SIDI MOUMEN
FROM TERROR SLUM TO OPEN CITY
A participatory urban renewal for Sidi Moumen, Casablanca

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Diploma work for Master’s degree
30 ECTS credit points
Master’s programme of Spatial Planning
Blekinge Institute of Technology
2014
Master Thesis, 30ects, Spring Semester 2014

Spatial Planning
Blekinge Institute of Technology (BTH)
Karlskrona, Sweden

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PREFACE

Before we started our expedition to explore and learn from the culture of Morocco and their planning challenges we both had an interest in the subject of Mass Housing and a sustainable approach in planning. When the opportunity came to participate in an international competition, held by the UN Habitat, called urban revitalization of mass housing, with the aim to address the issues of mass housing thorough proposals to revitalize a mass housing area, the subject for our thesis was obvious and defined. The expedition and months of dedication and research of the subject has been our life’s biggest challenge so far and it has made an important impact on our view of life.

Mass housing and sustainable developments are two highly prioritized and discussed subjects in Sweden, and worldwide. And we do believe that they depend on each other in future developments. It has clearly been a test for us to use our experiences and knowledge in an unknown culture as Morocco. We have definitely learned to be humble to our role as planners and to highlight the people who shall be the focus of all our efforts.

We will always be grateful for this experience which will be a memory for life. We hope and believe that this is just the beginning of a continued opportunity to make a difference in the world.
ACKNOWLEDGEMENT

We are grateful to our tutors who made this thesis possible, Prof. Dr. Jana Revedin for her precious theoretical and methodological guidance in the urban planning submission to the UN Habitat competition on the revitalization of Mass housing 2013/2014 and further on in the writing of this thesis. Ass. Prof. Gunnar Nyström for his valuable advice and feedback on our drafts and Prof. Dr. Abdellah Abarkan for convincing us to participate in this singular interdisciplinary and intercultural research work.

This thesis would not have been possible without the contribution of the LOCUS Foundation, who funded our field trip to Casablanca and set the framework for the interdisciplinary and intercultural urban analysis, elaborated with our Master student colleagues Sara Bakkas and Siham Elya from ENA Rabat, under the tutorship of Prof. Dr. Mohamed Chaoui. LOCUS coordinated the necessary partnerships with local stakeholders and NGOs to allow a radicant design process “with the people by the people”, Care Maroc, APE Cairo, Synergie Solaire France and Bymaro Maroc.

A great number of people has helped us during our visit to Casablanca and throughout the research period. A special thanks to Kenza Al Idrissi, the president of Sawaid, Reda Channane, Moroccan architect and winner of the 2013 Holcim Awards, Sophie Perez, director of Care Maroc, Christian de Nacquard from Bouygues Batiment International and Reda El Yakoubi from Bymaro Maroc, who shared their profound knowledge and engagement with us.

Our deepest appreciation to Sarah Ellis Barnekow who took the time to read our thesis and gave us valuable feedback.

Last but not the least we would like to thank our families and friends, who supported us and gave us encouragement throughout this experience.

From the left: Prof. Dr. Jana Revedin, Karolina Gustavsson, Siham Elya, Prof. Dr. Abdellah Abarkan, Jennie Luthander, Sara Bakkas and Prof. Dr. Mohammed Chaoui. Picture taken by Ass. Prof. Gunnar Nyström.
ABSTRACT

Due to rural – urban migration, mass housing has become an inevitable part in the development of cities but mass housing today does not conform to the norms of sustainable urbanism. Most mass housing areas are socially isolated, culturally inappropriate and environmentally unsustainable. The mass housing areas in the western world are mostly post-war and in a crucial need of renovation whilst in less developed countries, such as Morocco, mass housing areas are seen as the only solution to the problem of the rural – urban migration and mass housing areas are being built with tremendous speed.

Sidi Moumen is the largest and most infamous slum area in Casablanca due to an incident in May 2003 when the social isolation escalated into terror as downtown Casablanca bombings killed more than 45 people. All bombers came from the Sidi Moumen slum. Overnight, Sidi Moumen became famous as a terror slum. The government reacted promptly, and introduced the ambitious national program “Ville sans Bidonville” (Cities without Slums) in 2004. The “Cities without slums” program aims to eliminate all unhealthy habitats, more commonly known as slum areas.

Today Sidi Moumen is transforming from a terror slum area into a busy mass housing area. Sidi Moumen is suffering from social problems like analphabetism, poverty, unemployment and lack of infrastructure, green spaces and service. But the main problem of Sidi Moumen is the unhealthy habitat. The “Cities without Slums” program has a good intention, with Social housing being built in the area, but are lacking in many aspects, such as for the cultural adaption, house planning and the top down planning behind it.

The aim of this thesis is to investigate the current living conditions in Sidi Moumen. Furthermore it will try to propose an upgrading process that involves the inhabitants in a cultural accepted and sustainable direction.
The work has been based on the Radicant research and design method which consists of interdisciplinary research of the place, culture of living in Morocco, and the needs and aspirations of its inhabitants. The method consists of four phases, and in this work we have taken us to phase two - *Interdisciplinary urban mapping*.

In order to understand the scale, the culture and the actual situation in Sidi Moumen, on-site analysis, interviews, stakeholder conferences and literature studies were carried out. To solve the problems of unhealthy habitat we have proposed urban renewal concepts concerning housing typologies, public and green spaces, smart transport, circular economy projects and concepts to reach a sustainable neighborhood. If implemented, these concepts would transform Sidi Moumen from a terror slum to an Open City. These concepts also have the potentials to transform other similar areas in Morocco weighed down by the problems associated with mass housing.

The main conclusions being drawn from this work is the importance of the presence of the inhabitants in the planning process. Without the presence of the inhabitants, the “Cities without slums program” will never be a success and new slum areas will continue to form.

**Key Words:** mass housing, social housing, slum upgrading, urban revitalization, urban renewal, sustainable urban design, spatial planning, urban planning, radicant design.
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1 INTRODUCTION AND BACKGROUND

Yesterday
“It is a matter of coming to the city of tomorrow. . . . To organize a new country is essentially to invent – to invent the future.”
(Alfred de Tarde, a lieutenant in Lyautey’s army lauded the opportunities this colony offered.)

Today
“Casablanca is a city of glaring social inequalities, where the rich live alongside the poor. It is a city of both high-rise towers and slums. It is a financial and business center as well as a center of misery, unemployment and so on. Furthermore, there is waste and dirt that pollutes the city and distorts its reputation.”
(King Mohammed VI)
INTRODUCTION

Affordable housing for the urban poor is one of the largest challenges in developing countries. In Morocco, a program to eradicate all slums has led to an increase in the number of buildings being built during a short period of time. The new areas make up clusters of monolithic mass housing areas.

As a part of our thesis we chose to participate in an international competition held by UN Habitat, called Urban Revitalization of Mass Housing. The aim of the competition was to address the issue of mass housing thorough proposals to revitalize a mass housing area. We were teamed up with two architecture students from Ecole Nationale d’architecture de Rabat in Morocco. Our chosen area is called Sidi Moumen, a slum area in Casablanca, Morocco that is rapidly transforming into a mass housing area.

We handed in our competition proposal “Sidi Moumen – From Terror Slum to Open City, a project with and by the People” in January 2014 and were rewarded with the second place prize in the international competition, as well as first place regional and national prizes. We have further elaborated the subject of the competition, urban revitalization of mass housing, as a foundation for our thesis.
BACKGROUND

The Sidi Moumen slum was created by farmers and nomadic settlers in the 1950ies. It is the fastest growing area of the country because there is industrial work nearby, good soil and climate, and accessibility to the city’s infrastructure. The settlers has chosen to stay where their fathers and grandfathers had built their huts with their own hands, even though the area has lacked public services and been socially isolated from the rest of Casablanca for decades.

In May 2003 the social isolation escalated into terror as downtown Casablanca bombings killed more than 45 people. All bombers came from the Sidi Moumen slum. Overnight, Sidi Moumen became famous as a terror slum. The government reacted promptly, and introduced the ambitious national program “Ville sans Bidonville” (Cities without Slums) in 2004. The “Cities without slums” program aims to eliminate all unhealthy habitats, more commonly known as slum areas, and Sidi Moumen is one of the largest slum areas in Morocco. The target of the program was to eliminate all slums by 2010, and that 10-15 towns could declare themselves “slum free” every year.

Today Sidi Moumen is transforming from a terror slum area into a busy mass housing area, connected to downtown Casablanca with the tramway since 2012. Sidi Moumen has roughly 500,000 inhabitants today, but the area is fast growing in population. Construction companies are acting as mediators between the residents and the national government, implementing the “Cities without slums” program with expediency. The result is that the number of spontaneous settlements are decreasing and making room for apartment blocks of social housing. At the moment there are the spontaneous settlements (the slums) and there are two types of social housing; mass housing and individual housing with the later being the more popular alternative.

PROBLEM STATEMENT

The greatest problem in Sidi Moumen is the unhealthy habitats. The district contains nearly a third of all slum area in Casablanca, with more than 20,000 slum-dwelling households.

For Sidi Moumen, many of the slum areas have been demolished and new social housing areas are being built but there are in fact still many slum areas left. Also, many of the inhabitants do not want to leave the slums to go live in the newly built social housing areas. When they are relocated to newly built distant housing areas they have to move from the simple but individually habitats they and their fathers and grandfathers had created with their own hands into something that someone else has created for them, and which does not correspond to their way of life and culture.

The social housing areas are monolithic and resemble mass housing areas. Together with lack of financial resources and poor maintenance, the areas risk rapid deterioration into a modern variety of an organized slum.

Furthermore, Sidi Moumen also suffers from social problems like analphabetism, poverty, unemployment and lack of infrastructure. Another main problem to be addressed is the lack of public services and utilities such as schools, nurseries and hospitals as well as the lack of green structure.
OPPORTUNITIES AND POSSIBILITIES

From being an isolated part of Casablanca, Sidi Moumen is now connected to the rest of Casablanca with the new tramway. This is a major turning point for Sidi Moumen and a leap towards breaking social isolation.

The program “Cities without slums” is making it possible to build social housing, but the houses being built do not respond to the culture and needs of the inhabitants. The people of Sidi Moumen have a strong attachment to their area, their social relations, their collective history and memory, which gives the area high potential to make the inhabitants co-creators. Sidi Moumen has a possibility of becoming attractive and appealing to new urban and rural inhabitants.

AIM

The main aim of this thesis is to investigate the current living conditions in an area of slums mixed with modern mass housing, and to propose an upgrading process that involves the residents.

Numerous studies on the topic of social and mass housing have been undertaken worldwide but these studies have generally focused on economic sustainability. For example Golland and Blake as well as Pitts, both in 2004. The newly-built mass housing areas in Sidi Moumen are not functioning according to the families we interviewed and we are investigating why and providing an alternative solution to social housing that is social and affordable but not in the form of uniform buildings.

There is not one solution for all of the social housing areas in the world. Each country must find its domestic solution and its own concepts of upgrading that correspond to the culture of living.

RESEARCH QUESTION

How can Sidi Moumen transform from terror slum to Open City, as we aspire in our project title? This study will firstly attempt to investigate the current living conditions in a social housing area – Sidi Moumen – and propose an upgrading process that is culturally adapted.

a) How can we invent or adapt a new housing typology that fits into the “cities without slums” program without resembling the characteristics of a mass housing area and which at the same time is culturally adapted for the residents of Sidi Moumen?

b) How can we anticipate a process of deliberation and participation between the various stakeholders in the revitalization process?

c) Secondly, how can we design public spaces for recreation, stables and paddocks for animals, urban agriculture, markets and spaces for garbage inside the social housing areas?
1. The community has to be ready and able to present their needs. This could be adapted to any sort of request, such as learning to recycle and renew, design smart transport or reinvent the hinterland as a source of niche production.

2. Interdisciplinary urban mapping. Data needs to be collected and critically elaborated during a process of cross-disciplinary urban mapping. The process should last at least a year to be able to analyse the existing environment and infrastructure, but most of all to try to “read between the lines” and understand the cultural traditions, anthropological habits and ethical values of the inhabitants. Every place needs different tools to be able to collect the data.

3. Participatory design laboratory. The laboratory is a chance to give the community the best possible advice through specialists in infrastructure, recycling, landscaping etc. But it is important to enable a creative design process of involving citizens and local specialists.

4. Catalytic chain-reaction of policies. The last step is the goal of the entire method. A positive outcome is hopefully triggered by the interventions from step 1-3 and occurs naturally due to the energy of the citizens and the users. If the operation can get economically self-sufficient and give further profit it is difficult to envisage that anything can cause it to fail. Something which is designed by members of a community will remain in the memory of the people as a success which they achieved together.

However, in our work the Radicant research and design method has been more equivalent to a process than a method even though we still refer to it as a method. The Radicant method can advantageously be combined with other methods. For example, during the interdisciplinary urban mapping we used other methods such as observation of the place and its physical structures as well as analyses of place and literature.
This method suggests that turning Sidi Moumen into an Open City could not be done without involving and engaging all local potential, and includes:

- A critical assessment based on a profound stakeholder analysis: interviews and meetings with all joinable stakeholders, partners and beneficiaries.
- Research and Documentation: Books, movies, articles
- Meetings with researchers in the field: professors, scientists and students
- Meetings with professionals in the field: social workers, NGO representatives
- Attend related events: Workshops on sustainable development
- Field studies to Sidi Moumen and various habitat features.

From the top: Global Award Ceremony for Sustainable Architecture 2014 in Paris, Siham Elya and Karolina Gustavsson at the Boygues stakeholder conference in Casablanca, Philippe Madek at Conférence de Rabat pour le développement durable and meeting with Kenza Al Idrissi, president of Sawaid.
STUDY AREA AND DELIMITATIONS

We have chosen the area of Sidi Moumen in the central area of Casablanca in Morocco. The area has been chosen by recommendation from a local NGO called Care Maroc, a non-partisan and non-sectarian humanitarian organization that has been present in Morocco since 2007. Its programs aim to increase access to basic services (water and education) and socio-economic development of the most vulnerable populations (Care, 2014).

Sidi Moumen has an area of 23 km². In the last census in 2004, Sidi Moumen had 289,253 inhabitants and with an average annual population growth of 7.9% the population is estimated to nearly 500,000 inhabitants (Royaume du Maroc haut commissariat au plan, 2004). Because of the vast area of the entire Sidi Moumen, we have focused on a concepitive approach rather than a design proposal for one neighborhood, preferring the process to a product, and the planning to a plan.

Even though we have chosen one neighborhood our concepts/process can be applicable to the whole area of Sidi Moumen and with respect to the quality of place, to similar areas in Morocco.

