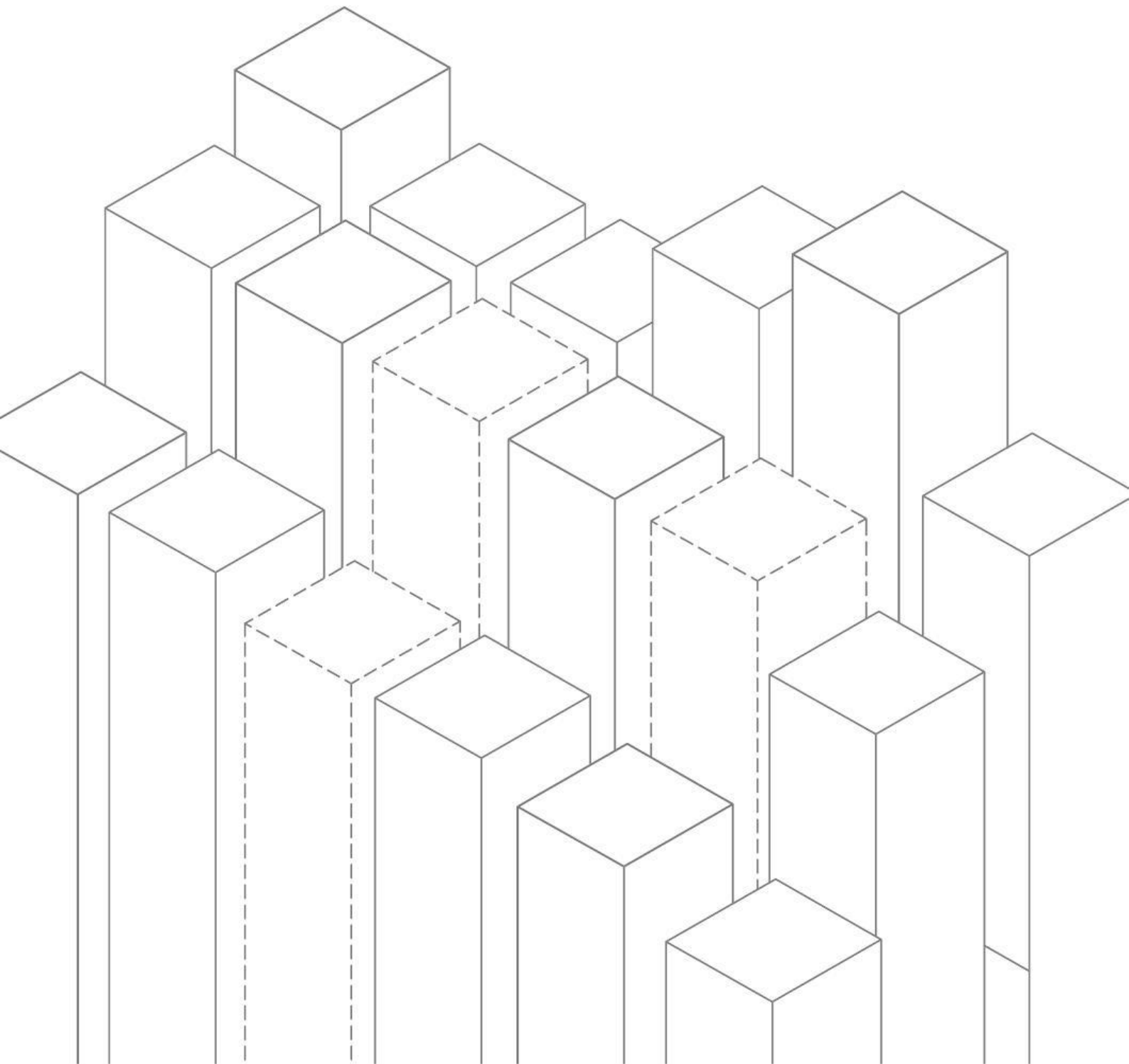


MARWAH GARIB  
**PORTFOLIO**  
UNDERGRADUATE WORK  
2011- 2015



# M A R W A H G A R I B

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Mobile +971503190531  
e-mail marwah.garib@hotmail.com

---

## education

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Bachelor Project  
**University of Stuttgart**, Faculty of Architecture and Urban Planning, Urban Design Institute

Bachelor of Architecture  
Faculty of Architecture and Urban Planning,  
**German University in Cairo**. (Cumulative GPA: 1.55, German system; Very Good with Honors).

IGCSE; AS & A Level; International Community School (Abu Dhabi)

## Work Experience + workshops

---

Urban Planner at **KEO International Consultants**

*january 2016- current*

Intern at **KEO International Consultants**

*September- October 2015*

Intern at **Shehayeb CONSULTANTS**

*Summer 2015*

Intern at **OTAK International**

*Summer 2013*

Intern at **WS ATKINS** Architecture Department, Abu Dhabi Office

*Summer 2012*

**Learn-Move-Play Ground Summer School** for creating inspiring Playgrounds in Cairo's Public Schools (Organized by the German University in Cairo Architecture Department ,The Technical University in Berlin and the German Academic Exchange Program (DAAD)).

*22 September- 3 October 2012*

## personal information

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Date of Birth 04.10.1992  
Nationality USA

## computer skills:

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AutoCAD   
3Ds Max + V ray   
Sketchup   
Adobe Creative Suite   
Grasshopper + Rhino   
Microsoft Office 

## + skills:

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Hand drafting, Sketching, Oil Painting, Pastel Coloring, model making.

## language skills:

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Arabic: Native  
English: Fluent  
German: Beginner

## extra-curricular activities

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German University in Cairo Model United Nations: Crisis Coordinator at Security Council 2014; Delegate at Security Council 2013; Human Rights Council 2012;

Founder at German University in Cairo Architecture Association (GUCAA)

Delegate at Council of Egyptian Affairs at Cairo International Model of the Arab League 2012 in the American University in Cairo (CIMAL'12)

Vice President of International Community School Student Council 2010



## contents

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**Stuttgart Stöckach: Sustainable  
Redevelopment of the Parkway  
District | Bachelor Project | Spring  
2014**

6



**Manial Waterfront Urban Redevelopment | Central Business District | Science Center | Urban Design | Spring 2014**

18



**Children's Museum for Egyptian  
Museum of Antiquities | Design  
Project | Spring 2011**

26



**Young Cairo: Urban Renewal by  
Reusing Urban Waste | Urban  
Intervention | Fall 2014**

32



**Para-Modular Expo | Parametric  
Design | Spring 2013**

44



**Urban Contour | Visual Design  
| Fall 2011**

48



**Learn-Move-Play Ground | Design-  
Build Workshop | Fall 2012**

52

# STUTTGART STÖCKACH

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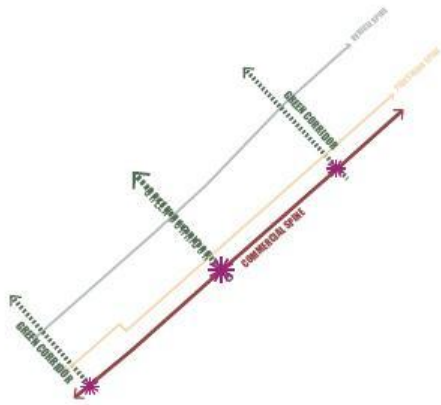
Bachelor Project | Spring 2014  
University of Stuttgart

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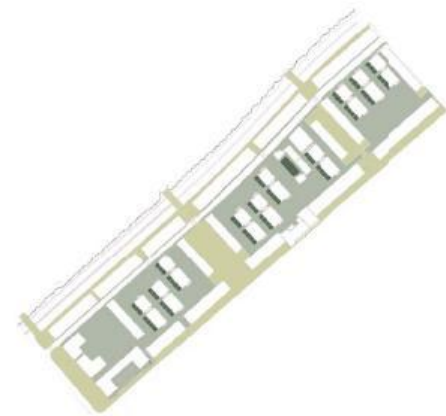
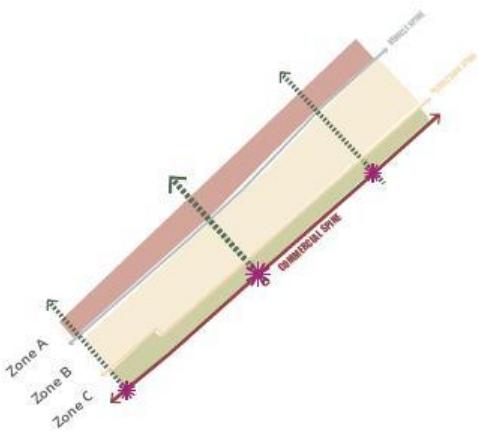
The district of Stöckach in western Stuttgart, Germany is a parkway district that is currently facing severe environmental problems such as noise pollution and poor air quality as well as inefficient and energy-consuming building structures. The site has a privileged location next to a spacious inner-city parkland (Schlossgarten). There are currently two bridges crossing over the highway (Cannstatter Straße) connecting the site with the park, and two more are proposed. All connections are wide bridges with vegetation to make the crossing a more pleasant experience. The connections are extended into the site with the aim of creating green fingers into the city fabric. The site is divided into three zones: Zone A, which is along the highway, has mainly offices acting as noise barrier; Zone C, which is along Neckarstraße, buildings in this zone would remain with mixed use functions; and Zone B, which is sandwiched between the two previous zones, has mainly residential units. Also, the existing school in Stöckach Square, which lies in Zone C, is proposed to have an extension in Zone B which includes a sports hall and a playground area .



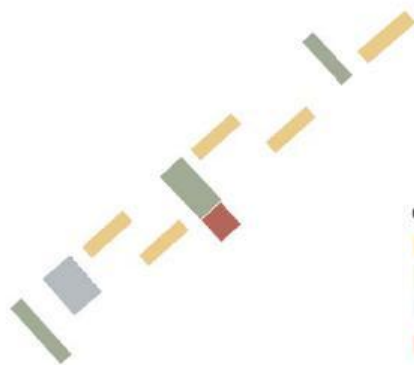




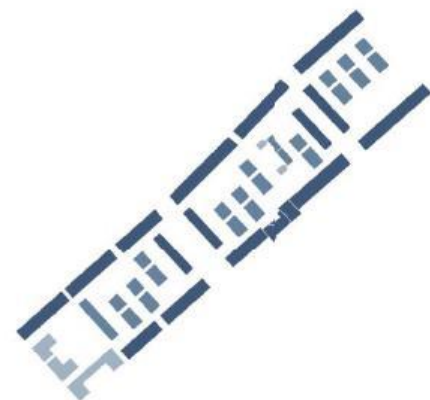
- Land Use**
- Housing
  - Offices
  - Mixed Use
  - Hotel
  - Educational
  - Governmental



