FORMALIZING INFORMALITY

An investigation about how a formally educated
architect could work with informal architecture
in improvement programs of informal settlements.

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Master Thesis at Chalmers Architecture
Master Program Design for Sustainable Development

Chalmers University of Technology

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Cover photo: Madre Tierra

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ABSTRACT

The informal architecture present in different forms around the world is a necessity to over 800 million people. We all have to live somewhere, it is a problem that has to be solved. And people resolve it, somehow. In many cases informally.

The architecture created by these people is of varied quality and form, and the surroundings can be more or less precarious and often without access to urban services. But, due to that there are no other options, the people decided to live there and construct a form of living space, a form of home.

In this master thesis, two different improvement programs of informal settlements are studied. They are realised by the organisation Madre Tierra (Mother Earth), in Buenos Aires, Argentina, and are studied through a period of eight weeks of field studies on site. The investigation is focused on the design process in the programs, since it is in this complex process that *the formally educated architect meets the already existing informal architecture* and the people who have created it. The purpose of this thesis is to investigate how that meeting could and should be handled by the architect.

Based on an investigation of theories, the practical work of Madre Tierra and the study of two cases - the design process of two specific houses closer, some design criteria are formulated. They should be seen as aspects of the theoretical material and the practical work that could be developed. The design criteria are then discussed since the theories are not entirely applicable in the reality of the practical work. The conclusions from the discussion are that there are some methods and strategies that a formally educated architect can, and should, use, when working with informal architecture in informal contexts. They are; using a participative design process, get to know the families very well, use the right language when talking about architecture with the families, bring in the gender aspect in the design and recognize that the families have knowledge that the architects don´t have. There are also some other aspects of this work that the architect has to be aware of; it is a very different kind of process compared to conventional architectural work, the possibly complex and complicated role of the architect in this context, and, that in this process, the architect can´t create his or hers ´piece of art´, the result is *always* the achievement of the family.

Key words: informal architecture, vernacular architecture, slum, informal settlements, slum upgrading, slum improvement programs.

ABSTRACTO

La arquitectura informal que existe en diferentes formas por todo el mundo, es una necesidad para más de 800 millones de personas. Todos tenemos que vivir en algún lugar, es un problema que se necesita solucionar. Y la gente lo soluciona, de algún modo. Muchas veces informalmente.

La arquitectura creada por estas personas tiene formas y calidades variadas, y los alrededores pueden ser más o menos precarios y muchas veces sin el acceso a los servicios urbanos necesarios. Pero, porque no hay otra opción, la gente ha decidido vivir ahí y construir un tipo de espacio para vivir, un tipo de vivienda.

En esta tesis, han sido estudiados dos programas de mejoramiento de barrios informales. Son realizados por la organización Madre Tierra en Buenos Aires, Argentina, y han sido investigados a través de estudios de campo por un tiempo de ocho semanas. La investigación está enfocada en el proceso de diseño en los programas, porque es en este proceso complejo que *el/la arquitecto/a formalmente educado/a, se encuentra con la arquitectura informal ya existente*, y con la gente que la ha creado. El propósito de esta tesis es investigar cómo este encuentro debe ser manejado por el/la arquitecto/a.

Basados en una investigación de teorías, el trabajo práctico de madre Tierra, y el estudio de dos casos prácticos – el proceso del diseño de dos casas, se formulan algunos criterios de diseño. Estos deben ser mirados como aspectos de las teorías y del trabajo práctico que podrían ser desarrollados. Los criterios de diseño, después son discutidos ya que las teorías no son totalmente aplicables en la realidad del trabajo práctico. De la discusión se concluye que existen una serie de métodos y estrategias que un/a arquitecto/a podría, y debería, usar, cuando trabaje con la arquitectura informal en barrios informales. Ellos son; usar un proceso de diseño participativo, conocer muy bien a las familias, utilizar un lenguaje válido en conversaciones con las familias sobre arquitectura, incluir el aspecto de género en el diseño y reconocer que las familias tienen conocimiento que los/las arquitectos/as no tienen. También hay otros aspectos de este trabajo que el/la arquitecto/a tiene que tomar en cuenta; este proceso es muy diferente comparado con el proceso convencional del trabajo del/la arquitecto/a. El papel del/la arquitecto/a en este contexto puede ser muy complejo y complicado. En este proceso, el/la arquitecto/a, no puede crear su ´obra de arte´, el resultado es *siempre* el logro de la familia.

PREFACE

Growing up in structured and formal Sweden, I first got contact with the informal context for real in Ecuador where I travelled to work as a volunteer after high school. I worked in the cloud forest of the Andes and then continued to the suburbs of Lima, Peru, to work at a health centre. After this experience I went home but realized that I wanted to learn more about, and explore more of South America. So I went back, travelled through Bolivia and worked as a volunteer at a lunch and youth centre in Buenos Aires, Argentina. I was absolutely fascinated and taken by these countries, the people, the culture, the nature, the language, the chaos. I experienced many terrifying situations and many amazing ones, and around me there was so much beauty, but also despair.

I have always liked architecture, buildings and cities, but meeting these people and spending time in these areas, the poor countryside of Ecuador, the rough suburbs of Lima, travelling through Bolivia, the poorest country in South America, and the chaotic villas of Buenos Aires, made me interested in another way than before. Gradually, I realized that I wanted to study architecture to, maybe someday, be

able to better understand this type of architecture and the problems of these people who lived in so poor conditions. So I went home to Sweden, moved to Gothenburg and started studying Architecture and Engineering at Chalmers.

After one semester I doubted if it was right for me, I felt that what we learned in school didn´t have anything to do with the things I had experienced, seen and felt while travelling and working in South America. But during the Christmas break after the first semester, I went back to Lima and travelled around Peru for a month, and was reminded about how the situation was for many people living in the outskirts of the cities but also on the countryside.

One day I was travelling with a bus, passing a village with small, shaky buildings along the paved road were the bus was driving. Between the buildings were roads made of packed orange-brown soil, dusting when people walked on it. I looked at the corrugated iron roofs and thought about the people living there, in these buildings, created by them. The thought came to my mind that I was looking at some kind of "survival architecture", houses created for the pure function of having a

roof over the head and surrounding walls. By then we had already passed the village and I thought that maybe I should continue studying at Chalmers after all and try to make the most out of it.

The bachelor years passed and for various reasons I lost the connection with South America and with the context of developing countries. But during my master I went to Africa with the Reality Studio at Chalmers, exploring Zanzibar's special and exciting architectural atmosphere. Going there made me realize that my master thesis could take place in South America.

So returning to South America and placing my master thesis in that context, has been a great way to reconnect to my original intentions and thoughts for starting the architectural school.

And it has been a fantastic opportunity to again, and in a new way, explore that chaotic and fascinating culture and world.

LIST OF CONTENTS

List of acronyms used in this report

BsAs – Buenos Aires

FFRR – Programa de Fondos Rotativos para el Mejoramiento Habitacional (improvement program based on micro credit funds)

MV – Mejor Vivir (governmental improvement program)

MT – Madre Tierra (NGO organisation)

MFS – Minor Field Study (scholarship from SIDA)

NE - Nationalencyklopedin

NGO – Non-Governmental Organisation

NPQ – Nuevo Parque Quirno (an informal settlement in Buenos Aires)

SIDA – The Swedish International Development Cooperation Agency

UN – United Nations

UN-HABITAT – United nations Human Settlement Program

UNESCO – United Nations Educational, Scientific and Cultural Organisation

WCED – World Commission on Environment and Development

Interviews and informal conversations have taken place with:
Alvarez, Juan, living in Nuevo Parque Quirno, NPQ

Bustos, Graciela, living in NPQ

Carbone, Graciela, architect at Madre Tierra, MT

Jacquet, Nancy, living in NPQ

Lazzarini, Carolina Andrea, architect at MT

Monroy, Gisela, living in NPQ

Nosetto, Gabriel, architect at MT

Rizzo, Cintia, social worker at MT

Rolón, Nora, living in NPQ

Varela, Omar David, architect and teacher at Universidad Nacional de General Sarmiento, and my Argentine tutor.

introduction

In this chapter the research questions, the purpose, the limitations and method of the project are presented.

House under construction in Nuevo Parque Quirno. Photo: Madre Tierra.

How could and should a formally educated architect work with informal architecture in improvement programs in informal settlements?

In theory?

In practice in BsAs?

what can they learn from each other?

what is good, what is bad?

2 improvement programs: the frames for the design process.

2 cases: result for the families? How do they perceive the process?
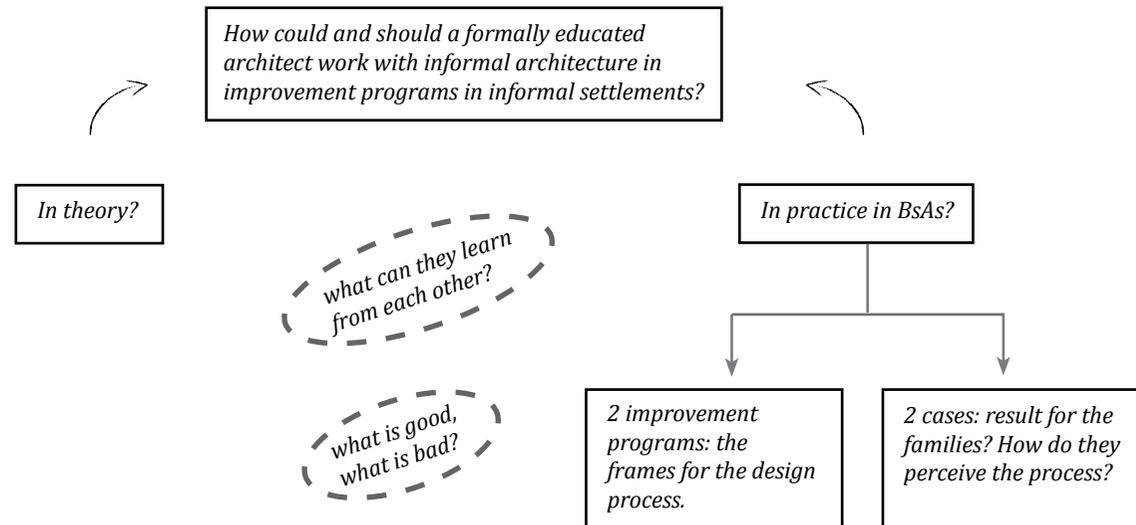
INTRODUCTION

This master thesis is about the informal architecture that can be found in the slum areas and informal settlements around the world. It is an investigation about how two improvement programs that are being used in Buenos Aires, Argentina, are functioning, and how the design processes of these two programs work. The processes are explored through interviews with some participating families, presented in the form of case studies, and by interviews with architects at the Non-Governmental Organisation, NGO, Madre Tierra, MT, working with the programs and the families.

The houses of the families are also presented in their original shape, mainly created by the families themselves, and also in their future improved state, which is analysed to see how the result will be for the family and how the participative design process has functioned. The practical work observed during a period of field studies of eight weeks, is then compared to three present theories, developed in Latin America and presented in the theoretical background section, about how to work with informal architecture in informal settlements. Through the analysis it will be clear that the theories lack value in some aspects in the practical work, and vice versa. Based on this, design criteria will be formulated about how the theories could be developed and influenced by the observed practical work. These design criteria are points of development to rise in the theoretical discussion. Another type of design criteria, aimed at the development of the design process in the practical work of the organisation Madre Tierra, are then formulated as tools that could be developed inside the design process.

The materialization of this thesis is a theoretical discussion where the design criteria are discussed in relation to the complex reality.

To be able to perform the investigation I have been on site in Buenos Aires, doing field studies during eight weeks, thanks to a Minor Field Study, MFS, scholarship funded by The Swedish International Development Cooperation Agency, SIDA.

This thesis is divided into chapters that have a logic order and should be read in that following order to get the clearest picture, although the sections in the background chapter could be read separately.

WHAT, WHY AND HOW

What: This is an investigation about how a formally educated architect could, and should, work with improvements of informal architecture in informal settlements.

Field studies on site in Buenos Aires, combined with literature studies will lead to a theoretical discussion about how the methods of the theories function in relation to the observed practical work, and about how to develop the practical work with the informal architecture in the framework of improvement programs.

Why: Informal settlements and slum areas are spreading around the world and the inhabitants often have to provide for, and build their own homes/houses of what they can access. These areas are often viewed as problematical from a city planning and urban view and even ugly as houses/ architecture, but the people who have created these neighbourhoods have been forced to use their creativity to solve their emergency situation.

There are many different types of improvement programs for slum areas, and they do not always turn out to be beneficial for the inhabitants and sometimes don´t lead to good improvements. Therefore it is important to see how they function in relation to the needs of the inhabitants, and to see what role an architect can have in these improvement programs.

May (2010) says that the slum architecture is the new vernacular architecture, meaning the architecture of the people, created from local materials and traditions. Working with local materials will be even more important due to decreasing natural resources and the necessary aim for sustainable development. To be able to take on those challenges it can be crucial to learn from people who are forced to use only local materials, and who can solve their living situation on very scarce resources.

How: During a period of eight weeks I have performed field studies in Buenos Aires. During this period I have been visiting different slum areas and worked with a NGO organisation, Madre Tierra, who is working with these questions in an area in Buenos Aires. I have mapped and investigated two present improvement programs of dwellings in informal settlements that Madre Tierra is working with. Their way of working will represent the practical approach of how to work with informal architecture in this thesis.

The focus will be on the design part of the improvement programs where the dialogue with the concerned families are of great importance to interpret their needs and when the plans are being explained, discussed and approved. I have also looked closer at two cases in the concerned area and through interviews and observations tried to see how the improved house will function for the family, and evaluate this in relation to the design process of the cases.

The field studies have been combined with literature studies of relevant background and of present theories, of how to work with these questions, from Latin America.

RESEARCH QUESTIONS

Research questions

Sub-questions

Questions for the field work

How could and should a formally educated architect work with informal architecture in improvement programs in informal settlements?

Which methods and strategies are most important to use to reach a good result for the lives of the families?

Working with improvement programs in Buenos Aires:

- How can the practical work of an organisation (in this thesis Madre Tierra) be developed; based on local knowledge? Based on theories?

- How can theories from locally based architects be developed with knowledge from practical work?

- Which aspects and attitudes concerning the research questions are brought forward by locally based theorists?

- Which aspects and attitudes are brought forward by architects working on a daily basis with improvement programs?

- How does the practical work of the architects function and what is the result for the participating families?

PURPOSE/AIM

The purpose of this thesis is:

- to see how the architect could and should work with informal architecture in theory and practice.
- compare the theory and practice, and discuss how applicable the theories are in the reality, as well as what the theories could learn from the practical work.
- to understand the design process when the formal (the educated architect) meets the existing informal architecture.
- to understand how improvement programs work in practice with impact in the smaller and larger perspective.
- to raise awareness about people and the living situations in informal settlements.
- to acknowledge that to obtain a sustainable development, these people need to be included in the society.
- to show how it is possible for a small but well-functioning organisation to help many families.

The knowledge gained in this project should be used to:

- create tools to see how well the participative design process has been working in improvement projects. (Not included in this thesis.)
- discuss how the practical work potentially could be developed to reach a better result for the participating families.
- make sure that the specific needs of the inhabitants are addressed in the improvement programs.

A further aim with this thesis is to learn about how the participating families look at their living space, their houses and neighbourhood in connection to the concept of informality and in relation to the rest of the city.

I also hope that the result and the documentation from the field studies will give a representing picture of the vernacular architecture existing in the informal developed areas, and give examples of this architecture, high light it, and be an alternative to the images of chaos often given of these areas.

LIMITATIONS

The investigation is limited to two types of improvement programs, in use in Buenos Aires, Argentina. The investigation is also limited to one area where the NGO Madre Tierra is working with the two programs. In this area interviews have been performed with five families of which two have been selected for more conversations and further analysis of the houses. The design process investigated is mainly limited to the governmental improvement program Mejor Vivir, MV, since it constitutes a large part in this program. In the other improvement program, Programa de Fondos Rotativos para el Mejoramiento Habitacional, FFRR, which is a micro credit fund program, the design process constitutes a much smaller part.

Since it is the organisation Madre Tierra I have been studied, the result is based on their work, and I haven´t been able to compare with the work of other organisations.

The limited time of the field studies has also an impact of the result, as well as the fact that I have not been able to visit the area and families alone, and have always had one from the organisation with me during the interviews. This has been good for the understanding of the families and the area,

but could also be seen as problematic since I don´t know what the families would have told me if the representative from the organisation hadn´t been present.

   A personal limitation has been the language. The interviews have been performed in Spanish, and the theories are written in Spanish, a language that I can use quite well, but it is not my first language. And although I´ve tried to make sure that I´ve understood everything, there is still a possibility that I have misinterpreted some things due to this.

THEORY

There is a lot written about this subject, but to get a better picture and understanding of the practical work the field studies are of high importance.

There is a large amount of existing reports, books and articles about informal settlements, slum areas, urban poverty and slum upgrading. There are also theories about how to work with these questions. I have looked closer at three theories by Latin American theorists, which will be presented in the background section. I choose these because they were recommended to me by local architects. The reading of these theories started quite late in the process, over half of the time had passed. This was good in one way since I had already seen some of the practical work and could start comparing that with the theories immediately, and also start to reflect upon them in relation to each other. The outcome could have been totally different if I had read the theories before traveling to Argentina and before making contact with Madre Tierra and starting to observe the practical work. There is a possibility I had looked at the work of the architects differently from the

beginning and seen other things.

This thesis is about how to work with improvements of existing, informal architecture. I think that to understand some things, it is crucial to see them and experience them. Therefore the field work has been of great importance to get a view of the practical work included in the improvement programs. What interested me the most in the improvement programs was the design processes and how as an architect one should handle that process and therefore the focus of the field studies was to get the practical knowledge about it.

A BROADER PERSPECTIVE

The need for a sustainable approach to development in the world is increasing. A sustainable development is based on several aspects, the social, the environmental and the economic aspect (World Bank, 2001), which are all equally important and all three aspects need to be taken in consideration when developing our society, the cities and our surroundings.

The fast urbanization is using a great part of the natural resources the planet is providing, resources that are decreasing and need to be used in a more sustainable way.

The inhabitants of the slums often suffer from economic, social and environmental difficulties in many ways, for example they could lack security of tenure, they could lack basic infrastructure and access to health care, they could also be exposed to violence and drugs and be forced to settle down in hazardous environmentally unsafe areas, as well as not having a good living space or something as basic as a toilet. In other words, these people often don´t belong to the ones who use the natural resources the most. On the other hand

many slum areas are functioning in ways that are desirable for western cities, for example, since the distances between home and work often are short, people don´t use cars and the materials used are sometimes recycled. To be able to handle the challenges of the future and reach a sustainable development in an urbanized world in all cities, it will be important to seek solutions and inspiration everywhere.

Without saying that the solutions the people reach in slum areas are all positive, there are many problems and inhuman conditions present, but there might be things to learn for the formal context as well. Since people are forced to think in other ways, based on their urgency, it is probable that interesting solutions can be reached.

Given the enormous width of the slums and considering how many people are living in these conditions, it is hard to talk about sustainable development with credibility in any aspect. The fact that these areas exist and that these people lack the inclusion in both the formal economy, face so many social problems and environmental

difficulties, show how far we still have to go. Therefore one might think that the work performed by NGOs like Madre Tierra doesn´t make any change at all. They work with around 60-80 families at the time and there are over 800 millions of people living in slums (El Sioufi, 2013). But this work changes the lives entirely for these few families, making them have a better life, reach a better education, feel more included in the society and maybe contribute to a more sustainable development.
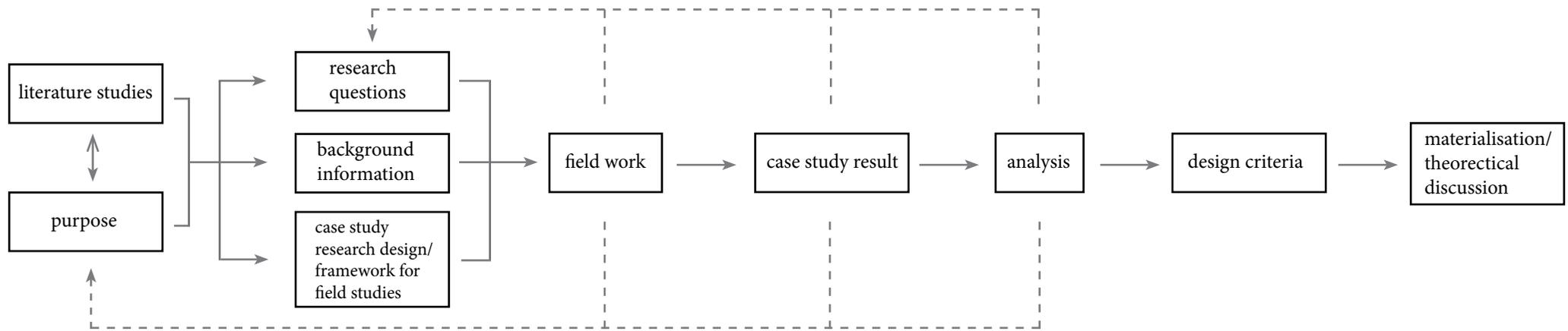
METHOD

Due to the complex and wide scope of the research questions, one method chosen to try to answer them is to use case studies. Yin (2009) writes in the book *Case Study Research* that "[...] case studies are the preferred method when a)"how" or "why" questions are being posed, b) the investigator has little control over events, and c) the focus is on a contemporary phenomenon within a real life context." (p.32). The research questions and the subject correspond well to these conditions and makes the case study research a useful method for this thesis.

Interviews with practicing architects and a closer study of two cases (case studies) have been performed in Buenos Aires. The interviews give a picture of how the architects think one should work with the informal architecture, based on their experience and contacts with the families.

The two cases should be viewed as examples of informal architecture and examples that are taking part in the improvement programs. The examples will give some kind of generalised image of the design process in the improvement programs, but also about the qualities and challenges faced in these kinds of areas and the design process of the programs. But since they are case studies they will only represent themselves and not be able to give a complete picture.

The structure and design of the field studies will be specified in the chapter *Framework*, and the design is based on information from the book *Case Study Research* by Yin, (2009).

Based on the analysis of the result of the field studies, combined with analysis of the studied theories, design criteria have been formulated

to be the base for the materialization which is a theoretical discussion about the design criteria, and in continuation about how an architect could and should work, in theory and in reality, and how that can be seen in the two cases.

The other main method used in this thesis is a literature study, this to be able to understand the background and the development of urbanization, informal architecture, informal settlements and slum areas, but also to understand the context of South America, the Argentine society and the context of Buenos Aires. Included in the literature study are also the relevant theories of three Latin American theorists.

TIME LINE FOR THE PROJECT

This journey and project sort of started already in 2006 when I first met the South American culture.

2006   2007   2008   2009   2013

Ecuador				Peru			Bolivia	Argentina						Peru		Zanzibar	
oct	nov	dec	jan	feb	march	feb	march	april	may	june	july	aug	dec	jan	feb	mars	april

2014

master thesis preparation course

MFS application sent in

MFS application approved

MFS preparation course

background reading, preparations for the trip

background reading, preparations for the trip

jan	feb	march	april	may	june	july	aug

9

TIME LINE FOR THE PROJECT

2014

the semester starts

16-17 sept: traveling to Buenos Aires

interview Carolina, architect

interview Gabriel, architect

interviews family 3-5

monthly meeting in Nuevo Parque Quirno

22 oct: mid critic

first meeting with Madre Tierra

interview Gabriel, architect

interview Graciela, architect

interviews case 1-2

interviews case 1-2

september	october	november

visit to the **asentamiento 2 de Enero** *with Proyecto Habitar*

visit to **Villa Lugano** *where I worked as a volunteer in 2008*

visit to **Villa Palito** *to see how it has been urbanized*

background reading, trip preparations

adjusting to the new environment, starting up field work

mapping MV, FFRR, Madre Tierra, and the design process through interviews with architects and reading, visiting Nuevo Parque Quirno, NPQ, several times, starting interviews with families

search for, read and understand theories, interviews with families and architects, visiting NPQ several times

theories, analysis of answers from interviews, analysis of plans of the houses, compare theories and practical work, formulating design criteria, final interviews, prepare "presentations"

10

"presentations" Madre Tierra and Omar

2015

14-15 nov: *traveling to Gothenburg*

10 dec: *hand in of report*

16 dec: *final seminar*

14-16 jan: *public presentation and exhibition*

december

january

"presentations" for Madre Tierra, Omar, feedback, saying good bye

structure report, finishing drawings, arranging the material, text, illustrations

finish report, prepare exhibition and public presentation

background

In this chapter the background information is presented, divided into a theoretical and a contextual part.

Villa Palito, new urbanization under construction, next to old.

BACKGROUND

The background chapter is divided into two sections. First there is a theoretical background where some concepts connected to the theme are defined, and the three theories are presented with an explanation of why they have been chosen.

The second section will give a contextual background about urbanization, slum areas and informal settlements, the slum household and different approaches to slum upgrading. Then the country for the field studies is presented, Argentina, the capital Buenos Aires and the two different types of informal settlements present in Argentina, *Villas* and *Asentamientos.*

"DEFINITIONS"/ CONCEPTS

The phenomenon of slum and informal settlements are widespread and need a closer explanation. But before that I would like to try to define some concepts that the whole thesis are built on. Going back to the introduction chapter and the whole theme of the thesis, the words and concepts I am thinking about are *architecture, formal, informal, formal* and *informal architecture* and *vernacular architecture*.

Architecture

1) the art and science of designing and superintending the erection of buildings and similar structures 2) a style of building or structure 3) buildings or structures collectively (Collins English Dictionary, 2006)

identification of space   *organisation of space*   *need for a shelter*   *house/home*
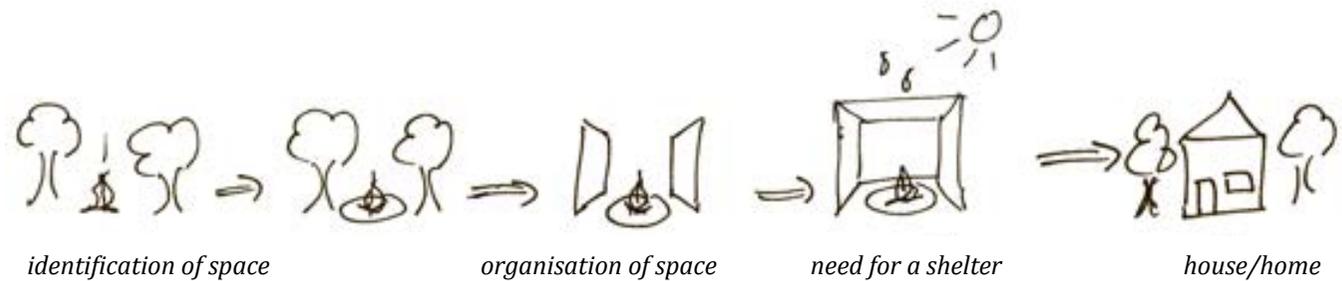
ARCHITECTURE/ ORGANISATION OF SPACE

Architecture is the art of designing and constructing buildings. But it could also be about the organisation of space, since space arise in contact with buildings, both inside them, around them and where they don´t exist. People have always organized the space around them, as Unwin (1997), puts it; "Living necessarily involves the conceptual organization and physical arrangements of the world into places: places to work, places to rest [...]." (p.53).