The brief history of Morocco, Casablanca and Sidi Moumen is not a complete cover of the history, but rather a description of the most important events and the people that have shaped the urban environment.
LITERATURE REVIEW

Our literature review takes into consideration the national-, city- and area contexts, as well as the concepts of mass housing, social housing and slum dwelling. It is necessary to take into account all of these factors in order to understand the current problems. Theoretical studies were made to understand the notion of human scale in order to find methods for participatory urban renewal of the mass housing areas in Sidi Moumen. We have chosen Jacobs and Gehl because of their well-known view of the city and public spaces, Revedin, Alexander and Attoe & Logan because of their theories about the importance of the process in urban planning, people as the key urban player and focus on the interaction of new and existing elements and potentials. We chose Fathy and Abarkan in order to understand the living culture and planning in Morocco and Ståhle and Bradley to highlight an important discussion often used in mass housing areas in Sweden.

DISPOSITION

The thesis is made up of seven parts. The first part of the thesis contains the introduction and background. In the second part we present the concepts of mass housing, social housing and slums. The third part is a site analysis of Sidi Moumen, the fourth part is the theoretical framework we have based our concepts of urban renewal on and the fifth part is the urban renewal concepts for Sidi Moumen. The sixth part is called best practice and it is a presentation of inspiring projects. This is followed by evaluation, discussion and conclusions. Appendix 1 is an interview with Kenza Al Idrizzi, president of Sawaid, and appendix 2 is an interview with four families in Sidi Moumen.
INTRODUCTION TO MOROCCO, CASABLANCA AND SIDI MOUMEN

Morocco

Facts about Morocco
- **Capital:** Rabat (1.6 million)
- **Ruler:** King Muhammed VI
- **Government:** Constitutional monarchy
- **Population:** 32.5 million
- **Area:** 446,550 sq km
- **Population density:** 71.8/sq km
- **Largest city:** Casablanca (3 million)

Religion: Islam 99%, Christian 1%
Languages: Arabic (official), Berber dialects, French often used for business, government and diplomacy
Ethnicity/race: Arab-Berber 99.1%, Jewish 0.2%, other 0.7%
Monetary unit: Dirham
Literacy rate: 52.3%

Source: Infoplease, UN-Habitat, Worldpopulationreview, 2014

Morocco before the protectorate

Morocco has been home to the Berbers since the second millennium B.C. In A.D. 46, Morocco was annexed by Rome as part of the province of Mauritania until the Vandals invaded this portion of the declining empire in the 5th century. The Arabs invaded around 685, bringing the religion of Islam. The Berbers joined them in invading Spain in 711, but then they revolted against the Arabs, disliking their secondary status. In 1086, Berbers took control of large areas of Moorish Spain until they were expelled in the 13th century (Infoplease, 2014).

During the 17th and 18th centuries, Morocco was one of the Barbary States, the headquarters of pirates who plundered Mediterranean traders. European powers showed interest in colonizing the country beginning in 1840, and there were frequent clashes with the French and the Spanish (Infoplease, 2014).

Morocco under the protectorate 1912-1956

During 1912 General Lyautey was sent to Morocco as the first resident-general. French-born Hubert Lyautey started his military career in Algeria, where he spent two years as a cavalry officer. After Algeria he was sent to Indochina and Madagascar between 1894-1903. In 1903 Lyautey was promoted to general and returned to Algeria. Lyautey was a devoted believer in the civilizing qualities of colonialism (Britannica, 2014).

Morocco became a French protectorate in 1912 and was placed under control of Resident-General Hubert
“It is a matter of coming to the city of tomorrow. . . . To organize a new country is essentially to invent – to invent the future.”
(Alfred de Tarde, a lieutenant in Lyautey’s army and later editor of France-Maroc, lauded the opportunities this colony offered. Wright, 1991)

Lyautey. During the French colonialism, Morocco was used by the colonialists as a laboratory for modernist urban planning. Cities became experiments for the latest best ideas and visions of how cities in France could come to develop within a perspective of modernist formal organization, with new tools like zoning and current approaches to design. All this while in the same time preserving the cities typically oriental character and separate the villes nouvelles (a “new city” for Europeans) from the “traditional Moroccan city” (Calmon de Carvalho Braga, 2013).

On a visit to Morocco in 1930, the Parisian art critic Léandre Vaillat was fascinated with what he saw. He was positive to the preserved medinas and the new French cities built alongside them, he realized that important social considerations underlay the aesthetic effects. He wrote “Morocco is a laboratory of Western life and a conservatory of oriental life.” What Lyautey and his associates wanted was to protect certain aspects of cultural traditions while sponsoring other aspects of modernization and development, all in the interest of stabilizing colonial domination. For the French, Morocco offered a chance to create de novo a vision of the contemporary metropolis as a clean, efficient and elegant setting. Lyautey could even claim to have been one of the precursor of Le Corbusier (Wright, 1991).

The protectorate government aimed to introduce and evaluate the latest concepts of contemporary city planning in the ville nouvelles, enabling these European centers to flourish economically. But it was obviously a challenge to let the modern civilization penetrate into Morocco while preserving what existed there. Modernity was understood in two senses, as an urbane existence which derived from diverse commercial activities and cultural institutions, and as a panoply of urban problems largely caused by industrial conditions. The colonial administration proposed strategies to accommodate some of the difficulties and opportunities modern life required for all cities. If the cosmopolitan center could not exist without an industrial district, strict zoning could keep these spheres of activity quite separate from the rich neighborhoods and commercial districts (Wright, 1991).

Lyautey was critical to the earlier French colonial town-planning, notably in Algeria, where every action had been under the jurisdiction of the Ministry of War in Paris rather than local officials familiar with the culture. This had led to the demolition of major Algerian monuments and the destruction of established towns, replaced by monotonous gridiron city plans for the colons drawn up by military engineers, influenced by nineteenth-century French architecture. With virtually complete authority over the country, Lyautey could carry out the cultural policies he wished. One of his first acts was to transfer the capital from inland Fez to Rabat, on the Atlantic coast (Wright, 1991).

Rabat offered better opportunities to build an impressive modern setting for political control, and would eventually be the center for seven national roads, linking it to all parts of the colony. Many French administrators and academics felt ill at ease in the inland cities, describing Fez as a “sad and gloomy town with its labyrinth of narrow and dark streets”. They preferred a more modern setting where they could help to change “modern Islam”. Although villes nouvelles was carried out in Fez, Meknes and Marrakesh to attract colons, the European population there always remained substantially lower than in the two coastal cities. If Casablanca could be likened, in Lyautey’s eyes, to New York, then Rabat was his Washington, D.C. The French wanted the sultan concealed primar-
ily in one spot, just alongside their own administrative headquarters at Rabat, to demonstrate his acceptance of their newly centralized political presence (Wright, 1991).

The Protectorate’s postwar policy for Morocco’s cities was not to focus on integration, but instead to come up with individual low-rent housing programs for Muslims, Jews and Europeans. The ideas were picked up from the 1930s thinking on “culture specific housing”, meaning that each culture had its own preference of living and that different cultures should live in separate habitat features. However, after the independence, low-rent housing started opening up to all populations, regardless of origin and that has been more or less the practice into modern days before the “Cities without slums” program (Cohen, 2002).

Morocco after the independence 1956-2014

In 1912, the sultan of Morocco, Moulay Abd al-Hafid, accepted French protectorate status. Sultan Muhammed V was removed by the French in 1953 and replaced by his uncle, but nationalist agitation forced his return in 1955. In 1956, France and Spain accepted the independence of Morocco. At his death in 1961, Muhammed V’s son succeeded him as King Hassan II. In the 1990s, King Hassan revealed “Hassanian democracy,” which allowed for significant political freedom while at the same time retaining ultimate power for the monarch. In 1999, King Hassan II died after 38 years on the throne and his son, Prince Sidi Muhammed, was crowned King Muhammed VI. Since then, Muhammed VI has pledged to make the political system more open, allow freedom of expression, and support economic reform. He has also advocated more rights for women, a position opposed by Islamic fundamentalists. The entrenched political elite and the military have also been leery of some reform proposals. With about 20% of the population living in dire poverty, economic expansion is a primary goal (Infoplease, 2014).

On May 16, 2003, terrorists believed to be associated with al-Qaeda killed 33 people in several synchronized attacks. Four bombs targeted Jewish, Spanish, and Belgian buildings in Casablanca. In the 2004 terrorist bombings in Madrid, Spain, numerous Moroccans were involved. A wave of suicide bombings struck Casablanca in March and April 2007. Authorities were not certain if the attacks were related (Infoplease, 2014).

Early in 2011, tens of thousands of pro-democracy protesters gathered in various cities, calling for a shift to a constitutional monarchy in what was termed the February 20th movement. King Mohammed VI answered with promises of reform, which took the shape of a constitutional referendum. February 20th supporters called for a boycott of the referendum, calling the included reforms inadequate and taking offense at its intent to bolster the king’s position as “supreme arbiter” of political and institutional life (Infoplease, 2014).
The administrative structure of governance in Morocco

Morocco is a constitutional monarchy with an elected parliament. The King of Morocco has executive and legislative powers although executive power is exercised by the government, while legislative power is vested in both the government and the two chambers of parliament, the Assembly of Representatives and the Assembly of Councillors. The King of Morocco presides over the Council of Ministers (Kingdom of Morocco, 2014).

Local government in Morocco consists of regions, governorates, provinces and communes (Arab Law Quarterly, 2002)

Legal framework for housing in Morocco

The Ministry of Housing and Urban Planning (MHU, Ministère de l’Habitat et de l’Urbanisme) is responsible for the “Cities without slums” program (Martin, 2008).

The Urban Agency (Agence Urbaine), which is the city planning authority in Casablanca, is responsible for the master plan (Schéma Directeur d’Aménagement Urbain du Grand Casablanca) also known as SDAU. The most recent master plan is from 2009. Other duties and responsibilities of the Urban Agency is to conduct necessary studies to establish the urban development master plans mentioned above and to monitor the implementation of the guidelines set out therein (Agence Urbaine de Casablanca, 2014).

The communes provide the Urban Agency with suggestions on how to develop their communes and then the Urban Agency creates the master plan for the region Grand Casablanca.

The Urban Agency also provides Urban Certificates which is a document specifying the intended purpose of the land. After receiving the Urban Certificate, one can apply for a building permit. A commission is in charge of approving the applications. The file submitted to obtain a building permit includes architectural plans, land registry plans, a land ownership certificate, and application forms containing general information and description about the project. A set of the application is also sent to the Fire Department, Prefecture Authorities, and the Urban Agency as well as LYDEC (Lyonnaise Des Eaux de Casablanca). The fees are paid to the municipality once the building permit is granted (Doing business, 2014).

The Moroccan process of obtaining a building permit is similar to the Swedish process. In Sweden we also have a master plan for the city called översiktsplan and detaljplaner which is comparable to Urban Certificates.
Way of life and culture in Morocco

City life

Medina is an Arabic word for city. Under the French protectorate of Morocco so-called colonial towns were built, separated from the existing medieval buildings. They were built according to Western-style grid pattern to serve as the residence of the French population. The existing medieval towns still had their city walls and inside the walls the indigenous populations was isolated. To distinguish this neighborhood from the colonial, the French used the word medina, which they had perceived as a medieval town (Abarkan, 1995).

A medina is organized around a large number of religious and cultural institutions, which constituted the city’s core. A typical medina must meet five criteria (Abarkan, 1995):

1. A citadel
2. A palace
3. A city center with the Friday mosque, schools and markets
4. A residential area, divided into different districts by ethnic or religious affiliation
5. A suburb for people who want or need to live outside the city walls. The city wall symbolizes cohesion, but mainly it protects the city against the surrounding landscape. The city wall has prevented the emergence of uncontrolled settlements, which could have been extended beyond the wall.

The medina is divided into districts. There is a strong sense of community among the residents of a district. That means that anyone who lives within the district is obligated to assist their neighbor – those who live within the district boundaries. To describe such a relationship usually says “we are oulad elhouma”, that is, the children of the district or siblings. They feel at home in their districts, a strong sense of belonging and security. Every district has its own mosque, a hamman, a Koran school and its own miniature souk (Abarkan, 1995).

Each district is divided into Gemeinschafts and each Gemeinschaft has its demarcated area called a settlement entity, which consists of a group of houses organized around a dead-end street or a courtyard (Abarkan, 1995).
Traditional houses in the medina
The courtyard is the lung of the house. Between the courtyard and the rooms extends a gallery that represents a transition room. Each room is a basal cell that hides behind the gallery. The room often has two small windows placed at least 120 cm over the ground and are placed facing the gallery. 45 cm high and as wide wooden benches run along the walls and these are used both as seats and as beds (Abarkan, 1995).

Most rooms are multifunctional. There is one reception room for receiving guests and it is always placed opposite the main entrance. Sometimes there are two reception rooms, one for women and one for men. This is also where guests sleep who stay overnight. In the evening at sunset the whole family gather in the courtyard around the fountain. The water is very important in a courtyard and on the wealthier families courtyards they are often combined with surrounding trees. The courtyard’s water and trees reduces the dry climate’s heat and make the air cooler (Abarkan, 1995).

The rooftop terrace is fully suited to Moroccan climate and customs. These terraces slope gently and have channels for draining rainwater and are edged by low walls (Cohen, 2002).

The poorer families had similar traditional dwellings that contained long rooms set in long U shapes around a courtyard. But the inhabitants systematically added on, causing the demise of the courtyard (Cohen, 2002).

Traditional houses in the countryside
The houses in the countryside have a relatively similar layout as the medina houses. But the houses on the countryside were conceived during a long process that could extend over many years. The first phase is the basal cell. The only room consisted of living room, bedroom and kitchen. Then cells were gradually added as the need arose, and the rooms became specialized. The cells are organized around a central courtyard to ultimately shape the courtyard typology (Abarkan, 1995).

Cluster of traditional houses in the countryside between Casablanca and Marrakech.
Traditional housing today
The inhabitants in Sidi Moumen derive from the rural parts of Morocco and are used to rural way of living even though many of them are born and raised in Sidi Moumen. Customs that are to be transferred into the new social housings are, among others, that services such as bathrooms are often grouped at the rear and do not face the street. In traditional layout plans, there is a clear separation between public and private spaces (Cohen, 2002). There is one reception room for receiving guests and it is always placed opposite the main entrance. Another habit people have is that they tend to accumulate the houses flat roof, ie, roof terraces. Some even sleep there in the summer. Also the courtyard is vital part in the Morroccan culture. (Abarkan, 1995).

According to our interviewed sources, space for the animals is also crucial. A project in New Gourna, Luxor in the 1960ies failed because the settlers did not accept a Medina-like housing mainly because there was no space for animals, carts or gardening (Fathy, 1973).

Basal cells forming around a courtyard. 
Source: figure based from Abarkan, 1995, modified by the author
Facts about Casablanca
Population: 3 million
Area: 386 sq km
Population density: 9,000/sq km
- Largest city in Morocco
- Casablanca is considered the economic and business center of Morocco
- Has the world’s tallest minaret
- Has one of the largest artificial ports in the world

Casablanca’s urban history covers all international tendencies in urbanism and ranges from new-town planning and zoning to Corbusian modernism and slum eradication. The city’s physical landscape also tells us its socio-cultural story and the huge challenges Morocco faces to this day (Calmon de Carvalho Braga, 2013).

