

LANDSCAPE IN ARID CLIMATE

LANDSCAPING THE RAHBAS WITHIN THE FRAME OF TOUGGOURTIAN COMMUNITIES

The focus of my thesis is TOUGGOURT, a famous and large oasis of 146,108 inhabitants located in the valley of Oued Righ, Algeria.

Touggourt has consolidated many ethnic, clans, and invasion of ancient civilizations from the 4th Century until French colonization, this variety of periods and people produced a unique traditional town structure. In this sense, my entire work concentrates on designing and landscaping semi-public and semi-private open spaces called the Rahbas, which reflect an extremely local identity as a kind of urban dialogue of cohesion between the community.

Today, Touggourt is facing a series of improvisational actions from both community and the local government for protecting the landscape and highlighting the quality of outdoor spaces.

The RAHBA, a semi-private and semi-public open space situated in a typical traditional urban tissue, is characterized by traditional individual houses, used for playing, gathering, parking and holding wedding ceremonies.

The first step for positive change might be to find answers to the issues raised: no public awareness about its values, the lack of community cohesion, the absence of the local government's collaboration to help these communities to be engaged in the design process.

In order to bring about any change the community space of a RAHBA is ideal, because it is central to their lives and many things can be achieved with little cost. When the next generation is born in a planned, managed Rahbas; where they play in their parent's presence, on a clean spot, they will maintain it within events organized by the community. These actions are going to strengthen community coherence and foster the greening and planting culture against the climate conditions, as well as the maintenance and protection of the environment. Thus, in my thesis I will attempt to address this question by: building up and enhancing the culture of greening within Touggourtian communities, involving them in the production of the environment aiming to accent the landscape character.

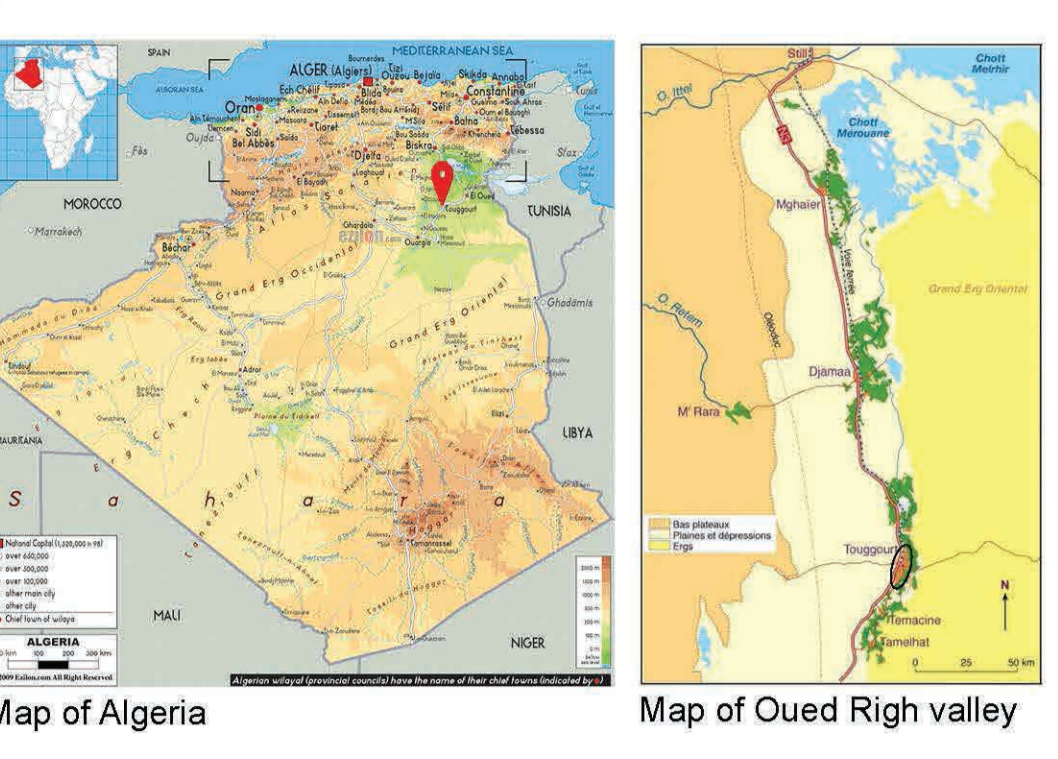
Eventually, the results of this work focus into two points, the zoning and the toolkit; the zoning draws the characters of the zones and determines the main activities of each area. The toolkit is the synthesis of participation actions and the analysis of case studies. It is a conceptual asset which combined different type of tools, and the stone on which the design phase should be based on.

