

IN PURSUIT OF WELL-BEING  
"ARCHITECTURE FOR THE DISPLACED CHILDREN"

A Thesis

Submitted to the

Faculty of Miami University

In partial fulfillment of

The requirements for the degree of

Master of Architecture

Department of Architecture and Interior Design

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2019

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# In Pursuit of Well-Being “Architecture for the Displaced Children”

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## ABSTRACT

According to UN refugee agency, the world is currently facing the maximum influx of refugees and internally displaced people than any time since World War II due to political conflict and environmental calamities. This paper focuses on Syrian displaced people living in Greek island Lesbos, which due to its size and proximity to Turkish main land has become a very popular destination for them migrating to Europe. Almost half of the displaced population are children who have not only been chased by horrendous experience of torture and destruction but also deprived of education at their formative stage of life. How can architecture promote welfare and provide inspiring learning environments for the displaced children living in the island is the core investigation of this paper? Simultaneously, this paper would also like to show strategies for the Syrian community to become integrated and gradually assimilated within the surrounding Greek community. To better understand the depth of the crisis as well as to determine the requirements of the children, this paper respectively studies the activities undertaken by several organizations (for example, UNHCR and Save the Children) in different parts of the world and analyzes case studies related to various children’s learning and playing spaces. In addition, children’s drawings have been analyzed carefully to understand their own perception about learning spaces. Several literature reviews have been made, for example the impact of built environment on children’s well-being, the design principles that affects the learning process of a young pupil, building

typologies both in Syria and Greece to gather the supporting knowledge required for the design intervention. Based on these findings, design parameters are investigated to support a design process that intervenes in the displaced life of refugee children far away from their home.

## INTRODUCTION

The refugee crisis is in its peak since the World War II and children are the worst sufferers of the crisis whereas they are the prospects for the future. Only 50% of refugee children receive primary education compared to the worldwide percentage of 91. Only 22% among them receive secondary education<sup>1</sup>. Education is a basic human right that not only protects the individual but also empowers and enlightens. We cannot leave our prospective future generation in perilous conditions, where they are deprived of basic education and care that are crucial for their development and wellbeing. It’s our humanitarian duty to confirm that the vulnerable children are getting the proper care during their psychological and physiological formative life. This paper focuses on Syrian refugee crisis being the most catastrophic one at the current moment. Syrian displace population undergo various phases of transition during their displaced life; starting from taking refuge in the neighboring countries (such as Jordan, Turkey) to settling down in a distant country, for example, Germany, Sweden, USA etc.

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<sup>1</sup> UNHCR report from 2015-2017 on ‘Global Trends’ of forced displacement

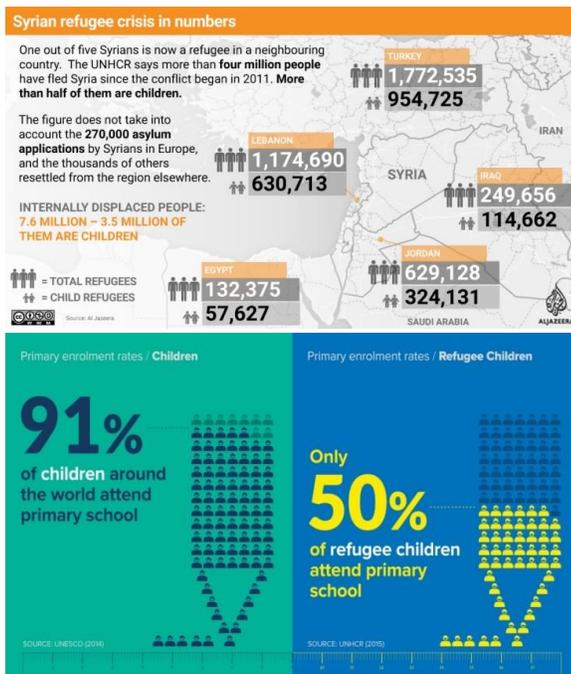


Fig 1: Statistics about refugee population

This research is particularly considering the displaced Syrian population living on the Greek island of Lesbos as the primary concern group. Almost half the migrants to have entered Europe have arrived via Lesbos. The distance between the Turkish mainland and Lesbos's east coast is only 18 miles. Its size, status as the third largest of the Greek islands and proximity to the Turkish mainland makes it a desirable destination. It's capital, Mytilene, on the east coast has become a focal point in the crisis, with the Moria refugee camp north-west of the town.<sup>2</sup>

How can architecture promote welfare and provide inspiring learning environment to the displaced children living in the island is the core investigation of this paper? Simultaneously this research would also like to develop a strategy for the Syrian community to get integrated and gradually assimilated within the surrounding Greek community.

Architecture can intervene in their transitional life through an innovative design approach since the built environment has a huge impact on a

<sup>2</sup> Lesbos Island-Greece Fact Sheet, 12 November 2015, UNHCR

person's life and wellbeing. New design processes may begin to address children's need in addition to available traditional method. In doing so, building styles and typologies both in Syria and in Lesbos island have been studied along with their lifestyles to support the cultural synthesis during the design process. Parametric design approach has also been incorporated for the iteration of exciting and inspiring space for children.

## METHODOLOGY

### a) Empirical Research

This paper considers interviews of the affected children taken by 'Save the Children' in order to understand their actual state of mind and true need. Several documentaries on refugees are also studied to best understand the global view of the refugee crisis. Notable among the documentaries is 'Salam Neighbor'<sup>3</sup> filmed in Zaatari Refugee camp, Jordan, to chronicle the true stories of refugees.

The paper examines the projects and programs undertaken by UNHCR, SAVE THE CHILDREN and some other NGOs and organization to understand the dynamics of the situation as well as the strength, weakness, opportunity and threat of their programs. Moreover, it considers several relevant projects around the world as case studies, for example, Jarahieh Refugee School, Makani Remedial Educational Center, 100 Class room for Refugee Children, Floating pavilion in Taiwan, Rapana street library. These projects not only encompass the refugee issues and children space design, but also the implementation of parametric design thinking. While designing space for children, inevitably it is required to understand the psychological behavior of CHILDREN - how their construction of thought process happens at various age levels, how they respond to different situations, what type of spaces are most suitable for them

<sup>3</sup> Documentary film directed by Zach Ingrasi, Chris Temple, Year of production: 2015

in terms of stimulation and driving imaginations. These understandings are essential to underline the various design parameters that help to enhance CHILDREN'S learning process. Psychologist JEAN Piaget's theory concerning cognitive development in children is presented in this paper to understand how children perceive life in a refugee camp, and what they may need to thrive and grow in a difficult life altering experience. It considers the findings of other research papers identifying the impact of class rooms design on pupil's learning process as well as various strategies of built environment to promote well-being.

Analyzing these case studies and texts, several design guidelines are set along with cultural, contextual and environmental parameters of different sites to start the design process that will work as a paradigm for such situation.

b) Narrative, Interview Recap, Personal Experience

Syrian children have undergone terrifying experience of destruction, torture and massacre. Many of them saw their loved ones dying right in front of them. They were not even allowed a reprieve from such horrors while attending the funerals of their beloved people as shelling and bombing occurs everywhere. The children have become unexpectedly habituated seeing the armed militia invading their communities, neighborhood and houses demolishing them to the ground. Ironically many Syrian children have been taken to their school and being tortured. They were hung up from the ceiling and beaten indiscriminately in the same place where they used to learn and play. Undoubtedly this will cause a serious negative and terrifying experience about school. Many children express that they are afraid of going to school as they experienced the

bombing and shelling while attending school. Inevitably school doesn't appear to be a safe place for them. Many young children have become mute because of what they have seen in their eyes.<sup>4</sup>

Even though the refugee camps are inadequate in terms of facilities, they prefer to live inside the camp rather than living in Syria. However, they miss their neighborhood, their house and playing with other children.

c) Case Studies

**1. Jarahieh Refugee School**

'Catalytic Action' designed this School in 2015 which was funded by 'Save the Children'.

It is an excellent example of temporary constructions with multiple functional use simultaneously that can be dismantled and reassembled elsewhere.

During the daytime it is school for children and after 4 pm it is a school for adults, and on weekends it functions as a public cinema and a site for aid distribution. Extensive use of local material such as locally sourced sheep wool as insulation made the project a sustainable educational and social facility space.

It utilizes a courtyard-based design that offer a good public space however, the introvert interior spaces as learning space is not as inviting and stimulating as it should be.<sup>5</sup>

<sup>4</sup> Save the Children, "Untold Atrocities- The Stories of Syrian Children"

<sup>5</sup> Ariana, Zilliacus. "With the Jarahieh Refugee School, CatalyticAction Demonstrates the True Potential of Temporary Structures"



Not just a school



Fig 2: Perspective view (Top), Section (Middle), diagram of multifunctional use of space (bottom)

## 2. Makani Remedial Educational Center

This project was built by 'Building Peace Foundation' in District 5 of Zaatari Refugee camp, Jordan back in 2016.



Fig 3: Perspective view

Permanent Construction type; prefabricated Pilot project. Mono Functional use, specifically for school dropout who would like to reenroll again.

Courtyard based design approach.

Use of Local material (Rubble Filled Gabion wall) that addresses the thermal insulation issue in the desert climate.

Clear story opening utilizes the sunlight to come in the interior space which helps to avoid the glare in the desert region. <sup>6</sup>

### 3. 100 Classroom for Refugee Children

'Emergency Architecture & Human Rights' designed this pilot project which has been built in Za'atari Village of Jordan, located outside the Za'atari refugee camp in 2017.

Semi-permanent construction type that display some strong vernacular and contextual features.

Multifunctional, primarily built for Children as a space for learning and education (in morning), however will be used by the Adults as well in the afternoon to learn reading and writing skills. The idea of the classroom space and construction technique was derived from super-adobe

<sup>6</sup> Building Peace foundation, "Makani Remedial Educational Center"

technique and vernacular beehive house structure of Syria respectively.



Fig 4: Perspective View

Local Sandbag was used in construction which not only cost effective but also worked very well in terms of thermal insulation in the harsh weather of Za'atari characterize by hot summer and cold winter.

It provides children with an interesting playing space inside as a mezzanine level and exterior elements for climbing.<sup>7</sup>



Fig 5: Interior Space (Left), Exterior Surface (Right)

#### 4. Floating Pavilion Taiwan

The pavilion was designed by 'Shen Ting Tseng Architects' in 2016, and is located in Taipei City, Taiwan.

This is a splendid example of a prefabricated, temporary, lightweight pavilion which dramatically changes the existing condition of the museum plaza by creating it as one of the centers of attraction and activity.

No specific functional use.

The two most intriguing parts of this pavilion is the *curved-conical shaped mound on the deck with an attention drawing pink spherical void* and the lightweight white colored canopy above it.



Fig 6: Night View (Left), children's playing space (Right)

320 individual box-shaped kites form the entire white canopy giving a swaying motion during

<sup>7</sup> ArchDaily, "100 Classroom for refugee children"

the prevailing breeze, providing a sense of relaxation for the space. The kites also draw the light in such a way that it creates a magnificent interplay of light, shade and shadow within the space throughout the day.<sup>8</sup>

### 5. Rapana' Street Library in Bulgaria

A team of young architects and designer created this simple yet amazing street library in the city of Varna that accommodates space for 1500 books.

Prefabricated temporary construction (transportable) with simple functional use. Made from wood modules that not only work as the structure but also creates shelves to store books.

The wooden ribs create an amazing interplay of light shade and shadow within the space.