We need to be warm and dry, we need to move between locations, we need to get food and water, we need to cook, socialize, defecate, sleep, reproduce ourselves and so on (Unwin, 1997). The places for performing these important activities connected to living, at some point needed shelter from the nature to be performed, which must have been the start of designing and constructing shelters. Structures to get shelter from nature and to gather people or perform these activities. These places needed to be organized, designed and then constructed. "The way in which people organize their places is related to their beliefs and their aspirations, their world view. As world views vary, so does architecture, [...]." (Unwin, 1997, p.17)

So organisation of space as well as architecture is connected to the person doing the organisation. Today we call that person an architect or a designer, but architecture, or the art of designing and constructing buildings, is also done by the one using a space or a place. The demands from the user and the architect on the space, might not always be the same (Unwin, 1997) leading to modifications of the space by the user.

The focus of this thesis are dwellings, houses where people live, and maybe the first shelter constructed was for the purpose of sleeping, or cooking, it was the beginning of a house, a home. The house, where one lives, is of great importance to many people. Therefore the architect, when creating a house, "[...] must not base himself solely on specific living requirements, but set out from the overall need for housing, which arises from the physical and psychic nature of man; he must not only take account to the practical uses of this or that material, [...] he must not only have an eye to the technical processes employed in the working of materials to form walls and roofs, but rather concern himself with the overall necessity of putting together a number of solid elements

in order to enclose spaces." (van der Laan, 1983, p.4).

The one who does all this, might be a professional, educated architect, but the person might as well not have studied at all. Does this mean that architecture can be created by anyone? "For what is of primary importance for the general form of the house is not what purpose it serves, but that it serves; not what it is made of, but that it is made; and not how it is put together, but that it is put together." (van der Laan, 1983, p.4)

We all need somewhere to sleep and perform all the other basic, important activities connected to living. We all need somewhere to live. And who organizes that space, who identifies that place? Who performs the act of designing and constructing that building? Unwin (1997) says; "Thinking of architecture as identification of place, everyone is to some degree an architect. Setting out the furniture in a living room is architecture; so too is lying out a city. The difference is only a matter of degree, and at different scales there are different levels of responsibility." (p.164).

And this leads to the concepts of formal and informal architecture.

Formal/ informal

Formal
1) of, according to, or following established or prescribed forms, conventions, etc […] 3) methodical, precise, or stiff […] 6) acquired by study in academic institutions 7) regular or symmetrical in form

Informal
1) not of a formal, official, or stiffly conventional nature […] 2) appropriate to everyday life or use
(Collins English Dictionary, 2006)

Formal - form of importance.

Informal - process of importance.

FORMAL AND INFORMAL ARCHITECTURE

Hernández and Kellet (2010), say that the term ´formal´, in theory, represents the ordered city when it comes to organization on different levels as economical, cultural, social and political, but the city is also ordered in its architectural and urban form. ´Informal´, is the opposite, economical and political structures are unstable and the informal areas of the city are shapeless and not ordered (Hernández & Kellet, 2010).

These terms, ´formal´ and ´informal´ became popular in the 1970s among social theorists in Latin and North America, but were first only concerned with economic development in developing countries. In the 1980s, architects started to use the terms "to describe the squatter settlements developing around Latin American cities." (Hernández & Kellet, 2010).

Hernández and Kellet, (2010), make the architectural definition by saying that "In architectural speech, the formal stands for the buildings that have been designed by architects and the parts of cities that have been planned. The ´informal´, on the other hand, is all the rest: the buildings and parts of cities that have developed

without the participation of architects." (p.2) They mean that all that is informal has escaped the control of the architect.

Brillembourg & Klumpner (2010), believe that ´informal´ is "something that arises from within itself and its makers" (p.120) and that it has rules and procedures just as the formally developed forms and cities. They mean that in the informal city, the architecture "takes place in the context of urgency." (p.129) and different priorities are made compared to when formal architecture is created (Brillembourg & Klumpner, 2010).

The importance and emphasis on the process is significant for the informal architecture, since "Informal settlements are by definition unfinished projects" (Hernández & Kellet, 2010, p.12). In the informal creation the creativity of the process is essential, while the actual form is of greater importance in architect-produced architecture (Hernández & Kellet, 2010). Therefore one might think that the buildings that are created informally would turn out to be less logical than buildings designed by professionals, but according to Luiz Lara (2010), they are not, because they
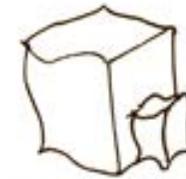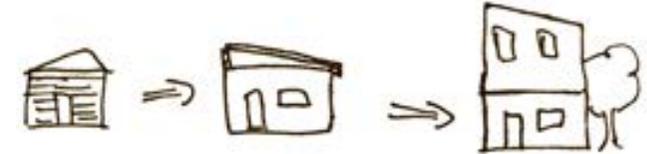
follow another logic (Luiz Lara, 2010). They follow a logic that is different from the one "taught by conventional architecture or planning" (Brillembourg & Klumpner, 2010, p.120).

Formal - the part designed and planned by architects.
Informal - the rest.

16

Vernacular architecture

VERNACULAR ARCHITECTURE

Vernacular architecture is defined by May (2010) as "the architecture of the people, designed and built by communities, families and self-builders." (p.42). It contains all the buildings and dwellings built by the people and are always built to meet specific needs, and are always based on the values and the living conditions of the culture of the ones that build them (Vellinga, et al., 2007).

Due to this, the vernacular architecture uses local materials and resources that are available and are built by local and traditional techniques. It is therefore defined by the local climatic conditions and the geology and ecology of the area and the region. This architecture can also consequently be transformed, developed and adapted to changes in the environment or the local conditions (May, 2010).

There are many buildings in the world, and it is hard to say exactly how many, but it has been estimated that there are over a billion. Of those buildings, according to May (2010), about eighty percent are vernacular, but according to Vellinga, et al. (2007), there are about ninety to ninety-eight percent vernacular buildings of the total building stock.

One might say that there are very few buildings that actually are designed by professional, educated architects, since most people live in buildings made by them-selves, their family or other, non-professional designers (May, 2010).

The vernacular buildings are often found in the developing world, (Vellinga, et al., 2007) since the planning restrictions in the Western world often limit self-building. In Africa, Latin America and Asia, the vernacular architecture still has a large place in the building tradition, although the traditional way to look upon vernacular architecture might need to change. May, (2010), means that the vernacular architecture of our time is the architecture seen in shanty towns, slum areas and informal settlements.

Vernacular architecture is often practical, energy-efficient and use less of the limited resources we have access to. They often fulfil many of the aspects of ´green architecture´ that we now use to try to better handle the impact we have on the environment (May, 2010). Because "above all, vernacular design must be fit for purpose." (May, 2010, p.44).

Examples of vernacular architecture, Mexican Tzotzil house, Sub-Sahara African Tolek and Nomadic Sami Goatte.
Source: May, 2010.

THEORIES

During the field studies in Buenos Aires I have studied three different Latin American theorists closer, concerning how to work with informal settlements.

The three theories are;

- *Hábitat popular. Encuentro de saberes*, an implementation about how to work with informal settlements, based on the theory Educación Popular by Paolo Freire, Brasilian educator, written by Guillermo Marziono,

- *Habitar, participar, pertenecer, acceder a la vivienda – incluirse en la sociedad*, by Victor Saúl Pelli, Argentine architect, and

- *Arquitectos de la comunidad – el método,* by Rodolfo Livingston, Argentine architect.

I have chosen to study these theories closer because they were recommended to me by local architects I have been in contact with in Buenos Aires. The theory Educación Popular by Freire,

has been interpreted for the area of how to work with informal settlements and the inhabitants there, in the book *Hábitat popular. Encuentro de saberes*, (2012), by Marziono. The Freire theory was recommended by an architect at Madre Tierra, as well as by my Argentine tutor. The book *Habitar, participar, pertenecer, acceder a la vivienda – incluirse en la sociedad*, (2006) by Pelli, was recommended to me by my Argentine tutor as a background to how one should work with the people in the informal settlements. The book *Arquitectos de la comunidad – el método*, (2004), by Livingston was recommended by an architect at the organisation Madre Tierra, as an answer to the question *how an architect should work with informal architecture*, as a reference and inspiration for how Madre Tierra is working. Considering the sources of the recommendations, I think that these three theories are relevant to examine closer for the context of this thesis.

EDUCACIÓN POPULAR
BY **PAOLO FREIRE**

Paolo Freire was a Brazilian educator who developed a system of education for all levels of students, but he dedicated his work mostly to educating poor people without easy access to education. The system is based on that the process of education is centred around the surroundings and environment of the student. Freire says that the student has to understand his or hers reality as a part of his or hers active learning process (UNESCO, 1999).

In the book *Hábitat popular. Encuentro de saberes*, (2012), by Guillermo Marziono, a review of what has been written about informal settlements is made (among the authors is Pelli), with the intent to try to connect the texts to the theories of Freire. Marziono thinks that some improvement programs realized by social organisations or by national authorities use practices and goals from the Educación Popular but without expressing it clearly. The book doesn´t present any practical method of how to work, more like basic guidelines and necessities for the work. The texts by Freire were written between 1965 and 1995 but Marziono makes references

to many, more current authors that he thinks represents the thoughts of Freire. I will not refer to all the different ones, but only to the book by Marziono.

Since the Educación Popular is a complex method which involves knowledge from political, cultural and social contexts present in the reality, it can be a good entrance for people working with improvement programs. The use of a *participative design process* in the improvement programs is how the theory Educación Popular can be used in connection to informal settlements.

When working with informal architecture there are some basic things that one need to consider and work with based on Educación Popular, I will call them guidelines:

a) Every house and family are unique.
Since there are many different problems with the houses and all the families have different histories there is always a need for different solutions, every house and project is unique.

b) A participative design process.
In the participative design process there is no manual for how to conduct the work that can be applied on every house and project, but there can be some kind of guide to follow. The participative design process should be viewed as a tool that is constructed and developed inside the scope for the participative action. It is also a social process, controlled by a theoretical framework. Before the improvement of the houses can be performed, the participative design process is needed to make the actors agree on what it should implement to take part in the improvement process, how it should be designed and what should be the result. It is not only a collaboration between technicians and the families living in the informal settlements, it is a platform where ideas and proposal can be born collectively.

c) The process is a mutual exchange of knowledge.
In the theory of Educación Popular there is no educator that only teaches, the educator also learns through the established dialogue. In this way there is no authority and there is a mutual exchange of knowledge. To reach solutions the projects can not only be built on the knowledge of the technician, since they can only bring the technical knowledge, the inhabitants have the knowledge of the neighbourhood and the area

where the project is taking place. The technician has knowledge about how to systematically address the problems, the inhabitants know the problems. The technician has knowledge about which methods to use, the inhabitants know how to act in the context of that specific neighbourhood. These different knowledges must be integrated to get a good final result.

d) The technicians have to get to know the families.
The technicians working in the neighbourhood have to get to know the families to be able to understand their needs and concerns, and at the same time get to know and respect the built environment that already exists.

e) A good dialogue and communication, one have to let go of prejudices.
To be able to reach a result there has to be a dialogue between the actors. To carry the dialogue forward, sometimes one have to step back from ones opinions and earlier experiences to be able to learn new things through the dialogue. Therefore the actors have to let go of their prejudices of the other actors (Marziono, 2012).

HOW TO WORK WITH INFORMAL SETTLEMENTS
ACCORDING TO **VICTOR SAÚL PELLI**

The Argentine architect Victor Saúl Pelli writes in the book *Habitar, participar, pertenecer, acceder a la vivienda – incluirse en la sociedad,* (2006), about how one as an architect should conduct oneself in relation to the inhabitants in informal settlements when working with the informal architecture there. The book doesn´t give any practical guidelines of how to approach the inhabitants and the ´criteria´ listed are based on how I have understood the text.

In the book *Hábitat popular. Encuentro de saberes*, (2012), by Marziono, Pelli´s view on the informal architecture is described. He says that the ´anti-aesthetics´ that one often sees in the informal architecture, the perceived miserable expression in a simple, unfinished house, must not always imply that there is an insensitivity or lack of need for aesthetics amongst the inhabitants. It could be (and probably is) the result of necessary priorities by the inhabitants, based on the need to survive on a very small budget (Marziono, 2012). Pelli writes that the genuine motivation in social actions is found in the necessities of the people (Pelli, 2006). Marziono refers to a quote by Pelli,

saying that the improvement processes, these actions, are not generalised or unified. In written Spanish sources there are many different words used; improvement, consolidation, innovation, put in order, rehabilitation, urbanisation. The word ´upgrading´ (as in slum upgrading), often used in English texts, with the meaning of ´raise to a higher standard´, gives the actions a different meaning as well (Marziono, 2012). To be able to work with these complex processes, the architect has to be aware of how to behave and how to meet the needs of the inhabitants.

Criteria
a) Get to know the inhabitants.
All theory, all practical work and all decisions about improvements of informal settlements should be based on a thorough and always updated knowledge about the needs of the inhabitants and should be understood as knowledge created together with these people. It could not be based on only statistics and surveys, it should be based on the concrete persons with names, faces and words, everyone of them. Therefore there is a basic need to get to know the families and the inhabitants.

b) Not have prejudices and put oneself in the place of the inhabitant.
The image of how one should live today, in the common culture (in Latin America and other parts of the world), is dominated by a modern, urban type of living. But that might not be what everyone needs or wants and it becomes a way of satisfying our image of how one should live in our socio-social economical system. In Latin America it is an image of the modern living that has been ´planted´ in the informal areas and the image says what it is necessary to need to belong to the prevailing culture to not be excluded. The architect/technician has to be aware of that when he or she is interpreting the needs of the inhabitant, the inhabitant is also interpreting what needs he or she *should have* in that society.

c) Working with these question could be difficult for the architect since it is far away from conventional work.
It could be stressful for the technician to work in these areas since the methods and social codes are different from the formal practical work in the conventional contexts.

The participative design process

actor 1
- *power over the resources*
- *power to realise the work*
- *higher social status*

↔

actor 2
- *receiver of help*
- *the reason there is a need for a participative design process*
- *less power over decisions and resources*
- *lower social status*
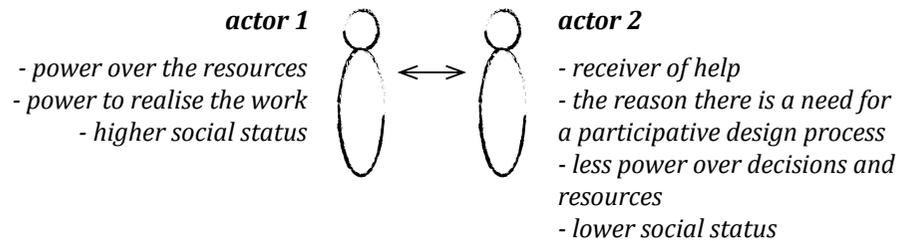
Differences:
- *social codes for communication etc.*
- *language*
- *ethical norms*
- *ways of thinking and reflecting*
- *level of power/ status*

The participative design process is:
1) different from an ordinary design process since there are other types of actions and relations connected to it.
2) not spontaneous since the process and collaboration (in the case of informal settlements), never can take place spontaneously and must be initiated by the actor with the most power (sometimes not)
3) not equal since the actors clearly have different resources, access to power and social benefits.
4) a process of redistribution of resources and power where social distances are diminished. It can also be a tension for the actor that has to give up the power.

d) Have a participative design process.
The participative design process in the areas of informal architecture implies a collaboration which is not spontaneous between a number of actors that have very different points of departure.

Conditions to carry out a participative design process:

i) The involved actors have to be relevant, for example the receiver has to fulfil the demands to participate in that kind of project.

ii) The actors need to have a sufficient amount of power in their fields to be able to push through decisions, for example a neighbour with influence in the neighbourhood or an architect that can apply for money for the project.

iii) Clear guidelines and clear division of assignments and roles for the different actors.

ix) All actors accept the rules and follow them.

x) The inhabitants participating in the design process have an active role in the improvement process.

xi) Criteria and opinions from the inhabitants have the same weight as opinions from other actors.

xii) All decisions through out the whole process have to be approved by all actors (Pelli, 2006).

EL MÉTODO
BY **RODOLFO LIVINGSTON**

Argentine architect Livingston says that the informal architecture doesn´t have to be beautiful, since it is built on something else then the architecture built on beauty. The informal architecture is built on its function as a house and a home, more then as an architectonic object.

   People need many things to be able to live, but they also need dreams to live. Architects can contribute to these dreams, since the change of a house is so much more then just that. It isn´t only walls and materials, it is about the people, something much more vulnerable. And sometimes, even if the house can´t be built, having the plans of the house can be like a treasure map, leading to the desired treasure in the end.

The method *´El Método´* is a practical method for an architect to work with a client. Livingston reflects a bit over informal architecture, saying that the theory is based on a "conventional" client, which is why I will only describe the parts of the

theory that are relevant for the context of informal settlements. Livingston presents tools for the architect to use when working with a specific client which are listed above and to the right (Livingston, 2004).

This section gives a contextual background to the theme of the thesis. Urbanization, slum areas and informal settlements, the slum household and different approaches to slum upgrading are presented. Then the country for the field studies is presented, Argentina, the capital Buenos Aires and the two different types of informal settlements present in Argentina, *Villas* and *Asentamientos.*

Urbanize or urbanise

a) to make (esp a predominantly rural area or country) more industrialized and urban

b) to cause the migration of an increasing proportion of (rural dwellers) into cities > urbani´zation or urbani´sation (Collins English Dictionary, 2006)

Direct migration.

Step migration.

URBANIZATION

The world´s urban population outnumbered the rural population for the first time in 2007 (UN-HABITAT, 2009) and in 2013 the urban population was 53% of the world´s total population (World Bank, 2013a).

The increase in urban population is due both to natural population growth and migration where rural populations have moved to the cities and become part of the urban population (Baker, 2008). During the 20th century, the population in the world has increased considerably, in 1950 there were 2.5 billion people (UN-HABITAT, 2003a), and now there are approximately 7,2 billion people in the world (World Population Statistics, 2014).

There are different types of migration; *rural-urban migration* and *urban-urban migration*. In the rural-urban migration, two patterns are visible; the step migration and the direct migration. In the step migration, the rural migrant first moves to a smaller, neighbouring town, and gets familiar with the urban environment. Then, step by step, the migrant comes closer to the larger cities. The direct migration means that the migrant moves directly from the rural area to a fairly large city, without intervening steps (Dwyer, 1975).

In the urban-urban migration, the migrants originally comes from an urban context and starts the migration process from a town, opposed to from a rural area. The urban-urban migrant tends to be more educated (Rodgers, et al., 2011).

In the United Nations Human Settlement Program, UN-HABITAT, report *The Challenges of Slums* (2003), the different reasons for rural-urban migration are pointed out as political, economical, environmental and social factors. The political factors are instability, repression and civil war. Among the economical, environmental and social factors, two different kinds of factors are described, the pushing ones and the pulling ones. The pushing factors, *pushing* the rural inhabitant from the rural context, are for example declining rural productivity, less requirement for rural labour due to improved farming techniques but also shortage of lands for farming. While the pulling factors, *pulling* the rural inhabitant to the cities, are better job opportunities and higher income levels, availability of social services, health care and education, improved infrastructure and access to water supplies. The cities can often provide a less risky life and a more controlled environment, increase the life expectancy and the food supply is to a lesser extent dependent on the weather (UN-HABITAT, 2003a).
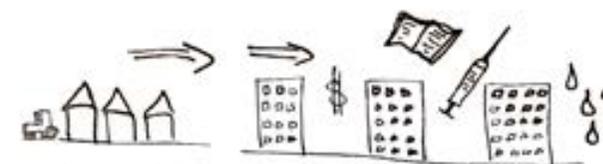
Pushing and pulling factors.

The increasing global population combined with the migration make the cities grow fast, and

North America 82 %   Sub-Saharan Africa 37 %
Latin America & Carribean 79 %   East Asia & Pacific 51 %
Euro- and Central Asia 61 %
Middle East & North Africa 60 %   Source: World Bank, 2013b.
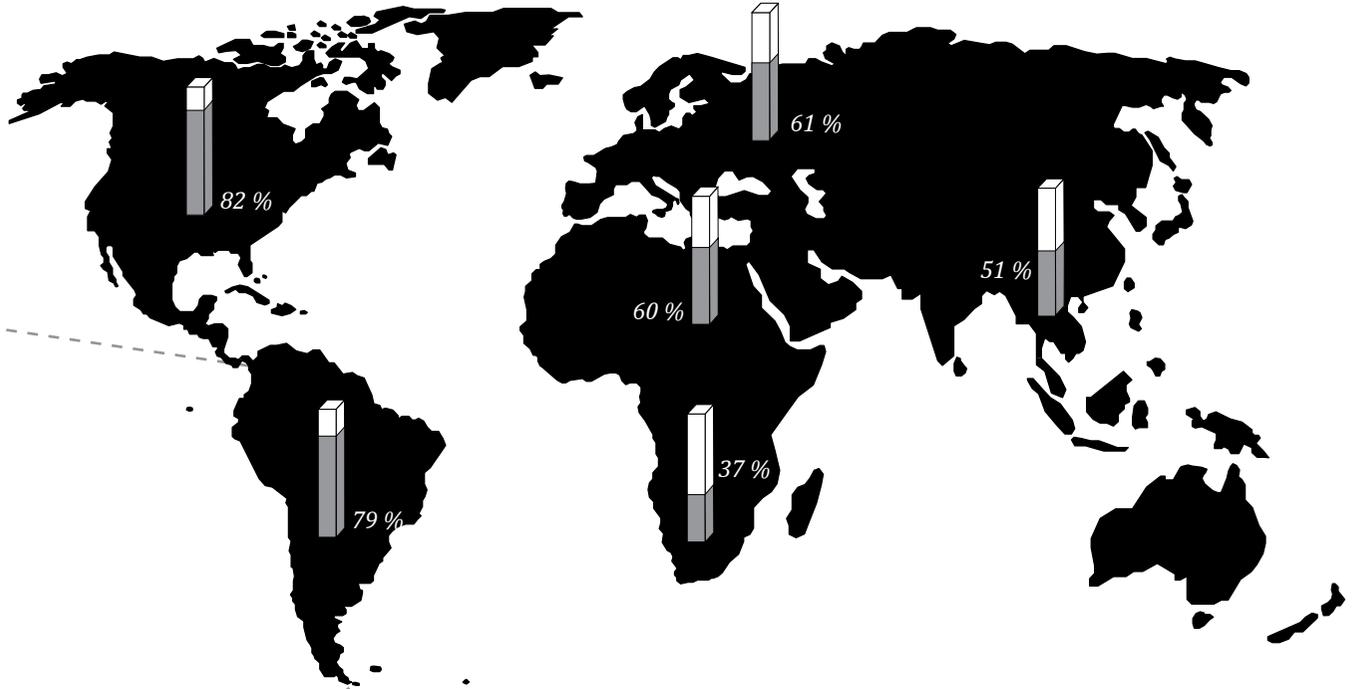
Urban population of total, South America (%) (2013)

Guyana

Venezuela 89 %

28 % *Surinam 66 %*

Colombia 76 %

61 %

82 %

60 %

51 %

Ecuador 63 %

37 %

Peru 78 %

79 %

Bolivia 68 %

Brazil 85 %

59% Paraguay

Chile

Africa has the highest urbanization rate, growing about 4 % per year, almost two times faster then Latin America and Asia (UN-HABITAT, 2003b).

95 % Uruguay

91 % Argentina

89 %
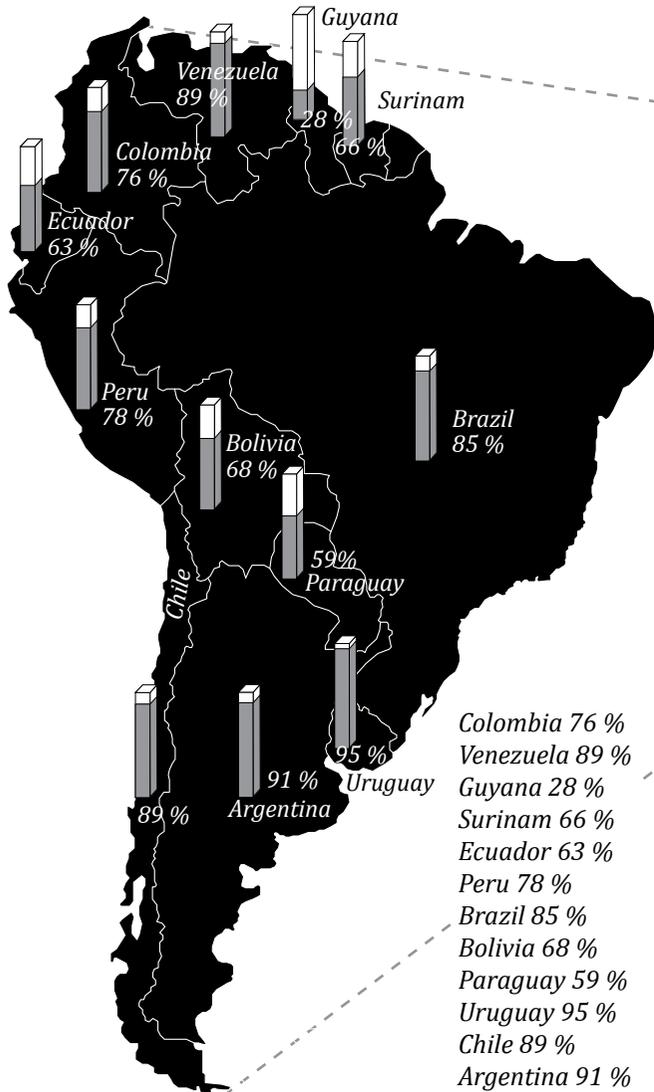
Colombia 76 %
Venezuela 89 %
Guyana 28 %
Surinam 66 %
Ecuador 63 %
Peru 78 %
Brazil 85 %
Bolivia 68 %
Paraguay 59 %
Uruguay 95 %
Chile 89 %
Argentina 91 %

the urban population is expected to grow even more, all population growth in the world will concentrate in urban areas between 2000 and 2030 (UN-HABITAT, 2003b).

MEGA-CITIES
A mega-city was defined by the United Nations, UN, in the 1970s as an agglomeration with 10 million people. In 1975 there were five mega-cities in the world. In 2003 there were 19, (including Buenos Aires, with 12,6 million people then) (UN-HABITAT, 2003b) and in 2012 there were 23 mega-cities. The prognosis for 2025 by the UN, is 37 mega-cities, all except eight of them will be in the developing world (The Guardian, 2012).

This shows that mega-cities is a developing world phenomenon (UN-HABITAT, 2003b).

These enormous cities will not only affect the people living there, but also the environment surrounding them.

"Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs." (WCED, 1987, p. 43) The quote comes from the Brundtland report *Our common future*, from 1987, which started to show how the need for sustainable development was increasing in the more and more globalized world, where the development of mega-cities are leading to unsustainable living conditions.

Source: World Bank, 2013c.

slum
→ declining areas
  → ´old´ city centre slums
  → ´new´ slum estates
→ informal settlements
  → squatter settlements
  → illegal settlements and subdivisions
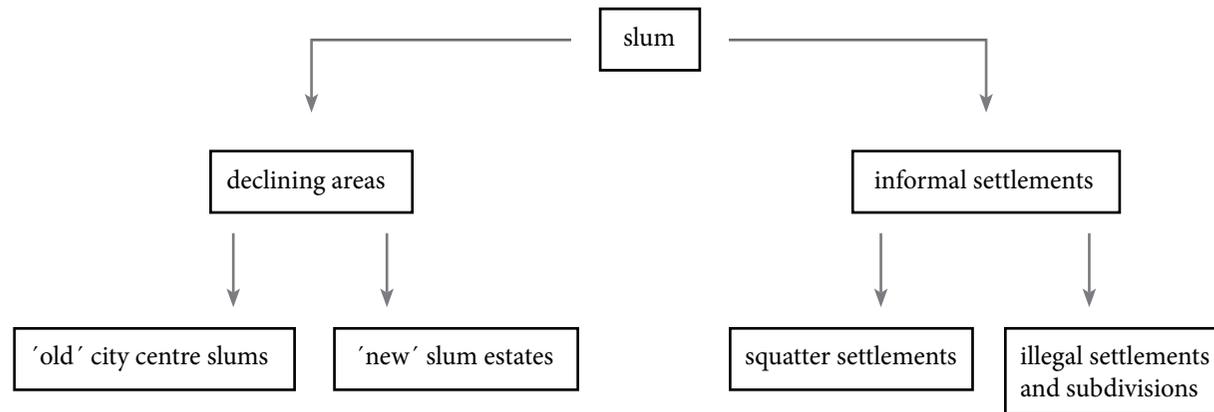
Source: UN-HABITAT, 2003a.

