

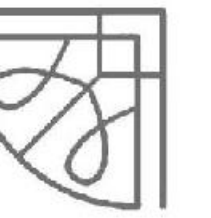
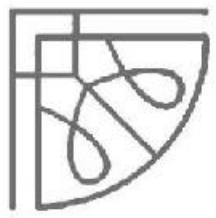


شامیانہ 2.0

SHAMIYANA 2.0

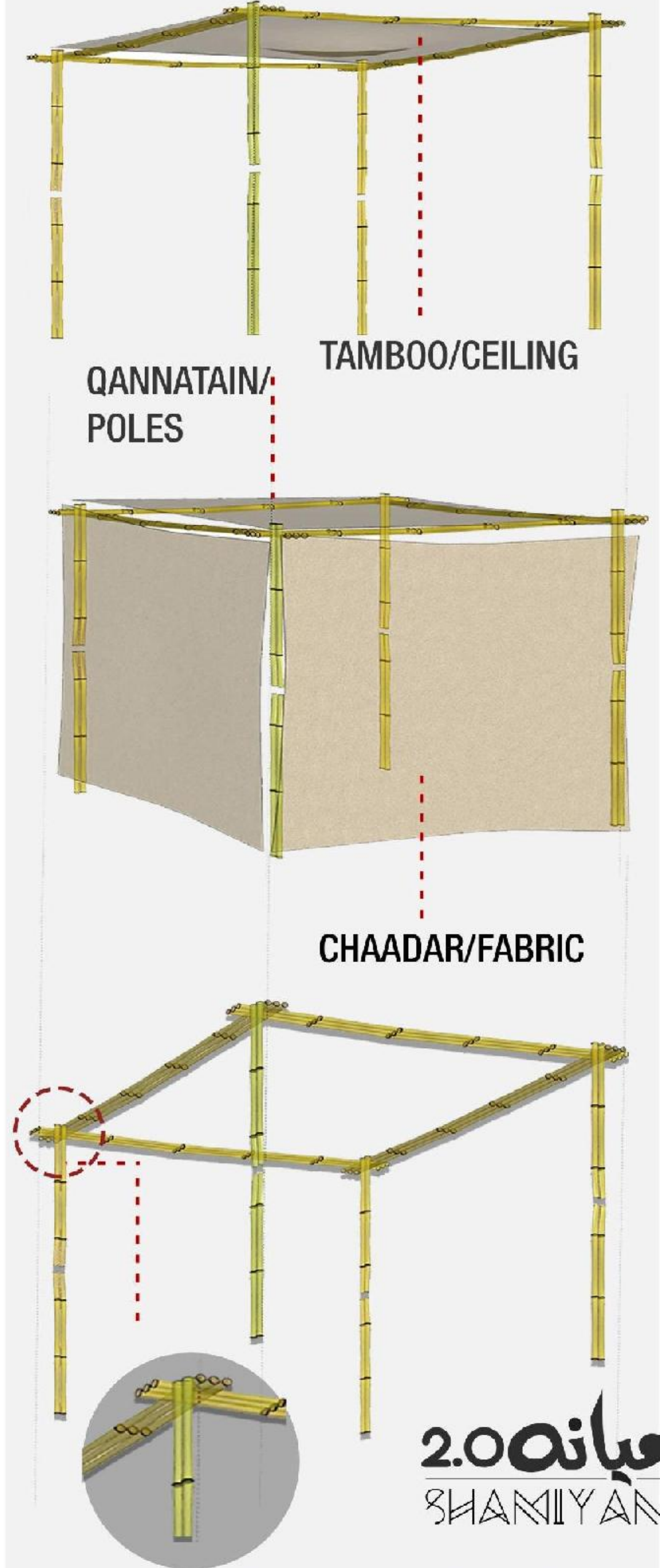


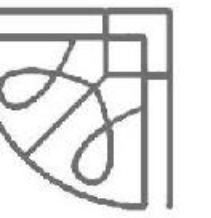
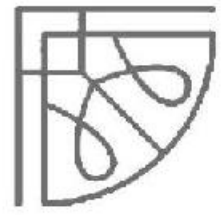
BY: ALAINA KHALID



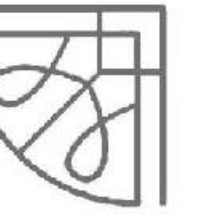
THE SHAMIYANA

WEAVED STRUCTURE



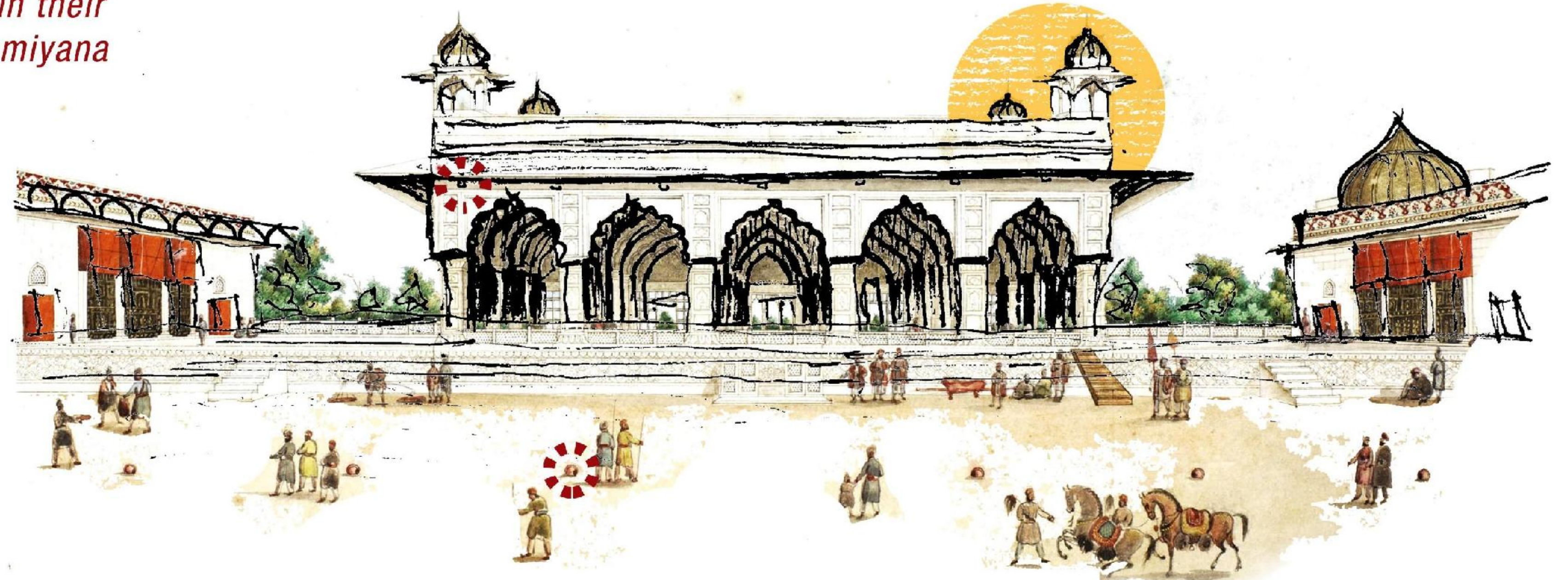
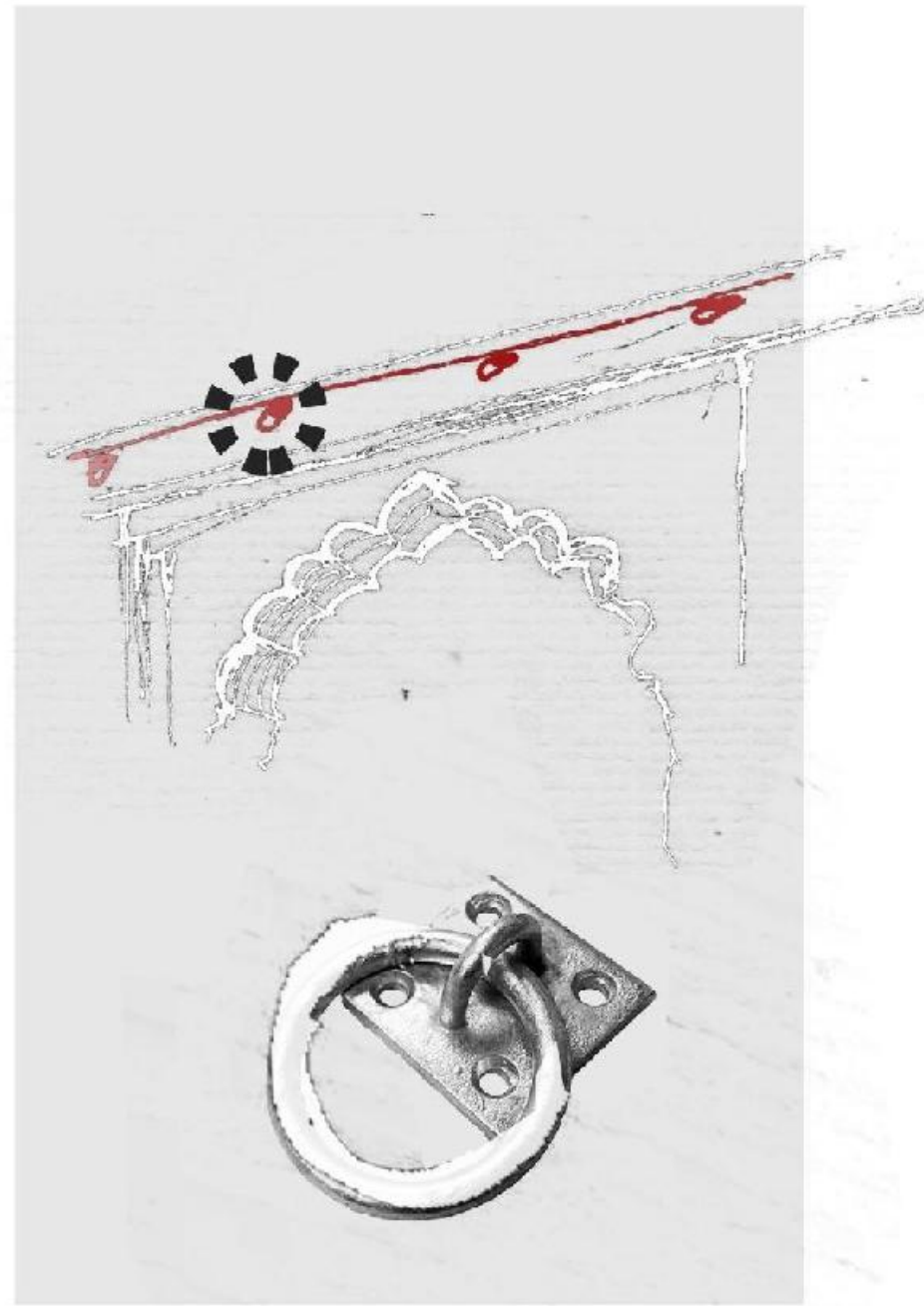


- TO FAMILIRISE TENSILE STRUCTURE SYSTEM IN LOCAL CONTEXT.**
- SUSTAINABLE SOLUTIONS FOR TEMPORARY EVENTS.**
- CREATE AN EXCITING AND EXPRESSIVE FESTIVAL STRUCTURES KEEPING CULTURE IN MIND.**



HISTORY

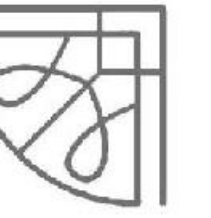
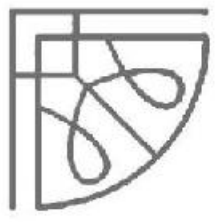
The history of the Shamiyana dates back to the Mughal era. Mughals being very sensitive about details they had built-in hooks (Mooring Rings) installed in their structures and ground to tie Shamiyana ropes.



Diwan-e-Khas, Red Fort, Delhi, in 1817

SHAMIYANA IN MUGHAL ERA

شامیانہ 2.0
SHAMIYANA 2.0



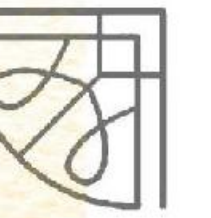
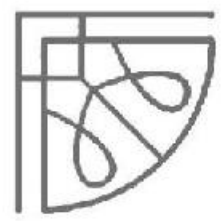
FABRIC AWNINGS
SETUP FOR
GATHERINGS
MOSTLY WHICH
DERIVED IT'S
NAME AS
"SHAM-YANA",
means (A place
to get-together)



Red Shamiyana awnings at Diwan-e-Khas, Red Fort, Delhi, in 1817

SHAMIYANA A GATHERING PLACE

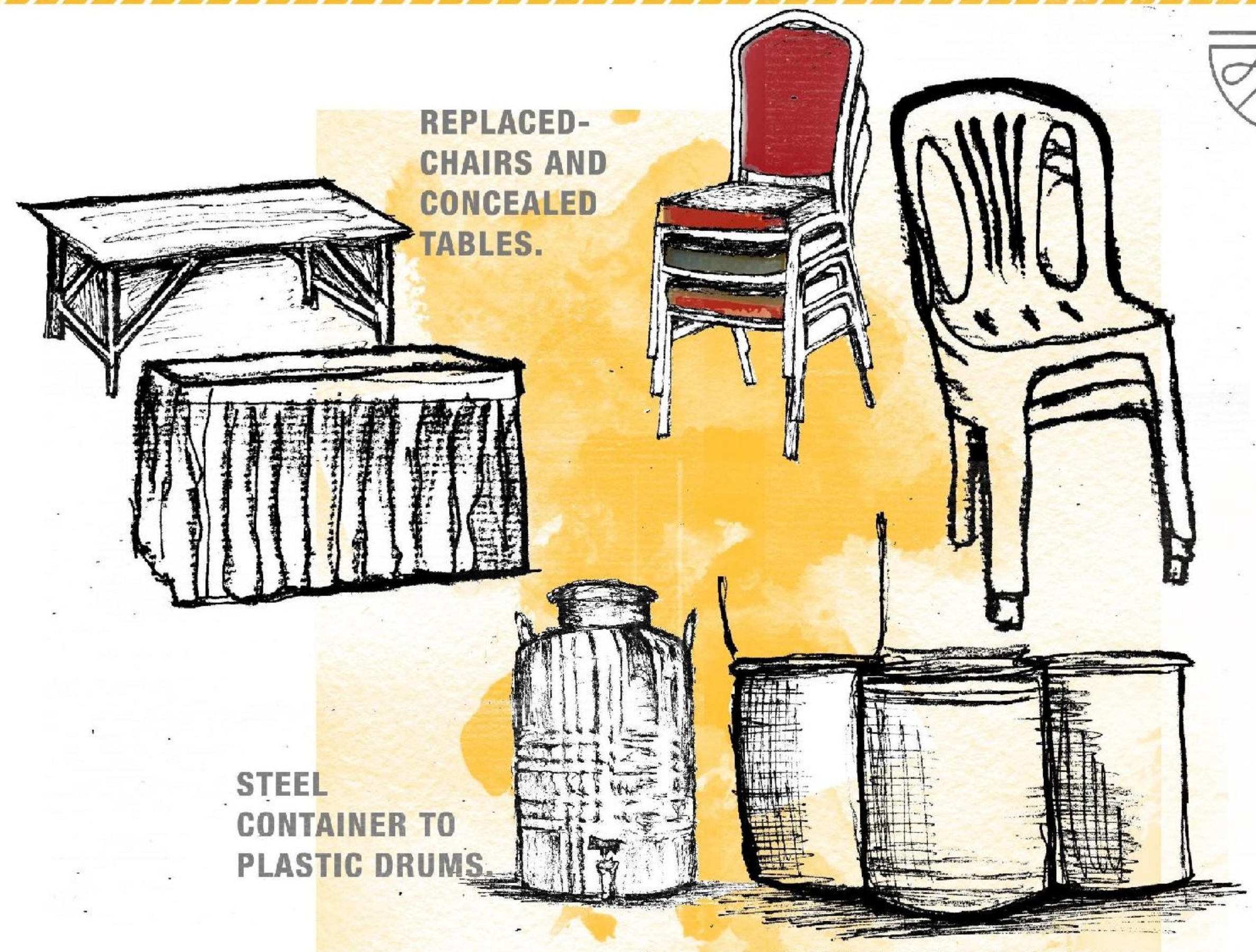
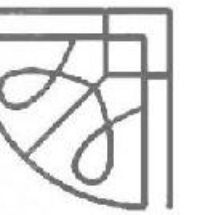
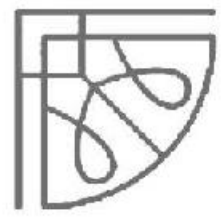
شامیانہ 2.0
SHAMIYANA 2.0



Shamiyana use to come with a kit which contains (chairs, table, a portable water dispenser and a wash basin). The material used were steel/iron pallete wood and cotton which is almost gone now.

THE LOST SHAMIYANA KIT

شاميانا 2.0
SHAMIYANA 2.0

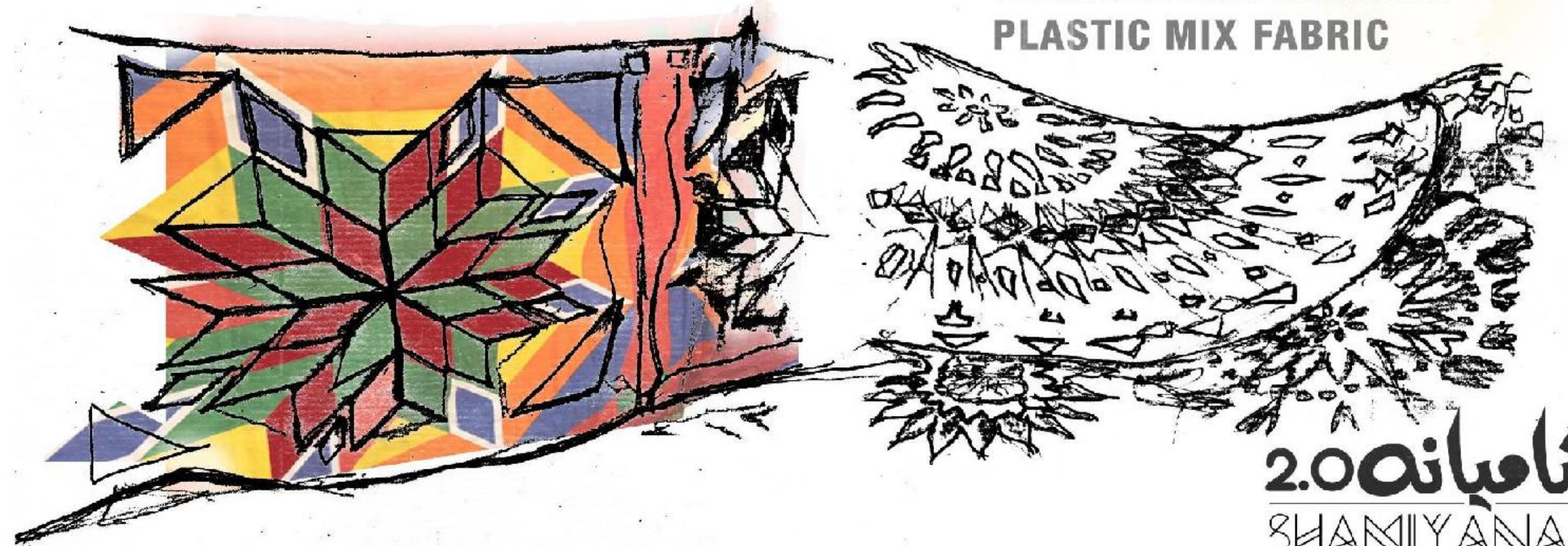


REPLACED-
CHAIRS AND
CONCEALED
TABLES.

STEEL
CONTAINER TO
PLASTIC DRUMS.

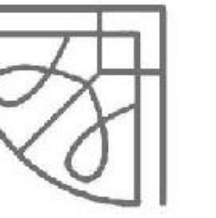
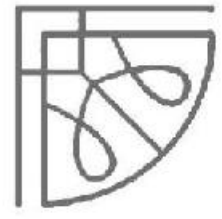
FLEXIBLE AND DURABLE
PLASTIC MIX FABRIC

Industrial revolution/plastic evolution effected everything , so as Shamiyana Kit. Plastic/acrylic chairs are trending instead of metal chairs. Cambric cotton is replaced by polyester/plastic mix fabric and this is the major threat to Shamiyana.



SHAMIYANA UNDER THREAT

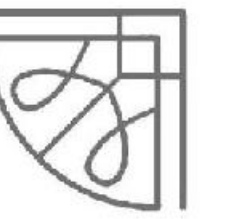
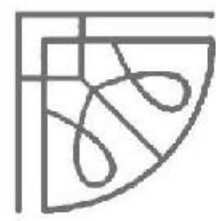
شاميانا 2.0
SHAMIYANA 2.0



WHY WE NEED AN UPGRADATION OF SHAMIYANA

QUESTION?

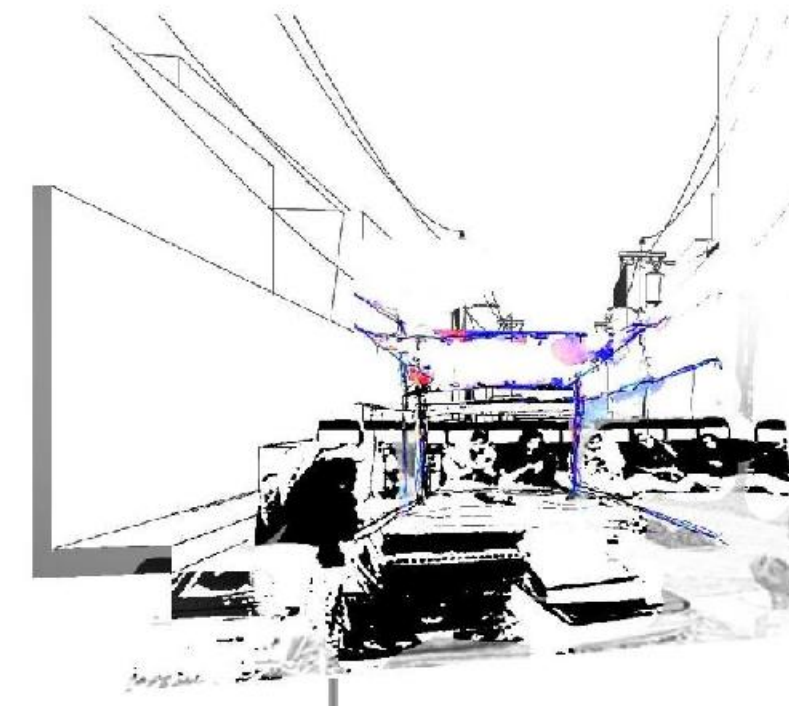
شاميانا 2.0
SHAMIYANA 2.0



SUNDAY BAZAAR;
Utilizes shamiyana everyday and considered as **LOW-COST.**



OUTDOOR ACADEMIC EVENTS;
A setup for official announcement or aptitude tests.



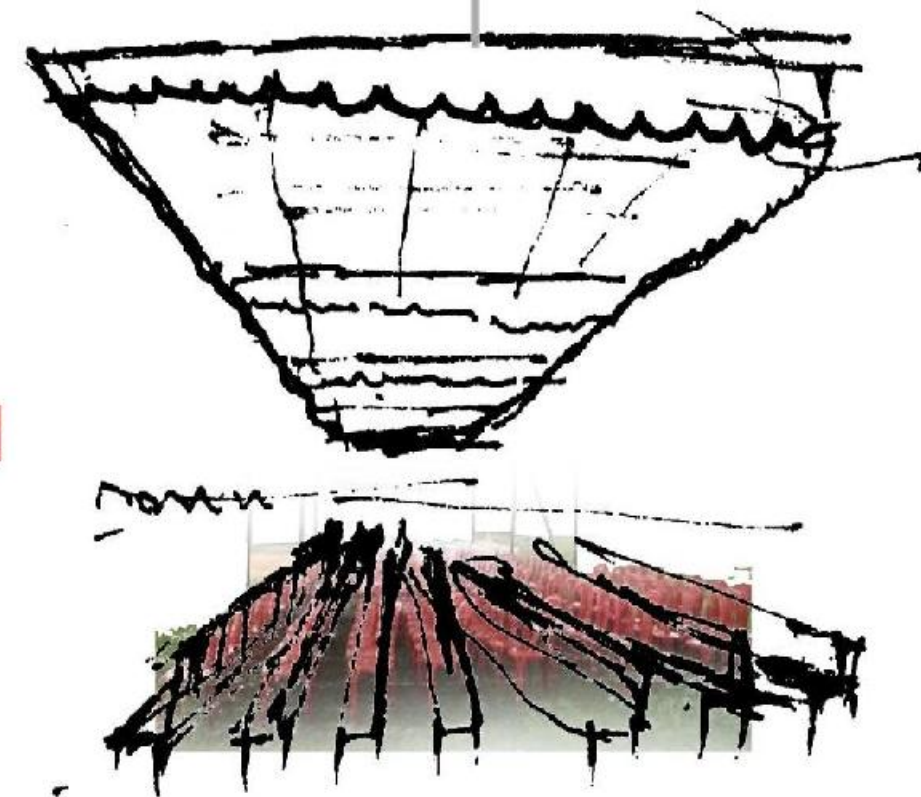
A HERITAGE PROP??
A Designer inspired by lost heritage while it's still massively used.

LOW - END

HIGH - END



WEDDING TENT;
Only for middle income and low income??

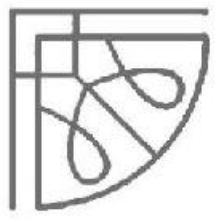


FUNERAL;
No matter who's funeral is this Shamiyana setups are there for everyone.

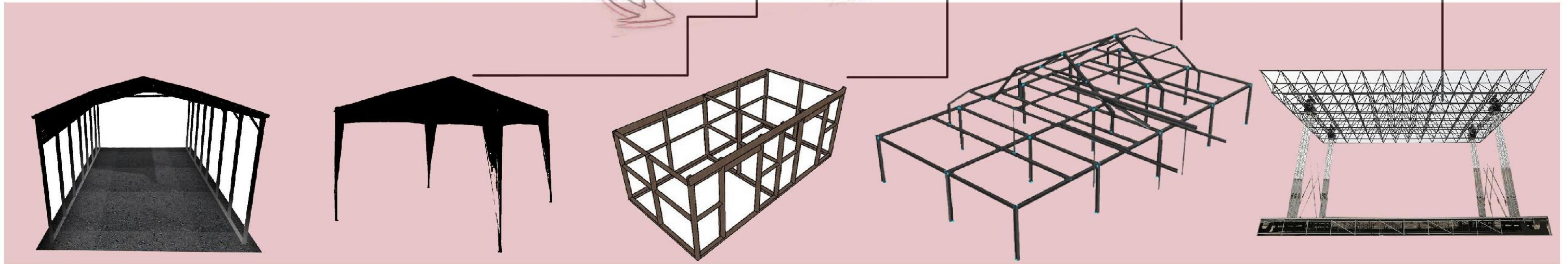
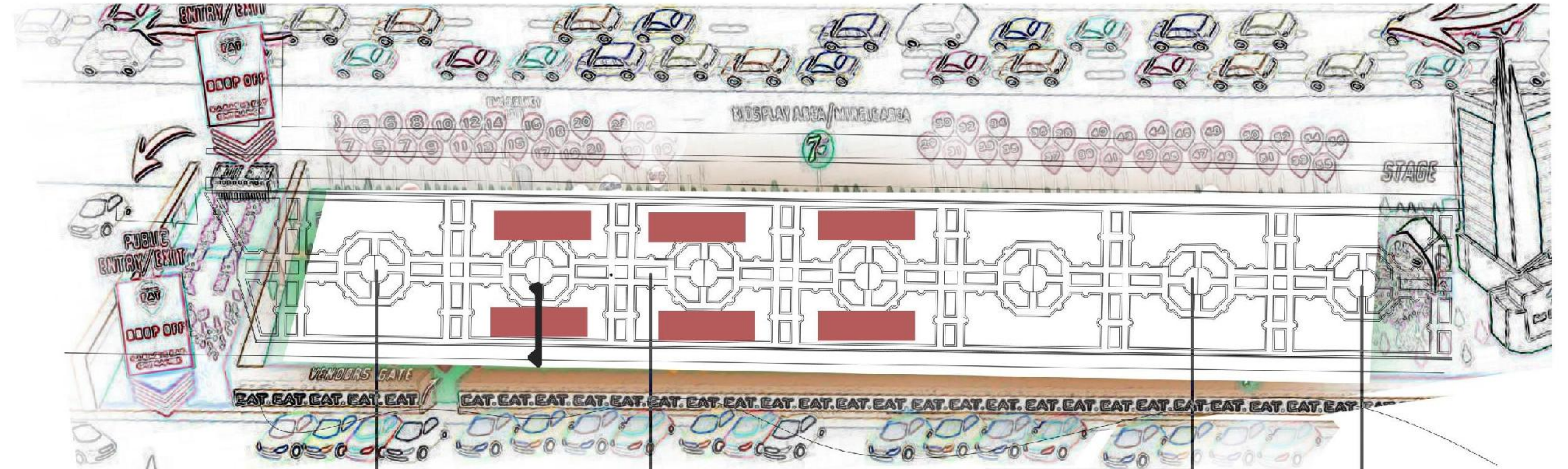


FORGOTTEN MULTIPLE USE TEMPORARY STRUCTURE

شامیانہ 2.0
SHAMIYANA 2.0



Karachi Eat Festival at Beach View Park, Clifton, Karachi in 2020



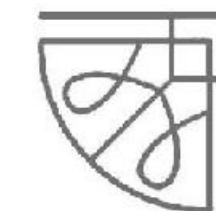
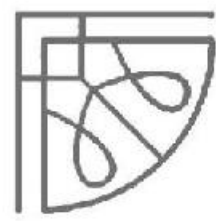
ALUMINIUM POP-UP TENT STRUCTURE

WOODEN STRUCTURE

IRON FRAMES (CUBICLES)

IRON SPACE FRAME STRUCTURE

LOCAL TEMPORARY STRUCTURES (K.EAT)



- Almost 5 types of Stuctures are explored in a single platform
- Each structure has its seperate labour and material cost.
- Assembly and installation took hours/days for setup

A SECTION OF K.EAT 2020

MAJOR COST FACTORS

MATERIAL COST



TRANSPORTATION COST

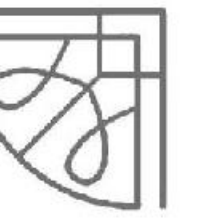
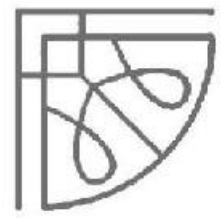


OPERATIONAL COST



5 Types of Structure means that we have to deal with 5x3 types of factors which will increase the cost of the event 3x and also using unsustainable product will be a quick and cheap solution to cope up with this problem.

FACTORS THAT AFFECT THE STRUCTURE COST

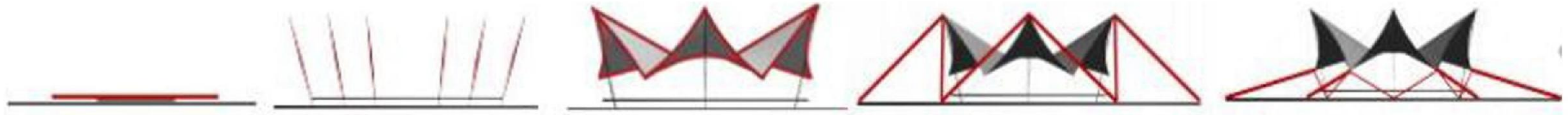
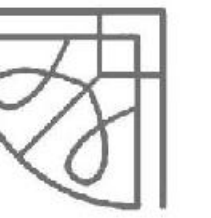
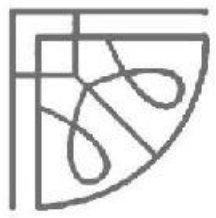


The idea of Lucky Irani Circus was born in Lahore, Pakistan in 1969. For over 50 years the Circus has been putting up breathtaking performances.



LUCKY IRANI CIRCUS (MELA)

شامیانا 2.0
SHAMIYANA 2.0



1. CIRCULAR PLATFORM

Circular platform is elevated inside circular pool.

2. STEEL MASTS

6 slanted steel masts anchored around the platform, to support the high points of the structure.

3. MEMBRANE






Fabric membrane is attached to the top of the steel masts.