Fig 7: Perspective view (Top), Inner Space (Bottom)

<sup>8</sup> ArchDaily, "Floating Pavilion/Shen Ting Tseng Architects"

The shape resembles the shell of a sea snail and was made possible capitalizing the parametric process that shows the possibility to unfold many such natural shapes.<sup>9</sup>

#### d) Literature Review

##### 1. **Architecture for Well Being**

The design of our built environment has a significant effect on our health and well-being and can have long-term implications for quality of life. In fact, Context can strongly influence our behavior.

"Whether people are healthy or not, is determined by their circumstances and environment. To a large extent, factors such as where we live, the state of our environment, genetics, our income and education level, and our relationships with friends and family all has considerable impacts on health" -- *World Health Organization: The determinants of health*

Even though the science of well-being is comparatively a recent field of enquiry and research, the UK Government's 'Foresight' project provides the critical evidence that eventually comes up with the idea of Five Ways to Well-Being. Those are:

Connect: The quality of social connections is directly correlated to wellbeing. Talking and listening to friends, family or strangers can be terms as such social connections which influence the person's physical health as well.

Keep Active: Being active is another key to wellbeing as recent studies indicates that physical activity lessens symptoms of mental and physical ill-health.

<sup>9</sup> Equipo Editorial, "Parametric Design Helped Make this Street Library Out of 240 Pieces of Wood"

Take Notice: Symptoms of stress, anxiety and depression can be attenuated by paying attention to present as well as being aware of feelings.

Keep Learning: People with higher ambition tend to come up with better outcome. Evidence also shows that, people who are participating in new activities in later part of their life is subject to wellbeing. Aspirations are generally shaped in the formative stage of an individual's life.

Give: Evidence indicates that pro-social behavior has a positive influence on happiness rather than self-centered behavior. Such benevolent behavior can be achieved through offering selfless help to others and through volunteering. This is contrary to egocentric attitude.<sup>10</sup>

## **2. Architecture of School**

Young children spend fairly a significant amount of time of a day in school and hence the impact of school architecture and the spaces associated with it is quite far reaching. Which is why, school spaces and class rooms need to be designed with great care and attention, specifically focusing on the true need and character of its user group. Recent research reveals 3 key characteristics that are fundamental for classroom design. They are:

- a) **Naturalness:** Naturalness indicates the need of good daylight as well as possible views of greenery from it.
- b) **Individualism:** Individualism refers to the changeability and adaptability of the space for providing range of activities within this space
- c) **Appropriate Stimulation:** To achieve an appropriate level of stimulation, there should be a balance between quiet visual

environment and certain level of complexity and interest<sup>11</sup>

## **3. The Impact of classroom design on pupil's learning**

Recently, several studies found evidence for demonstrable impacts of school building design on the learning rates in primary school children. Seven key design parameters are identified from the three design principles that significantly predict the pupils' learning progress. These seven parameters are:

Light: Light is considered to be the most vital parameter as it has the highest impact on the learning progress regardless of the size of the window and openings.

Temperature: People come up with better performance in the room where the temperature is easily accessible. That indicates correlation between the learning process and factors affecting the temperature.

Air quality: People usually perform better in a room with large air volume and large window openings. Air exchange rate has a significant impact on pupil's psychological attention as the lower air exchange rate and higher CO<sub>2</sub> Level in classroom slows down the attention.

Ownership: Ownership and sense of belongingness is correlated to overall learning process. Classrooms with unique design characteristics; personalized display and high-quality furniture are more likely to contribute to the sense of ownership.

Flexibility: Flexibility also plays key role in pupils learning process. Large and simple open areas are suitable for older pupils, however more varied plan shapes of composite manner are befitting for younger pupils. Attached and easily

<sup>10</sup> Koen, Steemers "Architecture for well-being and Health"

<sup>11</sup> Dudek, Mark "The Architecture of Schools"

accessible breakout spaces, age-appropriate learning zone, defined wall area for display is also instrumental for their learning process.

**Complexity:** Layout of the room, ceiling type and pattern can draw the attention of pupils with a certain degree of order and balance.

**Color:** Color posits a great impact on pupil's mind. Such as, White walls having highlighted (with light or vivid color) feature wall stimulates the mid to great extent. Bright colors usually make the overall environment feel prominent.<sup>12</sup>

#### 4. Parametric Design Thinking

Due to recent rapid technological advancement in design related fields, new design theories and process are emerging with reformulation of the older ones. Parametric design is a process that involves algorithmic thinking based on parameters and rules and can adapt to changing context. The idea of parameters is related to factors with a range of variations that significantly influences the formal characteristics of the design.

Parametric design allows the designer to explore and generate design ideas in multiple ways by using the parameters and rules associated. It pushes the limits of design expression with a wide range of design variations that potentially evoke more creativity. Even though there is possible risk that the variation may lead to extreme abstraction and infeasibility, it is a potential new methodology that can support adaptability and creativity from design optimization to design innovation<sup>13</sup>



Fig 8: Panels of the canopy (left), Space underneath the canopy (right)

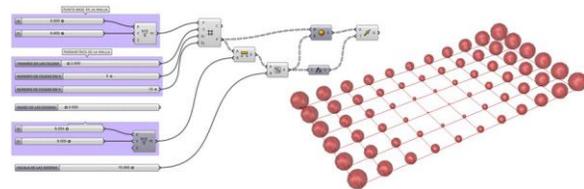


Fig 9: Visual Scripting in Parametric design (point attractor logic)

Since parametric approach can handle more complexities and lead to emergence of new forms, it has a great potential to be used for designing children's space with innovative and unprecedented ideas that will be more appropriate as creative and imaginative space for children.

<sup>12</sup> A holistic, multi-level analysis identifying the impact of classroom design on pupil's learning

<sup>13</sup> Rivka, Oxman, Ning, Gu. "Theories and Models of Parametric Design Thinking". September, 2015 ( P 477-478)

## CONCLUSION

Based on the stories and experience of Syrian refugee children, interviews of the Social workers working with them, children's true needs in their displaced status have been identified. Several literature reviews also set some guidelines for the promotion of their well-being and effective learning environment. Understanding the several educational projects undertaken by UNHCR, Save the Children and other organizations, a tentative program of the project has been outlined.

In addition to that, Cultural study, contextual analysis and building typologies studies of both Syria and Lesbos Island will help to set required design parameters that will be further incorporated in the design process.

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[www.aljazeera.com/news/2015/07/unhcr-syrian-refugees-4-million-150709033023489.html](http://www.aljazeera.com/news/2015/07/unhcr-syrian-refugees-4-million-150709033023489.html)

Fig 2: [www.archdaily.com/806427/with-the-jarahieh-refugee-school-catalyticaction-demonstrates-the-true-potential-of-temporary-structures](http://www.archdaily.com/806427/with-the-jarahieh-refugee-school-catalyticaction-demonstrates-the-true-potential-of-temporary-structures)

Fig 3: <http://www.buildingpeace-foundation.org/makani-remedial-educational-center/>

Fig 4 & 5:  
<https://www.archdaily.com/880676/100-classrooms-for-refugee-children-emergency-architecture-and-human-rights>

Fig 6:  
<https://www.archdaily.com/870009/floating-pavilion-shen-ting-tseng-architects>

Fig 7:

[www.archdaily.com/883413/parametric-design-helped-make-this-street-library-out-of-240-pieces-of-wood](http://www.archdaily.com/883413/parametric-design-helped-make-this-street-library-out-of-240-pieces-of-wood)

Fig 8:

<https://www.archdaily.com/897088/marquise-marc-fornes-theverymany>

Fig 9:

<https://developer.rhino3d.com/guides/general/essential-mathematics/parametric-curves-surfaces/>

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## Addendum

### Narrative

#### Whole Community Plan/Master plan

I have picked the school site adjacent to Pangodeu village which is almost 6-7 kilometer away from the capital Mytilene. The reason I don't want to place them right in the middle of an urban setting in the capital is that within a larger concentration of local people they may find themselves alienated. It is preferable for them to start their integration process from an off center site which will give them more freedom and choice. This village has roughly 1000 people, who mostly earn their livings by farming (Olive), wine making and fishing.

The most challenging part here is to design for a displaced community which possesses a strong culture and at the same time design for them in a location which is not their home and quite different and distinct in terms of culture, lifestyle and built form. It's important to make synthesis of the two cultures through design, so that the displaced community feel at home and at the same time the local community feel safe and respected. To do that, I studied building typologies and components both on Lesbos island and in Syria in general in an attempt to reflect and blend their built environment and life style.

I consider the school as the pivotal point where interaction between two communities ( The Greek and the Syrian) will start taking place. It will serve as bridge for communication. Sports and Culture are some of the best ways to connect people regardless of race, ethnicity and language. Public squares and cafes are also a great source of gathering. Interestingly, Cafenion is an integral part of Greek village life and they consider it their home away from home.

I strategically placed the soccer field in such a position that it will not only serve the school but also the surrounding community as well. Cafenion, public square are placed adjacent to the soccer field with a view to drawing people here for leisure and fun.

Another way of interaction is performance. The school has an open amphitheatre which is a millennia old element of Greek Culture. It will host cultural programs like dance, drama etc that will bring two communities closer to each other.

#### Source of economy for the Syrian people

Working in the olive field, in the market place, in the restaurant, in the school. Can commute to Mytilene daily for work. This island is a famous tourist destination so this zone can be a good tourist attraction as well, through some distinctive cultural elements here like restaurant, shops, antique shop and so on.

#### The School

I wanted to design the school in such a way that it becomes an extension of village life, house life. Functions are not stacked up in a single building: rather the classrooms and facilities are clustered in separate aggregates which break down the built scale and create the sense of belonging and individuality to the specific users/students/children.

The villages here are characterised by the narrow pathways that I wanted to interpret in my school. The entrance of the school leads to a central open yard from which emerge in opposite directions two pathways which meander to reach and serve each class cluster and functions. This pathway, along with the built form around it creates series of compression and expansion of space and allows numerous changing vistas. Sometimes the pathways end up in an open playing field with lush vegetation in the background creating a soothing experience.

Using the existing natural slope, the site is divided into several terraces, each one being roughly 2.5' higher than another. The terracing occasionally helps to define the edge of the pathways, it often demarcates the edge of a building block and sometimes works as low seat wall for the students in the landscape.

### Classroom Cluster

Classrooms are formed based on specific age groups and are gathered in clusters with central courtyard that is not only popular in Syria but also a familiar Greek urban form. Each cluster contains three class rooms, one ancillary function and one adventure play ground. There are outdoor (covered by pergola) break out spaces for each class placed diagonally in each cluster.

In addition to the adventure playgrounds there are couple of dedicated open playgrounds for students to play freely, located at the two furthest side of the site to serve clusters for specific age groups.

### Mediatheque

The mediatheque accommodates facilities including audio visual room, gadgets and computers zone, book collections etc. It has two levels. The ground floor houses a collection space, computer desks etc. The upper level is dedicated more for quiet reading space with cosy furniture connected with the 'stair-ramp' plaza, a space where children will spend their time freely with fun. The Stair is always a great source of activity and gathering and this stair plaza additionally accommodates a fun-cave space underneath for children to crawl. In addition to the partially shaded plaza, this building has a semi-outdoor space overlooking the greens beyond the site.