SLUM/ INFORMAL SETTLEMENTS

It is hard to comprehend what slum is, especially since there are many different names for it around the world, or for similar types of areas with only a few differences. It is important though, to understand the differences between the various types of settlements when working with them, and when developing strategies to work with the specific problems present (UN-HABITAT, 2003a). I will try to clear out the most common words used in this context.

SLUM
Slum areas often don´t exist on official maps, in official documents and are often hidden physically by walls and fences by the local authorities. They are areas that the authorities don´t want to recognise as part of the city, and they therefore represent the "invisible" city (UN-HABITAT, 2003b).

With the meaning of ´a room with low repute´ or ´low, unfrequented parts of the town´, the word "slum" was first used in London in the 19th century. During the Housing Reform Movement in England, the word came to mean ´a house materially unfit for human habitation´, lost its quotation marks and became an accepted word. First the buildings and the areas referred to were deteriorated inner city houses which housed the poor, but there are today more meaning to the word, since it also covers the wide range of informal settlements existing around the world (UN-HABITAT, 2003a).

Cities Alliance, a global partnership for poverty reduction, defines slums like this; "Slums are neglected parts of cities where housing and living conditions are appallingly poor. Slums range from high density, squalid central city tenements to spontaneous squatter settlements without legal recognition or rights, sprawling at the edge of cities." (Cities Alliance, 1999, p.1).

In 2013 there were 863 million people living in slums around the world (El Sioufi, 2013).

INFORMAL SETTLEMENTS
If a settlement is informal, it is not formally recognised by the authorities, although it can be well-established in the area. The residents have not registered title and consequently no permission to develop the plot, and therefore it is illegal. But there are many authorities that adopt a more tolerant approach to these areas and let them exist.

The informal settlements are divided into the squatter settlements, where the dwellers have no permission from the owner of the land and no permission from the authorities, and the illegal settlements and subdivisions where the dwellers don´t have permission from the authorities to build, but technically own the land (UN-HABITAT, 2003a).

*A slum household is defined as a group of indivduals living under the same roof and **lacking** one or more of the following:*
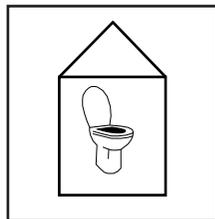
Access to improved water.	*Access to improved sanitation.*	*Sufficient living area, not over-crowded.*	*Structural quality/ durability of dwellings.*	*Security of tenure.*
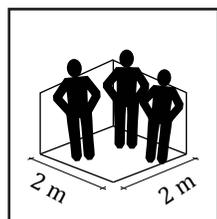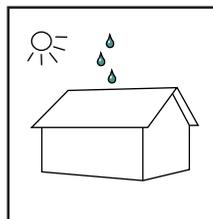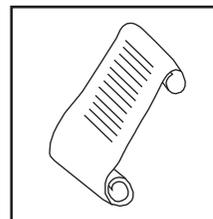
THE SLUM HOSEHOLD

In 2002, UN-HABITAT, the United Nations Statistic Division and Cities Alliance, had an Expert Group Meeting where they defined a slum household, to be able to evaluate the progress of the Millennium Development Goals (UN-HABITAT, 2003b).

In this definition there are only physical indicators concerning the dwelling/ household, leaving out for example social and economical conditions, cultural aspects and employment. The reason is that with these indicators the development can be monitored since statistics about these indicators often are collected on national levels in many countries (UN-HABITAT, 2003b).

The fifth indicator, security of tenure, is difficult to measure, and is not used in practice when defining a slum household (UN-HABITAT, 2012).

As one of the Millennium Development Goals, goal 7, target 11, UN-HABITAT wanted "to improve the lives of at least 100 million slum dwellers by 2020". According to UN-HABITAT, between the years 2000 and 2010, this goal has been reached by far since 220 million people no longer can be called slum dwellers, due to improvements in their living situation. Despite this, slums are expected to grow globally and reach 889 million people by the year 2020 (UN-HABITAT, 2012).

The reasons that these slum areas develop are a combination of many factors. The economical factors on both the national and global scale are connected to low income levels, unequal wealth distribution and insufficient job opportunities. Social factors are connected to inequalities in access to urban land, housing and infrastructure which often is concentrated in areas with higher income. The political factors are connected to housing policies with lack of social housing in many places and unrealistic planning with many regulations leading to high land prices in the formal market (Fernandes, 2011).

Access to improved water.

A slum household does not have

A slum household needs one of the following

amount: 20 l / 👤 / day

price: < 10 % of total household income

distance: < 1 h / day

or:

piped connection to house or plot
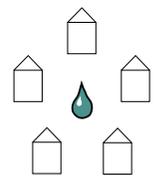
public stand pipe for max 5 households
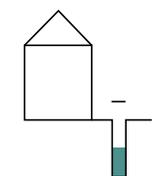
protected dug well
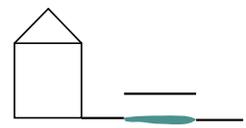
protected spring

rain water collection

Access to improved sanitation.

or:

private toilet

public toilet shared with a resonable amount of people

or:
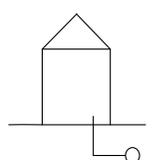
direct connection to public sewer
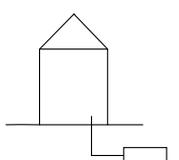
direct connection to septic tank
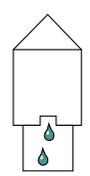
pour flush latrine
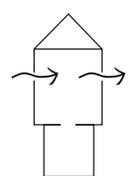
ventilated improved pit latrine

Sufficient living area, not over-crowded.

2 m × 2 m
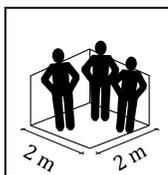
< 3 👤 / room of 4 m^2

Structural quality/ durability of dwellings.

a durable dwelling can:

protect from rain, heat, cold, humidity

has:

permanent structure permanent building materials

does:

comply with building codes

is not:

in a dilapidated state

is not located:

on or near toxic waste, in a flood plain, on a steep slope, close to heavy traffic areas

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Security of tenure.
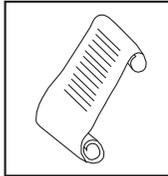
proof of secure tenure to protect from eviction

Source: UN-HABITAT, 2003b.

Latin America &
Carribean 23 %
Northern Africa 13 %
Sub-Saharan Africa 62 %
Eastern Asia 28 %
Southern Asia 35 %
South-Eastern Asia 31 %
Western Asia 24 %
Oceania 24 %

Source: UN-HABITAT, 2012.

Proportion of urban population living in slum (%) (2010)
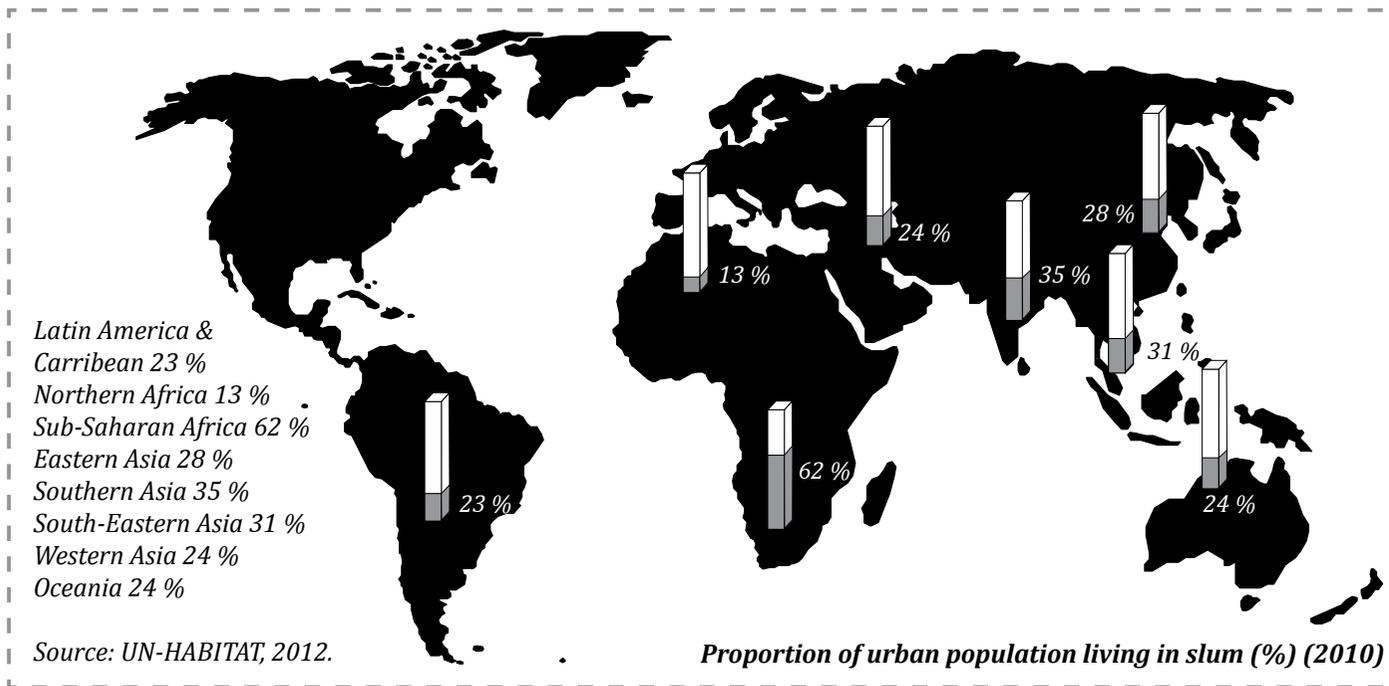
APPROACHES TO SLUM

To achieve a successful slum upgrading there are many requirements that need to be fulfilled and there is no solution that can be applied everywhere. For the upgrading to be successful, there are three processes that need to be fulfilled over a longer time period. They are; making the slum dweller a citizen, turning the shack into a house and transforming the slum into a part of the city (Cities Alliances, 2008). To achieve these three goals, the slum upgrading can be done in various ways and be categorized into different focus areas. The involved actors can be the local or national authorities, private businesses, community groups, volunteer organisations and the dwellers themselves (Cities Alliances, 1999).

SLUM UPGRADING - *categories*

PHYSICAL UPGRADING	SOCIAL UPGRADING	ECONOMICAL UPGRADING	LEGAL UPGRADING
demolition/rebuilding (in-situ upgrading) - old buildings are demolished and replaced relocation a) paid to move b) moved to new built constructions physical improvements a) basic infrastructure b) removal of environmental hazards c) physical improvements of buildings involve slum dwellers in planning process	reduction of crimes a) razzia by police aimed at drug activities b) support programs aiming at young criminals community facilities - creating communities by providing guidelines and facilities social support programs - provide health care facilities, education, help vulnerable people	job providing - support income-earning opportunities in the informal sector micro credits - support investments in small self-employed businesses and small individual upgrading of houses	providing security of tenure - providing legal documents to the land making the squatters responsible for the property and land facilitating policy and regulations - to facilitate upgrading

Sources: Cities Alliances, 1999, Altmann, 1982, Biljani, 1988, Fay, 2005.

SOUTH AMERICA

LA VIDA ES HOY

PRACTICA DEPORT
NO A LA DROGA!

Coca Col

ARGENTINA

SWEDEN

AREA

2 780 400 km²

450 295 km²
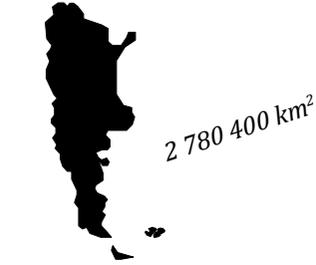
🚶 = 1 million people

INHABITANTS

COUNTRY

CAPITAL

COUNTRY

CAPITAL

41 millions (2012)

Buenos Aires
13,5 millions (2011)

9,5 millions (2009)

Stockholm
0,84 million (2010)
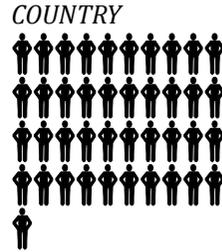
% OF INHABITANTS LIVING IN CITIES

91% (2013)

86% (2013)

FORM OF GOVERN-MENT AND RELIGION
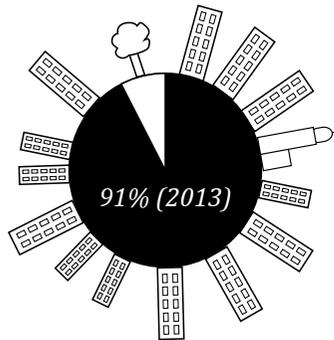
Republic

Catholics: 92%
Protestants: 2%
Jews: 2%
Other: 4%
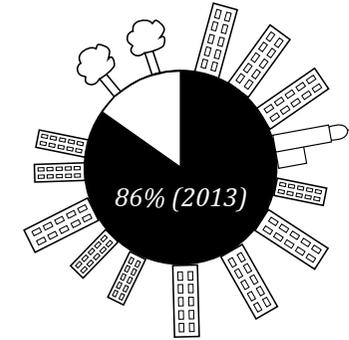
Monarchy

Protestants: 87%
Other/ no one/ unspecified: 13%

30

Sources: Landguiden, 2014a&b, Encyclopædia Britannica Online, 2104, FN-Förbundet, 2014a&b, World Bank, 2013c.

The Argentine population is very urbanized, more than nine out of ten are living in a city. A third of the population is living in or close to Buenos Aires, while the rest of the country is sparsely inhabited. More than eight out of ten Argentines have a European origin due to the large migration during the 19th and 20th century mostly from Spain and Italy, but also from Great Britain, Germany, Russia, France and Sweden. In the later years there are mainly migration from the neighbouring countries.

There are large differences between the rich and the poor population, as well as large differences between different parts of the country. There are more wealthy population in and close to Buenos Aires, with exception for the people living in the informal settlements in the outskirts of the city (Landguiden, 2014a).

INFORMAL SETTLEMENTS IN ARGENTINA
The growth of informal settlements in Argentina is a product of the urbanization process from the later part of the 20th century. Together with increased land and rental prices, increasing poverty, inadequate or lack of urban planning, not sufficient housing and the absence of responsibility from the state, the informal settlements have been growing (Almansi, 2009).

The main way of physical expansion for Argentine cities during the second part of the 20th century has been through ´spontaneous urbanization´, meaning housing the population growth in informal land sub divisions where the plot price could be low and the provision of infrastructure and services minimal. This kind of urbanization produces areas with very low density making it expensive to provide the needed infrastructure (Almansi, 2009). This spontaneous urbanization areas can be divided into two different types of settlements called *villas* and *asentamientos* (asentamiento means settlement in Spanish) (Almansi, 2009, & Varela & Cravino, 2008), which will be described closer in the section *Buenos Aires*.

BUENOS AIRES

= 1 million people

CAPITAL FEDERAL

GREATER BUENOS AIRES

2,8 millions (2010)

13,5 millions (2011)

Buenos Aires
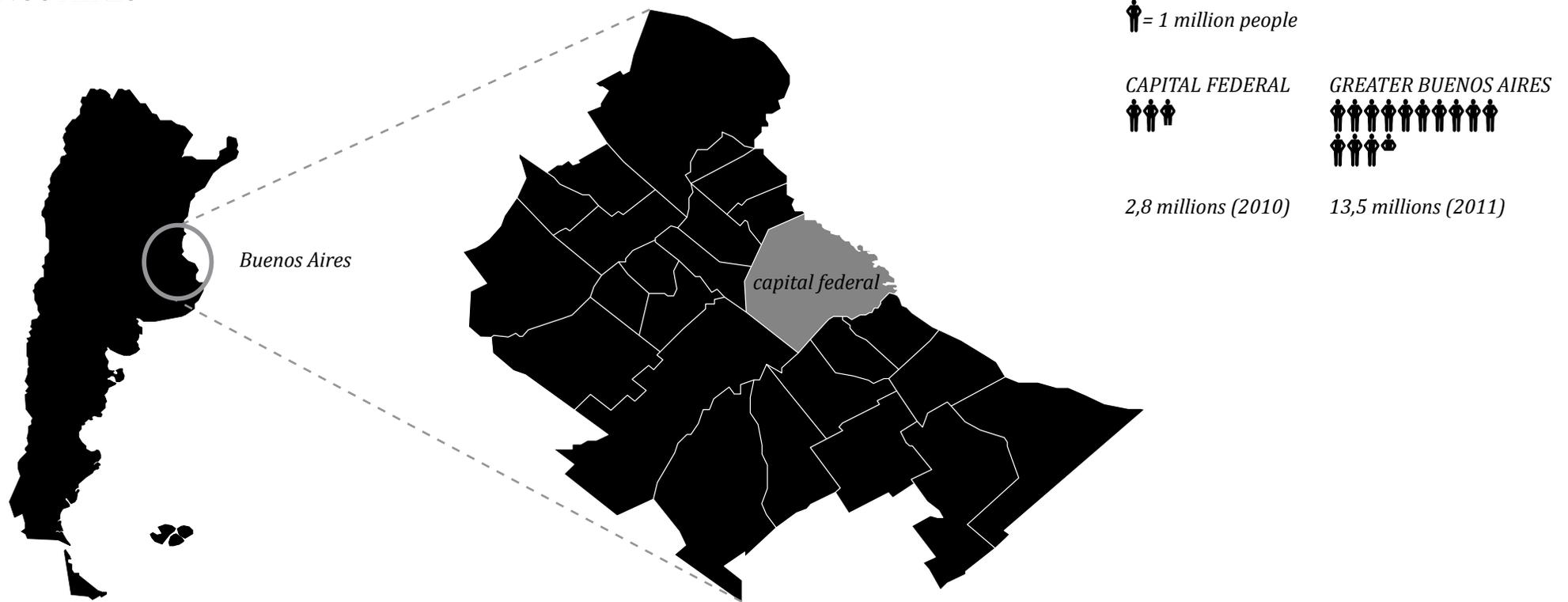
capital federal

Buenos Aires is the capital of Argentina and is situated on the shore of Río de la Plata (Encyclopædia Britannica Online, 2014). The Greater Buenos Aires contains of the Federal District, *Capital Federal*, surrounded by suburbs (NE, 2014). With its far over ten million inhabitants, Buenos Aires is one of the mega-cities of the world (UN-HABITAT, 2003b).

The influence and wealth of Buenos Aires stand out compared to the rest of Argentina, and it is the economical centre of the country as well as one of the most important cities in South America. There

are few colonial buildings in the centre and the city has more of a European character than other Latin American cities (Encyclopædia Britannica Online, 2014).

INFORMAL SETTLEMENTS IN BUENOS AIRES
As stated earlier there are many types of informal settlements and types of urbanization, also in Buenos Aires. In Buenos Aires the informal settlements are often divided into two types, called *villas* and *asentamientos*.

According to Hedges (2011), the Catholic

University says that in 2004 there were 10% of the population living in slum housing, and in 2010 there were 17% (Hedges, 2011) showing an increase in poverty. What the meaning of ´slum housing´ is, is not stated. Fernandes (2011) writes that in Buenos Aires, the population living in "villas-emergencia" has grown with 25% "over the few past years" (p.12), reaching 7% of the inhabitants, 200 000 people (Fernandes, 2011). This must be numbers from the Capital Federal, although it is not stated.

VILLAS

The villas started to emerge in the 30s but grew during the 40s due to large internal migration and the breakdown of the rural economy in the country. The villas are urbanizations due to occupation of free urban land or are temporary land provided by the state for families to live on.

Physical characteristics: The urban fabric is irregular and the quarters are arranged around narrow passageways where in general no vehicles can pass. They are often located centrally, on public land, and close to centres of production and consumption. The areas are often very densely populated compared to the asentamientos. There is scarce access to green areas and squares, but there could be a football field, representing the only public space.

Infrastructure: The infrastructure is first illegal but then improved by the state. The installations are often the same as from the beginning, made by the inhabitants but have been incorporated into private services. The quality is in general regular or bad.

The dwellings: The dwellings are often constructed of unstable materials, but with time and resources they are improved. Often they stay precarious. Many of the dwellings do not have their own garden.

The people: The people are often workers in the informal sector although some have professions. They are often rural migrants that came to the city to look for work but realised there were not enough housing provided by the state, and they ended up in the villas. The people see their living there as a transit, but with time they accept the difficulties of moving to areas with better status.

Location: Both in Capital Federal and in Greater Buenos Aires (Varela & Cravino, 2008).
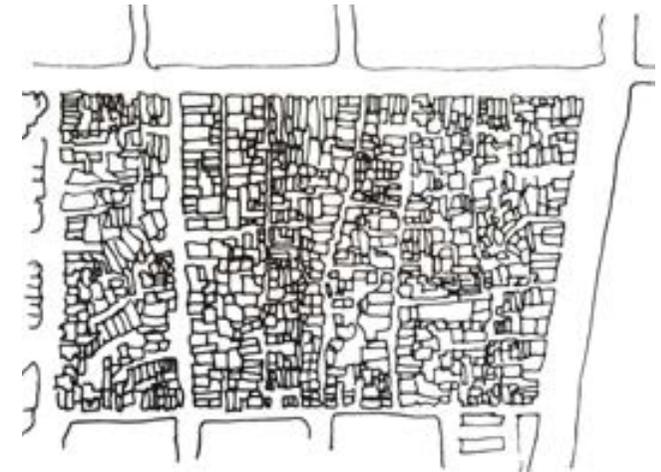
The irregular urban fabric of a villa between large, formal roads.

ASENTAMIENTOS

The asentamientos started to differ from the villas in the 80s as a new kind of occupation of land. The first ones emerged in connection to the military regimen in the 70s and 80s.

Physical characteristics: The asentamientos are planned and have a regular urban fabric and similar to other housing areas, it is divided into grids. The people are often organized collectively in groups with different areas of responsibility and with a prior strategy before the occupation. The asentamientos exist on unoccupied public or private land that often are garbage dump areas, exposed to flooding or in other ways not suitable for economic exploitation. After the invasion the inhabitants often start a process where they try to get security of tenure from the state.
   There are green areas and public spaces like squares, and they are planned for in advance.

Infrastructure: From the beginning the infrastructure is illegal but with time the public and private companies improve the installations. The service is good and has the same level as the formal districts.

The dwellings: The dwellings go through a process of development, from being made of unstable material, with time and resources they are improved and become solid constructions. They often have private gardens or plots as well.

The people: The inhabitants are often originally from rural areas but have lived in cities in different forms before settling in this area, some have lived in villas. The amount of immigrants from the neighbouring countries is smaller here than in the villas. There are religious and political groups from the beginning who participate in the planning and the whole process of urbanization. (Varela & Cravino, 2008).
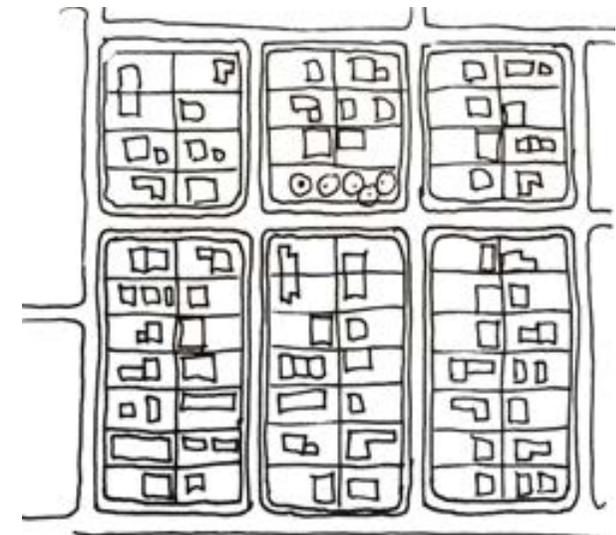
The regular, planned urban fabric of an asentamiento in the grid form with equally sized plots where the inhabitants can build their own house.
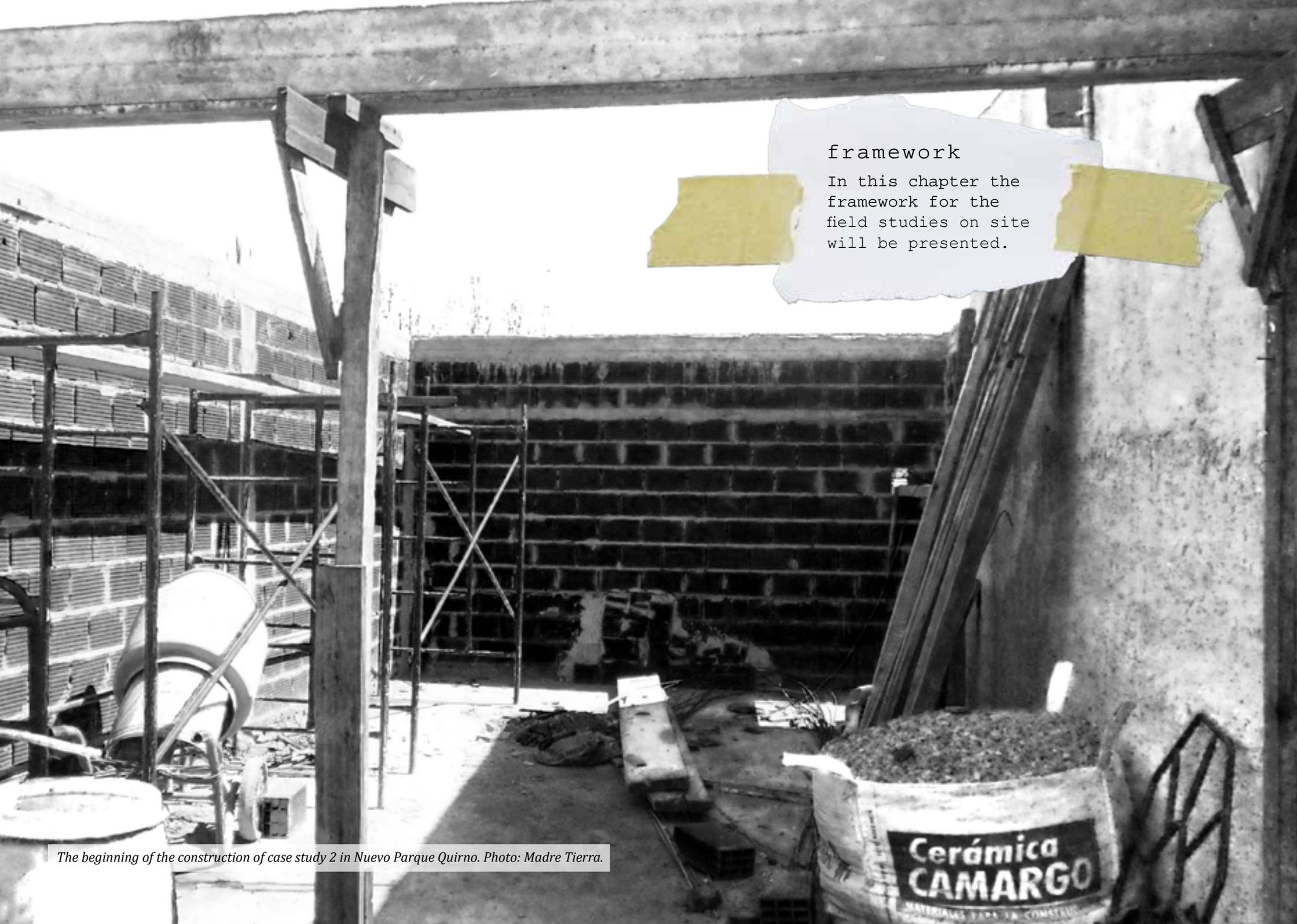
framework

In this chapter the framework for the field studies on site will be presented.