- Privacy**
- Private Gardens
  - Semi-public
  - Public

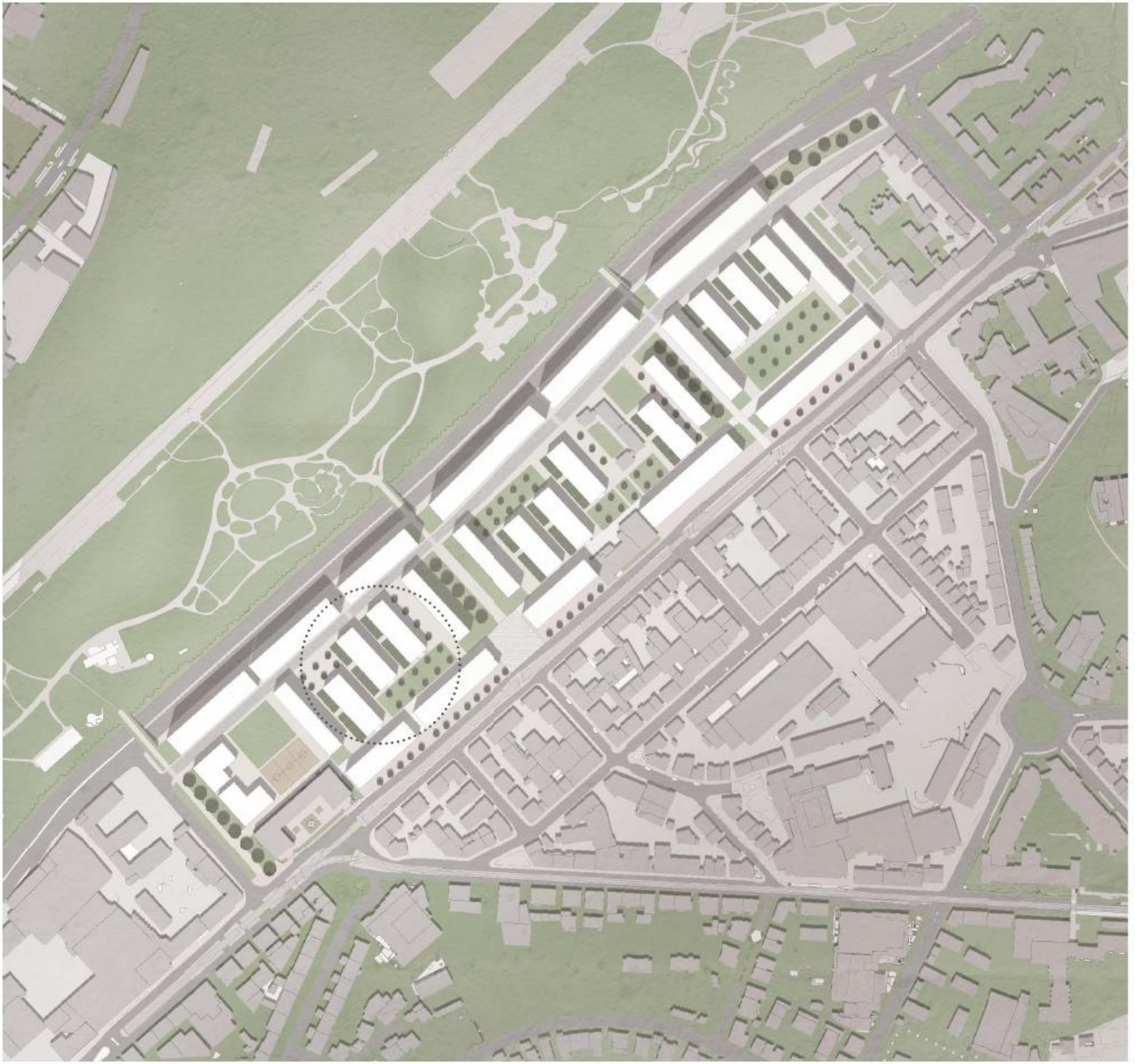


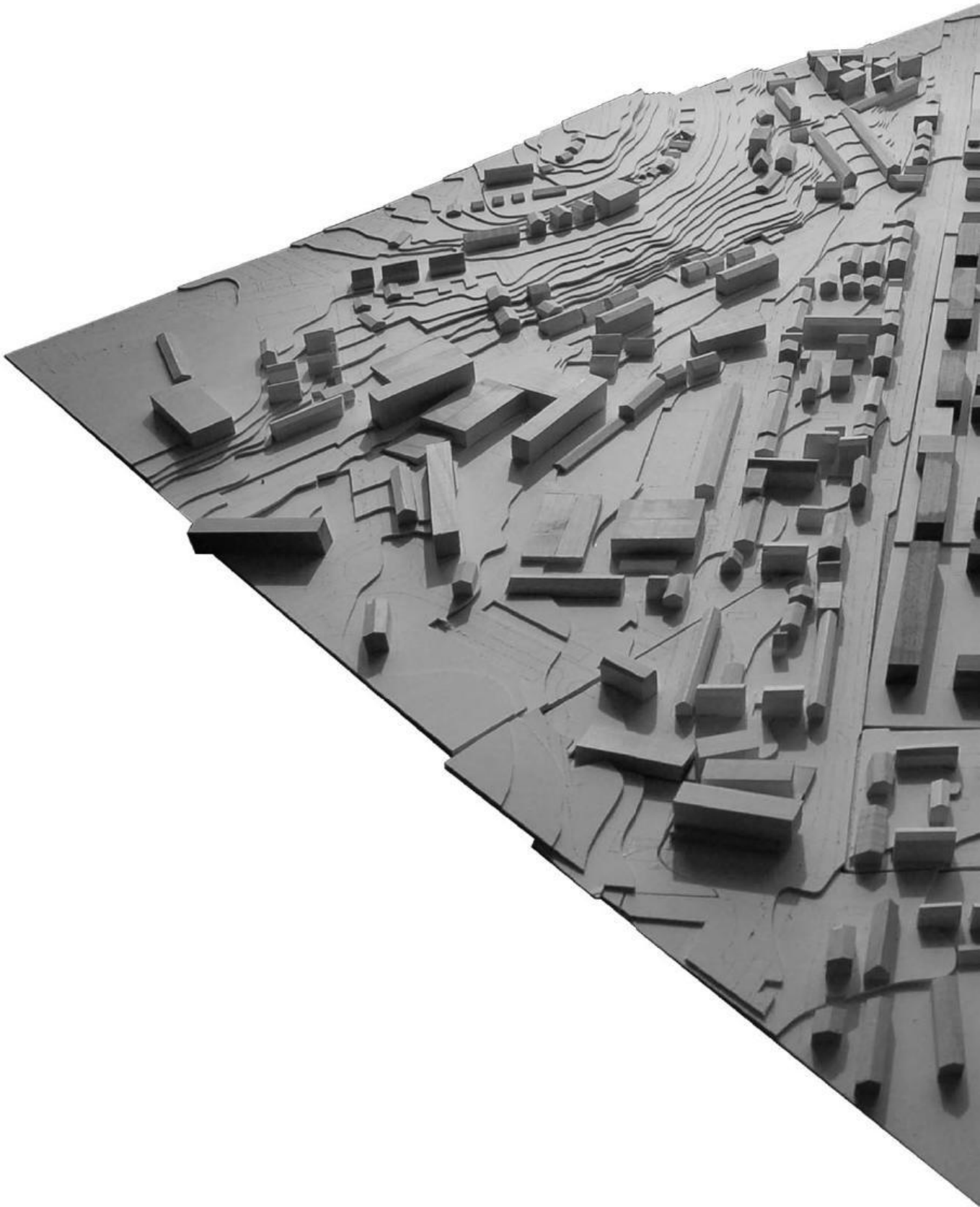
- Open Spaces**
- Pockets
  - Green Corridors
  - Educational Space
  - Main Square