### Multipurpose Hall

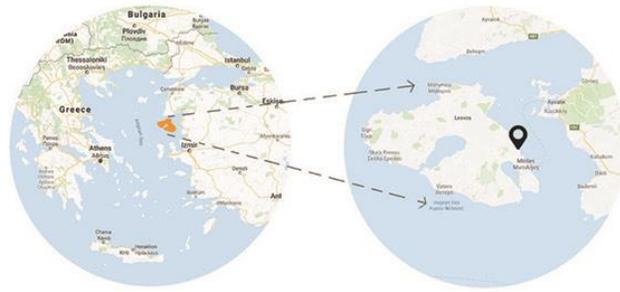
It is located on the north edge of the site close to the soccer field with a view to allowing the Greek community to access it easily and also being connected visually. Roughly 140 people can enjoy a performance inside. It has an adjacent open-air amphitheatre for outdoor performances as well. During the warm dry season, the wall surface can be projected for movie show or game show and people from both communities can gather there, either sit on the amphi or on grass to enjoy the show. (Amphitheatre, one of the emblems of Greek architecture)

### Café, Exhibition Pavilion, Watch tower

The zone next to the admin is comprised of cafeteria, watch tower and exhibition pavilion that altogether form a central lawn in the middle. They combined accommodate a wide range of activities. The watch tower rises beyond the average height of the surrounding building, allowing an amazing view of the Aegean sea at the west and a hilly terrain just in the opposite. Its high walls are equipped with rock climbing facilities for the pupils.

Exhibition space is always necessary for displaying students' work and the pavilion diagonal to the watch tower is an ideal space for that. This open pavilion has free standing walls where pupils can paint, display their works visible and accessible to all. This is a very motivational space for them especially when you draw here and you see your fellow friends and their guardians watching your work, that certainly is a confidence booster. This space is quite dynamic in terms of its visual experience.

## Site Analysis



It is situated in the Northeastern Aegean Sea, separated from Turkey by the narrow Mytilini Strait. **The Turkish main land is only 20km away from it.**

This is the **third largest island** in Greece.

**Major Source of Economy:**  
Agriculture, Olive Oil (main Source of income),  
Tourism, Fishing, Soap and Ouzo (greek national liqueur)



**Almost half the migrants to have entered Europe have arrived via Lesvos – chancing the hazardous crossing from Turkey.**

**While the distance between the Turkish mainland and Lesvos's east coast – 18 miles – makes it a more distant prospect than some of the smaller outcrops in the region, its size and status as the third largest of the Greek islands make it a desirable destination.**

Its capital **Mytilene**, on the east coast, has **become a focal point in the crisis, with the Moria refugee camp**, north-west of the town, playing host to many of those who manage the trip over the waves of the eastern Aegean.



**Total Site area is 12,000 sqm or nearly 3 Acres**



### Background Research

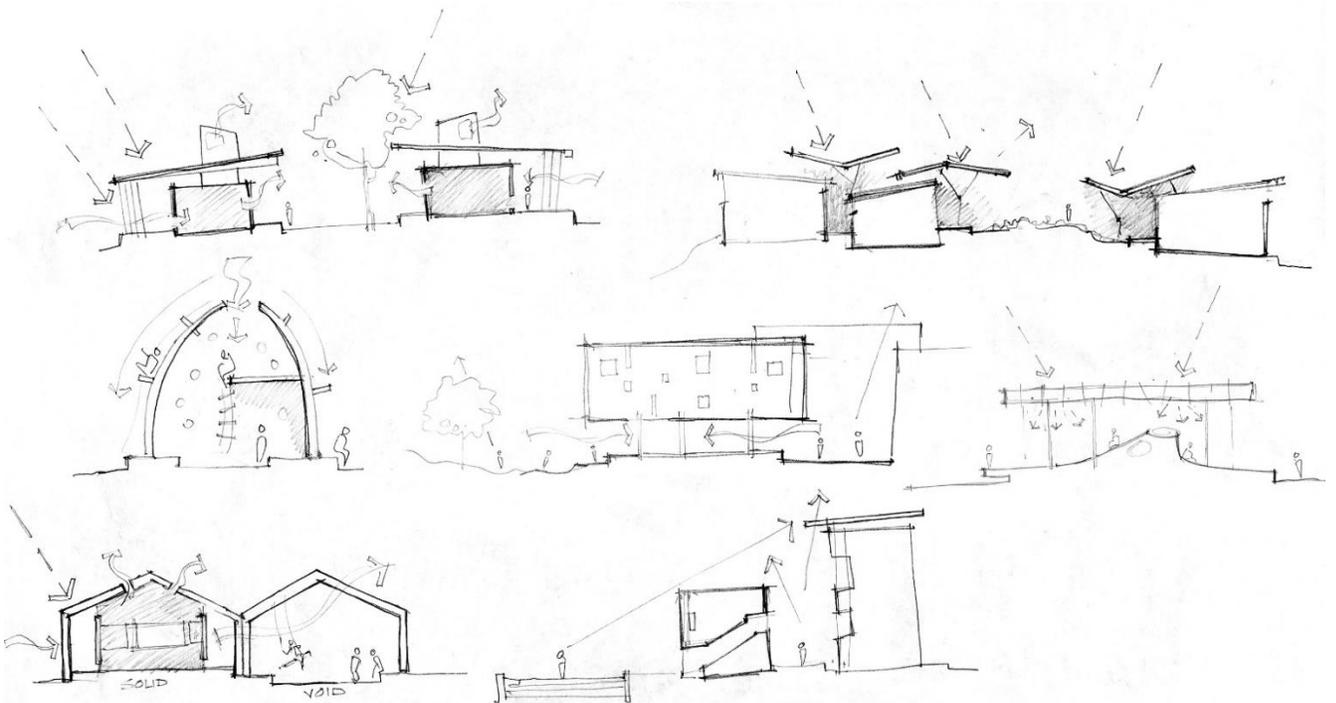
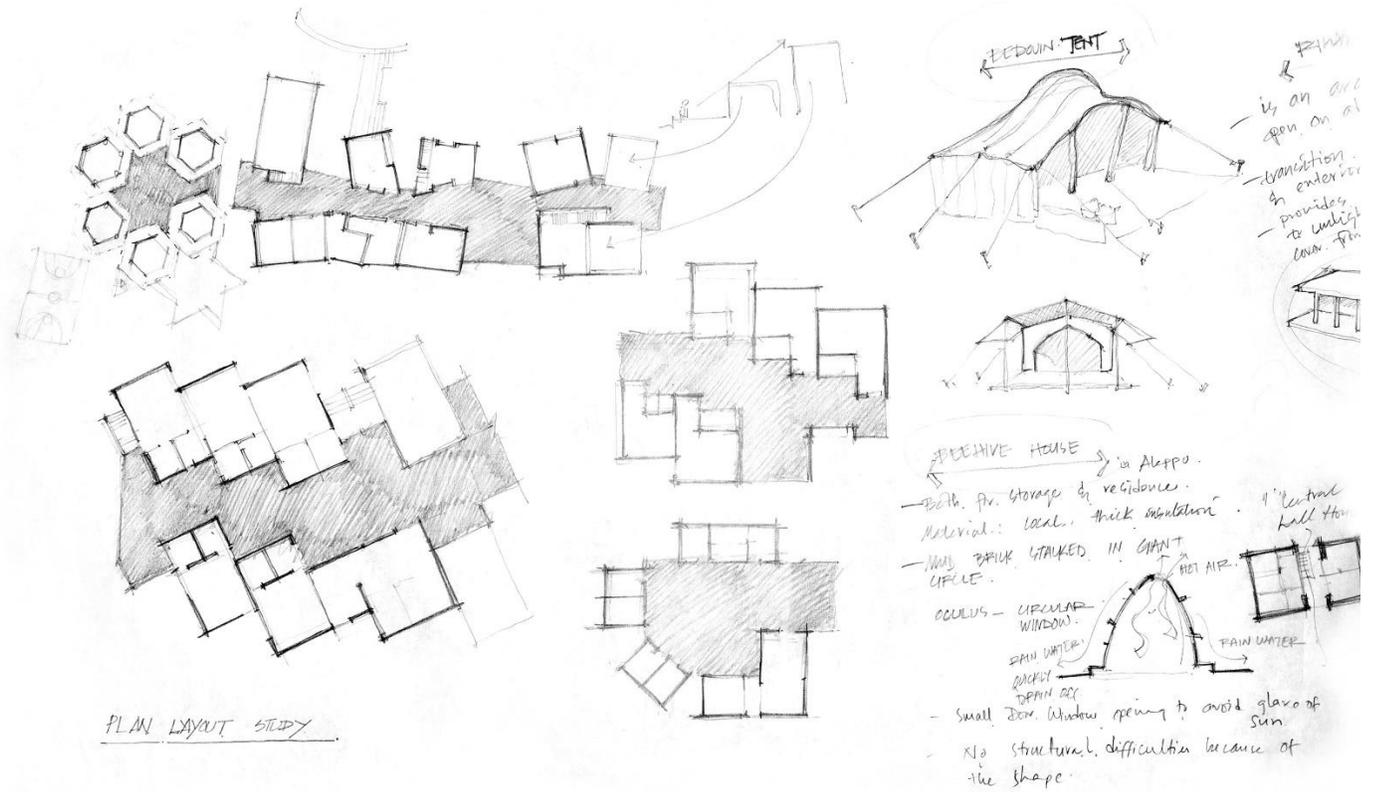


Fig: Diagrammatic analysis of Case studies

## Urban fabric and spatial configuration Study

### Components of Urban Form in the Arab World:

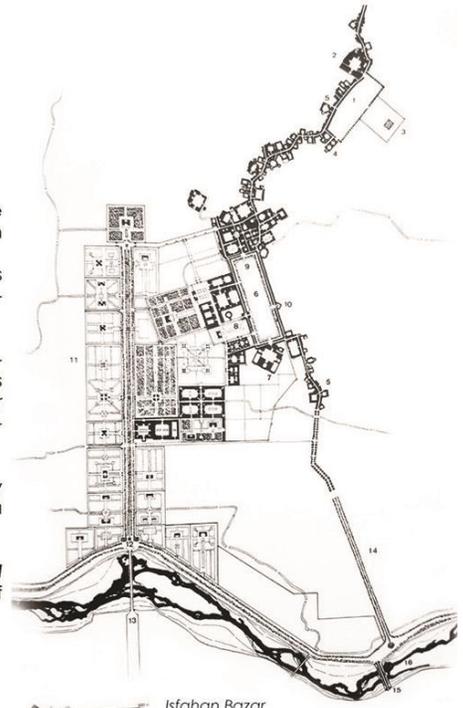
- The Residential Unit
- Mosque & Welfare buildings
- Trade & Production structures

Private houses and the cluster of houses are the determining component of the urban fabric in the muslim cities.  
 The social unit of traditional Muslim House was usually an extended family covering several generations.

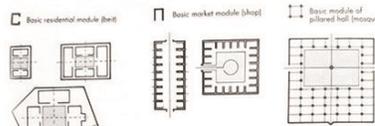
Since early days, commerce was a vital component in Muslim Urban life and the market always occupied a prominent portion in the city center in conjunction with the friday mosque and related social buildings.

The mosque as the main public core, is usually embraced by markets and together they form a coherent architectural complex.

The **strong interaction between religious and commercial activities** is one of the hallmarks of traditional muslim cities.