In order to see how the zoning and toolkit results can be interpreted, master plans of three different Rahbas are drawn based on the thesis results and the characteristics of each site.

THE TOWN OF TOUGGOURT

Touggourt is the biggest oasis of Oued Righ region located in the north-east of Saharan Algeria, lying on the western side of extensive oasis supported by palm plantation and other vegetation.

The canal of Oued Righ was dug in 1925 by the locals, for a length of 150 km from El Goug to Chott Merouan as a natural outlet, a width of 10 m, a depth of 4 m and slope of 1% toward the lowest point in Chott Merouan. Its role to drain excess irrigation water at the palm groves, and to evacuate of the waste water as well.



THE RAHBA

Scientific definition:
Rahbas are semi-public and semi-private open spaces located within a block in Touggourt, situated in a very traditional urban tissue with special types of buildings (traditional, individual houses; one house for one family). Playing, sitting, gathering, parking, and wedding ceremonies are the basic functions of the rahba. Basically, they lack basic infrastructure such as a formal asphalt road and sidewalk.

The three design sites:



The design aims to address fundamental issues of the thesis in a practical way, moreover, it is an embodiment of the theoretical and analytical part of the participatory action and case studies. Among 30 rahbas, three different sites are selected for the design process.

METHODOLOGY/ PARTICIPATORY ACTION

Introduction:
It was organized by the candidate as a part of the thesis methodology. 20 children aged between (8-13) of e-Naser (02) neighborhood gathered on 3rd of January at 9 am in the e-Naser (01) elementary school.

Aims:
It aimed to raise the role and the importance of the Rahba in Touggourtian communities, and to extract ideas and principles to develop a toolkit for designing the rahbas.

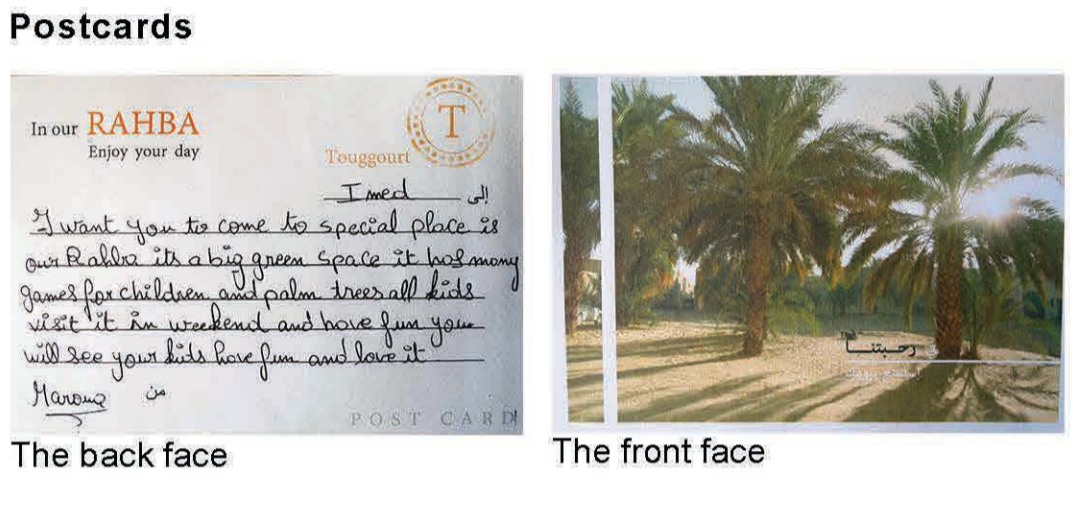
Lessons learnt:
Children were so intelligent and motivated. In addition, the rahba design should be based on two main functions: playground, and reading area. moreover, it should be totally vegetated because of the climate.



Methods



METHODOLOGY/ POSTCARDS AND CASE STUDY ANALYSIS



This method aims to imagine the new design scheme of the rahba and to help determining the main functions of it. More than 20 empty postcards were handed to different types of people in Touggourt. The task was to fill the card in order to send it to a friend inviting him/her to visit the rahba. In this way, each one had to write sentences in which he/she describes the new look of the rahba.