The beginning of the construction of case study 2 in Nuevo Parque Quirno. Photo: Madre Tierra.

CASE STUDY RESEARCH DESIGN

field studies, collect and analyze
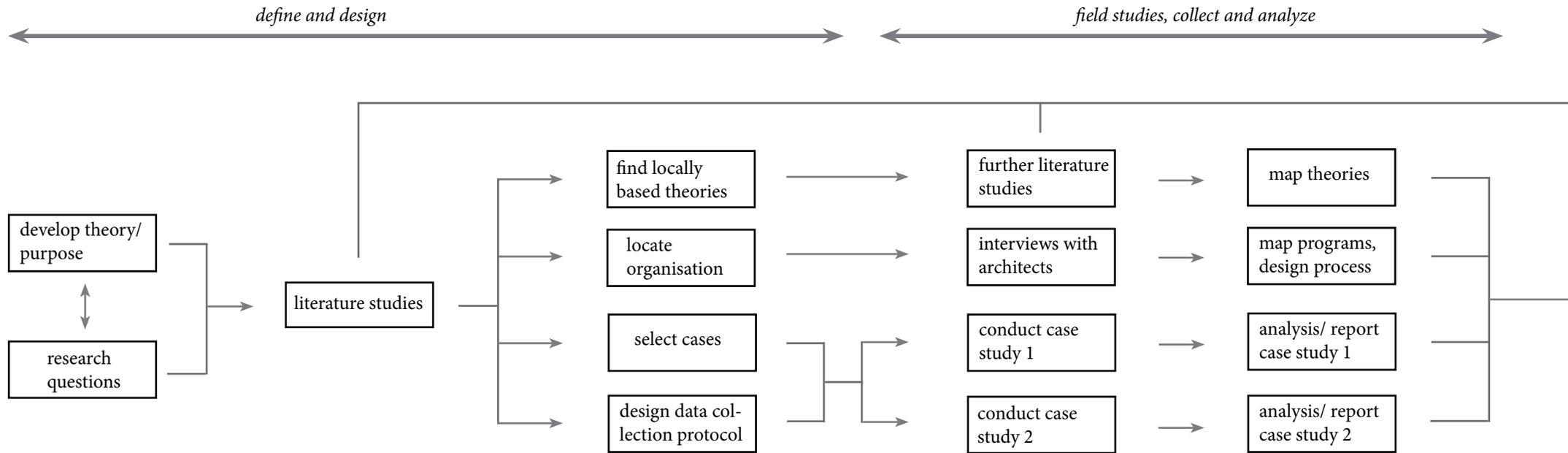
The design of the case study research is based on the model of case study research design from the book *Case Study Research* by Yin, (2009). I have been inspired by his model in the case study research design in this thesis, and based it on the conditions on site in Buenos Aires, shown in the illustration above. I also added the continuation of the case study which in this project is the materialisation/ theoretical discussion part.

SELECT PROGRAMS, AREA AND CASES
When: on site in Buenos Aires
How: depending on the available cases and criteria

Criteria for improvement programs:

- The organisation (that I need to work with to get access to the families) has worked with the programs for a long period of time and have had successes with them in different areas.

- The programs are active and there are examples of how they are in use at the moment, meaning there are areas I can visit and see how the work of the program is proceeding.

- There are families participating in these programs that want to talk to me about their houses and their experiences from the programs.

- There is information about how the programs work.

analyse the result

draw cross-case solutions

type of material-isation/design

design criteria

theoretical discussion based on literature studies and field studies

conclusions & reflections
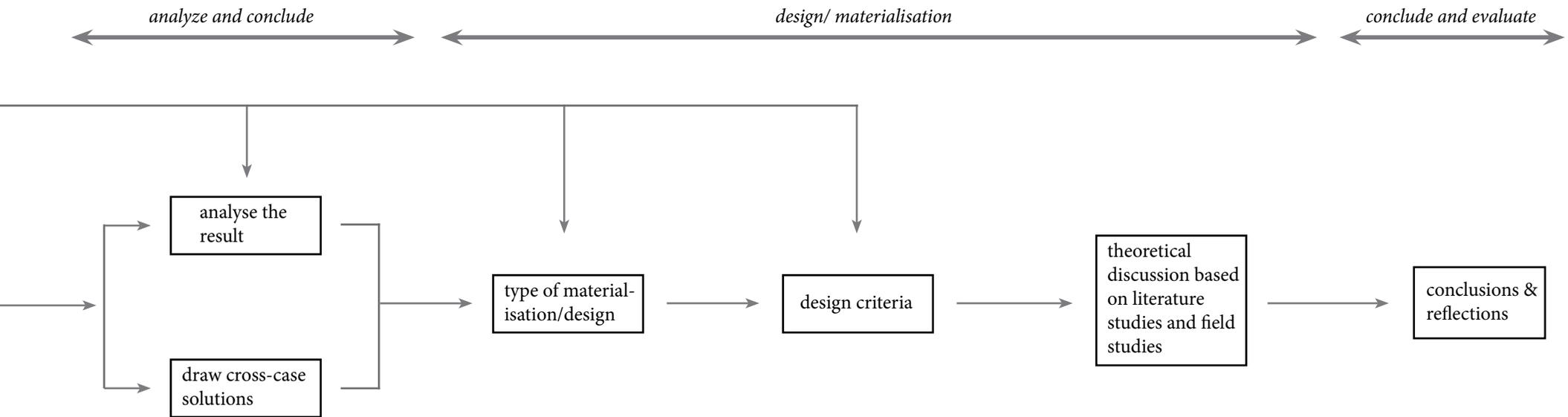
Criteria for areas:

- The area is not formally planned by the authorities of Buenos Aires.

- The area has mainly dwellings built initially by the inhabitants themselves.

- The area is referred to as an "asentamiento".

- There are improvement programs functioning in the area.

Criteria dwellings:

- Fulfilled the UN definition of slum before the improvement process started.

- The building is a dwelling.

- The building can be delimited as a system.

- The building has a certain age to better see the development process.

- The buildings participation in a governmental program is documented and therefore it is completing the demands for participating.

- Is available for me, meaning I can enter, take photos and interview the inhabitants.

DATA COLLECTION PROTOCOL

field work type: investigation/ background

methods

Organisation
Madre Tierra (NGO)

Improvement programs
FFRR

Mejor Vivir

How should an architect work?

Design processes (in both programs)
-how does the design process look?
-what is working?
-what is not working?

observations, interviews, documents, study visits

Barrio (neighbourhood)
Nuevo Parque Quirno

Case 1

Case 2

observations, interviews, documents, maps, study visits

Theories
Freire

Pelli

Livingston

literature studies

field work type: case studies

context: Nuevo Parque Quirno (2 cases)

methods

Development of dwelling
- *how did the dwelling/ plot look and function before the improvement process?*
- *how has the dwelling/ plot developed through time?*
- *how does the dwelling look and function after the improvement process?*

observations, interviews, documents, existing plans, photos, maps

Design Processes
-*how did the design process function before the construction started?*
-*what did they choose to keep? Why?*
-*what did they choose not to keep? Why?*
-*what is working in the process?*
-*what is not working in the process?*
-*how could it be improved?*

observations, interviews, documents, existing plans, photos, maps

Connection with the barrio/house/informality
-*how do they feel about their barrio?*
-*their house?*
-*their part of the city?*
-*what is good and bad in the barrio?*
-*how do they feel about the concept of informality?*
-*informal architecture?*

observations, interviews

In this chapter the knowledge gained from the field studies will be presented.

"La tierra es un derecho" - "Land is a right". 14 of March 1987, the date for the occupation of Nuevo Parque Quirno.

FIELD STUDY STORY

The field studies have been crucial for this thesis. When I left I had one image in my head of what the thesis would be, but things have changed during the field studies and the process due to what I was able to investigate and due to which people I could talk to on site. Nothing turned out as I thought it would, although I knew everything would change on site as well. Being in a different country, culture and context where a different language is spoken, and try to push through the investigations for this thesis has not been easy. Unexpected difficulties have made it more complicated then necessary sometimes, but overall the field work has gone well.

The good things were that my tutor on site quickly put me in contact with the organisation Madre Tierra that helped me with everything I needed throughout the time spent on site. They provided me with information about the families, the area, the programs and with drawings and photos. They accompanied me to the area to perform the interviews and helped me explain what I meant to the families when my language was a bit to complicated.

I wish I could have talked more to the families, but it was complicated to go to the area alone which made me dependent on the organisation. The distances are enormous in Buenos Aires, and every movement takes a long time. And things change a lot, meetings are moved, people arrive late, supposedly simple things can take a lot of time, which is a part of the culture, things one just have to adapt to.

I performed my field studies on site in the area Nuevo Parque Quirno in Hurlingham, at the office of Madre Tierra in Morón and at home where I lived in the apartment at the address *"Gral Perón, entre Libertad y Tualcahuano"*.

In this chapter I will present the organisation Madre Tierra and how they work, the two improvement programs they work with, FFRR and Mejor Vivir. Then I will present how the general design process inside these two programs works, and the participative design process that the architects are using. The participative design process is complex since the actors involved are so different and come from different backgrounds, giving importance to how the architect approach the task of the design improvement. Through the interviews I have understood some crucial aspects that one has to consider and be aware of as an architect working with informal architecture, and these aspects will be listed. Then I present my observations of how the architects live up to their own theory.

Then the area Nuevo Parque Quirno is presented, and the two chosen case studies with drawings of the houses and photos. In the end the knowledge from the other three interviewed families is presented shortly.

BUENOS AIRES

CAPITAL FEDERAL

Micro centro - home:
"Gral Perón entre
Libertad y Tualcahuano"
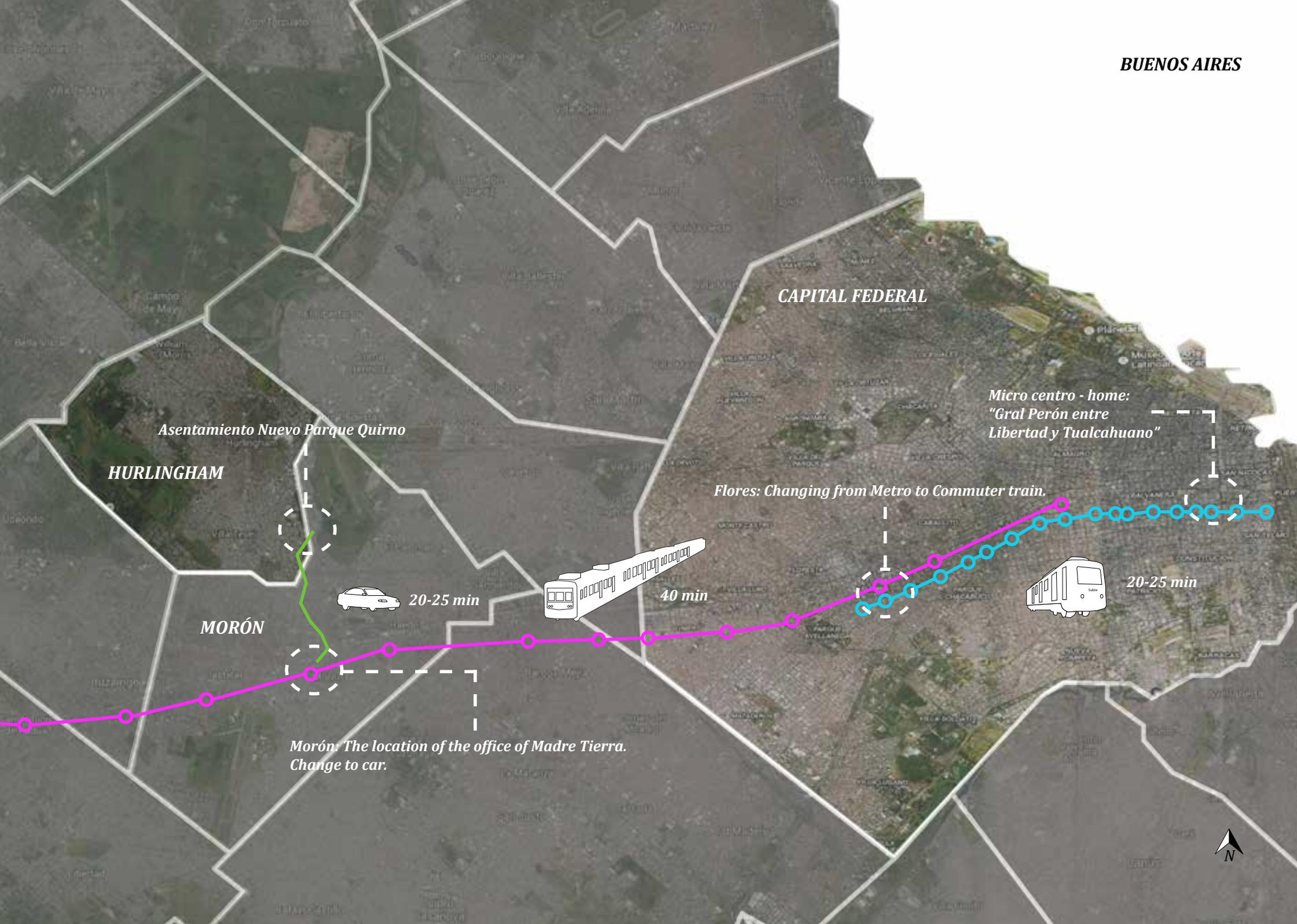
Asentamiento Nuevo Parque Quirno

HURLINGHAM

Flores: Changing from Metro to Commuter train.

MORÓN

20-25 min

40 min

20-25 min

Morón: The location of the office of Madre Tierra.
Change to car.

N

MADRE TIERRA
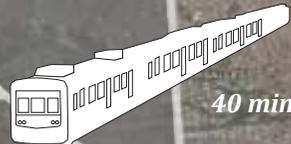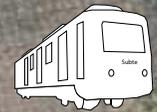
The NGO Madre Tierra started in 1985 in Buenos Aires and accentuates and develops projects in informal settlements in the west parts of the Conurbano of Buenos Aires. In the organisation there are 26 people working, they are architects, social workers, lawyers, graphics and administrative personnel.

Madre Tierra works with two improvement programs, Fondos Rotativos (FFRR), which gives families micro credits to do small improvements in their houses, and Mejor Vivir (MV), which is a governmental program which gives larger loans to make bigger extensions and repairs of houses. Until 2006 they also worked with a method called Lotes con Servicio (plots with services), which enabled families without access to land to get a plot in a new barrio (neighbourhood) with services like water, light and roads. If an organisation approaches Madre Tierra with a smaller project, like installing water in a barrio, they can also collaborate and help with that project. There are also programs to help families to get the legal right to the land they are living on.

42

Approach to the improvement programs:
The base in all projects in all barrios is the participation from the families in the barrios, the communal work that is driven by the inhabitants. Without their commitment there will be no projects, no fund and no further improvements of the barrio or the houses.

The two programs FFRR and MV are based on the houses that the families already have built, the starting point is what is already there. Since the family constructed the house at that location, in that area, it is worth keeping and it is probably on its way to become what they need. It is also better to work with the existing than to start from zero, like moving the families to other sites and make new constructions. For the improvement of the buildings the aim is to demolish as little as possible. If the house is made of wood, if it is a "casilla", in bad condition, it will probably be demolished to leave space for a new building (in the program Mejor Vivir). But if the house is made of durable materials, like bricks or concrete, it is always a question of improvements and extensions of the existing.

How Madre Tierra organizes their work:

They are divided into teams of two,

technical assistance, plans, drawings, budget

organisation of the social work in the barrio, information about the families

which has the responsibility for one area with many barrios,

for example the municipality Hurlingham, with three asentamientos.

PROGRAMA DE FONDOS ROTATIVOS PARA EL MEJORAMIENTO HABITACIONAL (FFRR)

MEJOR VIVIR A TRAVÉS DE ORGANIZACIONES INTERMEDIAS (MV)
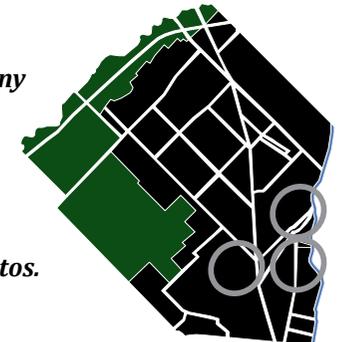
> ***Demands FFRR from Madre Tierra:***
>
> *- participate in the communal work*
> *- have a representative from the family on the monthly reunions*
> *- take on an active role in the fund work*
> *- be admitted by the other families in the group to get the loan*

> ***Demands Mejor Vivir from Madre Tierra:***
>
> *-security of tenure/ paper of purchase/ being in a process for security of tenure*
> *- comply one of the four demands for MV*
> *- comply the demands for the FFRR*
> *- repayed earlier loans*
> *- be admitted by the other families*

> ***Demands Mejor Vivir program:***
> *the house should comply at least one of the following:*
> *a) overcrowding (more then 2 persons/room),*
> *b) unhealthy dampness, moisture conditions and poor ventilation,*
> *c) no access to water inside the house*
> *d) problematical/ dangerous electrical installations*

FFRR, the Program of Rotating Credits for Housing Improvements, is one of the programs Madre Tierra works with. It starts with a group of families in a certain barrio that gets to administrate a fund with a small amount of money. The fund is based on the communal work of the barrio and all families that are interested in getting loans from the fund have to participate in the monthly meetings and take on an administrative role.

The amounts that the families can borrow from the fund are between 4000 and 10 000 Argentine pesos (Ca 3400 SEK to 8500 SEK, October 2014). The money goes to building materials ordered and paid by Madre Tierra and then delivered to the family. The small amount of money rarely covers the labour costs so the family often performs the construction work themselves. Madre Tierra contributes with technical support and suggestions in the design of the improvements.

When the construction is completed, the loan has to be repaid to the FFRR in monthly payments of sums that the family chose themselves, based on their ability to pay. The money goes back to the fund of the barrio.

Mejor Vivir is a governmental program that since 2009 is offering loans for improvements of houses in barrios through help organisations like Madre Tierra. Before the program can start, Madre Tierra has to talk to the interested families in the barrio, make investigations, plans, look at the social status for the barrio and the family and make individual material budgets. The family gets in contact with a builder and this will be calculated into the budget. There are demands that the houses and the families need to comply to be able to participate and the maximum amount of projects is 20. The families signs a contract with Madre Tierra, saying that they will perform their part, and the families also signs contracts with the builders.

A "carpeta" with all the information about the families, the plans and budget is presented to the Subsecretaría de Desarrollo Urbano y Vivienda, which is under the Planning Department, and if it is approved, the projects can start.

Due to the small amounts in the FFRR, participating in MV can give the families a chance to finish their houses. Depending on the extent of the improvements the families can receive loans on three levels, 89 000, 60 000 or 44 000 Argentine pesos (Ca 75 500 SEK, 50 900 SEK and 37 300 SEK, October 2014). Around 40% of the loan goes to the labour and the rest to materials. Madre Tierra has an agreement with a local material supplier close to the barrio where they pay 100 000 Argentine pesos (Ca 84 800 SEK, October 2014), which makes the prices of the materials freeze on the actual day price and stay on that price until the money has ended. The responsible architect at Madre Tierra makes the orders for the material and it will be delivered to the families.

The time limit for the construction phase is 90 days, but it is often trespassed, due to bureaucratic problems and problems with the builders, deliveries of material etc.

> Until 2013 Madre Tierra had started more then 20 groups of FFRR in different barrios and completed 162 improvements of houses through Mejor Vivir.

Sources: Madre Tierra, 2013, Lazzarini, 2014a&b, Rizzo, 2014, Nosetto, 2014a&b, Carbone, 2014.

FFRR AND MEJOR VIVIR - overview

Scheme over how the improvement programs FFRR and Mejor Vivir function and how they are connected to each other. The yellow circles represent the parts in the processes of the programs that interested
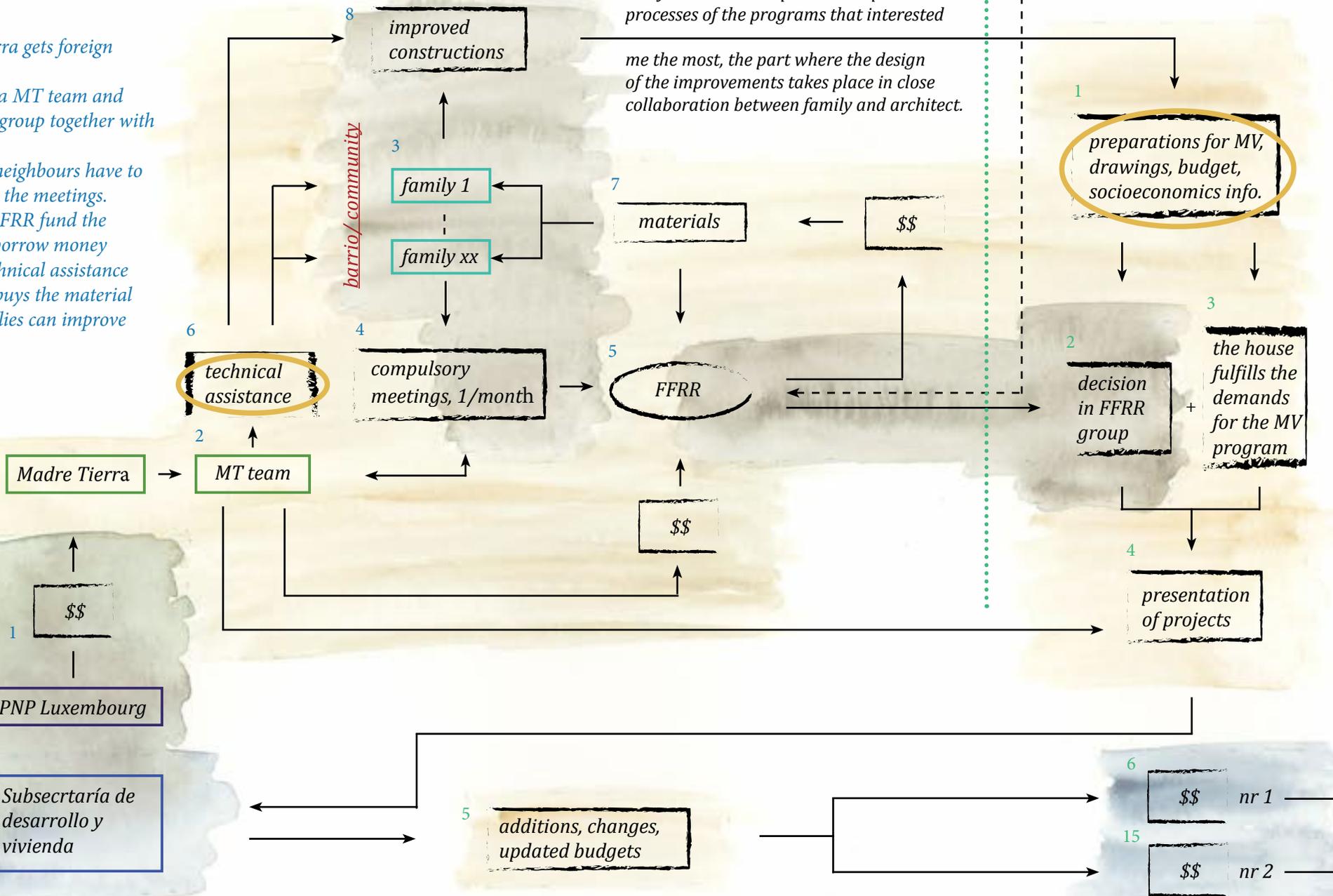
me the most, the part where the design of the improvements takes place in close collaboration between family and architect.

Phase FFRR

1. *Madre Tierra gets foreign resources.*
2. *They form a MT team and*
3. *organize a group together with the barrio*
4. *where the neighbours have to participate in the meetings.*
5. *From the FFRR fund the families can borrow money*
6. *and get technical assistance*
7. *while MT buys the material*
8. *so the families can improve their houses.*

organisation

barrio/ community

8 *improved constructions*

3 *family 1*

family xx

7 *materials*

$$

1 *preparations for MV, drawings, budget, socioeconomics info.*

6 *technical assistance*

4 *compulsory meetings, 1/month*

5 *FFRR*

2 *decision in FFRR group* +

3 *the house fulfills the demands for the MV program*

2 *Madre Tierra* → *MT team*

$$

4 *presentation of projects*

financing **foreign** **governmental**

1 *$$*

PNP Luxembourg

Subsecrtaría de desarrollo y vivienda

5 *additions, changes, updated budgets*

6 *$$*   *nr 1*
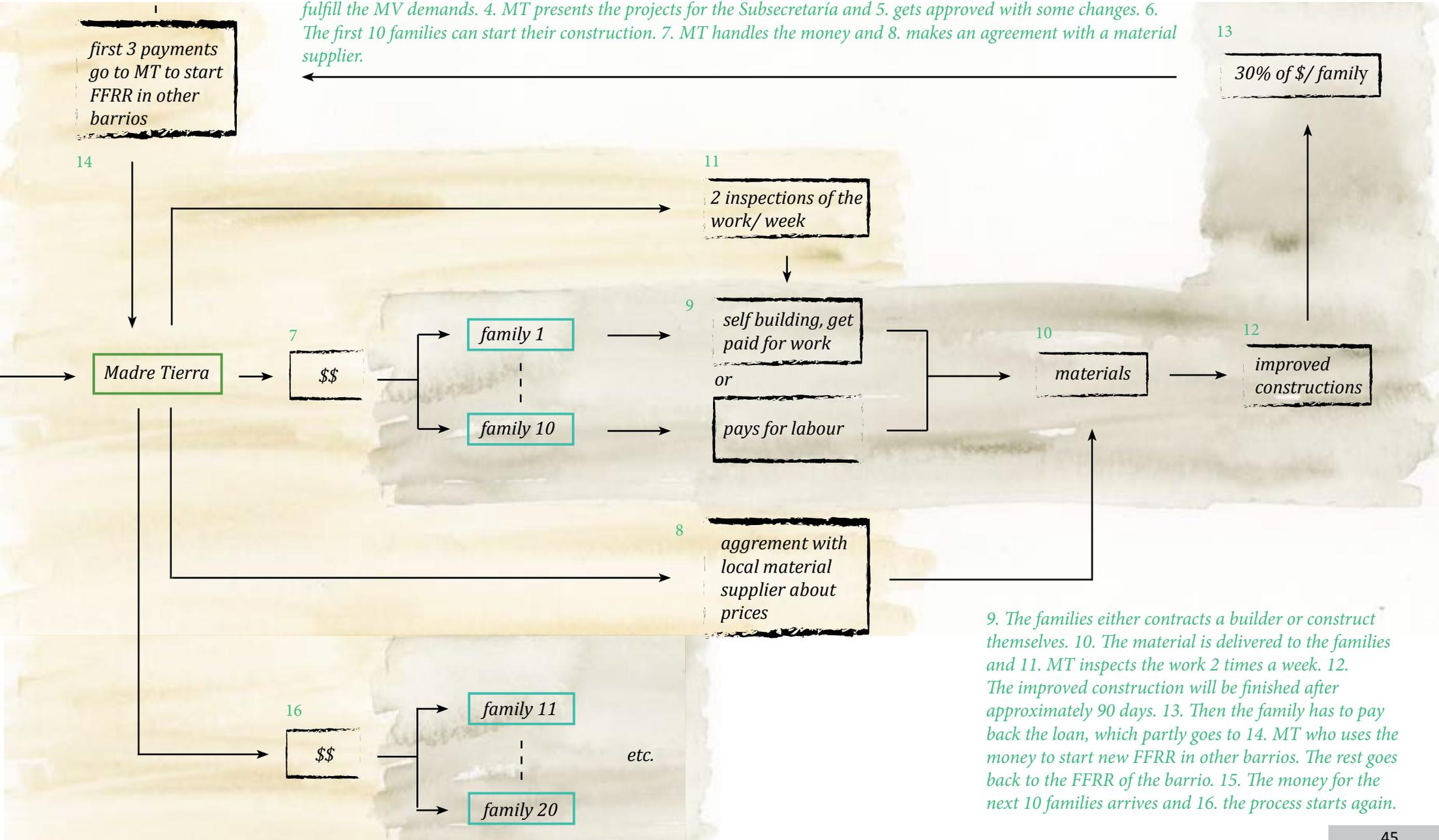
15 *$$*   *nr 2*

Sources: Madre Tierra, 2013, Lazzarini, 2014a&b, Rizzo, 2014, Nosetto, 2014a&b, Carbone, 2014.

first 3 payments go to MT to start FFRR in other barrios

14

13

30% of $/ family

11

2 inspections of the work/ week

9

self building, get paid for work

or

pays for labour

7

family 1

family 10

$$

Madre Tierra

10

materials

12

improved constructions

8

aggrement with local material supplier about prices

16

$$

family 11

family 20

etc.