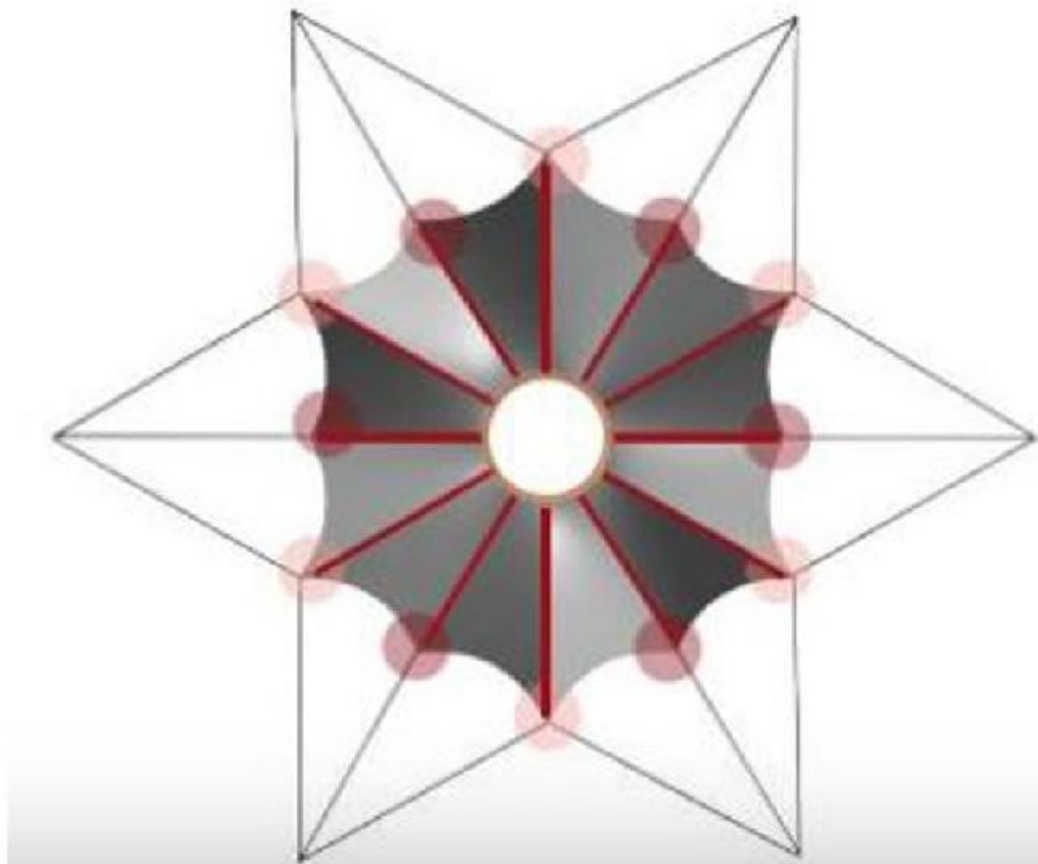
4. HIGH POINT CABLES

High point tension cables (guy cables) are pulled and anchored to base plate on the ground.

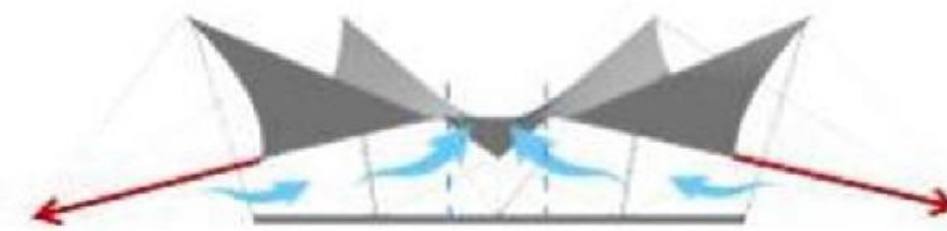
5. LOW POINT CABLES

Low point tension cables are pulled and anchored to base plate on the ground.

-  HIGH POINT JOINT
-  LOW POINT JOINT
-  WEBBING
-  COMPRESSION RING
-  TENSION CABLE



UPLIFT WIND
Uplift wind is blocked by the low points of the tensile structure.



DOWNWARD WIND
Downward wind is blocked by the high points of the tensile structure.

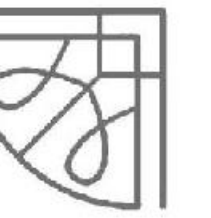
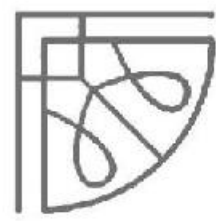


MAST SUPPORT SYSTEM

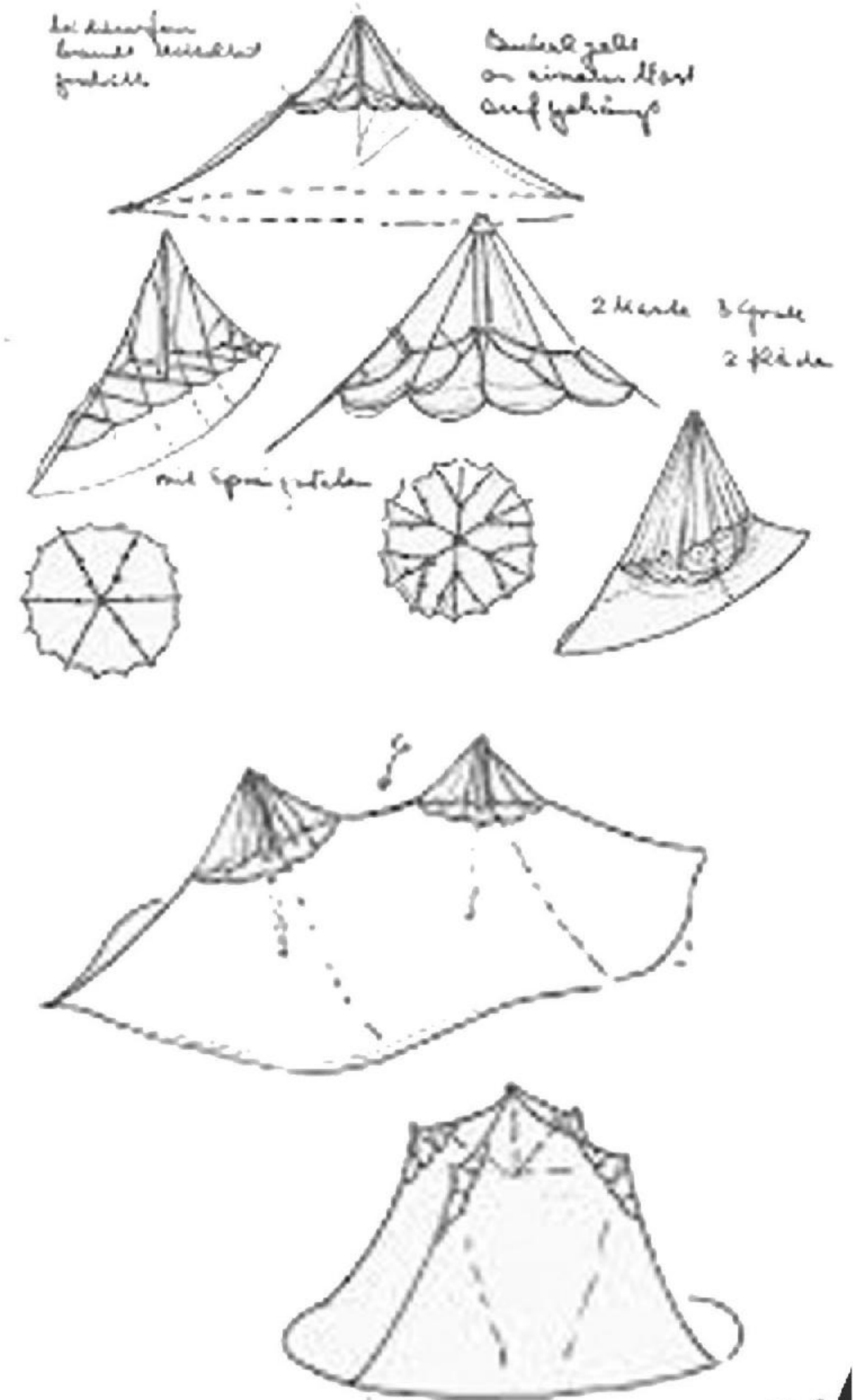
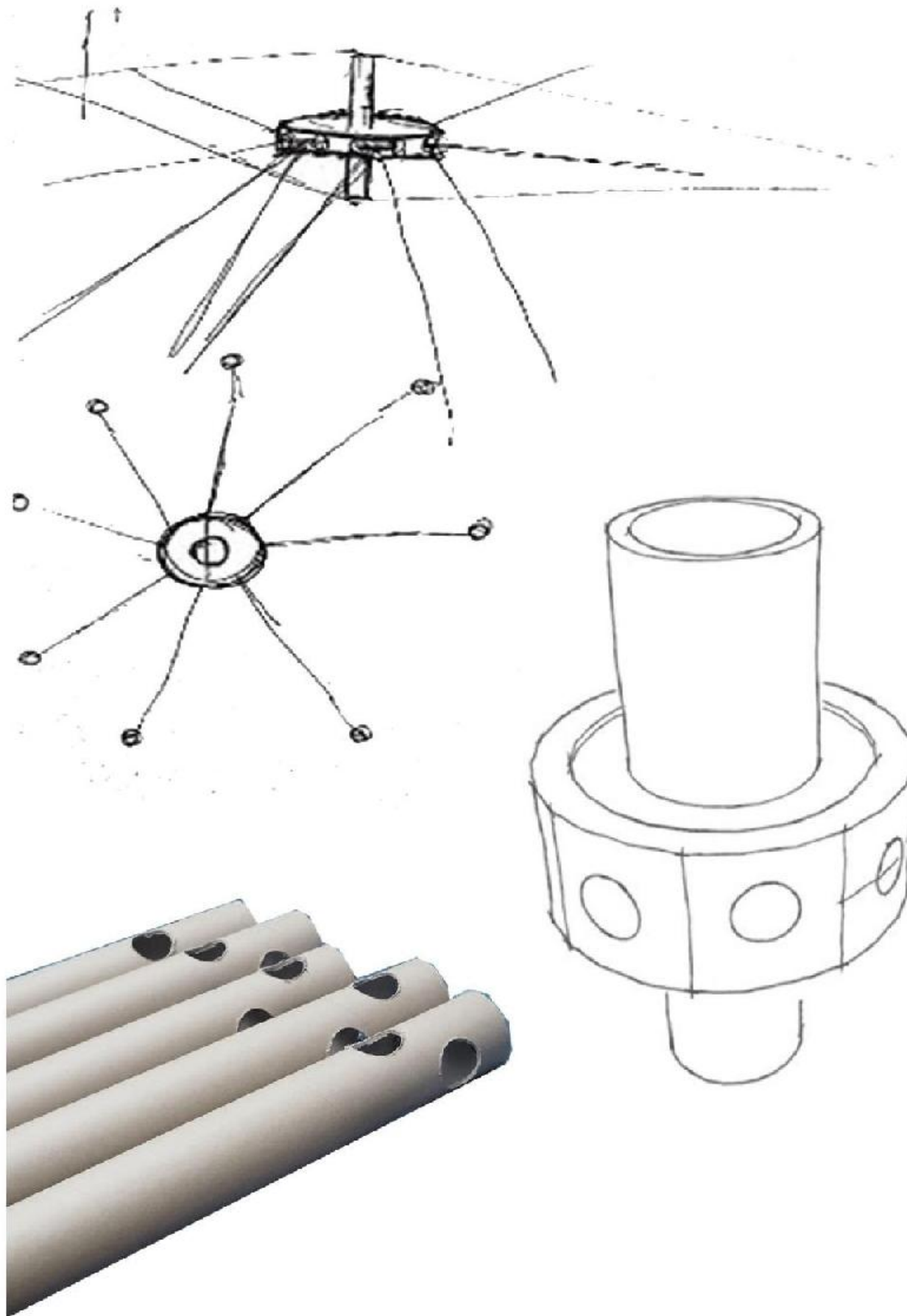
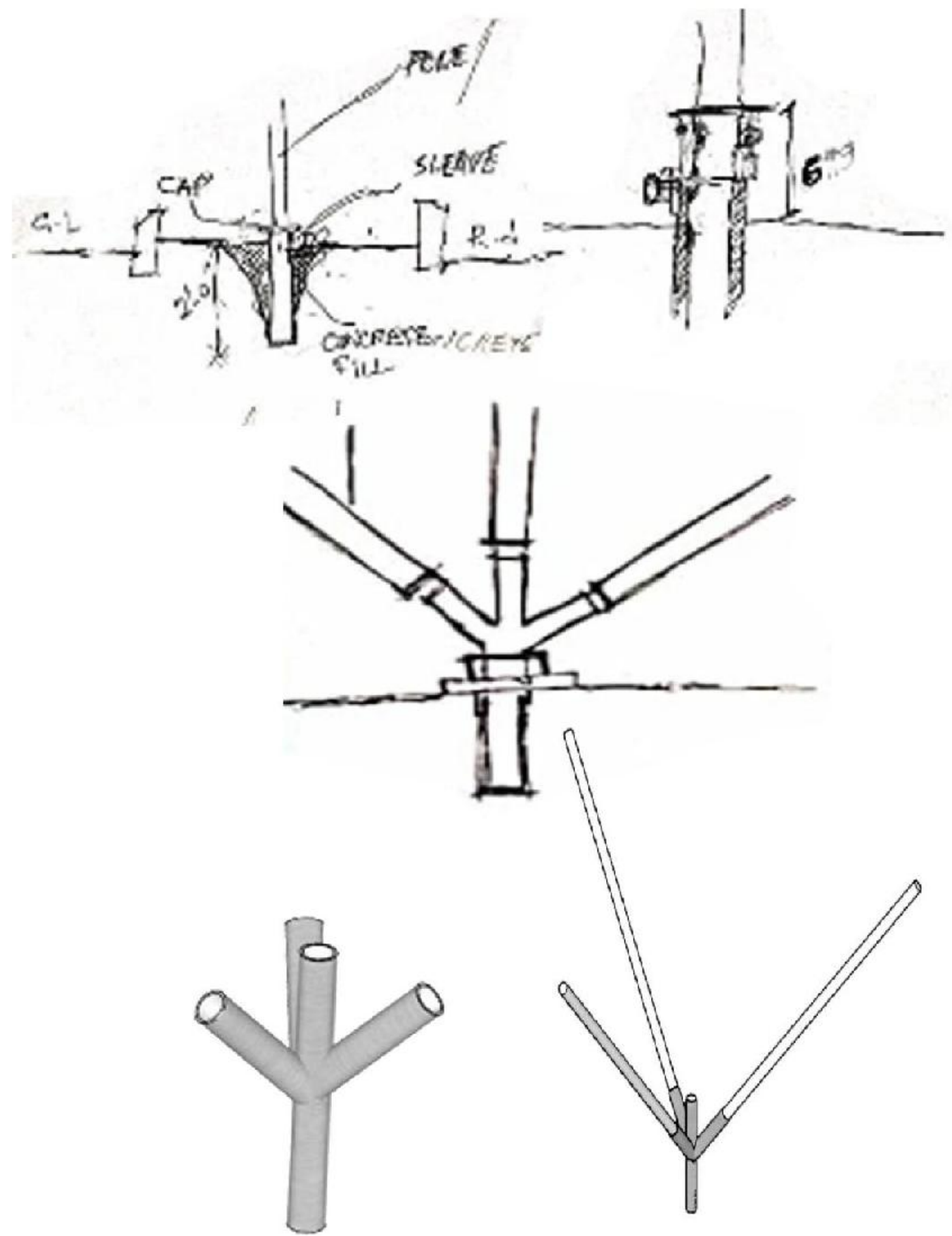
*A tent-like structure where 6 perimeter steel masts support the membrane.
6 High point joints pulling fabric upward
6 Low point joints pulling fabric downward
28m² round opening on the top of the roof*



DANCE PAVILLION (FRED OTTO)



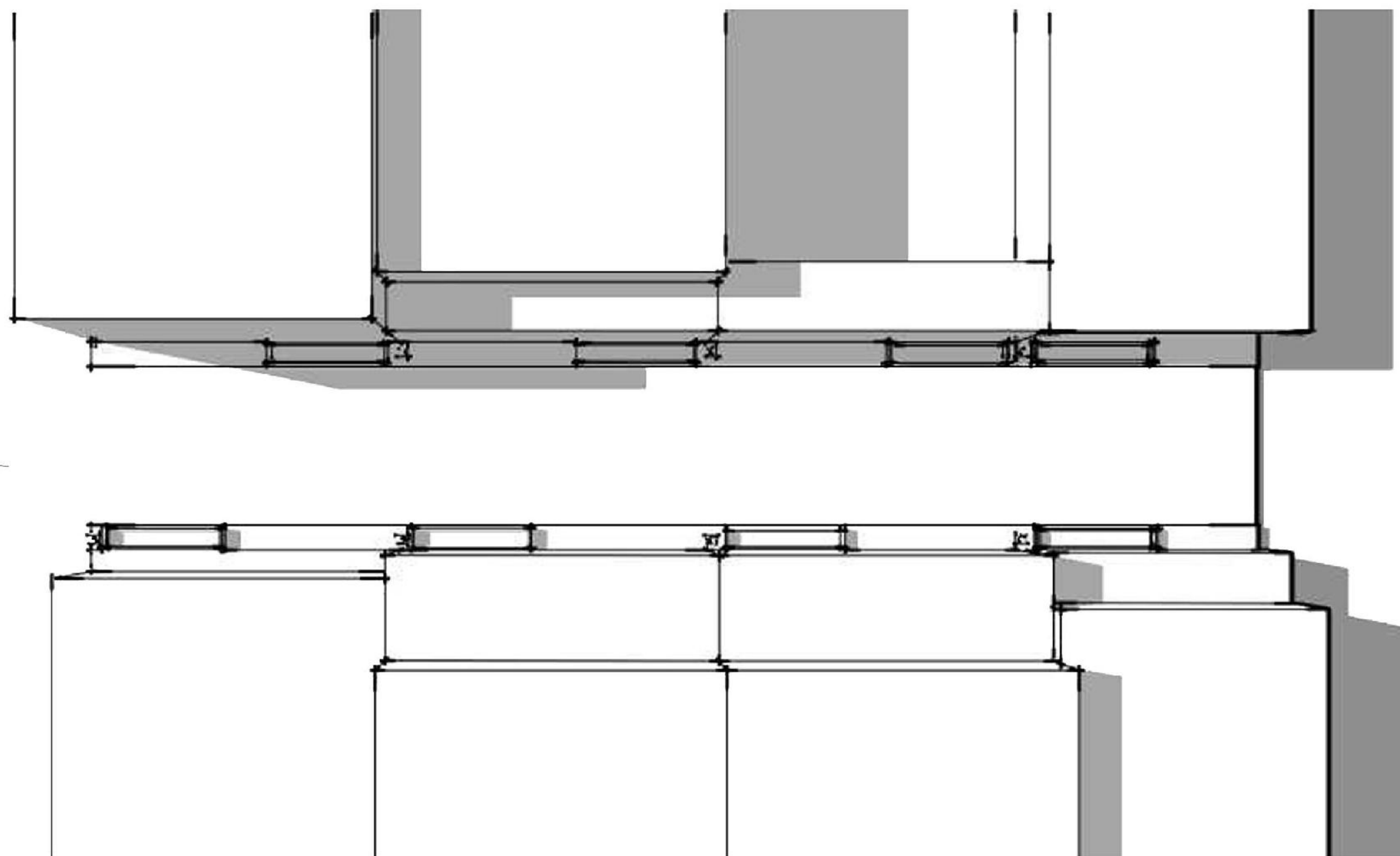
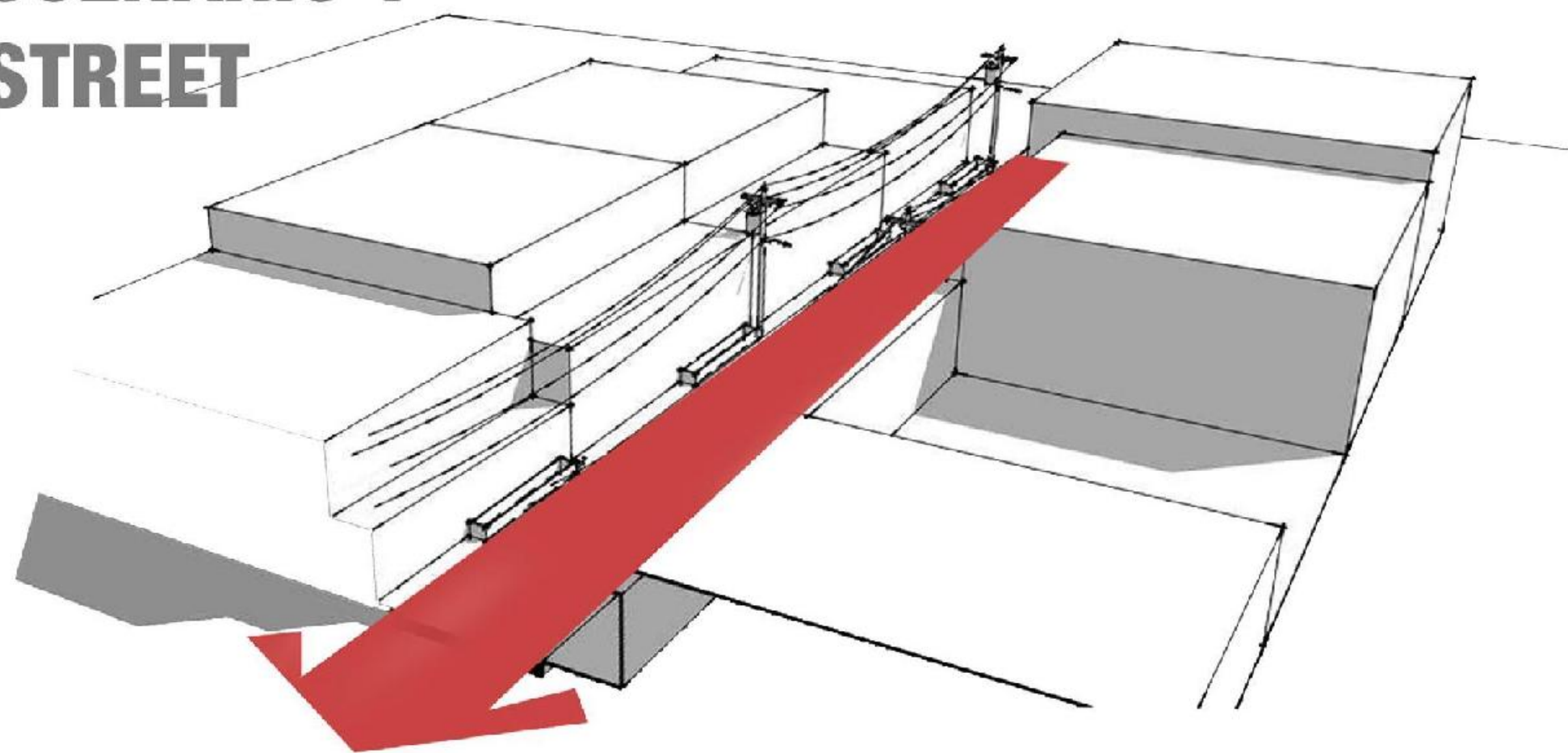
TENSILE STRUCTURE



SLEEVES AND JOINT

INSTALLATION OF FIXING SLEEVE ON KIYAREES (PLANTERS) RUNNING ALONG WITH EACH HOUSE. THIS PERMANENT INSTALLATION WILL ALLOW A HASSLE FREE EXPERIENCE FOR EVERYONE TO SET-UP AN SMALL EVENT INFRONT OF THEIR HOUSE

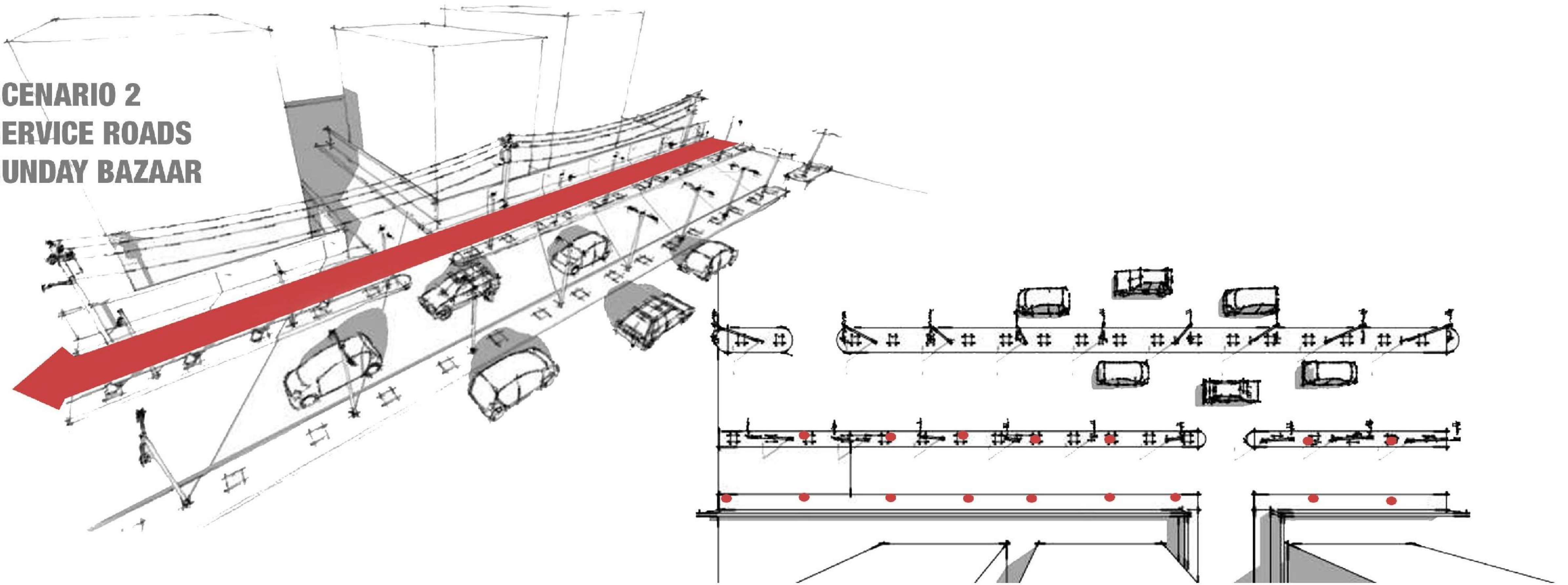
**SCENARIO 1
STREET**



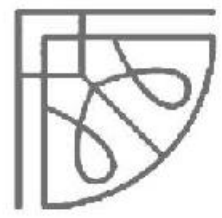
INTERVENTION OF SLEEVE IN URBAN FABRIC

*INSTALLED IN THE SPACE BETWEEN TWO PLANTERS ON ON
PEDERSTRIAN WALKWAYS ALONG WITH MAIN ROADS AND
SERVICE ROADS, THESE SLEEVE WILL ALLOW POLE TO FIX IN IT.*

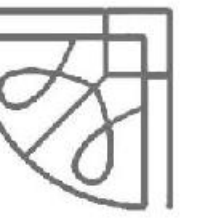
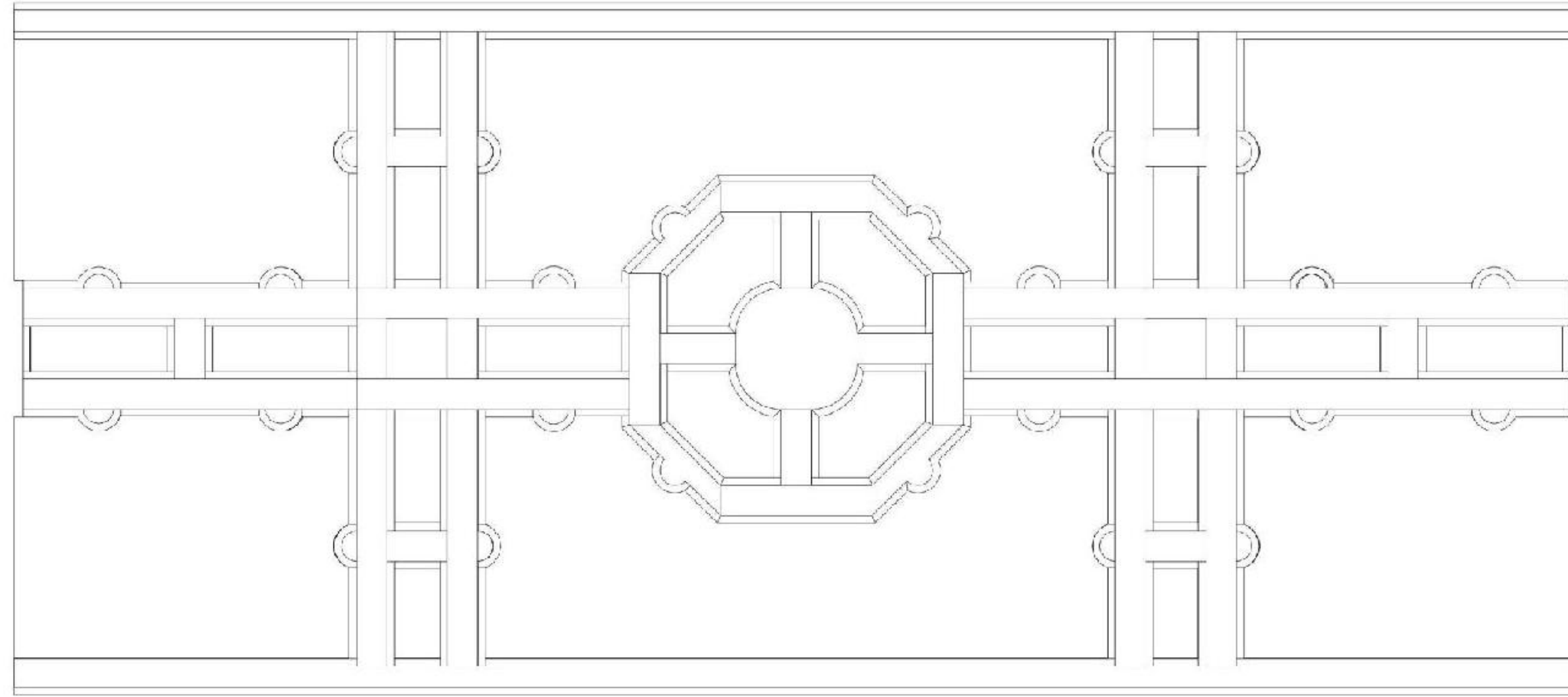
**SCENARIO 2
SERVICE ROADS
SUNDAY BAZAAR**