First Case Study: cultural park for children in Cairo, Egypt 1990



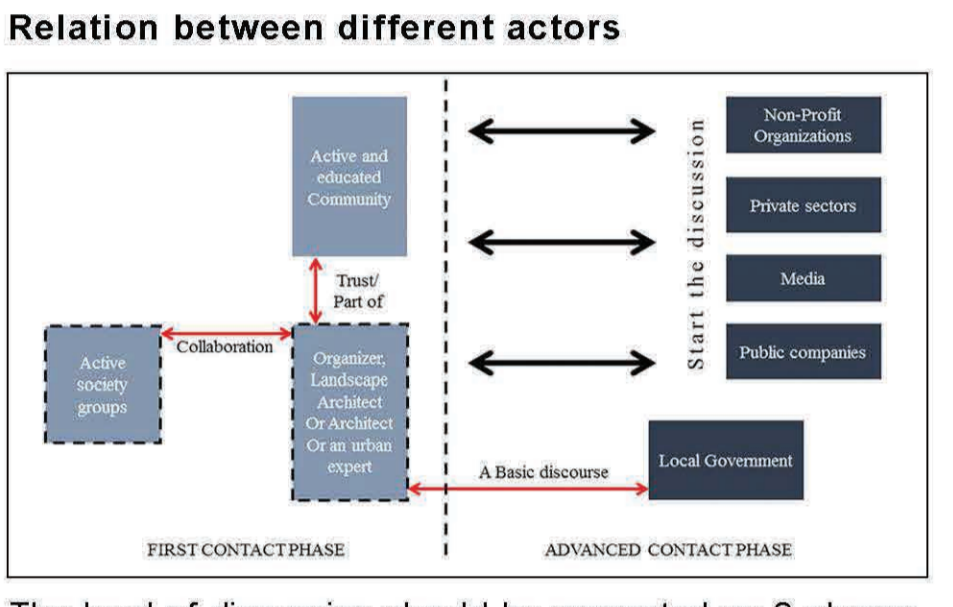
The Park located in Sayyida Zeinab, Cairo, Egypt, officially opened in 1990. It realized to serve as a national center for children's culture. The significant of the project is the evolution of the design process and interaction with the local community in the production of the environment. It was well integrated with the region architecture and landscape.

Second Case Study: Actors of urban change



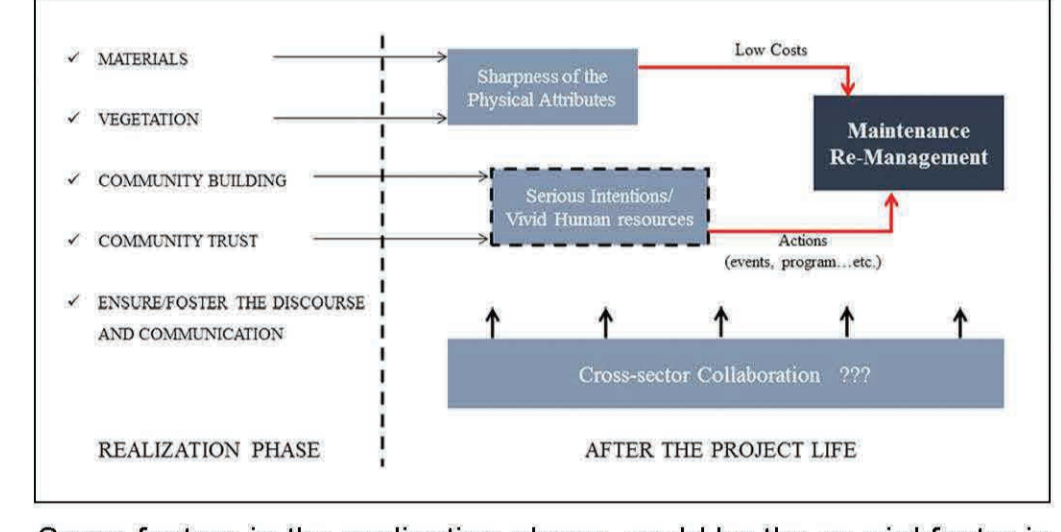
Cross-sector collaboration is an innovative approach conducted through this program, itreach for ensuring the discussion and collaboration between different stakeholders such as NGOs, communities, government representatives. All together to develop inclusive and sustainable cities with a high quality of life.

GENERAL SYNTHESIS



The level of discussion should be separated on 2 phases. The first phase is when main actors could be contacted: the organizer and the community (believers in change). The second phase should be started at the level to bring other actors to a common understanding of the situation.

Life after the project



Some factors in the realization phase could be the crucial factor in keeping the project sharpen and sustained for a long term with low costs of maintenance. Once we ensure the communication and trustfulness within members of the society, we set an enduring mindset and self-initiated actions which will maintain and re-manage the rahba afterward.