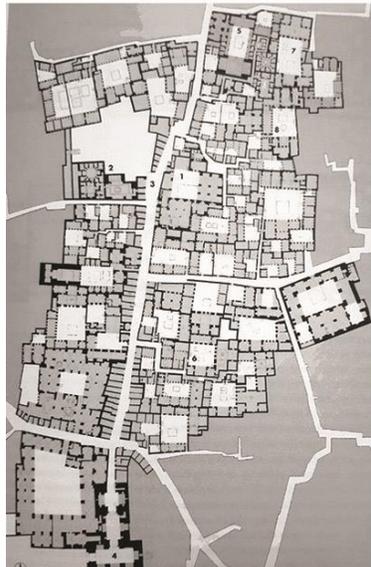
### Cellular composition of the urban Fabric (Maghreb)



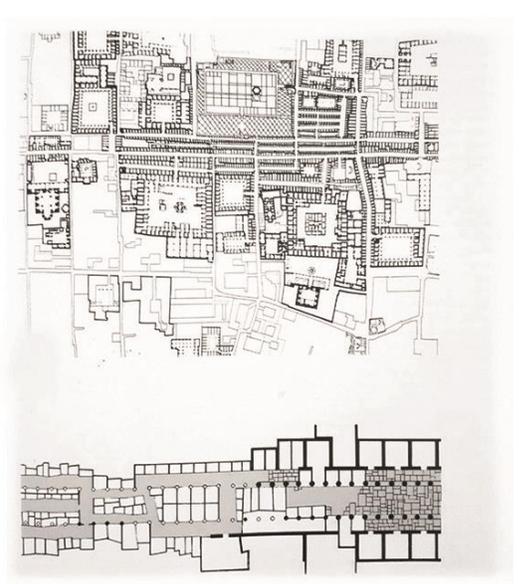
Public open space was detached from the main arteries in order to differentiate it according to specific use and to integrate it into corresponding public building, such as Mosque, Madrasa, Caravansarai.

The square transformed the street into a (predominantly male) social meeting place which, beyond its commercial purpose, became the major center for exchanging all sort of news.

Residential neighbourhood and central sq in ALEPPO



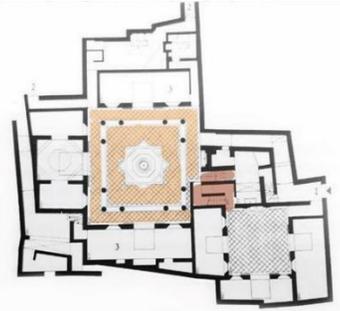
Old City center of Aleppo



**Building typology and morphology Study**

**Maghrebi Courtyard House**

- Absolutely centrality
- symmetrical layout of main rooms around the courtyard
- Main rooms follow the geometric shape of the courtyard
- Staircase usually not exposed to courtyard, rather placed in a strategic corner of the building



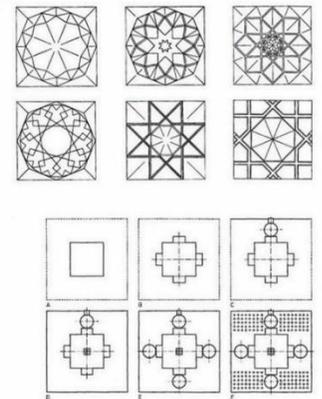
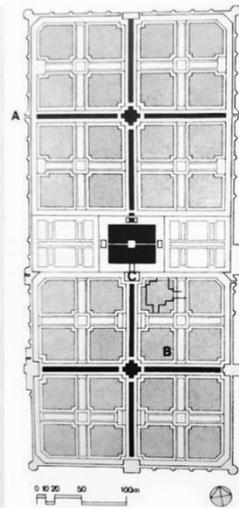
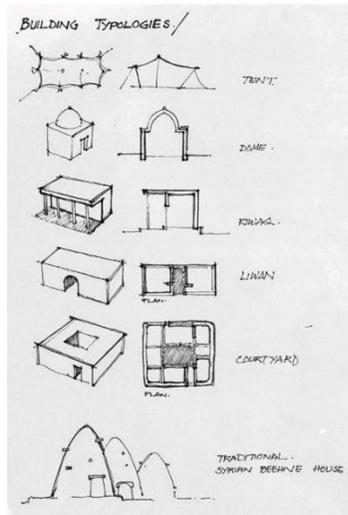
**Syrian type of Courtyard House**

- Courtyards are less formal in shape,
- courtyards and room layout are typically asymmetrical.
- Open Iwan directly attached to the courtyard work as an open air reception space.
- More complex and irregular structure with regard to courtyard shape, elevation and room layout

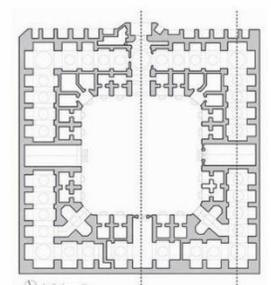


**Egyptian Courtyard House**

- Porosity of large portions of the external walls and internal partition wall is a important characteristic feature ( a feature found in the architecture of the Red Sea). It is locally called "Mushrabiya" or "rowshans"
- Houses are equipped with 'Malqaf' or Wind Catcher which directs cool breezes from the roof into the lower rooms.



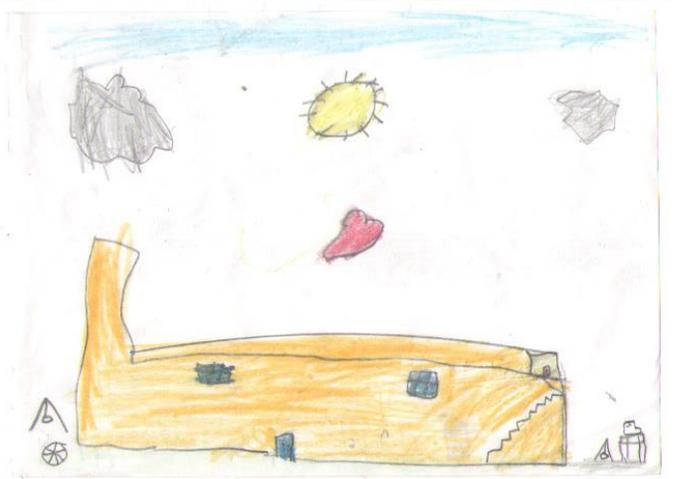
A **caravanserai** was a roadside inn where travelers (caravans) could rest and recover from the day's journey.



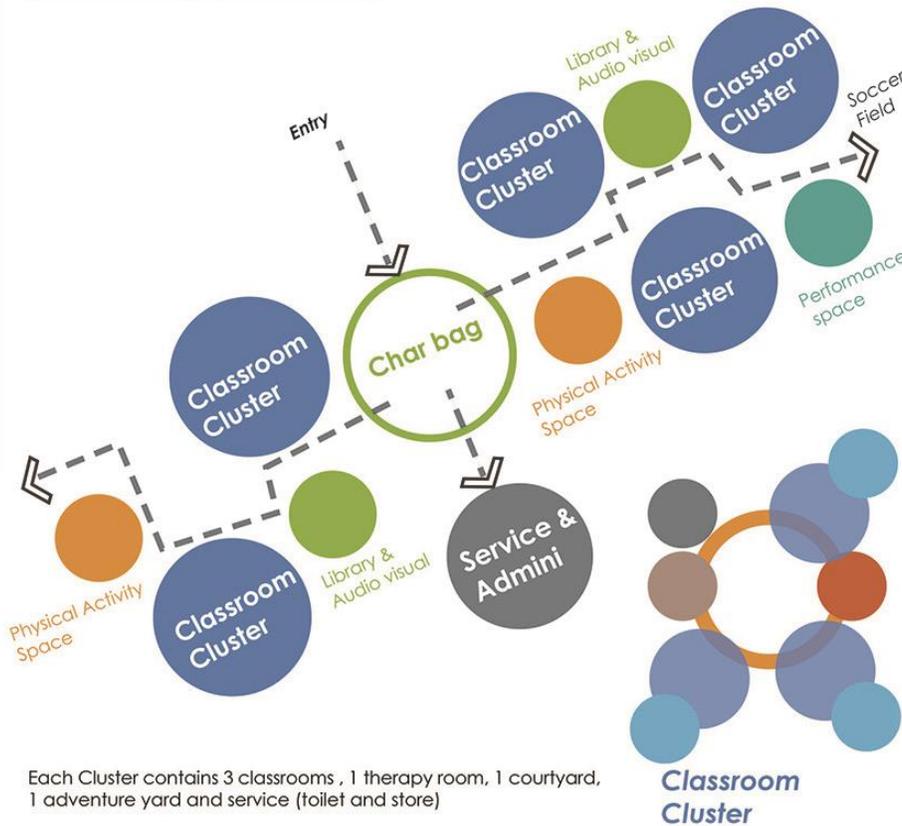
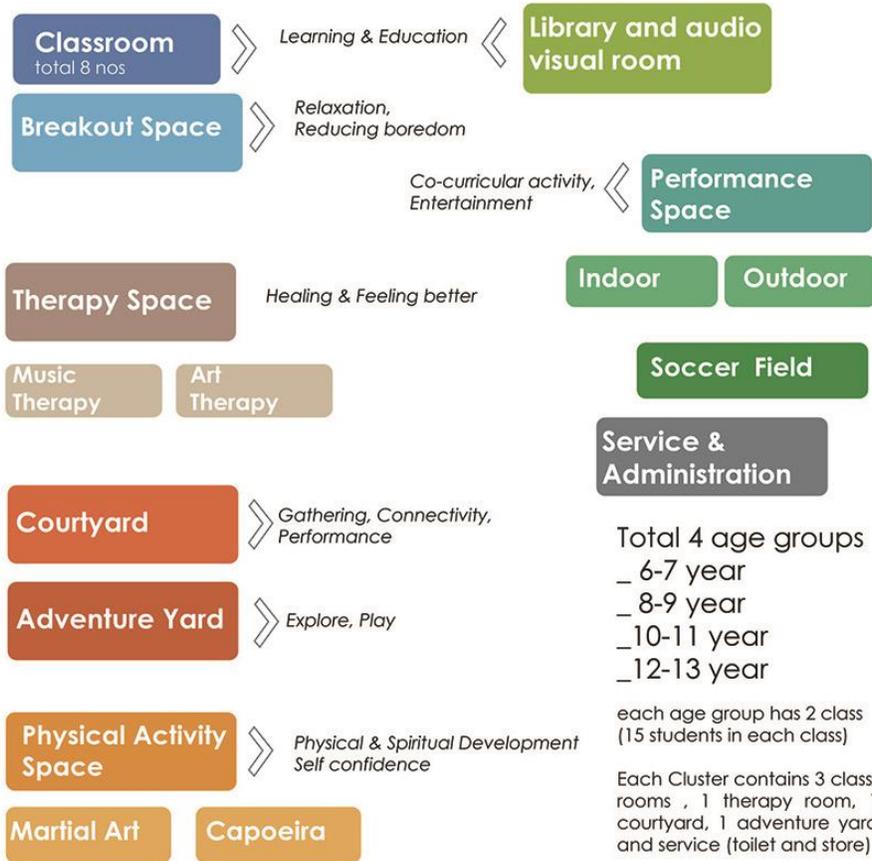
### Children's Activity Analysis



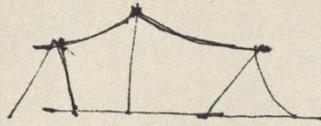
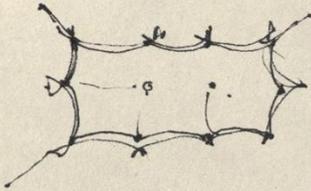
### Children's Drawing Analysis



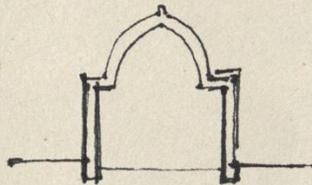
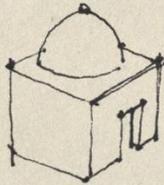
**Program and Bubble Diagram**



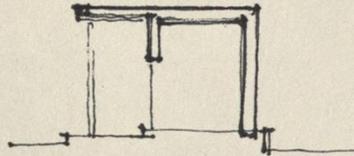
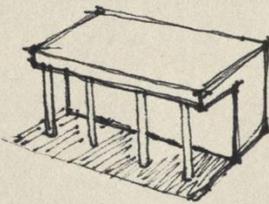
# BUILDING TYPOLOGIES.