INTERVENTION OF SLEEVE IN URBAN FABRIC



PARTIAL LAYOUT OF BEACH VIEW PARK



S.B.BHUTTO PARK



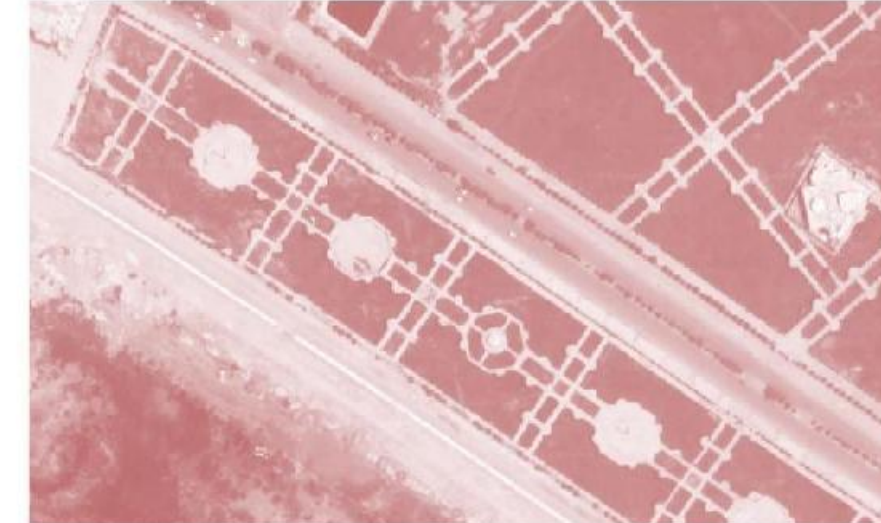
BEACH VIEW PARK



JHEEL PARK



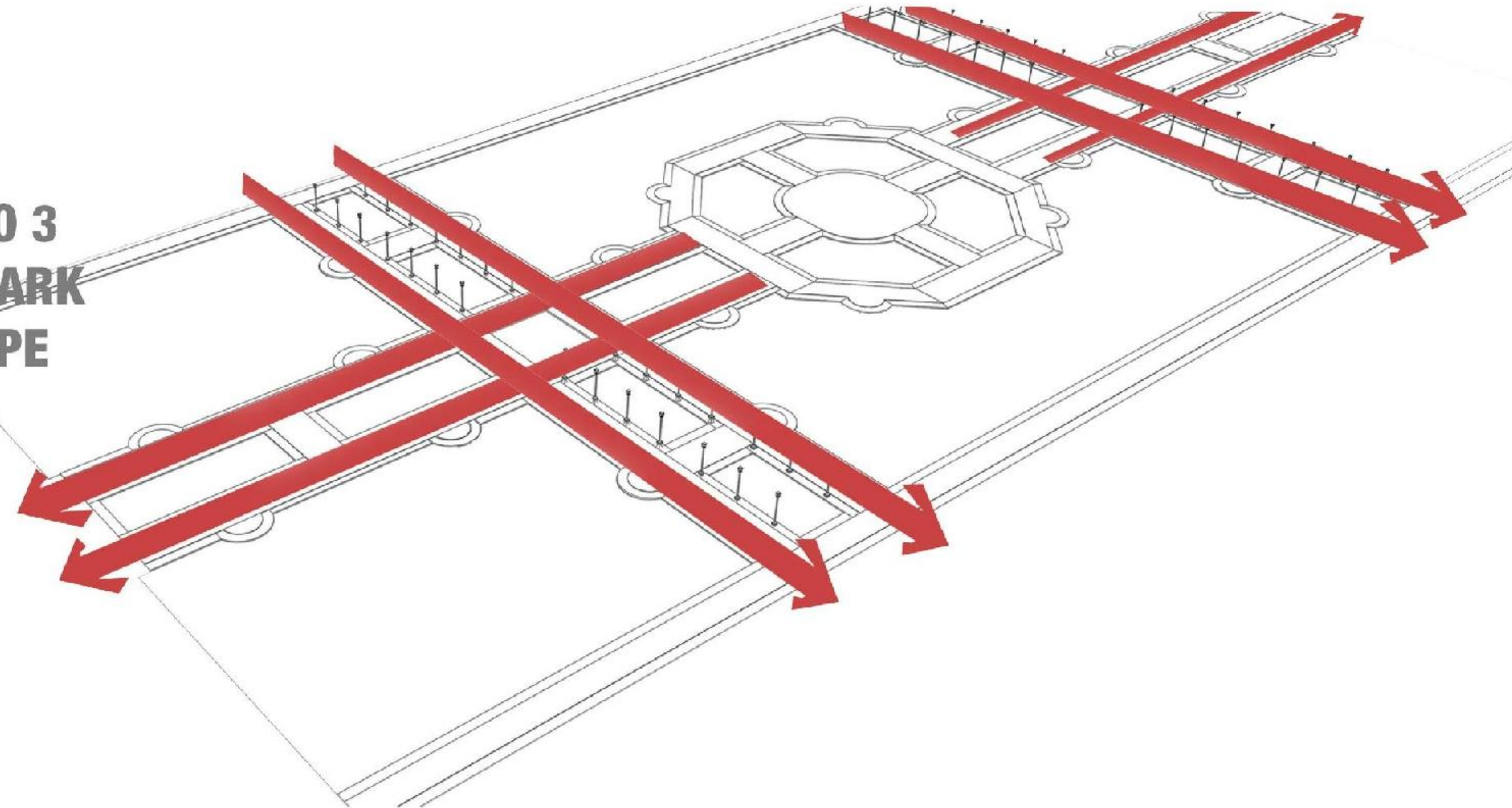
BAGH IBNE QASIM



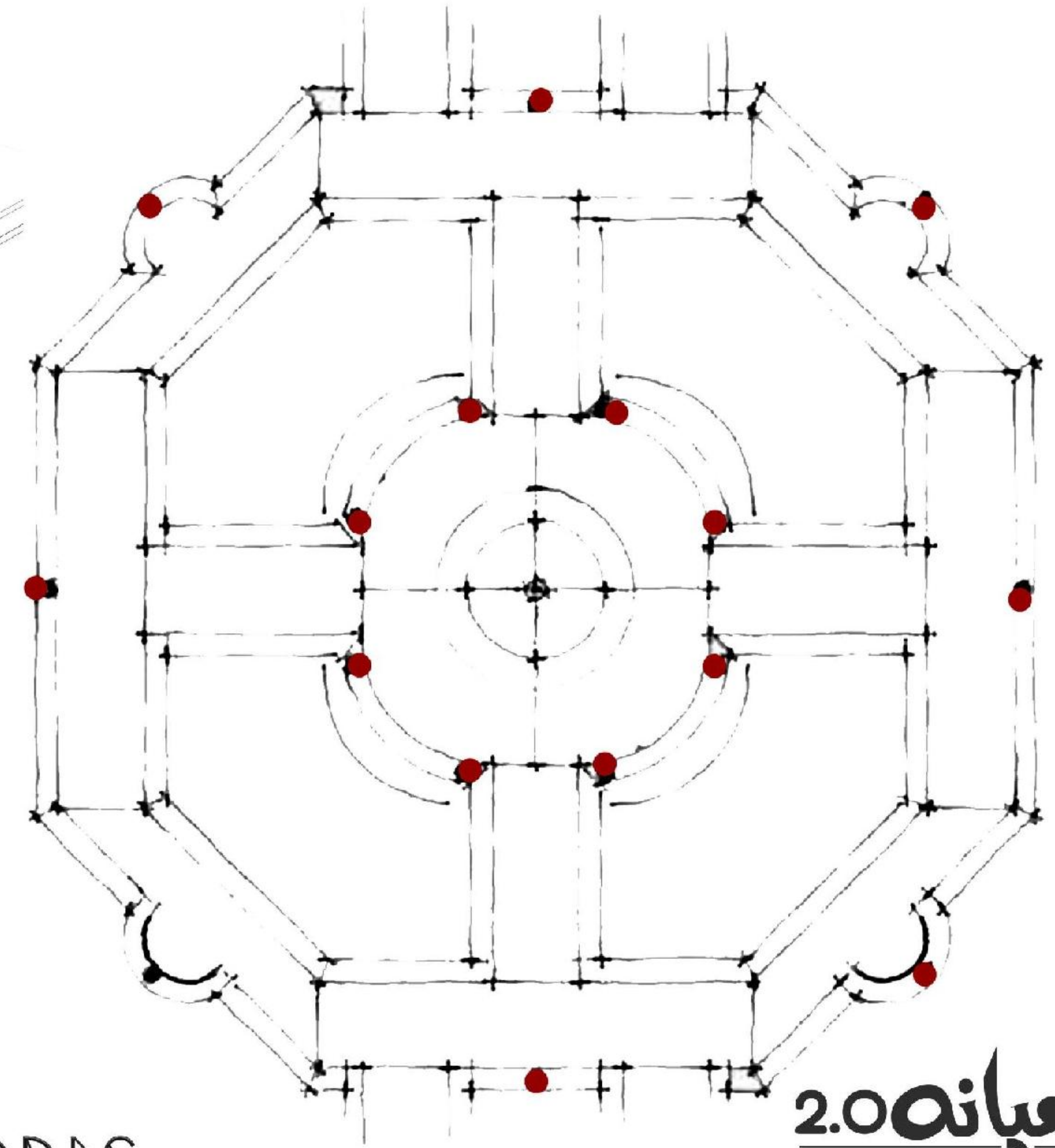
MUNICIPAL PARKS OF KARACHI

**A HASSLE FREE INSTALLATION OF FIXING SLEEVE ON KIYAREES
(PLANTERS) RUNNING ALONG WITH THE PATHWAYS OF THE PARK.**

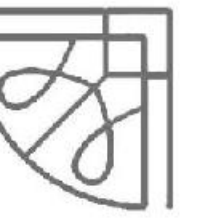
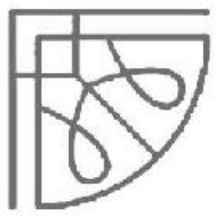
**SCENARIO 3
PUBLIC PARK
PROTOTYPE**



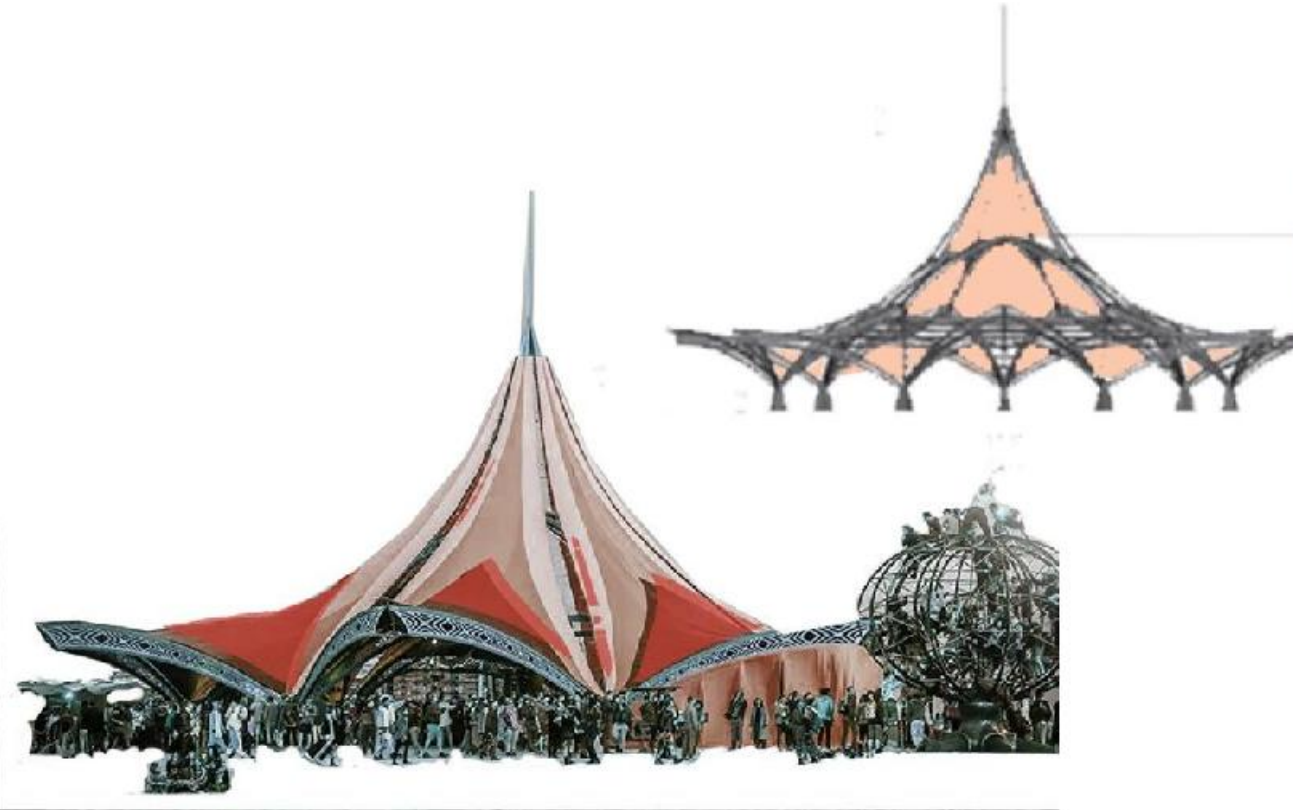
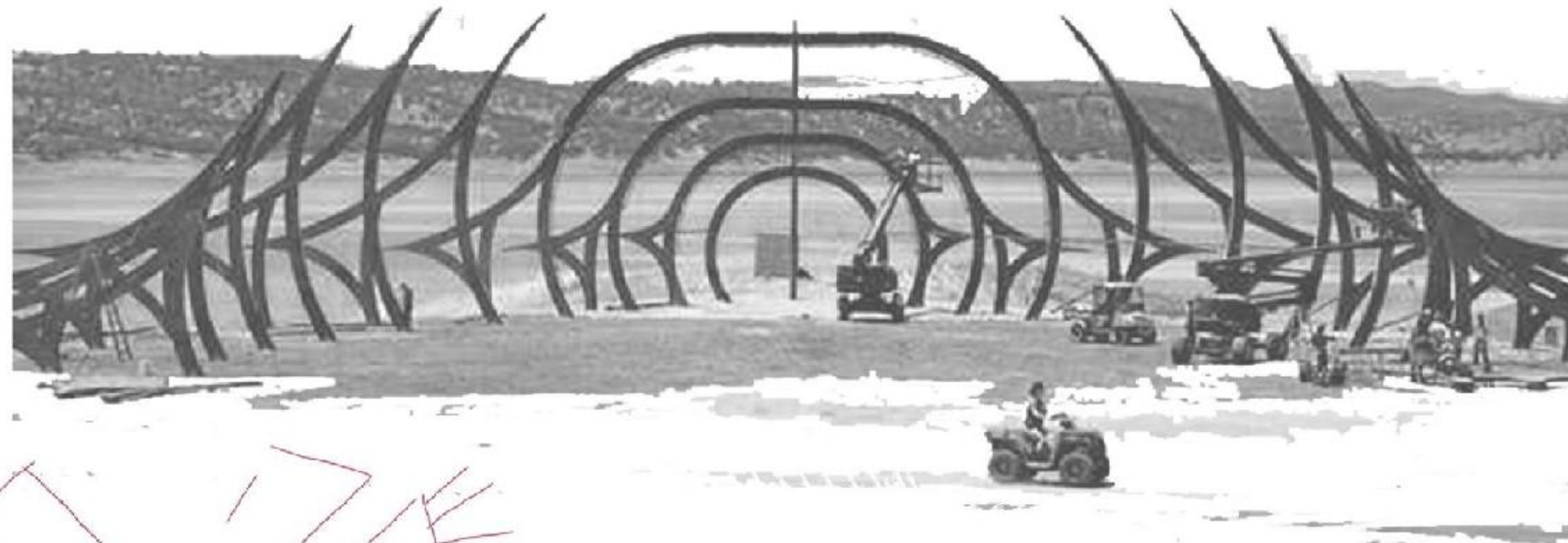
THIS PLAN IS PROTOTYPE
OF PARKS NEAR SEAVIEW
CLIFTON, KARACHI.



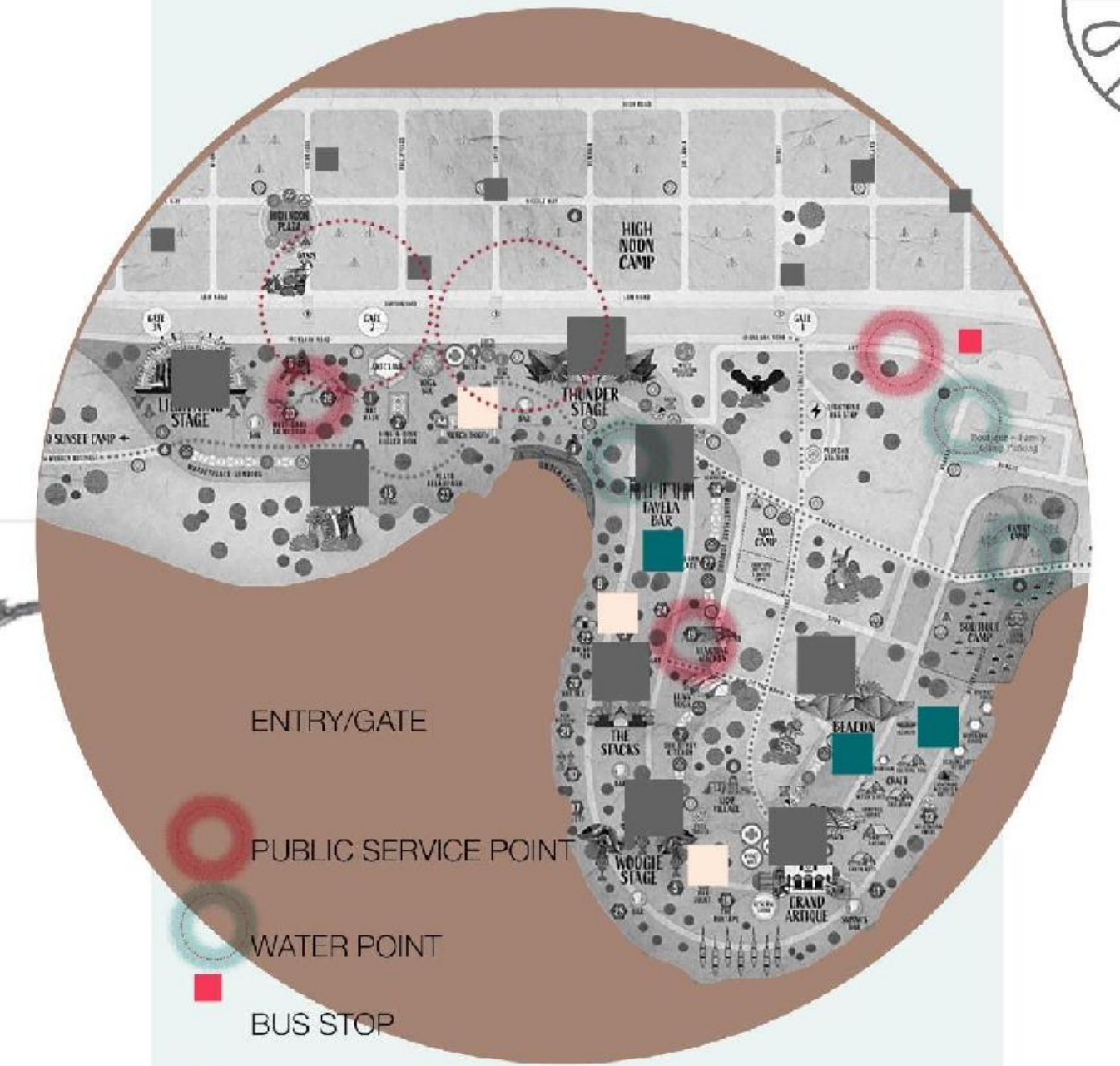
INTERVENTION OF SLEEVE IN URBAN FABRIC



LIB FESTIVAL IS A MUSIC AND HUMAN BUILDING FESTIVAL, ALONG WITH MUSIC AND ART, THIS FESTIVAL OFFERS VARIOUS WORKSHOPS AND YOGA CLASSES FOR ATTENDEES TO BUILD AND EDUCATE. THIS FESTIVAL IS ORGANIZED BY DO-LAB THEY OFFER LARGE SPANNING STRUCTURES WITH CUSTOM DESIGNED BEAMS.



lilikoï



ENTRY/GATE

PUBLIC SERVICE POINT

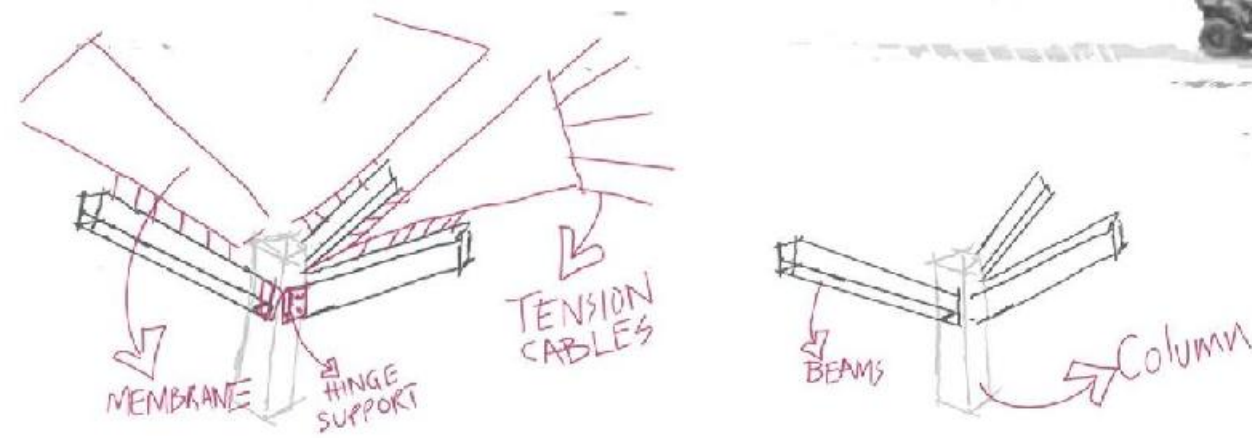
WATER POINT

BUS STOP

CAMP

WORKSHOP

STAGE



300ft spanning and a width of 210ft, Wapiti now holds the record for LIB's largest structure ever with a 10,000 person capacity. Materials: Fabric, steel cable, Glue-lam wood (columns and beams), custom steel components. A total of 212 fabric panels, 42 beams and columns, and 1600 cables make up



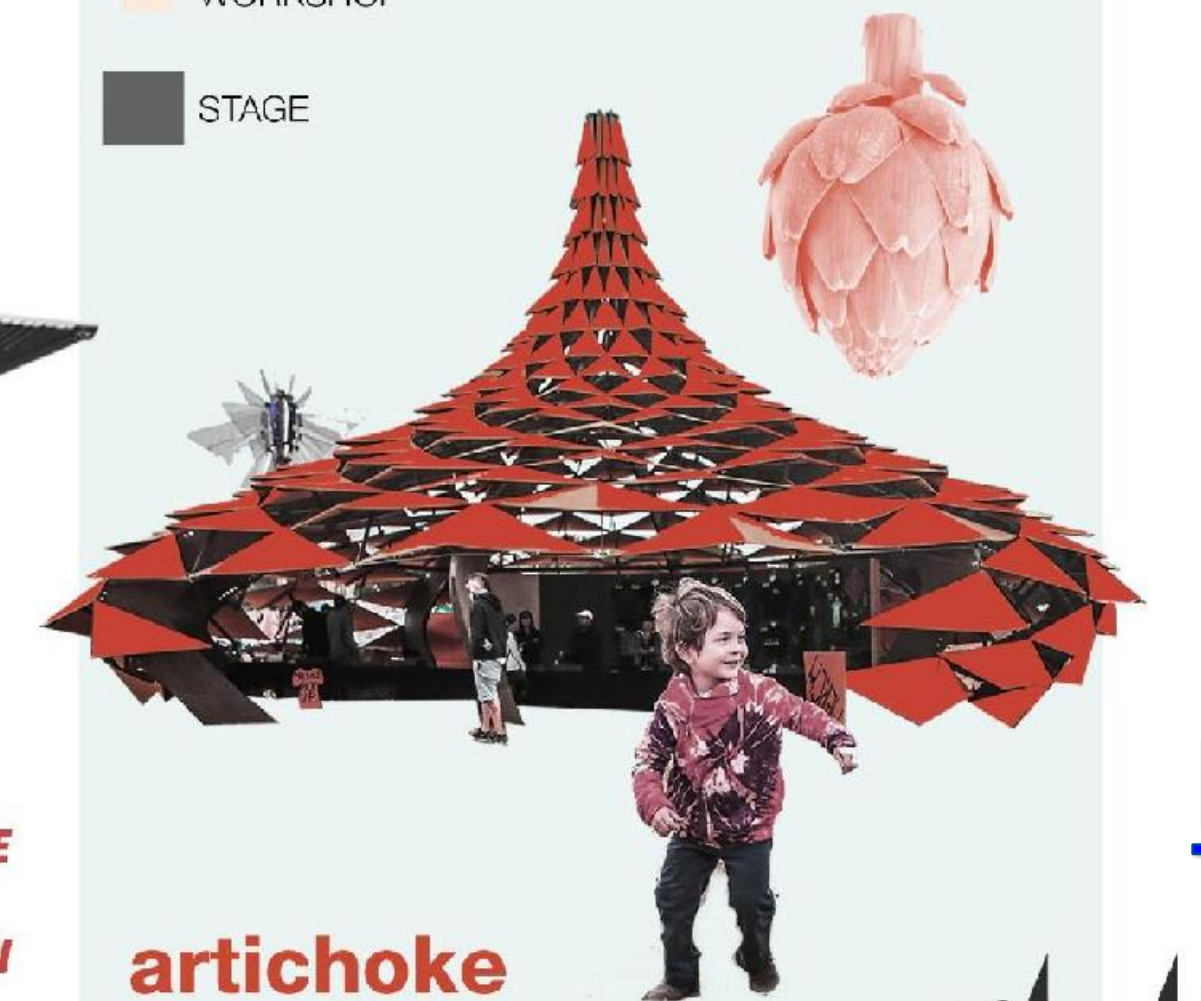
WAPITI



TENSILE STRUCTURE

TENSION

TENSEGRITY

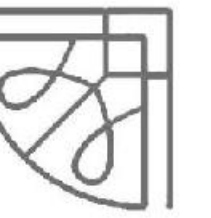
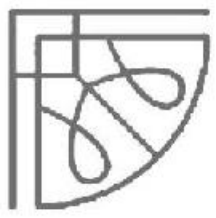


artichoke

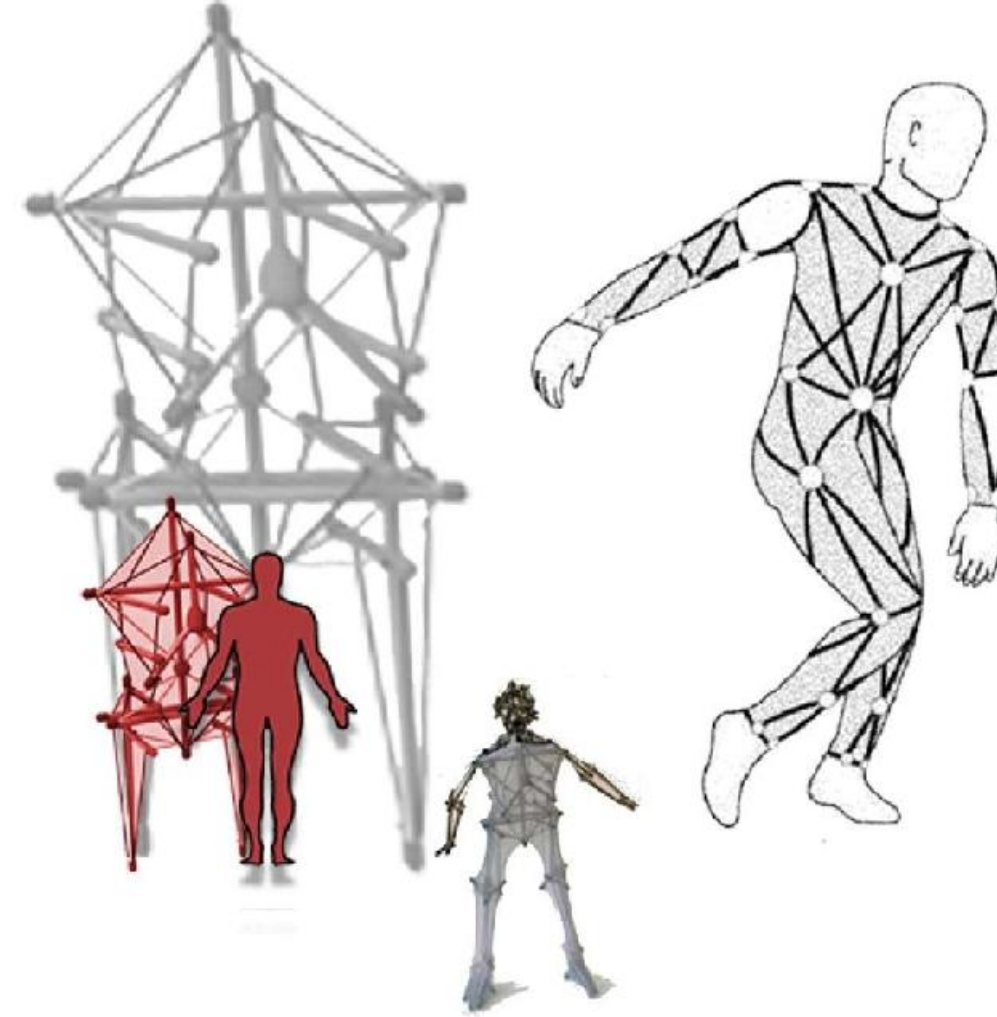
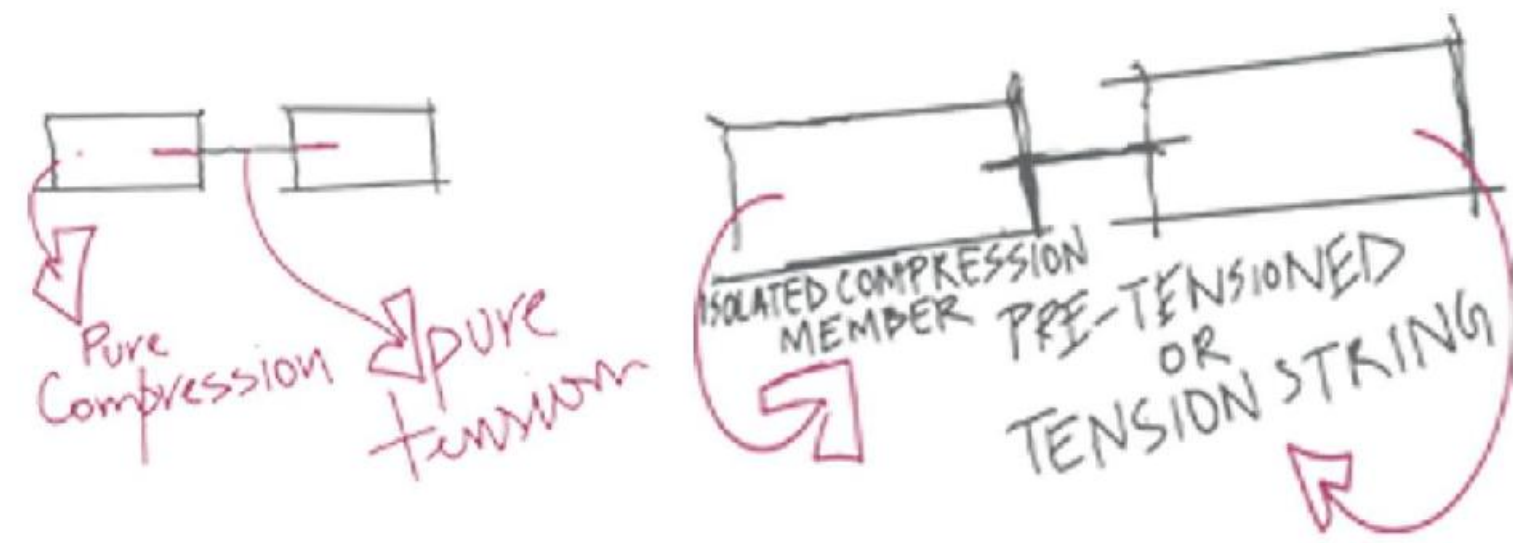
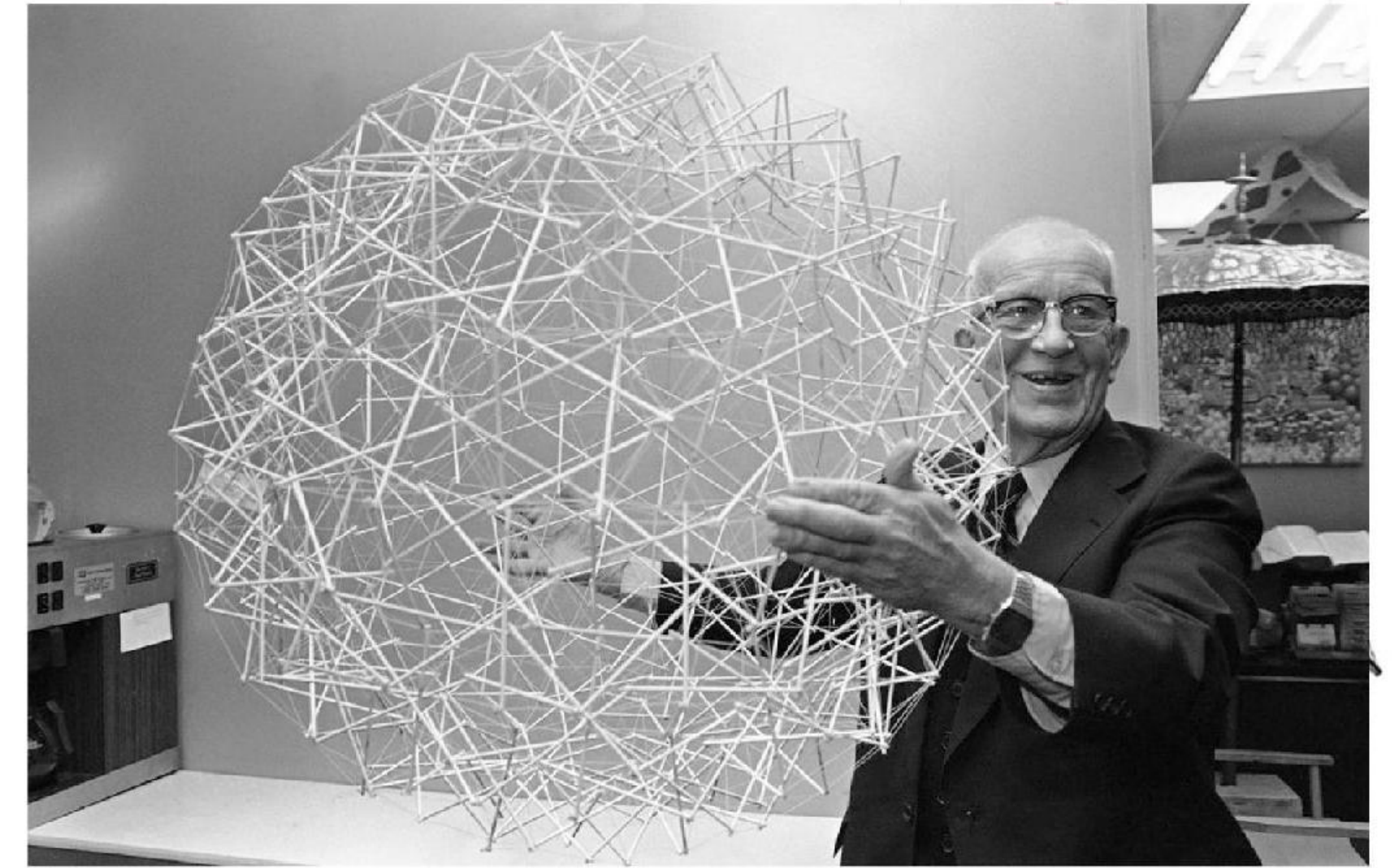
LIB