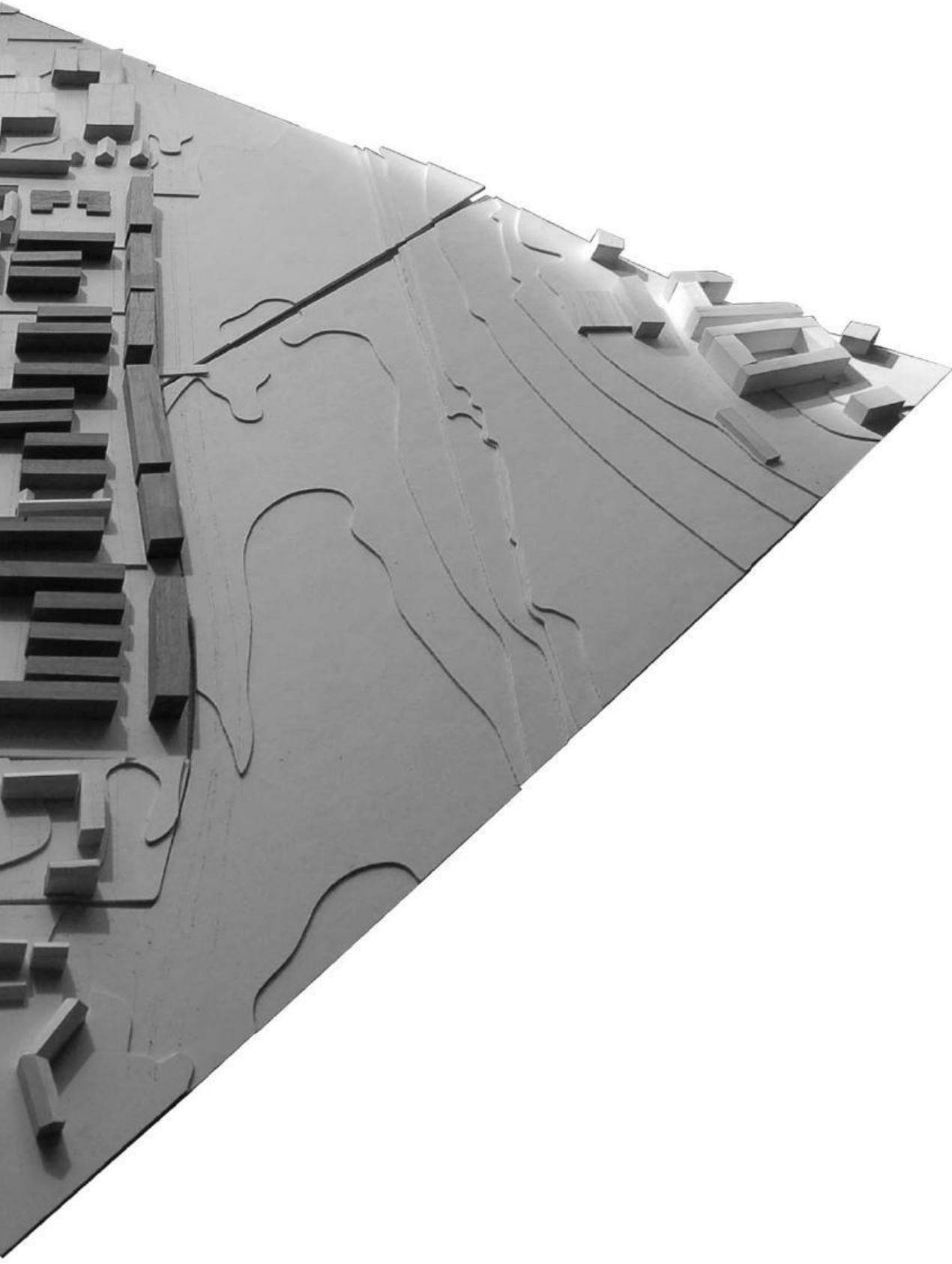


- Building Heights**
- 5-6 Floors
  - 4-3 Floors
  - 1-2 Floors

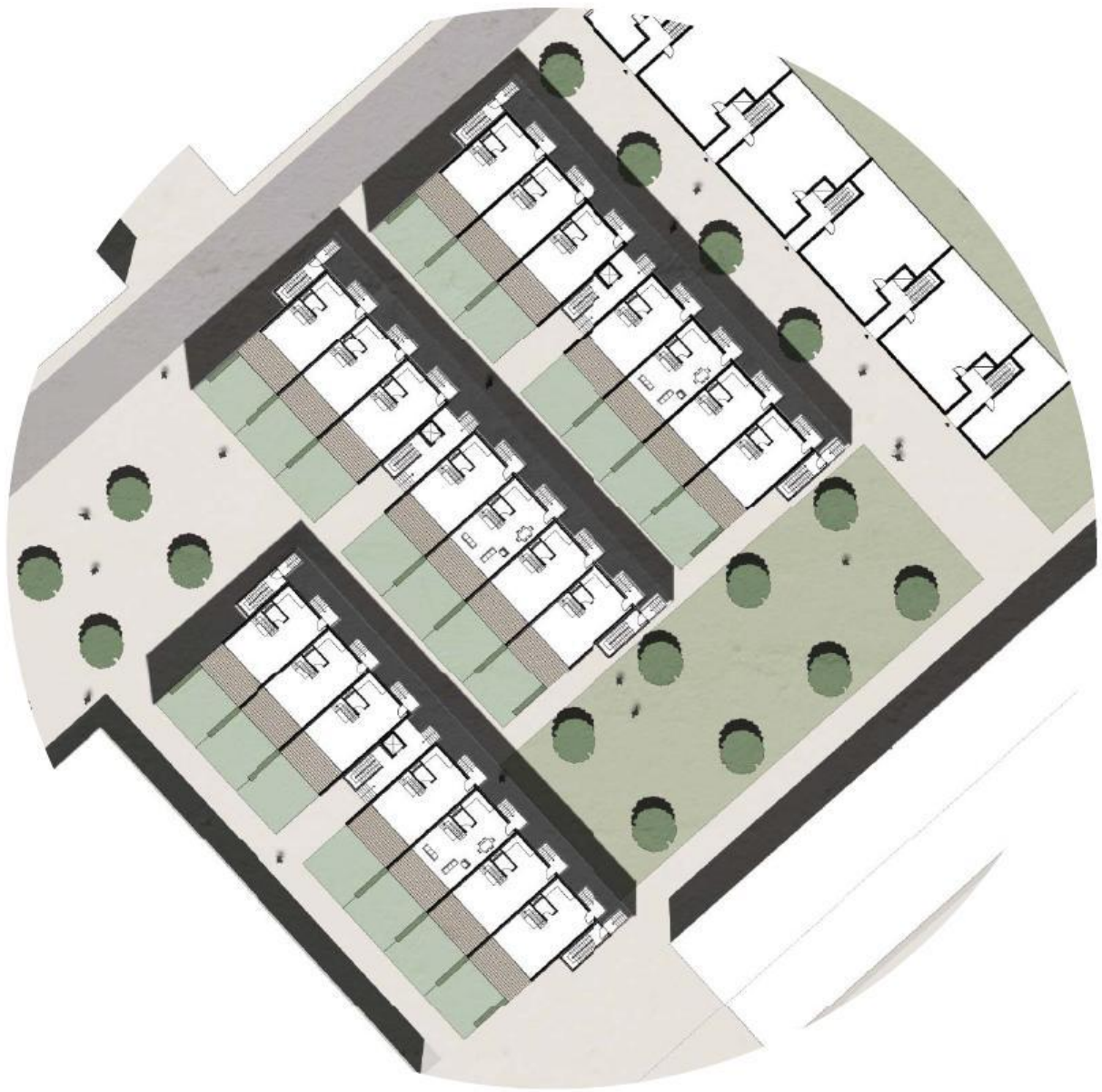


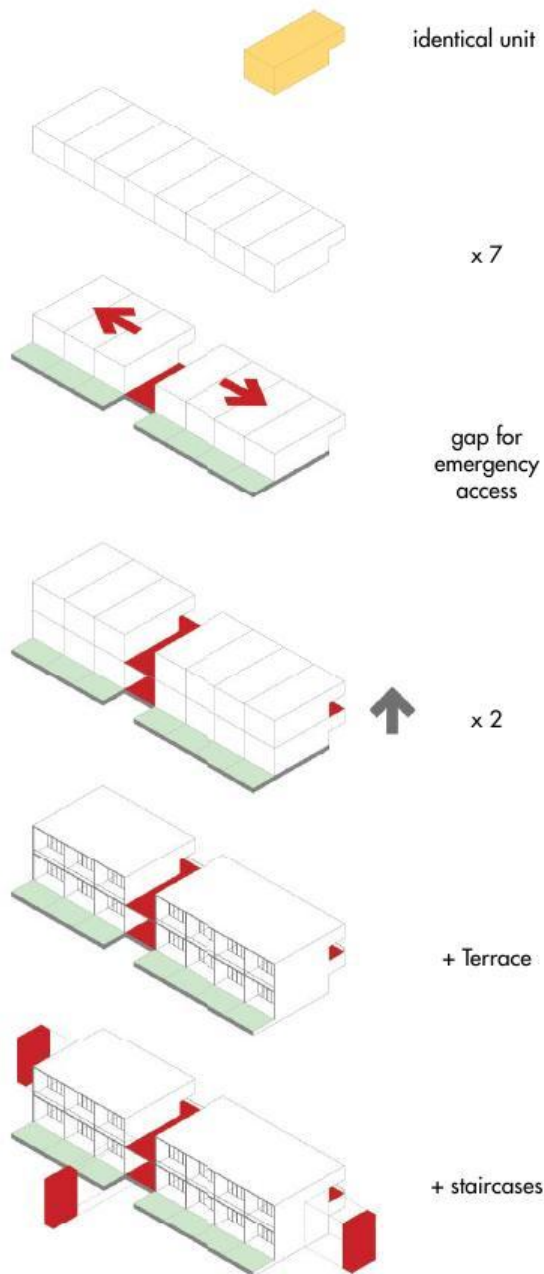













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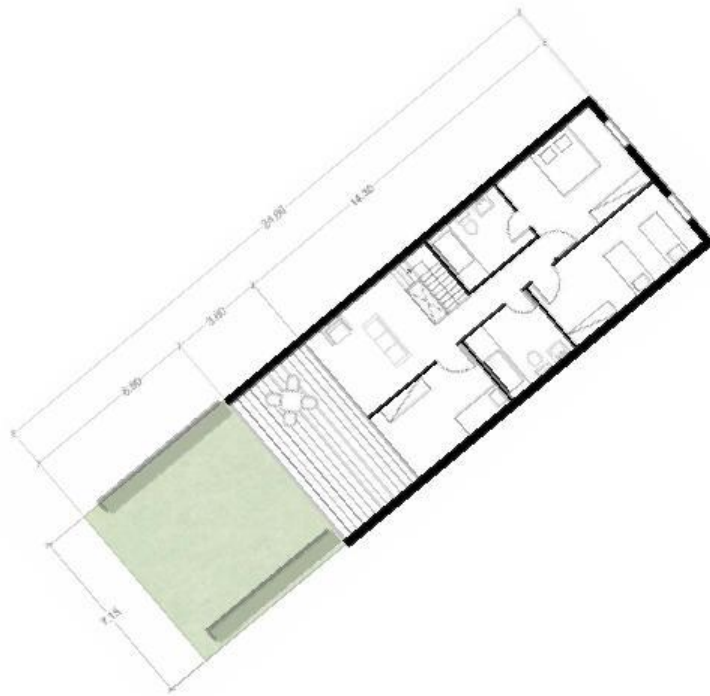
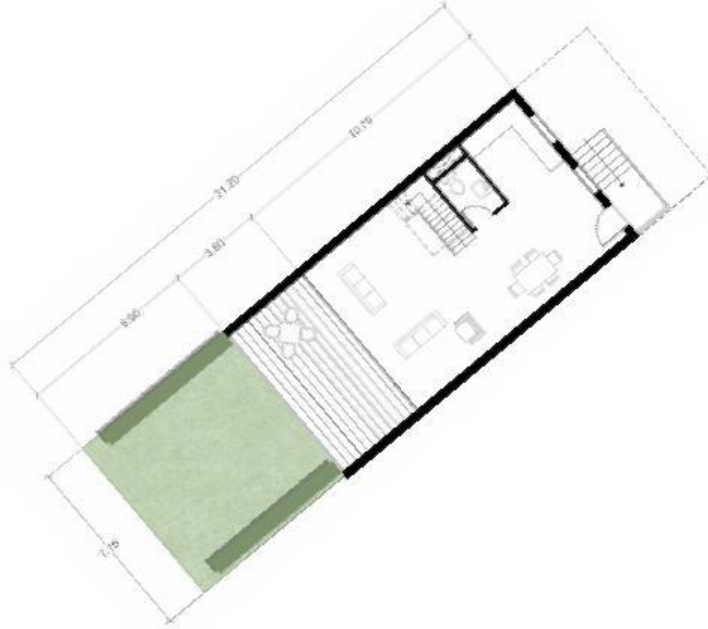
## ARCHITECTURE

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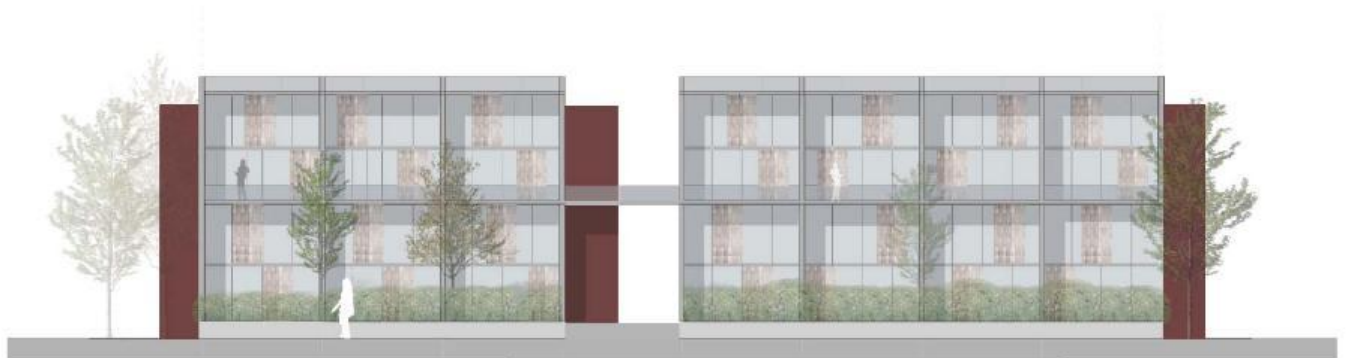
Buildings overlooking green corridors are designed to be apartment buildings with different units and areas to ensure a healthy social mixture. Slab buildings between the apartment buildings were designed as urban family housing. Each slab building consists of 16 duplex units with the first floor having the living room, WC, kitchen, a dining area, and a terrace and the upper floor having three rooms and a bathroom. The buildings are four stories high, i.e. two units stacked above each other. The lower unit has a terrace leading to a private backyard. Both the floor slab and the backyard are raised 1.00 m above the ground to create privacy for the inhabitants from by-passers on the sidewalk.

Whereas the upper units are accessible by three staircases (two at the ends and one in the middle) which leads to a long steel gallery leading to the units' doors.





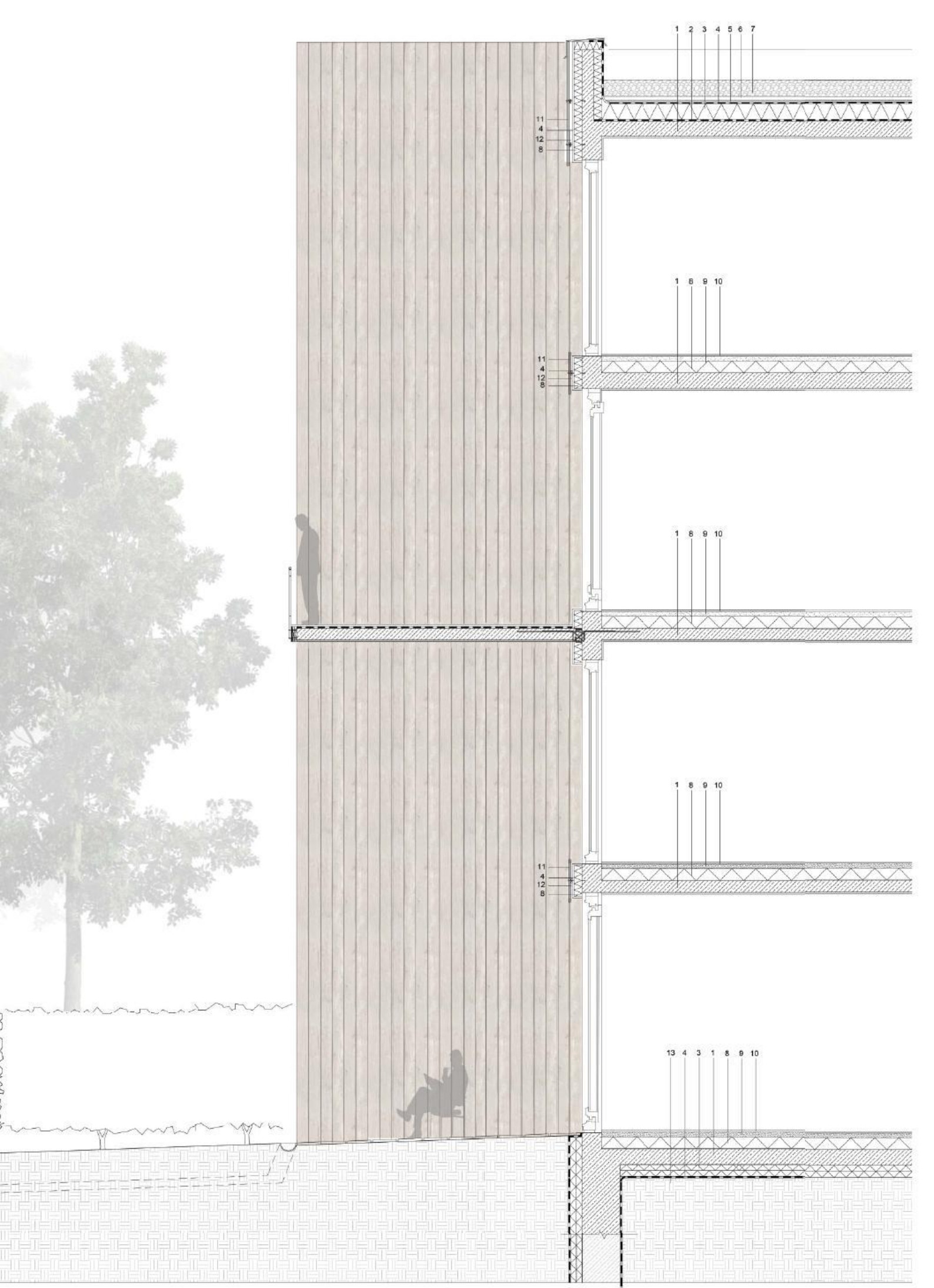
Single unit floor plans  
Ground Floor  
First Floor



Cross Section  
South west elevation

- 1 CONCRETE SLAB
- 2 WATERPROOF MEMBERANE
- 3 THERMAL INSULATION
- 4 VAPOR BARRIER
- 5 ROOT BARRIER
- 6 DRAINAGE LAYER
- 7 GREEN ROOF SYSTEM
- 8 SOUND INSULATION
- 9 MORTAR SCREED
- 10 FLOORING FINISH
- 11 CONCRETE PANEL
- 12 VENTILATION GAP
- 13 COMPACT SOIL





# I S L A N D M A N I A L

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In collaboration with Marwa Adel and Sandi Boulos | Spring 2015