Casablanca before the protectorate
The first reference to the area of Casablanca being populated, is Anfa, and can be traced back to the eleventh century. It was a thriving center of trade between the thirteenth and fifteenth centuries. Anfa was destroyed in battle. Around 1770 an aloite sultan decided to restore the city walls. It was then just a few huts. The sultan undertook sizable construction works to rebuild the walls and to build a mosque and a collage. But still it was a sad looking place with an unsafe port (Adam, 1968).

Europeans gradually began to settle in the small town of 1000 inhabitants and Casablanca’s foreign trade increased steadily and lead to a gradual shift of trade from Rabat. But even as late as the mid 1850s Casablanca was described as “a scraggy spectacle of dilapidated huts, ramshackle dwellings, and squalid hill sites” by Narcisse Cotte. And 20 years later the British botanist Joseph Dalton described Casablanca “it is difficult to envisage a less attractive place than Casablanca” (Cohen, 2002).

In 1906 Casablanca had become Morocco’s busiest port, despite its poor port facilities. The town consisted of three parts; the Medina, the Mellah and the Tnaker quarter. The medina was inhabited by Muslims and the Mellah by Jews. The Tnaker quarter consisted of straw huts and was home to the nomads settling in the Medina. With no building codes, private dwellings were popping up along the shoreline and there was a rush for land when the French landed in 1907 (Cohen, 2002).

Casablanca under the protectorate 1912-1956
Casablanca became a French Protectorate in 1912. It was then divided into three zones. Bousbir was inhabited by Muslims, the Route de Médiouna by Jews and the Liberté quarter by Europeans (Cohen, 2002).

Two major events have had a particularly strong influence on the planning of the city of Casablanca. At first the appearance of urban planning under the leadership of Lyautey, who hired a talented young French urban planner, called Henri Prost, as his chief archi-
tect to design a comprehensive plan for reshaping Casablanca. Prost placed the centre of the city where the main market of Anfa had been. From this point all main streets radiate to the east and to the south (Cohen, 1996).

A new part of the city, called the Ville Nouvelle, was developed to house the Europeans. Moroccan migrants were not allowed to settle in the Ville Nouvelle and the medina no longer had any room for expansion, which gave Prost the idea to demolish the medina in its entirety and replace it by a new medina. Fortunately, Prost plan of demolishing the old medina was never carried out. A site for the new medina was chosen close to military structures, which intended to reduce the risk of uprisings. It was build for the native population by French architects who interpreted the native customs while offering French hygienic facilities (Cohen, 2002).

The uncontrolled urban growth continued without Prost being able to control it. A second attempt to reorganize Casablanca was during the post war period by another great French architect called Michel Ecochard, an admirer of Le Corbusier, who led a huge urbanization program for Casablanca with layouts and research for settlements. He established a zoning plan with high and low-density residential areas as well as defined traffic and communication axes like the Rabat-Casablanca highway. The most important part of his work in Casablanca was affordable housing for factory workers (Bradel, 1986).
The separation of the French and native Moroccans was deliberate, as Lyautey had originally wanted Casablanca to grow according to a contrast between the traditional Moroccan social hierarchies as reflected in urban form and modern urbanism. This form of development would later show a displacement of both the colonized and colonizers from a global scale to a very local one, creating a setting of social and economic differences that would come to be extreme thanks to new economic reforms of the 1980s (Calmon de Carvalho Braga, 2013).

Due to lack of land, the multistory collective housing schemes have been made standard from postwar up until now. Shortly after the independence low-rent housing developments started opening up to all populations, regardless of origin (Cohen, 2002).

“Casablanca is a city of glaring social inequalities, where the rich live alongside the poor. It is a city of both high-rise towers and slums. It is a financial and business center as well as a center of misery, unemployment and so on. Furthermore, there is waste and dirt that pollutes the city and distorts its reputation.”

(King Mohammed VI, Oct. 11, 2013, Source: Benaziz, 2013)
**Sidi Moumen**

<table>
<thead>
<tr>
<th>Facts about Sidi Moumen</th>
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</thead>
<tbody>
<tr>
<td><strong>Population:</strong> 500 000</td>
</tr>
<tr>
<td><strong>Area:</strong> 23 sq km</td>
</tr>
<tr>
<td><strong>Population density:</strong> around 20 000 /sq km</td>
</tr>
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Source: The authors’ assumption based on Google maps, and population growth, 2014

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**Sidi Moumen after the independence 1956-2014**

The area of Sidi Moumen had not experienced a significant urban change until the Royal decree 1970, which forced old settlers to leave their farms and the area became abandoned in some parts. After this the informal settlements started to grow in Sidi Moumen (Interview with Kenza Al Idrissi).

The government contributed to the elimination of substandard housing by moving barracks to allow the establishment of new industrial entities: for SOMACA (Moroccan society of automotive construction) as well as for other large industrial entities. The construction and opening of the expressway brought further dislocation of barracks (Interview with Kenza Al Idrissi).

It was not until the early 80’s that the government started to organize the public space of this area inside

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**Sidi Moumen under the Protectorate 1912-1956**

According to various testimonies from local sources, Sidi Moumen was a farming area on the outskirts of Casablanca. It was the richness of the soil, the strategic geographical position (on a plateau overlooking the Bay of Casablanca) and the microclimate that attracted the first settlers in the early colonization of Morocco (Interview with Kenza Al Idrissi).
the community of Casablanca. 1984 sees the elabo-
ration of a management plan, which will attempt to
provide solutions to various urban challenges in Sidi
Moumen (Interview with Kenza Al Idrissi).

Despite different attempts initiated by the govern-
ment, the approaches did not have the expected
results. The 90s are considered the decade of dizzy-
ing proliferation of substandard housing in Sidi Mou-
men. It was during this period that the proliferation
of slums has broken all records. The rural exodus and
the movement of internal migration will intensify the
phenomenon (Binebine, 2013).

In the general census of population and habitat in 1994,
the district of Sidi Moumen (before the annexation of
the common Ahl Loghlam) had nearly 107,825 inhab-
habitants, representing 17,815 households, with an aver-
age size of 6.05 persons per household. This size was
well above the national average of about 5.3 people
per household. In the most recent 2004 census, the
district of Sidi Moumen had 289,253 inhabitants with
an average annual population growth of 7.9% (Roy-
aume du Maroc haut commissariat au plan, 2004).
This is opposite to what happens in the city of Casab-
blanca where the growth rate did not exceed 0.8%
(Royaume du Maroc haut commissariat au plan,
2004).

Three major events have totally changed the urban
landscape in Sidi Moumen (Interview with Kenza Al
Idrissi):

1. The first major event was the implementation
   of the first and most important industrial area in
   Morocco, Ain Sebaa. The first job on the borders
   of Sidi Moumen triggered the first installations of
   habitat due to lack of childcare in social housing.

2. The second major event that had an impact on ur-
   ban development in Sidi Moumen was the open-
   ing of a quarry, with a stone crush for the produc-
   tion of gravel needed for construction of roads
   on the one hand, and on the other to supply raw
   materials for the installed cement manufactur-
   ing. This led to an increase in unhealthy habitat
due to the gradual establishment of rudimentary
   huts to house the laborers required to operate.

3. The third important fact to note is the location of
   the landfill in the centre of Sidi Moumen, which
   will result in uncontrollable for any agglomera-
tion with all the negative consequences on the
   environment dump, and the future of the whole
   area.
Rapid urbanization places remarkable strain on housing and serviced land. By 2030, about 3 billion people, or about 40 per cent of the world’s population, will need proper housing and access to basic infrastructure and services such as water and sanitation systems.” (UN-Habitat, 2014).
MASS HOUSING

Mass Housing is commonly the name people use to describe a cluster of high-rise and low cost residential buildings. It could also be described as a high number of buildings being built during a short period due to a high demand. To be able to understand the problems associated with today’s affordable housing schemes, more needs to be known about how it developed. This is because they are the results of many years of housing developments. The housing problems we come across today are the consequences of housing development decisions made in the past and in different political and economic situations (Golland & Blake, 2004).

There are two main periods in history when the world saw a rapid growth of urbanization and which are important for mass housing: the Industrial period and World Wars (1 and 2). Britain became the first industrialized country in the world and has received a major focus in our text to describe the development of mass housing.

Industrialization

The nature and form of urban areas have been through a long but shifting evolutionary process with the most rapid changes coming in the most recent 250 years of fast urbanization accompanying industrialization. The industrial revolution started in the second half of the eighteenth century. It began in Western Europe with its centre in the UK. It was an explosion of technological advancement, which led to rapid development of new machines and systems, but also to more efficient ways of producing goods. Due to this introduction of capitalism and the movement of goods production from houses to factories, people migrated from these rural areas of agriculture to cities in search of new jobs (Pitts 2004).

With time, urbanization increased rapidly, and led to a significant increase in population in industrial cities. Because of this rapid increase in population, more and more housing had to be provided for the labour force near the factories (Pitts 2004). This lack of housing led to the construction of mass housing, which had poor living conditions and were characterized as unhygienic, overcrowded and also lacked infrastructures and social facilities. Almost as soon as they were occupied, many of these houses became slums. Before industrialization as much as 90 percent of the population was rural-based, after then it was as low as 10 percent (Golland & Blake, 2004).

Due to the health hazard as a result of the poor sanitary conditions of these housing environments, initiatives to provide decent and affordable homes to the working class resident was embarked by philanthropists, reformers and enlightened employers. Industrialists and other employers realized that the production could be improved by improving the living conditions of their employees. Therefore they relocated their factories from highly populated urban areas to urban fringe and used the lower cost of land to provide decent shelters with gardens to their employees (Holmes, 2006).

In summary, during this period two major housing schemes were used with the aim of providing decent and affordable housing to the less privileged working class. These are cooperatives/associations and philanthropic housings. Housing associations funded their schemes by loans from investors with the aim of demonstrating the financial viability of providing decent and affordable homes to low income families. However, both housing schemes were beyond the reach of these families and only the better-paid fami-
lies were able to afford the rents (Holmes, 2006).
Since the industrial Revolution it has been accepted as normal that houses, like many other market commodities, are mass-produced by professionals and mass-consumed by citizens. For the industrial revolution Mass Housing came as an idea to house the urban poor (factory workers) by the factory owners (Parvin, 2011).

The first World War (1914-1918)
The first World War is another event in history, which affected the provision and construction of housing. Large numbers of houses where to be built quickly and economically. The idea was to design houses that could be mass-produced and prefabricated (Golland & Blake, 2004). After the war, there was a critically high demand of housing because of the number of houses damaged or destroyed by enemy attacks, and also in cities which still stood but had a high number of immigrants in search of shelter. Most of the countries affected had to rebuild their infrastructure by providing housing to the displaced families and war veterans. Consequently, committees were set up and policies were implemented with the aim of providing affordable houses for those in need. This resulted in an increase in public sector participation in housing and hence an increase in housing provisions (Holmes, 2006).

The Second World War (1939 – 45)
The Second World War also defined the provision of affordable houses. This is because the period witnessed a virtual freeze in housing construction because resources were diverted to military purpose. In Britain, new houses were not built for six years and with in that period – a half million homes were destroyed by bombings and another half million were damaged. Therefore, houses were needed to accommodate families affected by the war. The shortages forced the government to search for affordable alternatives so that houses could be built. Policy makers, architects and planners saw the problem as an opportunity to provide much more innovations into housing development. This resulted into creation of high-rise development to accommodate affected families. After which, high rise residential buildings became an architectural discourse. The main difference between the world war periods and the industrial period is that during world war periods, the government deliberately sought to promote and provide affordable houses to the low-income working class (Holmes, 2006).

Modern period
Despite the early intervention in providing decent housing to the less privilege members of our societies, affordable housing in this modern period i.e. twenty first century is still a major challenge especially to the governments of developing countries (Delgado, A and De Troyer, F, 2011).

“Rapid urbanization places remarkable strain on housing and serviced land. By 2030, about 3 billion people, or about 40 per cent of the world’s population, will need proper housing and access to basic infrastructure and services such as water and sanitation systems. This translates into the need to complete 96,150 housing units per day with serviced and documented land from now till 2030.” (UN-Habitat, 2014).

In developing countries, such as Morocco, the housing supply is often limited because of old-fashioned governance systems, legislations and human resources
with insufficient capacity. The failure of matching the demand for homes has now resulted in the development of informal settlements in a variety of contexts globally. Due to constraints in formal housing and land delivery systems, more and more people who would otherwise qualify for housing programs are resorting to slum settlements (UN-Habitat, 2014).

Developed countries such as Great Britain and United States have gone through years of changes, both positive and negative, in affordable housing delivery reforms and policies in order to find the best solutions for housing the less privileged members of their societies. These countries are now concentrating on the quality rather than the quantity of affordable housing because experience has shown what happens when quality is sacrificed for quantity (Holmes, 2006).

There are numerous mass housing areas being built at this moment throughout Morocco in order to reduce the amount of slum areas. Everywhere you go you see construction cranes in all directions.

We noticed that the mass housing areas look more or less the same throughout Morocco – they have the similar height, color scheme and layout. There is no adaptation to wind and sun directions, and they do not utilize local building material or input from the inhabitants. The areas contain no public spaces or spaces for animals or carts. The apartments are usually 46 – 60 square meters. The 46 square meter apartments are too small according to the families we interviewed in Sidi Moumen since it leaves no room for the family to grow. Sixty square meters was found to be the adequate need.
Types of mass housing in Morocco

Mass housing areas in Morocco differ a great deal from the traditional image of mass housing areas around the world. Mass housing areas are more commonly associated with massive areas of identical high-rise buildings. The Moroccan mass housing areas consists of housing blocs not more than 6-stories high. This is due to absence of maintenance, there is no care taker of the buildings and therefore social houses cannot be built with an elevator.

Field trip with Reda El Yakowbi from Bymaro Maroc to a mass housing area under construction, far from the center of Casablanca and with no access to service or public transportation.
Social housing is housing provided for people with low incomes or with particular needs by government agencies or non-profit organizations (Oxford Dictionaries, 2014).

Council housing, also referred to in this thesis as Social housing, has in the past provided large quantities of decent housing at reasonable rents. It has weakened the link between income poverty and housing poverty, so that those whose earnings were low were not necessarily destined to live in homes that were overcrowded or that lacked condition. It was in its time a marvellous jewel in the crown of civic enterprise. In the last decade the picture has changed. Social housing as a whole has become more and more the preserve of poor people (Willmott and Murie, 1988).

In Mexico, it is common practice not to mix social housing cannot with the rest of the city in the central region. According to Tatiana Bilbao, architect from Mexico, the country has unfortunately not learned from the mistakes of others. Instead Social mass housing areas, like the picture shows, are being built in the suburbs of Mexico and social housing is major industry (Bilbao, 2014).