شاميانا 2.0
SHAMIYANA 2.0

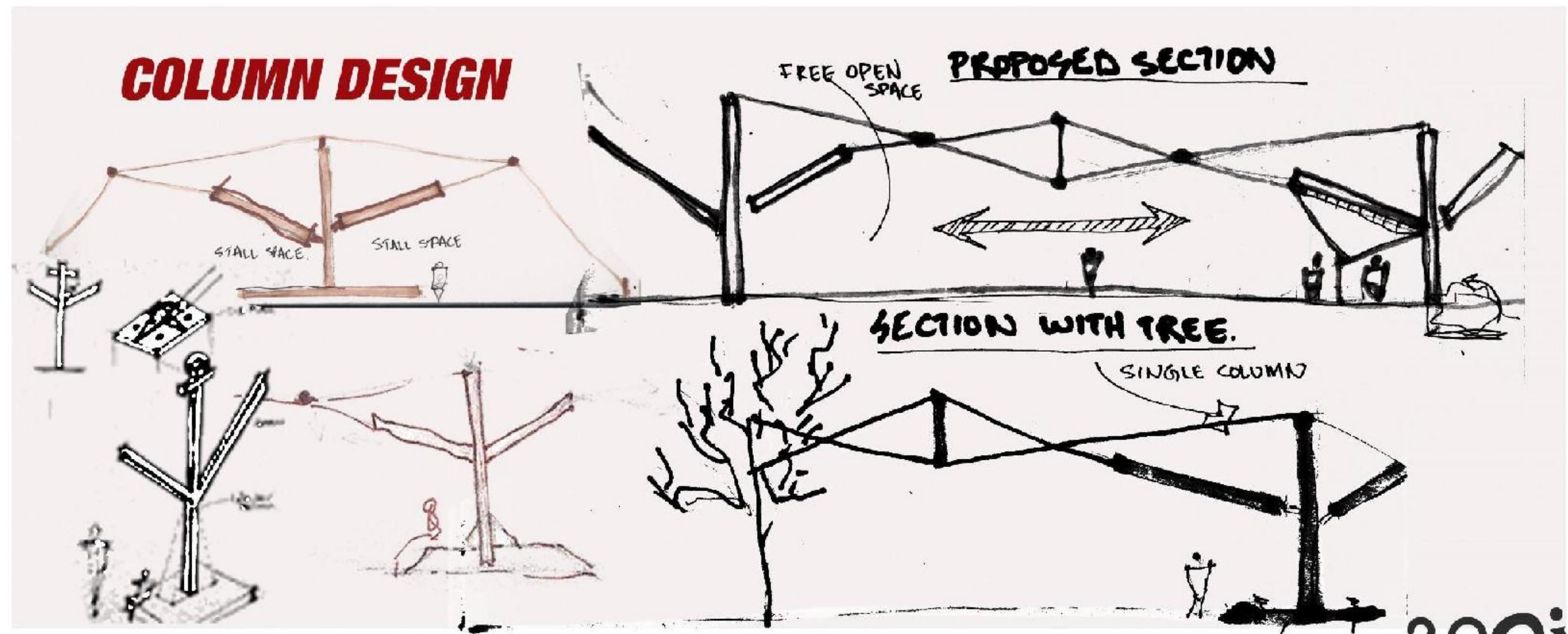
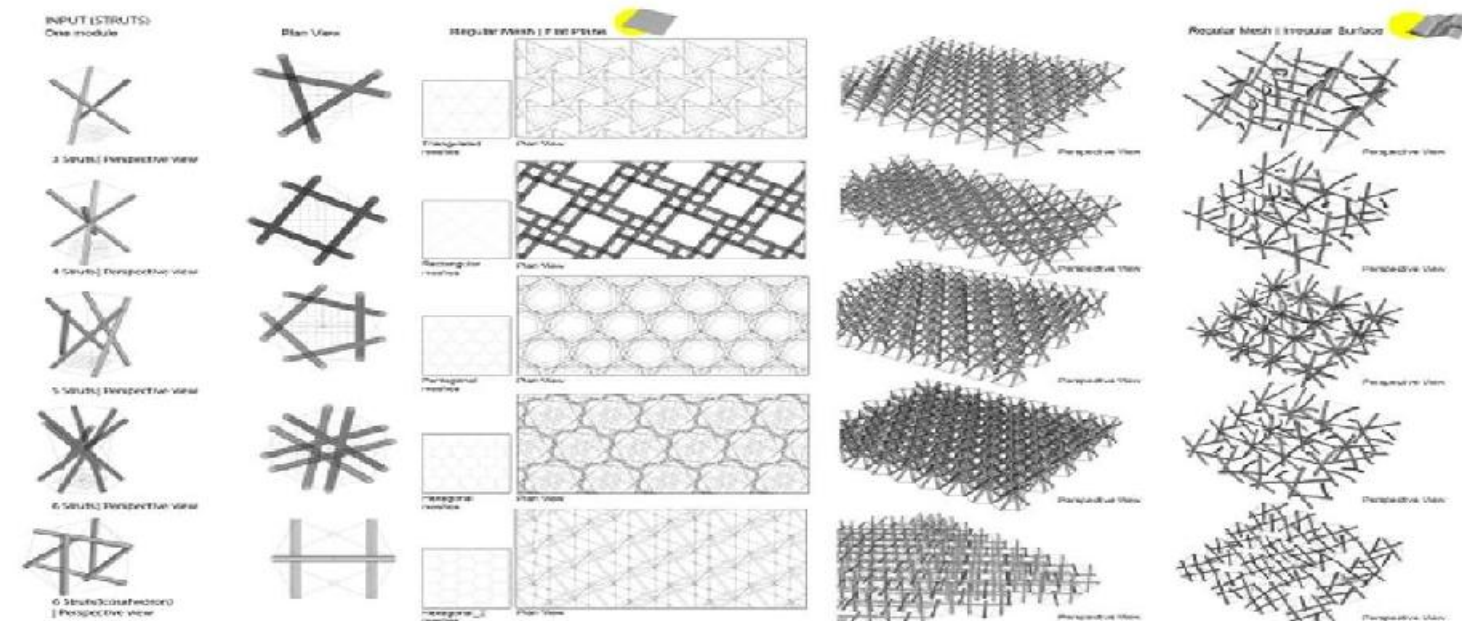
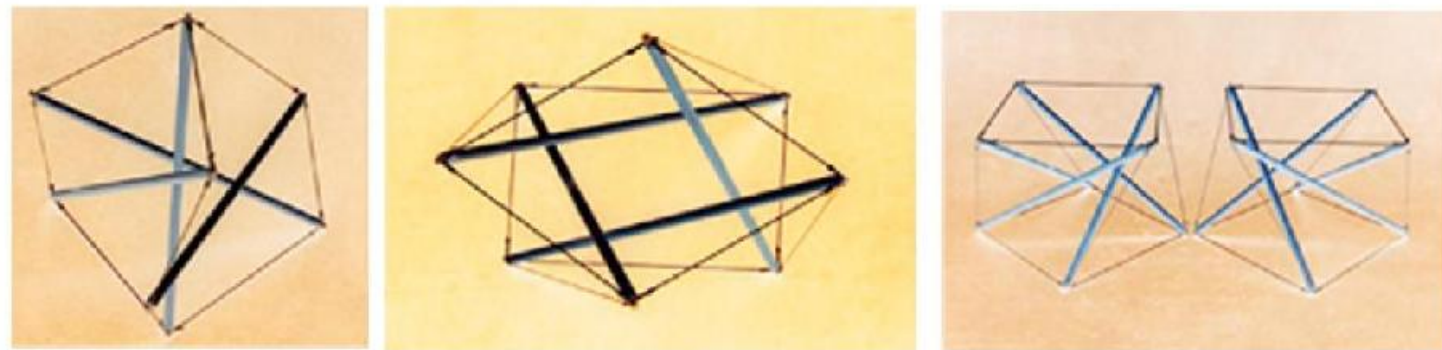
LIGHTING IN A BOTTLE FESTIVAL



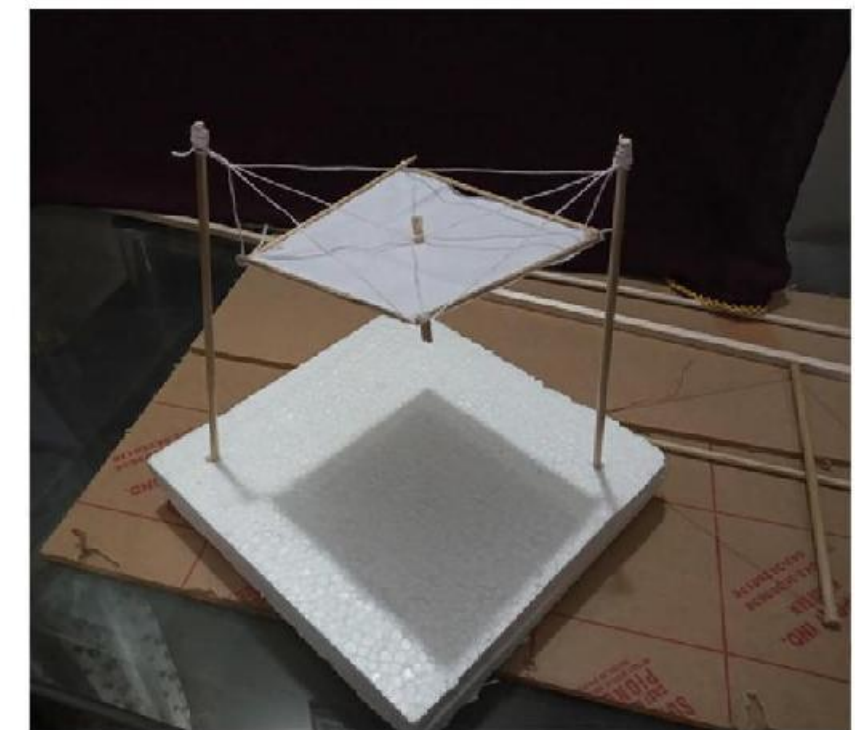
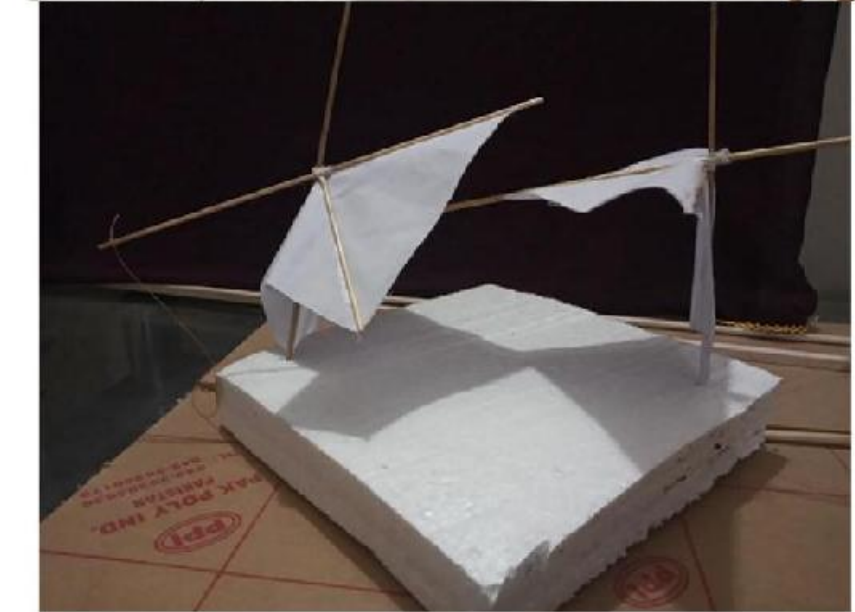
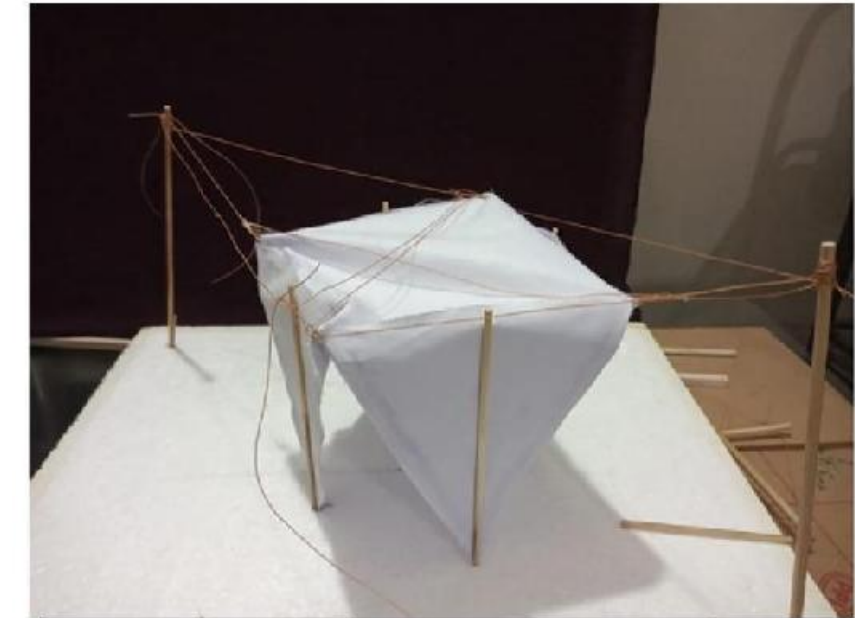
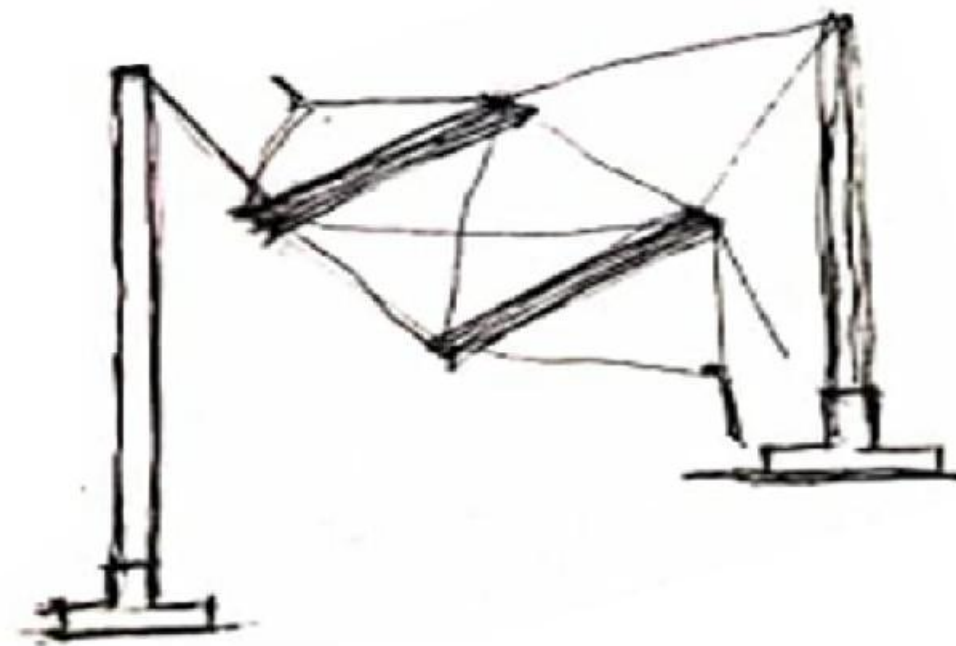
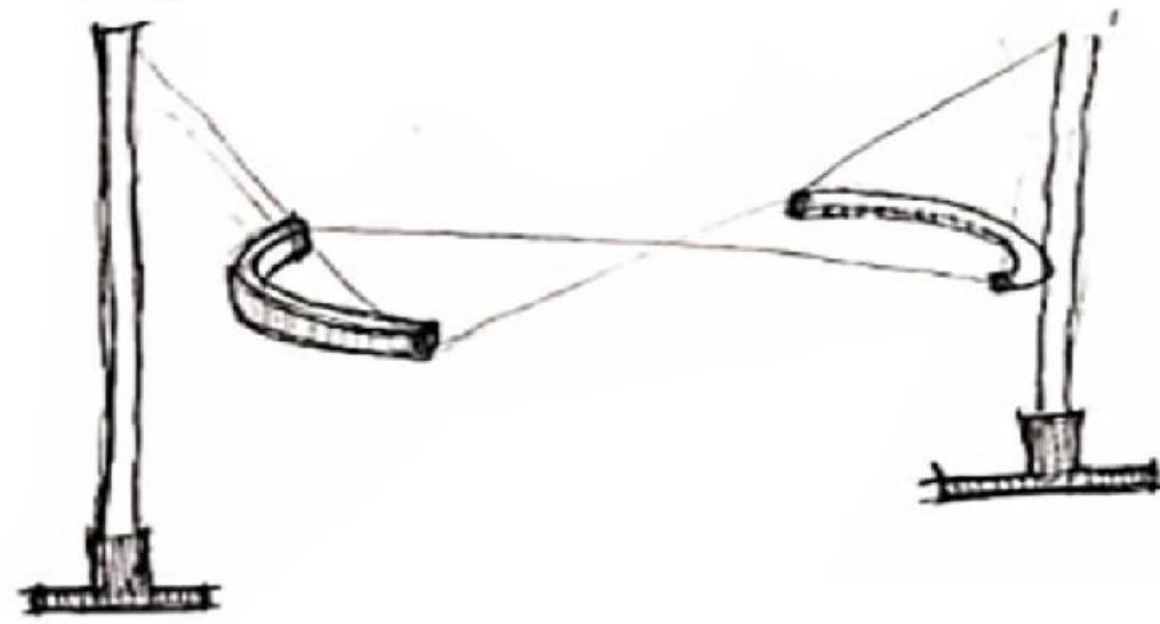
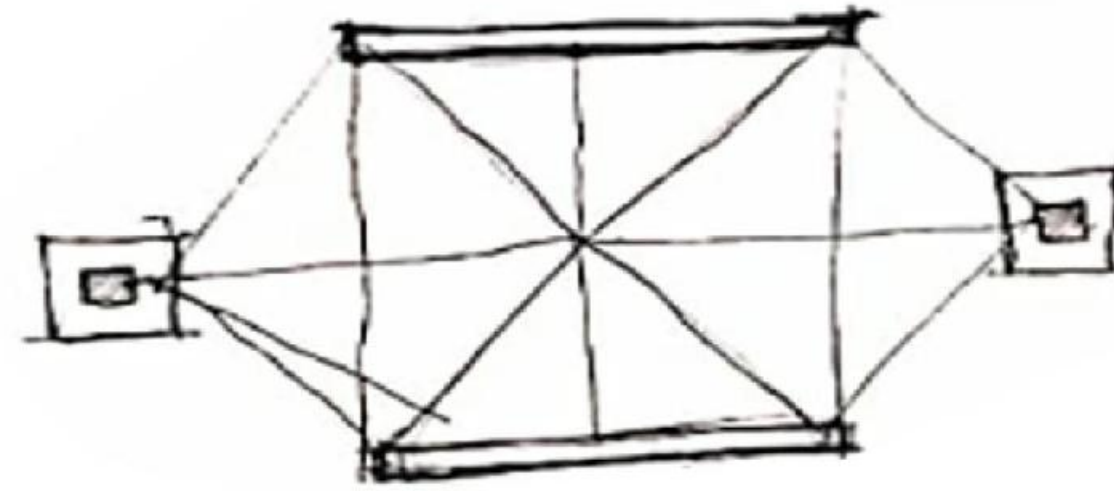
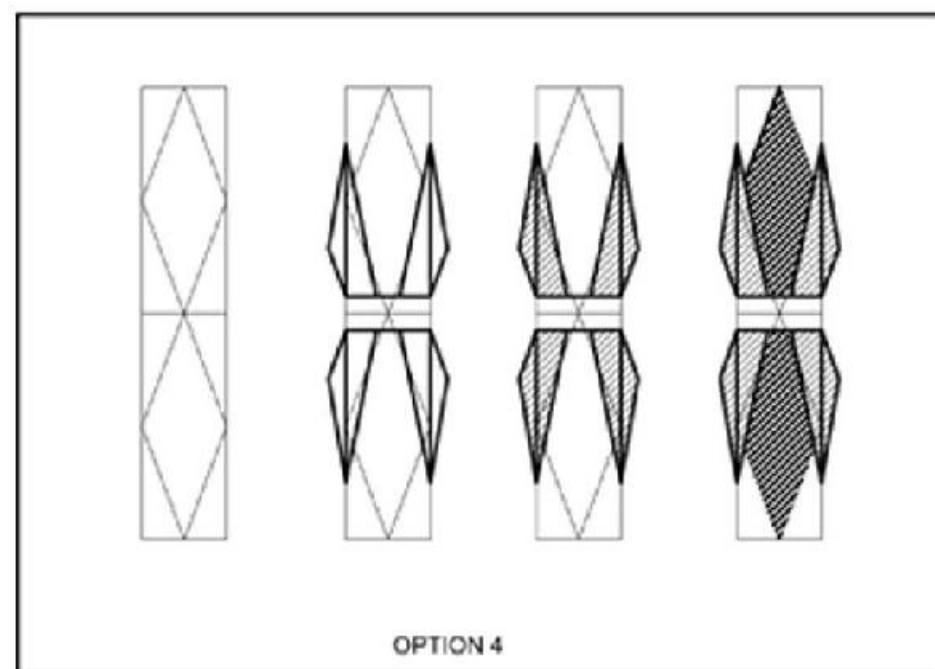
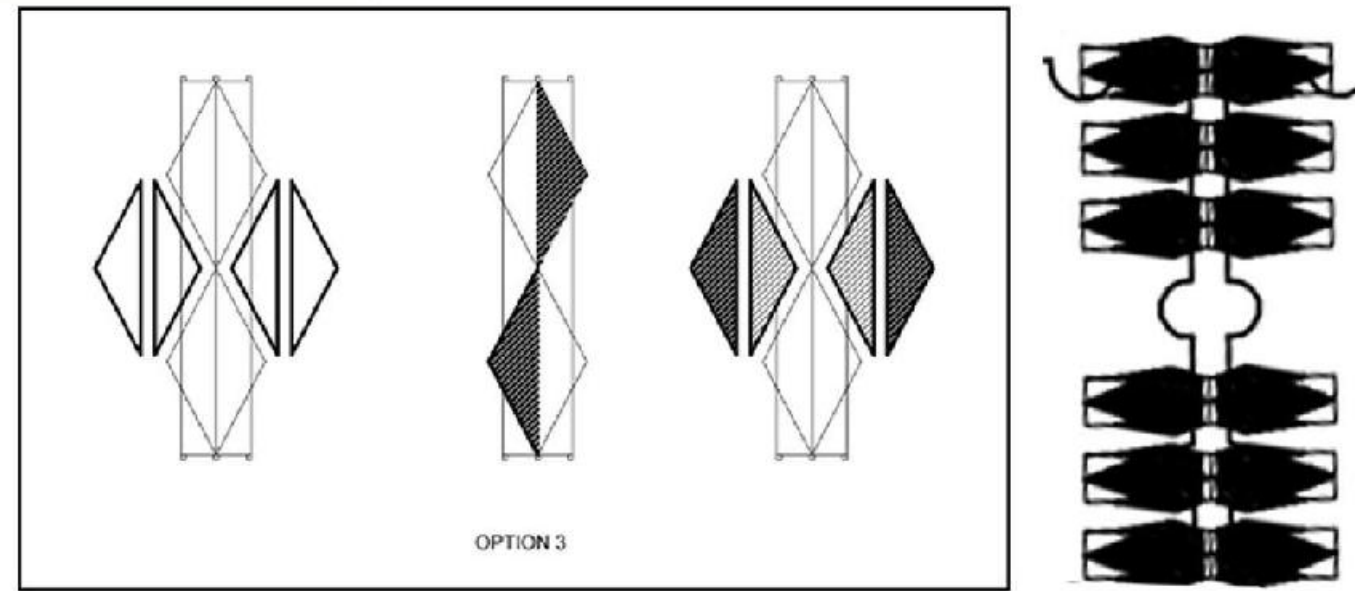
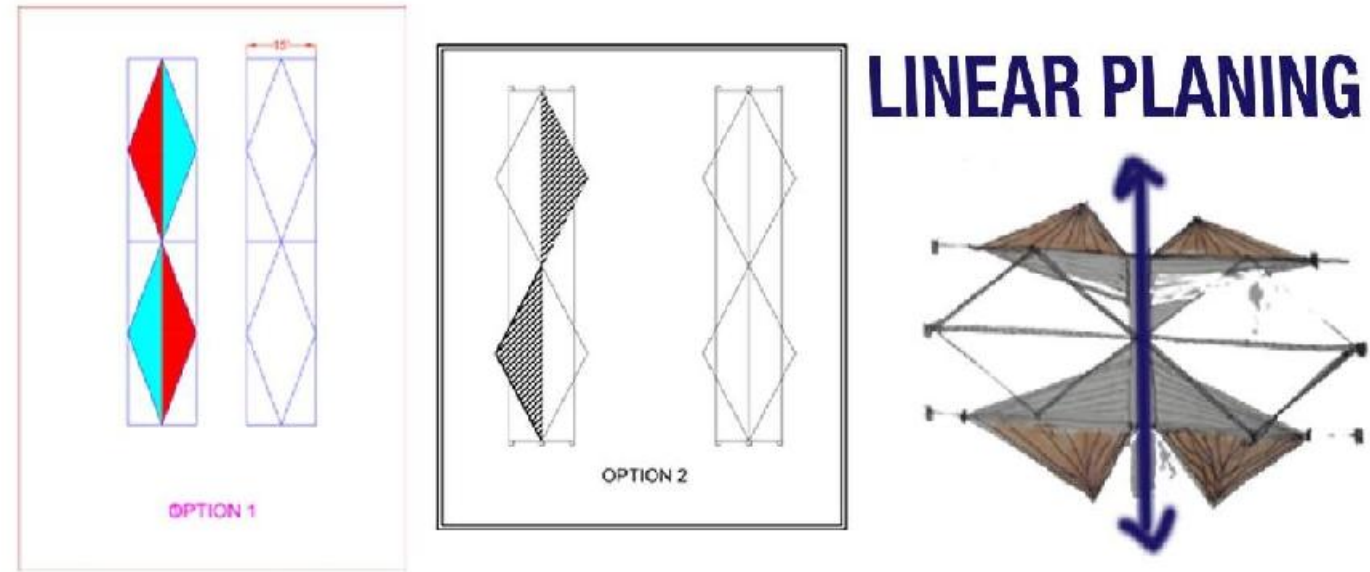
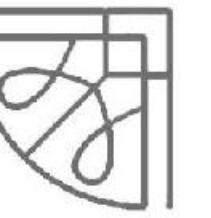
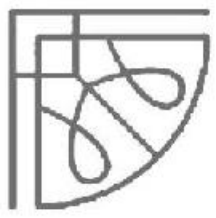
THE TERM TENSEGRITY (TENSION-INTEGRITY) IS AN STRUCTURAL SYSTEM DEVELOPED BY BUCK MINISTER FULLER



The tensegrity framework consists of both compression members (struts) and tensile members (tendons) in a specific topology stabilized by induced prestress



TENSEGRITY (BUCKMINISTER FULLER)

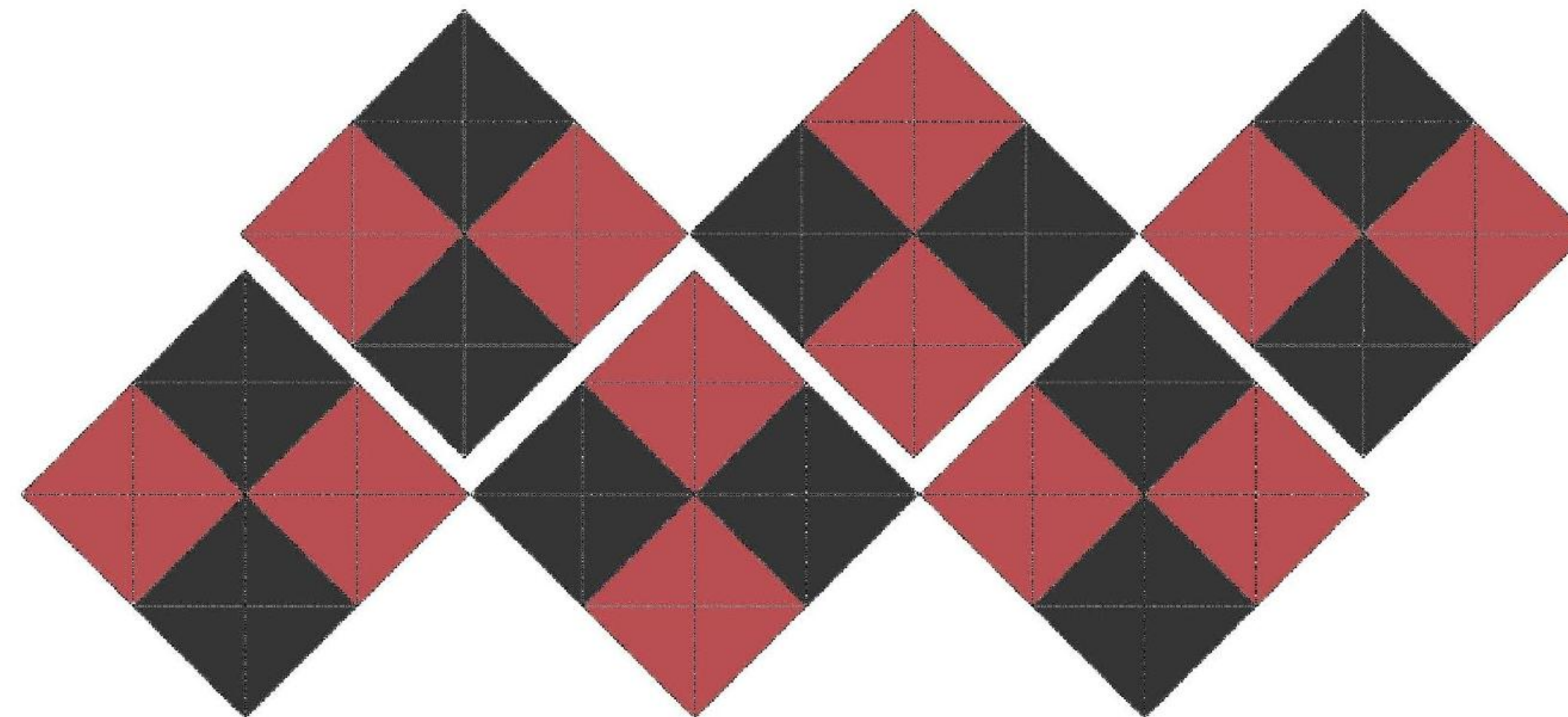
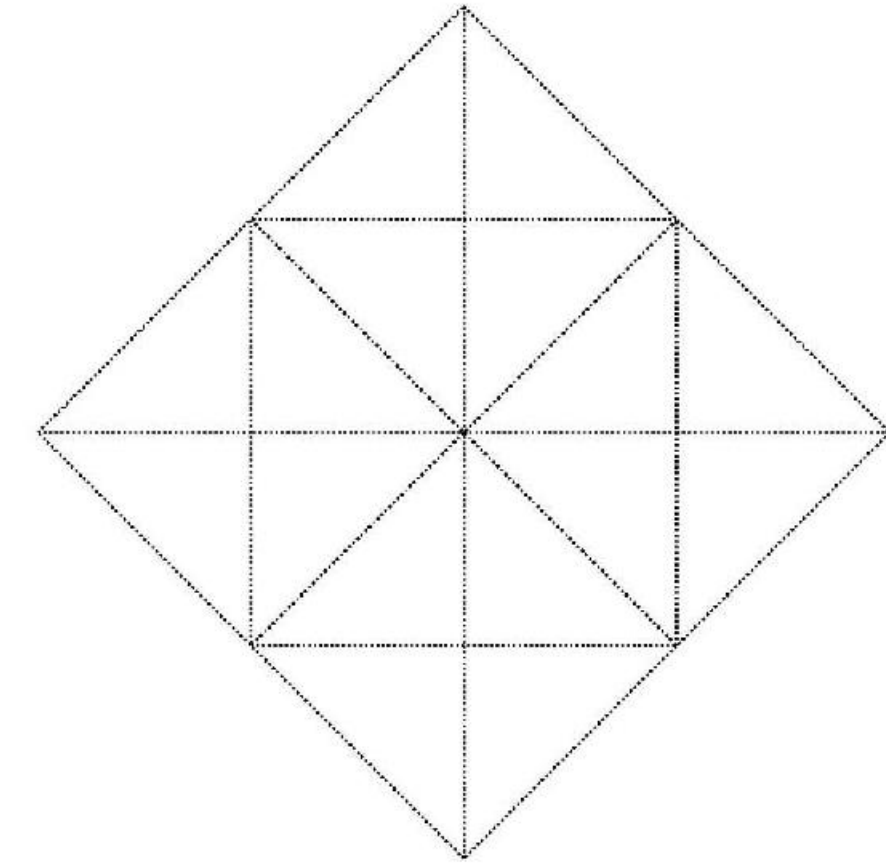
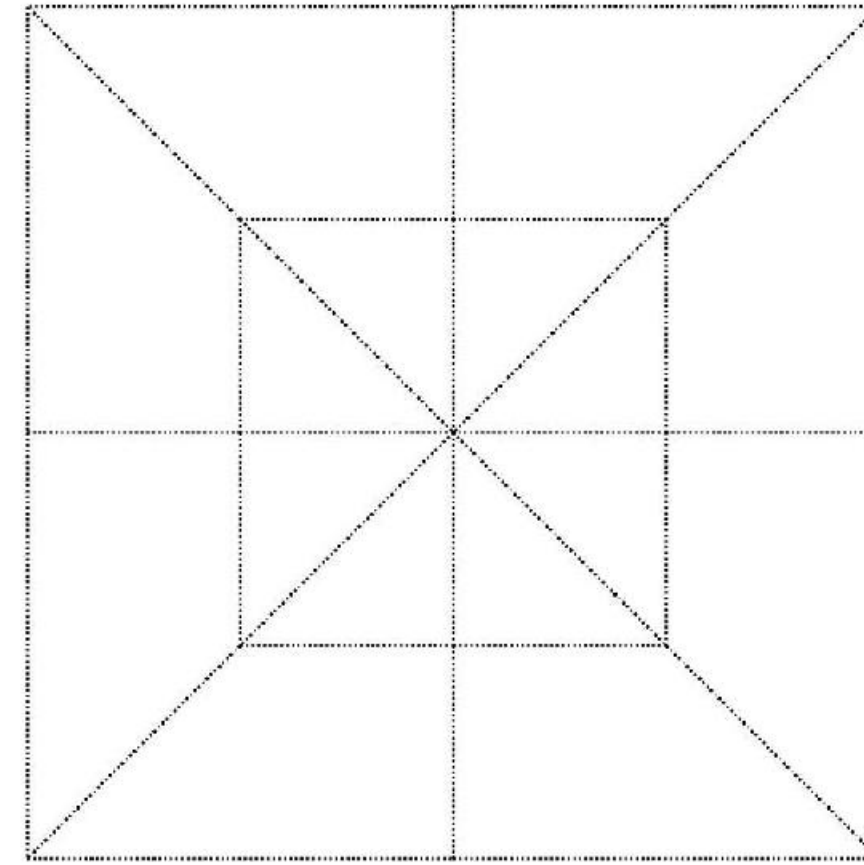
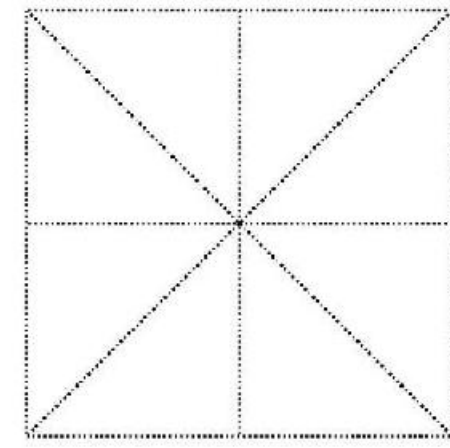


DESIGNING OF MODULE

INITIAL INSPIRATION OF FORM

Form is inspired by the fabric detail of local shamiyana.