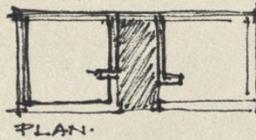
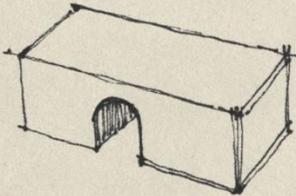
TENT.



DOME.

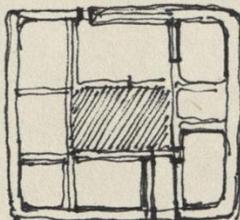
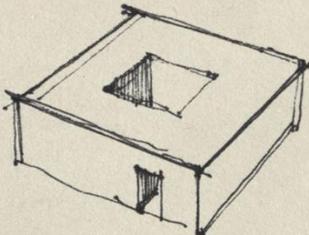


RIWAQ.



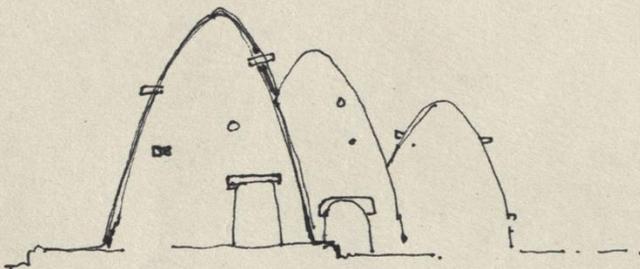
PLAN.

LIWAN



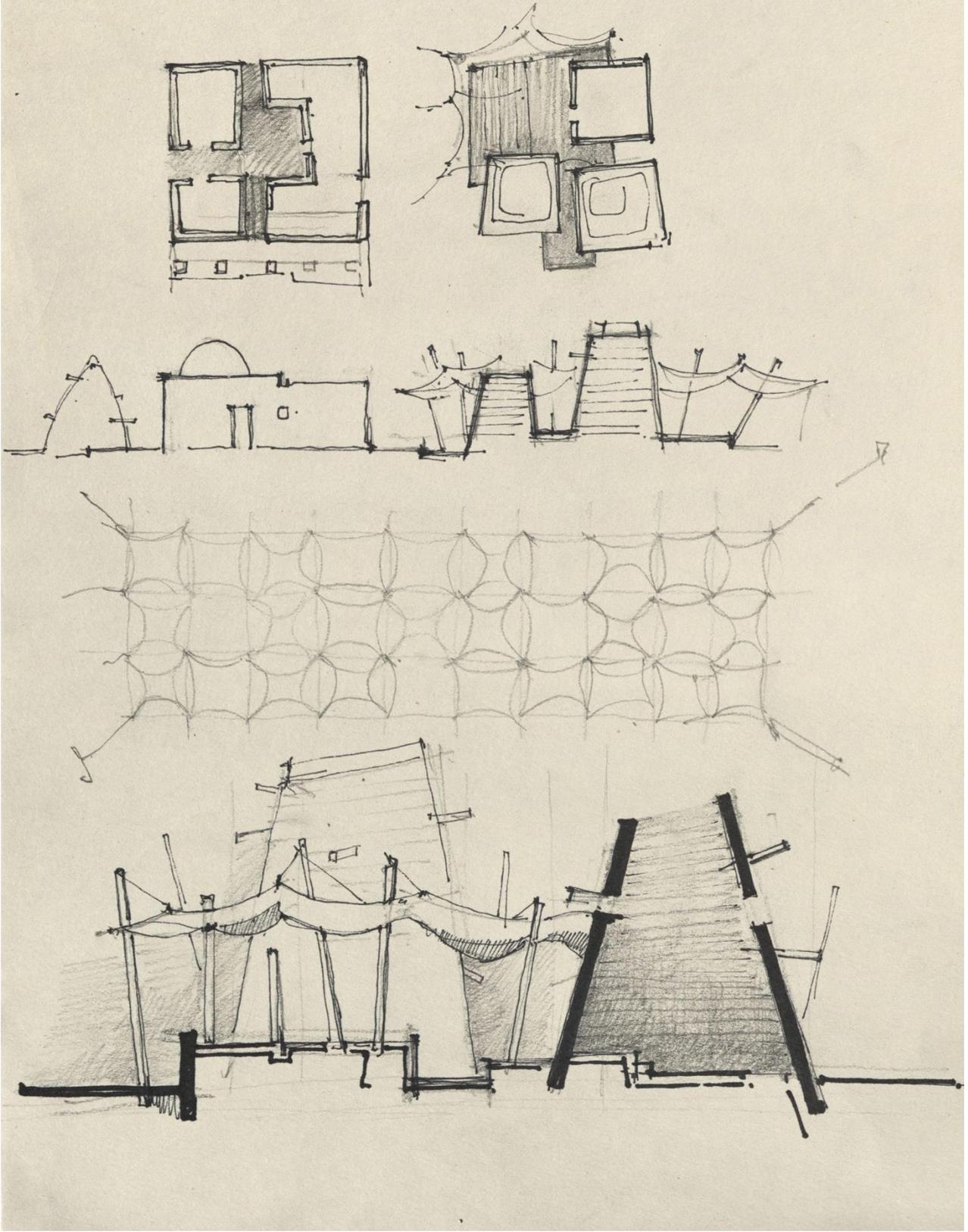
PLAN.

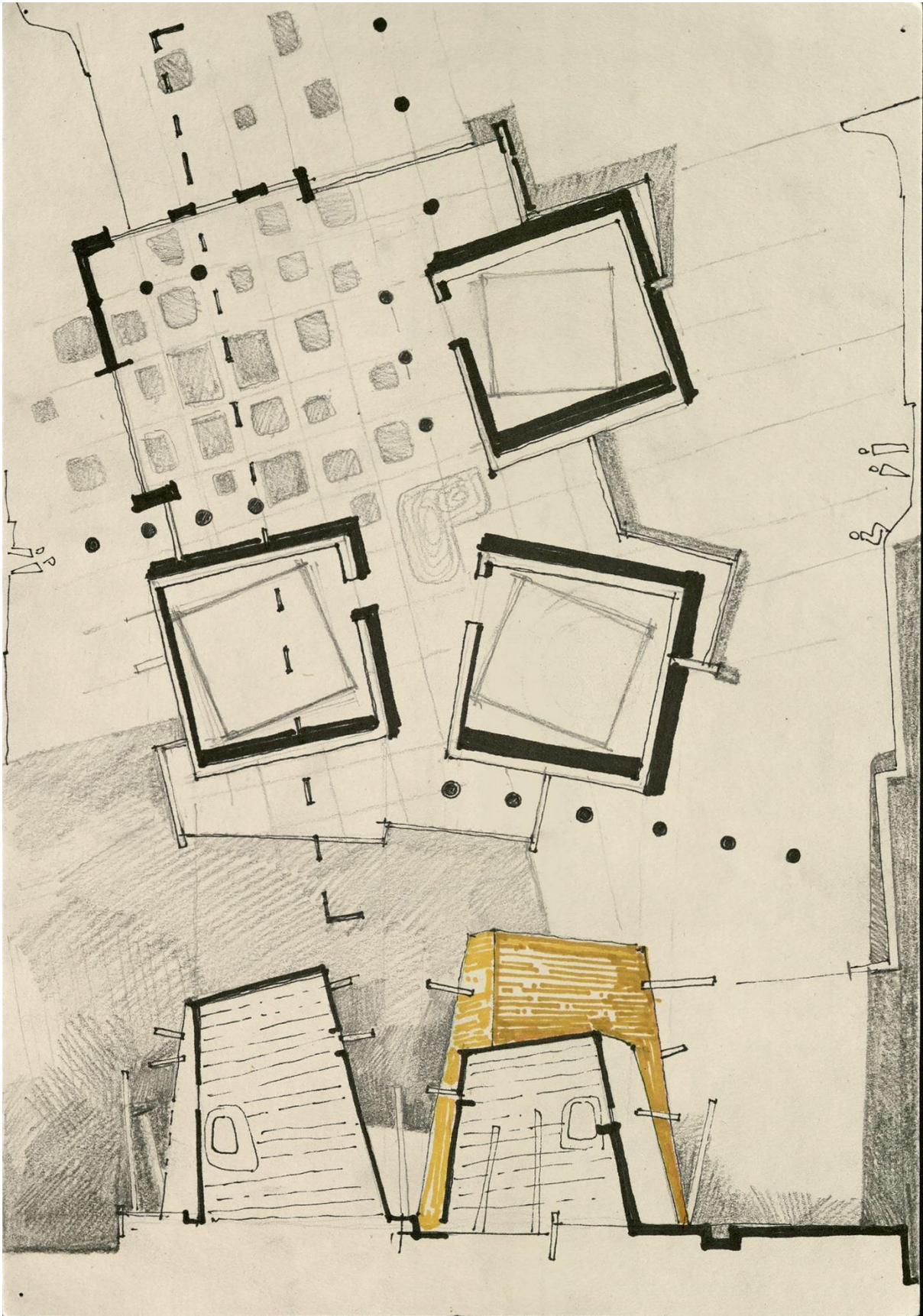
COURTYARD



TRADITIONAL.  
SYRIAN BEEHIVE HOUSE.

SYNTHESIS





## Syrian Culture, Lifestyle, Demographics

**Nomadic** :Usually Lives under tent

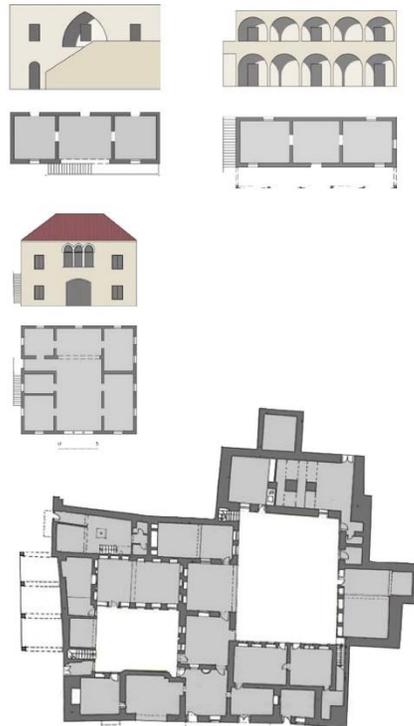
**Sedentary**: 2 Types

1. *Country Side House*

Courtyard works more as a garden. Courtyards surround by rooms in one or two sides.

2. *Traditional City ouse*

Typically Stone construction, Inner courtyards surrounded by rooms which work as an evening activity space.



### Life

Religious Demographic of Syrian people

**Islam 70.7 %** ( 60.5% Sunni, 10.2% Shia)

**Christianity 16.1%**

**Not Religious 9.8%**

Most Syrians are very tolerant and respectful of both religious and ethnic diversity.

**The family is the heart of Syrian social life. Connections with one's extended family are deeply valued and act as a crucial support system emotionally, financially and socially.** Whenever possible, several generations will usually live together.

**Soccer** is the most popular sport. **Weight lifting, judo, and karate** are popular in the cities.

The Syrian's taste for the traditional arts is expressed in dances such as the al-Samah, the sword dance. Syrian food mostly consists of Southern Mediterranean, Greek, and Southwest Asian dishes. Broadly the culture is conservative and exhibits great respect for traditions.