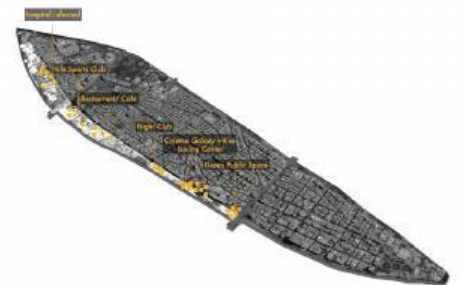
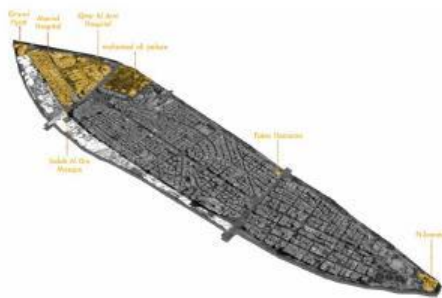
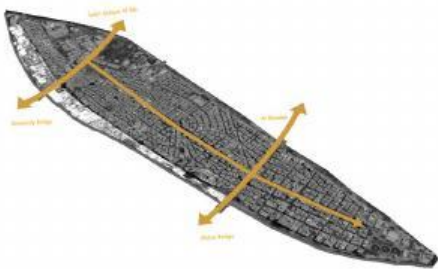
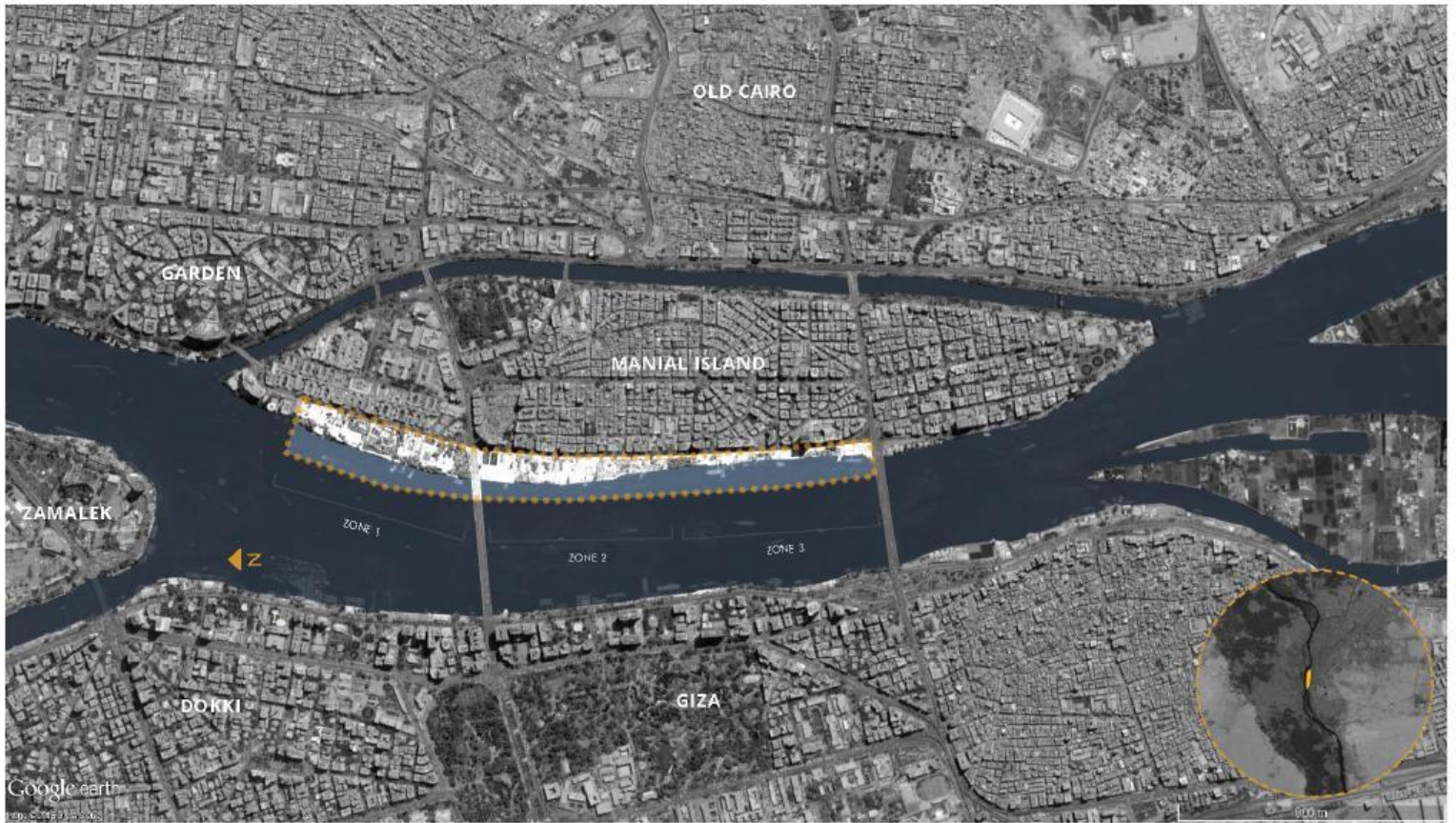
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The project is located in a section of the western waterfront of Al Manial, a Nile Island in the center of Cairo famous for its hospitals and medical schools. The 60 students of the design studio collaborated to create one masterplan proposal dividing the site into Zone 1: a business and science district, Zone 2: concerned with community development and promoting culture, and Zone 3: which has different facilities such as hotels and an art school.

The zones are divided into plots with each 3 students designing a single plot. My group designed Plot 2 of Zone 1. Our proposal is a science center and museum which is integrated with exhibition halls, shops and cafes that exploit the Nile view. The Science Center is reached through a continuous public space on the roof that takes visitors to a panoramic Nile experience. Trees and seating elements are integrated in the design to provide shade and comfort. The building, although having separate entrances for the different functions, appears to come out of the ground and reaching out for the Nile.

I took part in the design phase of both the masterplan and the plot scale as well as created visualizations, concept diagrams and renderings



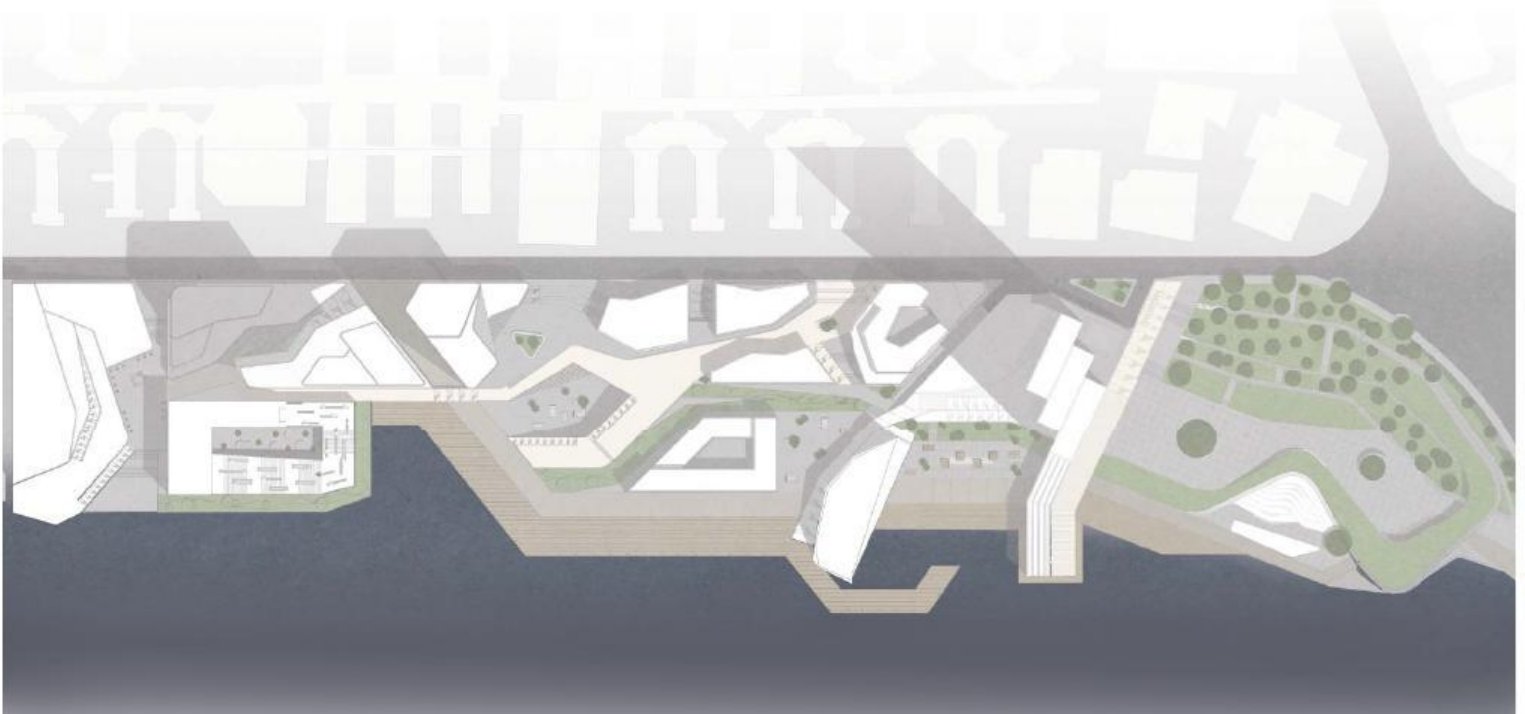


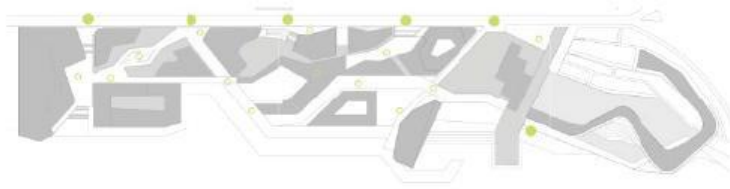


- Spines**
- Main promenade
  - Green Corridor
  - Business promenade
  - Building
  - Semi-public Space / Podium

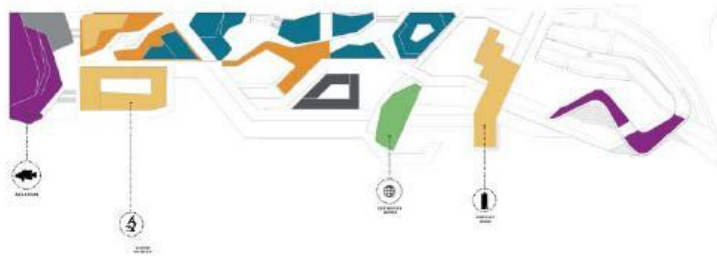


- Nodes**
- Landmark
  - Public Space
  - Building
  - Semi-public Space / Podium





- Entrances**
- Zone Entrance
  - Building Entrance
  - Building
  - Semi-public Space / Podium

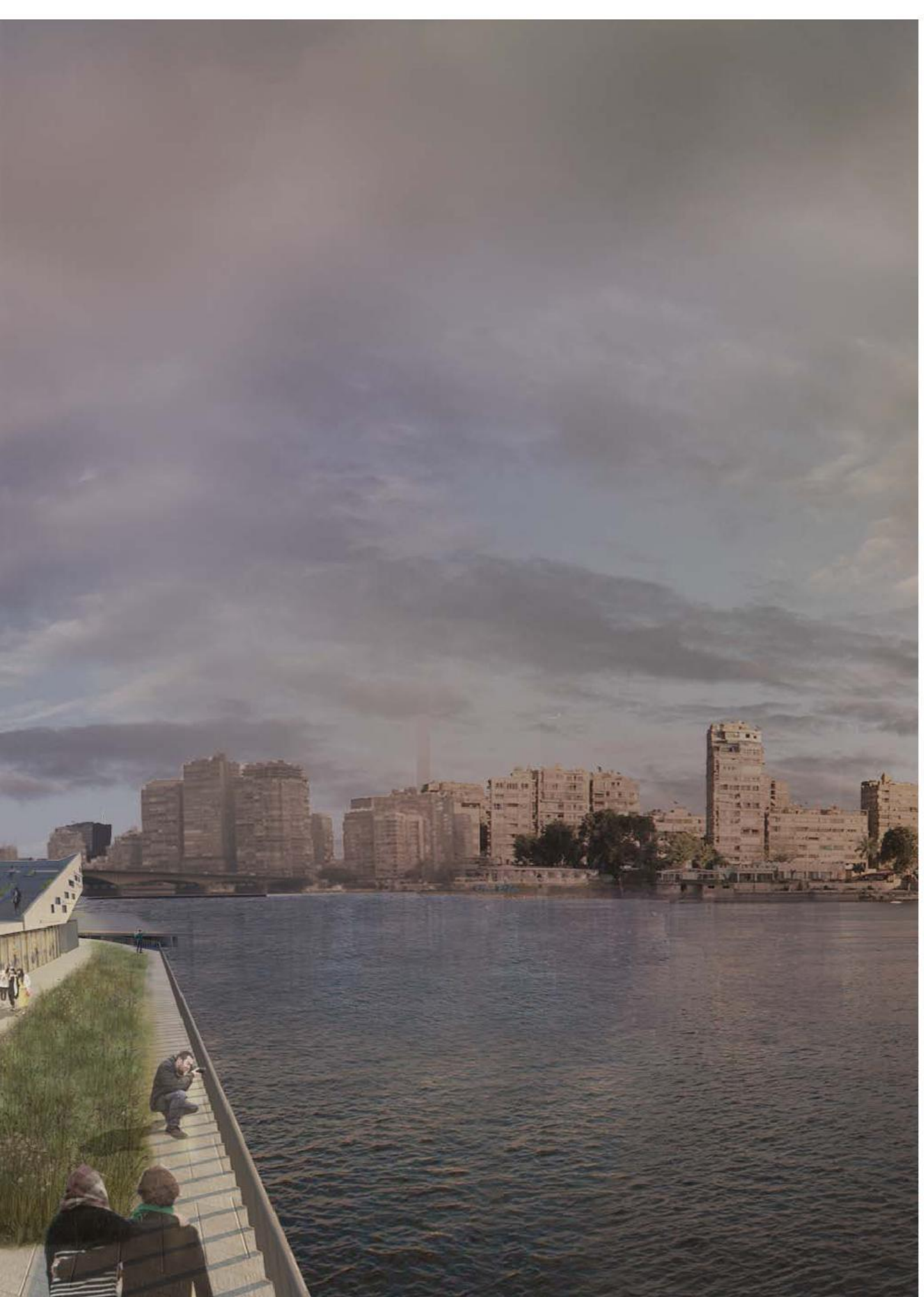


- Land Use**
- Offices
  - Commercial
  - Mixed Use
  - Convention Center
  - Hotel
  - Research Center
  - Recreational