9. The families either contracts a builder or construct themselves. 10. The material is delivered to the families and 11. MT inspects the work 2 times a week. 12. The improved construction will be finished after approximately 90 days. 13. Then the family has to pay back the loan, which partly goes to 14. MT who uses the money to start new FFRR in other barrios. The rest goes back to the FFRR of the barrio. 15. The money for the next 10 families arrives and 16. the process starts again.

45

THE DESIGN PROCESS - general, overview

Scheme over the general design process in the two programs, showing how the team of Madre Tierra has different tasks and how there has to be a decision taken in the community group in the barrio. And depending on the condition of the house and the decision in the group, the family can participate in FFRR or in the MV program.

The yellow circle represents the participative design process where the families, the architect and the social worker decide what should be done with the house.

MT team

visits to families

family 1
⋮
family xx

dialogue about the design/ improvements

architect

plans, drawings, technical assistence, budget

social worker

socioeconomic info about families and barrio

reunions in the barrio and FFRR group

which families can get the loan for FFRR/ MV

finilize applic. for MV

get FFRR loan

Sources: Madre Tierra, 2013, Lazzarini, 2014a&b, Rizzo, 2014, Nosetto, 2014a&b, Carbone, 2014.

THE PARTICIPATIVE DESIGN PROCESS - overview *(mostly for MV since in the FFRR program the improvements are small and there are not always drawings made)*

1

Barrio
family
architect
Madre Tierra
social worker

casa

the first plans are the base for step 2, as well as the money

what exists? what doesn´t? what are the needs? inventory of installations and materials, measurements

→ ▢ → application Mejor Vivir → $$

Through interviews with the architects, I have understood that the participative design process is sort of divided into two steps. There is one basic design made first to present to the Subsecretaría to get the money, since that takes a long time. Then the real design can start in step two, when Madre Tierra has got the money.
It is a complex process and the architects have to know how to handle many things, like the families.

2

Possible obstacles/problems:
different languages, status, cultural view of gender, education; conflicts, missunderstandings, contact between builder and architect, architectural view of the client and reverse, lack of time

Input from the family:
- family constellation
- needs
- ideas
- family history
- history of the barrio
- cultural input
- the existing construction
- practical knowledge
- survival instinct, creativity
- local contacts
- takes the loan, huge decision, long time to pay back, affects the family a lot
- "owns" the project

family
architect
social worker
dialogue proposals limitations changes opportunities

casa

Input from the technicians:
- technical knowledge
- know reasonable actions
- power over the money
- know what the money can give
- in charge of the budget
- judgement of the existing construction
- gender perspective
- architectural eye
- education in architecture and social work
- high status in society

Output:
plans, loan, contract with builder, improved house, movement in the local economy and in the house

Sources: Madre Tierra, 2013, Lazzarini, 2014a&b, Rizzo, 2014, Nosetto, 2014a&b, Carbone, 2014.

Different kind of "client"

The "client" is very different from a conventional client for the architect.

The language

The architect has to change the language for the family to understand architecture related words.

Be aware of the role of the architect
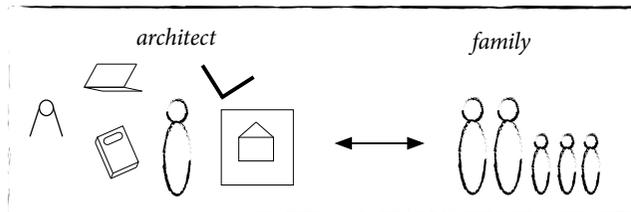
The architect has to have a professional role, the families don´t want to be pitied.

Mutual exchange of knowledge
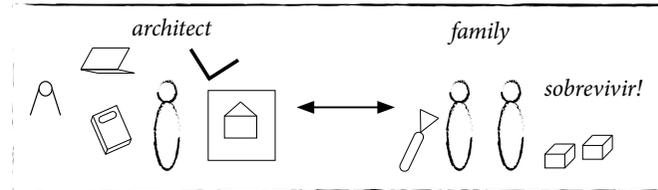
The families know things that the architect doesn´t know, and vice versa, therefore there has to be a mutual exchange of knowledge.

Gender aspect 1
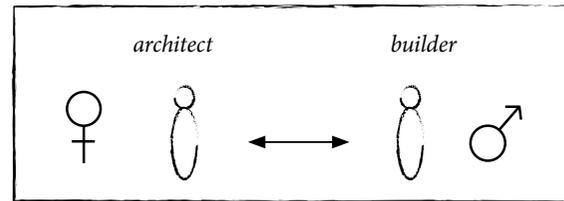
There can be difficulties for a female architect when working with male builders.

Gender aspect 2
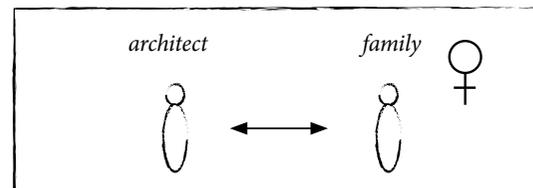
The architects should try to lift the aspects that the woman in the household thinks are important in the design.

Get to know the families
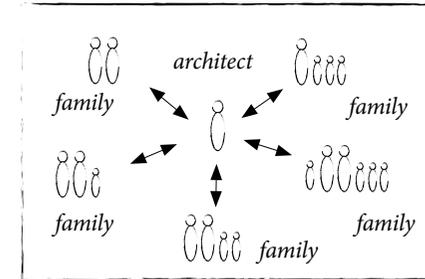
The architect has to get to know the families well.

Start with the existing construction
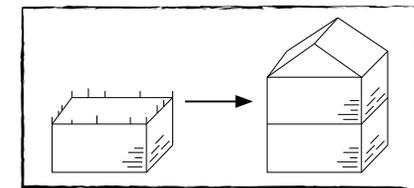
In the improvement process, the design should always be based on the existing structure and one should try to tare down as little as possible.

Not a piece of art!
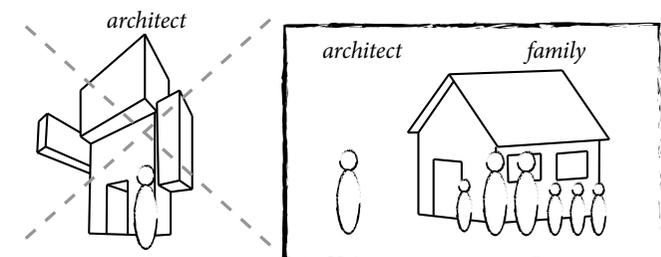
The result is not the piece of art by the architect, it is a home for the family.

Sources: Madre Tierra, 2013, Lazzarini, 2014a&b, Rizzo, 2014, Nosetto, 2014a&b, Carbone, 2014.

Different kind of "client"
The families are dependent on the architects, and they expect that the architect can solve all possible problems. On the other hand, they seem to be on the same status level, which of course depends on how well they have gotten to know each other.

The language
The families don´t have the architectural language. I didn´t see any architect explain a plan for a family, but, for example, the explanation of a sketch of how the ceramics would be in the kitchen in one house. The woman didn´t seem to understand so we went to the kitchen and the architect showed with her body, pointing and explaining the sketch more clearly.

The families use a lot of architectural words and materials in their language, so it is clear that they are learning but also that the architect changes the language when talking to the families. Although it is not certain that they understand, sometimes they might pretend to understand. It is also a question of how the architect can understand the language of the families which might be new to the architect.

Be aware of the role of the architect
It is quite clear who is the professional architect, although the architect also is a friend. One family wanted to focus on putting floor tiles inside the house, instead of plaster on the outside of the walls. The architect tried to explain why it was important to finish the outside but the woman

was still unsure if she wanted to do it. Then the architect claimed that there were rules in the Mejor Vivir program that had to be followed. It seemed like the woman had changed her mind a week later.

Sometimes questions concerning the design or furnishing comes up, and the architect improvises suggestions, to try to solve the problems in the houses.

Mutual exchange of knowledge
The architects know they can´t perform the physical work and construction, and the families know that they can´t. The architects probably can understand technical solutions better than the builders but the builders have the practical knowledge and experience. Both actors are aware of the different kind of knowledge they have.

A family could probably survive on two pesos per day, which the architect can´t, making the family creative and able to solve problems in other ways than the architect.

Gender aspect 1
I haven´t seen any female architect being treated badly. I´ve only met the builders when they were part of the families and all of them have been very respectful to the architect.

Gender aspect 2
The families I have met have had a strong woman "leading" the work, so this might not be a problem in these families. Although the culture makes

it clear what is expected by the woman in the household, and the husband many times probably has no clue.

Get to know the families
The architect and the families are clearly friends and the architect knows the history of the family. They go easily between laughter and seriousness.

Some families contact the architect at hours far outside the working hours. It is clear that it is a large engagement to work with this, the architect has to have the energy to be involved and engaged almost all the time. As well it should be hard to hear about the family destiny and what they have experienced.

Start with the existing construction
Depends if it is to precarious, but four of the families I visited had gotten help to develop the existing structure.

Not a piece of art!
It is not "photo architecture", if so, the money would have been needed better somewhere else. The architect lets go of the prestige, it is obvious that it is the project of the family, they have made the commitment and borrowed huge sums of money. There are no names of the architect on the plans for example.

However the houses become in one sense a "piece of art" for the family, which is great since it is their projects. For example they sometimes take other money and buy luxury furniture to their bathrooms.

The asentamiento **Nuevo Parque Quirno** was founded the 14th of March, **1987** through an occupation. A number of families came to settle down on the land which by the time was only earth and grass, covered by trash. They divided the plots between them, **10 x 20 meter per plot,** and then every family could do what they wished with their plot. The occupation was illegal and the land was privately owned. A few years ago the state bought the land from the private owner, and now the families are in a process of paying for their plots, on their way to be **formal owners of the occupied land.**

In 1987 the barrio got **electricity** illegally, then by a private company. Today every household has it, although there are frequent power cuts. Together the neighbours also succeeded in getting **trash collection** to the barrio and today a truck comes three times a week. To get **water** to the area the neighbours first dug a well for the whole barrio, 20 years ago, and everyone had to go there and pump their water. Then a private company came to offer a net with water where every household could connect themselves.

The houses are still **not connected to the gas net**. The **streets consist of earth** and with heavy rain falls their condition get worse. There is **no sewage system** in the barrio. All houses have an underground deposit where all sewage waste from the house should go, but it gets full quickly and they have to pay to empty it. Instead they reconnect the deposit so it only is connected to the toilet. The rest, water from the sink, shower and kitchen, ends up in the street, in small ditches along the houses.

Madre Tierra has a **FFRR group** in the barrio and **6 ongoing Mejor Vivir projects.** Only a few families are interested in participating in the FFRR program and there doesn´t seem to be any other form of organisations in the barrio.
The security is very low, and the families sometimes feel uncomfortable because of that. All houses have fences around their plot and they lock their gates. But many fences are also in a very poor condition which is why almost all families have a dog to keep strangers away.

Sources: Lazzarini, 2014a&b, Rizzo, 2014.
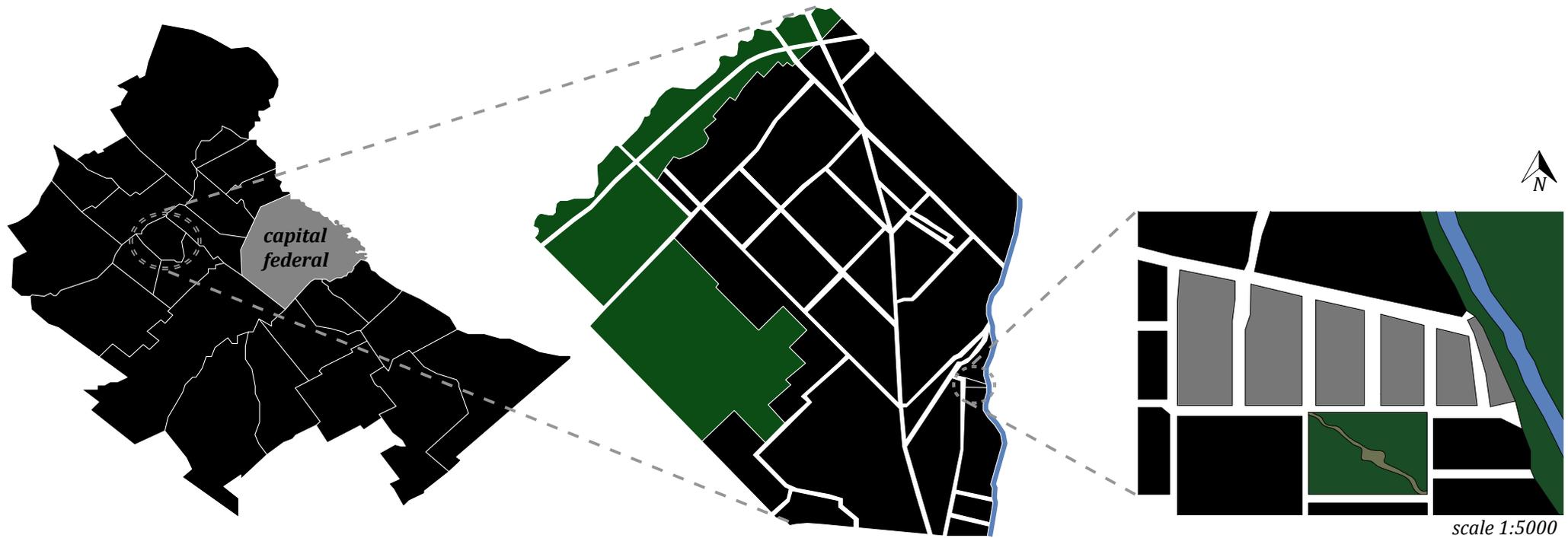
BUENOS AIRES   HURLINGHAM   NUEVO PARQUE QUIRNO

scale 1:5000

CASE STUDIES

I have meet five families in Nuevo Parque Quirno and talked to them about their houses, the improvement programs, the design process, the barrio, architecture and informal architecture.

Of the five, I have talked more to two families and these two families will be presented as case studies more thoroughly, and also be analysed in the analysis section. The meetings with the other three families will be presented more generally.

So why have I chosen to study two cases more closely, which were still under construction when I visited them? Focusing on, and analysing two cases closer is a way of trying to see how the families have perceived the participative design process and to see how the architects work and interact with the families. By analysing the future result closer, I have tried to see how the design will work for the families. I chose these two case studies because they show two different results

and two different types of processes, which I find interesting.

Also, to lift out two specific buildings and study them closer gives a different image of the informal architecture, compared to the general chaos that often is shown from informal settlements.

CASE STUDIES IN NUEVO PARQUE QUIRNO

family 4

case study 2

family 3

Psj Evita

Cafayate

Psj la Dignidad

Arroyo Morón

14 de Marzo

Morales

N

scale 1:2000

case study 1

family 5

Case study 1:
The family consist of the mother and three children living at home, one son, 29, one son, 18, and one daughter 15 years old. On the backside of the plot there is a house where another daughter lives.

Environment:
It is the warmest day in many years in Buenos Aires. In the car the thermometer had shown 37⁰ C, but it feels like more. When sitting in the soon to be living room in this house, the weather outside changes from one moment to another. The door blows open and scares us all. After a while the interview continues while the dark clouds bank up in the sky outside. The next night and day, it will fall more rain then it has done in many, many years.

Development of the house

The family came in 1987, the day after the occupation, and lived the first time in a tent.
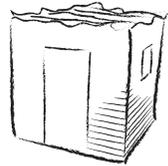
Then they moved the ´casilla´ they had lived in before, to the new plot. A casilla is a very poor construction of precarious materials, in this case wood.
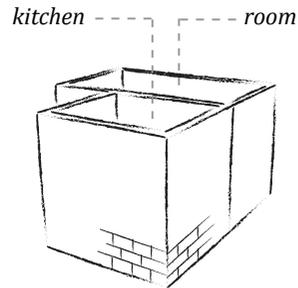
With time they could build one room and a kitchen of better materials.
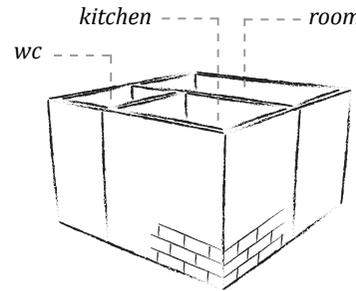
And extend the house with more rooms. The priority was to have a room, a kitchen and a bathroom.
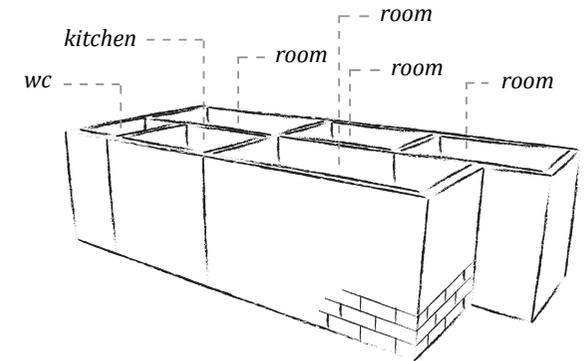
And extend with more rooms. With money from FFRR they could fix a leaking roof, but there were still problems with ventilation, humidity and no light in the bedroom in the middle.

existing wall
new wall
wall teared down
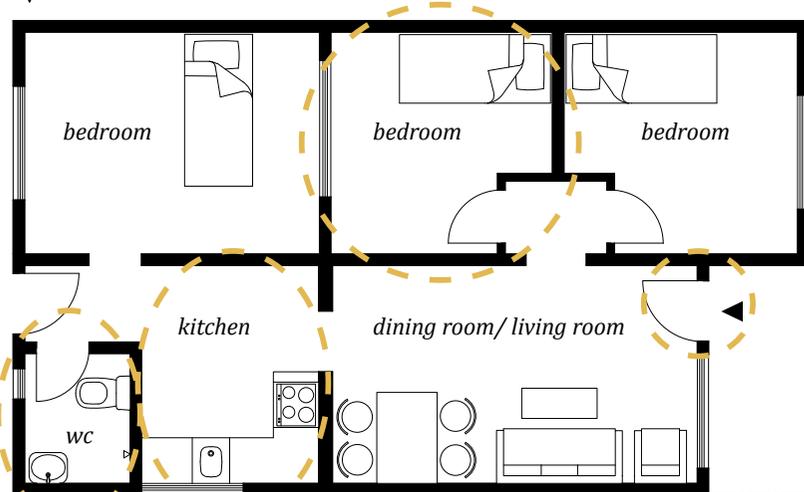
Problems with the house:
- The bedroom in the middle has no day light, no ventilation and humidity problems.
- They want more light in the kitchen.
- The bathroom is small.
- The entry is through the living room making it hard to use.

Left: Plan before with imagined furnishing, scale 1:100.
Right: Plan with old and new construction, 1:100.

Original plans: Madre Tierra.

bedroom
bedroom
bedroom
kitchen
dining room/ living room
wc
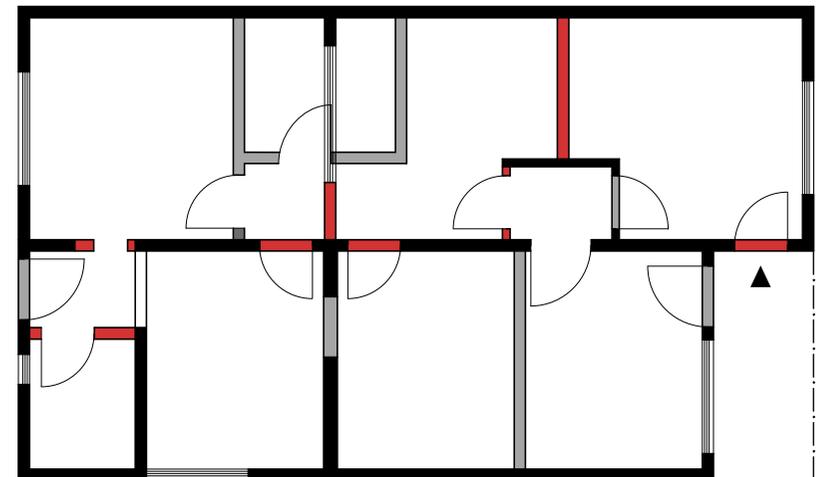
Before the construction started. The entrance will be moved. Compared to other plots, this one is very tidy.

Inside one of the bedrooms. The walls will be covered with plaster. The roof was made with money from the FFRR.

The walls will be covered in plaster outside as well.

The backside. The entrance will be closed. The windows to the left will be changed to glass doors to give light to the kitchen.

The interviews were made with the mother.

The barrio:

She was born in Hurlingham and wouldn´t want to live somewhere else. She likes the neighbours, there are schools and a hospital close. The problem is the young people hanging around in the barrio.

The programs:

Before the programs the house was in a bad shape. The family has used the FFRR program to fix the leaking roof, but the big problems were the ventilation and the humidity in the bedroom in the middle which didn´t have any day light either. The house fulfilled the demands for Mejor Vivir and with the program they can finish the house. She thinks that the programs are fantastic and help a lot. I ask what she has learned through the process and she answers that she has realised that there are people that really care and really want to help other people.

The process:

Her comment is that everything has been very good throughout the process. She says she has been lucky to get help from this architect. They had certain problems in the house and the architect and the social worker came up with a good design solution that she thinks will work for her family.

She had never seen a plan before she saw the one of her house, but the architect explained how it would be and she could understand it.

About (informal) architecture:

Everyone should have the opportunity to build their house together with an architect, otherwise the result can be bad. It is the governments fault that there are villas and asentamientos, the government doesn´t give people the opportunity to by their houses, it is

to expensive and difficult.

Most important in a house is to have a kitchen and a bathroom. Her dream house is nothing spectacular, just that everything is ordered, that there are no cuts in water or electricity, not like it is right now in NPQ from time to time.

Below: The new construction with furniture, scale 1:100.

N

kitchen

wc

dining room/ living room

laundry

bedroom

bedroom

bedroom

Original plans: Madre Tierra.

Sources: Lazzarini, 2014a&b, Rizzo, 2014, Rolón, 2014a&b.

55
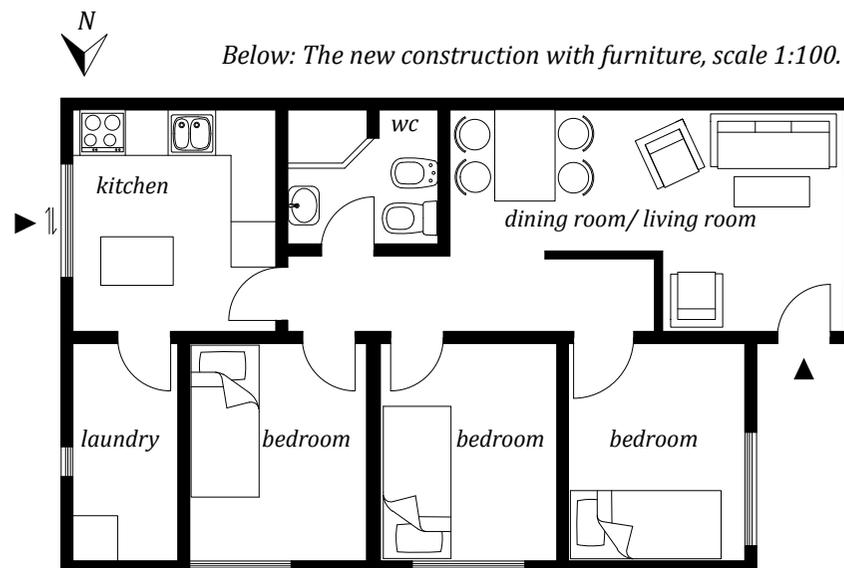
CASE STUDY 2

Case study 2:
The family consists of the mother, father and three children. One daughter, 7, one son, 5, and one daughter 16 years old which is the daughter of the father, but she lives with the family. They live on the roof of the house of the mother, father and sister of the woman.

Environment:
*It is Friday evening and when we arrive the woman, her mother and a neighbour are sitting outside the fence of the plot. We sit down and I´m a bit uncomfortable because on this street the large wild dogs always come and bark and jump on the architect. Friendly, but still, they are huge. Today they seem calm and after a while we are talking, passing around the maté, with lots of sugar, otherwise it is to bitter to drink for a foreigner like me.*

Development of the house
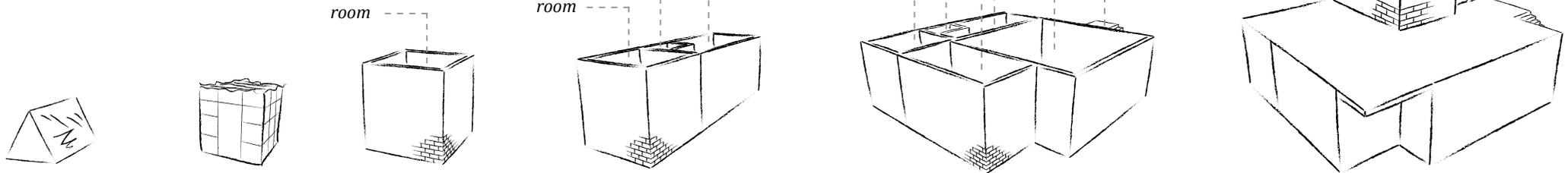
The mother downstairs was involved in the occupation in 1987. First the family lived in a tent, then in a ´casilla´ of cardboard before they could construct one room.

With time they could add rooms.

´Poco a poco´ they added more rooms, and with the FFRR program they could build the stairs to the roof.

