



# Architecture by Girls:

## Designing a School in East Jerusalem With Students





# Architecture by Girls

This exhibition is the result of a series of workshops over a course of four months with a group of 12 fourteen-year-old students from the Al-thori Preparatory School for Girls. The goal was to introduce students to the world of architecture through a hands-on design experience, giving them an opportunity to learn and to express themselves through the design of a new high school for their neighborhood.

The first part of the exhibition focuses on the process and activities that took place between October 2017 and February 2018. The second part focuses on the outcomes: a series of ideas and wishes, in order of priority voted by the students, and three design proposals, developed in teams of four with the help of project facilitators.

Initially, the idea was to develop a design that reflected the needs of the students. But as the conversations went on, the pedagogical aspect became more important: architecture is not often taught as part of the school curriculum. This exercise is by nature interdisciplinary, applying skills from the arts, sciences, geometry, geography... As an open-ended process with no right answer, it forces participants to search for solutions and think creatively.

We started by introducing the students to essential concepts, increasing their awareness about the built environment. We took the time to explain what each profession does: architecture, urban planning, civil engineering. But the vast majority of the sessions were not lectures, but centered around practical activities, because the only way to know if you like to design is by trying it out.

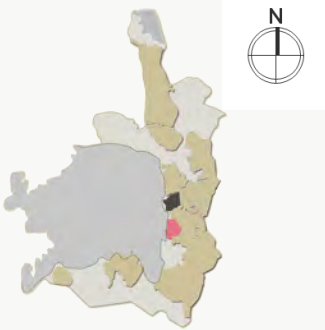
**Luisa Venancio,**  
**Project Coordinator**

# Context and Site



Abu Tor (Al-thori) is a neighborhood in East Jerusalem located south of the Old City and Southwest of Silwan. It has a dense, urban fabric, and suffers from infrastructure problems. The neighborhood has no public high school for girls, a demand that goes unmet.

There is a site zoned for public use and destined for a high school for girls, but this project is independent of official plans and future construction of the school. Our hope, is that by showing girls' ideas and wishes we can inspire those responsible for making decisions.



Despite freedom from some of the real-world constraints, there were still challenges. The site is difficult: it has an unusual shape, a steep slope and some built elements on it: a road and a house, where a family has lived for many years. As of this moment, it is the subject of a court case and its future is unknown.



As in much of East Jerusalem, housing demolitions is an important and difficult issue for the residents of Abu Tor (Al-thori). In early sessions, it became clear that it was also important for our students. Therefore, for this project's purpose, we decided to draw a line around the area of the house and consider it as "not part of the site" making each design around it.

# Introduction to Architecture



Early sessions were meant to introduce key concepts, always through activities and games that relate to their daily lives.

At first, students were invited to think about a place, and a reason for why they like it. Places like “school” “my aunt’s home” “the mall” came up, with reasons like “it’s big and beautiful” or “it’s quiet and calm” or “my friends are there”. Then we could see what architecture is about: how spaces are created, but also how they make you feel and how they are used.

The following week, with printed plans of the buildings, the students gave a tour of their school, marking each space on the plans at hand. This was to help understand how a building is translated into a plan, and vice-versa, as well as see the different activities and uses that a school contains, beyond classrooms and courtyards.

In another session, they visited the site with the architect, in order to see the place where the future school would be built. They had with them a printout of the satellite image of the site, and a short explanation about topography and contours was given in advance.



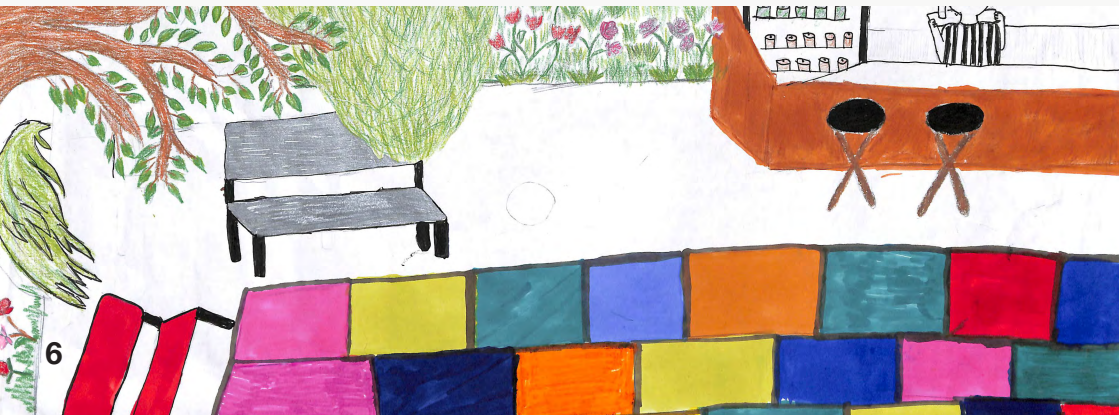
# Unleashing the Imagination

The next step was to develop ideas and unleash the imagination. This was done through different exercises in five sessions. Activities included:

- Thinking about and asking their teachers three questions: what do we like about our current school? What don't we like? What can we do better in a new one? We put those ideas on a whiteboard and it became the base for future sessions.
- Internet research: students were given websites to do internet research of designs of schools in other countries.
- Drawings, talking about drawings, then drawing some more.