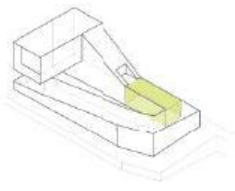




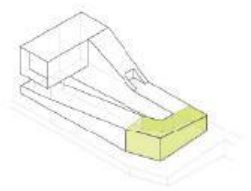




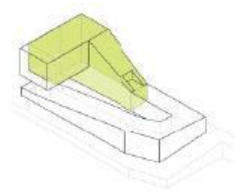




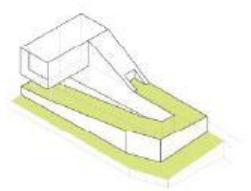
offices



exhibition space

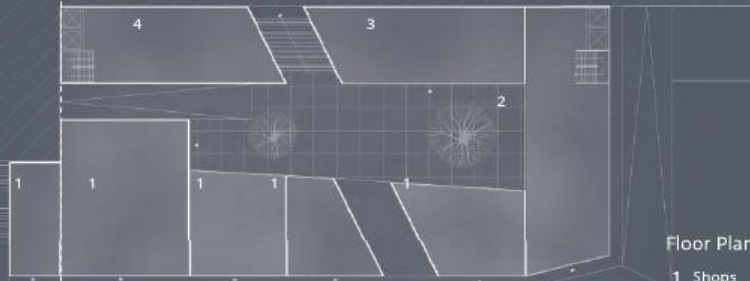
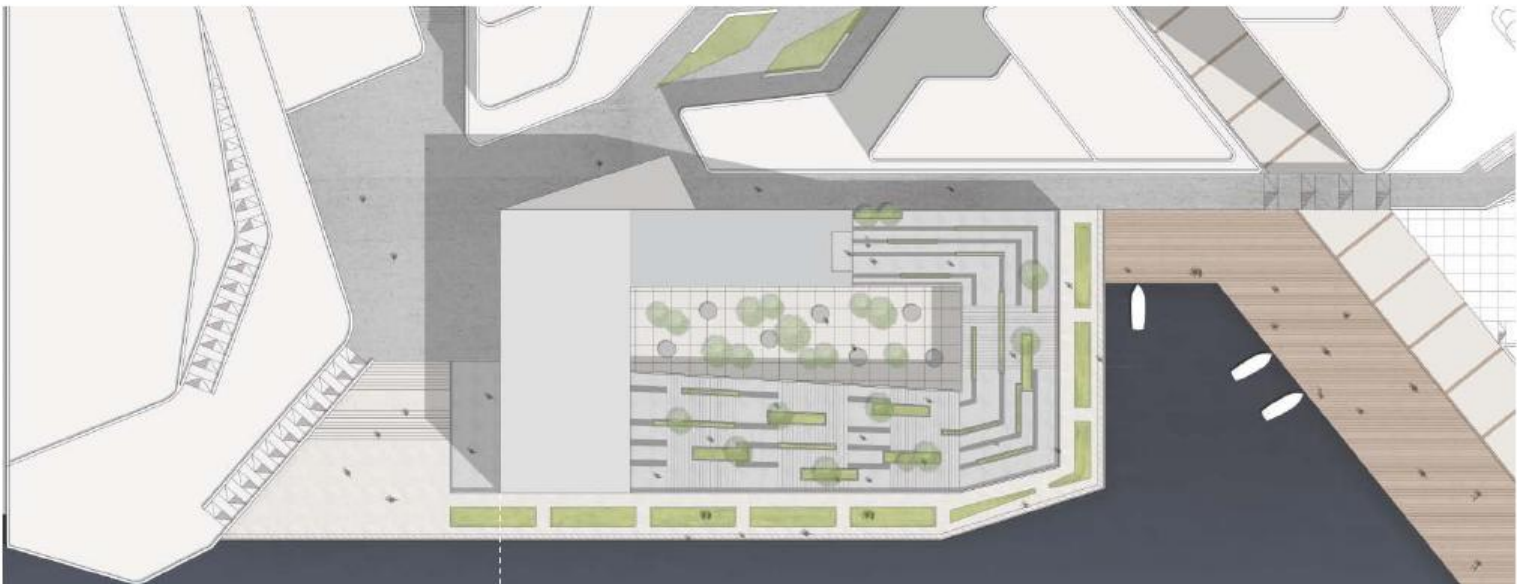


science museum



public space





Floor Plan (+4 meter)

- 1 Shops
- 2 Exhibition Space
- 3 Employee Offices
- 4 Storage Space



Floor Plan (+4 meter)

- 1 Shops
- 2 Exhibition Space
- 3 Employee Offices
- 4 Storage Space



# CHILDREN'S MUSEUM

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The Egyptian Museum of Antiquities  
Spring 2012

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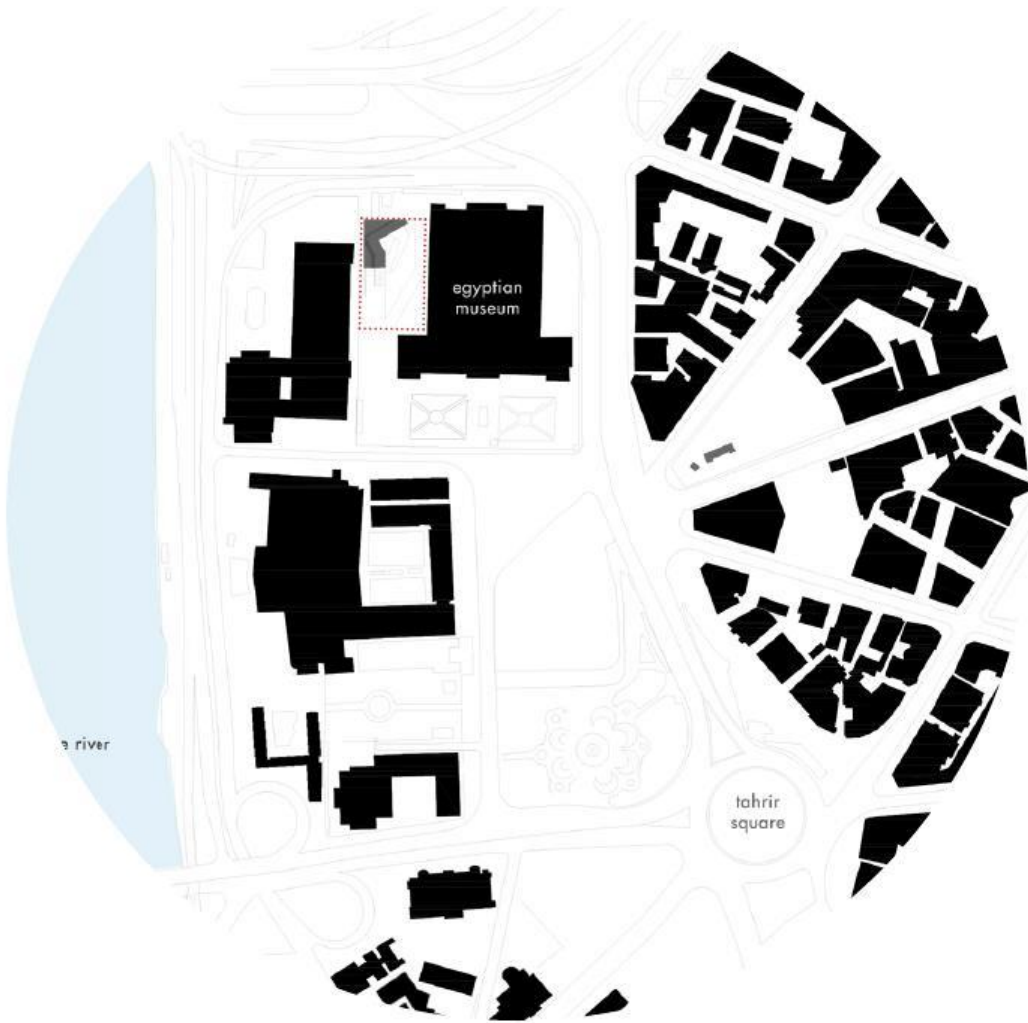
A new building of the Egyptian Museum of Antiquities complex in Tahrir Square, Downtown Cairo. The new building is a children's Museum.

The concept was to create a loop circulation through the different themes of the museum. The building appears to come out of the ground pointing south to the entrance of the site.

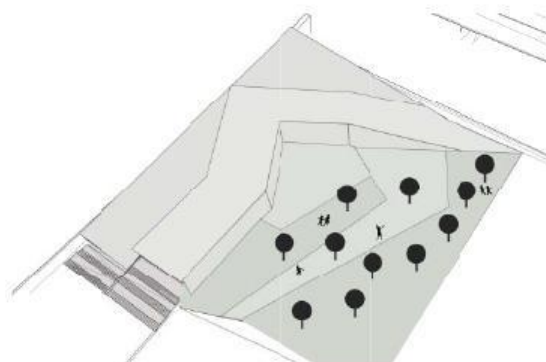
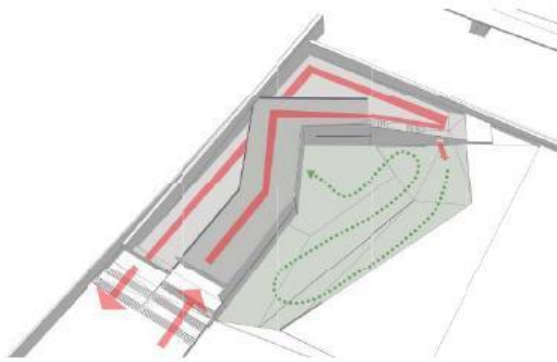
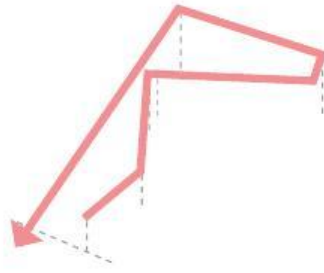
Guests would start their journey by climbing monumental staircase which acts as a gathering area. They are then greeted at a reception area into the top floor of the continuous space of the museum. The first theme is "The House" which introduces children to ancient Egyptian housing, furniture, food and everyday life. As the guests descend through a staircase, there is an access into a stepped garden which divides the main museum from the proposed children's museum. This outdoor space museum aims to introduce the children to ancient Egyptian farming, papyrus and writing as well as merchandise and trade.

The stepped garden descends back to the lowest level of the museum. The themes in this level are mainly about ancient Egyptian royalty, religion and afterlife.

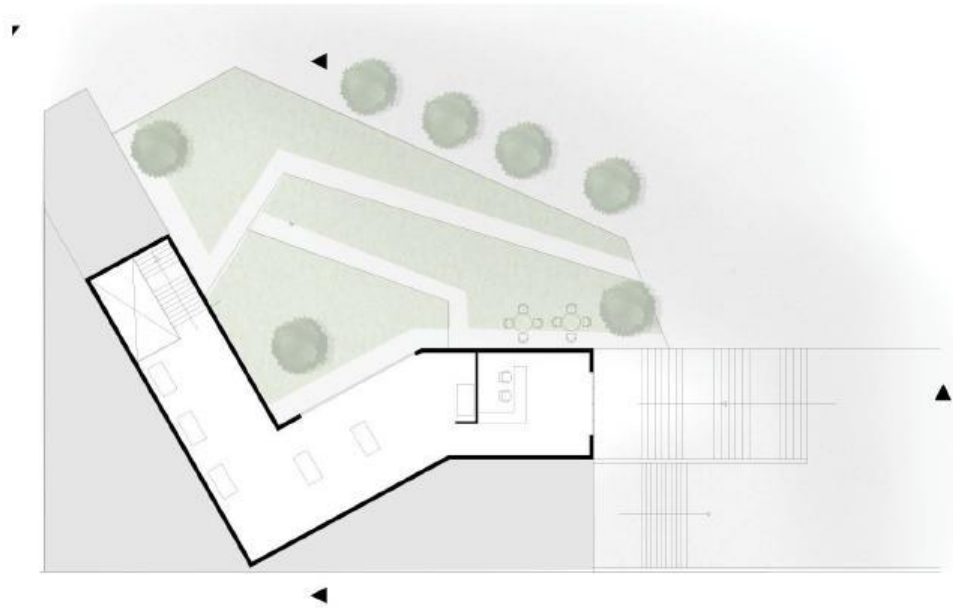
The final station is the restaurant and the rest rooms which have access to the garden.