The woman and her family lived very confined downstairs before they started to construct the house on the roof.

existing wall
new wall
wall teared down

N
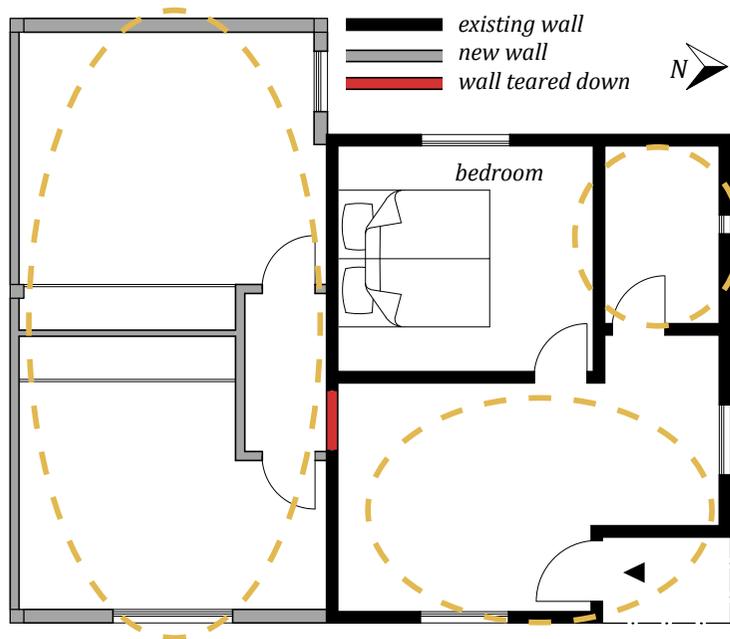
bedroom

Problems with the house:
- The started construction was not finished, only the bedroom was in use.
- The kitchen, bathroom and dining room needed to be finished.
- With only one bedroom, there was a need for bedrooms for the children.

Left: Plan which shows the existing, unfinished, structure, the usable room, and the new construction, scale 1:100.

Original plans: Madre Tierra.

The woman and her family lived very confined downstairs in the house of the parents. The whole family of five persons lived together with the sister of the woman in one room for seven years, before they could start to construct the house on the roof.

The family themselves decided how the part of the house upstairs with the room, the kitchen and the bathroom should be designed, and built it with their own money, before they entered the Mejor Vivir program.

The beginning of the construction of the two bedrooms next to the existing, unfinished house.

There is a need for plaster on the outside of the house.

The mother is drawing how she will furnish the house on a sketch of the plan during one of the interviews.

The new part under construction to the left, next to the old part.

The interviews were made with the mother.

About the barrio:

She doesn´t have a strong opinion about the area, she says she is used to live there, and it is okey. It is important to have somewhere to live and she has that. The bad things with the barrio is the insecurity she feels and the streets without asphalt.

About the programs:

They are very good because the people can improve their houses. But the money arrive late and the prices of materials are rising quickly. It is also hard to know who to listen to when the architect says one thing and the builder something else.

It is complicated to know which families can enter the program, MT says that the group in the barrio should take the decision but when they question someone who wants to enter, MT starts a discussion.

About the process:

With a tone of joke in her voice, she says that the process has been very difficult. But then she says, more seriously, that the architect wanted something and she wanted something else, so there were many discussions and many suggestions. But in the end she has got the help she needed from the architect. She had never seen plans before, and even though the architect explained them, she still can´t imagine how it will look before it is done.

About (informal) architecture:

She talks about ordinary architects and architects that work with informal architecture. An ordinary architect just points and designs as he or she likes. An architect that works with informal architecture, listens to the families and discusses the design.

The system for housing doesn´t work in the country, not everyone can buy a plot. Either you have money, or you don´t. And if you can´t buy, you have to do something else, like occupy land. Her mother told her to go to the barrio right next to NPQ when they were occupying it, but she didn´t want to.

Most important in a house is to have a bathroom and a kitchen, and rooms for the children.

Below: The new construction with furniture, scale 1:100.

Sources: Lazzarini, 2014a&b, Rizzo, 2014, Monroy, 2014a&b.
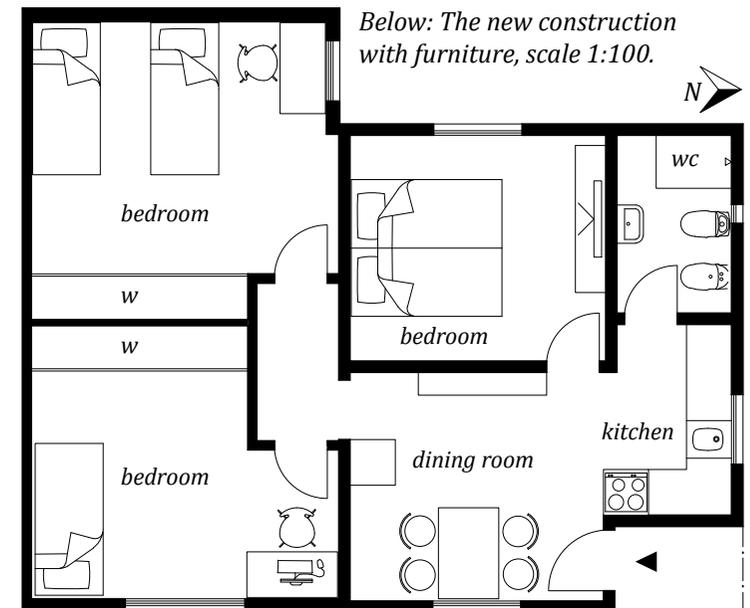
Original plans: Madre Tierra.

KNOWLEDGE FROM THE OTHER FAMILIES

FAMILY 3

Number of people: 4 (on the top floor, the dad will live in the old house downstairs).
Number of years in NPQ: 27

Environment: We are sitting outside the workshop where the husband of the woman is making shoes. The woman is breastfeeding her daughter as she tells me about the plans for the house.

The design process:
The father of the woman in the family has been working as a builder and had already planned the top floor where the family will live, before they entered the MV program. The architect took the plans of the father and suggested some changes, like moving down the kitchen and dining room to get a more private section upstairs and more public downstairs. Also a communication space could be minimized with the input from the architect. The workshop will have to be moved and give room for the kitchen, but that will not be included in the MV program money.

   The family seems really happy. Mostly because the parents will get their own bedroom and a nice bathroom.

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FAMILY 4

Number of people: 5 downstairs, and 5 upstairs, the family of one of the sons
Number of years in NPQ: 22

Environment: We are in the kitchen. On the table there is a dead pig, which they will grill on Sunday when it is mother´s day. I notice some kind of liquid dropping on the floor from the dead animal while the woman covers it with a dirty towel.

The design process:
The husband of the woman is a builder and is constructing the extension of the house together with two of his sons. The husband has done the plan of the extension and the family decided to follow his plan, although the architect tried to make them change their mind and gave them other suggestions. The design that they are building now, will block one of the bedrooms they have in the existing house. It will be a room without windows. It is a big room that could be used in a good way, but now it is already built in, and will be used as a dark computer/ communication room. The proposal of the architect was to move the extension further back to still have a window in the room.

FAMILY 5

Number of people: 4
Number of years in NPQ: around 20

Environment: Where sitting in the already finished kitchen/dining room/ living room. It is an open design solution that the family has done themselves. I am amazed by the hight of the sealing, it is probably around five meter to the highest point. The hot, sweet maté is passed around.

The design process:
The man says that they have done the house with other money, the structure and the lay-out is all their own work. They just thought about what one family with two adults and two children needed in a house, and this is what they came up with. It all seems very straight forward and simple. With the MV program they can finish the bathroom and the two bedrooms for the children.

   The role of the architect hasn´t been very important in the design process in this case, there were already plans and an almost finished house.

Sources: Lazzarini, 2014a&b, Rizzo, 2014, Jacquet, 2014, Bustos, 2014, Alvarez, 2014.

analysis &
design criteria
In this chapter the
field work will be
analysed and design
criteria formulated.

The beginning of the construction of the house of family number 4. "Pasaje la Dignidad 2250" - "Street of dignity 2250" . Photo: Madre Tierra.

ANALYSIS

The analysis has been carried out as the illustration is indicating.

The two case studies have been analysed through interviews with the families and the following analysis of the plans and how the result will affect the family. Then the particular design process in the two cases will be analysed.

The collected information from the mapping of the theories, the improvement programs, the participative design process and what the architect should think about in the work with informal architecture has been considered.

The theories and the practical work have similarities and differences and they could learn from each other, leading to the design criteria.

ANALYSIS OF CASES

MAPPING / UNDERSTANDING

interviews with families

plans before and after

theories

improvement programs

design process

how the arch. should work

how has the family conceived the process

how will it work for the families

theoretical framework

- how arch. conceive the process
- how they work

qualities/ difficulties

similarities/ differences

design criteria

CASE STUDY 1 - ANALYSIS

Before:

1:100

N

After:

1:100

area: 57 m²   **area/person:** 14 m²
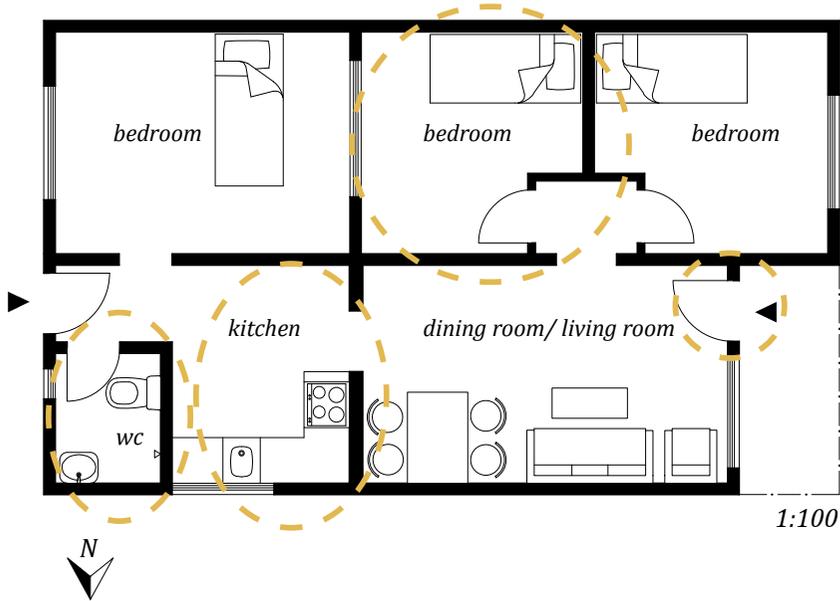
Problems:

- The bedroom in the middle has no day light, no ventilation and humidity problems.

- They want more light in the kitchen.

- The bathroom is small.

- Entry through the living room making it hard to use.

- The river ´Arroyo Morón´, close to the house, is the most polluted river in Latin America.

- They are paying for the plot to become legal owners, but are still living on occupied land.

Slum household criteria:

Structural quality/ durability of dwellings.

a durable dwelling can:

protect from rain, heat, cold, humidity

is not:

in a dilapidated state

is not located:

on or near toxic waste

Security of tenure.

proof of secure tenure to protect from eviction

Source: UN-HABITAT, 2003b.

Slum household criteria:

Structural quality/ durability of dwellings.

is not located:

on or near toxic waste

Source: UN-HABITAT, 2003b.

Original plans: Madre Tierra.

Public/ private and communication areas, day light in the rooms:

legend: private | public | communication

kitchen

wc

dining room/ living room

laundry

bedroom

bedroom

bedroom

1:100

Movement scheme:

The two sons share room and sleep in a bunk.
Assuming only the women will entry the laundry room.
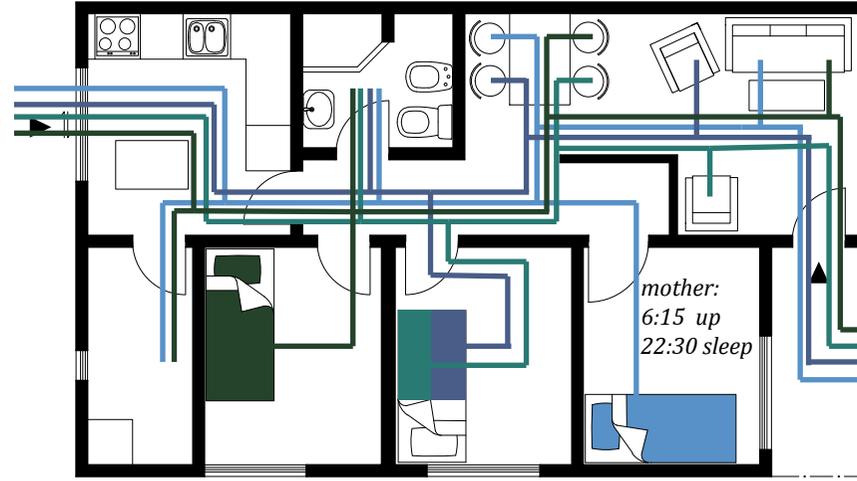
mother:
*works as a sewer,
to work 6:45
home 17:15*
son 1:
works as a builder
son 2:
looking for job
daughter:
in school

*mother:
6:15 up
22:30 sleep*

1:100

The water is elevated in water tanks to create pressure and comes from the formal net. All water in this house is heated in a termo tank with gas in the laundry room.

The house has a deposit under ground where all sewage waste from the house should go, but it gets full quickly and they have to pay to empty it. Instead they have reconnected the deposit so it only is connected to the toilet. The rest, water from the sink, shower and kitchen ends up in the street,
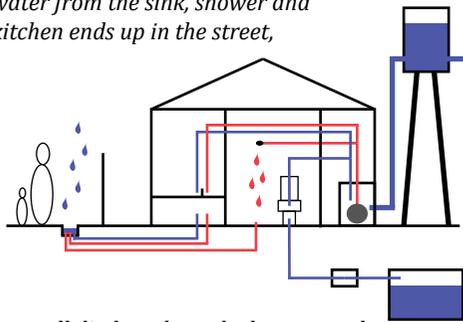
in small ditches along the houses made for the rain water. All the houses have a little bridge in front of the entry, to be able to cross the ditch.

Technical scheme:
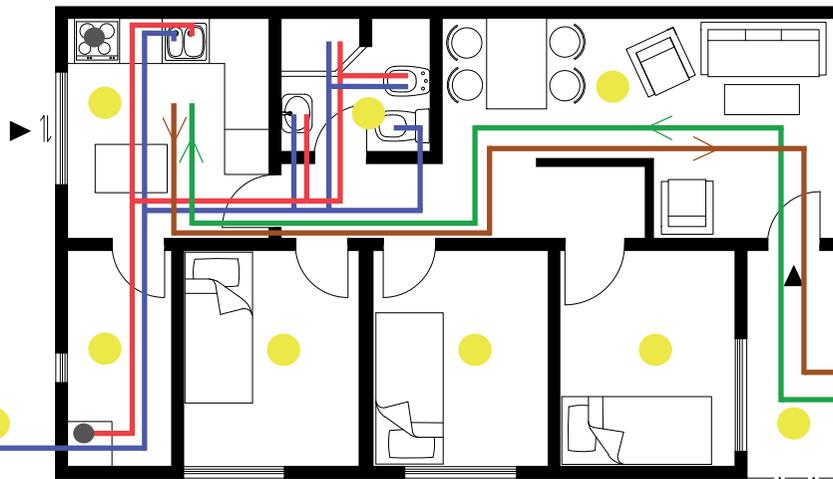
1:100

The family buys their food in the neighbourhood, and the trash is put in an open, elevated trash basket in front of the house. A truck picks up the trash three times a week. The family pays for this.
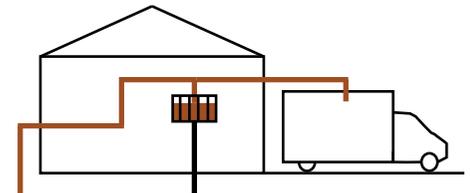
legend:
— cold water
— warm water
— food
— waste
● gas
● formal electricity

62

Original plans: Madre Tierra.

Result;
what will function and not function for the family

a good functioning shower with hot water is luxury, according to the woman

possible to ventilate the rooms now, the humidity problem will go away

open lay-out of the dining room/ living room which will give a good space to socialize in the more public part

the wall that has been left is keeping the bedroom inside more private, but is also complicating and diminishing the possibilities to furnish and to pass through the living room

from the kitchen she can see the grand children playing in the patio between her and her daughters house

the large glass doors will give light and contact to the outside, the family will spend a lot of time in the kitchen which is part of the culture, cook together and spend time there

the living room is in connection to the entry, making it a sort of representation space, here she can have it tidy and nice, the grand children will have to stay in the kitchen and patio

a laundry room was the suggestion of the architect and the woman is very happy about it

with the entry in connection to the living room you can see who is entering easily when relaxing in the evening by the TV with a maté

kitchen

wc

dining room/ living room

laundry   bedroom   bedroom   bedroom

day light in all bedrooms

two grown up sons have to share a bedroom which limits their privacy

the design solution has a more private half with the bedrooms and a more public half with living room, dining room and kitchen

the entrance is still in the living room, making the living room and dining room a communication space and making it hard to furnish

the water solution is of course bad but the architects can´t do anything about it

Original plans: Madre Tierra.

functioning well

not functioning/ functioning less good

63

NEEDS (wants)
- *no day light, no ventilation, humidity problems in bedroom*
- *more light in the kitchen*
- *larger bathroom*
- *move entry from living room*

} *from dialogues with case study 1, unclear how many of these needs she has expressed and how much the architect has seen*

PROCESS

The family and the architect have a good relationship and the family trusts the architect a lot. Therefore the architect could make design suggestions and discuss them with the family.

There were some different suggestions on how to solve the problems in the house. One was with the living room in the same place as before and the dining room and kitchen beside it, making the part of the house at the back more private with the three bedrooms.
   Another suggestion was to keep the bathroom where it was and have the living room, dining room and kitchen in a row, making half of the house more private and half of the house more public.
   The third suggestion was the one they decided to build, with the bathroom in between the kitchen and the dining/living room and the bedrooms in a row on the other side, with the laundry room next to the kitchen.
   Listening to the conversations between the mother of the family and the architect and the social worker, it seems unclear who really came up with the design solution, if it was the architect or if it was the social worker.
   The suggestions have been discussed by the family, the architect and the social worker, and they have decided to go forward with the third suggestion. There are many positive aspects with this design and the mother thinks it will work very well.
   The family has listened to the architect and the social worker and have been open to their suggestions. Although the son is a builder he has not tried to control the project in another direction. The respect for the knowledge of the architect is present, as well as the respect for the wishes and needs of the family.

- *easy "client" to work with for the architect*
- *the architect has given suggestions*
- *the architect explained the suggestions, there have been discussions, leading to a decision*
- *the architect has been able to perform a good design solution, without resistance*

RESULT
- *day light in all bedrooms*
- *larger bathroom*
- *functioning ventilation, no more humidity problems*
- *light in the kitchen, a new entrance with conncetion to the patio*
- *still entrance through the living room*

Fulfilled criteria for how the architect should work:

start with the existing
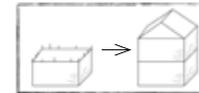
the language

the role of the architect

get to know the families
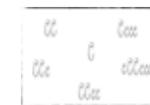
gender aspect 2

It is clear that they are starting from the existing construction and will not tear down more than necessary. The communication between the family and the architect (and social worker) has been good and the architect has been able to act as a professional architect in relation to the family. They also have a good relationship since they have gotten to know each other. The result shows that the gender aspect has been important. Priority is given to functions that are more connected to the work of the woman in the house, which is something one has to accept in this culture.

It has been an "easy client" for the architect, leading to a good process and good result.

Forgotten or less fulfilled criteria for how the architect should work:

not a piece of art!

They call this project "the reversed house", referring to it almost as a piece of art. But over all a good solution that probably will work for the family.

CASE STUDY 2 - ANALYSIS

Before:

bedroom

N

1:100
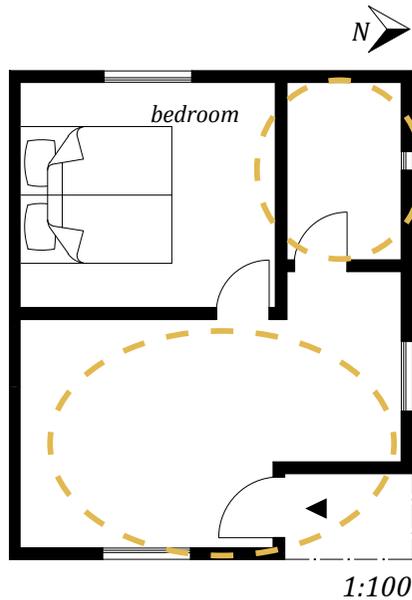
Problems:

- *The started construction was not finished, only the bedroom was in use.*

- *The kitchen, bathroom and dining room needed to be finished.*

- *There was only one bedroom, there was a need for bedrooms for the children.*

- *Before, the family lived five people in one room with the sister of the woman.*

- *The river ´Arroyo Morón´, close to the house, is the most polluted river in Latin America.*

- *They are paying for the plot to become legal owners, but are still living on occupied land.*

After:

bedroom

w

w

bedroom

wc

bedroom

kitchen

dining room

area: *60 m²*   **area/person:** *12 m²*

1:100
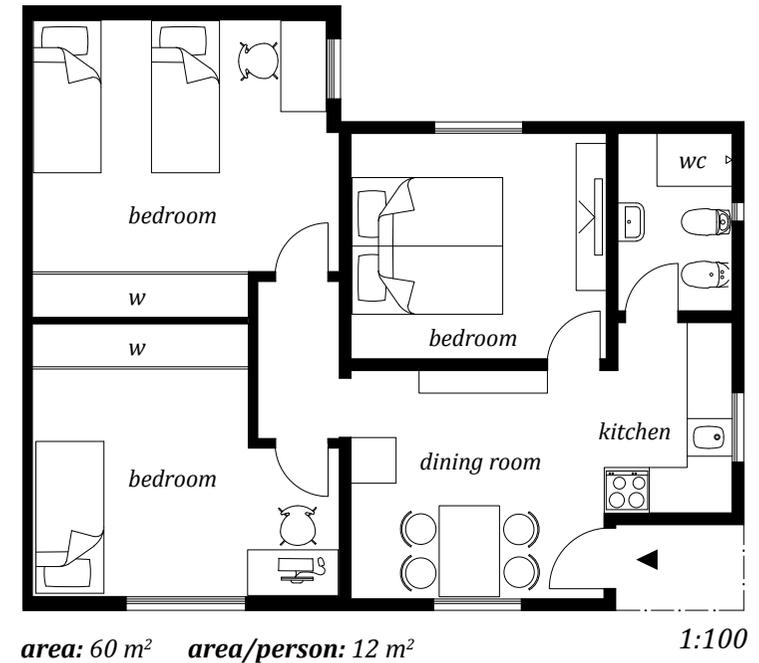
Slum household criteria:

Not over-crowded, sufficient living area.
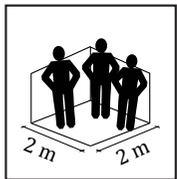
2 m   *2 m*

Structural quality/ durability of dwellings.

is not located:

on or near toxic waste

Security of tenure.

proof of secure tenure to protect from eviction

Source: UN-HABITAT, 2003b.

Slum household criteria:

Structural quality/ durability of dwellings.

is not located:

on or near toxic waste

Source: UN-HABITAT, 2003b.

Original plans: Madre Tierra.

Public/ private and communication areas, day light in the rooms:

bedroom

w

w

bedroom

bedroom

wc

dining room

kitchen

1:100

private

public

communi-
cation

Movement scheme:

mother:
9:00 up
01:30 sleep

1:100

The two daughters share room.
Assuming only the women will cook.

mother:
doesn´t work at the moment
husband:
works as a plumber
son:
to school/ kindergarden
daughter 1:
to school/ kindergarden
daughter 2:
to school

everyone goes to the house
downstairs to hang out
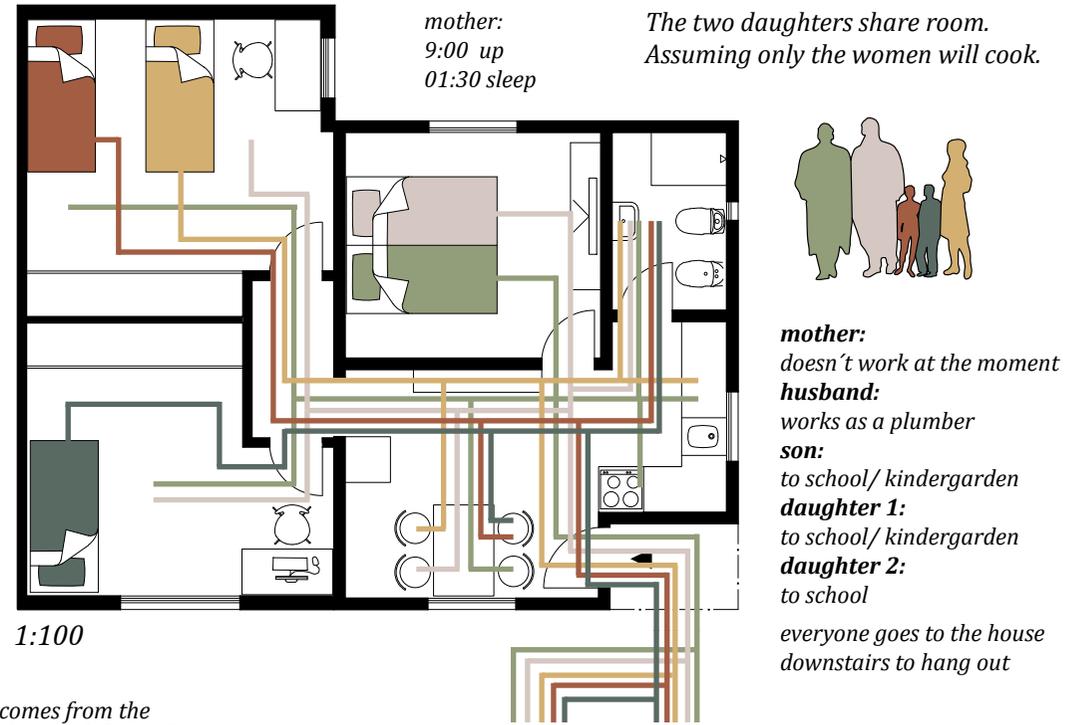
Technical scheme:

The water is elevated in water tanks to create pressure and comes from the
formal net. All water is heated
with electricity. The water
system is separated from the
mother´s house beneath to
make it possible to sell the two
houses separately.
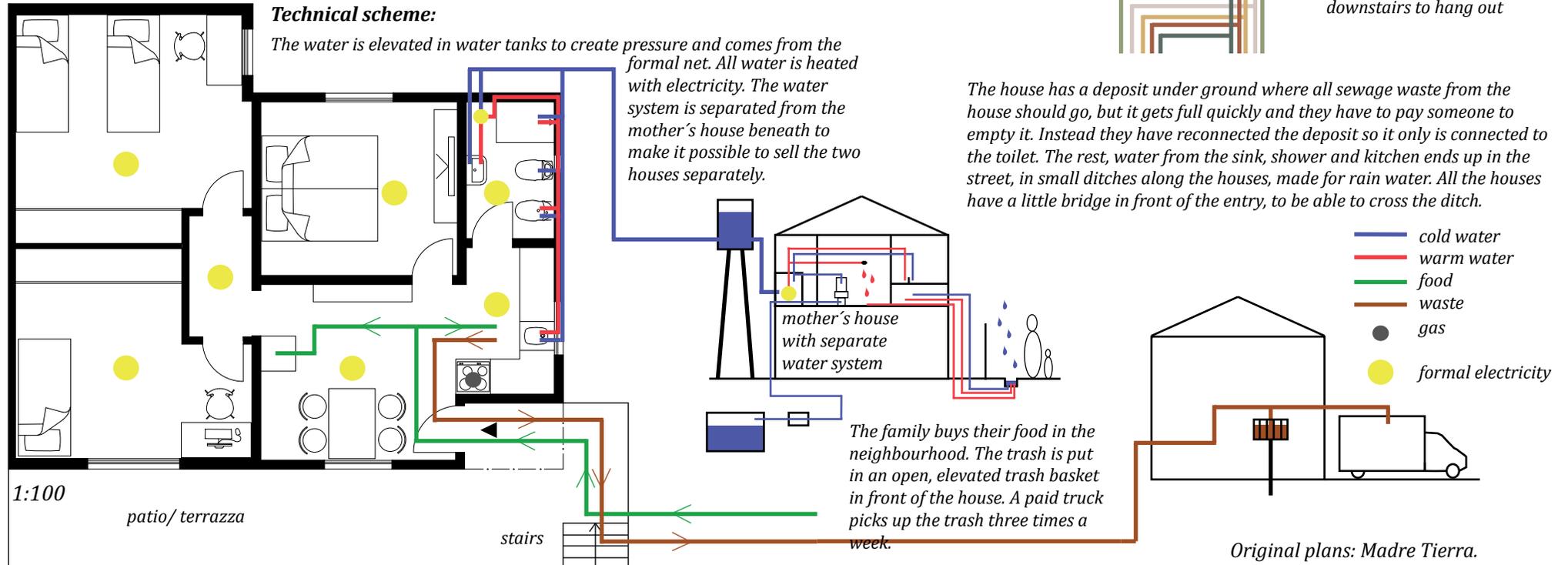
The house has a deposit under ground where all sewage waste from the
house should go, but it gets full quickly and they have to pay someone to
empty it. Instead they have reconnected the deposit so it only is connected to
the toilet. The rest, water from the sink, shower and kitchen ends up in the
street, in small ditches along the houses, made for rain water. All the houses
have a little bridge in front of the entry, to be able to cross the ditch.

mother´s house
with separate
water system

The family buys their food in the
neighbourhood. The trash is put
in an open, elevated trash basket
in front of the house. A paid truck
picks up the trash three times a
week.

cold water

warm water

food

waste

gas

formal electricity

66

1:100

patio/ terrazza

stairs

Original plans: Madre Tierra.