**Lesbos Culture, Life, Architecture**

**Life**

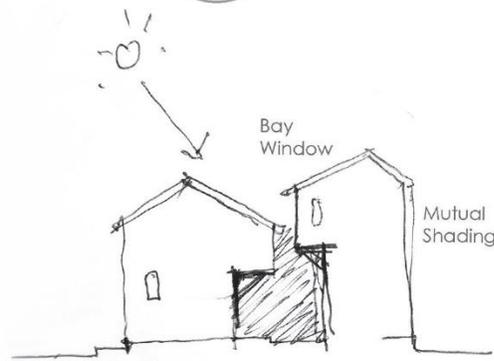
Lesbos people are very passionate about their ancient history (associated with the god and goddess of Greek Mythology)

In a typical village, **life revolves around the main square and the cafeneons** around it. The men work in the fields or whatever crafts they have been trained in. But no matter how hard they work they always find time to go to the cafeneons.

**Ozu Factory, Yogurt shop and Small traditional looking cafe** for coffee are very famous. Market Place, Agora, Antique shops are also very common there.



Main square & cafeneons



Compact Settlement for mutual shading

**Architecture**

Narrow stone streets in village and broadwalks in the beachfront are two of the characteristic features of the island.

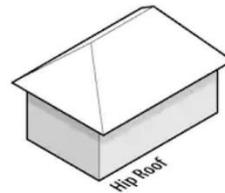
**Shallow Room Configuration. Less formal Courtyards, Hip Roof.**

**Wooden bay window** that extends at 2nd floor

Popular Building Material:

**Stucco** & Sedentary Stone, **Clay Tile** for roof.

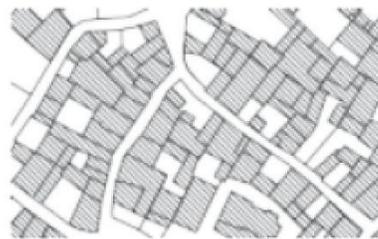
**Patio, Portico and Pargola, Small opening**



Hip Roof



Pargola



Semi-Compact Settlement



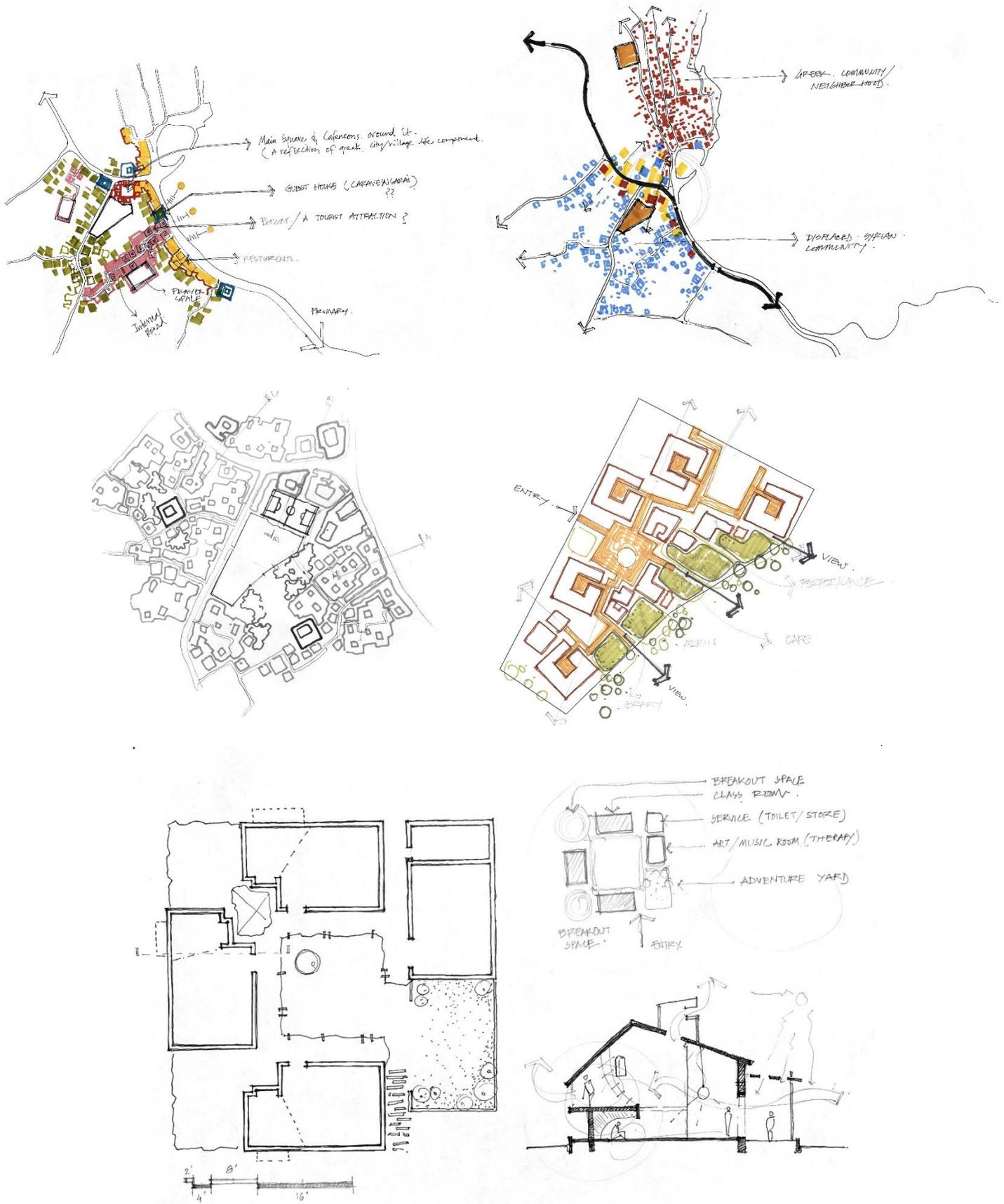
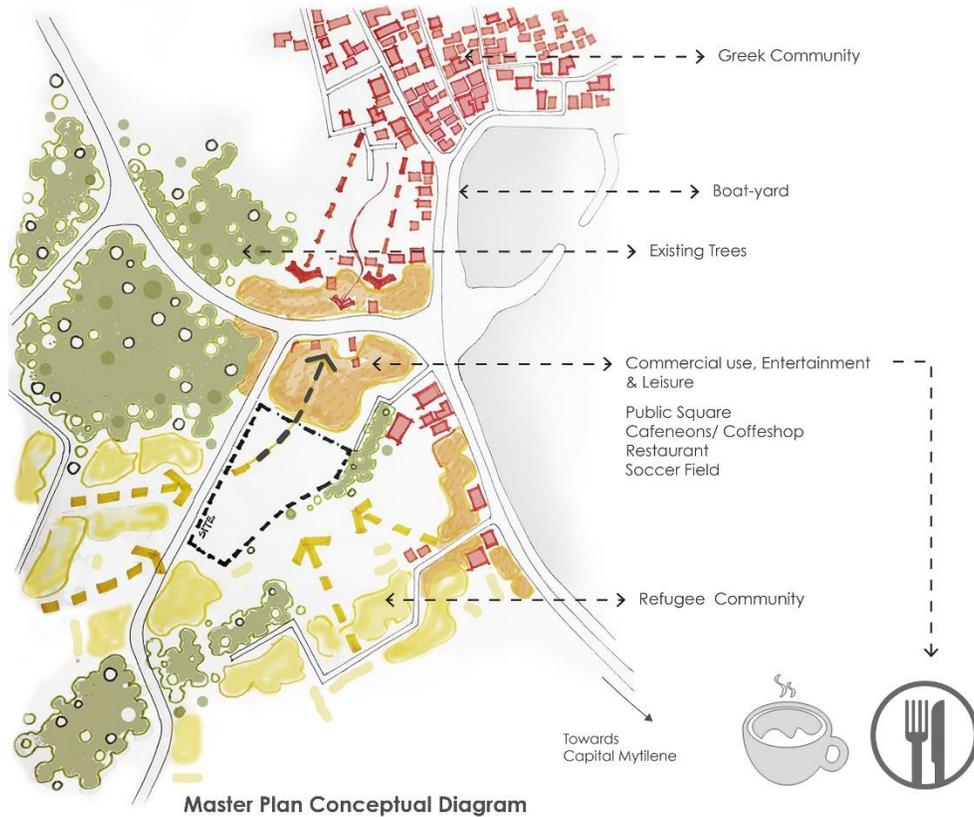


Fig: Whole master plan development (Top), School master development (Middle), Cluster (bottom)

### Final Design

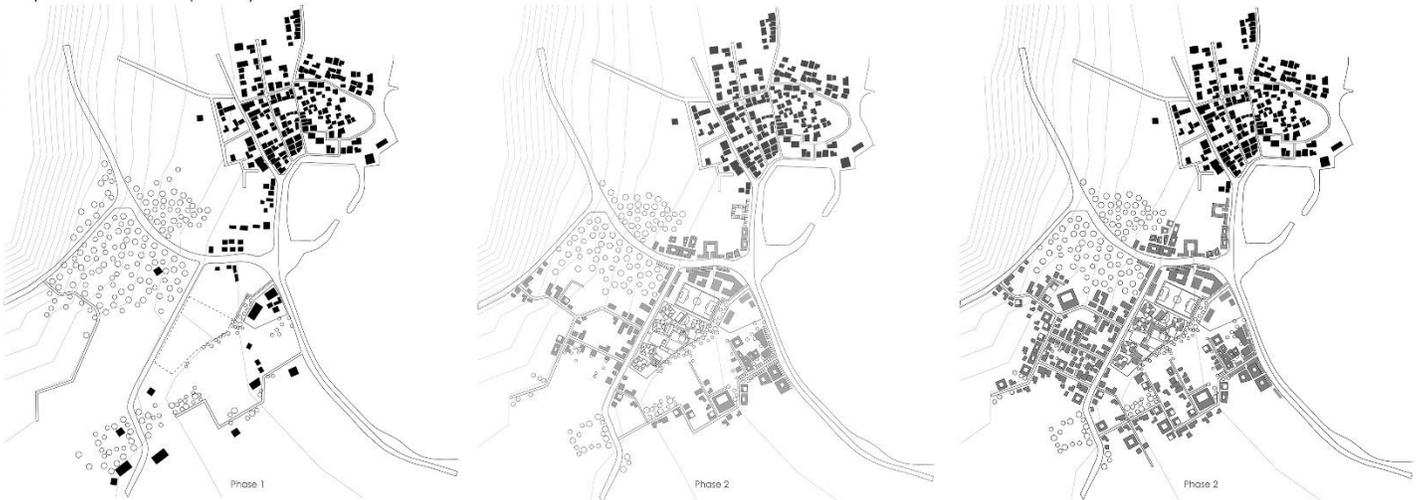


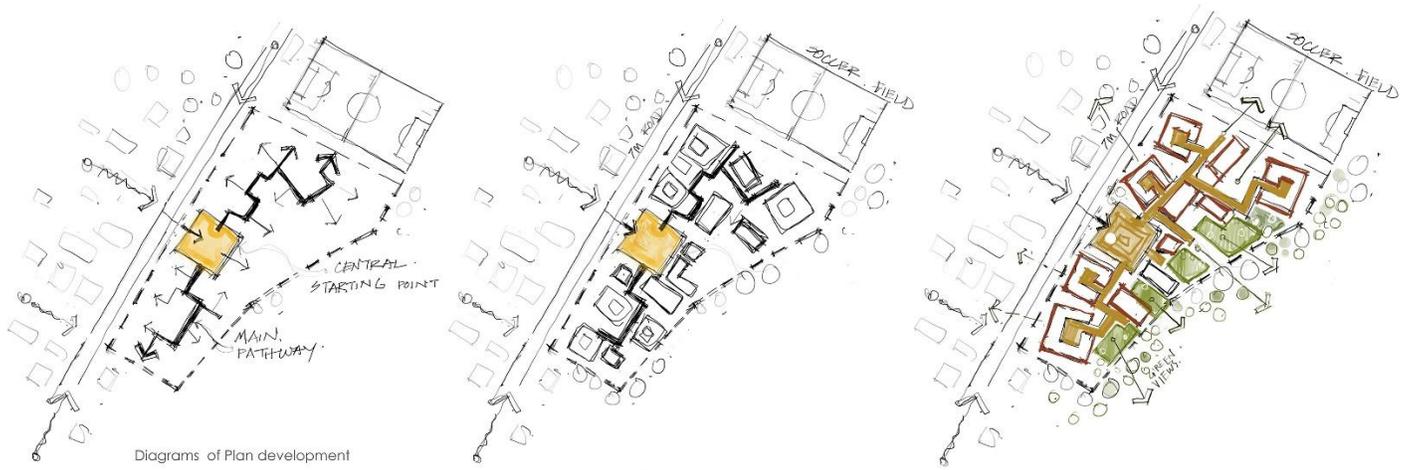
Master Plan Conceptual Diagram

Activities that will bring two communities close to each other, which will create the interaction between them.