And pattern is designed keeping the same square to maintain its modular shape/form.

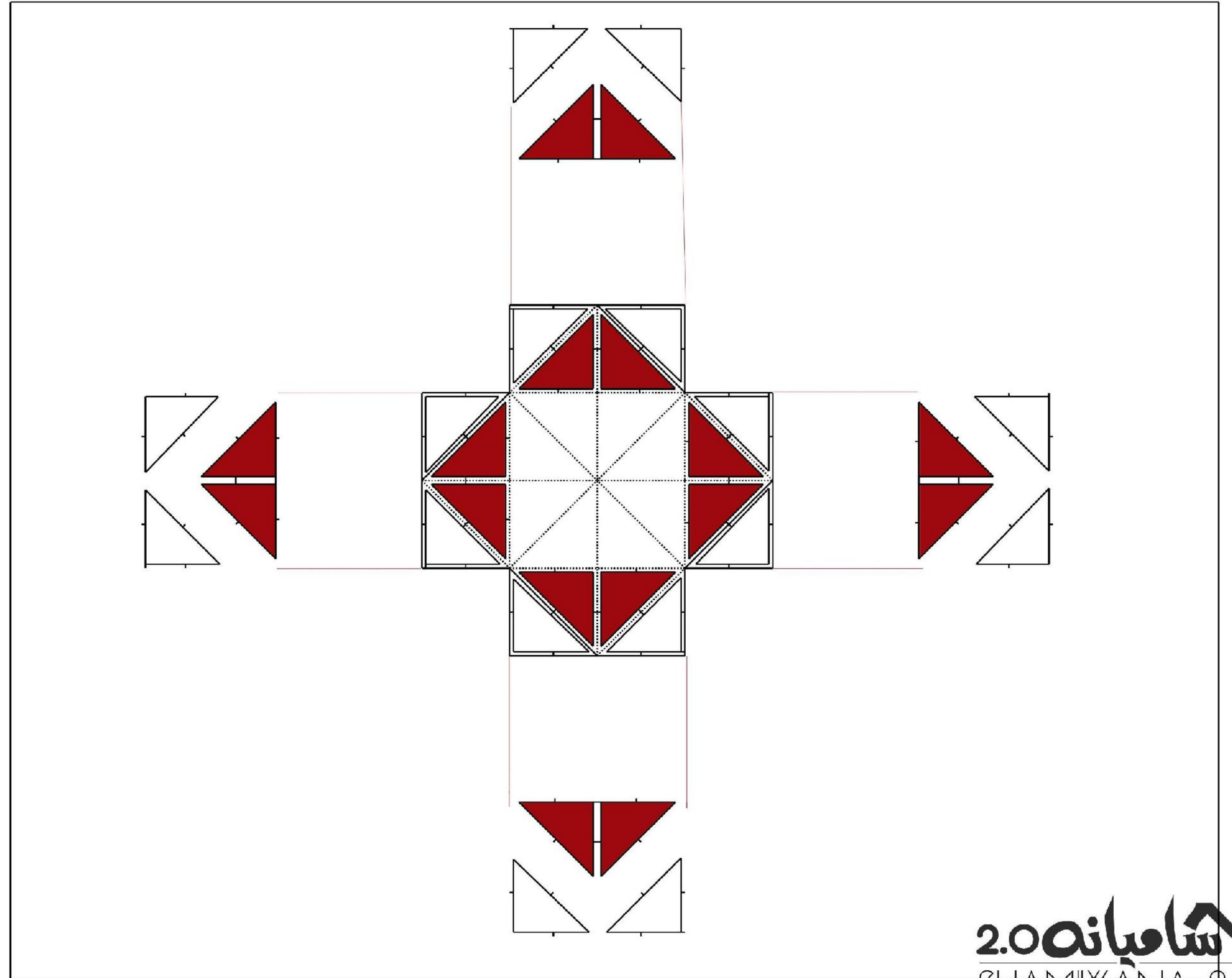


PROTOTYPE

شامیانہ 2.0
SHAMIYANA 2.0

FABRIC PANELS JOINING DETAILS

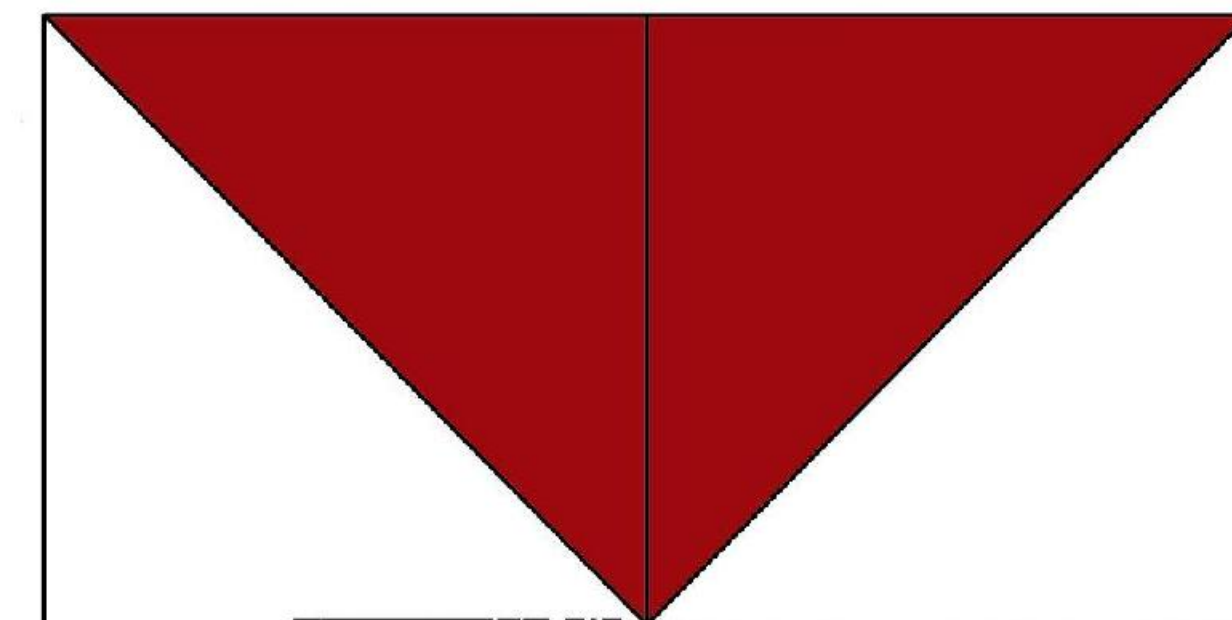
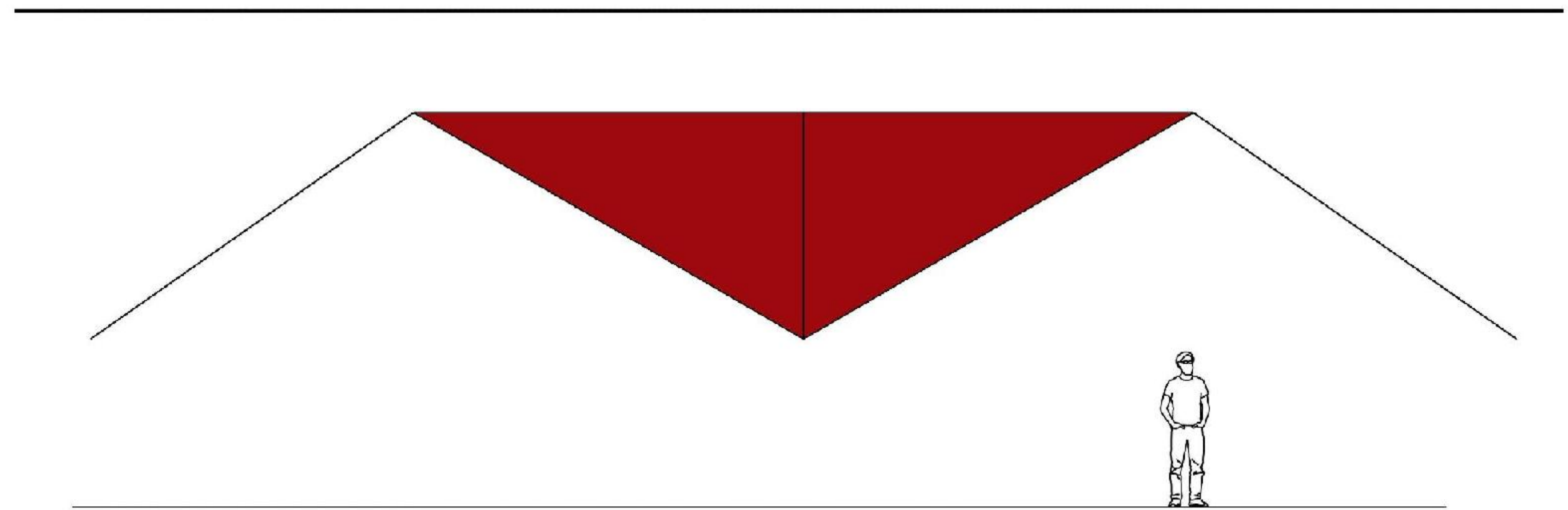
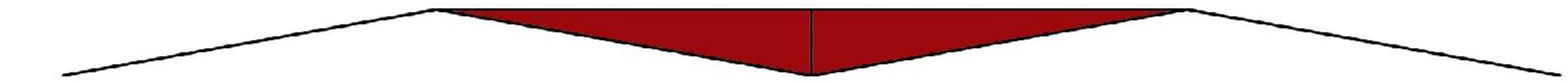
*Panels are designed as a
division of 4'x4' square
pieces to maintain
lowest possible cost*



PROTOTYPE

TRANSFORMATION OF MODULE

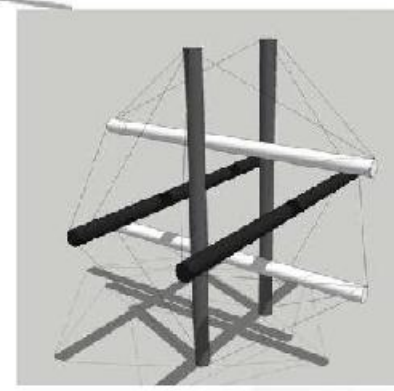
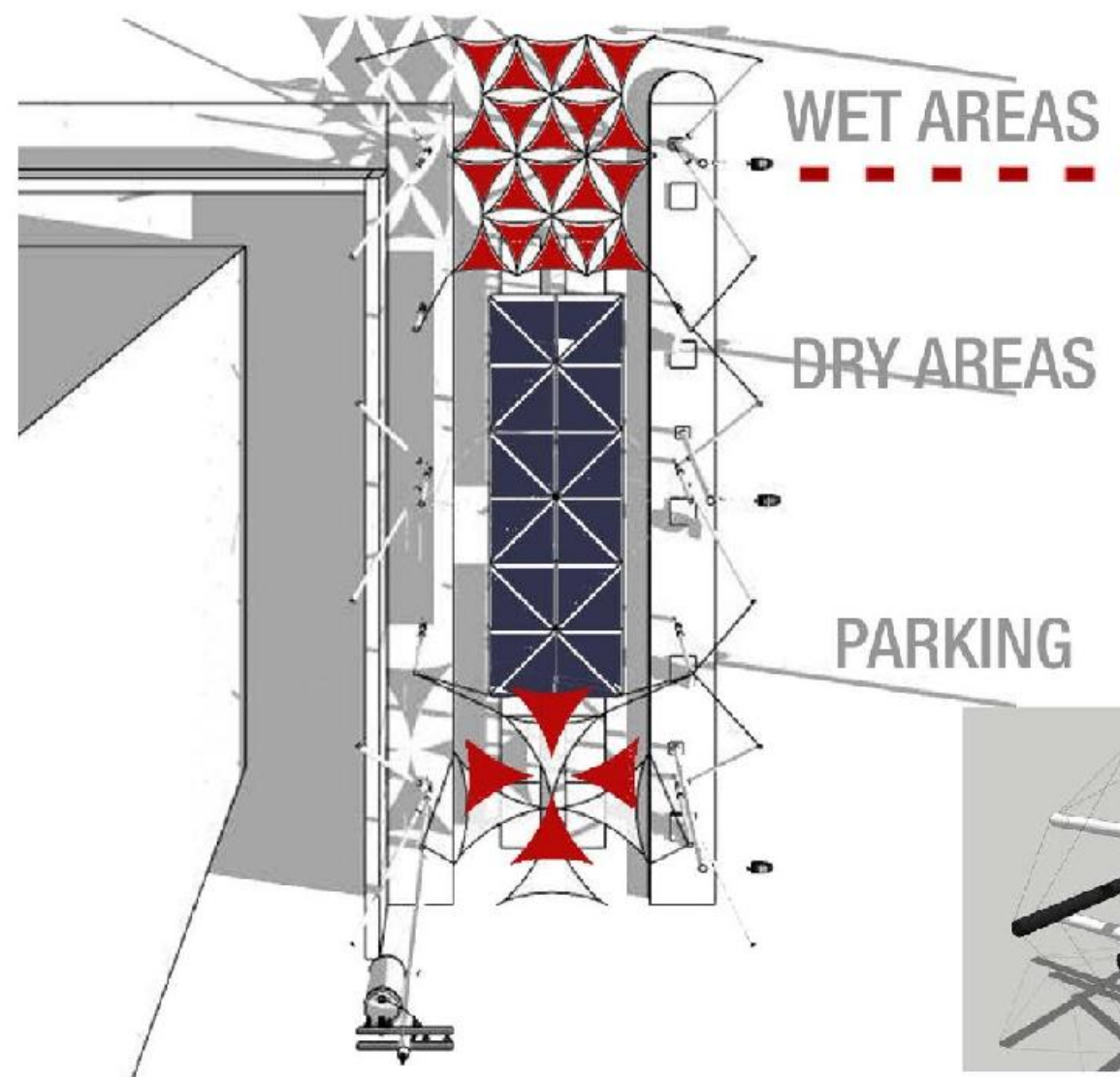
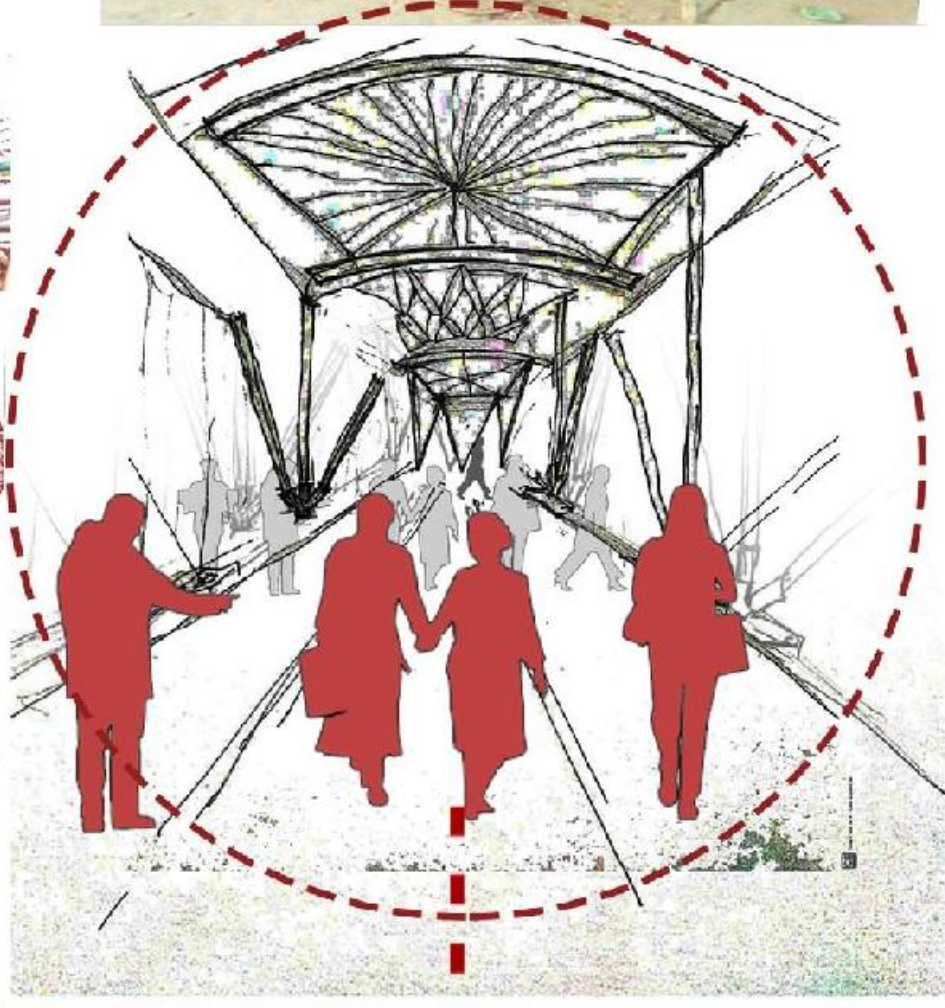
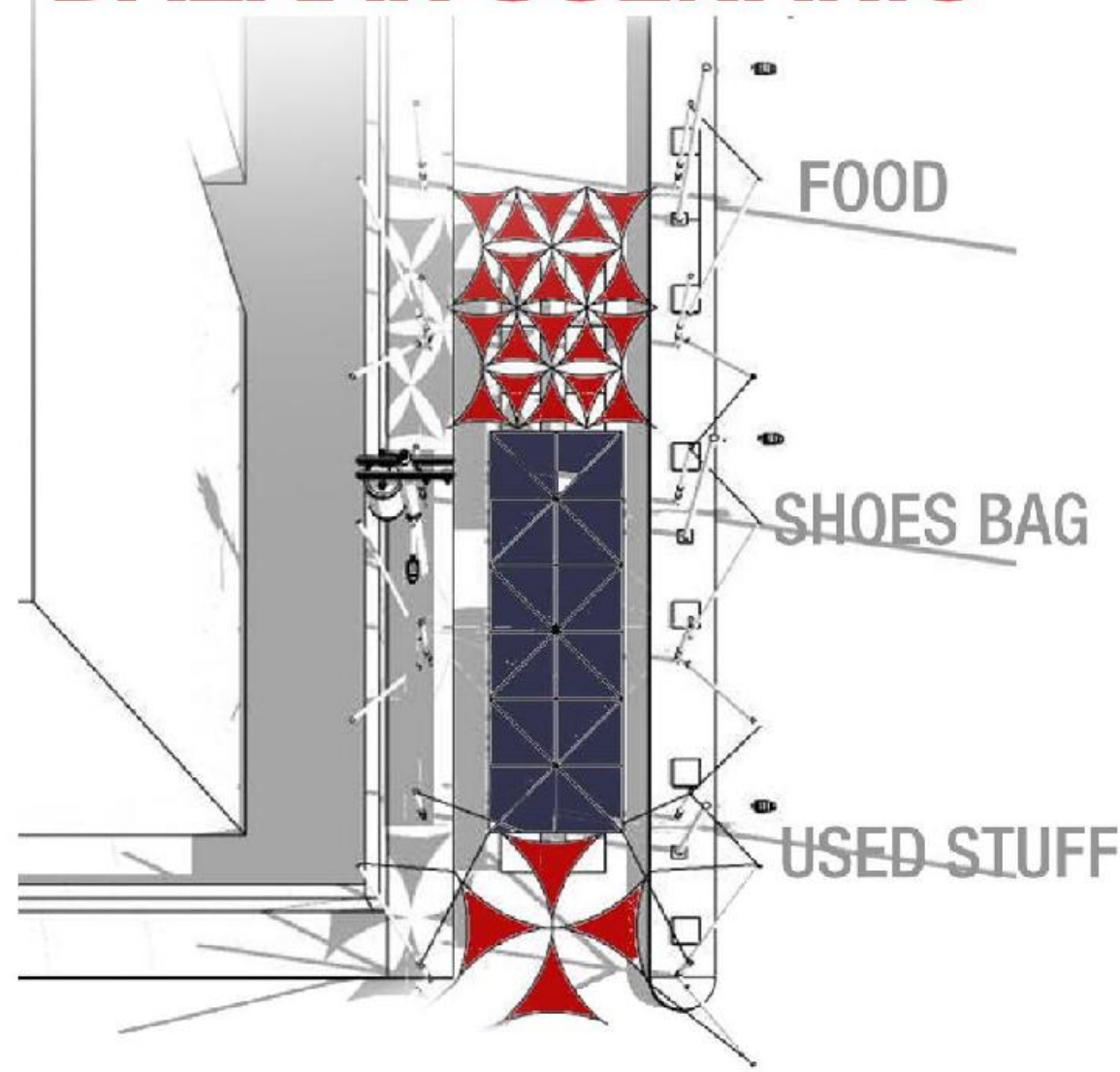
*Just like qannatein and
tamboo , the retractable
2.0 will become tambo
when in need and will
become complete cubi-
cal with respect to need
and requirement.*



PROTOTYPE

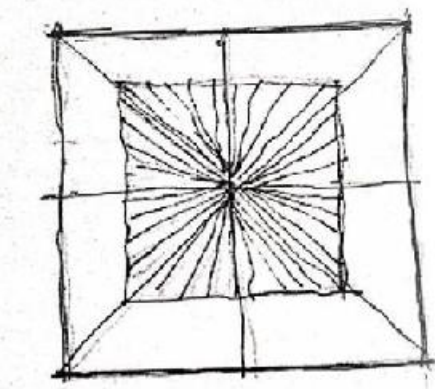
شاميانا 2.0
SHAMIYANA 2.0

BAZAAR SCENARIO

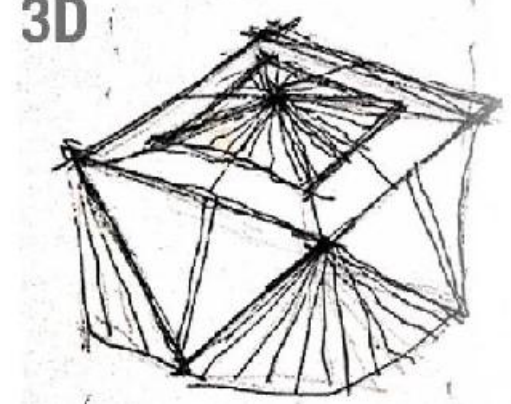


STREET SCENARIO

PLAN OF FABRIC DESIGN



3D

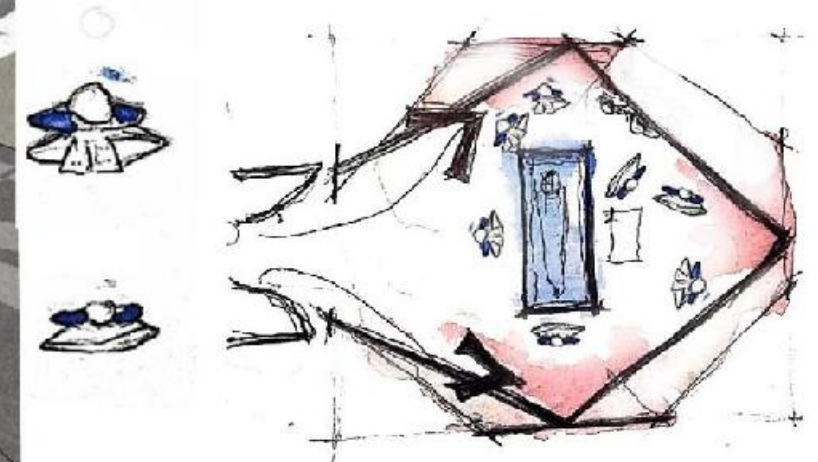
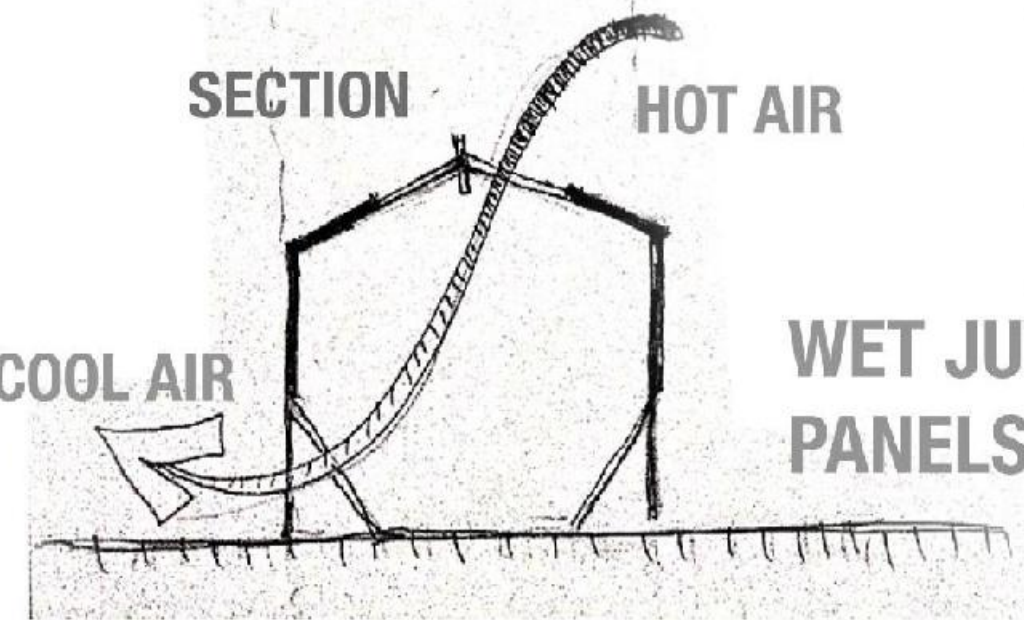


SECTION


HOT AIR

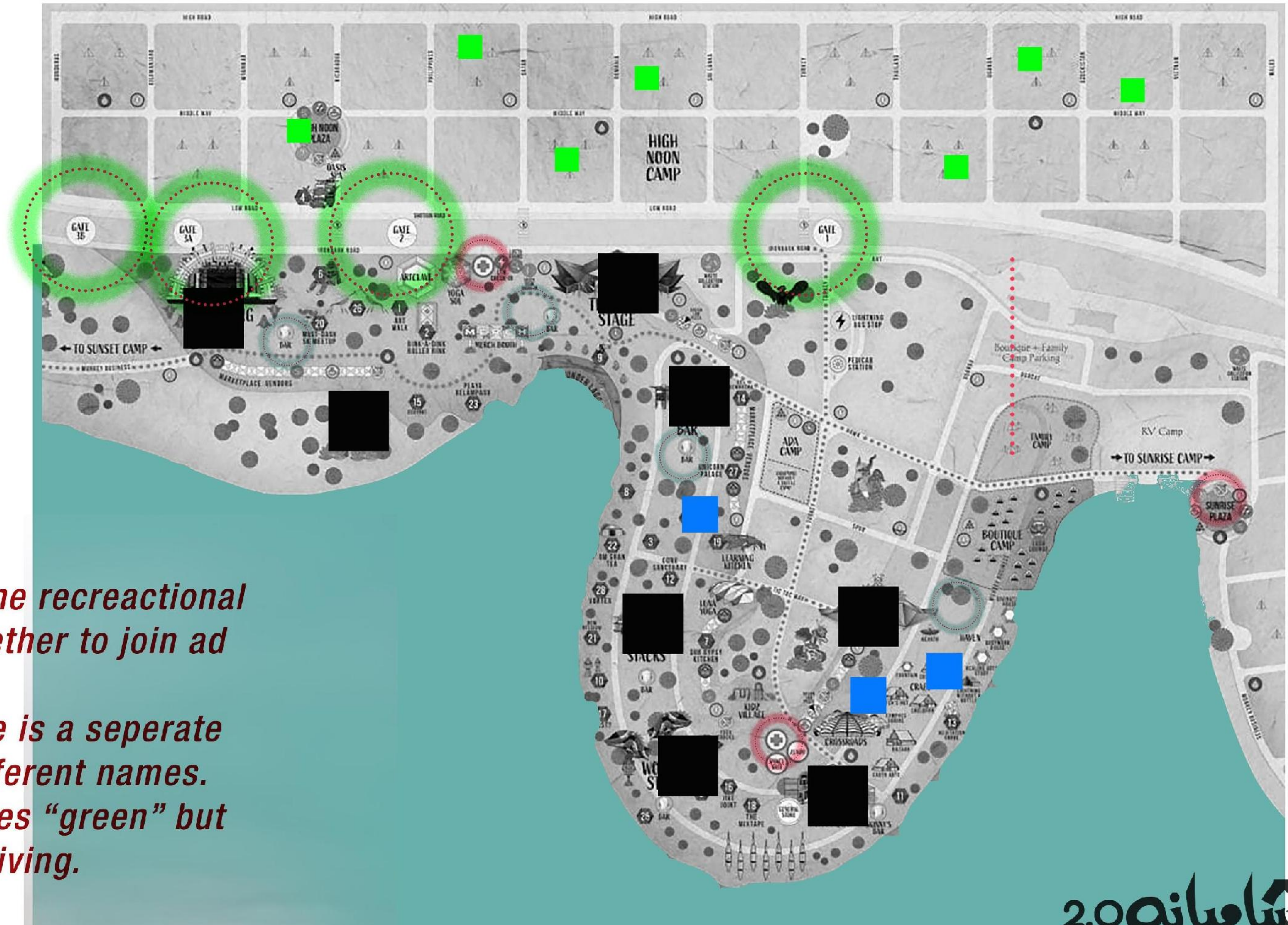
COOL AIR

WET JUTE PANELS



EXTENDING HOUSE AT MAYYAT/ FUNERAL CEREMONY IS THE CULTURAL NORM WHEN EVERY HOUSE NEEDS AN EXTENTION. STRUCTURE IS DESIGNED TO SET UP FOR SUCH EMERGENCY CRISES WITH IN LESS THAN HALF AN HOUR.