Result;
what will function and not function for the family

two new bedrooms for the children

the two new bedrooms form a more private part of the house

the young girl and the teenager share a room, which might be problematical for their privacy

there is a more private part with the two bedrooms, but to reach the toilet one has to pass the more public kitchen and dining room

a big patio/ terrace where the family can spend time outdoors

half of the already small dining room is a communication area

separated water systems could make it easier to sell the houses separately

there are windows and day light in all the rooms
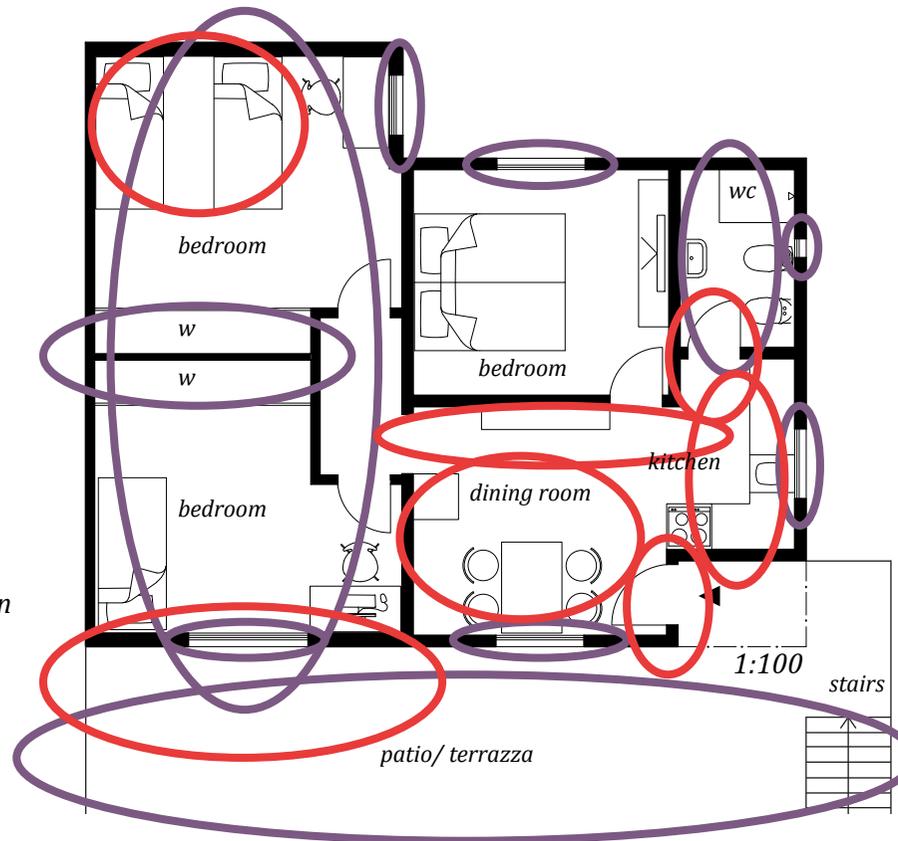
a large bathroom with all the necessary things

the bathroom is in direct connection to the kitchen which is bad from a health perspective

the kitchen is very small and difficult to furnish, the fridge for example, will have to be put in the dining room

the kitchen is a communication area, making it hard and dangerous to cook since everyone have to pass to reach the bathroom

there is no living room to hang out in, when it is not possible to be outside, the family members will have to squeeze in the dining room or be separated in their bedrooms

bedroom

w

w

bedroom

bedroom

wc

dining room

kitchen

1:100

stairs

patio/ terrazza

functioning well

not functioning/ functioning less good

because of the design solution of the bedrooms it will be difficult to extend on that side of the house with an extra room if they need it in the future

the water solution is of course bad but the architects can´t do anything about it

the entrance is located in the already small dining room, making it difficult to pass

Original plans: Madre Tierra.

67

NEEDS (wants)

- finish started construction
- bedrooms for the children
- larger house
- separated water systems

} *from dialogues with case study 2, it seems like she has expressed very clearly what she wants*

PROCESS

This family has been hard for the architect to work with. The family has listened a lot to the opinions of a neighbour, who has been a builder, and been reluctant to the input from the architect. Despite this, they have a friendly relationship and can be quite free and relaxed in their way of talking to each other. One problem might have been that the mother of this family has a very strong personality and therefore there have been difficulties in the communication.

   She had never seen a plan before and doesn´t seem to understand how her future house will look until it is finished. In this sense maybe the architect could have tried other ways of explaining the plans and the different suggestions.

One suggestion was to have a living room in the middle of the two bedrooms, giving a smaller patio, but a larger house.

   Other suggestions have been to extend the kitchen in different ways in front of the dining room, and have the two bedrooms as they now are being built.

   Another suggestion has been to move the bathroom in between the new bedrooms.

   It is clear that there have been many different attempts to make the house larger, but the woman wanted a small house and has been unwilling to discuss the suggestions. In the end the architect has provided her with the plans she needed to be able to do the small extension. It could also be a question of the money, and the family just couldn´t afford making a larger house due to their economic situation.

   In the end it seems like no one is a winner, the architect has not been able to raise the quality of the existing, and the family will live in a very small, not optimally designed house. On the other hand it is still a lot better than before, so of course their life standard will be improved. And it will probably work well anyway because the can spend time down stairs in the house of the mother.

- hard "client" to work with for the architect, the family didn´t want to take her advice
- the architect has given suggestions to extensions and different design solutions
- the architect has explained the suggestions but maybe not good enough
- the architect has not been able to raise the quality of the existing, and the family will live in a very small, not optimally designed house

RESULT

- two more bedrooms and finishing the started construction
- small kitchen and dining room which are also communication areas
- no living room

Fulfilled criteria for how the architect should work:

start with the existing
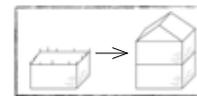
get to know the families
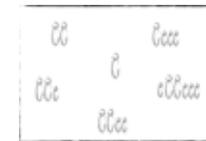
They have not changed the existing, but will finish it. The architect knows the family, they are friendly in their conversations, but she hasn´t been able to reach out to them with the design solutions.

"Hard client" - not a good process and mediocre result.

Forgotten or less fulfilled criteria for how the architect should work:

the role of the architect


the language

gender aspect 2
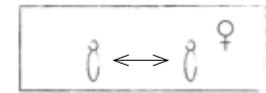
The architect couldn´t make use of her professional role, the family wouldn´t listen and she couldn´t improve the existing. It might have been problems in the language or the explanations of the suggestion since the family couldn´t understand. Or the strong personality of this woman might have been the biggest problem in this process. The woman will have difficulties to cook in this small kitchen.

ARCHITECTS IN INFORMAL CONTEXTS - COMPARISON BETWEEN ARCHITECTS, THEORIES AND FAMILIES

	ARCHITECTS	LIVINGSTON	FREIRE	PELLI	FAMILIES
How to work?	- another type of "client" - get to know the people - mutual exchange of knowledge - be aware of the role as a professional architect - use the right language - the result is not the "piece of art" of the architect - common with discrimination of female architects - start from the existing	- use tools to listen to the needs of the client - to let the client make drawings only show their solution, not their needs - what they like most/ less - dream house - the history of the house - family constellation - the plot and surroundings - the design has to be visualized for the client - note furnishing to understand their life	- mutual exchange of knowledge - get to know the people - dialogue and communication - let go of prejudices - the existing has a value	- get to know the people - let go of prejudices - get in the position of the family - know how to address the needs of the family - know what the expressed needs of the family are based on - far away from conventional work and clients - the technicians has to use their knowledge adjusted to the culture	- the architect has to take the plan and explain it, "it will be in this way and that way" - the architect has to talk to the families - the architect should influence the decisions and help make the right ones, answer when you call them - the architect helps a lot but complicates a lot
About informal architecture	- it is a necessity - not brought up during the education - different processes in formal Europe and informal Latin America - gives personal but not economical gain working with it - lacking aesthetics	- it doesn´t have to be beautiful because the values is its function, not being an architectonic object	- it goes beyond economy and aesthetics, the qualities are connected to ´live and let live´	- the "anti-aesthetics". The miserable expression in a simple dwelling doesn´t mean that there is a lack of need of aesthetics, it could just be the result of necessary priorities on a small budget	- a builder is an architect without diploma - everyone should have the opportunity to make their house with an architect - an architect working with informal architecture listens to you, an ordinary architect doesn´t
Design process	- every house is unique - participative design process - respect wishes but act as an architect - when the money has arrived one can design - have a gender aspect on the design	- draw the plans with furniture - make the client understand the different proposals	- every house is unique - participative design process	- participative design process: clear guidelines, relevant competence, acceptance of rules, the families have an active role, their opinions have the same weight, decisions are approved by everyone	- talk to the architect, see what they draw, make changes, agree

ARCHITECTS IN INFORMAL CONTEXTS - COMPARISON BETWEEN ARCHITECTS, THEORIES AND FAMILIES

similarities

	ARCHITECTS	LIVINGSTON	FREIRE	PELLI	FAMILIES
How to work?	- another type of "client" - get to know the people - mutual exchange of knowledge - be aware of the role as a professional architect - use the right language - the result is not the "piece of art" of the architect - start from the existing	- the design has to be visualized for the client	- mutual exchange of knowledge - get to know the people - dialogue and communication - let go of prejudices - the existing has a values	- get to know the people - let go of prejudices - know how to address the needs of the family - far away from conventional work and clients - the technicians has to use their knowledge adjusted to the culture	- the architect has to explain the plan - the architect has to talk to the families - the architect should influence the decisions and help make the right ones
About informal architecture	- lacking aesthetics	- it doesn't have to be beautiful because the values is its function, not being an architectonic object	- it goes beyond economy and aesthetics, the qualities are connected to live and let live	- the "anti-aesthetics"	- a builder is an architect without diploma
Design process	- every house is unique - participative design process		- every house is unique - participative design process	- participative design process	

The same colour means that it is a similarity.

differences

	ARCHITECTS	LIVINGSTON	FREIRE	PELLI	FAMILIES
How to work?	- common with discrimination of female architects	- use tools to listen to the needs of the client - to let the client make drawings only show their solution, not their needs - dream house - note furnishing to understand their life	(There seemed to be no aspects that Freire could contribute with, but it turns out that almost every theory is based on Freire, more or less, and the foundations of the work of Madre Tierra as well (Varela, 2014).)	- know what the expressed needs of the family are based on	
About informal architecture	- gives personal gain, not economical working with it				- a builder is an architect without diploma -
Design process	- when the money has arrived one can design - have a gender aspect on the design	- draw the plans with furniture - make the client understand the different proposals		- clear guidelines	

◯ learn from the practical work

◯ (dashed) learn from the theories

The similarities in what the architects, the theorists and the families say are many.

How to work in these areas
Both architects and theorists think that it is a different kind of client which makes the work very different from conventional work. Therefore it has to be a mutual exchange of knowledge, since the actors have different kind of knowledge. This also makes the role the architect takes on very important for how the family sees the architect.
   Everyone has to let go of prejudices and work to get to know each other, and use the right kind of language. The starting point is the existing.

About informal architecture
There is an agreement that there is a lack of aesthetics in the informal architecture.

Design process
One should use a participative design process based on that every house is unique.
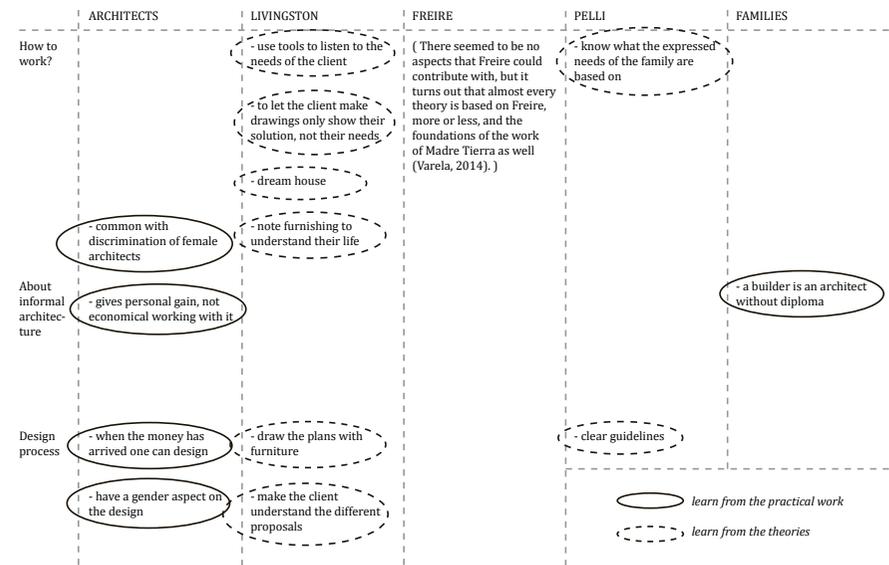
What the theories can learn from the practical work
It is common with discrimination of female architects and the gender aspects needs to be lifted in the design.
   The architects point out that the gain is personal, not economical.

What the practical work can learn from the theories
Use more developed tools to listen to and understand the families (the clients), for example by noting and drawing the furniture in the houses.
   The architects have to make sure that the families understand the proposals, and know what their expressed needs are based on.
   Throughout the design process there should be clear guidelines for the involved actors.

THE GENDER PERSPECTIVE (1 & 2)

Criteria: The gender aspect needs to be visualized in academic material.

DESIGN CRITERIA

There are aspects of the practical work that could be useful to include in the theoretical work, as well as there are ways of developing the practical work of Madre Tierra with help from the theories.
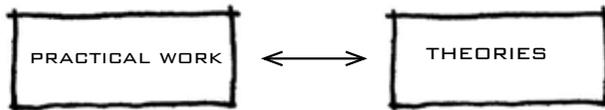

But the practical work cannot be based only on the theories, because in between there is a reality full of unexpected events, and more importantly, *families, persons, individuals.*
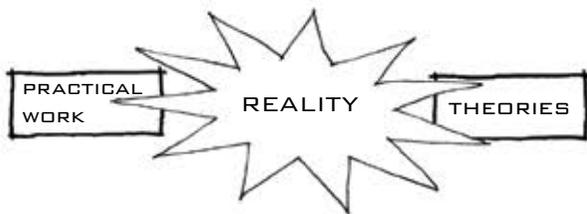
In this section the design criteria for how to develop the theoretical and the practical work will be presented. The design criteria aimed at the theories should be seen as *points of development* that could be raised in the theoretical discussion. The design criteria aimed at the practical work should be seen as *criteria to develop the design process* in the work of Madre Tierra, and are therefore called tools. In the next chapter, there will be a discussion about what could be realised and what could not, because of the reality, the unreasonableness and the complexity of the problem with informal settlements.

THE GENDER PERSPECTIVE (1 & 2)

The theories are based in the Latin American society and culture, which in my opinion is a culture and society coloured by ´el machismo´. The men (and many women) have a certain view on women and the equality between men and women needs to be developed (with exceptions, of course). In the theories there is no, or very little, mention of the gender aspect and the fact that the present culture is quite unequal. It could be because all the theorists are men.

In Argentina, there is in general no discussion about gender in the society nor in the housing politics. Although when working with people

THE DEFINITION OF ROLES
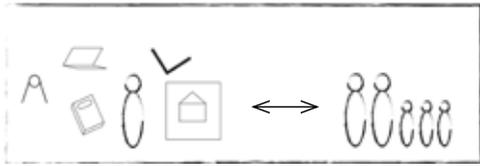
Criteria: Need for more theoretical material about how the families look upon the architect.

THE ASPECT OF TIME

Criteria: A theoretical, flexible time framework as a point of departure.

---

in informal settlements, it is almost always the woman in the family that is engaged in the neighbourhood or in the improvement process.

Criteria: The gender aspect needs to be included in academic material to make it possible to lift this question in the housing politics but also in the society in general.

THE DEFINITION OF ROLES
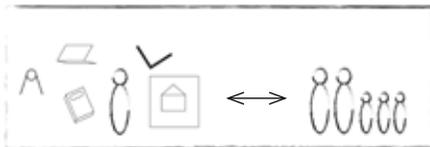
The architect working in the informal area has to respect the wishes of the families but also act as a professional architect. The families expect a professional architect and no pity. On the other hand, one has to think about how the families see the architect and how they relate to the architect. If the families see a builder as an architect without a diploma, and they know the architect can´t build

practically, how can they trust the architect to come up with good solutions?

Criteria: There is a need for more theoretical material about how the families look upon the architect, the role of the architect in the design process and what the families expect from the architect coming to their neighbourhood.

THE ASPECT OF TIME

This is a complicated aspect since the programs only give few guidelines on how to handle the time aspect. Madre Tierra has some time guidelines in connection to the Mejor Vivir program, for example the construction period.

All actors involved in the improvement process have different time perspectives, the families have one, the organisation one, the municipality

has one and the universities working with these questions have another. Coordinate all these different time perspectives could imply difficulties and complicate the improvement process. It is also hard for Madre Tierra to know how long time they should put on the different phases of the process. Further more they are working with humans, with persons, and therefore it is very hard to set limits.

Criteria: A theoretical, flexible time framework for NGOs and other organisations to take as a point of departure when they work with participative design processes in improvement programs. The framework could be an estimation which the NGO can use and modify together with the families involved in the project.

NOT A PIECE OF ART - LET GO OF ARCHITECTURAL PRESTIGE
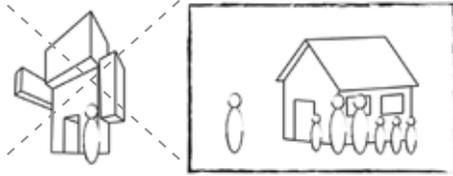
Criteria: Raise the awareness of informal architecture in the education of new architects.

START WITH THE EXISTING STRUCTURES
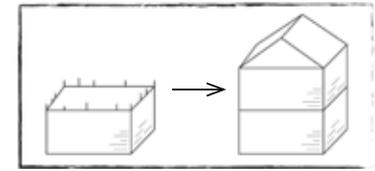
Criteria: Clarify the starting-point for improvement programs.


NOT A PIECE OF ART - LET GO OF ARCHITECTURAL PRESTIGE

Through observations of the practical work, it is quite clear that this kind of work is not for all architects, nor for all people. The technician or architect that gets involved in this work wants to do this for other people, not to make him- or herself a name as an architect. The result is not a ´piece of art´ by the architect, it is an improvement of the lives of very poor people. For the architect the gain is personal, not economical.

In a society with these obvious problems it would seem logical to include these questions in the architectural education, but only until a few years ago the schools mostly educated 'elite architects', as one architect in Madre Tierra put it.

Nowadays there are some eligible courses dealing with the subject. Theorists are often connected to universities and could be used more in the education to increase the interest since the need for architects who want to enter this field is large.

Criteria: Raise the awareness of informal architecture in the education of new architects to obstruct the creation of 'elite architects'.

START WITH THE EXISTING STRUCTURES
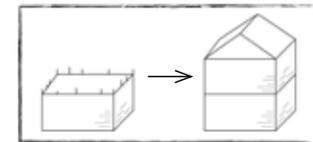
Madre Tierra has an explicit strategy of not tearing down the houses if it is not totally necessary. It is a way of respecting, accepting and acknowledging the work of the family. It is also cheaper to not tear down structures and start from zero.

Freire says that the existing has a value that has to be accepted, and probably it is implicitly in the theories. Nevertheless, the official politics concerning informal settlements is to tear down and build new structures from the beginning. Which also is contradictory since the governmental program Mejor Vivir exists.

Criteria: Clarify the starting-point for improvement programs since if the existing structure is kept, it gives recognition to what the families have created.
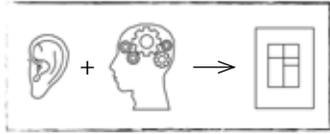
DESIGN CRITERIA
for process development

TOOLS TO INTERPRET THE NEEDS OF, AND LISTEN TO THE FAMILY

Criteria: The method to listen and interpret the needs of the families could be developed.

TOOLS TO FIND OUT/ UNDERSTAND HOW THE FAMILY LIVES THEIR DAILY LIVES
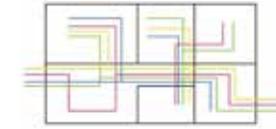
Criteria: The method to understand how the families live could be developed.
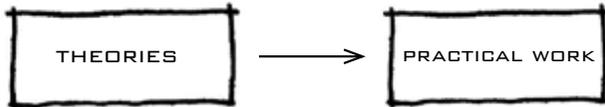
To be able to improve the practical work of the architects working at Madre Tierra, they could develop tools to improve the participative design process.

TOOLS TO INTERPRET THE NEEDS OF, AND LISTEN TO, THE FAMILY
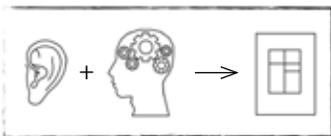
According to Livingston the architect should never take the plans from the clients since their plans show their solutions and not their needs. Madre Tierra sometimes takes the plans from the families and modifies them, propose improvements, if for example the father or the husband is a builder and has experience. The deeper analysis of the needs of the families is absent.

According to Pelli, the families could express needs that they feel urged to have because the prevailing housing culture oblige them to have those needs, although they don´t really have them. For example, I have noticed that when entering some bathrooms that are under construction, you could meet a luxury shower or a very large washbasin. At the same time the bathroom door cannot be opened properly because the toilet is in the way for the door. The lay-out of the bathroom had to be like that because of the huge, luxury washbasin. These furnitures are bought with other money, not coming from the improvement programs, but show how the families feel in relation to their needs and the current culture concerning decoration of houses. Obviously they don´t need this kind of furniture in their bathrooms but they are urged to have these needs by the culture.

Criteria: The method to listen and interpret the needs of the families could be developed. It could be modified from Livingston´s method to hear the needs of the client, but it has to be adjusted to an informal context.

TOOLS TO FIND OUT/ UNDERSTAND HOW THE FAMILY LIVES THEIR DAILY LIVES
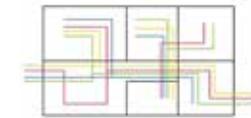
Through interviews and conversations with the families the information about the family is obtained, but to understand how they live there could be a need for a deeper analysis. Especially since they are not used to think in architectural terms when it comes to rooms, space, movements, communication areas etc.

Criteria: The method to understand how the families live could be developed. To get a better understanding the architects could for example;
- take notes about how the family has put the furniture (Livingston),
- make a movement scheme for the family members together with the family,
- make a relation scheme of the house together with the family.

TOOLS TO VISUALIZE THE DESIGN FOR THE FAMILY

Criteria: The method to visualise the design for the families (and the builders) could be developed.

TOOLS TO BE ABLE TO PERFORM A GOOD PARTICIPATIVE DESIGN PROCESS

Criteria: Clearer guidelines and frames in some aspects of the process.

TOOLS TO VISUALIZE THE DESIGN FOR THE FAMILY

Most of the families living in informality have never seen plans of buildings before they see the plan of their house. The architect explains the plan, points and illustrates with his or her body, draws on the ground and so on. Anyhow, it could be very difficult for a person to understand the abstraction of a plan. Many of the builders have never seen plans either and have problems understanding them.

Criteria: The method to visualise the design for the families (and the builders) could be developed. This to facilitate for the families to chose good design solutions and to be able to understand how their house will look. And for the builder to be able to perform the construction work well. This could be made by;

- draw furnitures in the plans that are shown for the families,
- make simple models,
- make simple volume models in computer programs,
- make basic illustration/ perspective of some room,
- draw sections and elevations.

TOOLS TO BE ABLE TO PERFORM A GOOD PARTICIPATIVE DESIGN PROCESS

Pelli has listed some requirements to be able to perform a good participative design process, listed in the following with a comparison of how Madre Tierra handles the aspect.

Requirement:	How MT works:
The actors involved are relevant, the receiver accomplish the demands	MT has demands on the barrios and the families that can enter the programs, and in Mejor Vivir there are more demands on the houses.

Lack: It is unclear in the group in the barrio what kind of demands there are on new families that want to enter the group.

The actors have enough power in their fields to be able to push through decisions, for example a neighbour with high status in the barrio, the architect can apply for money etc.	MT can as an organisation apply for money to perform the improvements.

Requirement:	How MT works:
Clear guidelines and clear division of assignments and roles for the different actors.	MT makes the budget, order material, controls the work 2 times per week. The family finds a builder.

Lack: There are unclear time frames and guidelines which makes it hard for MT to control the work.

All actors accept the rules and follow them.	The families sign a contract with MT saying they will follow the rules, pay back the loan etc.
The inhabitants participating in the design process have an active role.	The families have to be active throughout the whole process, go to meetings, have a certain role inside the group, find a builder etc. If they are not active MT will not help them.

Requirement:	How MT works:
Criteria and opinions from the inhabitants have the same weight as opinions from other actors.	MT is very keen on hearing the opinions of the families.

Lack: The word of the architect needs to have most weight in some questions, like the technical solutions.

All decisions through out the whole process have to be approved by all actors.	MT tries.

Lack: Sometimes the families chose to build differently without communicating this to the architect.

Criteria: There could be clearer guidelines formulated about;
- which persons/ houses could participate in the programs (it is the group in the barrio who decides, but to make it easier for them, there is a need for clearer guidelines from MT).
- how to spend the time in each project and how to handle the builder.
- how to handle families that don´t want to follow the professional advices from the architect.
- how to make the families take responsibility to anchor all decisions concerning the design with the architect.

TOOLS TO PUSH FOR A GOOD DESIGN SOLUTION

Criteria: Develop tools to be able to push for a good design solution.

WORK WITH INFRASTRUCTURE IN THE BARRIOS

Criteria: Madre Tierra should work with improvements of the infrastructure in the barrios.

TOOLS TO PUSH FOR A GOOD DESIGN SOLUTION

The architect can understand how the design will be by seeing and working with the plans, they know the families and can hopefully understand what will be a good result for the family. But sometimes the family doesn´t want to use the design solution that the architect has presented. The architects need tools to be able to push the families to chose the best design solution, without disrespecting the families.

Criteria: Develop tools to be able to push for a good design solution. For example;
- point out that all decisions have to be accepted by everyone involved,
- accentuate their professional knowledge,
- explain the design differently with visualisation tools (see above),
- create trust by performing deeper analysis (see above).

OTHER ASPECT TO DEVELOP IN THE PRACTICAL WORK

WORK WITH INFRASTRUCTURE IN THE BARRIOS

The program FFRR and Mejor Vivir focus on improvements of the separate houses and not on the infrastructure of the areas, questions that the families highlight as important problems in their barrio. Their lives would be improved with better infrastructure.

