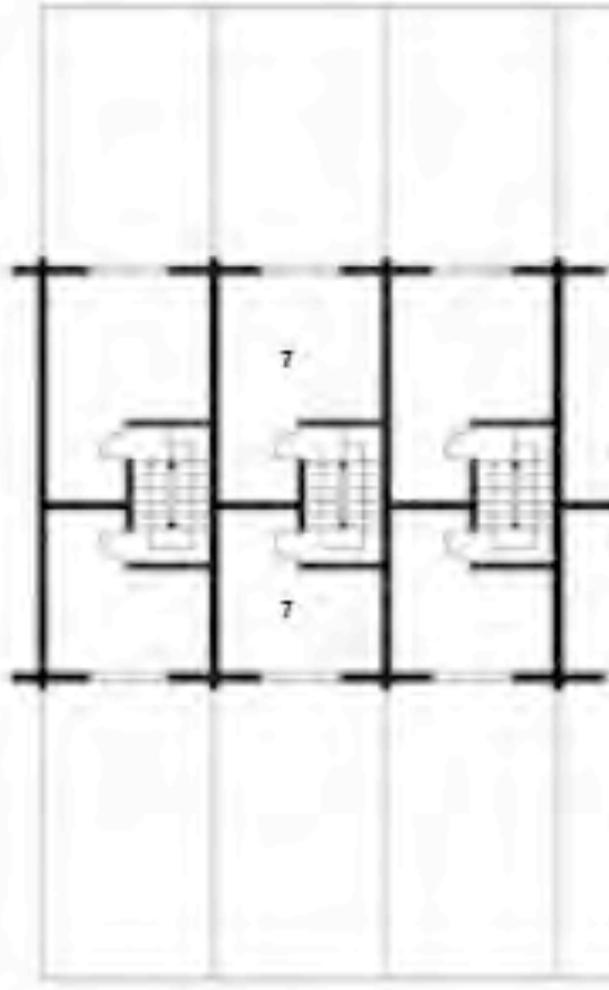
Los Sauces was built on a larger scale than Conjunto Andalucia and a smaller one than Villa Portales with 843 units. Here, the idea of terrace housing and community spaces are meshed to form groups of squares. Each unit has three storeys, a front and a back yard and are free to expand one storey into the the yards if desired. Most people chose to keep those spaces as garages or patios, very few turned them into rooms. The open community spaces have benches to encourage interaction among the residents. The narrow roads permit for the passage of just two cars, such that one could be parked alongside, but with this greatly constricting movement. Each unit has its own flair, with different doors and different types of overhang over the front yard. While all of the exterior facades are made of brick, some have painted them various colours and changed the decoration in the middle part of the façade. The same concept and location for everyone remains the same, but the subtleties remain just as noticeable. The additions in the front, showing wear and tear, indicate the quality of the units themselves which are less run down, despite being older than the expansions. Some of the houses at the end add a second floor to their house, thus jutting out into space that is technically for the whole community, some are just starting or ending a project and have rubble and building materials stacked in front of the house. Of those units that opened up to Av. Vicuña Mackenna, the majority were using their front yards as a way to run a business – there were decently-sized cafes and salons.

In contrast to the other two projects, all of the people I encountered had a purpose: everyone was doing something, or walking, even sauntering, but no one was loitering or seeking trouble. This did lend the atmosphere a slight air of desertion, mainly because the big community spaces remained empty and unoccupied. The sounds of hammering and drilling coming from the units infused more vigor into the air: people who were in the process of improving their homes, whether it was building a unidentifiable structure or bolstering a fence or scrubbing a car. A definitive community identity emerged, and it was interesting to see that despite the overall variety, adjacent units tended to mimic one another.

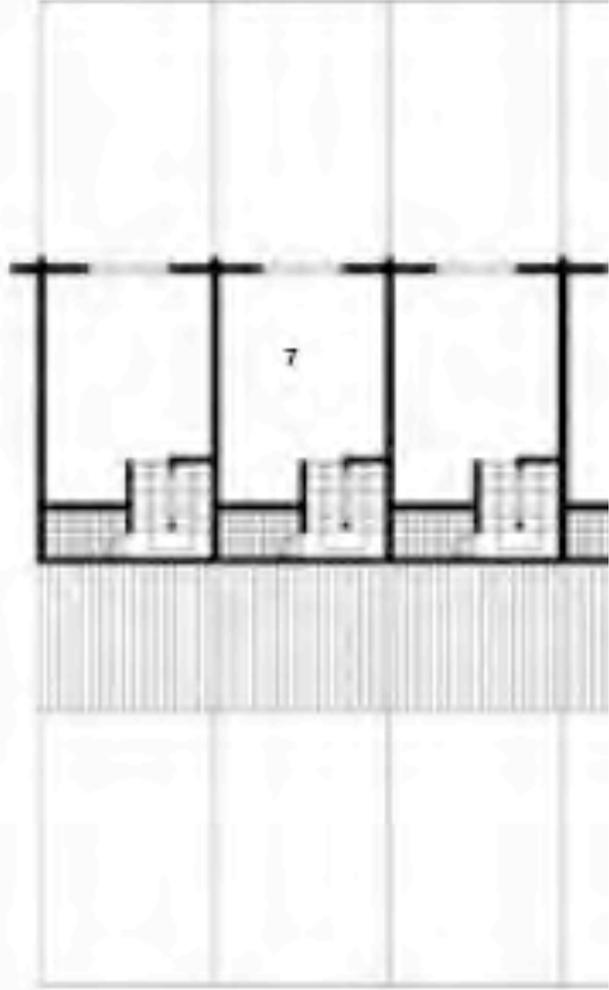




First level



Second level



Third level

- 1 Entrance from front garden
- 2 Living Room
- 3 Kitchen
- 4 Bathroom

- 5 Patio
- 6 Exit to community space (center of block)
- 7 Bedroom



The numerous trees, flowers and even orange trees definitely imbued even more life into the atmosphere: the houses worked with the nature to create one breathing, sustainable community.









also, amazing view of the andes – a bit further out of the main part of the city so the air is a little clearer





7. CONCLUSION

Even though the first prototype project built in Iquique is the one that academics favour and out of all Elemental's projects is the one most frequently showcased in magazines and journals, when given a choice, the residents of subsequent projects choose a design that implies less construction, the future expansion more premeditated. The Iquique model zig-zags its way around and leaves plenty of space for construction in between the towers. The more recent models permit expanding in front and to the rear of the house rather than in between. This may cause concern as to the uniqueness of the design – after all, many incremental houses expand in front and/or up, what makes ELEMENTAL's recent projects in Santiago any different?

UNDER CONSTRUCTION.