-  ENTRY/GATE
-  PUBLIC SERVICE POINT
-  WATER POINT
-  BUS STOP
-  CAMP
-  WORKSHOP
-  STAGE

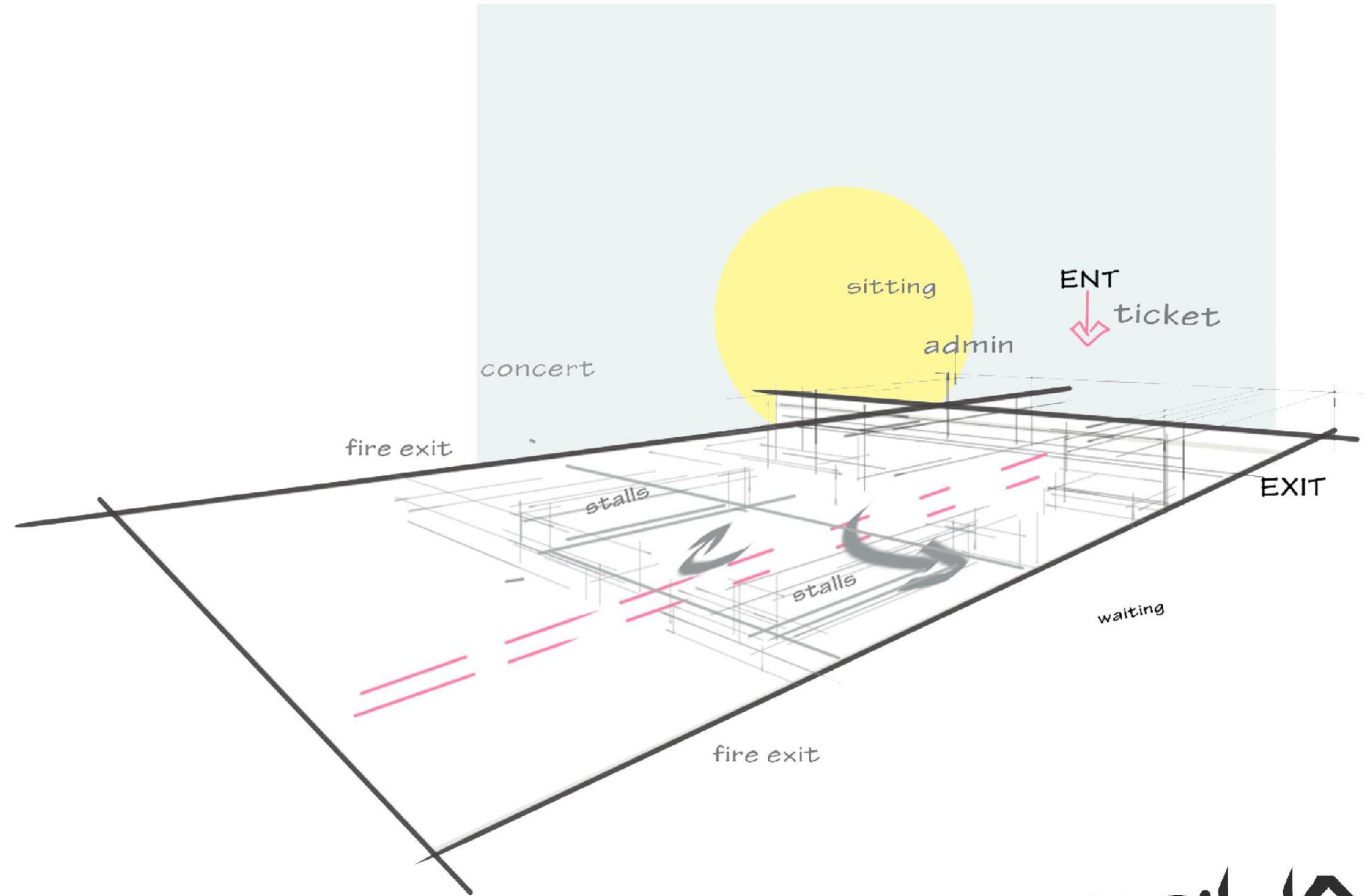


LIB

This is supposed to be the one recreational festival bringing society together to join and learn.

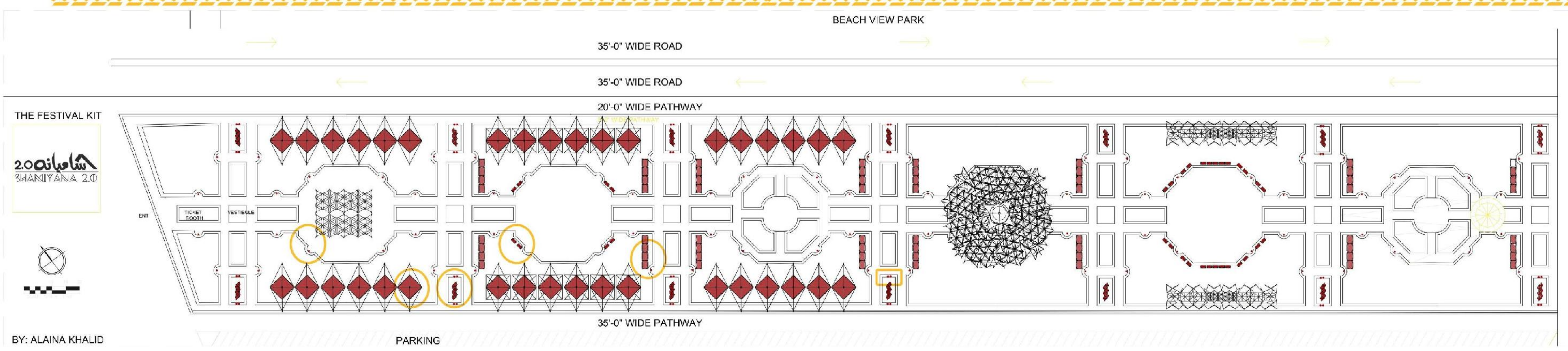
For each type of activity here is a separate designed structure with different names. This festival not only promotes "green" but also teaches green ways of living.

1. RECEPTION
2. SHAMIYANA 2.0 PROTOTYPE
3. CONCERT STAGE (TABLA)
4. DEGH
5. SEATING
6. FIRE PITS
7. STALLS
8. KIDS PLAY AREA
9. SPACE FOR SPNSORS
10. WORKSHOPS/ BAZAR
11. VALLET AND TICKETING
12. ADMIN OFFICE
13. CONTROL ROOM
14. PARKING
15. POTABLE TOILETS
16. WATERPOINTS(WATER BOTTLES
17. SINK



PROGRAM FOR FESTIVAL

شاميانا 2.0
SHAMIYANA 2.0



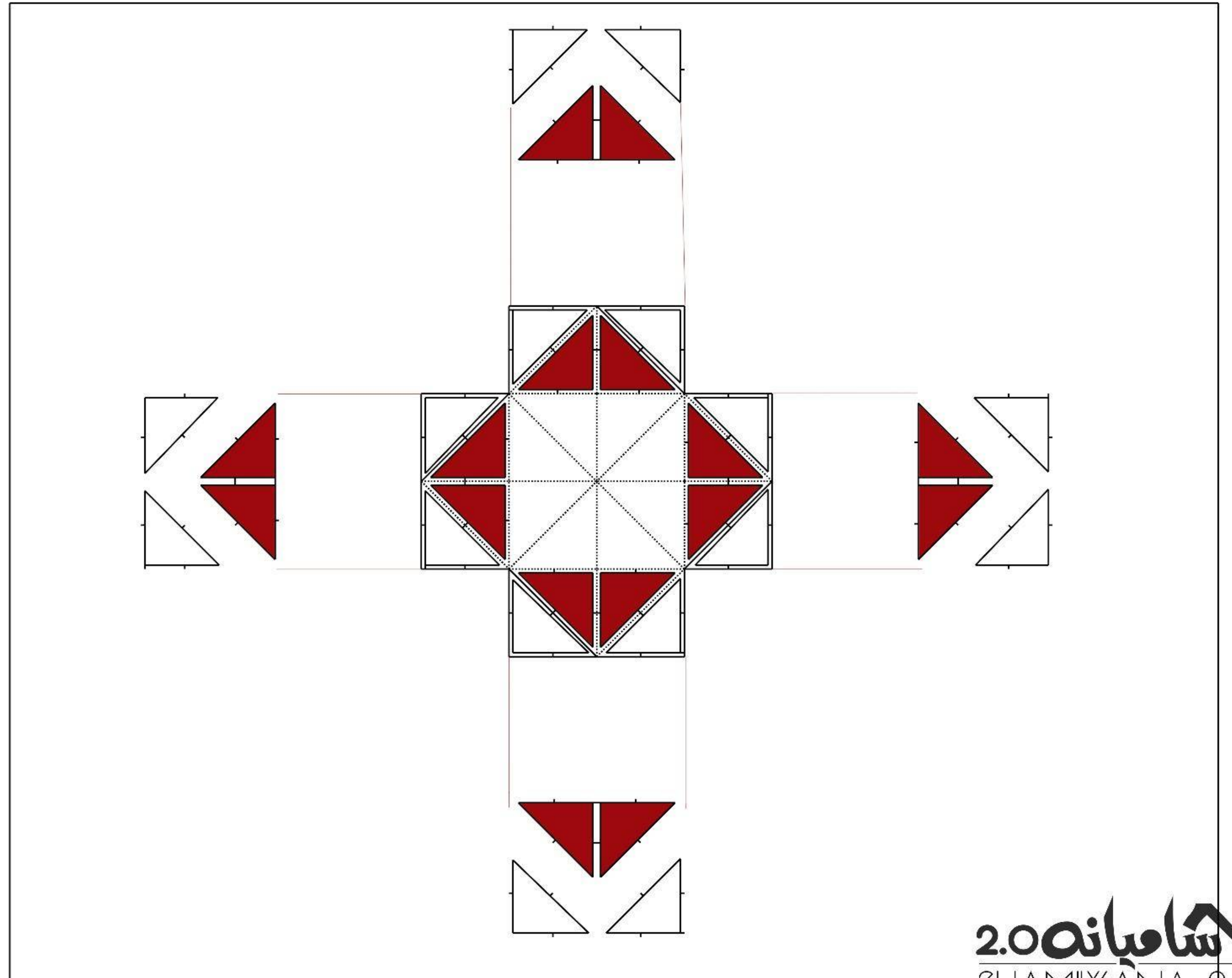
1. SHAMIYANA 2.0 PROTOTYPE
- .2. KIOSK (DUKANCHA)
3. SEATING
4. PORTABLE TOILETS
5. WATER BOTTLES (DISPENSER)
6. WASH BASIN

ESSENTIAL KIT

2000 شاميانا 2.0
SHAMIYANA 2.0

FABRIC PANELS JOINING DETAILS

*Panels are designed as a
division of 4'x4' square
pieces to maintain
lowest possible cost*

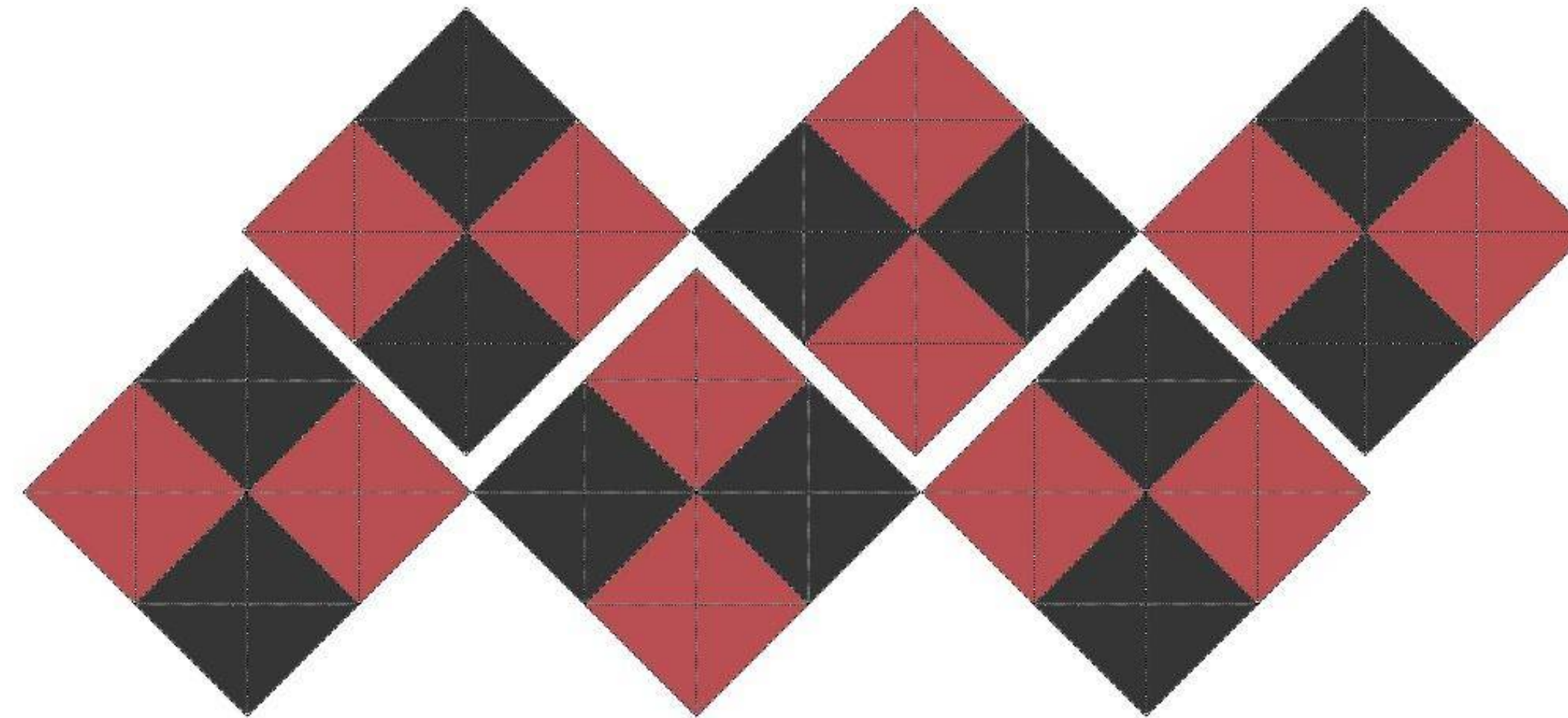
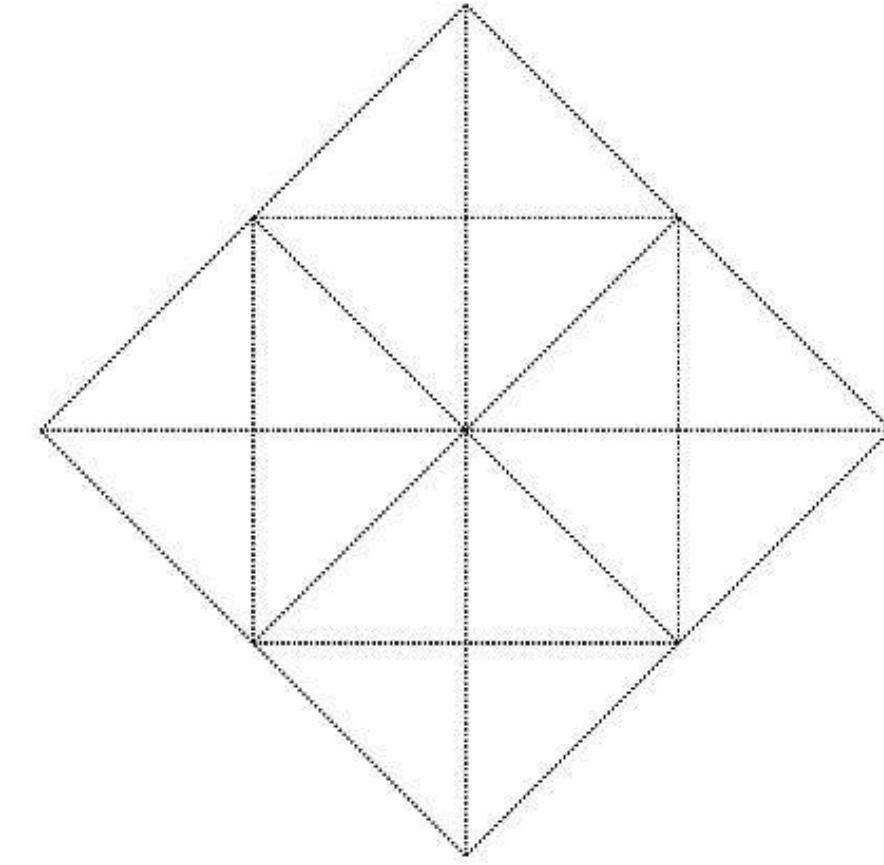
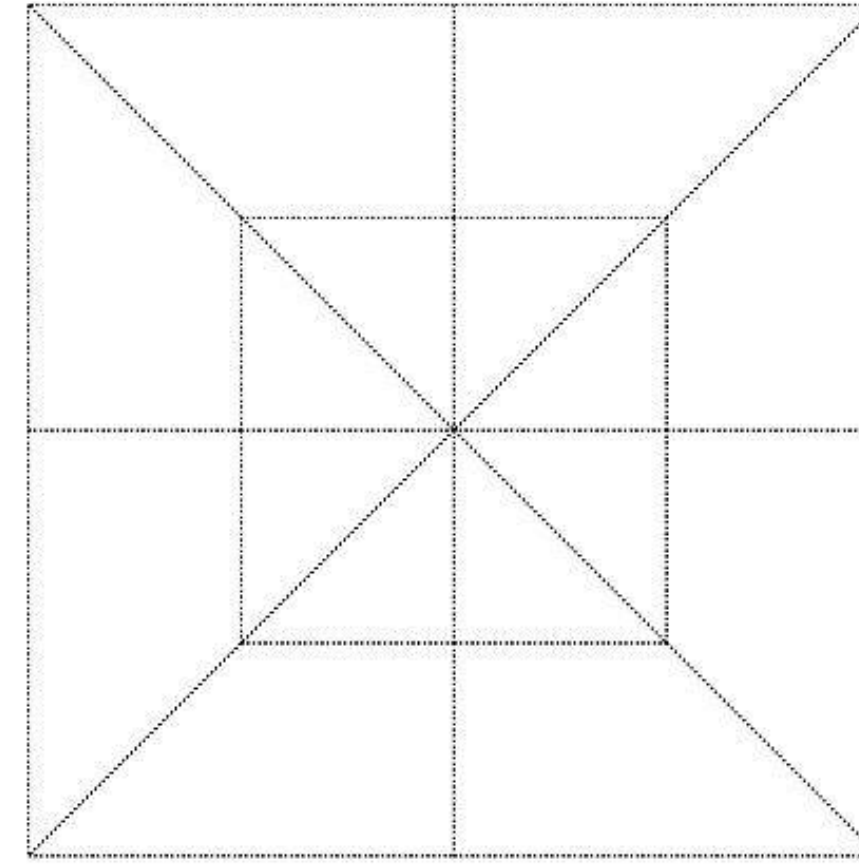
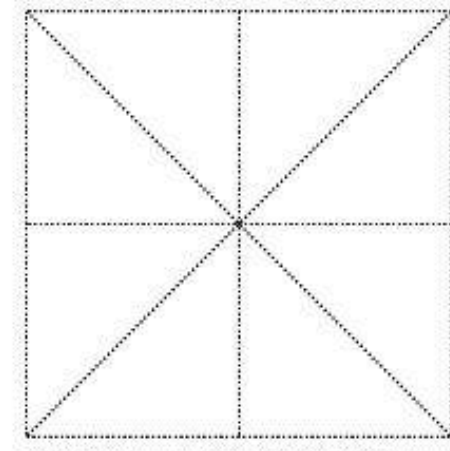


PROTOTYPE

INITIAL INSPIRATION OF FORM

Form is inspired by the fabric detail of local shamiyana.

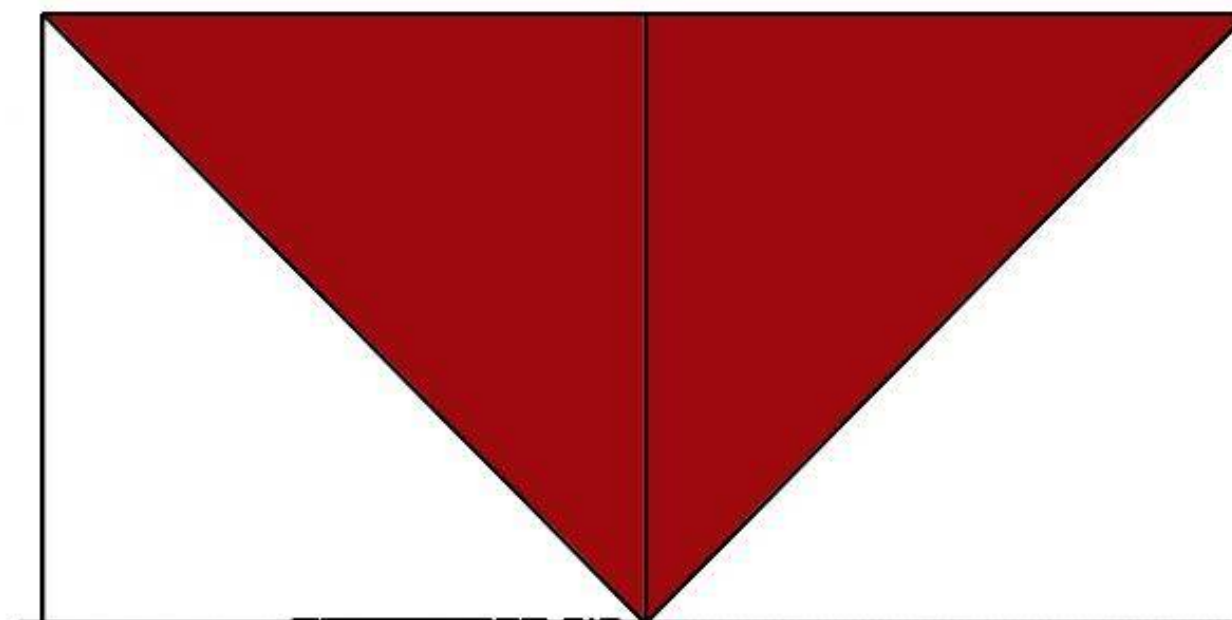
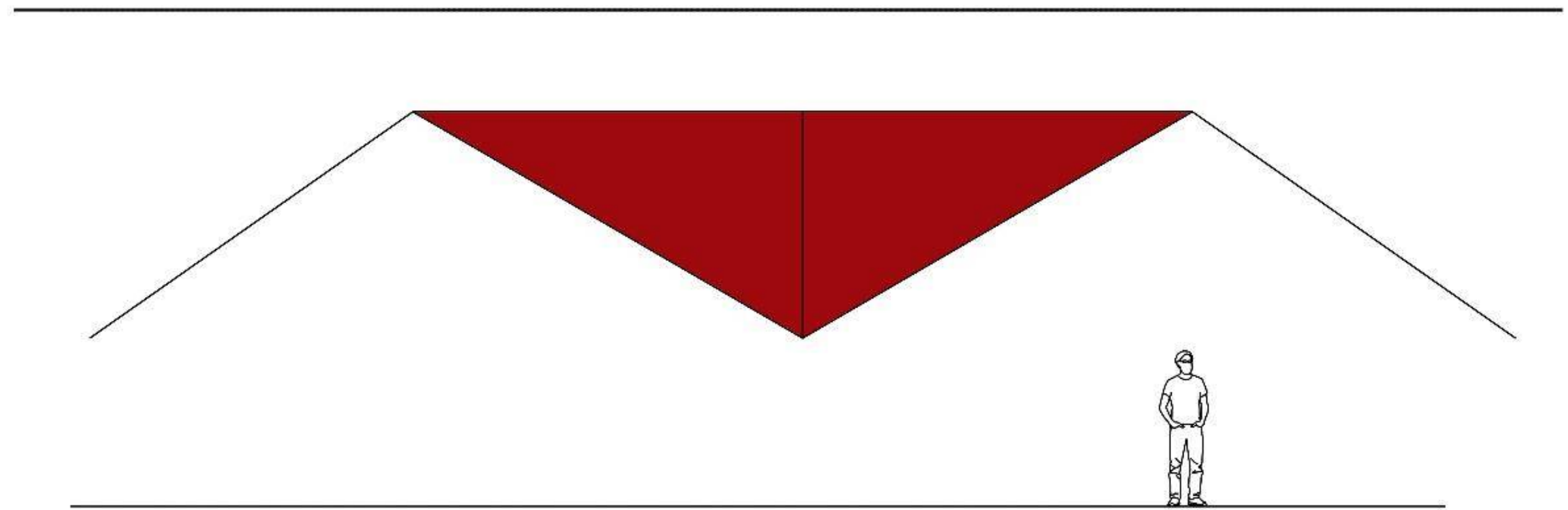
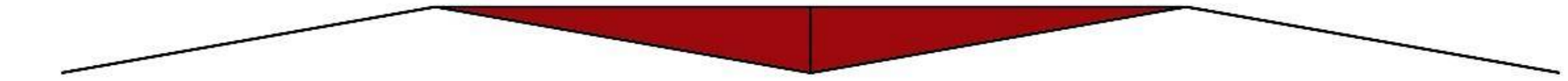
And pattern is designed keeping the same square to maintain its modular shape/form.



PROTOTYPE

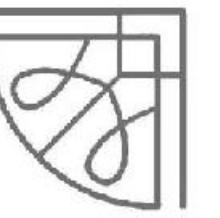
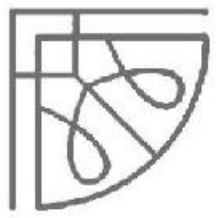
TRANSFORMATION OF MODULE

*Just like qannatein and
bamboo , the retractable
2.0 will become bamboo
when in need and will
become complete cubi-
cal with respect to need
and requirement.*

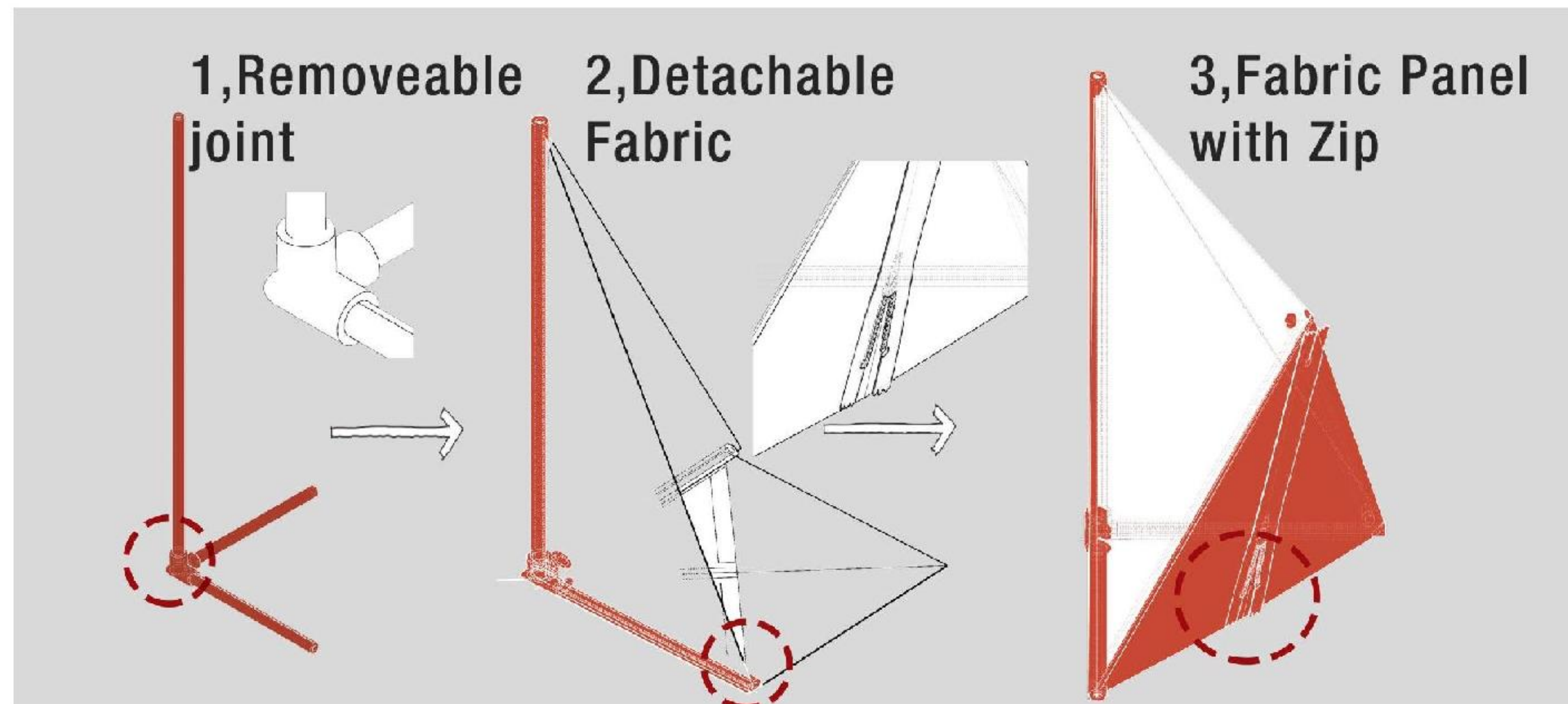


PROTOTYPE

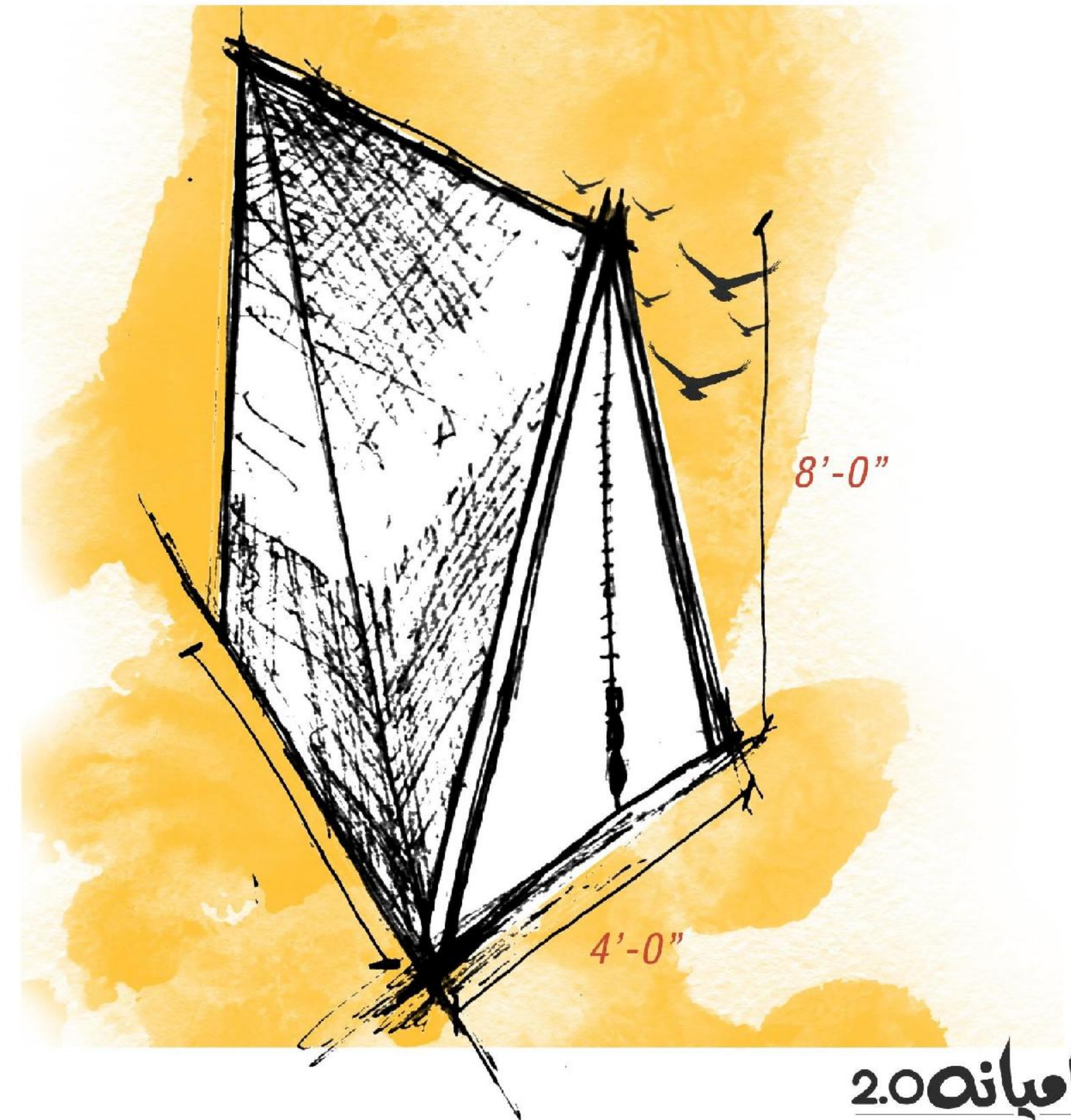
شاميانا 2.0
SHAMIYANA 2.0



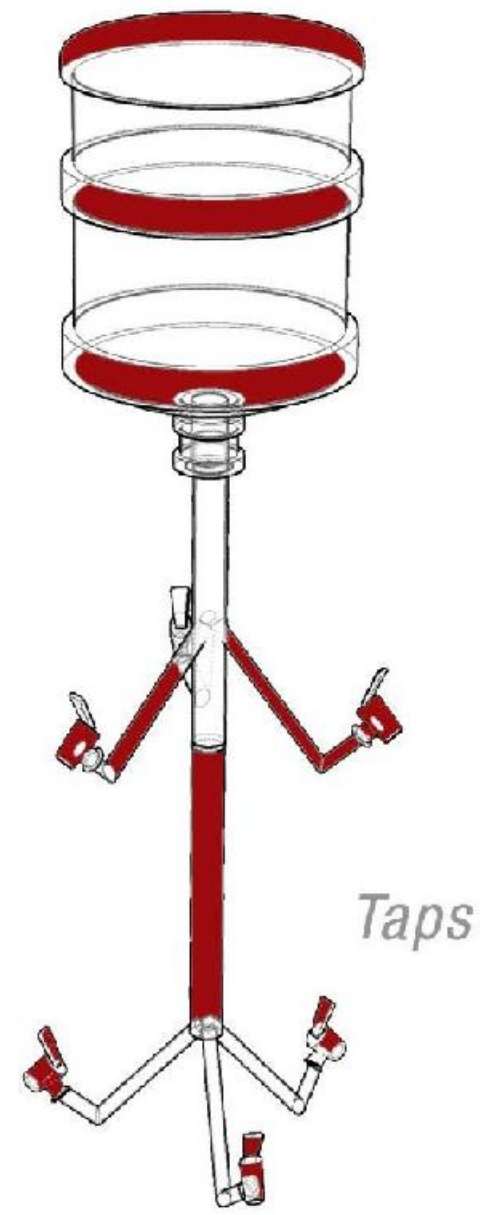
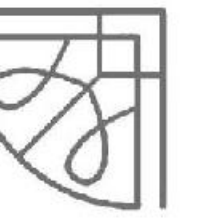
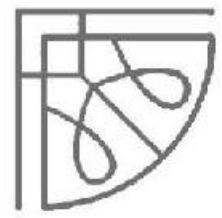
In this structure the fabric is removeable for washing purpose. Three poles are connected together by a three dimensional joint which after use can easily dismantle. For entrance there is a fabric which has zip in it.