## The Best Courtyard in the World

In two groups, students drew their best version of a future courtyard: including plenty of trees, comfortable seating areas, sports areas, a cafeteria, and a fountain.



# Brainstorming Session

With all drawings and references spread on a large table. The girls were given small pieces of paper and one mission: to have as many ideas as possible, around the themes that still were missing. We started with the list of quality-feelings from session one, such as “happy and fun”, “comfortable and relaxing”, “culture and heritage”, and “interaction with friends”. We also thought of spaces that had been explored in drawings: classrooms, the library, some outside spaces and inside common areas.



## Choosing Priorities

With enough ideas in hand it was time to prioritize: what was really important to the students? What mattered most? Ideas were organized into categories, and each student got a number of stickers (4 or 6) and could distribute them among the ideas in any way they wanted.

# Other schools have this, mine does not and I wish it did...

Because the school where they study now is in a rented building, it lacks many spaces that are usually built in new schools.

Better library

15% A bigger library, with comfortable reading areas.

Science Labs

15% Science labs

Better nurse's room  
- more comfortable

15% Better nurse's room for sick students

Bathrooms with mirrors, soap, towels

13% Mirrors in all bathrooms

Bigger Computer Lab

12% A bigger computer lab

Sports areas

10% Sports Facilities

Bigger Art Room

10% A bigger art room

Cafeteria

12% A cafeteria for the students

## These are the sports I would like to play...

Swimming

23% Swimming

Yoga

18% Yoga

Tennis

15% Tennis

Basketball

13% Basketball

Dance

10% Dance

Running

8% Running

Football

8% Football

Table tennis

5% Table Tennis

Volleyball

3% Volleyball



# My school will be special in these ways...

## With these spaces inside...



33% Lockers for students



21% Comfortable inside sitting areas



18% Classrooms with round sitting, so "all students can hear the teacher and have the confidence to participate".



13% A room for birthday parties



10% A room for music lessons



3% A room for traditional meals



3% A room for traditional dances

## With these spaces outside...



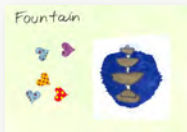
25% Trees with nice sitting areas



25% A bicycle lane for students to enjoy during breaks.



23% Fun areas to sit in the grass



13% A water fountain



10% A covered open area to protect from sun and rain



3% A garden for students to plant



3% A fish tank for students to feed the fish

# Design Phase

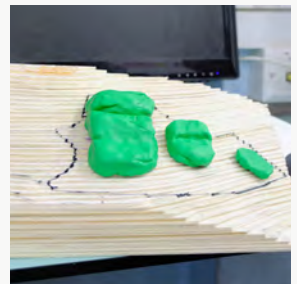
The beginning of the design phase was done with the introduction to volume.

The students used modeling clay on a cardboard base to explore the possibilities of how their building could be, each group with a different idea.



In a later session, they made a first attempt at zoning the areas where main elements should be on the site: main building(s), courtyard, access for cars and pedestrians, and a parking lot.

Then, each group worked under guidance to develop their initial thoughts into a concept, with a site plan and schematic sections.

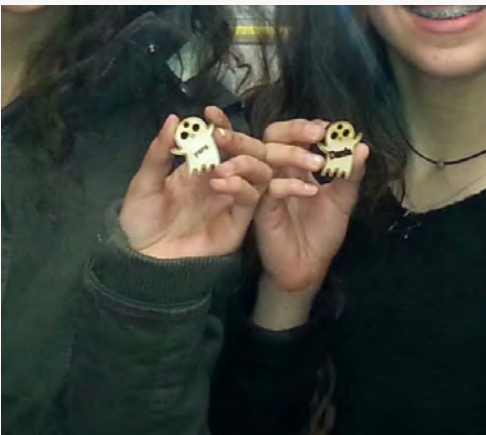


# Scale Model

Through a partnership with the PICO kids at the Maker's Lab in the Hansen House, the students were introduced to 3D printing and laser-cutting technology.

On a field trip, the students had the chance to try some of the machines. They designed small items for themselves, pendants and keychains, and watched as they were made.

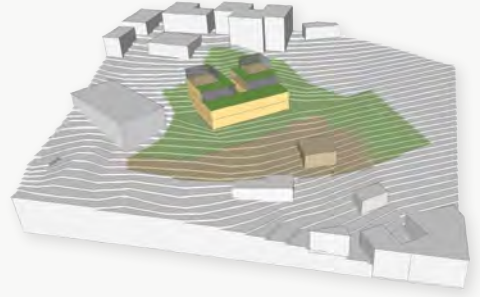
The same technology was used to make the site model and the pieces of each building designed by each groups. The students then assembled each building and placed greenery in the courtyards, according to their own designs.