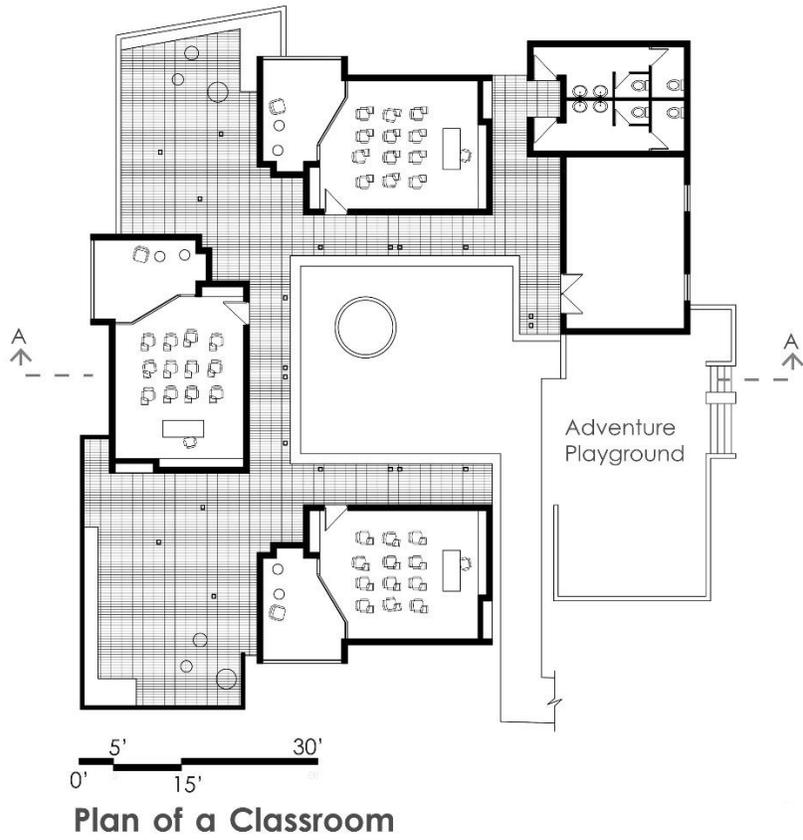
### Figure Ground Drawing (Phases of Development)





Diagrams of Plan development





Plan of a Classroom

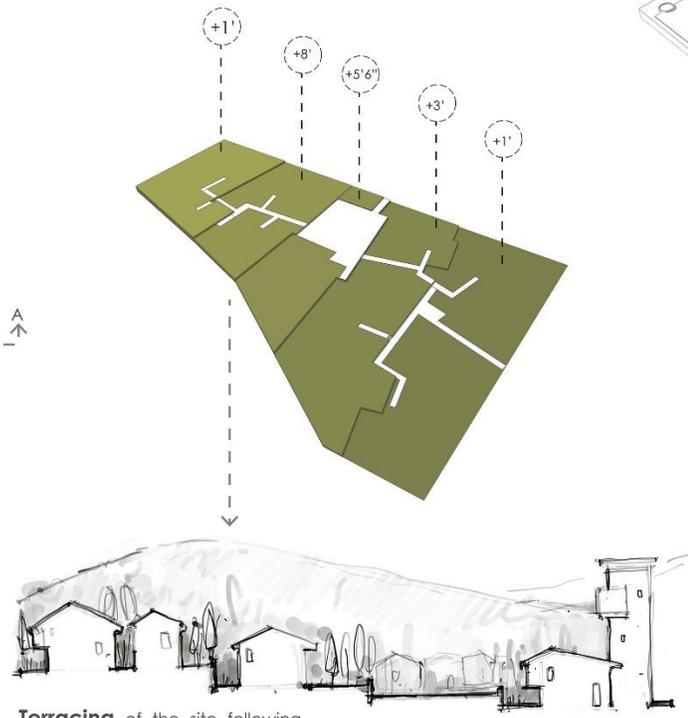
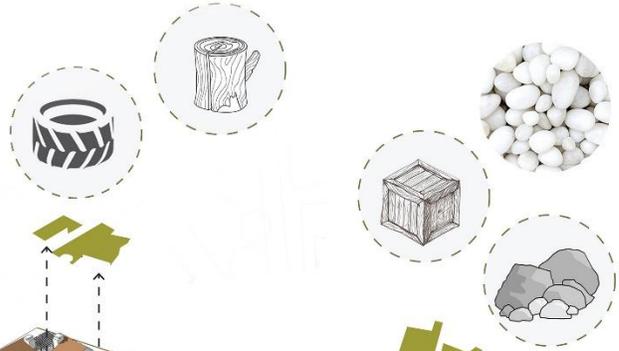


Fig: Perspective view of a breakout space in a Classroom cluster

### Adventure Playground

Adventurous and Imaginative Play with natural, recyclable and Raw material.

Where Children can create and recreate their playground of their own



Terracing of the site following the natural slope

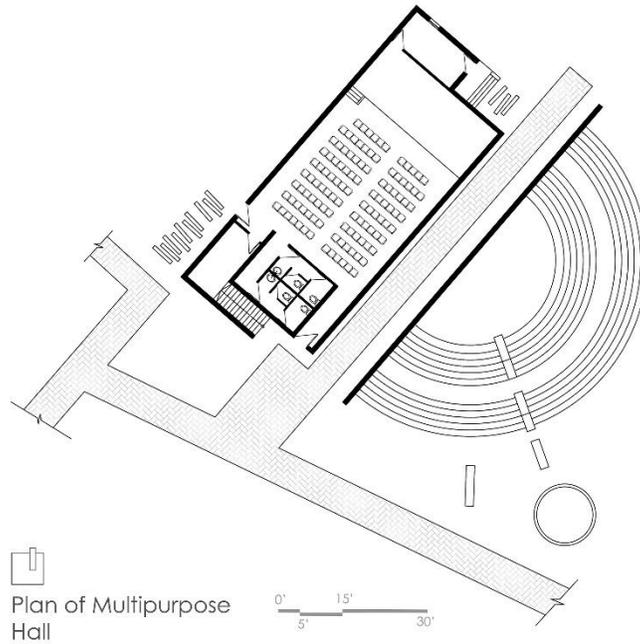


View through Admin Bld.



Section of Classroom Cluster

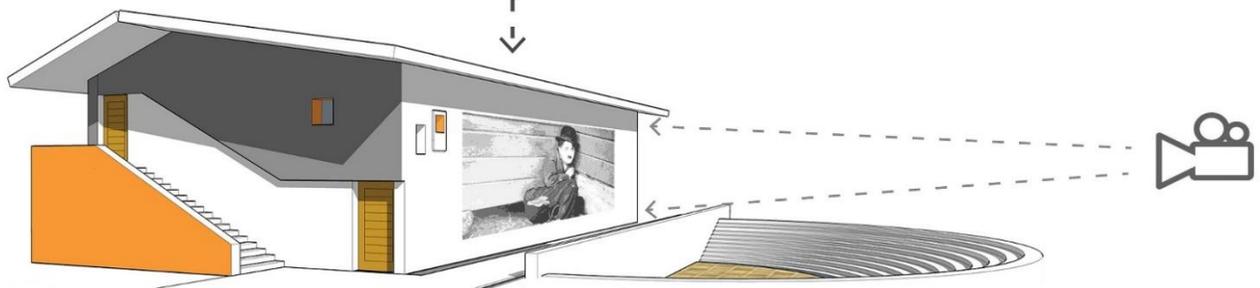
### Multipurpose Hall



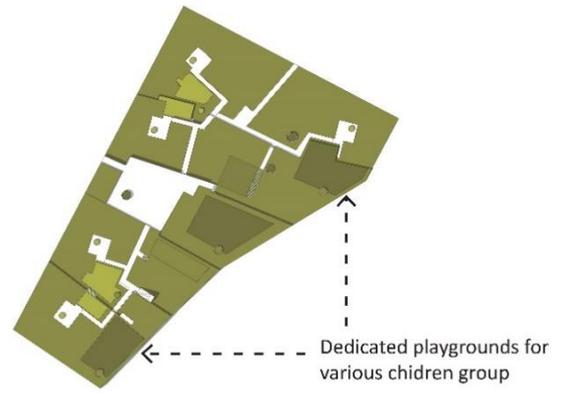
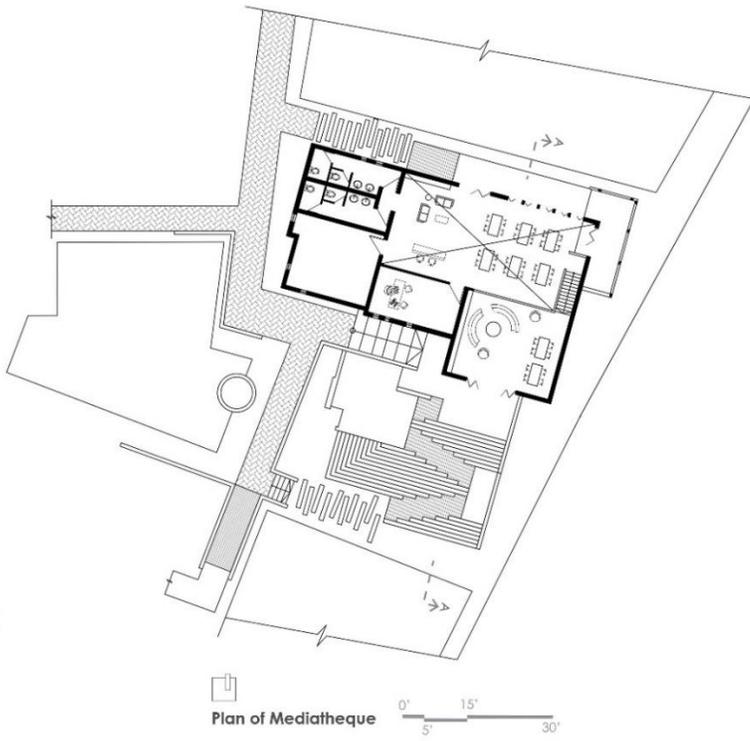
The multipurpose hall is located on the north edge of the site close to the soccer field with a view to allowing the Greek community to access it easily and also being connected visually. Roughly 140 people can enjoy a performance inside. It has an adjacent open-air amphitheatre for outdoor performances as well. During the warm dry season, the wall surface can be projected for movie show or game show and people from both communities can gather there, either sit on the amphitheatre or on grass to enjoy the show. (Amphitheatre, one of the emblems of Greek architecture)