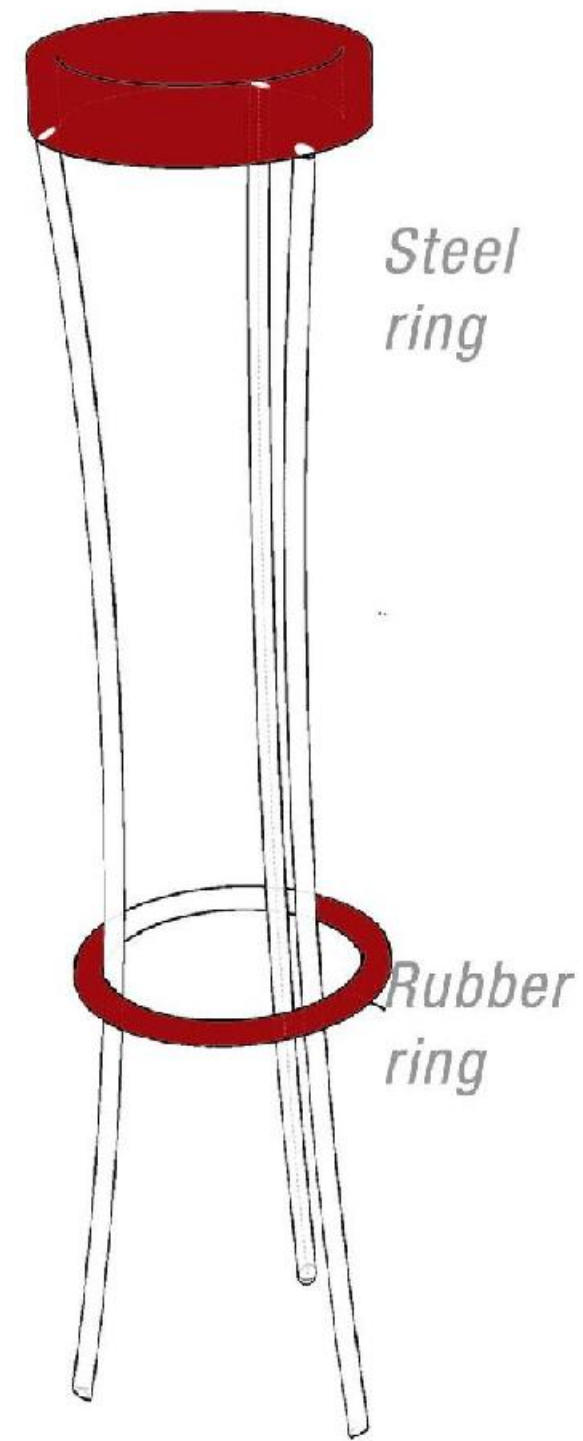
PORTABLE TOILETS



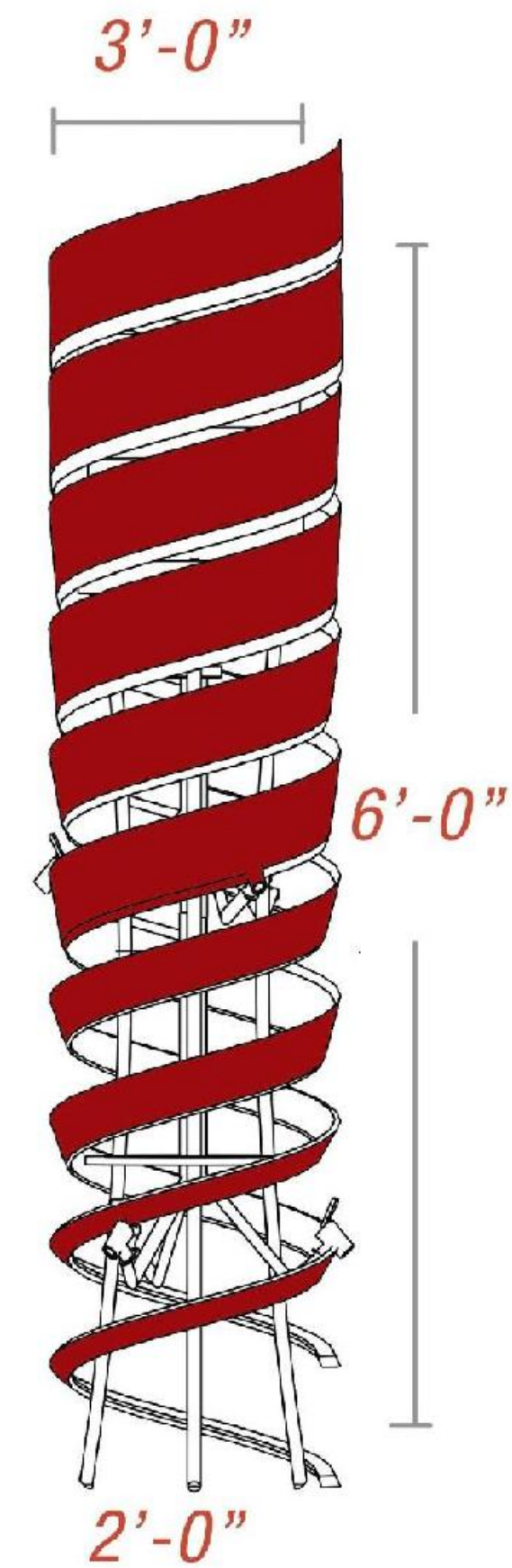
شامیانہ 2.0
SHAMIYANA 2.0



1, Piping and Tanks



2, Stand

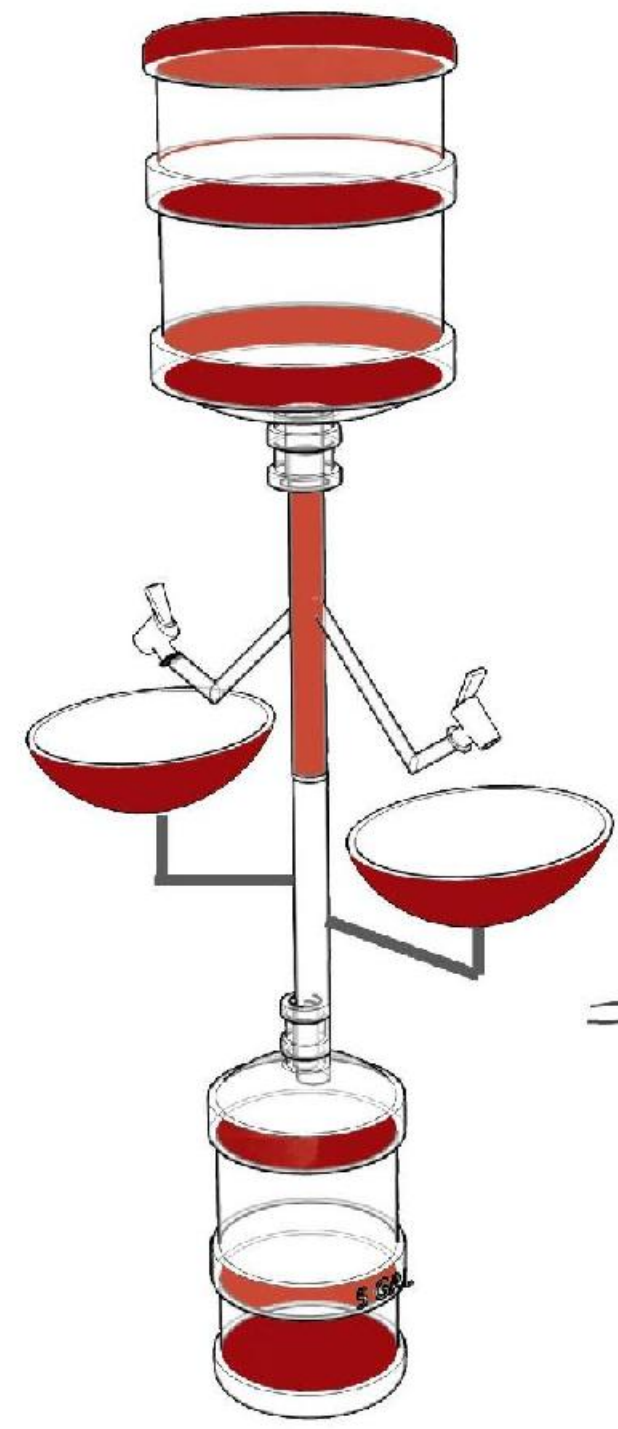
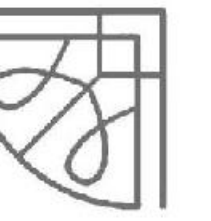
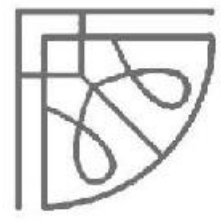


3, Fabric Ring

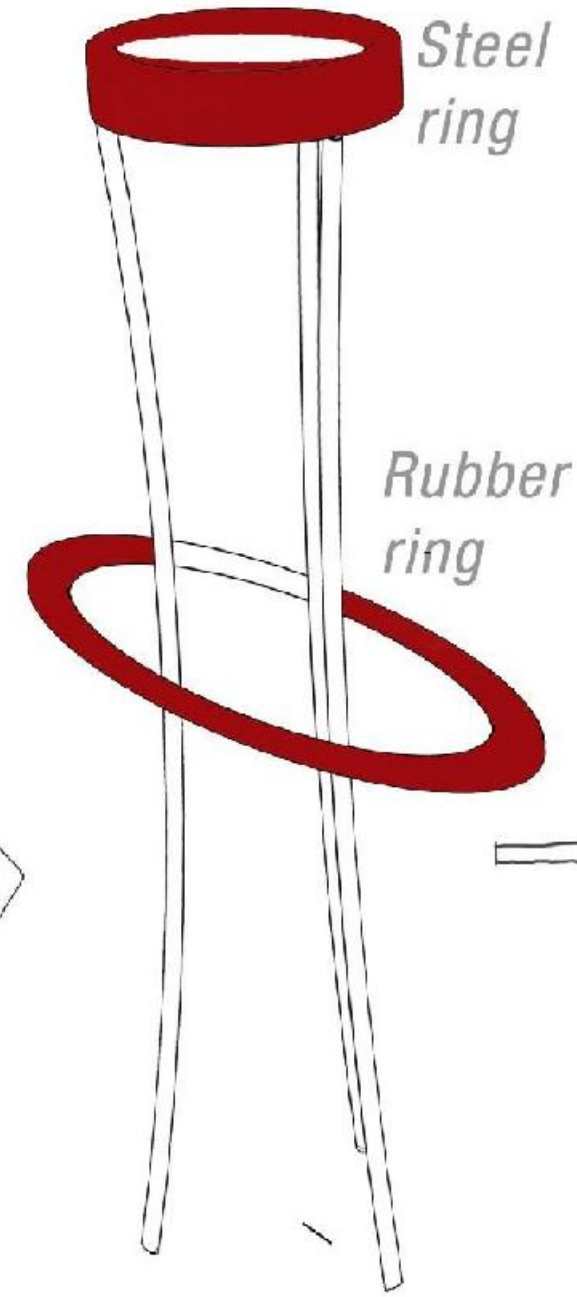
Fabric is removable for sanitization and cleaning. This structure is designed to follow SOPs , a certain distance of 4'-0" circumference will be maintained. Six taps on different heights are placed in order to cater children too.

WATER BOTTLE (DISPENSER)

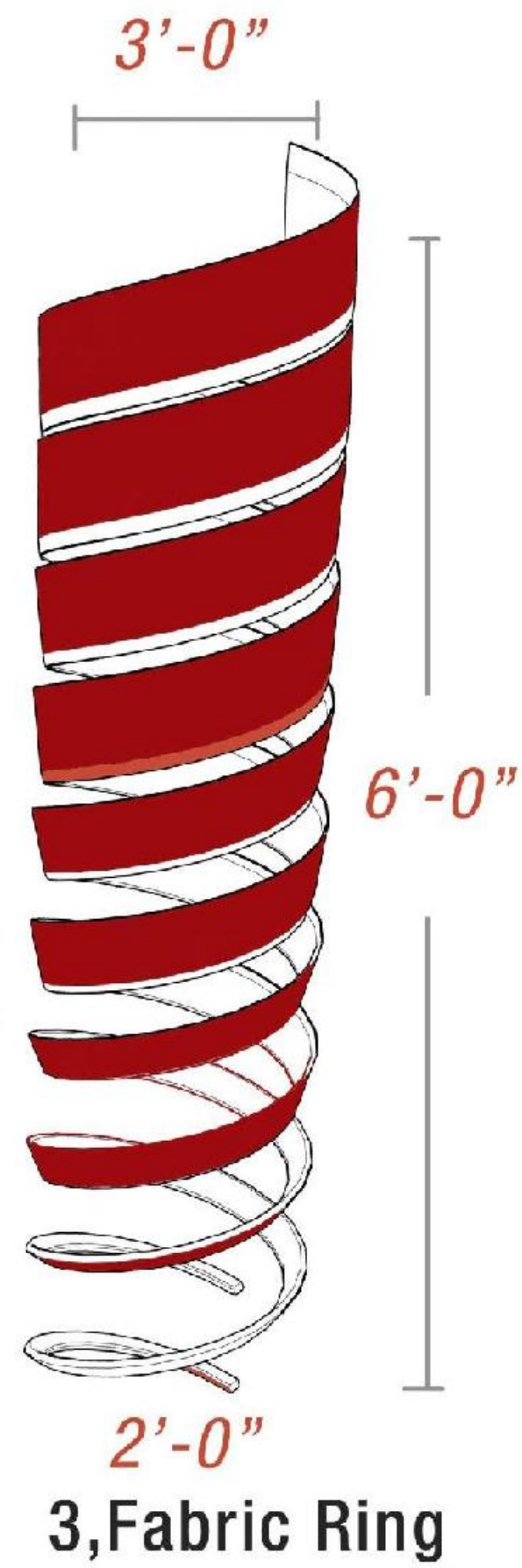




1, Piping and Tanks



2, Stand

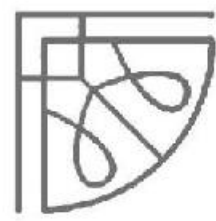


3, Fabric Ring

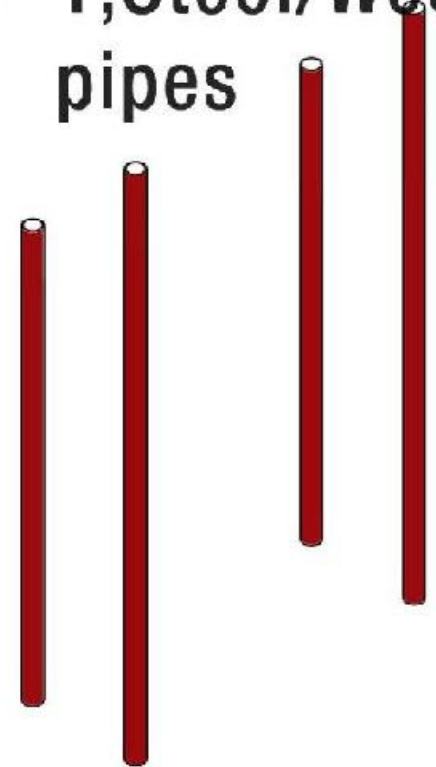


In this structure the fabric is removable for sanitization and cleaning. This structure is designed to follow SOPs , a certain distance of 6'-0" circumference will be maintained.

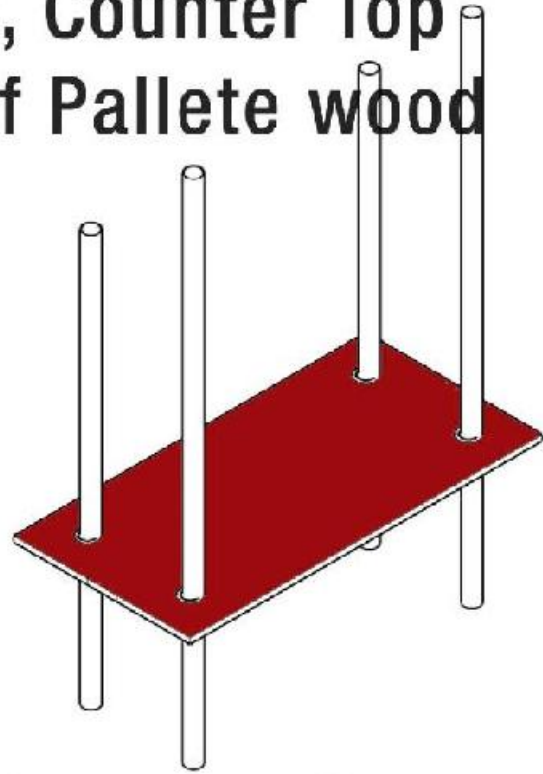
PORTABLE SINK



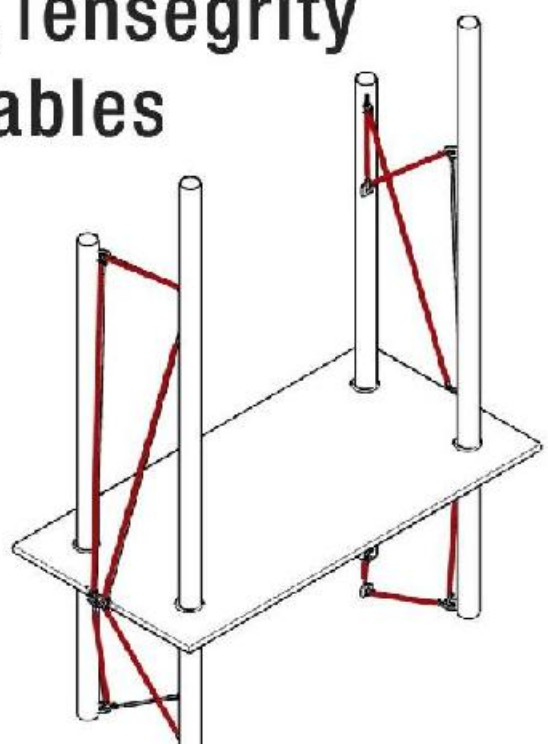
1, Steel/Wood pipes



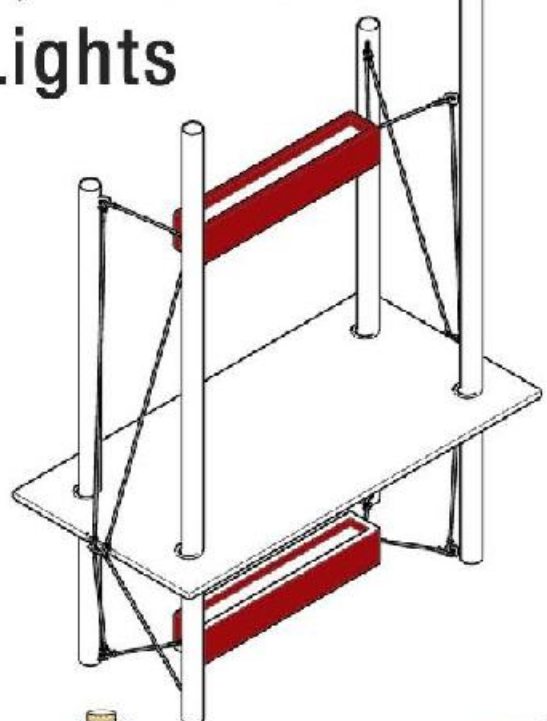
2, Counter Top of Pallet wood



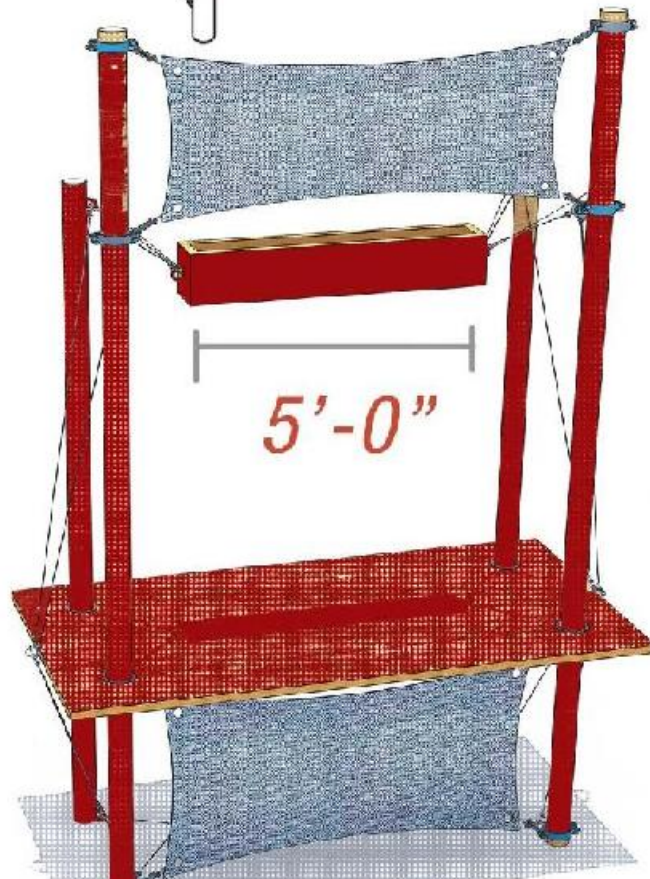
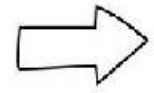
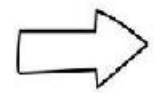
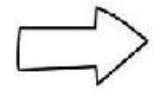
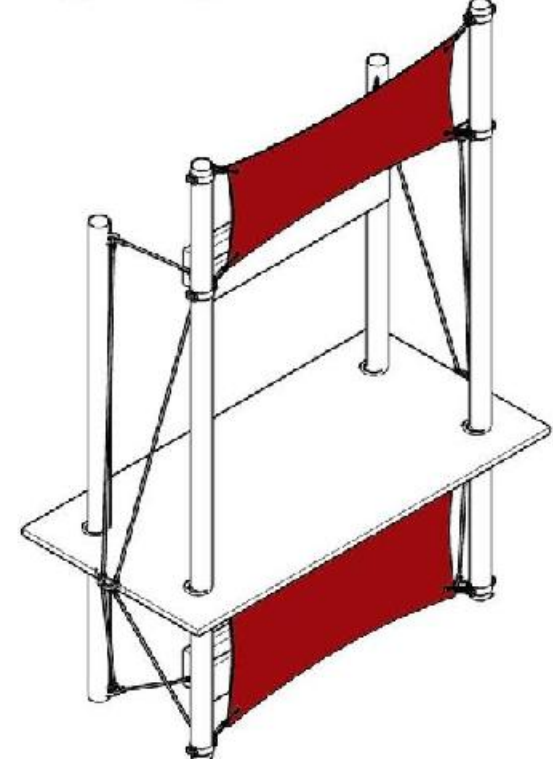
3, Tensegrity Cables



4, Connection with Lights



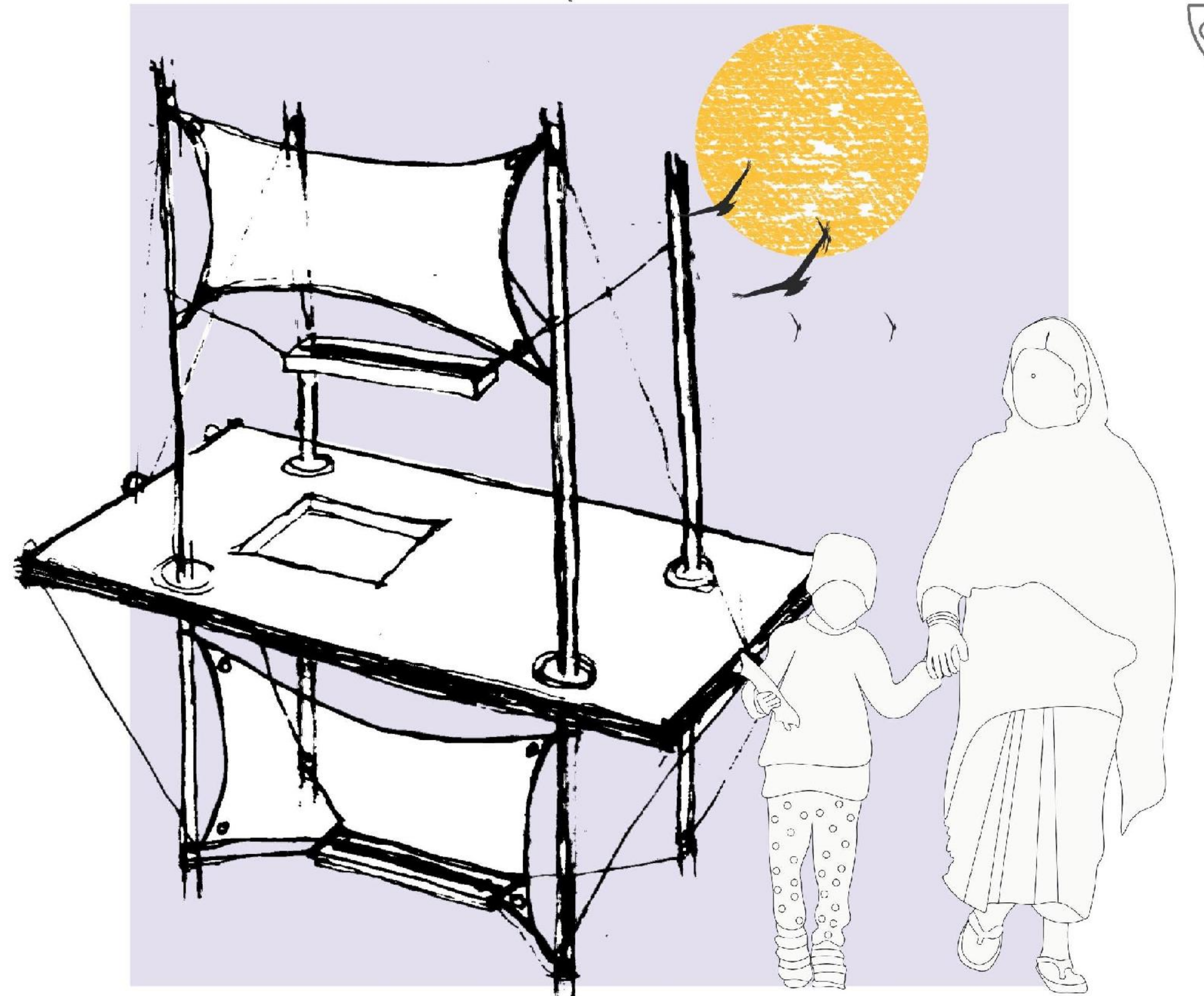
5, Signage Fabric



3'-0"

7'-0"

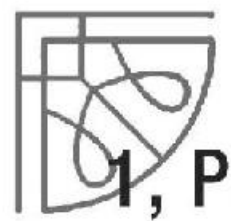
5'-0"



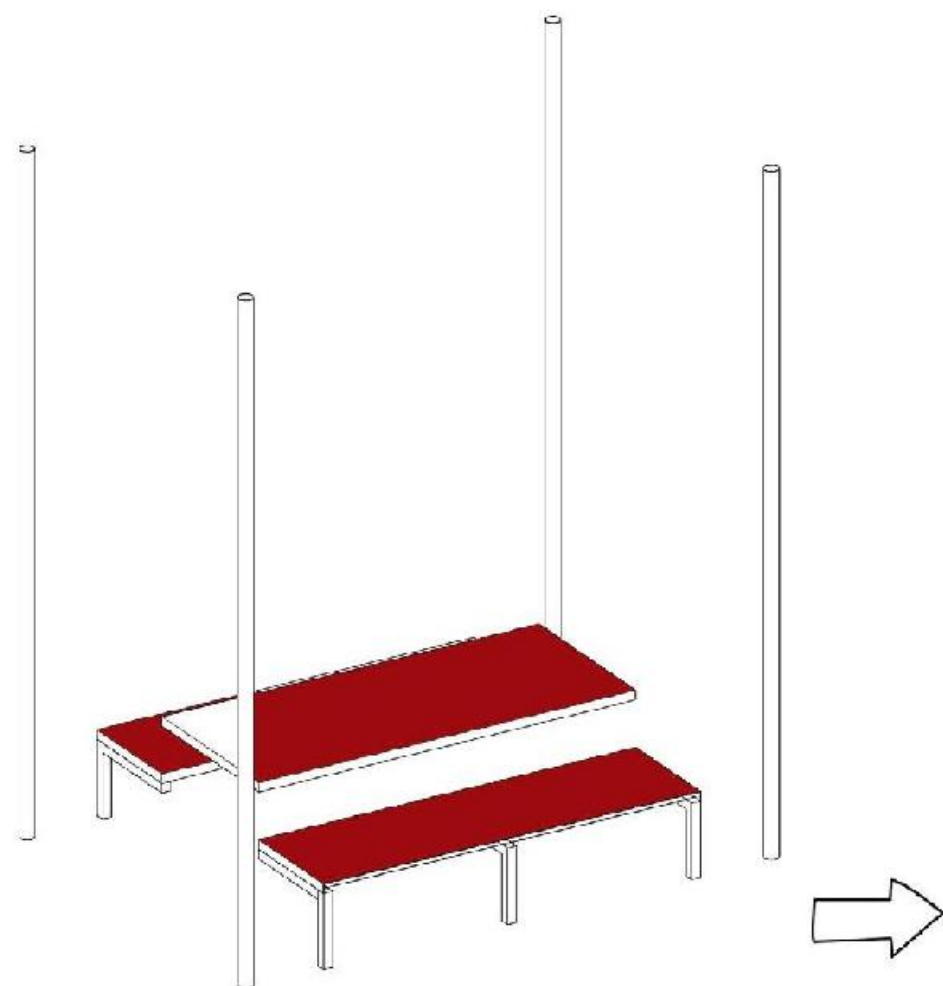
Completely able to dismantle these kiosk are able to setup.
A sink hole in the middle specially designed for food stalls.
Two lights in the top and bottom will give backlit for signage and also light for stall.