# Terraced School

## Students:

Danya  
Yara  
Sara  
Ghaida

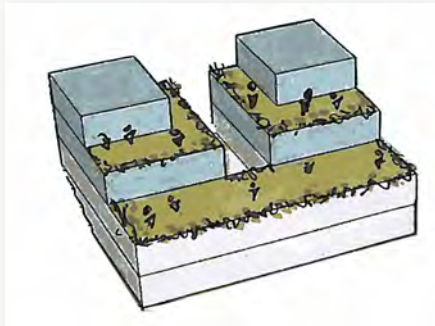


The design's main feature is its terraced gardens, all with a view towards the valley. This concept was developed as response to the steep slope of the site, and to be different from what the other schools look like.

The students in this group chose to design only one building, in order to make it easier to move between spaces.

On the top floors, next to the gardens, there are the labs, the art room, the library, and “all other spaces for extra-curricular and fun activities.”

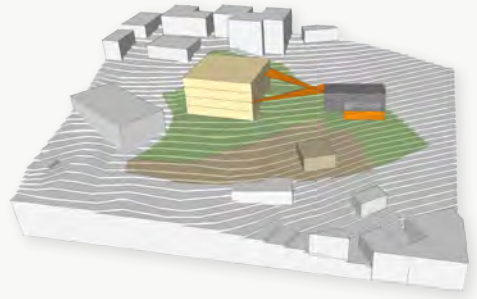
It is very important to the students that the new school has everything they wished for the space where they study now: larger classrooms, a science lab, a beautiful library, and plenty of green areas.



# Young Architects School

## Students:

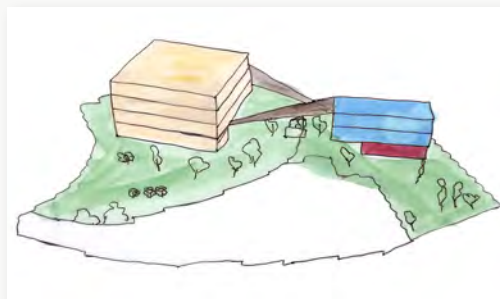
Malak  
Batoul  
Sundos  
Lama



The students in this group wanted their design to “reflect their experience of being an architect during the project.” They chose to divide the spaces in two buildings connected by inclined bridges, for an aesthetic statement.

The main building has typical classrooms and main school activities. The secondary building has a separate access to the public. It contains the library and sports areas. During most of the day, it is part of the school.

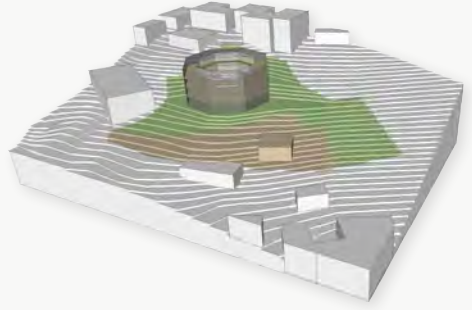
Once the bell rings, it can remain open to the neighborhood and serve the community. Outside, plenty of green areas around the two buildings, to create a relaxing atmosphere. Below the bridge, there is a fountain and a seating area for students to enjoy.



# Courtyard School

## Students:

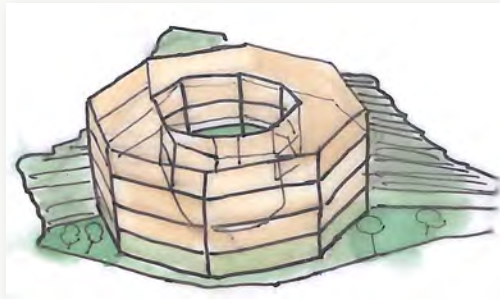
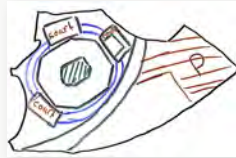
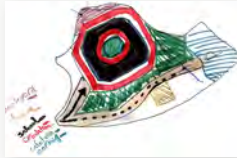
Rahaf  
Hadeel  
Yasmeen  
Marwa



The initial concept was of a central courtyard connected to outer gardens. This proved difficult due to the topography and outline of the site. The concept evolved, with the first floor becoming an extension of the green areas outside. It serves as a link them to the inner garden, and each floor retreats, creating balconies with gardens and allowing plenty of light.

This way, the students can take breaks inside and outside the school building, creating a more comfortable and relaxed atmosphere.

The top floor is meant for labs and other practical activities, where they can “look at the view, put on some music and enjoy it”.



# Team

## **Project Coordinators:**

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## **Team Members:**

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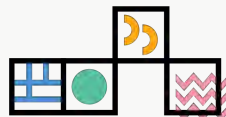


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