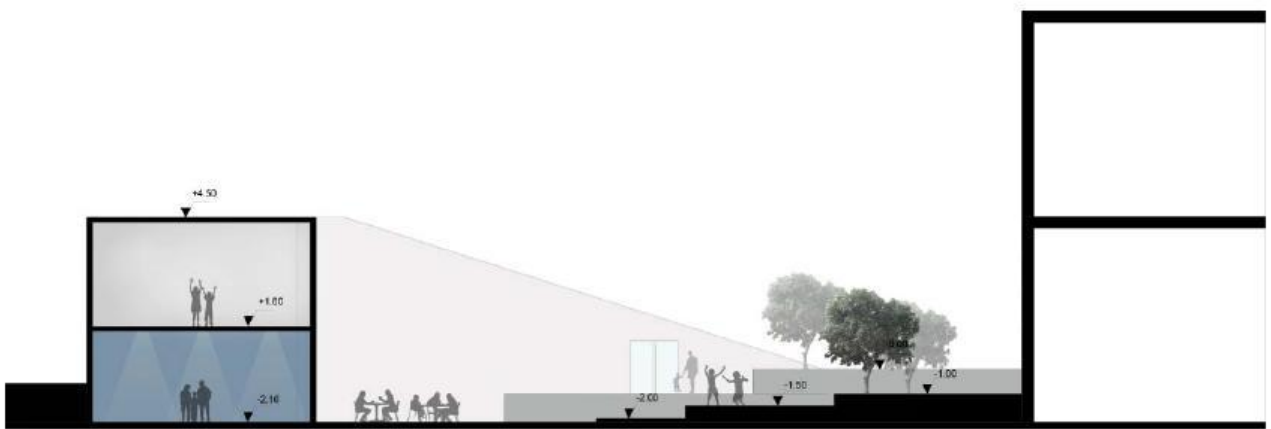






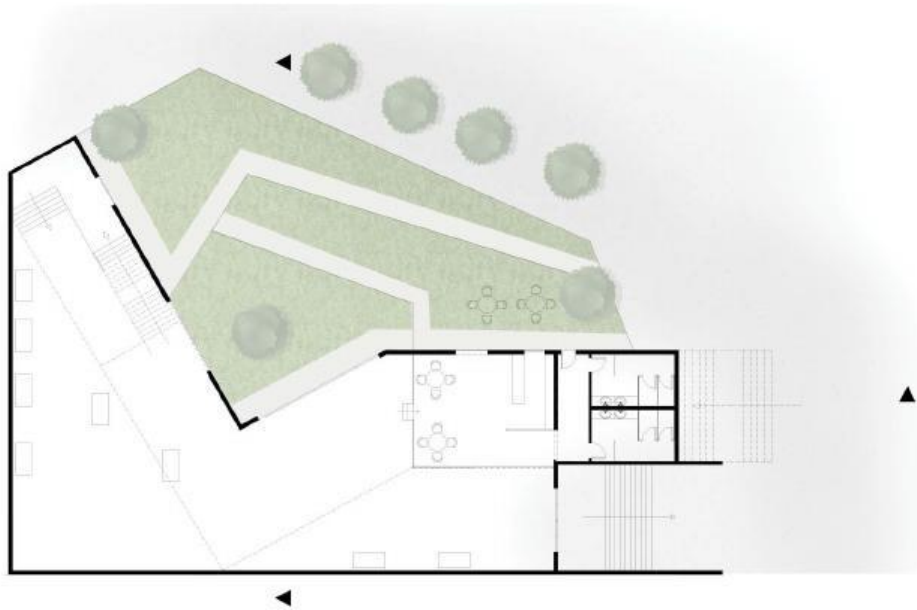
First Floor plan 1:200

First Floor Plan



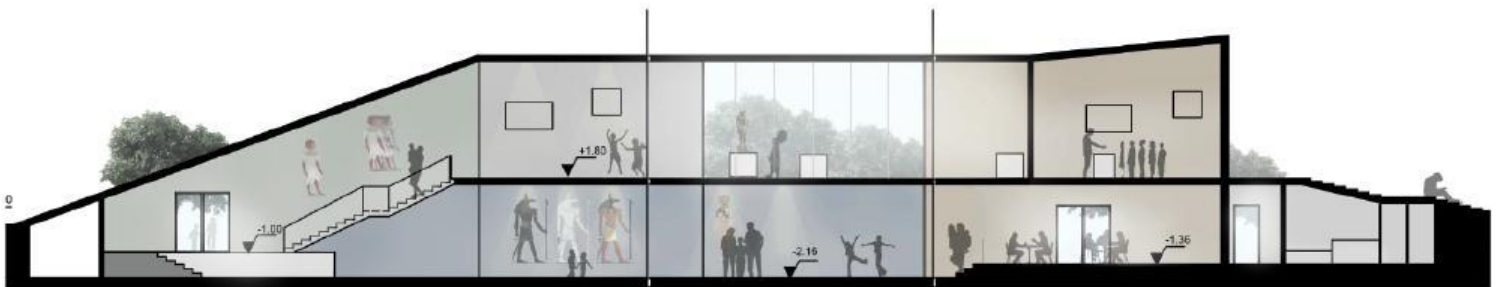
Cross Section





Ground Floor plan 1:200

Ground Floor Plan



Longitudinal Section



# Y O U N G C A I R O

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In collaboration with karim Mandoury and  
Ahmed Ades | Fall 2014

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This project aimed to investigate urban spaces created by the Ring Road in Greater Cairo. The Road aim to connect the city's different districts fails on the neighbourhood level by creating a barrier with lost dark, unsafe and unclean spaces underneath its bridges. The site investigated was underneath the southern section of the Ring Road dividing an informal low-income neighbourhood (Torab Al Yahoud) and a planned middle-income neighbourhood (Saqr Quraish).

The project followed an organized methodology to reach design solutions. First, locals from both areas on the side of the bridge were interviewed to understand local complaints and needs. Then, a photo mapping of the area was conducted. In the mapping my group was particularly interested in existing textures on site. This led us to classify and map the different textures on the site. Then we studied the relation between textures, people and the urban context.

My role in the group project started from the early steps of analysis, to studying textures and their relation with people and the urban context. Also, I worked on the design, visualization, model massing and renderings.







## EFFECT OF THE URBAN CONTEXT ON TEXTURES



**ACTIVITIES**  
CERTAIN TEXTURES ENCOURAGE ACTIVITIES SUCH AS PLAYING AREAS, SPORTS FIELDS AND ATTRACTIVE SITTING AREAS



**TYPOGRAPHY**  
THE NEED OF USING SOME TEXTURES AS A RESULT OF THE TYPOGRAPHICAL SITUATION OF THE SITE E.G. STONE RETAINING WALLS



## EFFECT OF TEXTURES ON THE URBAN CONTEXT



**CREATION OF URBAN SITUATIONS**  
SOME TEXTURES CREATE URBAN FEELING AND SITUATIONS SUCH AS CONCRETE OR STONE RETAINING WALLS AS WELL AS STAIRS

**IDENTITY**  
CERTAIN TEXTURES MAY CONTRIBUTE TO A COMMUNITY'S IDENTITY SUCH AS DISTINCTIVE COLORED TEXTURES AND LOCAL MATERIALS



URBAN  
CONTEXT

TEXTURE

## EFFECT OF TEXTURES ON PEOPLE OR USERS



## EFFECT OF PEOPLE/USERS ON TEXTURES



PEOPLE

URES



## User Portraits



### SAKR QURAIISH - صقر قريش



AMIN, 27



CONSTRUCTION WORKER  
SPENDS FREE TIME IN COFFESHOP

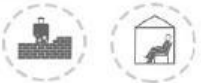
#### SUGGESSTIONS



PLAYING/ENTERTAINMENT AREAS  
MORE CAR WORKSHOPS



KHALED, 54



CONSTRUCTION WORKER  
SPENDS FREE TIME AT HOME

#### SUGGESSTIONS



PUBLIC SPACE  
PUBLIC LIBRARY



### IORAB EL YAHOUUD - تَرْب اليهود

#### SUGGESSTIONS



PLAYING/OPEN AREAS  
SPORTS FIELDS



AMR, 11



STUDENT  
SPENDS FREE TIME PLAYING FOOTBALL

#### SUGGESSTIONS



CLINIC  
MORE CAR WORKSHOPS



MOSALAM, 60



MECHANIC  
SPENDS FREE TIME IN COFFESHOP

#### COMBINED SUGGESSTIONS



PUBLIC SPACE GREEN SPACE SECURITY WORKSHOPS

#### GENERAL NEEDS IN AREA

MORE GENERAL NEEDS INCLUDE IMPROVEMENT OF EXISTING PUBLIC SPACES, ENTERTAINMENT AND CULTURAL FACILITIES AS WELL AS CAR REPAIR WORKSHOPS TO INCREASE JOB OPPORTUNITIES IN THE AREA. THE RESIDENTS ALSO EXPRESSED THEIR WORRY OVER THE SECURITY SITUATION IN THE AREA AND THEIR DESIRE TO HAVE ACCESS TO A GREEN PUBLIC SPACE