Criteria: Madre Tierra should also work with improvements of the infrastructure in the barrios.

discussion

In this chapter the
design criteria will be
discussed.

View from the upstairs window of the house of family number 3.
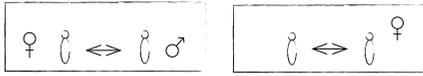
THE GENDER PERSPECTIVE (1 & 2)	THE DEFINITION OF ROLES	THE ASPECT OF TIME	NOT A PIECE OF ART	START WITH THE EXISTING STRUCTURES
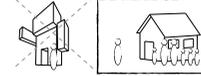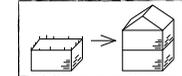
DISCUSSION

There is no traditional design proposal in this thesis with drawings, illustrations and schemes over a new building or area. After arriving in Buenos Aires and starting my investigation, it was clear to me that it didn´t make sense to make a design proposal in connection to the informal architecture. Instead I chose to focus on the design process, how it functions and what happens when the formally educated architect has to design with the base in the informal, already existing architecture. I wanted to learn more about how one as an architect should handle this situation.

During the observations of the practical work of the architects, the studying of the theories, and the conversations with the families, it was clear that there might be ways to develop both theories and the practical work. Therefore the design criteria should be seen as identified points of development, formulated with the intention of raising those questions, both for the organisation Madre Tierra and for academics and theorists in the Latin American society.

The formulated design criteria in the previous chapter need to be followed by a discussion. Theories are never totally applicable in reality, and reality can be hard to generalise into theories.

When one is working with humans, social relationships and as well when the environment is a factor (flooding, pollution etc.), one has to consider how the theories can fit into the reality.

Design criteria - practical work to theory
The Latin American culture is, in my opinion, a macho culture. From my point of view the most important aspect in which the theories could be developed, is to add the gender perspective. In the practical work it is a recognized question. If it could be lifted in the academic debate about housing and informal architecture, it might give echo to other fields as well. The gender aspect is closely connected to the living situation and the role of the woman in the house, and the society, making it an important design aspect for the architect.

From my interviews with the families I understood that for them the role of the architect is complex. What is an architect? What is architecture? What is informal architecture? They are not used to think in these terms, making it quite probable that their perception of an architect coming to the area might be complicated and confusing. It would be interesting to read more about how people living

in informal areas look upon the formal architect.

In reality it is impossible to have fixed time frames in these programs because unexpected things happen all the time. There can only be approximations and all time limits have to be flexible.

The finished houses are not the projects of the architect. Well, of course they are, in one sense. But they are to a larger extent the result of a long struggle for the family, who took the risks, who borrowed the money, enormous sums for them. They have made the journey to a better life. It is the ´piece of art´ of the family, not of the architect. This is why it is important to educate architects that don´t want to see their work as a ´piece of art´, and to raise the question of informal architecture in the architectural education even more. And also to have the point of departure that the improvement starts in the existing structure, to acknowledge what the family already has created, fought and struggled for during maybe 25 years, "poco a poco", one room here, one room there, creating their home, their lifetime achievement.
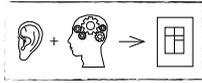
TOOLS TO INTERPRET THE NEEDS OF THE FAMILY	TOOLS TO UNDERSTAND HOW THE FAMILY LIVES	TOOLS TO VISUALIZE THE DESIGN	TOOLS TO PERFORM A GOOD PART. DESIGN PROC.
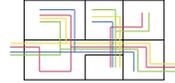
Design criteria - theory to practical work

The first two design criteria deal with the development of tools for the organisation Madre Tierra to better analyse and interpret the needs and the lives of the families living in the informal areas, and are based on the theory by Livingston. If the architects of Madre Tierra would develop these tools, deepen the analysis before the design, the solutions and the finished construction might function better for the family. Since the goal is to make a functional design solution for the family, it seems like a good idea to spend time on making a thorough analysis. But this is where the reality enters. *There is no time to make that deeper analysis.* If Madre Tierra wants to help many people, they have to work as quickly as they can. Making one really good design solution has to be compared to helping ten families get a reasonable good design solution, or at least an improved house. Considering the extent of the problem of informal settlements, the criteria stays in the theory, or in *the context of formal architecture.*

The third design criteria deals with the development of tools to better visualise the design for the families in order to make them be able to make good decisions about their houses. Also here it would probably lead to a better design solution

for the families if they in a better way could understand how the finished house would be, by for example seeing an illustration. These people have never seen or read a plan before they see the plan of their future house. But the same problem as above arises, there is no time to make physical models or models in computer programs. On top of that, Madre Tierra doesn´t have access neither to good computers nor the required programs.

What might be possible though, is to by routine make drawings with furniture for the families to be able to relate to the scale of the rooms and to see how things will fit in different proposals. In case study number two, it is obvious that the family hasn´t understood the plans presented by the architect and they have chosen to keep the design they had from the beginning, although it will probably be difficult for the family to live there. If they had been able to see plans with furniture, or images, it might have been easier to convince them to change the design. Although in this case, it might as well be a question of money, or simply a question of personality.

The architects could also add drawings as sections and elevations to show to the families, although there is a risk that it would confuse the families more.

When I compared the conditions from Pelli of what should be included in a participative design process with how Madre Tierra works, there were some aspects of their work that might need to be developed.

It is a good and clear statement from Madre Tierra to let the families make the decisions about how the FFRR groups should function in the barrios, that the group makes the rules and decide which families can enter. But it is also difficult for the families to make those decisions if there are no clear guidelines from Madre Tierra. There seem to be, at least in the area I worked with, some uncertainties about which streets and which plots are included in the barrio and therefore which families can enter. This is something that the group should decide, but they also need assistance from Madre Tierra to know which plots are included. Clear rules need to be formulated. At the same time, it could be good to have floating rules since it enables Madre Tierra to help more people. With strict rules, more people are left outside.

Rules are important to people in these areas, they have lived a long time as informal, and do still, they have lived outside the rules and therefore if they get to put their own rules, it gets important to follow them. It is also a moral

question, if the plot is outside or if it is uncertain, who can enter, and can that person enter if his or hers father has debts, should he or she be able to enter because they have a crucial need, and so on.

Having time frames on the projects would facilitate the work for the architects. Every architect knows that if there is no time limit the project can go on and on forever. But it is impossible to have fixed time tables in this context. Some projects need less effort and some more, hopefully it equals out and the architect can make judgements on how much time should be spent on each project.

When there are problems with the builder, the construction phase is prolonged. If the family can´t handle the builder, probably Madre Tierra can´t either. Madre Tierra cannot use economical pressure because the builder just leaves. And the construction has to be finished, Madre Tierra has to show results to the Subsecretaría and also to the family. It has to do with moral and that is beyond the work of Madre Tierra.

Sometimes the families don´t want to follow the advices from the architects which also puts Madre Tierra in a difficult position. It is the project of the families, they "own" the projects, in the end. It is the same if the family takes a decision

without anchoring it with Madre Tierra, they can´t do anything but talk to them, compromise and advise them to change. The power Madre Tierra potentially has is over the money, but at the same time, they are dependent on the families for their work, and they have actively chosen not to use the economical power they have over these already vulnerable families.

The power over the money leads to the next design criteria, to develop tools to push the families to chose a good design solution. Since Madre Tierra cannot use the economical power, which might lead to conflicts and drawn-out processes, they have to work in other ways. If the family is fairly reasonable, it should be enough to explain the different proposals to them, put some effort on the drawings, include the furniture, bring up the good analysis of the life of the family and refer to their professional knowledge.

The last point of development is the question if Madre Tierra should focus more on the infrastructure in the barrios they work with. Good infrastructure means not only a better life quality but also some kind of recognition from the authorities that they exist and that they are worthy of investments. But bringing infrastructure

to a barrio is difficult and it needs a lot of organisation, both from the inhabitants and the involved organisation. There are programs for infrastructure, but fewer, smaller and it is harder to get the investments. It is also a question of what the municipality has planned for the area, and how far the nets are extended. It is not possible for Madre Tierra to build up the organisation that is needed from the barrio to achieve the adequate infrastructure, since there will always be some families that are not interested. The organisation has to come from the barrio. In that sense it is easier and probably more effective for Madre Tierra to work with programs that are focusing on individual buildings, since it is easier to engage one family than a whole barrio.

The people are also used to having a bad infrastructure and some of them don´t mind any more. But maybe when the family has finished constructing their house, they can find the energy and put an effort in demanding infrastructure to the barrio.

Madre Tierra worked more with infrastructure a few years ago but due to the difficulties they don´t anymore.

conclusions, reflections & references

In this chapter some conclusions from the discussion, a reflection of the process and the references will be presented.

House on the edge of Nuevo Parque Quirno. Behind this "casilla" is the river Arroyo Morón, the most polluted river in Latin America.

CONCLUSIONS

The main research questions for this thesis were:
- How could and should a formally educated architect work with informal architecture in improvement programs in informal settlements?
- Which methods and strategies are most important to use to reach a good result for the lives of the families?

To answer these questions three theories have been studied and interviews with architects that work with improvement programs in informal settlements in Buenos Aires have been made. Also interviews with families that have been involved in the improvement programs have been made. The improved design of the houses by the architect has also been studied. There are many similarities and some differences in the theories and the practical work concerning how a formally educated architect should work with the informal architecture and the people living in that context.

   The goal with an improvement process must reasonably be to improve the lives of the inhabitants in the area of interest, if that wouldn´t be the goal, there would be no reason to perform

the work at all.

   The method to use, recommended by both theorists and architects, is a *participative design process*, which makes sense. The families are borrowing huge sums of money, it is not charity, they have to pay back a certain amount of the loan, and therefore they have to be included in the design process. They also have knowledge about the informal context to a larger extent then the architect.

The methods and strategies that the architect should use are;
- a participative design process,
- get to know the families very well,
- use the right language when talking about architecture with the families,
- bring in the gender aspect in the design and
- recognize that the families have knowledge that the architects don´t have.

   Some other aspects that are crucial to be aware of and to include in the process to have a better chance of making it work are;
- that it is a very different kind of process

compared to conventional architectural work, - the possible complex and complicated role of the architect in this context, and
- that in this process, the architect can´t create his or hers ´piece of art´, the result is *always* the achievement of the family.

The most important thing is to get to know the families well to be able to handle them, to be able to know when to push and when to let go, and to understand what they need. It is also of great importance to be aware of what language to use, in general and more importantly about the architecture. The architect should always look at the design task from a gender perspective to lift the question in this culture.

   The architect has to be aware of his or her role in this context. The architect has high status since he or she is well educated, but the people in these barrios know things that the architect doesn´t. It has to be a mutual exchange of knowledge and the architect has to be aware of that he or she is not more capable then the inhabitants. They can, and have, survived out of nothing, and are

probably, because of that, at least as creative as any architect.

The architect has to be aware of that it is a different kind of architectural process. It is a very complex process with actors with different status and power, since some are formal and some are informal. It is the architect who has the power over the money, not the client, as it is in conventional situations. At the same time the organisation/ architect is dependent on the families for their vindication of existence.

The result of an improvement process, the finished structure, is not an architectonic ´piece of art´ by the architect. The families own the projects, they live the projects, and if they want to make them their own ´piece of art´ by for example adding luxury washbasins it is fine, but it is not the name or the design of the architect that is important. As said in the background chapter when formal and informal architecture was defined, in the informal architecture the process is of great importance and in the formal architecture the form is often very important. The informal

houses are under continual construction, they are "obras inacabadas", unfinished work, while the typical work of the architect is an "obra acabada", a finished work. Therefore it is the journey of the family to finish their house that is the most important, and that has to be accepted by the architect to be able to work in these areas.

The methods and strategies listed above are also valid to use and consider in the formal context. And the reality of an architect working with formal architecture is of course not only to make ´pieces of arts´. Probably the differences between working with informal and formal architecture are not huge in the end. It still has to do with solving problems in a good, beautiful way for as little money as possible. And it always have to do with the meeting of, and the relationship between people and space.

The result of the improvement process, the design solution and in continuation the finished structure, depend on the actors involved, which are only humans and can make mistakes, but also other, uncontrollable circumstances, and of

course how the design process has been carried out. Could the goal be reached? Is the quality of life of the family improved? Often it is improved, *because it was so much worse before*, even if the design process has been bad and even if the design solution is bad. In that way it could be a rewarding work since the goal will almost always be reached, only because it was so bad before.

But in reality it is not an easy task to take on as an architect. It is not for any architect to work with these questions, nor for any person. It is clear that it is a full time engagement during the period one works with it. And the architect has to be fine with it. It is an impressive work the architects do, with a lot of energy and commitment in that tough environment. One should remember that working in these areas, in asentamientos, is very challenging, but probably it is worse to work in villas where the despair and hopelessness seem greater.

One aspect that needs to be lifted as well is the question of infrastructure. The families will never be totally included in the society nor in the city if they don´t get infrastructure. In the formal

context the cities develop in the fixed order of; planning – constructing – living, compared to here where it is common with the reverse order; living (because you have to) – constructing (poco a poco) – formalising/ being accepted on a map (if lucky). It is almost impossible to comprehend how hard the families have to work to get the things that are natural in the formal world. And since they are already left out by the society, forgotten, or just ignored, it is a big effort to fight with the authorities to get what they have right to as human beings and inhabitants in the city. But only focusing on the houses in the improvement programs, will not lead to a complete urbanisation of the areas, to be completely included in the city, there has to be adequate infrastructure as well.

The goal for any architect working with these questions has to be to improve the lives of the families, to make the best result for these families that in fact are excluded from the formal society. So how can one accomplish that? By mixing the theories with the knowledge from the practical work. The two case studies in this report (which

of course are very few to base any conclusions on), show one good design solution and one that is not equally good. But the architect did her best, in these cases it depended more on the families. In one case the methods of the architect could have been developed with better visualisation and explanation, for example by having furniture in the plans. But at the same time there is no time for that, because when over 800 million people live in slum conditions, the priorities have to be to work as fast as possible to help as many as possible.

REFLECTIONS

The design criteria formulated in this report are aimed at people working practically with improvements of informal architecture, but also at theorists. I realise that many criteria aimed at the practical work lose their validity in connection to the reality. From my short experience with Madre Tierra and the understanding of the two improvement programs compared to the theories, I think their work and the programs are functioning very well, and as said before, a lot comes down to the families, how they act with, and perceive the architect.

The journey of this thesis has been long, difficult, painful, filled with anxiety, surprises and joy. It kind of started already eight years ago with my first visit to Latin America since I´ve always wanted to go back and learn more. The field studies on site in Buenos Aires didn´t turn out as I thought they would, which I also had expected, but they have once again showed me how incredible the Latin American culture and people are. All the help from Madre Tierra and many other people that takes interest in you and what you do, is

incredible.

The families who let you enter their homes, walk around, let you interview them, take pictures. I´ve seen informal settlements and slum before, but now, through working with Madre Tierra, I could for the first time get an insight in how the practical work is conducted. When I tried to understand how the two improvement programs function, I realised that the most interesting part, to me, was the part that took place even before the money had arrived and the construction had begun. The part when the architect needs to make a design together with the family, based on already existing structures in various conditions and forms. The architects have to consider the architecture created by the people, some kind of vernacular architecture. Both to get respect from the families, but also to keep the cost as low as possible.

So the thesis started to focus on that process and I think that I have learned a lot. I imagine that this knowledge is not new to people involved in these questions, but to me it is. I have based a lot of my work on the actual experiences, seeing the people construct, talking with them about architecture,

informal architecture, their future home, but also on conversations with the architects and my own observations. The experiences in Nuevo Parque Quirno were really special. I got the opportunity to participate in the monthly meeting they have when the families make their payments, which are very large sums to them. First of all, to see the engagement by the architect and social worker, one Friday evening every month they spend on these meetings. Second, the engagement of the inhabitants, only women, strong women, arranging the money, making receipts for the payments, sharing the maté, even with me. And the lively discussion about the woman who wanted to enter the group to be able to improve her bathroom in the house where she lived with her two children, on the shore to the most polluted river in Latin America. The discussion was about if her street belonged to the barrio that Madre Tierra had defined as houses that could enter the programs, or not, because with the location so close to the river the authorities would never let them formally own their land, and then Madre Tierra can´t help them. And also if she was trustworthy

because her father hadn´t paid back his loans when he participated. Should she be able to enter or not? Rules are rules for these people, but the rules were unclear. Would she act like her father and not pay back? How can they know? And will her family be evicted in two years, because maybe the authorities decide to clean up around the river? On the other hand, to lend her some money so that she could live with a better bathroom for at least two years, which would change her and her family´s lives completely, wouldn´t it be worth the risk? What difference does it make to the group in the barrio, to her, to Madre Tierra?

What difference does the work of Madre Tierra do at all? The enormous problems with urbanisation, socially excluded people, damages to the environment, leading to spreading slum areas globally, seem irresolvable. Does it matter to have 13 projects in the Mejor Vivir program in Hurlingham in Buenos Aires, when there are over 800 million people living in slum conditions around the world? The answer would probably be no. Does it make a difference that some architects get involved in this? There the answer

is yes. Because although one might feel desperate when considering the numbers above, at least I do, the change for these 13 families is so big that it is worth all the effort and time put into those projects. In the large perspective, looking at statistics, it doesn´t really matter, but in the small perspective, looking at local sustainable development and social inclusion, it matters a lot.

The result of an improvement process in an informal area, from an architectonic point of view, is hard to evaluate. The starting point is in these improvement programs, and should be, the existing architecture, the things created by the families during many years and through a large effort. Since this is the starting point and it varies in quality and expression, the result has to be varied and straggling. On top of that, one might think that it is untidy and unclean in these areas, and it is, the impression is very messy and dirty. And one wonders if the people even see that. And if they see it, why they don´t care. And as an architect who likes beautiful, appealing buildings, one might have difficulties to relate to the anti-aesthetics present in this informal, vernacular architecture. Because it is the architecture of the people, the vernacular architecture. When one gets to know the families and learn about the struggle they have had to even have a place to call home, one realises that there are other, more important needs than beauty. Like survival. And when you get to know the stories and the people living there, the houses, in one sense, turns into something very beautiful.

Hopefully the knowledge gained in this project could be used by Madre Tierra to reflect upon their work but also be a confirmation about that their work is functioning well and helps many people who, without them, would have faced a much more complicated path to a better living.
  Possibly the knowledge from this thesis could be used to develop some kind of tool, or manual, to see how well the participative design process has been functioning inside an improvement program.
  But mostly, the knowledge that I have gained in this project will hopefully help me to become a better architect. I think it is very valuable for a soon to be architect to meet a totally different context and see a different kind of architectural work compared to what the architectural school in Sweden prepare you for. Ever since I first came in contact with the informal architecture in Latin America, I have thought about what kind of architect I want to become, and after a few years in school what kind of architect the school wants me to become. Coming from Sweden and meeting the chaotic informal context, not really existing at home, but present in many cities around the world and seeing what a great job for example the architects at Madre Tierra are doing, one might wonder if the presence of someone like me really is needed. They seem to be able to handle it quite well. But if my personal gain in knowledge and experience is so big, couldn´t they also get something out of my visit or a visit and input from someone like me? I hope so and I think so.
  I am very impressed with the architects I have meet who dedicate their time and knowledge to help the people who are neglected by the society, when they could possibly have worked with conventional architecture and faced an easier economic situation. It is a question of what type of architect one wants to be. Some are aiming at creating the ´piece of art´ projects, and I´m quite sure I´m not one of them. I could see myself working somehow with informal architecture in the future, and through this thesis I have gained some knowledge, at least on how to begin, to approach these areas and these people.

SUMMARY

This master thesis is about the informal architecture that can be found in the slum areas and informal settlements around the world. It is an investigation about how two improvement programs that are being used in Buenos Aires, Argentina, are functioning. The investigation is focused on the design process in the programs, since it is in this complex process that the formally educated architect meets the already existing informal architecture, and the purpose of this thesis has been to investigate how that meeting could and should be handled.

The process has been explored through interviews with participating families, presented in the form of case studies, and by interviews with architects at the organisation Madre Tierra, working with the programs and the families. The houses of the families are also presented in their original shape, mainly created by the families themselves, and also in their future improved state, which is also analysed to see how the result will be for the family and how the participative design process has functioned.
The practical work observed during the period of field studies of eight weeks, has been compared to three present theories, developed in Latin America, presented in the theoretical background section, about how to work with informal architecture in informal settlements. Through the analysis one can see in what sense the theories lack values in the practical work and vice versa. Based on this some design criteria have been formulated about how the theories could be developed based on the observed practical work, and how the practical work of Madre Tierra, could be developed, based on the theories and observations.

In the theoretical discussion, the design criteria are discussed in relation to the much more complex reality. The conclusions from the discussion are that there are some methods and strategies that a formally educated architect can, and should, use, when working with informal architecture in informal contexts. Some of them are; using a participative design process, get to know the families very well, use the right language when talking about architecture with the families, bring in the gender aspect in the design and recognize that the families have knowledge that the architects don´t have. In this process, the architect can´t create his or hers ´piece of art´, the result is *always* the achievement of the family.

One question that arises after doing an investigation like this and meeting families and architects, is if the work of organisations like Madre Tierra matters at all. The enormous problem with urbanisation, socially excluded people, damages to the environment and spreading slum areas globally, seem irresolvable. Does it matter to have a few projects in an improvement program in a suburb in Buenos Aires, when there are over 800 million people living in slum conditions around the world? Probably not. But it does matter that architects get involved and work with these programs. Because the change for these few families is so big that it is worth all the effort and time put into those projects. In the large perspective, looking at statistics, it doesn´t matter, but in the small perspective, looking at local sustainable development and social inclusion, it matters a lot.

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The information in this report comes from the following listed sources. It should be mentioned that some of the information described in the report might not be referenced directly to a source and this is because when living in this context for a long period, talking to local people every day, sensing the culture and the surroundings, it is possible to hear and see things and not really know exactly when it took place.
For example, some general information about how the Argentine society works, the infrastructure programs etc., mentioned in the sections Design criteria and the Discussion, has had input from discussions with Varela, 2014, without being able to specify exactly when or what, since no formal interview has been made.

All drawings, photos, sketches, illustrations and tables by the author if not specified differently in the report.

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APPENDIX

Interview questions to architect Carolina Lazzarini, working at Madre Tierra (translated from Spanish).
1) How does the MV program function?
2) What are the demands on the families/ houses?
3) How do you decide which families and houses can enter?
4) How does the design process in the MV program function?
5) How long time do you put on the design process?
6) What are the time frames in the FFRR and the MV programs?
7) What are the problems with the programs?
8) How do the families pay back the loans?
9) Does MT work with other improvement programs?
10) What do you think about informal architecture?

Other interview occasion/ for more informal conversations
11) Are there minimum requirements for a house/ home in Argentina?
12) How is the water heated in the houses of case study 1 & 2?
13) Is the electricity formal in NPQ?
14) Which year was the water net installed in NPQ? Electricity? Collection of waste?
15) Why does the waste water from the houses end up in the streets?
16) In case study 1; will the water be heated in the thermo tank before going to the rest of the house?
17) In case study 1; why did you choose to keep the old walls leading to the old bedrooms in the new living room?
18) In case study 2; how is the water heated in the house?

Interview questions to architect, Gabriel Nosetto, general coordinator at Madre Tierra.
1) Which programs does MT work with?
2) Which program works best?
3) How is MT financed?
4) How does the collaboration between MT and a barrio start?
5) Which aspects of the MT work are functioning well?
6) Which aspects of the MT work are functioning badly?
7) What is the biggest problem with informal barrios in Argentina?
8) What do you think about informal architecture?
9) Which are the qualities in the informal architecture?
10) How are the qualities perceived by the inhabitants in the informal barrios and by the improvement programs?
11) How do the inhabitants in the barrios feel about living in these barrios?
12) How do people who live outside of these areas feel about them?
13) How does the design process in the MV (and FFRR) program function?
14) What is working well?
15) What is working badly?
16) What could be improved in the design process?
17) How does MT prioritize among the families in the barrios?
18) When did MT update the homepage?
19) What things should an architect be aware of when working with informal architecture?
20) Which are the biggest problems with MV?
21) Which are the biggest problems with FFRR?
22) Which are the best aspects of MV?
23) Which are the best aspects of FFRR?

Interview questions to architect Graciela Carbone, working at Madre Tierra.
1) How long have you worked at MT?
2) Are you in a MT team with responsibility for an area?
3) Do you work with FFRR and MV?
4) Which are the largest problems and good aspects of FFRR?
5) Which are the largest problems and good aspects of MV?
6) How could the FFRR program be improved?
7) How could the MV program be improved?
8) How does MT work with infrastructure in the barrios?
9) What do you think about the informal architecture?
10) Which are the good and the bad aspects of the informal architecture?
11) Are there qualities in the informal architecture?
12) Are there other qualities in the barrios with informal architecture?
13) How do the families perceive the qualities?
14) What things should an architect be aware of when working with informal architecture?
15) What is the most difficult aspect of working in these barrios?
16) How does the design process in the MV program function?
17) What is working well and badly in this process?
18) What could be done differently?
19) How do the architects work to understand the needs of the inhabitants? Is there a common method?
20) How does the communication between the families and the architects function?
21) What tools do the architects use to understand the needs of the families?
22) What tools do the architects use to visualize the design for the families?

Interviews with case studies 1-2 and families 3-5
1) How many are you in your family?
2) How long have you lived here?
3) Do you have the legal right to the plot?
4) Why did you decide to live here?
5) What do you work with?
6) What do you think about the barrio NPQ?
7) Could you say 5 good things and 5 bad things with NPQ?
8) What do you think about Hurlingham? Buenos Aires?
9) What did the house look like before you began to improve it?
10) What did you like with the house before?
11) What where the problems?
12) Have you received help with the design of the improvements from MT?
13) What did you chose to keep? Why?
14) What did you choose to change? Why?
15) How has the design process functioned?
16) What has been good in the process?
17) What has been bad in the process?
18) What do you think is necessary in a home?
19) If I say ´architecture´, what do you think about?
20) If I say ´informal architecture´, what do you think about?
21) What do you think about that there are people living in informal barrios in Buenos Aires?

Interviews with case studies 1-2
1) What does your dream house look like?
2) How does an ordinary day look like for you and your family?
3) Does the house have water, gas, electricity?
4) Where do you get your food and what do you do with the waste?
5) Are there other groups or organisations in the barrio, apart from the FFRR group?
6) What do you think about the programs FFRR and MV?
7) How have the programs worked for you?
8) Would you like to change anything in the programs?
9) What have you learned through the processes of the programs?
10) What has been most difficult in the processes?
11) Had you seen a plan drawing of a house before you saw the plan of your house?
12) How was it to read the plan?
13) Could you imagine how the house would look like?
14) Had it been easier with a model or an image?
15) When will the house be finished?
16) How did you feel about your house before the FFRR and the MV programs?
17) How do you think you will feel when the house is finished?
18) How do you think the life will be in the new house? How will it function for the daily life of your family?
19) Would you have liked to do something different from what is being constructed now?
20) Can you put a number (1-10) on the house before and after the improvements?
21) Did you have an idea before how you wanted to change the house?
22) Do you know how to put the furniture in the finished house?
23) Who will sleep in which room?
24) In which room do you think that you and your family will spend the most time?
25) How will the kitchen be? Where will the stove be? The fridge? The water tap?

Additional questions to case study 1
1) Will there be a storage possibility above the bathroom?
2) You will have a lavatory, is it common?

Additional questions to case study 2
1) Who has designed the rooms that were already there when you started the MV program?
2) Why did you choose to keep the rooms like that?
3) What do you think about the sizes of the rooms?

FORMALIZING INFORMALITY

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