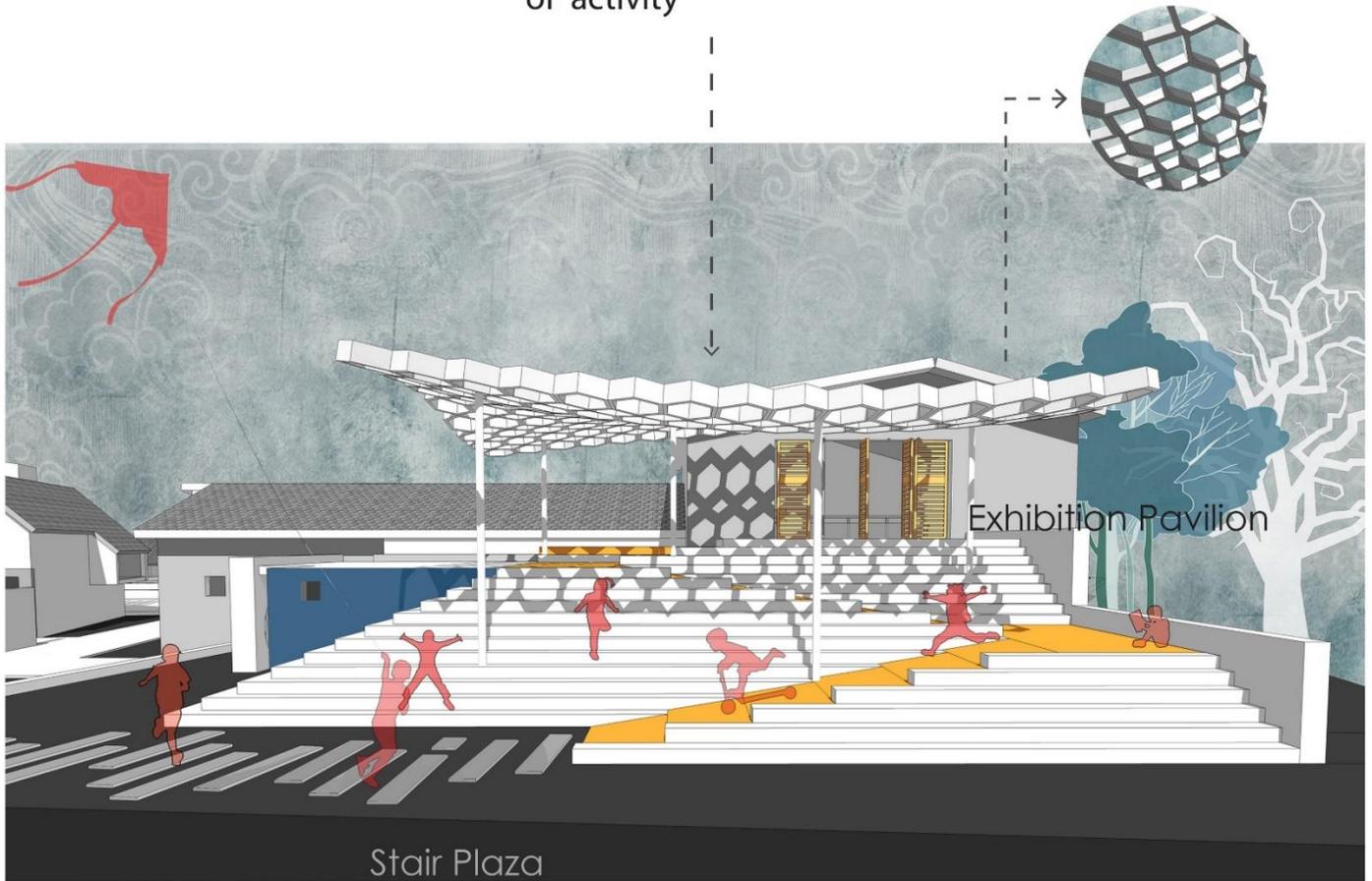
Sectional Perspective of Multipurpose hall



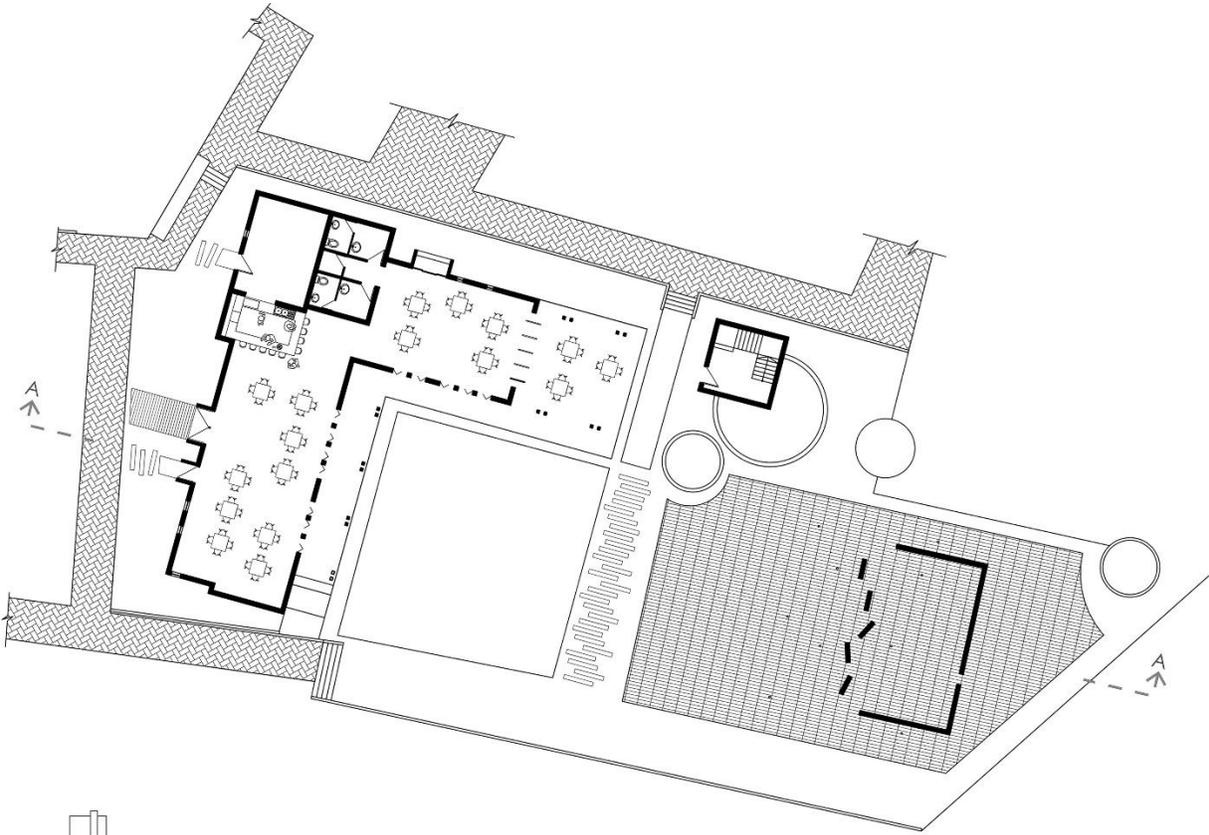
# Mediatheque



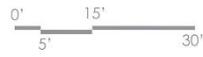
Stair/Steps as a source of activity



Perspective view of Mediatheque overlooking the stair plaza and adjoining playground

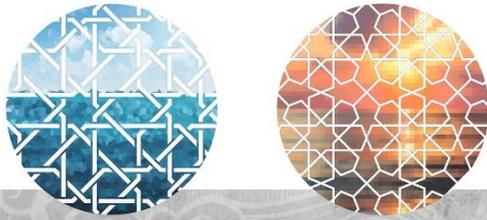


Plan of Cafe & Exhibition Pavilion



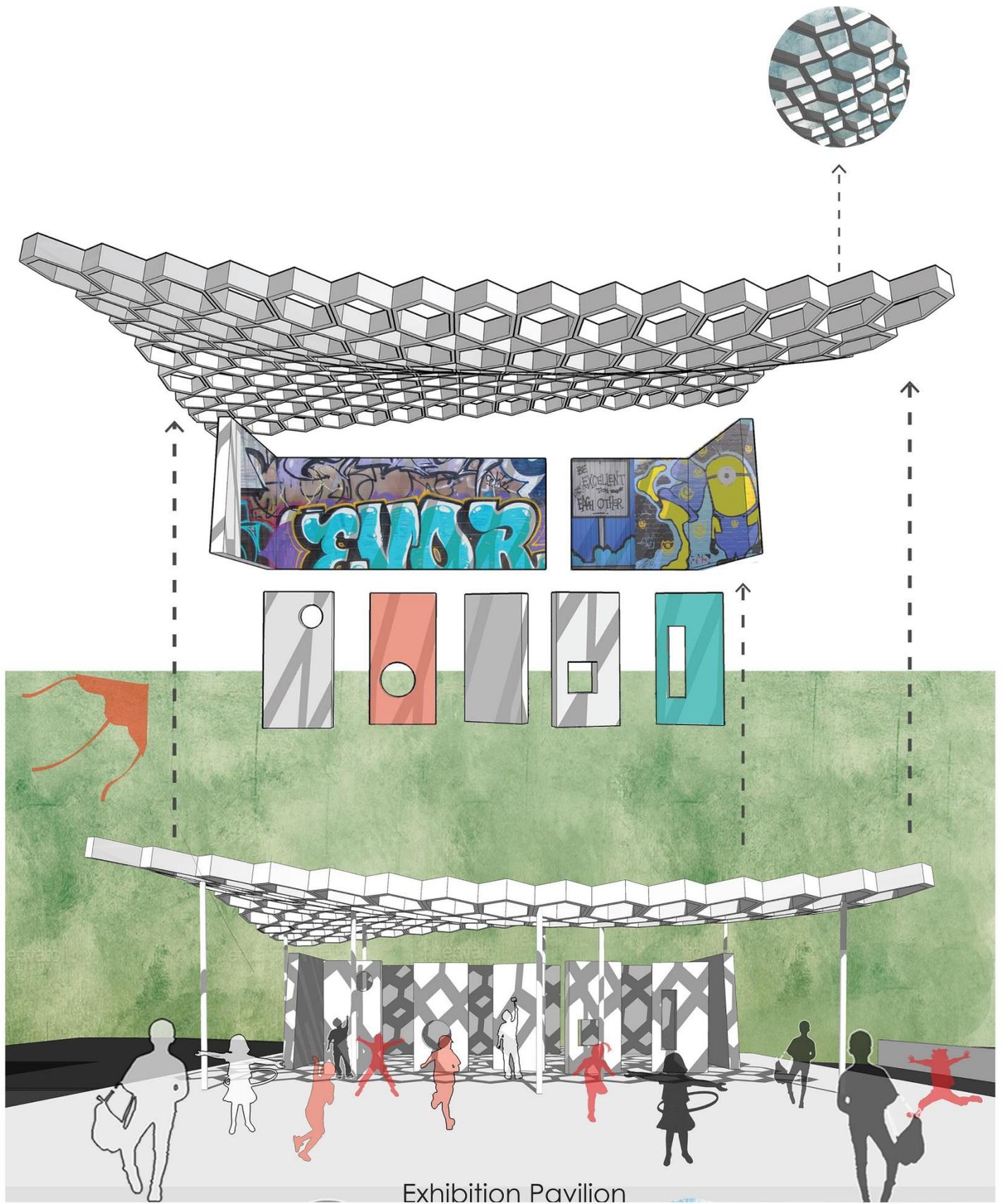
Section AA





View from a Cluster





Exhibition Pavilion