## Texture Catalogue

### permanent textures

#### Green



#### Stones



#### Asphalt



#### Tiles



#### Interlocking tiles



#### Dusty floor



### temporary textures

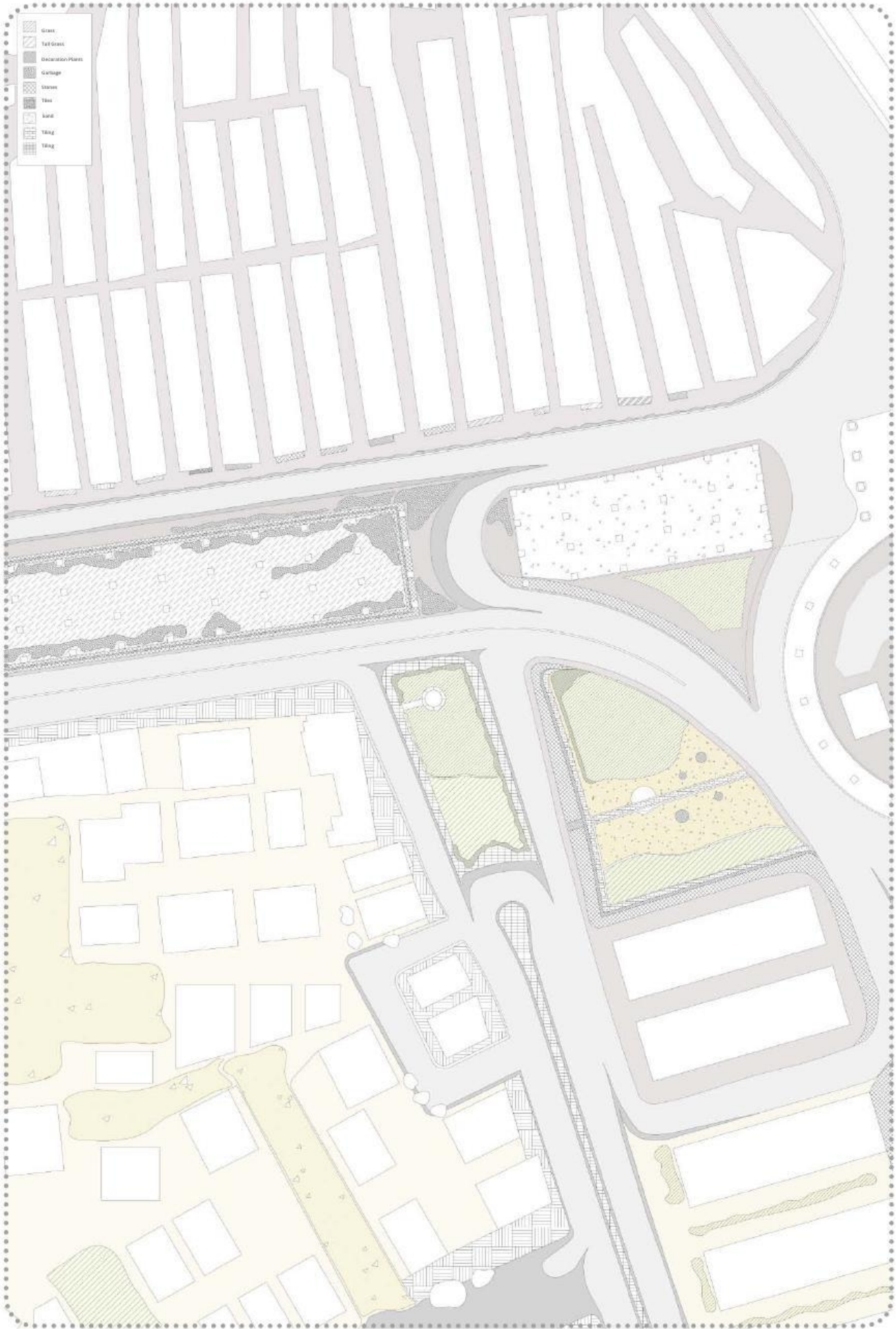
#### Construction materials



#### Garbage

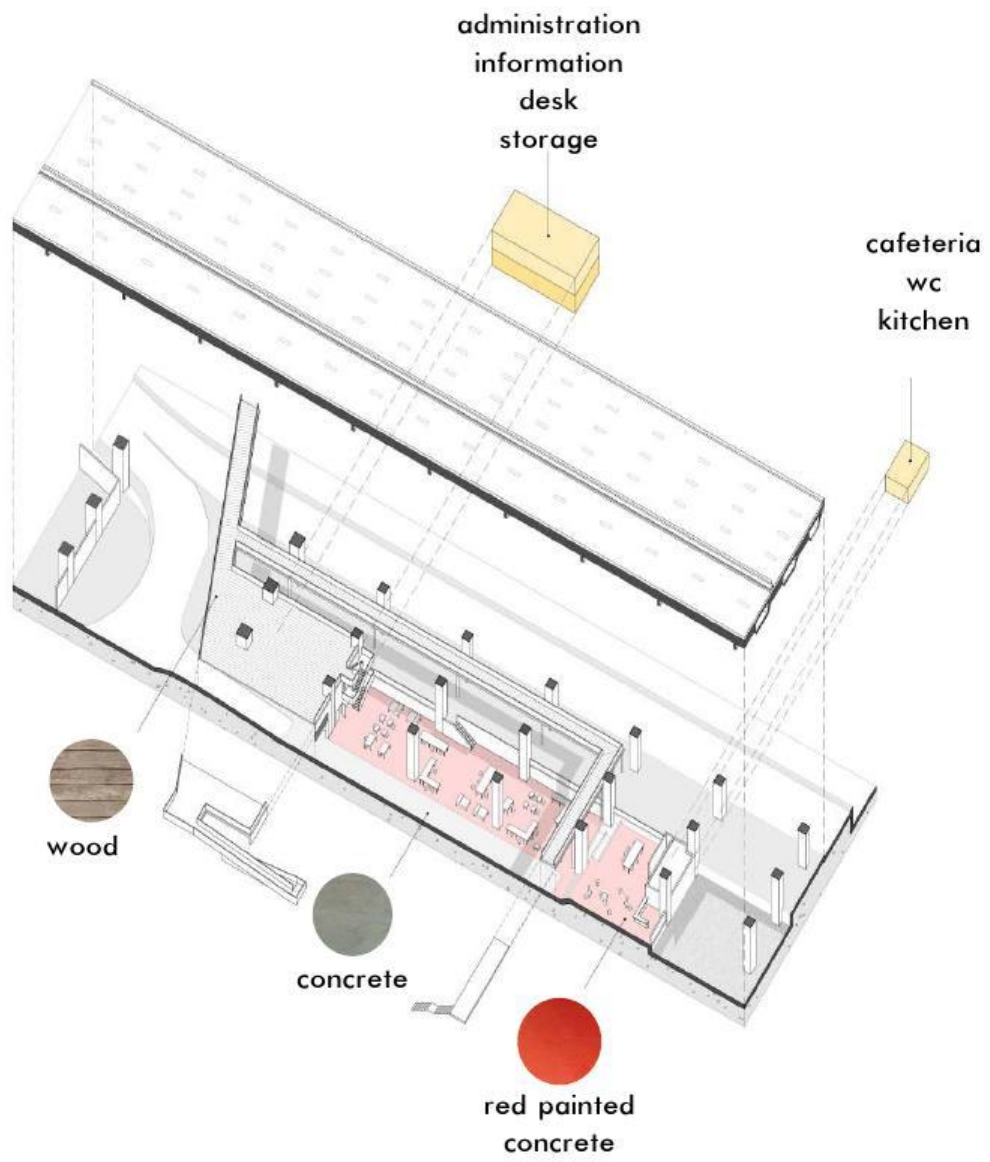


Texture Mapping

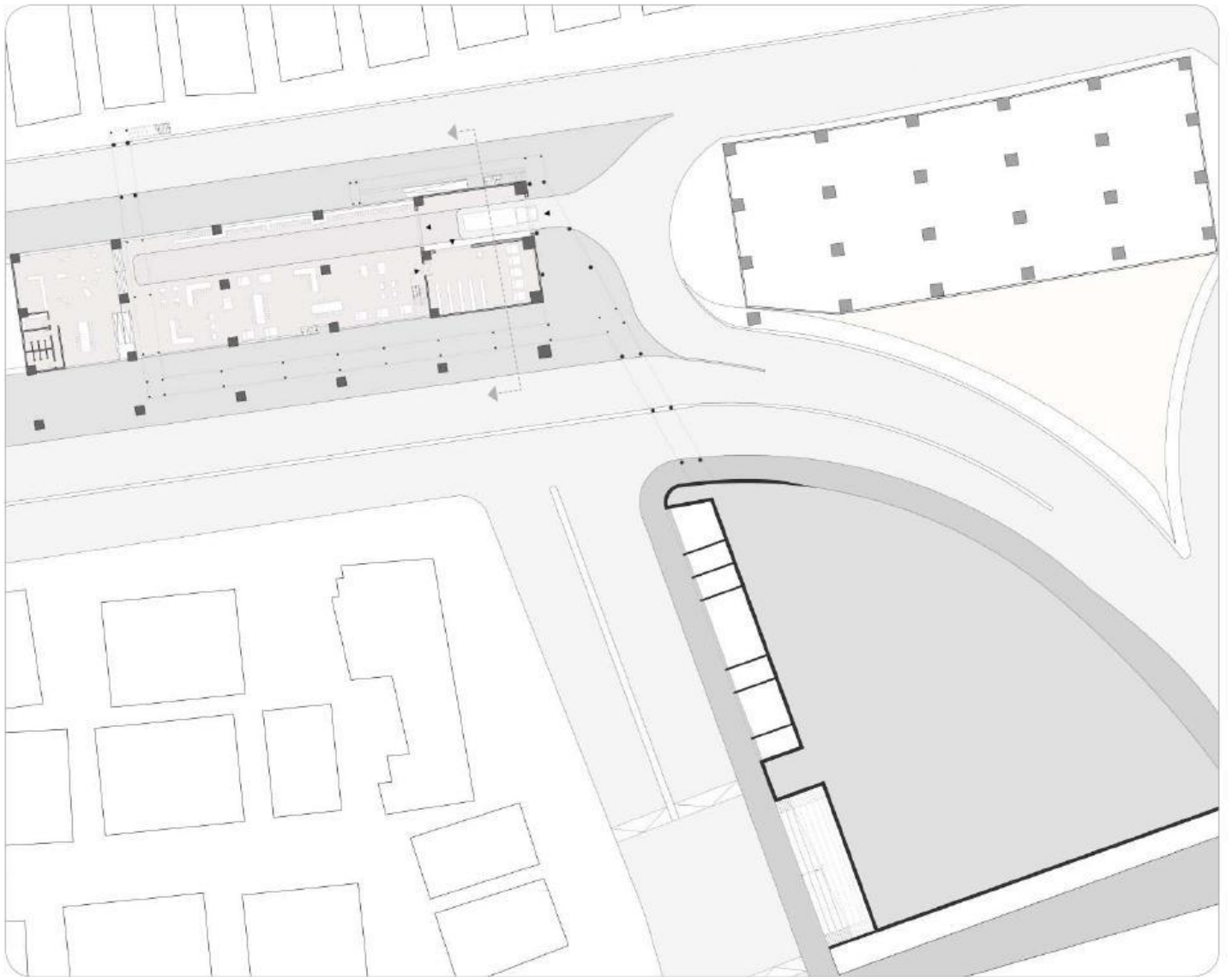




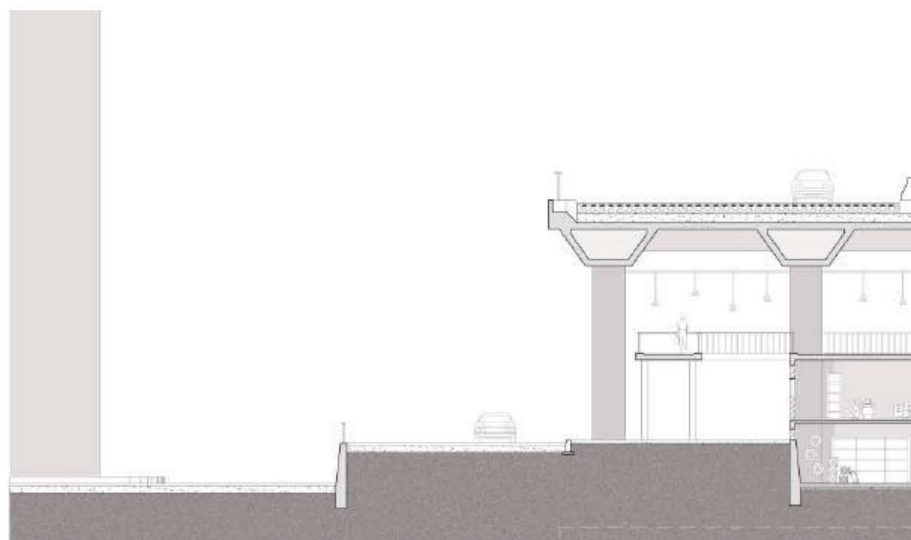






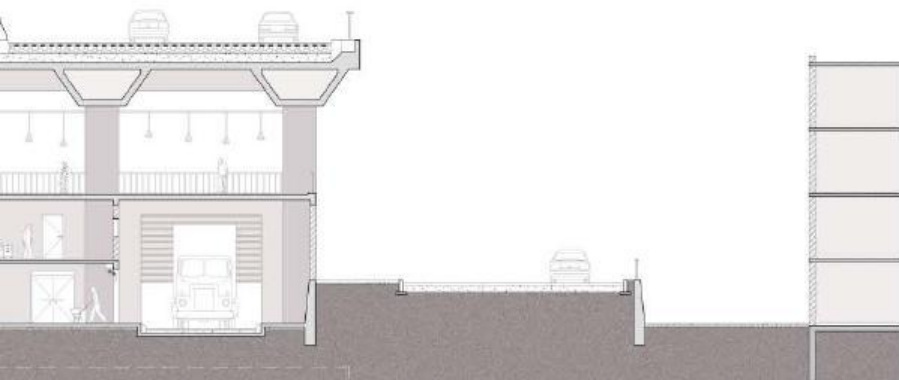


Ground Floor plan



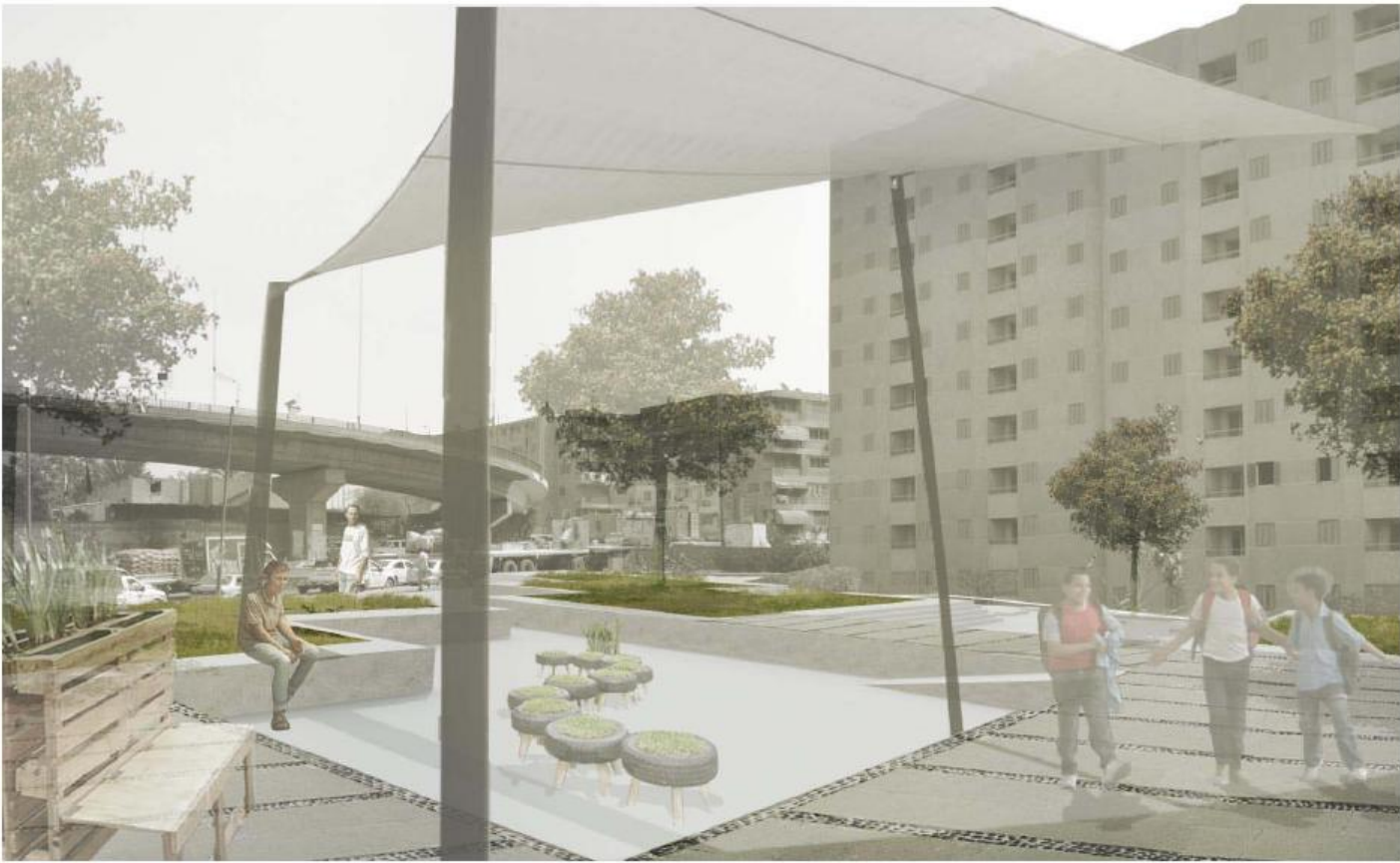


First Floor (+4 meters) plan



Cross Section







# E X P O PARA-MODULAR

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Group of Eight Students | Spring 2013

---

Located in the German University in Cairo Industrial Park, this pavilion is considered an iconic image to represent the Architecture and Urban Planning Department in the University. The Pavilion, a 15 sq meter structure, is used for student and staff meetings, social events, discussions and exhibitions. The design considered the three main subsystems of any building: Form, Structure and Interface, in specific Light penetration.