TOOLKIT AND DETAILS

FURNITURE

- PERMANENTLY IMMOVABLE OBJECTS
- BUILT SITTING AREA
- STORAGE BOX
- PLAYGROUND EQUIPMENT
- PERMANENTLY MOVABLE OBJECTS
- SITTING BENCH
- TRADITIONAL RUG AND REED MAT
- WOODEN STACKABLE STOOL CHAIR

GUIDING IDEOLOGY

- El-Dokana: is a traditional outside seating structure
- e-Dokana
- e-Sondouk: is a traditional object of keeping and storing stuffs, clothes for a long time. Usually made up by wood, or leather with metal on structure
- Standard equipment made up resistant wood and rough plastic
- Inspired from the traditional stool chairs. The form is defined by scaling its size and dimension
- Temporary mobilized object depends on the need. Made of resistant wood
- All objects will be stored in the box and used in covering the ground or the sitting structure
- Local man-made furniture (the stool chair) movable and freely used for any sort of functions: seating, lying, and playing

THE OBJECT/ THE ITEM

- Type 01
- Type 02
- Type 01: Storage outdoor box with sitting purpose
- Type 02: Storing within the sitting structure
- wooden stool chair

MATERIALS

PAVEMENT

- STABILIZED decomposed SAND: highly durable-weather resistant-permeable and reduces the dust
- LOACL PAVEMENT: low cost-locally available-simply constructed in place-very low labor force-durable material-possible mosaicing the pattern

OTHERS

- WOOD: Casuarina wood, Cedrus deodara wood
- THE RED BRICK: the most common construction material