There are two types of social housing in Morocco, the 5- to 6-storey social housing and the 4-storey Public-Private-Partnership typology, referred to locally as “individual” housing. The Public-Private-Partnership individual housing areas are to a great extent more adapted to the cultural aspirations and social connections of the inhabitants compared to the mass housing areas, being only 4-stories high and providing a multifunctional ground-floor for shops, workshops or little offices, thus possibility to generate lively streets, attractive courtyards, terraces, balconies and rooftops. The owners can build and finish their homes actively and in a process of collective creativity, as they were used to doing in the slums. Yet, there is much to be improved and empowered when it comes to the overall urban space quality and the flexibility and collective use of shared spaces (Martin, 2008).

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Social mass housing in Sidi Moumen.

Individual social housing in Sidi Moumen. Picture taken by Jana Revedin.
THE CONCEPT OF SLUM

A slum is a settlement made up of households that have one or more of the following five criteria: no access to potable water, no access to hygienic sanitation facilities, insufficient living area per person (more than three people sharing the same room), poor structural quality and no durability of dwellings and no security of tenure (UN-habitat, 2013).

Rapid urbanization has overwhelmed the capacity of municipalities to provide serviced land to accommodate the influx of newcomers. Lower income families and segments of the middle class are progressively pushed out of formal land and the housing market and this fuels demand for lower-priced dwellings in underserviced plot subdivisions outside planning codes, often in hazardous areas (UN-habitat, 2013).

After a temporary decrease at the end of the 1980s, the slum population increased sharply again at the beginning of the 1990s, and slums have continued to increase at a rate of 4 per cent per annum in Morocco (World Bank, 2006). A major program to address substandard housing (“l’habitat insalubre”) was launched in the 1980s, and a special agency was established for that purpose, the National Agency for the Prevention of Substandard Housing (ANHI, Agence Nationale de lutte contre l’Habitat Insalubre). In 2004, this was followed by the current formal VSB program, which reflects the Cities Alliance slogan “Cities without Slums” (“Villes sans Bidonvilles”, or VSB) (Martin, 2008).

Three different types of dwelling are classified as slums by the Government of Morocco. First there

Types of slum dwellings

are the temporary shacks made out of reused materials which only offer the minimum protection from sun and rain in the slums. In 2003, these constituted about 9 percent of the total urban population. The government claims to have reduced the percentage of households in slums to 5 percent in 2007. It is yet to be seen how much it has been reduced today. The second type constituting about 18 percent of the housing stock, are the dwellings which are structurally healthy, but illegal. The third type includes the buildings in the historic core of the cities commonly known as the medinas and which is 3 percent of the total housing stock (Martin, 2008).
Structurally healthy, but illegal dwelling in Sidi Moumen. Picture taken by Jana Revedin.

Temporary schacks in Sidi Moumen. Picture taken by Jana Revedin.
Casablanca has several slum areas, Sidi Moumen being the largest and most infamous. Most residents of Sidi Moumen have access to potable water and hygienic sanitation, and the dwellings are larger than in other developing countries, however the structural quality is poor and there is no durability of dwellings and therefore no security of tenure (Interview with Kenza Al Idrissi).

The problem of slums goes way back in the history of Casablanca. Several attempts have been made to either eradicate or upgrade the slums. When the new medina in Casablanca was built in order to house the indigenous population, it fast grew too small to accommodate the growing population and slums were forming in the late 1920s. The slums were said to resemble something between a manure field and a fairground. Since it was considered too costly to offer all slum residents permanent dwellings, it was suggested that the existing slums be fitted with modern amenities. In 1932, the administration realigned the shacks and widened the roads in the Ben M’Sick slum, which is located northwest of Sidi Moumen. But new slums quickly formed nearby (Cohen, 2002).

In the 1930s the municipal authority also launched a housing program for “those Muslims who have been evacuated from the slum”, provided they began building housing on the site within a year, and that they live there for a minimum of five years. They were also not allowed to own any other dwelling. A similar program was also discussed to house the Jewish population once the Mellah, which was home to the Jewish population in Casablanca, was demolished (Cohen, 2002).

During the 1940s the Protectorate created a new satellite town in Ain Chock in order to drain the Ben M’Sick slum. In the 1950s an extension to the scheme was built with less expensive road system and less sophisticated dwellings. However, the targeted inhabitants could not afford to live in the new houses. They quickly moved out and Ain Chock failed to fulfill its social objectives.
to house the former slum residents. And in 1949, the Housing Department bought 100 hectares of land in order to rehouse the 32,000 residents of the Carrières Centrales slum which is just north of Sidi Moumen. The project also failed to fulfill its social objectives. Only a year after the first inhabitants moved in, many of the patios had been covered over, and many had constructed rooftop extensions to sublet, which deprived the rooms from ventilation and light as well as being a health hazard. And many of the former slum residents did not live in the new dwellings as was intended. By 1952, 120,000 Moroccans were living in slums, with another 15,000 joining them every year (Cohen, 2002).

Since the new medinas proved a greater health hazard than the slums, Michael Ecochard implemented sanitation grids with roads, water supply and sewage for residents awaiting permanent housing. The grid also included a school, a health center, an administrative building, drinking fountains and street lights. Due to lack of funding for rehousing schemes, the Planning Department decided in 1953 to only upgrade all the existing slums with water and sewage (Cohen, 2002).

After the war, experiments with collective housing were carried out. In the heart of the Carrières Centrales slum, multistory buildings with apartments was built with one unenclosed room to substitute the traditional courtyard or patio. This was a form of housing that was thought to appeal to rural settlers from south of the Atlas Mountains. However, the unenclosed rooms were quickly turned into an extra living space (Cohen, 2002).
Morocco, with its 33 million inhabitants, has come very far in the process of the eradication of unhealthy habitat. The government embarked on the ambitious program entitled “Cities without slums” in 2004. The aim of the program was to eliminate unhealthy habitats, more commonly known as slum areas, by 2010, and the target was that 10-15 towns could declare themselves “slum free” every year (Martin, 2008). This target has not been reached as of 2014.

The main actors in the “cities without slums” program are as follows (Martin, 2008):

**Central Government**
The Ministry responsible for the program also manages a fund that is used to subsidize the cost of social housing areas that are provided to former inhabitants of slums that are being resettled. The government has also established a central guarantee that is used to guarantee 70 percent of each bank mortgage loan to low-income individuals with irregular incomes who would normally not be qualified for these loans.

**Donor’s**
International donors have provided substantial funds to the program.

**Local Government**
All local governments are required to prepare comprehensive plans for the elimination of slums in their jurisdiction. They are also expected to provide sites for free to the developers of new social housing apartments. Sometimes central government land or land acquired from private owners is also used.

**Banks**
With the provision of the 70 percent government guarantee, commercial banks are expected to play an increasing role in the provision of loans for low-income housing purchase or construction.

**Developers**
Private sector developers are encouraged to participate in the social housing market by the provision of tax incentives and serviced land by local governments. Developers are required to service the land given to them by the government and construct the apartments. As long as the apartments cost less than USD 25,000, they are eligible under the program, and applicants will receive a purchase subsidy of 30 percent, among other subsidies.

**Microfinance Institutions (MFIs)**
The government permits MFIs to lend for housing. These loans are mainly used for house construction or improvement, or for down payments required to reserve a subsidized apartment.

**Residents**
Martin does not mention the seventh main actor, which is the residents of the slums. We would like to stress that neglecting the residents is the main reason why the “Cities without slums” program is not a success. The slum residents are used to being involved in the construction of their homes, they have built their homes with their own hands and for the program to be a success the residents must be made co-creators and co-designers. They are solemnly the only ones who are familiar with their needs.
Main issues for the program

Many beneficiaries of the programs cannot afford to build individual housing. Therefore it is not unusual for them to enter into a contract either to sell the land when they are legally allowed to do so (after 5 years), or to allow someone else to build and use the house on the condition that they allow the beneficiary family to use the top floor. And some beneficiaries just sell the new plot, and move to other slum areas (Martin, 2008).

When relocating to either a social housing area or an individual housing area, depending on the household finances, sometimes there are unfortunate misunderstandings. A few years ago there was a relocation of the slum inhabitants of the Tlet Bouskara region. Senior officials came to inform the inhabitants that the King had given instructions to relocate the slum inhabitants for free. Right afterward, they launched a census which counted to 291 shacks. However, the officials didn’t take into account that one dwelling in the slums is often home to more than one family and as a result, many people were excluded from the relocation list and did not get to relocate. Instead they were forced to move several times since their shack was demolished. (Oulmouddane, H 2013).

Another main problem is that not all of the inhabitants can benefit from the program, simply because they are too “rich”. But they are too poor to qualify a loan in a private bank. With this being the case, it will take a long time before all the slums are eradicated (Martin, 2008).
“There are no green spaces where our children can play. Sometimes, when we want to stay in a green space near to Sidi Moumen, we are going next to the highway to have a seat in the space between the cars”

(Family from Sidi Moumen)
In November 2013 we had the opportunity to spend 10 days in Casablanca to start the work of interdisciplinary urban mapping in Sidi Moumen. After interviewing inhabitants and local NGO’s (non-governmental organisation) in Sidi Moumen we are confident that the community is ready to explore the potentials of their future neighborhood. With this result, we are working on phase two of the method. Interdisciplinary urban mapping is the second phase of the Radicant method that we have used. We chose this method because it would give the best result with more time to work in the field with the urban mapping to analyze the built environment, infrastructure and to understand the culture and habits in Sidi Moumen and Morocco. Given the fact that we do not have the time required to complete the method, we consider our thesis part of the first and second phase of the method in the direction to complete the Radicant method. Our aim is to achieve collective empowerment and a culturally adapted neighborhood when the method is completed.

PHASE TWO, INTERDISCIPLINARY URBAN MAPPING

Data needs to be collected and critically be elaborated during a process of cross-disciplinary urban mapping. The process should at least last for a year to be able to analyze the built environment and infrastructure, but most of all to try to read “between the lines” and understand the cultural traditions, anthropological habits and ethical values of the inhabitants. Every place needs different tools to be able to collect the data.

To start the urban mapping in Casablanca was a major challenge - not only because of the time limit, but also because of cultural differences. Being two Swedish students who did not speak the two languages, Arabic and French, we depended on our partners who were two students from Morocco (introduced in the beginning of the thesis). Morocco is a society based on hierar-
chical structures and distinct differences between rich and poor. To collect information or to book a meeting one must go through a time consuming formal process, which was a major problem based on our lack of time and knowledge of the two languages.

With the situation described, we used our time in Casablanca to collect all possible information. We got the chance to study the way of life and culture in Morocco by, besides Casablanca, also visiting Rabat and Marrakesh as well as different habitat features.

When visiting Sidi Moumen the first time, which was the days we managed to collect most information, we travelled around in a mini-bus that to be able to see different parts of the huge neighborhood. With help from the local NGO, CARE Moroc, we got to visit different facilities from the inside such as a kindergarten, a school and a beauty parlor.

Most importantly, we got the opportunity to be invited to enter a couple of private homes to study the different house typologies in Sidi Moumen. This was one important step to grasp the way of life and culture in Morocco. First we visited a slum area where the families themselves had made the house planning (informal). Secondly we visited a mass housing area were the families move into finished apartments. We also visited a third typology which is called individual housing where the families are provided with a lot and build the house themselves.

The overall impression from the first day was the pride of the families when they showed us their homes. This applied to all building types, formal and informal. Normally you have to establish a relationship to be invited into a Moroccan home but the fact that we both looked and acted foreign contributed to a mutual interest in one another. As the Radicant method explains we had to be careful with our approach when visiting the neighborhood. It was, for example, not always appropriate to use the camera to document different situations or objects. When working with areas like Sidi Moumen different tools need to be used which could appear not as aggressive or disgraceful to the inhabitants.
The greatest problem, which is obvious to notice when visiting Sidi Moumen, is the proliferation of unhealthy habitat. The district contains nearly a third of the slums of Casablanca, with more than 20,000 households.

On a next visit to Sidi Moumen we held an interview with Kenza Al Idrissi, president of Sawaid, which is a local NGO in Sidi Moumen. This interview gave us an important input on the problems in Sidi Moumen. According to Kenza, Sidi Moumen suffers from four main problems: analphabetism, poverty, unemployment and lack of infrastructure. From the interview with Kenza we learned that the lack of activities (culture, sport etc.) affected the young generation in a negative way.
The insufficient waste management was hard to not notice when visiting Sidi Moumen and together with the lack of green spaces there was no designated place for the children to play or for the animals to graze.

Another main problem to be addressed is the lack of public service such as schools, libraries, nurseries and hospitals.

*Classroom in Sidi Moumen. Pictures to the right, both taken by Jana Revedin: Beuty parlor in Sidi Moumen and the hand of Kensa Al Idrissi.*
On site in Sidi Moumen. Bottom pictures are taken by Jana Revedin.
A new tramway is as off 2012 connecting Sidi Moumen with the rest of Casablanca. However the tramway has only one stop in Sidi Moumen and because of the largeness of the areas, this is not enough. There are no bike lanes in Sidi Moumen today and you don’t see a lot of bikes. The few bikes in Sidi Moumen are mostly used by children and youths. Not everyone has their own car but the roads are busy with cars during peak hours. There is only one known bus stop in Sidi Moumen but there are big white taxis that can be shared.

In our search for literature about Sidi Moumen we found nothing except a novel, Horses of God from 2013. We had to base all our facts, except for the background we got from the book which also turned into a movie (God’s horses), on our field studies, interviews and articles. Sadly the media focus mostly on the bombings in 2003, which has given Sidi Moumen a bad reputation.
Sidi Moumen is built on agricultural land but there is very little land allocated for that purpose. A few factories provide jobs to the inhabitants and there are more factories in Sidi Bernoussi nearby. Most of the land is residential and the rest is waiting to be converted into residential areas.
4 THEORETICAL FRAMEWORK

“Urbanity is independent of size and density and relies instead on the human blend.”
(Max Weber)
Jane Jacobs, a world known urbanist and activist, writings came with a new community-based approach to city planning. “The Death and Life of Great American Cities” (1961), introduced innovative ideas about how cities function, progress and fail, that now seem like common sense to generations of architects, planners, politicians and activists. The most special aspect of a city, according to Jacobs, is the public life between the inhabitants on the streets and squares where a functional urban life is showing a good balance between freedom and social control. This in turn leads to diversity (Jacobs, 2005).

To achieve diversity in a neighborhood, four conditions must be met (Jacobs, 2005):

1. The district must contain several primary functions, the presence of people moving outdoors at different times and for different reasons.
2. The blocks must be short so that streets and street corners will come close to each other.
3. Neighborhoods must consist of a mix of houses varying in age and condition.
4. A sufficiently high concentration of people must be in the area.

If these four conditions are achieved, then a neighborhood should reach their highest potential and best chance for a rich public life, regardless of where it is.