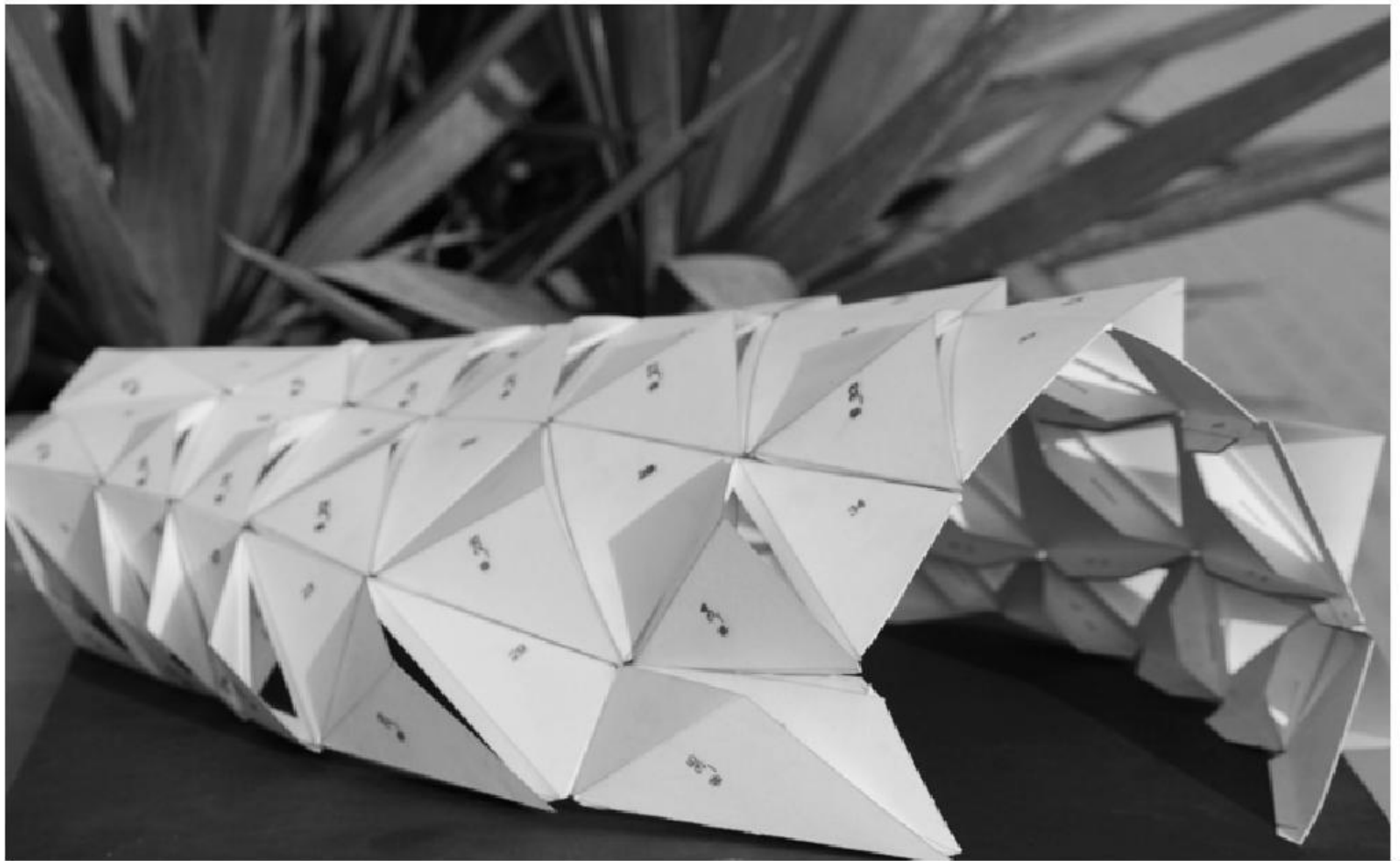
The Design Strategy is Parametric modular design and the Surface based strategy was used.

**Material used : Canson 400 g**

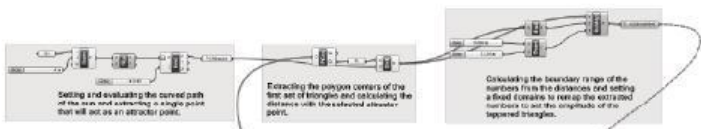
**No. of Panels: 36 x 2**

**Fabrication time: 2 hours**

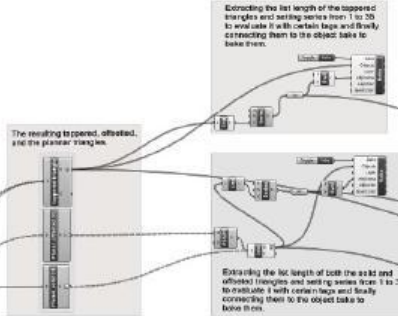
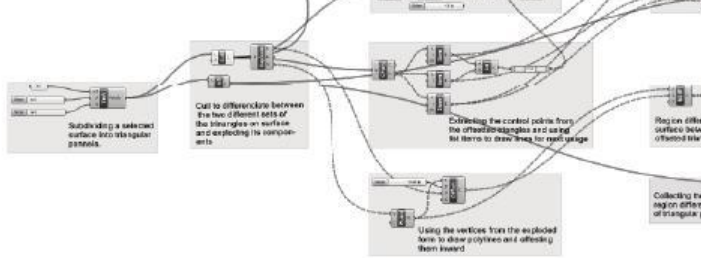
**Assembly time: 2 hours**



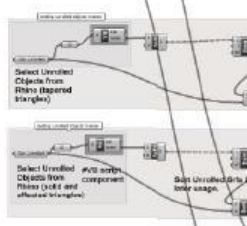
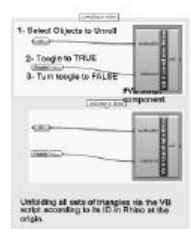
### Light\_Variation\_Defenition



### Pavilion\_Defenition



### Process\_of\_unrolling\_and\_selecting



### Nesting\_and\_Taging

Tags in 3D. Taking the two units of the tapered sets and nesting surface of each set by exploding, taking a list item of 1 set and connecting to the area to take the face centroid.

Tag 2D. Exploding and selecting a line through set and using point on curve to get the number tag on the designated one.

Splitting outline A engraved lines by using wires to extract the curves of the boxes.

Reshape one face of each Unrolled and of the top even tag (tag) along the x axis to get tag on it

Create More Vectors Could be replaced by surfaces on pre-set face sheets

Push the one face of each Unrolled unit, along the x axis to get tag on it

Get Face Centroid

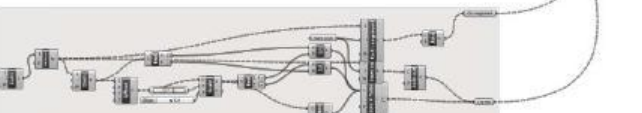
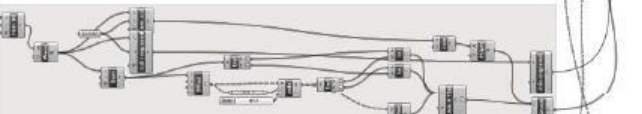
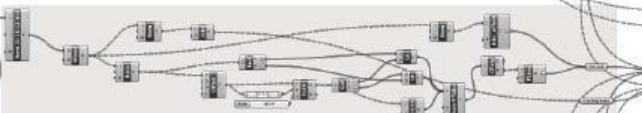
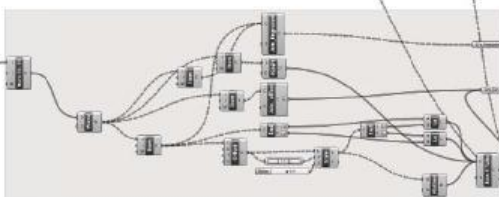
Tags in 3D. Taking the two legs of the unrolled solid 2D or tapered sets and nesting one face of each set by exploding, taking a list item of 1 set and connecting to the area to take the face centroid in which the tag will be put.

Tags in 3D. Taking the two sets of the solid and offset set and nesting one face of each set by exploding, taking a list item of 1 set and connecting to them to take the face centroid.

### Optional\_Generating\_TABs

Selecting the offset and engraved curves

Selecting the certain outer sides in offset in order to set the tabs. Point on curved and outer along with drawing lines between the resulting start and end points are used to mark the tag to avoid overlapping problems.



Final output of the cut and engraved copies of the tapered triangles.

Final output of the cut and engraved curves of the two sets of triangles.



# U R B A N C O N T O U R

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In collaboration with Yomna El Gendy  
Fall 2011

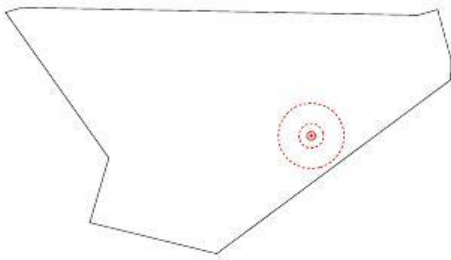
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The project, an assignment of a 3d Modelling course, was to create a contour model on a assigned base of MDF with a stamp that represented a focal point.

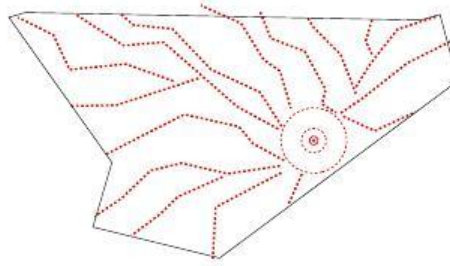
My partner and I were inspired by the edgy nature of the given piece of wood. From the edgy lines, we continued the contour with straight edges such as that of broken glass.

The focal point represented the point in which the force was applied causing the crash of glass. This point has the lowest height which increases as the pieces reach closer to the edges. Also, we had to coordinate with other groups of the surrounding bases regarding the heights of the cork pieces at the edges to create a smooth transition from one 'plot' to another. The model is made of MDF bases, cork 'walls', white cardboard as 'ceilings or coverings', with a layer of newspaper and white paint on top of the cardboard to create an additional layer of abstraction.

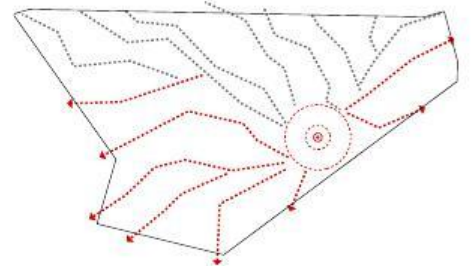




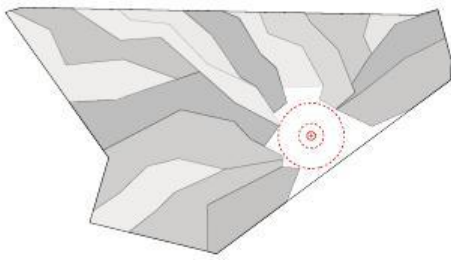
Plot with focus point



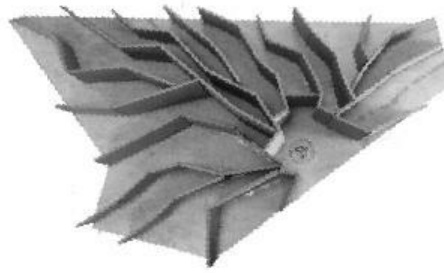
edged pattern representing the breaking of glass with force exerted in the focal point.



Red lines continuing to adjacent plots.



Heights assigned to different areas: The darker shade represents a greater height. All areas increase in height as they approach the focal point.

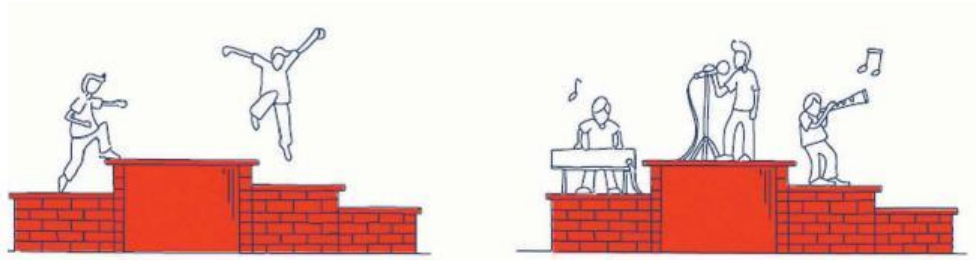


Cork 'walls' added with the different heights.



cardboard triangulated pieces cover the walls. Newspaper layer added on top, then a layer of transparent white paint to add further abstraction.





## LEARN-MOVE-PLAY GROUND

Design-build workshop organized by the German University in Cairo, Technical University Berlin, German Academic Exchange Program DAAD | Fall 2012

During the twelve intense days of the workshop eleven students from Germany and twenty-five from Egypt worked together with a team of professors and experts from different fields (pedagogy, architecture, urban planning, landscape, and graphic design) to realize a new playing landscape in the courtyards of two public primary schools in Cairo, Egypt. The aim of the summer school was to improve the quality of the schools' outdoor spaces by designing furniture—for playing, moving, sitting, and providing shade—out of local materials, adapted to the individual situation of each school. Due to the small scale of the elements, they were designed and directly implemented by the students and team during the summer school. A participatory methodology was adopted which involved the children and teachers in the entire creative process until the realization. This way, it was possible to determine their priorities, needs, and desires, and to build up a strong identification between the children and the results, creating a sense of responsibility for the future maintenance and—more generally—for the common acceptance of the courtyards. Furthermore, the summer school gave us the students the possibility of actually implementing our own designs, dealing with the requests of the clients, the specificity of context, and materials.