VEGETATION

TREE

- Phoenix dactylifera
- Phoenix washingtonia
- Ficus microcarpa
- Olea europaea

SHRUB

- Nerium oleander
- Hibiscus (flowering plant)
- Pittosporum tobira

GRASS

- Riggr grass

PARKING

PLANNED BESIDE THE HOUSE _ THE SEMI-PRIVATE ZONE

The building

Garage entrance

PLANNED NEAR TO THE FREE ZONE _ THE PUBLIC ZONE

the free zone

WATER

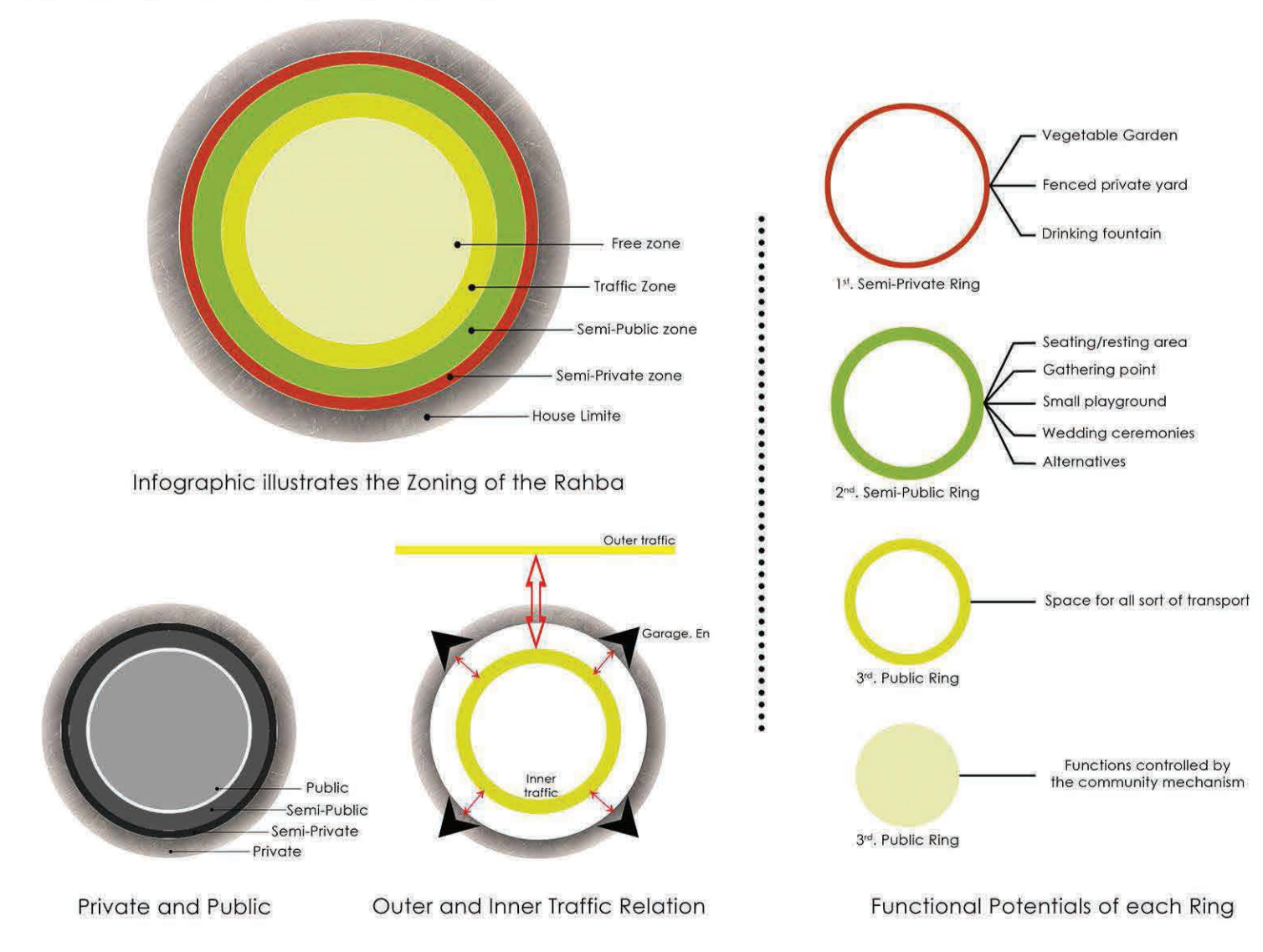
IRRIGATION WATER

LABOR, COSTS, ENERGY, COMMUNITY

DRINKING WATER

ENERGY, ACTS OF CHARITY, COMMUNITY, WATER

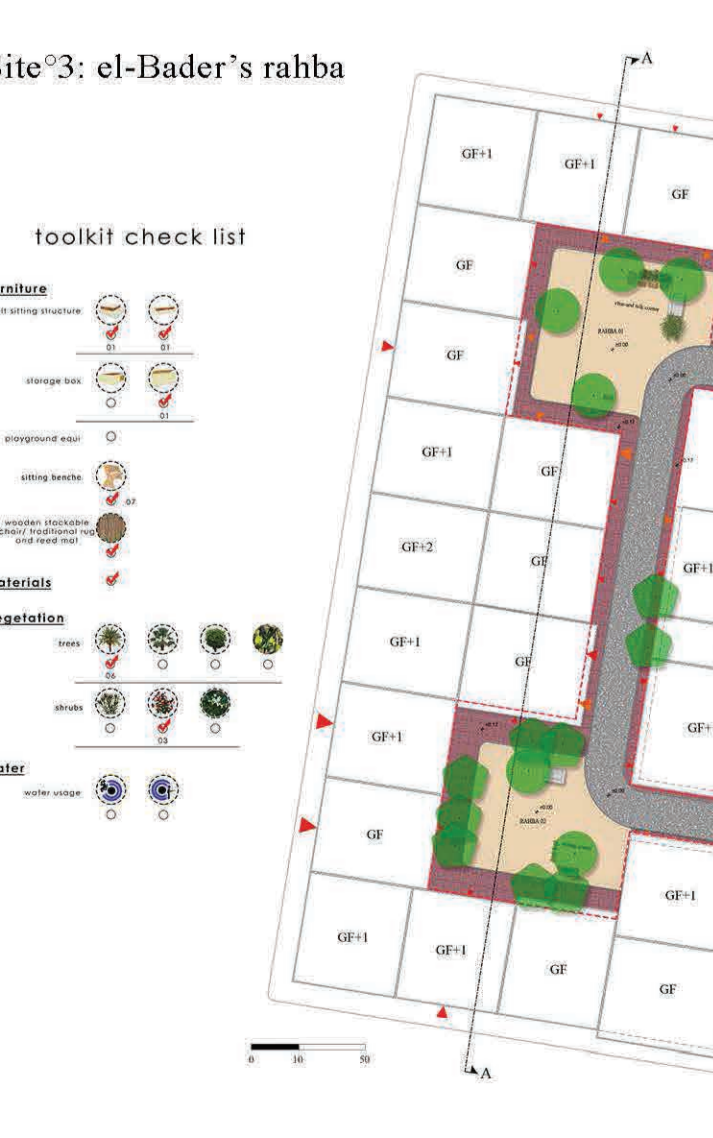
ZONING AND FUNCTIONS



OPEN SPACE DESIGN PLANS



SECTIONS



LOGO

RAHBA
A NEW VISION OF SUCCESS