Jacobs believes that many suburbs or semi-urban neighborhoods in the future will be swallowed up by the big city, and they will survive or fail depending on whether they can adapt to serve as an inner city. A neighborhood that is all too effectively separated, for example by physical barriers, risks losing economic stimulus in the form of visitors from other parts of the city (Jacobs, 2005).

Comment: Whether or not to strive for diversity in the neighborhoods of Sidi Moumen is a subject of discussion. On one hand the Moroccans have a strong tradition of living in Gemeinschafts, where there is a common culture, everyone knows one another, where there is a strong feeling of safety and the traditional layout of the buildings prevents strangers from entering the private sphere. There is a clear separation between public and private space. On the other hand, this way of arranging the space is preventing a rich public life. But the new areas in Sidi Moumen are not planned in this manner. The mass housing areas are often mostly residential, but the individual housing blocs often have shops on the ground floor which allows for diversity to some extent.

Another insight that Jacobs brings to the table is that there is no direct relationship between good housing and well-functioning urban areas. It is obviously good with decent housing quality, but it does not automatically lead to good urban quality. According to Jacobs households creates nor affluent necessarily better urban areas.

Jacobs highlights the streets and its sidewalks as the most important public spaces and the city’s most vital organs where people meet. She argues that a main requirement for a functioning neighborhood is that people feel safe and secure on the street among all strangers and the streets needs to care for the task to handle strangers. For mutual security there must always be an eye directed towards the street, apart from housing it should be done from shops and general services. She describes it as an intricate and unconscious system of unwritten rules and laws that the people themselves have created and which they oversee. This is what she calls Natural guardianship.
Comment: The natural guardianship that Jacobs is talking about is sometimes hindered by the traditional separation between public and private space. Instead, the Moroccans often have a guardianship that is based on the absence of strangers. This is however not the case in the new areas in Sidi Moumen, were strangers live together but we are not sure if it is part of their culture and if they do feel comfortable about it. The communication between the public street and the private homes is a discussion that needs to occur with the inhabitants to find a good solution.

According to Jacobs are there three main characteristics of a well functioning and vibrant street:

1. Clear boundaries between public and private space.
2. “Natural owners of streets “ - there must be eyes upon the street.
3. Sidewalks are used continuously, more eyes on the street and makes people in houses to look out at the streets.

Comment: Traditionally, the Moroccan residential streets are not intended to be vibrant. The public life is supposed to take place in the district center. Sidi Moumen today is lacking a center. None of the districts have a center and instead the public buildings are placed ad hoc. Sidewalks are unfamiliar and there are no natural owners of the streets even though there is a clear separation of public and private space.

When planning new areas in Sidi Moumen, a few of Jacobs ideas can be taken into consideration. First of all, a mix of service and housing is essential. The district must contain several primary functions, the presence of people moving outdoors at different times and for different reasons. Then a sufficiently high concentra-
WAYNE ATTOE AND DONN LOGAN ON THE CATALYTIC THEORY

In the book “American Urban Architecture Catalyst in the Design of Cities”, from the end of the 1980s, the American architects Wayne Attoe and Donn Logan introduce the theory “Catalytic architecture”. The theory describes the positive impact an individual urban building or project can have on following projects and also the form of a city. They argue for the importance of mixed activities as a basis for cities. The theory encourages designers, planners and policymakers to consider the chain reactive potential of individual developments on civic growth and urban renewal. It supports design control as part of a catalytic strategy for urban design. Attoe and Logan also discuss the metaphors we usually use when describing the rebuilding of cities; renewal and revitalization. The first, renewal, is like a surgical procedure comparable to an organ transplant or a prosthetic implant and the second, revitalization, could be likened to the reintroduction of life. They instead presents “Catalysis” as a metaphor to use because it is an appropriate process for rebuilding, it is sensitive to its context and also powerful enough to restructure it (Attoe & Logan, 1989).

Values for good urbanism:

1. Mixed activities are basic to cities.
2. Buildings (and the spaces they form) are the natural increments of urban growth.
3. New urban growth must recognize the context provided by past construction.
4. A major goal of urban design is the shaping of public open space, including meaningful street space.
5. Streets must accommodate various forms of transit and enhance pedestrian activity and movement.
6. Transportation systems should be rational.
7. Urban places should be varied to improve the activities associated with them: housing, neighborhood, civic etc.
8. Citizens should have a role in shaping urban settings (Attoe & Logan, 1989).

The Catalytic theory does not prescribe a single tool of implementation, a final form, or an ideal visual character for all urban areas. Rather, it prescribes an essential feature for urban developments: the power to encourage other action. The focus is the interaction of new and existing elements and their impact on future urban form, not the approximation of a preordained physical ideal (Attoe & Logan, 1989).

Comment: An important argument of Attoe and Logans theories, which matches the Radicant method we are using, is that the strategic introduction of new elements can revitalize existing ingredients of the urban centre without necessarily changing them radically and a focus for our proposal is that it is with and by the people, the citizens. They are the co-creators and co-designers and this is exactly what the authors highlight: to let the citizens play a role in shaping urban settings.

The values that the authors present for a good urbanism are obviously very similar to what Jacobs, and also Gehl highlight in their theories. In many ways, most of these values feel like common sense and natural solutions for a successful renewal, but after studying the Moroccan culture we realized that this is not the case. That said, we very much believe that good values from different cultures can be mixed, and that the solution is to get the experts to work with the people.
CHRISTOPHER ALEXANDER ON PATTERN LANGUAGE METHODOLOGY

Christopher Alexander, a mathematician and architect, is a Professor Emeritus of Architecture at the University of California, Berkley. He wrote Notes on the Synthesis of Form in 1964 as an approach to systemic collective design. His early work in mathematics led him to utilize mathematical research for “good design” and his research was the starting point in his creation of a “pattern language” methodology which could be easily understood and empowered anyone to design and build at any scale. (patternlanguage.com, 2014 and Revedin, 2013).

Alexander began to experiment with the methods he had learned from the interdisciplinary orientation of the Anthropology department at Harvard, but within the field of Architecture. It meant living with families in the communities for whom they were designing, so that they could learn about the specifics of culture or community as a basis for the design of their built environment, with the goal of finding better solutions for housing when little money was available. They engaged in experimental construction in order to find the best possible solutions that could actually enhance local economies as well as produce beautiful homes for individuals for very little cost (Alexander, 2014). Alexander’s life’s work includes the realisation by him and his followers of over 200 participatory projects around the globe. The method set out in “Pattern Language” in 1977 made the leap towards the understanding of architecture as a service for all (Revedin, 2013).

According to Alexander towns and buildings will not be able to become alive, unless all the people in society make them, and unless these people share a common pattern language. Furthermore he believes that centralized authority cannot create the large pattern, which gives structure to a town or a neighborhood, by laws or by masterplan. Instead he believes that they can emerge gradually and organically, almost by their own, if every act of building takes on the responsibility for gradually shaping its small corner of the world (Alexander, 1977).

The research methods led to the development of an even more complex and unique set of methods for architecture. Talking to and learning from the communities they worked with made it clear that one of the essentials elements of good design was community participation. It also became evident that poor communities, taking part in the constantly growing and adapting creation of its own built environment could become the basis for the creation of local, sustainable economies (Alexander, 2014).

By paying attention to human scale and introducing the feeling of belonging to a place and to its structure and materials, Alexander’s built work seeks to create a spatial quality which he calls “wholeness” (Revedin, 2013).

Comment: We agree with Christopher Alexander and share his ideas about poor communities, taking part in the constantly growing and adapting creation of its own built environment could become the basis for the creation of local, sustainable economies. If the government and municipality do their responsibilities such as for instance public transport and public schools as well as allow for Gemeinschafts to build collectively, the neighbourhood can emerge gradually and organically, taking on the responsibility for gradually shaping its small corner of the world. There is much pride of the neighbourhood and many entrepreneurs in Sidi Moumen.
JAN GEHL ON THE RELATIONSHIP BETWEEN PUBLIC SPACES AND SOCIAL LIFE IN THE CITIES

Jan Gehl is a Danish architect and urban design consultant who has dedicated his career to focusing on improving the quality of urban life by re-orienting city design towards the pedestrian and cyclist. His book “Life between buildings” is a widely used handbook on the relationship between public spaces and the social life in cities.

According to Gehl, the activities in the public spaces can be divided into three categories (Gehl, 2001):

1. The necessary activities are those including all more or less essential elements in people’s everyday lives; go to school or work, shop for groceries, waiting for the bus and do errands. Here is the involved part of a bigger or smaller context. The necessary activities must be performed every day, all year round and are therefore not dependent on the weather or season.

2. The elective activities are optional for the involved to perform when time is given, which is more boundless than the necessary activities. An elective activity may include taking a walk to get some fresh air or sunbathing on a bench. These activities are largely depending on the weather and season. Therefore, it is important to have this in mind when combining good urban design and recreation when most recreational activities take place outdoors.

3. Social activities are those that occur when several people staying at the same place at the same time. Social activities include common activities of various kinds such as walking, sitting and resting on a bench, drinking coffee and children playing. The most general social activity is the passive and simple activity to watch and hear other people being in the same place at the same time.

Gehl, similar to Jacobs and Attoe & Logan, highlights the importance of streets and squares. He emphasizes that the streets for most people is the ingredient to the phenomenon of “a city”. Gehl has also four points and positions that should be considered in urban development (Gehl, 2001). These are:

- To assemble or sprawl
- To integrate or segregate
- To invite or reject
- To open up or close.

The questions should not be interpreted as one alternative is more correct than the other, and which in all cases should be required. To gather or sprawl could both be the answer to a good result depending on what you want to achieve with a location (Gehl, 2001).

Assemble or sprawl

Gehl believes that the option to assemble or sprawl usually falls at sprawling in today’s urban design, why a greater focus on how to gather is necessary. The basis of the discussion around to assemble, according to Gehl, is that people and activities rather than buildings have a need to gather. A settlement with high density does not naturally lead to a high concentration of activities. What is relevant is the design of the building in relation to the human scale - i.e. how much is reasonable to reach by foot and how much is possible to see and experience. Gehl also emphasizes the importance of strategic planning to achieve successful results even on the smallest scale (Gehl, 2001).

Comment: When visiting Sidi Moumen, seeing both informal settlements and new social housing we could obviously notice many differences. Informal houses are very much close to each other, but still very private...
when getting close to or entering them. At some places did we see small courtyards which two or three families where sharing. There where narrow and zigzag connection streets inside of the settlements, probably very useful and clear to the inhabitants.

The new social houses are, in contrast, more strictly lined up but with an unclear connection in between them. We got the feeling that a cultural accepted connection between private and public has not been found. Also, when visiting other developments in Casablanca, we saw new areas being developed in the middle of nowhere. Without any public transport connection or with no contact to service or any other neighborhood.

Integrate or segregate
Integration means that different types of people and functions coexist, while segregation refers to a distinction between them. Gehl believes that there are two extremes regarding urban typologies on integration versus segregation - the integrated medieval city with dense and well-connected pattern functions, where all people lived side by side, and the segregated functionalism and function divided cities. In the latter city you can find large connected areas built around similar functions and inhabited by similar people. The result has been lack of contact with the surrounding areas and monotonous environment. Instead Gehl emphasizes the need for more integration planning at all scales, gather all the functions, except those that could counteract each other. This is something that Jane Jacobs also emphasizes as an important basis in urban planning (Gehl, 2001).

Comment: Morocco, and especially Casablanca, is an obvious society based on hierarchical structures and distinct differences between rich and poor. To propose an integrated neighborhood could seems like an impossible vision in a segregated city like Casablanca. We believe that the start in Sidi Moumen would be to integrate the inhabitants in the new structures, mixed with familiar faces but also new neighbours. When we speak about the future Sidi Moumen we need to have visions for different perspectives in time. Some of our concepts could be realized in a short time, some of them may in the future come from the chain-reaction from the inhabitants.

Invite or reject
According to Gehl, whether to invite or reject, is the boundary between the private and the public important to consider and manage to create an environment where it is free to move in between, without any mental or physical barriers. If a window is placed against a public place, it becomes possible to see what happens, which could be a first step for that public place to give an invitation. Furthermore, also the distance, the quality of the way and how to travel there that matters, and also the boundaries between private and public (Gehl, 2001).

Comment: However, the traditional way of building in Morocco, is to have closed facades with very limited amounts of windows facing the streets in order to keep the house and courtyard very private. No direct view into the home and courtyard is preferred. This leaves very little view of the streets from the private homes. The new areas in Sidi Moumen are not built this way, but the residents find ways of enclosing the windows facing the streets such as with blinds or even to cover up the balconies or patios. This is a challenge to investigate and discuss to be able to create vibrant streets in Sidi Moumen.
Open up or close
About open up or close Gehl believes that both the public places and nearby shops, library, offices, etc. shows all the potential possibilities available in a city. It’s not just about windows but also about distance that people understand and identify, and knowing about the various things to be able to use them (Gehl, 2001).

Comment: The people of Sidi Moumen spend much of their time in public areas, not so unexpected because of the climate, though it was difficult to differentiate places which gave the impression to be “public”. It seems more like the places could be a temporary empty place, maybe an old demolished informal setting, soon to be built with new social housing. We believe there is a great potential in designing public areas in Sidi Moumen, placing service such as libraries, or functions like a market places connected. Very important is to find and create functions to be used by the young generation in Sidi Moumen.
HASSAN FATHY ON TRADITIONAL ARCHITECTURE FOR THE POOR

The Egyptian Architect Hassan Fathy was chosen for the assignment of creating a new village for the inhabitants of Gourna, outside Luxor in Egypt. The village of Gourna was built upon tombs of the Nobles and the 7000 inhabitants lived on tomb robbing because the surrounding farmland was not sufficient to support them all. The uncontrolled tomb robbing was a problem for the Government in Egypt and a ministerial decree was issued to expropriate the houses and to rehouse the Gournis away from the tombs (Fathy, 1973).

Fathy had a clear idea of what material to use in the rehousing project, he had discovered that mud bricks was the appropriate building material for both the walls and the roofs. The inspiration for the roof was collected from the Nubians, who used a traditional vaulted roof that was cheap to construct and could be locally manufactured without the use of an engineer. The roof was constructed without the use of timber framework which is ideal for locations where wood is not an abundant resource and where harvesting timber can cause erosion. Fathy also cleverly used traditional courtyard forms and that together with the dense brick walls provided passive cooling in the summer (Fathy, 1973).

For Fathy, this assignment was not going to be easy. Fathy realized that Gourna was a delicately balanced social organism intimately integrated with the typography, with the very bricks and timber of the village. And this organism was to be dismantled and put together in another setting. Fathy had a clear idea that the design should be traditional, with traditional layout, traditional lamps, merhabeya screens (wooden window screens, in Morocco called mashrabiya screens), colored glass and domes. But the villagers did not want to move, their livelihood came from robbing the tombs, and Fathy therefore involved the villagers to tailor his designs to their needs. For their lively hoods, Fathy had imagined that the tourist coaches would stop at the New Gourna and the Gournis would sell local crafts to the tourists (Fathy, 1973).

**Comment:** Hassan Fathy’s project of rehousing the poor in New Gourna, Luxor was on paper set out for success due to a cultural adaption of the layout of the buildings, the materials used and the involvement of the inhabitants in the design process. The fact that the inhabitants did not want to move contributed largely to the failure of the rehousing project. A few of the inhabitants moved but did not settle and the project was never finished. A few of the new settlers went into the tourist business but it was not enough for all 7000 inhabitants to survive from. The project did involve building a mosque, a souk, a school and an open air theatre, but the funding for the project was not sufficient for public buildings and spaces which also could be a factor causing the project to fail. The project also most likely failed due to the lack of space for the animals.

The New Gourna project has many similarities to our project in Sidi Moumen. The government in Morocco has issued a program, similar to the Egyptian decree, to rehouse the inhabitants of Sidi Moumen of which many do not want to move. The newly built areas in Sidi Moumen also lack public buildings and spaces as well as spaces for animals. Many of the newly built areas do not contain spaces for trade or allow the inhabitants to trade from home which is causing them to lose a source of income and forcing them to commute to make a living.
Densification of the city has for long been a contentious issue and has become increasingly important in, for example Stockholm in Sweden, where population pressure has rapidly increased. According to Alexander Ståhle (researcher in urban design at the School of Architecture in Stockholm) there is a problem with the discussion of densification because it is about that you should build through densification instead of carrying on a dialogue about how densification should be implemented.

Up until today densification primarily occurred on old harbour areas, industrial areas and parking areas. It is currently in Stockholm hard not to begin taking green spaces as an option for densification. Areas that are being built on brown fields lead to clean-up costs. Such is the case in Hammarby Sjöstad, an old industrial zone in Stockholm, where the outcome of the high clean-up costs became a dense development, which has been criticized because of the lack of public and private open spaces (Ståhle, 2008).

Comment: This is also relevant for Sidi Moumen where many of the lots have been used as dumps prior to being turned into social housing. The lack, or say not planned, public spaces in Sidi Moumen can be a result of making profit from Social housing. A trend which should be changed.

Ståhle also believes that the closeness to the city center is the main attraction the city has and should therefore be preferred so that a densification of the city will bring good results. The attraction of the suburbs is instead air and space. In the dense inner city is a greater tolerance to less open space, but it should not mean that they disappear completely or not being taken care of. To challenge the public opinion of how the city’s open public spaces should be planned, in order to take advantage of and create accessible public spaces at a densification of the city is a major planning task. Media often portray densification project as a threat to existing green spaces. Ståhle means that it does not have to be negative to build on green spaces, as the result of fewer green spaces could contribute to more focus on existing and that they are being valued more and given a better quality. It is not the size of the green space that makes it attractive and accessible, but rather the quality (Ståhle, 2008).

Comment: Since Sidi Moumen is a suburb but has no green spaces, it is very viable to create green spaces such as social gardens, parks and urban agriculture as we are proposing in our concepts later on.

Karin Bradley (assistant Professor of Urban and Regional Studies at the School of Architecture in Stockholm) highlights the social issue in the discussions on the densification and how sustainable development affects from a social perspective in her research from 2009. In research and discussions on sustainable developments the sustainable city is often presented as dense, including efficient public transportation, short distance to jobs and facilities within walking and cycling distance. Urbanity is being compared with sustainability (Bradley 2009).

Bradley asks for a more specific explanation of sustainable development when it comes to behaviour in relation to environmental issues and organization of private and public life, which according to Bradley rarely are being discussed or examined. In cities where the population is becoming increasingly multicultural and varied in lifestyles, socio-economic and gender roles are likely interpretations of sustainable lifestyles and sustainable development naturally different. People’s different relationships to the environment can both
coexist and lead to conflicts. To get sustainability concepts to be effective and give effect you should look at the different perspectives on how society and urban life is organized, according to Bradley (Bradley, 2009).

**Comment:** We believe that the questions that Bradley highlights are very important to evaluate in this process, which goes back to the vision of how to reach an integrated neighborhood. When the new tramway reached Sidi Moumen in the end of 2012, this was a huge stepping-stone towards connecting Sidi Moumen with downtown Casablanca. To increase the connectivity, buses and bike lanes must be created. The residents of Sidi Moumen must not be forced to rely on cars as their mean of transport.

An important discussion, which Bradley also highlights in her research, comes from interviews of inhabitants in Tensta, a mass housing area outside of Stockholm. One interviewee tells her that they appreciate the features that today’s planners consider to be problems in these areas such as traffic separation and the fact that there is a clearly defined area with greenery all around. One interviewee from the Urban planning office also believes that the creation of dense neighborhoods in this areas could be a bad solution by combining the negative consequences in the inner city along with the city’s mass housing areas negative consequences.

**Comment:** We need to listen and learn from the inhabitants. They can see potentials when we see problems. This is why we believe we used the right method using the Radicant method to not fall into a top-down planning in Sidi Moumen.
The two classical concepts of Gemeinschaft and Gesellschaft were first introduced by Ferdinand Tönnies in the end of the 19th century. Tönnies use of the words reflected on an antithesis between Gemeinschaft, as he saw as small-scale, organic, close-knit community, whereas Gesellschaft is a large-scale, impersonal, civil and commercial society (Tönnies, 2001).

Gemeinschaft is related to traditional communities, whereas Gesellschaft can be said to represent the modern and even post-modern society. The differences can be roughly described as follows (Wolvén, 2004):

Gemeinschaft represents an unplanned spontaneous emerging unit while Gesellschaft is rationally calculated and planned. The people in a Gemeinschaft have close and intimate relationships with each other, which can lead to both friendship and hostility. The conversations between the people are spontaneous and emotional whereas in a Gesellschaft relations are an anonymous and abstract indentation of what is sought and not by who you are. The motives of a Gemeinschaft is altruistic, characterized by the common good (public good), and value oriented, while egoistic motives and rationality characterize a Gesellschaft. In a Gemeinschaft the world is easy to understand and to operate, and there is stability, security and predictability. Gesellschaft on the contrary, are characterized by variability, uncertainty and unpredictability, and therefore a lack of control.

The concept of Gemeinschaft is deeply rooted in the Moroccan culture. The Moroccan cities are traditionally divided into entities, where the city is the largest entity. The city has then, traditionally, been divided into districts, one for each religion/and or culture. The districts consisted of Gemeinschafts and each Gemeinschaft had its demarcated area called a settlement entity which consists of a group of houses organized around a dead-end street or a courtyard (Abarkan, 1995).

Comment: The theory of Gemeinschaft and Gesellschaft can also be applied to the Sidi Moumen of today. The inhabitants can act as representatives of a Gemeinschaft and make small changes become relevant for civic improvement, whilst the municipality and building companies can represent the Gesellschaft.
“Cities have the capability of providing something for everybody, only because, and only when they are created by everybody.”
(Jacobs, 1961)
At this point in our thesis, we have started an urban mapping of our first visit in Sidi Moumen and our research time up until now. We realize that our project has just started and that we are in the middle of phase two out of four of the radicant method. Our work requires a continued dialogue and study in Sidi Moumen before the project can reach step three. Our concepts can be viewed as a first draft, based on the information we have succeeded in mapping, to be discussed and further developed together with the inhabitants of a future participatory design laboratory.

Jane Jacobs quote makes a good summary of the method we selected to work with and our proposed concepts for Sidi Moumen. The main focus has been to put the human condition at the center, search for what is already there and the qualities and potentials in the area and again its people. The people of Sidi Moumen, the inhabitants, are dislocated and forced to move from something they have created by themselves, even if it is informal, into something that someone else has created for them, which does not fit their needs. Today, the inhabitants of Sidi Moumen are not considered to be a main actor in the “Cities without slums” program and we have identified that as a main reason why the program is not successful. However, the Radicant research and design method (Revedin, 2013) we have used is based on the theory that cities can renew themselves by their own potentials finding foothold and nourishment in their organic “open work” morphology. The renewal process is powered by participatory design, thus co-creating projects with the true users: the inhabitants.

Our vision in the long-term perspective is an inclusive and regenerative urban environment enabled by connective boulevards, bike lanes, social parks and profitable micro farms and the empowerment of the inhabitants towards education, social diversity and civic rights. In this thesis we will not be able to present a final answer to a solution for Sidi Moumen, but we believe that through participatory analysis and design the inhabitants themselves can achieve a revitalization and requalification process that leads to an Open City of social and cultural inclusion.

“People must be empowered to become “co-creators” and “co-designers.”” (Revedin, 2013)
HOUSING CONCEPTS

Today Sidi Moumen is a busy neighborhood with people, cars and animals moving all over the area. After reading and learning about the history of the medina and its development where the spatial analysis shows that the physical structure of the medina is based on a primary pattern unit of a square courtyard house with a closed, inward-turned physical structure we had to rethink our proposal on a housing strategy (Abarkan, 1995).

We learned that the European ways, where new houses and apartments are sharing the private life with the people on the streets, is not an acceptable way of living in Morocco. But we still think that a mix of the cultures could be good solution that can be culturally accepted.

Fronting houses against public spaces to increase natural surveillance and prevent crime and sense of insecurity in the neighborhood, called Natural guardianship is a foundation for a vibrant street (Jacobs, 1961). In the discussion with the inhabitants we would need a workshop to find a solution which preserves the traditions in house planning and at the same time encourage the life of the streets.
The inhabitants of Sidi Moumen should be the key urban players of the development of their neighborhood. The inhabitants can act as representatives of a Gemeinschaft whilst the municipality and building companies can represent the Gesellschaft. Representatives of Sidi Moumen (Gemeinschaft) must interact with representatives of the urban office and the construction companies (Gesellschaft) with mutual respect to find a common solution to the problem of social housing and the three parts are equally important. The urban office and the construction companies can, with the help from experts and NGOs, open and maintain dialogues with the inhabitants. Through this dialogue and a consequent participatory design approach the area can transform into a place of collective desire and memory, where people wish to live, and where they will stay.

One important strategy should be that the new houses are located near the original location of the demolished informal settlements. It is not a sustainable solution to relocate families in a remote location because when located in a remote location, for people with employment this may cause substantial transport costs for the journey to work, and for informal sector workers it may remove them from their marketplace. And without income, the mortgages cannot be paid and the family can be evicted thus, forcing them to back into a slum area.

Another policy that has to be changed is the rule in the new housing that does not allow residents to trade from their houses and/or use them as workshops. This rule has caused additional expenses for residents who had previously traded from home (Martin, 2008). Also the new housing units lack spaces for animals to graze and to park vehicles, which has to be changed.

In the rapid transformation from a slum area into a mass housing area, Sidi Moumen risks turning into misfit housing again due to lack of cultural adaptation. We think that a “mass-produced” dwelling, which is part of collective mass housing, can be designed adaptable and flexible in order to be altered and therefore “customized”, if not at first, then in the future as the family constellation changes through time.

In the interviews we held with families and social workers from Sidi Moumen it became evident that the inhabitants need places to interact and to socialize. We also noticed the positive attitude towards co-responsibility between family members and neighbors inside smaller living areas, thus one street. This notion is also...

“The new social houses are quite good, but sometimes I miss the slums. We used to meet outside, at the water source, or while spreading the cloth in the courtyard.”

(Fatima, living in Sidi Moumen)
confirmed by the theories of Gemeinschafts, which are deeply rooted in the Moroccan culture.

Moving from an informal house in the slums, where families for generations have created a well-known neighborhood, in to social housing is obviously an immense change. The informal houses in the slums are bigger in size than the new mass housing apartments. There are also shared spaces in the slums, where the inhabitants can meet and where they can keep their animals.

With this background, and also from what we saw during our visits in Sidi Moumen, a good form of living, as an alternative to the mass-produced dwellings, is the Public Private Partnership (PPP) courtyard-housing typology, also commonly known as individual housing with a shared courtyard. The Public Private Partnership individual housing already exists in Sidi Moumen but what we noticed on our visits was that the courtyard was missing on this typology. The courtyard has been used for centuries as the place to socialize, to dine, work and educate. It gives natural ventilation, shading and protection throughout the whole year. The courtyard is, as mentioned earlier, vital in the Moroccan culture and combining two proved typologies, we believe is a good solution. The shared space created inside the blocks can be a place to interact and share everyday tasks, such as cooking and cleaning. It can also be a common place for animals to live and to cultivate vegetables. Other places to create social interaction and control can be the front gardens, the stairways or roof terraces.

Examples of activities in a new shared courtyard typology.
The finance and design of the social houses has been a central question for the project. When interviewing families in Sidi Moumen, we found that of course they would like to have a large apartment, but around 60 square meters is the actual need. The smaller apartments are too small and leave no room for the family to grow. We asked the families and the president of Sawid about their ideal apartment and below is our interpretation of their wishes:

Two versions of a plan, to the left is a 60 square meter apartment for one family, were the reception room is opposite the entrance as is tradition in Morocco. To the right is a plan of the ground floor. The areas facing the street can either be a shop, stable or a garage. Moroccans do not wish to live on the ground floor facing the street.

It is important not to group too many identical houses together since that in turn would transform the neighborhood into a mass housing area. It is also important that this plan is not to be considered ideal to everyone. Having a workshop with families where they can convey their needs to the architect is crucial since it is all about the people.

For the revitalization of the mass housing building technique and technology can be used in the following ways: apply energy efficient robust building techniques with natural ventilation, use daylight and sustainable materials, adopting building management systems, passive solar design and solar hot water collectors, solar photovoltaic, geothermal cooling, rooftop energy recovery units, desiccant dehumidification and vertical axis wind turbines.
Two versions of a plan, at the top is a plan of the ground floor. The areas facing the street can either be a shop, workshop, stable or a garage. Moroccans do not wish to live on the ground floor facing the street. At the bottom is a 60 square meter apartment for one family, were the reception room is opposite the entrance as is tradition in Morocco.
The lack of green spaces is one of the main problems in Sidi Moumen, as explained earlier in the thesis. A development of parks and green spaces in Sidi Moumen will not only improve the environment for the inhabitants, it will most definitely increase the values of the built housing units, especially in a fast growing city as Casablanca.

For the public spaces we adopt sustainable landscaping, green roofs, rainwater harvesting, permeable paving and the creation of lagoon systems and urban agriculture.

We propose “Green corridors” through Sidi Moumen with sustainable landscaping and permeable paving which will improve the air quality, create shaded communication areas and generate places to socialize. The lack of spaces for people to move by foot or with a bicycle needs to improve on many levels.

To give space and care to the animals (donkeys, horses, cows etc.) is one main and important issue to deal with in Sidi Moumen. This would create job opportunities to the caretakers and also allow the residents of the new social housing areas to continue with their farming, trading and transport jobs when moving into the area from the informal settlements. For instance a fruit merchant needs his donkey and cart to work. This could also be applied to the respective vehicles.

CONCEPTS FOR PUBLIC PLACES AND GREEN SPACES

- “Green corridors” through Sidi Moumen with sustainable landscaping and permeable paving which will improve the air quality, create shaded communication areas and generate places to socialize
- Integrate land for agriculture with new courtyard-typology housings
- Create smaller “pocket parks” for picnics and where small children can play, but also huge green spaces for sports, music, gatherings and active recreation.
“There are no green spaces where our children can play. Sometimes, when we want to stay in a green space near to Sidi Moumen, we are going next to the highway to have a seat in the space between the cars”

(Family from Sidi Moumen)

Urban Agriculture & Social gardens

**Urban Agriculture**
Morocco, and specially Casablanca, has a good micro-climate that provides excellent conditions for urban agriculture. Our proposal aims to integrate land for agriculture with new courtyard-typology housings. This would create new job opportunities and income for the inhabitants of Sidi Moumen in form of growing, consuming and selling locally grown vegetables and fruits in Sidi Moumen. Sidi Moumen can become a regenerative, self-catering model community, a visionary Agropolis.

Urban agriculture will lead to a positive impact also in the social dimension, as it will lead to social interactions and the involvement of the inhabitants. Further on the business could grow in the region of Casablanca, and also connect Sidi Moumen to the city.

Clean air, natural waste and water management and an increase in active green spaces would be the long-term consequences.

**Social Gardens**

By visiting Sidi Moumen you can easily tell that there are no green spaces, no parks or fields where children can play or animals can have a natural place to roam or graze. Our interviews revealed that the need for these things is urgent.

We believe that Sidi Moumen has an immense need for green spaces, smaller “pocket parks” for picnics and where small children can play, but also for huge green spaces for sports, music, gatherings and active recreation.

*Map showing new spaces for urban agriculture in Sidi Moumen.*
*Map based from Google maps, modified by the author.*
The inhabitants of Sidi Moumen have transported themselves inside and around the area for decades but rarely outside of Sidi Moumen. Before the tram was installed in 2012, the only form of public transport was to take a large white taxi and change taxi several times before reaching for example the city center of Casablanca. A true innovation policy can be to transform Sidi Moumen into a car-free eco-friendly area, completely served by low-energy public transport as well as by bicycle. The Open City that we are hoping to achieve through catalyst effects will become attractive even for down town inhabitants in the future and the social gap

CONCEPTS TO SMART TRANSPORT

- Transform Sidi Moumen into a car-free eco-friendly area, completely served by low-energy public transport as well as by bicycle
- Donkey-cart-sharing and bike-sharing, machine-sharing, shared short-distance bus- and taxi-connections to improve the existing public transport network
could be bridged. With improved transport planning Sidi Moumen may in time become pedestrian/bike-friendly for the inhabitants and maybe in the future it could be the first car-free district of Casablanca. This vision is obviously divided into several stages and the municipality needs to be involved. One step could be that cars could be deterred from entering local microneighborhoods. Methods for discouraging the use of cars in general needs to be further investigated. The key conditions for enabling a realization of a vision like this are, for example, to engage the national legislation-makers. The municipality needs to be involved in discussions regarding tools like taxes, fees etc.

Some local examples to strive for in a car free society could be shared services and tools such as donkey-cart-sharing and bike-sharing, machine-sharing, and shared short-distance bus- and taxi-connections to improve the existing public transport network. Shared services are obviously based on trust which needs to be further explored in the Moroccan culture. But, through capillary transport-sharing up to the Tramway-line, all families could be able to reach the city as an alternative to the tram. Furthermore, all down-town citizens could reach Sidi Moumen. At the national level, a smart and low-energy transportation policy is needed.

“No city seems to have a department of people, pedestrians and public life - but I have seen lots of traffic departments with lots of statistics on cars in our cities.”

Jan Gehl, Melreese 2012
“Sidi Moumen suffers from four main problems: illiteracy, poverty, unemployment, and lack of infrastructure.”
(Kenza Al Idrissi, president of Sawaid in Sidi Moumen)

CIRCULAR ECONOMY PROJECTS TO STRENGTHEN THE COMMUNITY AND TO EMPOWER PEOPLE

We strongly believe that local and unique ways to handle and get profit from the garbage can be found in Sidi Moumen. With our proposal we want to raise the awareness and involve the inhabitants in the treatment of waste. After visiting Sidi Moumen there was one image that we couldn’t get out of our minds; the image of garbage everywhere and we believe that this is the most urgent need to deal with. This was also confirmed by the president of Sawaid and the families we interviewed. The garbage can be organized in a profitable way, which could lead to new local job opportunities and in the long run create a cleaner and healthier area. Changes in waste management to create a new treatment and management system will require involvement and encouragement from recycling companies and associations in the city.

Today, private companies on contract with the municipality of Casablanca are handling garbage. The garbage is supposed to be collected on the doorstep every two weeks but this is rarely the case according to the families we interviewed. This in turn leads to garbage being spread all over the area.

CIRCULAR ECONOMY PROJECTS

- Get the local inhabitants involved in cleaning their neighborhood.
- Create waste recycling posts all over Sidi Moumen
- Reutilization of garbage materials, such as plastic for example, could be used in a project about “Garbage Design”
- Create centers where students can get academic help and motivation, situated next to the schools or in new libraries and social centers. The centers should be managed by the educated local youth in Sidi Moumen, transforming them into role models for the younger citizens
- Each neighborhood should have one library and exchange/internet café to reduce illiteracy.
- Place a new city library in Sidi Moumen, attracting people from all over Casablanca to visit. This would be the ultimate sign from the local government to prove, that Sidi Moumen becomes the model - Open City of the future!
How can we get Sidi Moumen clean from garbage? The first step could be to get the local youth involved. It could be considered a win-win situation because Sidi Moumen would become clean while the young people could earn some money while making their neighborhood cleaner. The first step is to get the local inhabitants involved to clean their neighborhood. The second step is to organize a method of caring for the waste in the long run. We suggest waste recycling posts all over Sidi Moumen. The local youth could be employed to work at the waste recycling posts, where they collect the waste from the neighborhood, sort it, sell some of the collected material and give the organics to the animals. This is why the waste recycling posts have been placed near the stables and storages. The city of Casablanca will have to take care of the material that can’t be recycled. Unemployment is one of the main problems in the area. An organized recycling of the garbage will give the inhabitants profits, food to their animals and a clean and healthier area to be proud of.

Reutilization of garbage materials, such as plastic for example, could be used in a project about “Garbage Design”. Many large organizations protecting the environment have tried to find a solution to the problem of plastic bags, a huge issue which needs to be resolved in Morocco. Micaction is a good example of a local project was inspired in Morocco. Micaction is an entrepreneurial project fighting against plastic bags, while creating economic activity by generating income through recycling.
Another good example of garbage design is the participatory design laboratory installed by the LOCUS Foundation, an organization that is internationally engaged in urban renewal projects in Cairo’s Garbage City. Micaction and Cairo’s Garbage City is further explained in the best practice section.

In the long run, there is possibility of introducing another step in garbage recycling, the waste can become biogas that can be used as fuel, for example, for the buses. But in the short run, the first two steps have to be implemented.

Involving local waste management companies Sidi Moumen can become the Garbage-Design-City of Morocco. Also here there is a need to reach the national level of Morocco to improve the legislation of waste disposal and recycling.
The fact that traditional energy sources from fossil fuels such as coal, oil and natural gas, face a number of challenges is not something that requires further explanations in our thesis. The idea that we must move beyond the fossil fuel paradigm is globally recognized as necessary. Many African countries receive on average a very high amount of days per year with bright sunlight. To not make use of this condition by developing sustainable energy for the neighborhood would be ignorant and wasteful. However, legislation regarding solar power must be updated to make it a profited choice for public and individual lighting and cooling when building social housing in Sidi Moumen.

CONCEPT OF REACHING A SUSTAINABLE NEIGHBORHOOD

**CONCEPTS TO REACH A SUSTAINABLE NEIGHBORHOOD**

- Natural ventilation, use of daylight and sustainable materials adopting building management systems, passive solar design and solar hot water collectors, solar photovoltaic, geothermal cooling, rooftop energy recovery units, desiccant dehumidification and vertical axis wind turbines
- Adopt sustainable landscaping, green roofs, rainwater harvesting, permeable paving and the creation of lagoon systems and urban agriculture
- Wastewater treatments, rainwater harvesting and lagoon systems in parks and public spaces, but also in private communities
- Update the legislation on solar power to make it a profited choice for public and individual lighting and cooling when building social housing in Sidi Moumen

*Picture is courtesy of the Locus Foundation.*
When it comes to transportation, such as public buses, there are ways to find alternatives to the commonly used fuels that are bad for the environment. For example, waste could, when possible, be converted into biogas which is good for the climate and saves CO2 emissions. It would also create new job opportunities.

Wastewater treatment, rainwater harvesting and lagoon systems in parks, public spaces, and private communities, will reduce the water consumption drastically. Examples that show how the residents in the future could gain from these systems should be a first step by building companies or the city of Casa-blanca.
“People must be empowered to become “co-creators” and “co-designers”.

(Revedin, 2013)
Architects Filipe Balestra and Sara Göransson were invited by the NGO SPARC to work on a strategy to develop informal settlements into permanent urban districts. Instead of demolition and rebuilding, with the participation of a community-based organization of women called “Mahila Milan” which would lead the work with the community and make the work possible. The old temporary structures, not suitable for living are called kaccha. The aim of the project and strategy was to include the communities from the area, which was very necessary for the success of the project. The architects were asked to design a process of gradual improvement to existing dwellings instead of demolishing and rebuilding. During the process, to prioritize what was really necessary, one of the main strategies of the project was formed; the replacement of the old temporary houses was made of recycled materials. This was based on many reasons such as economy, environment and to respect the actual urban and social fabric of the neighborhood (Basulto, 2009).

A team of international architects, urban planners, landscape architects and graphic designers volunteered to set up the strategy which uses the existing urban formations as starting point for development. Organic patterns that have evolved during time are preserved and existing social networks are respected. Neighbors remain neighbors, local remains local (Basulto, 2009).

An interesting phenomenon in the area was that it is in principle completely free from garbage. Most of it was recycled and it creates a job opportunities for many inhabitants (Interview with Sara Göransson, 2014).

Developed in Bombay, India, the Incremental Housing Strategy is intended to allow districts to improve organically without relocating communities. The architects have developed three house typologies consisting of simple frames that allow for later expansion and they believe the strategy could be appropriate in any country with similar urban conditions (Basulto, 2009).

Images are courtesy of Filipe Balestra and Sara Göransson of Urbanouveau.
The project Urban Villas is an experiment where a Gemeinschaft has been founded. Together the Gemeinschaft has designed a mix between a traditional Swedish villa and a city apartment. The concept is simple; to incorporate the quality of a villa into the package of an apartment. The result is seven apartments, six is 140 sqm and one is 90 sqm. The main building facing the street has five apartments, one on each floor. On the other side of a shared courtyard there are two townhouses. The shared courtyard has a shared greenhouse, each family has a vegetable land, there is space to play for the children and there is also space for cars and bicycles. The building also contains a shared rooftop terrace (Lauri, 2009).

URBAN VILLAS IN Malmö, SWEDEN

The project Urban Villas in Västra hamnen, Malmö.

Each apartment comes with two spacious balconies with a thick layer of soil to allow for urban agriculture. The apartments have no bearing walls which allow the families to decide for themselves how many rooms and which size of the rooms they need (Lauri, 2009).

There is a tradeoff between the open and the closed and the private and shared spaces. Each resident can choose how far they want to participate in family life and neighborliness (Lauri, 2009).

All of the residents have been co-creators and co-designers in the process (Interview with the Freiman family, 2008).
HAMBURG PLANS TO BECOME A CAR-FREE CITY WITHIN 20 YEARS, GERMANY

Hamburg is currently working on a plan that would eliminate the need for cars within the next 15-20 years and make the city a greener, healthier and more pleasant place to live. The plan is to convert 40 percent of the city into car-free pedestrian zones. The city’s proposed Grünes Netz, or “Green Network” will link existing green spaces to converted roads, forming a green network of promenades, bike paths, parks, playgrounds, sports centers, cemeteries and gardens for all residents. The goal is that the population will be able to get from one side of town to the other, without having to be confronted with car traffic. In contrast to how other cities have handled similar visions is Hamburg working to stimulate alternative (Cameron, 2014 and Nuwer, 2014).

Hamburg’s motivations to make such a radical transformation are clearly many. There is the obvious willing of reducing green house gase emissions and over the past decades, the waterfront city’s sea levels have risen by 20 centimeters and the green spaces will also act as flood buffers. Hamburg also wants to increase the quality of life for its residents by providing them with more green spaces and generously recreational opportunities (Cameron, 2014 and Nuwer, 2014).

Hamburg Grüne Netz is part of a growing trend, especially in Europe, to create general bicycle network that not only covers town centers and ring roads, but also connects the suburbs. To ensure that the whole city will be involved, the team will work with one person from each district (Svedin, 2014). If Hamburg can do it, so can Sidi Moumen.
Fittja, in Sweden, was built during the 1960’s and is a typical example of a mass housing project (in Sweden called “the Million Program”) which had the ambitious goal to achieve affordable housing for everyone. Today, 50 years later, these mass housing areas are facing some challenges when it comes to reputation, segregation and renovation needs. The winning proposal of the competition Nordic Built Challenge was made by the Swedish architects Spridd and is a proposal on how to renovate a mass housing project. The motivation from the jury was that this was the bravest proposal, even though the winning architects are not suggesting anything new or anything innovative (Hallemar, 2013). We found many similarities to our approach in this Fittja project.

“We believe that by using the dimensions of our method, Sustainable Renovation, it will be possible to achieve financial, ecological and social success.”

(Fittja people’s palace, Spridd Architects)
MICACTION - REUTILISATION OF GARBAGE MATERIALS, MOROCCO

Many large organizations protecting the environment have tried to find a solution to the problem of plastic bags, a huge issue which needs to be resolved in the whole world. Micaction is a good example of a project that could inspire Moroccans. Micaction is an entrepreneurial project fighting against plastic bags, while creating economic activity generating income through recycling. Micaction aims to reuse plastic bags found in nature. The plastic bags are collected, treated and re-designed into beautiful decorative accessories that are being sold to the public (Micaction, 2014).

Mication has an environmental, economic and social impact. Micaction fight against pollution caused by plastic bags, creates employment knowing that the raw material requires 0 dhs (local currency) of investment, allows people in a precarious situation to provide income to improve their daily lives and aims to make the concept prevalent in all parts of the project and ensure the autonomy of its beneficiaries (Mication, 2014).
CAIRO’S GARBAGE CITY, EGYPT

One last, widely known example is the participatory design laboratory installed by the LOCUS Foundation, internationally engaged in urban renewal, in Cairo’s Garbage City. The local women built lamps from recycled metal, assisted by local and international experts and designers. This sustainably transformation now brings light to the formerly suffering urban space and is zero-energy-consuming because powered by solar energy. It claims solar energy as a visionary provider for public lighting in megacities. The self-designed lamps further give income by selling them to locals and tourists. In this way a whole new circular economy is created through the production-line installed inside the area, womens’ rights are strengthened and the individual as much as the political awareness about energy consumption has grown (Revedin, 2013).
“The new social houses are quite good, but sometimes I miss the slums. We used to meet outside, at the water source, or while spreading the cloth in the courtyard”

(Fatima, living in Sidi Moumen)
The research for this thesis has been focused on one main question – how can Sidi Moumen transform from terror slum to Open City and how can we propose an upgrading process that is culturally adapted?

To be able to find answers to our questions we choose the Radicant research and design method, which consists of interdisciplinary research of the place, culture of living in Morocco and the needs and aspirations of its inhabitants. The Radicant method and theory is based on collective empowerment, inclusivity, self-sufficiency and meeting the needs of the inhabitants. The method identifies the people as the true key urban players, and encourages them to become co-designers and co-creators in a participatory design process. The method resembles more a process than a method due to the open structure. The way to implement the various steps of the method is not predetermined, but adapted to the local conditions.

The research was mainly focused on the interdisciplinary urban mapping in Sidi Moumen, which included field studies, interviews, symposiums and literature review on the subject.

First of all, we have not reached our aim of Sidi Moumen transforming from terror slum to Open City. This is because we have reached phase two of the four in the Radicant research method. To reach phase four we would have needed more time in the area and, as Christopher Alexander says, we would have to live in the area to get to know the people and their culture. Our research would clearly have needed more time than the two days we spend on the site to be able to complete the second phase of the Radicant method. However, the final research work has led us to the following culturally accepted concepts;

- New housing concepts including a new housing typology with social spaces, and spaces for vehicles and animals
- Creation of public spaces
- Introducing circular economy projects
- Empowering people through introducing academic social responsibility on a local such as a governmental scale
- Improvement of microclimate through vegetation, urban agriculture and micro-farms etc.
We believe that our concepts are in the right direction to an urban renewal process of the existing structures of Sidi Moumen without necessarily making radical changes. A main focus for our proposal is that it is with and by the people, the citizens.

The final vision and ambition for the future Sidi Moumen – the Open City – is that the shared concepts, developed by the experts and the key urban players - the inhabitants, to become real and hopefully in time it will lead to a catalytic chain-reaction because of the power of the inhabitants.

*How can we invent or adapt a new housing typology that fits into the “cities without slums” program without resembling the characteristics of a mass housing area and which at the same time is culturally adapted for the residents of Sidi Moumen?*

The new housing typology is a mix between the traditional Moroccan housing and the individual housing which is popular due to the multifunctional ground floor and is proven to be culturally adapted. However, the apartments must be made larger, 60 sqm is the actual need and there needs to be space for courtyards, animals, vehicles and workshops. Natural ventilation, use of daylight and sustainable materials adopting building management systems, passive solar design and solar hot water collectors etc. are inventions that are suitable for the new housing typology and will make them more sustainable than they are today. The new houses must be located near the original location of the demolished informal settlements. The houses will be collectively build and designed and therefore each Gemeinschaft will have a unique architecture and will not resemble a mass housing area.

A major concern is that the building companies might not be interested in the new housing typology due to an increase in costs and a decrease in profit. In many countries, as well as in Morocco, social housing is major industry making a huge profit for the building companies. Today the profit is about 20 percent in Morocco. The new housing typology will not generate a 20 percent profit but will make a name in sustainability for the building companies.

As off today, the individual plots provided by the municipality are about 60 sqm and don’t allow for a shared courtyard. The municipality is responsible for the land
allocation and they need to provide larger plots to allow for Gemeinschafts to build collectively. And the building companies must be encouraged to take on projects involving Gemeinschafts. Gemeinschafts are proven to be culturally accepted in Morocco but the people themselves must form the Gemeinschafts and there are multiple challenges to be dealt with. The organization of Gemeinschafts to maintain the shared courtyards could fail, presumably due to new residents moving in that were not part of the original Gemeinschaft or due to fallouts between neighbors. The courtyards, roof top terraces and balconies risk becoming transformed into extra living spaces.

*How can we anticipate a process of deliberation and participation between the various stakeholders in the revitalization process?*

There are several threats that can cause the project to fail. The success of the project depends on the mutual cooperation in a process between the government/municipality and the building companies that represent the Gesellschaft and the inhabitants representing the Gemeinschaft. The Government needs to review the “Cities without slums” program in order to open up for our concept of housing typology. Another concern is that there is no culture of civic participation in Morocco. Our choice of process and method requires a democratic process, which can be difficult to implement in a country with a top-down planning system and lack of democracy. However, we believe that the community in Sidi Moumen is ready to take part in the construction of their community. When interviewing the locals in Sidi Moumen there was a strong wish to be made a main actor in the Cities without slums program.

The next step for the research is to plan for and to carry out a participatory design laboratory in Sidi Moumen. The laboratory could give the community the best possible advice through specialists in infrastructure, recycling, landscaping etc. However, it is important to have an open work environment involving the inhabitants and local specialists.

*Secondly, how can we design public spaces for recreation, stables and paddocks for animals, urban agriculture, markets and spaces for garbage inside the social housing areas?*
There is a huge risk that the municipality refuses to invest in public spaces such as social gardens, squares, market places or in public libraries, schools or nurseries as was the case in New Gourna, Luxor. The municipality and the building companies must collectively take on a responsibility of creating and maintaining the public spaces.

The organization of garbage recycling and green energies could fail. First of all there needs to be someone to set up the business of taking care of the garbage and selling the material. Maybe nobody is interested in making such an investment or to care for the infrastructure of such? In Bombay, India, all the garbage is taken care of by the inhabitants themselves. The garbage is not looked upon as liability, but as an asset to make profit from and hopefully that will be the case also in Sidi Moumen. Sidi Moumen is thriving with young entrepreneurs so there are huge possibilities.

Land must be reserved for livestock and there is a risk that no one takes the responsibility for doing so. There is more profit in turning the land into housing. But if land is allocated; there is still a risk that the manure from the animals might not be handled properly. Since Sidi Moumen is thriving with young entrepreneurs there are huge possibilities.

The main conclusions being drawn from this work is the importance of the presence of the inhabitants in the planning process. Without the presence of the inhabitants, the “Cities without slums program” will never be a success and new mass housing areas as well as new slum areas will continue to form.
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APPENDIX 1

Interview with Kenza Al Idrissi, Head of the “Sawaid” association, supported by the INDH
(National Initiative of Human Developmen.) 2013-11-19

Q. For how long have you been working as the INDH president for Sidi Moumen?
A. I’ve been working in Sidi Moumen for about 20 years.

Q. When did you first visit Sidi Moumen?
A. I first came to Sidi Moumen in 1990.

Q. Do you have a personal attachment to Sidi Moument, or why did you start working with this area?
A. There were no schools, no youth centers, no social equipment: For instance, the one and only was located in Hay Ennassr and children were going there from all over Sidi Moumen. We also noticed the huge lack of infrastructure and equipment in the area, especially public baths which are essential in the local Moroccan community. At that time, women had to go to Sidi Bernoussi to find a public bath. The association’s first step was the decision to build the first Hammam in the neighborhood. The hammam was built in two private proprieties: one given by Mr Berrada, a local administrative responsible, and the second bought by the association Sawaid (Kenza’s association). Sawaid was founded by Kenza’s mother, who is now 80 years old, in order to improve the situation for women and children in Sidi Moumen. The association is working to fight poverty, starting with women and youth. The association’s main partner is the INDH (the National Initiative for Human Development). The local of the association is half financed by the INDH (550000 DHs+230 m²). The INDH is also financing most of the projects material: sewing machines, gastronomy materials, beauty salons furnishing etc.

Q. What are the main problems in Sidi Moumen?
A. In my opinion, Sidi Moumen suffers from 4 main problems: analphabetism, poverty, unemployment and lack of infrastructure. The lack of infrastructure is most noticeable in the last 20 years when Sidi Moumen knew a huge population growth. We have just one hospital serving the whole area of Sidi Moumen and Elberoussi.

Q. What is the actual need in Sidi Moumen?
A. Green spaces, parkas and hospitals. Amusement facilities and public parks, the nearest park is in Ain sbaa which is located very far from residential areas of Sidi Moumen.

Q. What would be the first thing to change in Sidi Moumen?
A. Trash collection and treatment. The state assigned this mission to a private company, but due to some budget problems and the bigness of the metropole, the collect is made once every two weeks from one garbage post in each neighborhood. The garbage is thrown everywhere, due to population’s lack of knowledge, the average Moroccan mentality and the governance. Some people look for organic leftovers and others steal from electric stuff in the garbage in order to sell them, and leave the scene messier than before. Sidi Moumen is a big area divided by two communes which makes it hard for responsible to act in. The budget allowed is about 600 million DHs, which is the same amount given to much smaller communes and with less issues to handle. The minimum amount that should be allocated to this area is 900 million DHs.
Q. What are the potentials for Sidi Moumen?
A. The positive points in Sidi Moumen: the quick change of mentality compared to the last years, opening up on innovative solutions, closeness to the industrial area providing jobs to the inhabitants. A major point to improve in the area, is to attract more factories, and organizing the working system.

Q. Our project is about mass housing. What type of mass housing is there in Sidi Moumen?
A. There are 3 types of Social projects in Sidi Moumen:
1. Four stories massive buildings.
2. The government gives land to the families, so they can build their own houses, by taking micro-credits from the bank or from some other institutions.
3. The government gives land to the families, but instead of them building their own houses, they search for a third part, that build the houses in exchange of a store or some other part of the house, as they agree on. This solution is the most privileged by the inhabitants.

Q. We have noticed that some families don’t want to move to a new apartment in a mass housing area. Why is that?
A. What we have noticed is that people living in the slums go from a 100 or 150 m² informal housing facility where they socially interact with their neighbors, to a 48 to 80m² closed apartment. For example most of the last built housing area are made of four to five stores buildings, constituted of 48m² flats, for 1200 Dhs/month with a benefice percentage of 5.75%. The flats are much smaller and more expensive for the families. Another big issue is the culture of sharing. In the Moroccan culture, people are used to live in their own houses (Entrance and living spaces, like in the old medinas), with public space sharing in special occasions. Nowadays, they’re obliged in this new modern system of apartments and flats. Which creates some huge issues concerning the semi-public spaces (lobbies, stairs, elevators, building’s gardens etc). There are no facilities for people with special needs. The apartments are not made for them to live in, the buildings are mostly with no elevators. Most of the habitants in Sidi Moumen are either working in the Industrial Area, or have informal jobs (Vegetables and Fruits commerce, selling of clothes) Those jobs necessitate carts, mopeds, bicycles or animals (Donkeys, horses.) The people living in the new social projects can’t stock their jobs materiel anywhere. So they are obliged to take them to their old living areas, and pay a person to keep an eye on their animals. The new spaces are not made to encourage the social interactions, especially during some special occasions: weddings, Religious events, funerals, Gatherings, Ambulances to get in.

Q. In your opinion, what would be the ideal apartment in a mass housing area?
A. A 60 m² land could be the average superficy that the government should give to the people, this way we’ll have 2 apartments in 2 different stories for two different families, plus 2 shops in the ground floor that could be taken advantage of.

Q. Other than the problem with the mass housing areas and the waste, what do you think our project should focus on?
A. The mobility is another issue you should be looking into. To commute between Sidi Moumen and the surrounding areas of Casablanca, the Big Taxis are common. The tramway isn’t going far in Sidi Moumen (The only stop is located in Anassy).
Q. What do you like about life in Sidi Moumen?
A. Life here is not really expansive, unlike the center of Casablanca, however life here is difficult, we need lots of things to have a better life.

Q. What things would you like to be changed?
A. We would like to have public services, such as public spaces, cleaning companies, we want to have a better reputation of our neighborhood, I don’t want to feel ashamed about living on Sidi Moumen.

Q. Where do you work?
Fatima: I’m a dressmaker, I learnt weaving in an association, now I sew blankets, bedcovers etc and sell them to ladies in the neighborhood, my husband works from time to time in factories of Sidi Bernoussi and Ain Sbaa.

Malika: I don’t work, I have three sons working on different jobs, they help me and their father, who sells vegetables as a street pedlar.

Safae: I work as a cleaning lady, and I prepare bridge rolls and other stuff and sell them to women in the surroundings.

Abdeljalil: I work in a factory in Sidi Bernoussi.

Q. What does your children do in their free time?
A. There is no social equipments, no entertainment places, no green spaces where our children can play, if we want to go out with our children in the weekend, we have to go all the way to Ain Sbaa, which is far from Sidi Moumen. Our children just go out from the house, because, either in social houses or slums there isn’t enough space for them in the house where they can play, so, boys go outside to play football on the street, for girls they make with small space in front of the house or stay inside, but there is NO parks where we can take our children, sometimes, when we want to stay in a green space near to Sidi Moumen, we go to the highway and have a seat in the space between coming and going cars.

Q. How do you find the new social houses?
Fatima: they are quite good, but sometimes I miss the slums, we used to meet outside at the water source, or while spreading the cloth in the courtyard
Malika: we are waiting for our turn, but I really want them to give us a land in Sidi Moumen where we can build our own houses with three floors, I’m used to have my sons and their children next to me, and I’d like them to stay with me
Abdeljalil: I put all the money I earn to pay the credit bank, and do some other small works so I can have money to live with, it is small but it is mine this is a good thing, and I’m lucky because they gave me a house in Sidi Moumen and didn’t send me to a further area.

Q. Do you share any spaces or services with other inhabitant?
A. We have no spaces to share, but if there were it would be a very good thing.

Q. If you had a common space, what would you use it for?
A. The feast of sacrifice, wedding … For example; this would be great!
Q. How do you get to Sidi Moumen?
A. Tramway, white taxis (big taxis for 6 people) red taxis (small one for three), the bus. It depends on where we are going.

Q. How does the tram affect your daily life?
A. When the tramway arrived in Sidi Moumen, I just started to feel like a real citizen of Casablanca, it creates lot of traffic problems in Casablanca, but for us, it is a very good way to go to the other corners of Casablanca. The only problem is that the tramway link the whole Sidi Moumen to Casablanca on a one and only point (Anassy). We need it to go deeper in the neighborhood, and add a lot of stops so that all the Sidi Moumen inhabitants can profit from it.

Q. Do you have all the service you need in Sidi Moumen?
A. Very important things aren’t here: 1- garbage cleaners 2- public parks 3- youth houses where they can learn theatre, music just like the center citizens. Other services such as hammam, public equipment, police etc are all here. Maybe more publics schools.

Q. Where do you throw the garbage? Do you sort the garbage? Are there any recycling?
A. We throw the garbage near to the building, in a public trash can, we take bread from it that’s all, concerning the recycling, (people looking for interesting things in the garbage so they can sell them back) give what they find to companies of recycling the cardboards or copper that they extract from electricity cords; they make good money with is but transform the neighborhood to a landfill, a dump …