PORTABLE STALL / KIOSK (DUKANGHA)

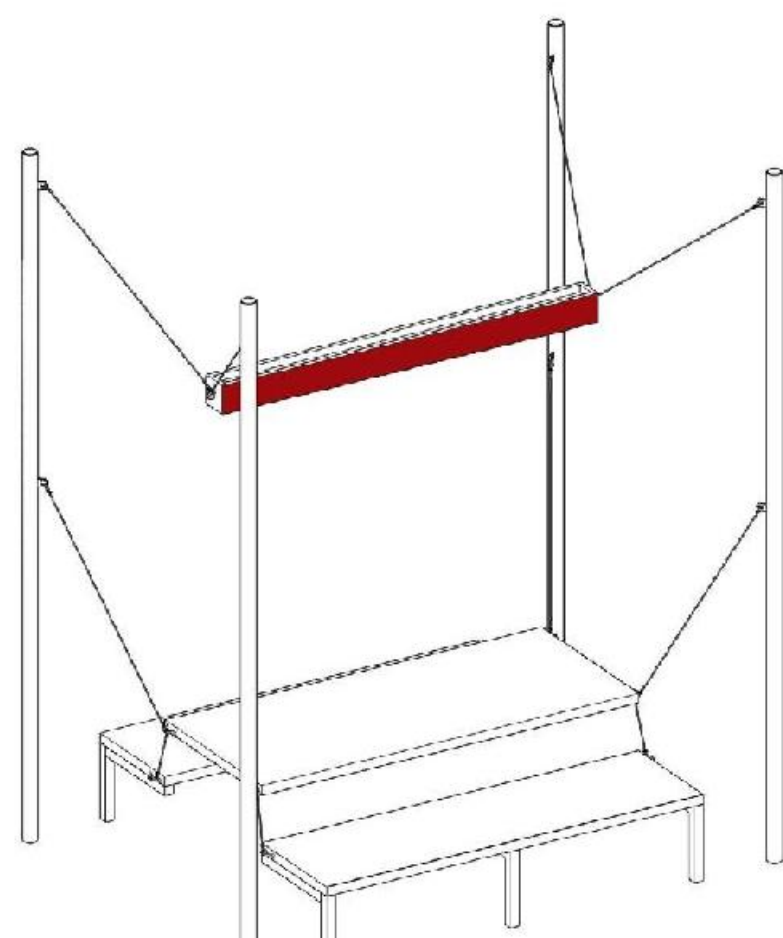
شاميانا 2.0
SHAMIYANA 2.0



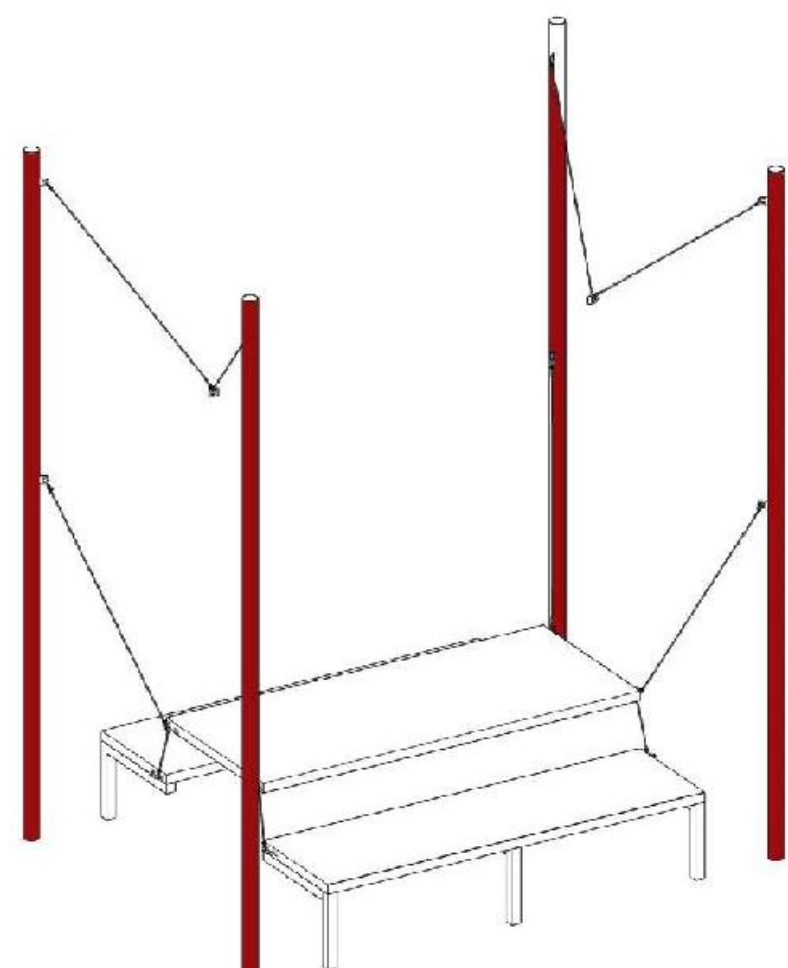
1, Post, table and seat top



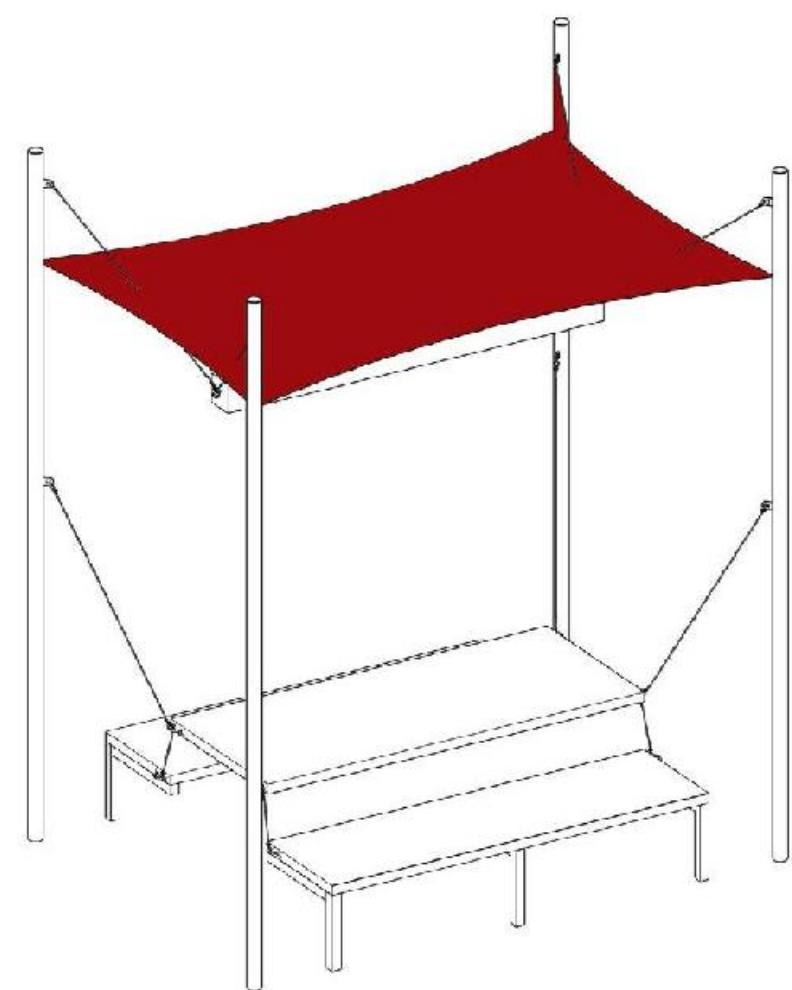
5, Hanging light (back lit)



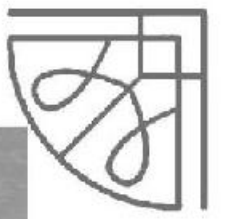
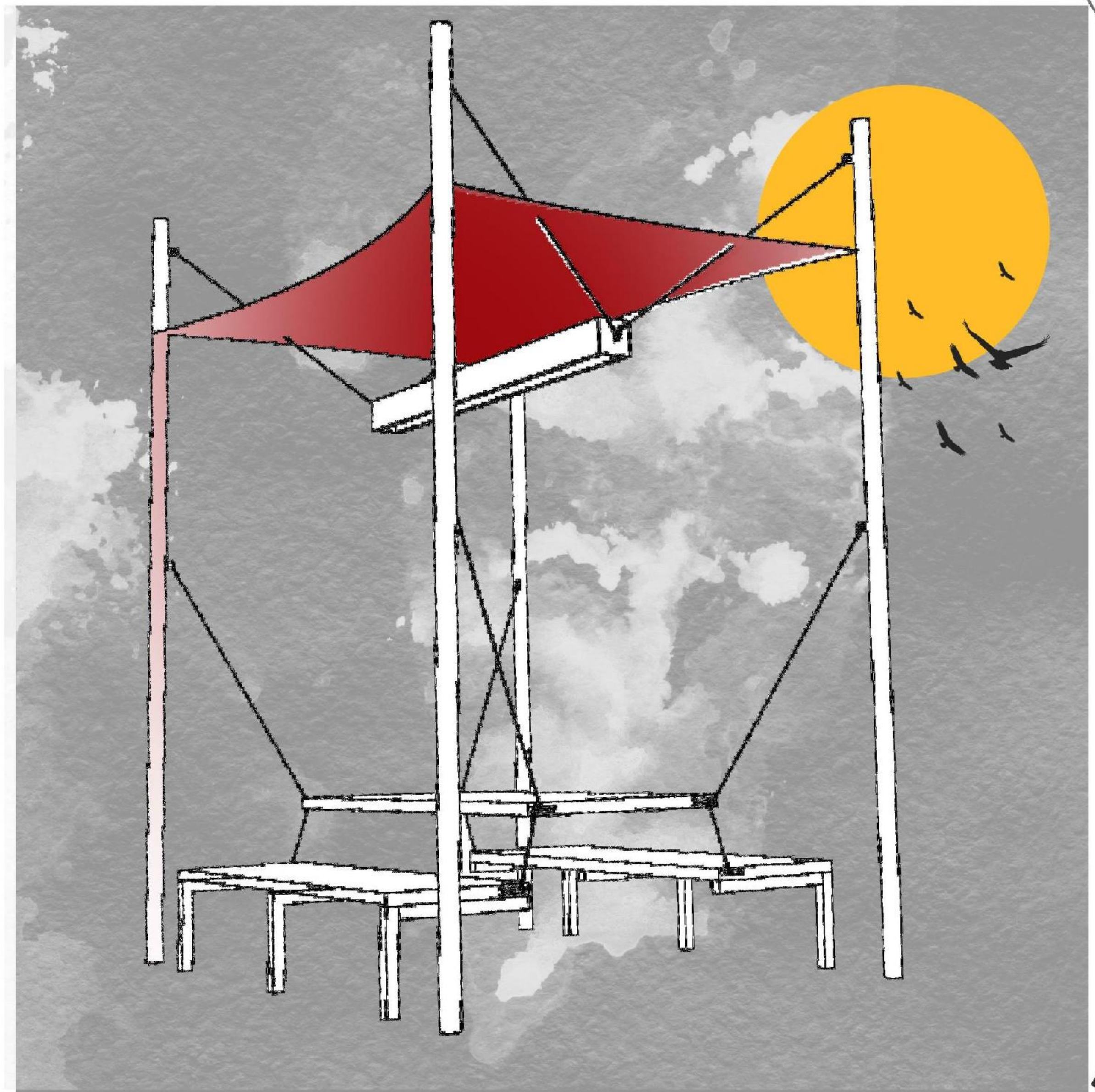
2, Cable System & Mast Design



4, Fabric/ Membrane



PORTABLE SEATING

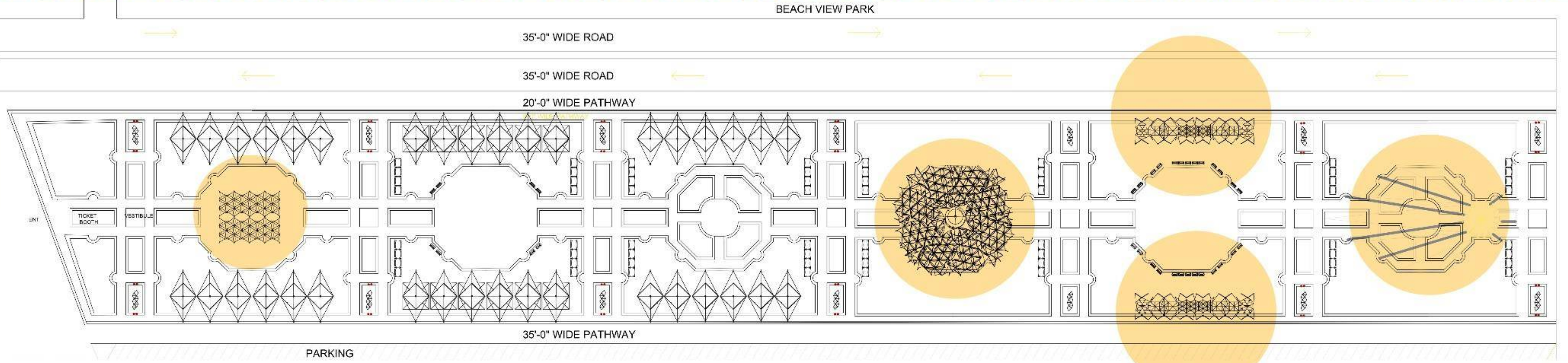


THE FESTIVAL KIT

شاميانا 2.0
SHAMIYANA 2.0



BY: ALAINA KHALID



1. PAVILION
2. DEGH
3. TABLA (THE STAGE)
4. BAZAAR

FESTIVAL KIT

شاميانا 2.0
SHAMIYANA 2.0

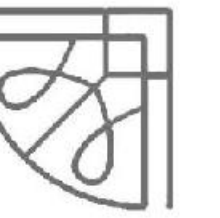
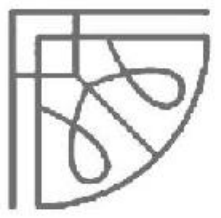
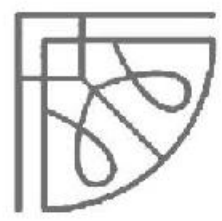


TABLA IS A CONCERT STAGE, SINCE QAWWALI IS CONSIDERED AS A CULTURAL MUSIC OF KARACHI AND PEOPLE FROM EVERY CULTURE FINDS ATTACHMENT WITH QAWWALI. TABLA (STRUCTURE) IS A COMBINATION OF HARMONIUM KEYS AND TABLA STRINGS.

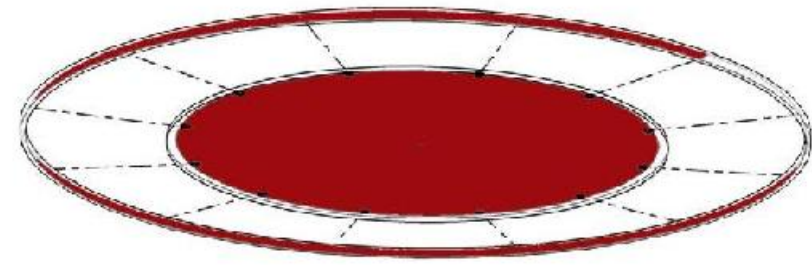
***THIS STRUCTURE IS DESIGNED IN THE LOVING MEMORY OF AMJAD SABRI (QAWWAL)**

TABLA (THE CONCERT STAGE)

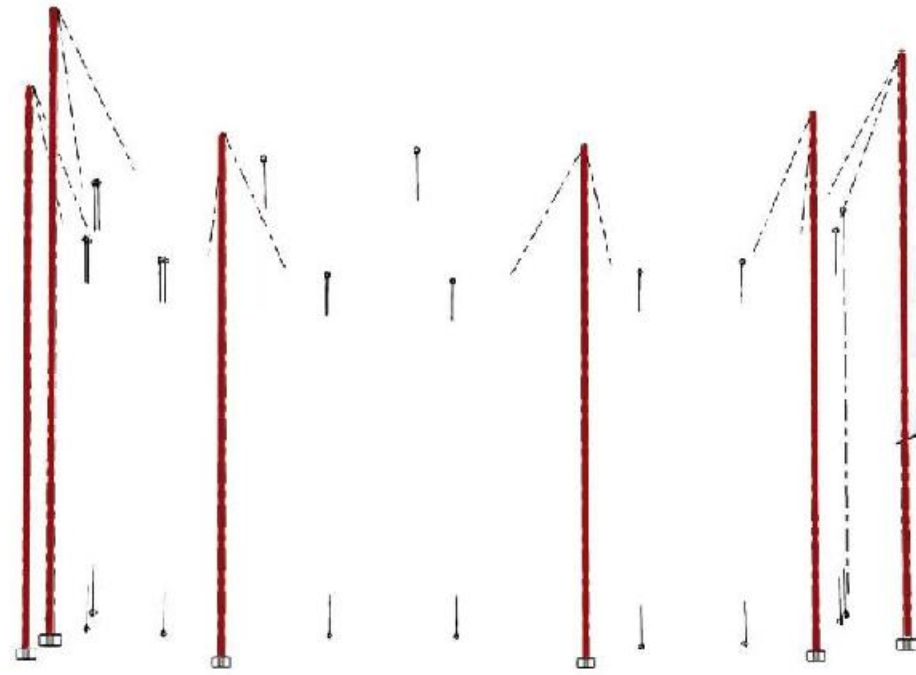




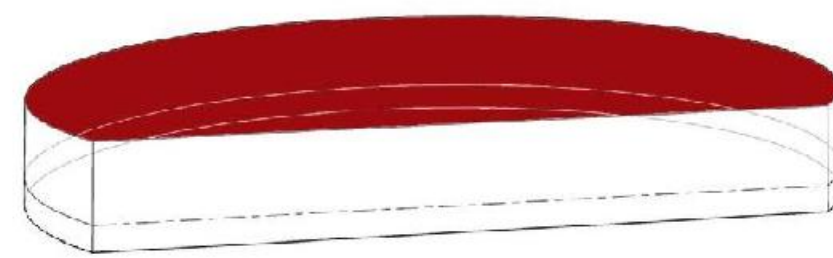
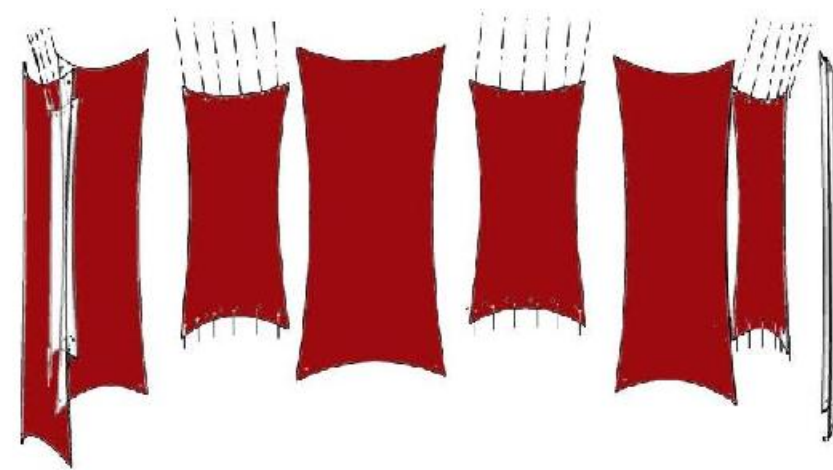
1, Ring Beam



2, Cable System & Mast Design



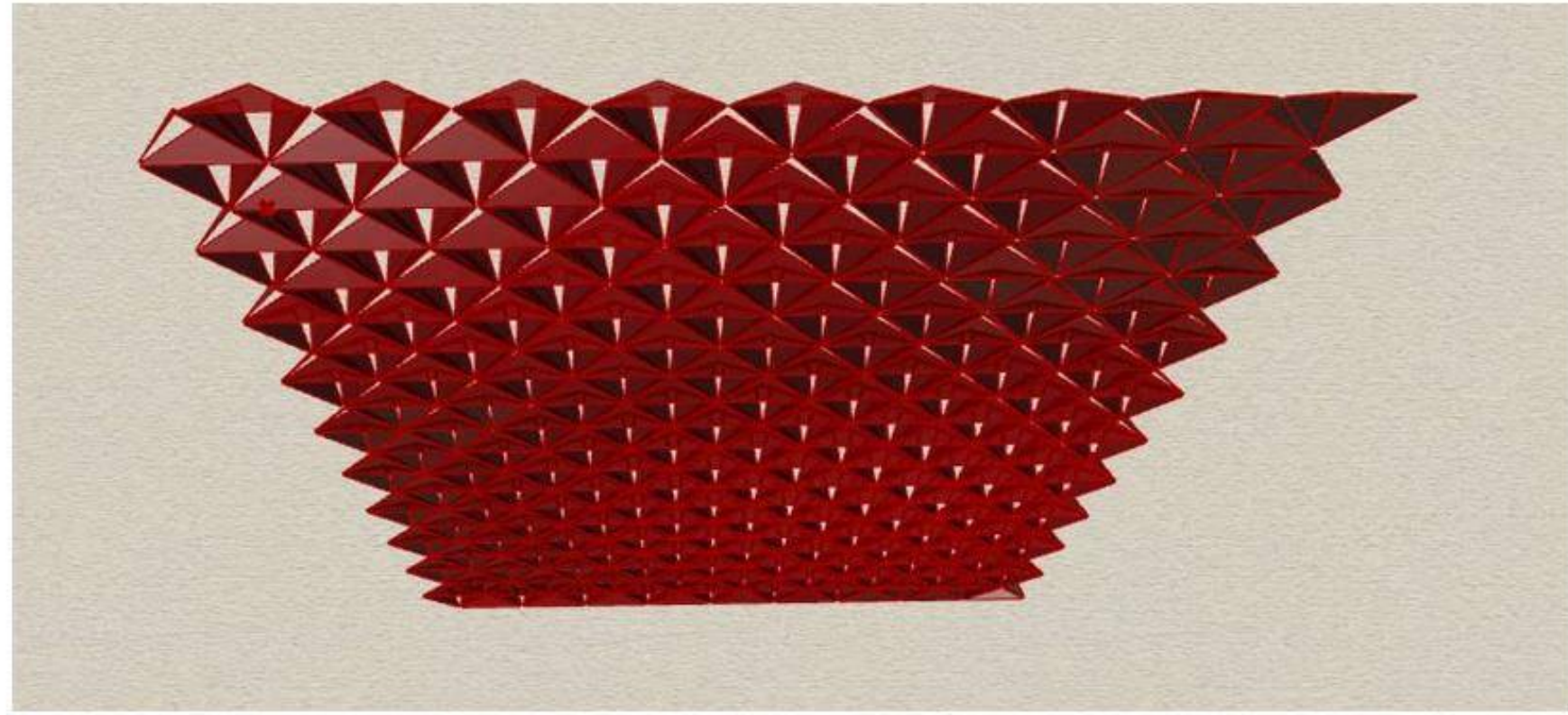
3, Fabric/ Membrane



This concert structure has four LED/SME Screen panels and the Ring beam is also used for fancy/concert Lighting purpose.

The Vertical Fabric panel depicts the keys of Harmonium while the Ring beam represents the top Skin of Tabla and cable system represents the tabla string.

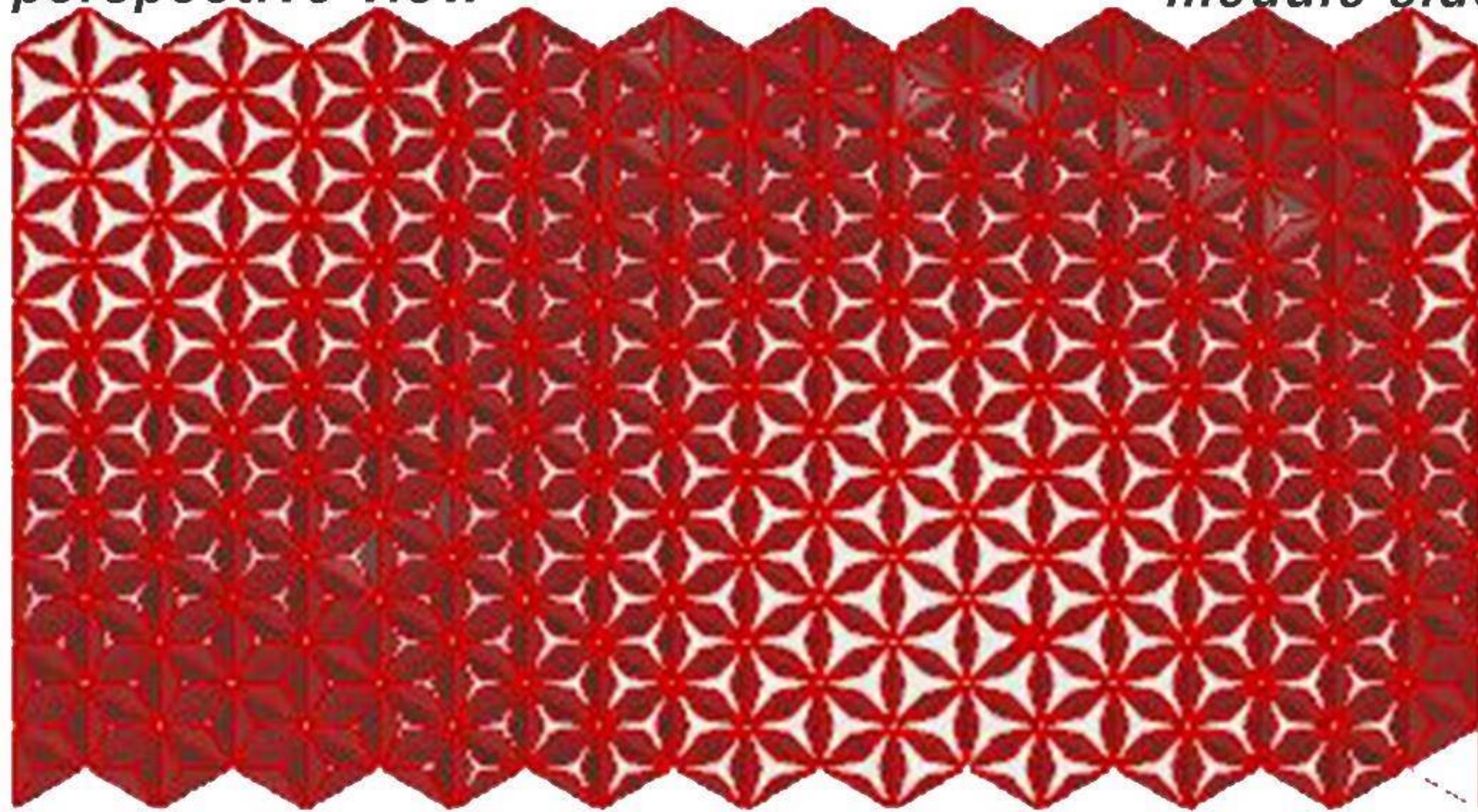
TABLA (THE CONCERT STAGE)



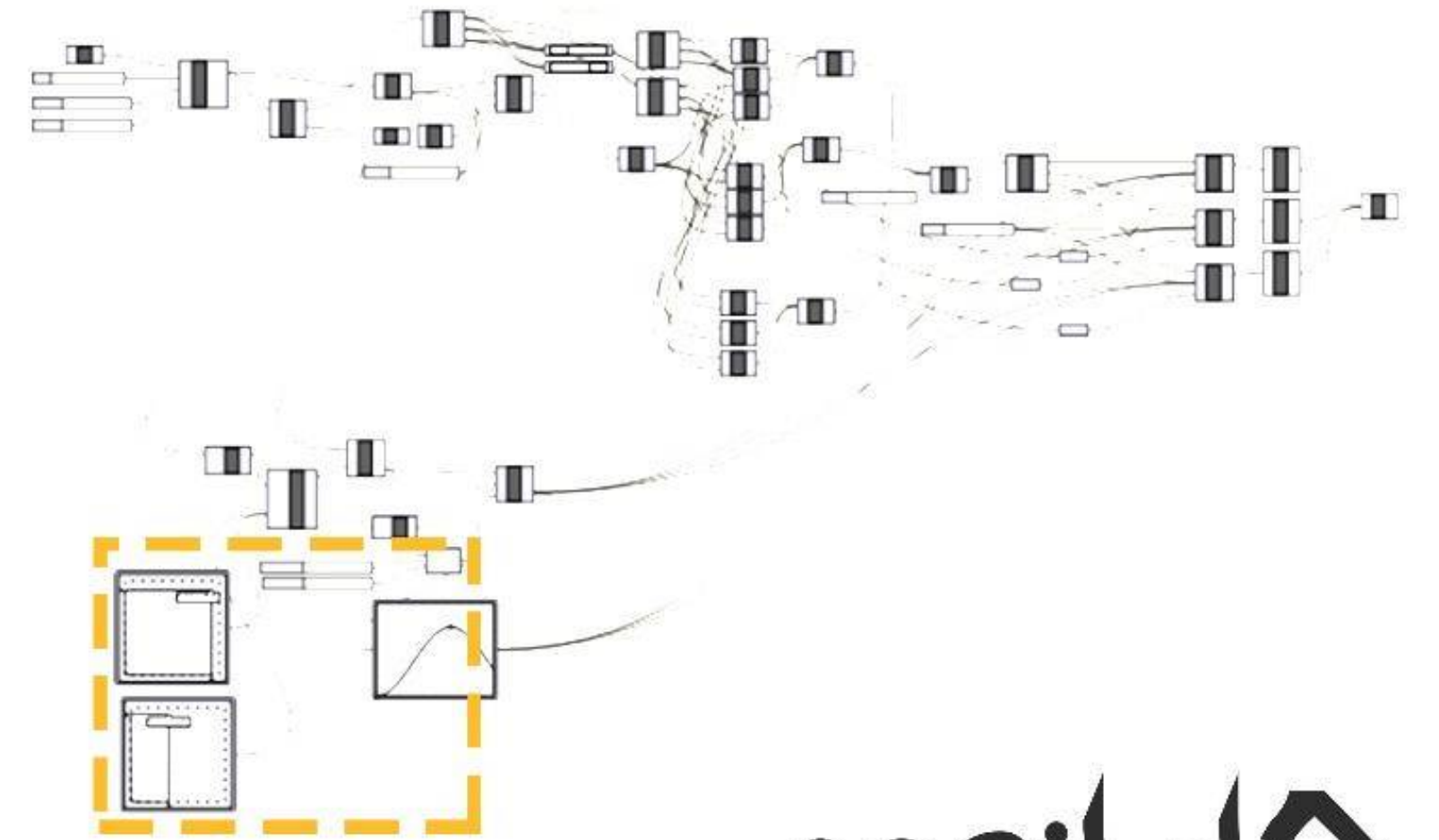
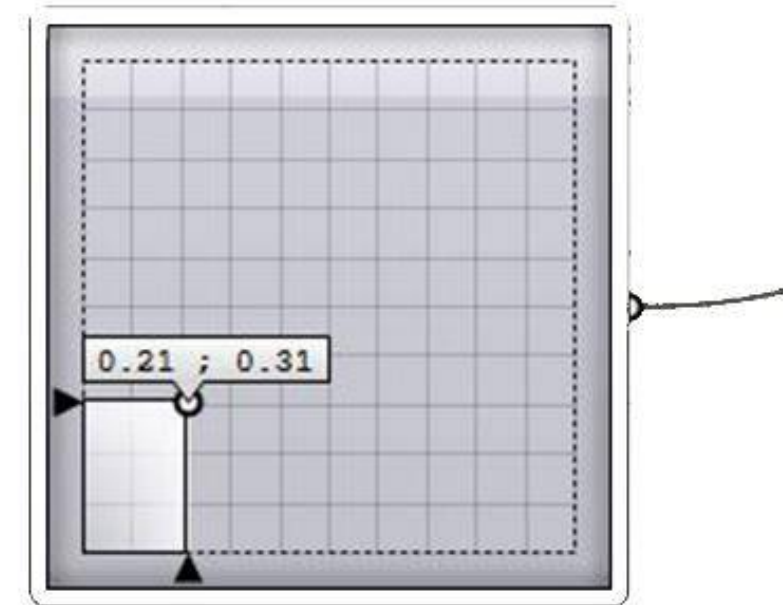
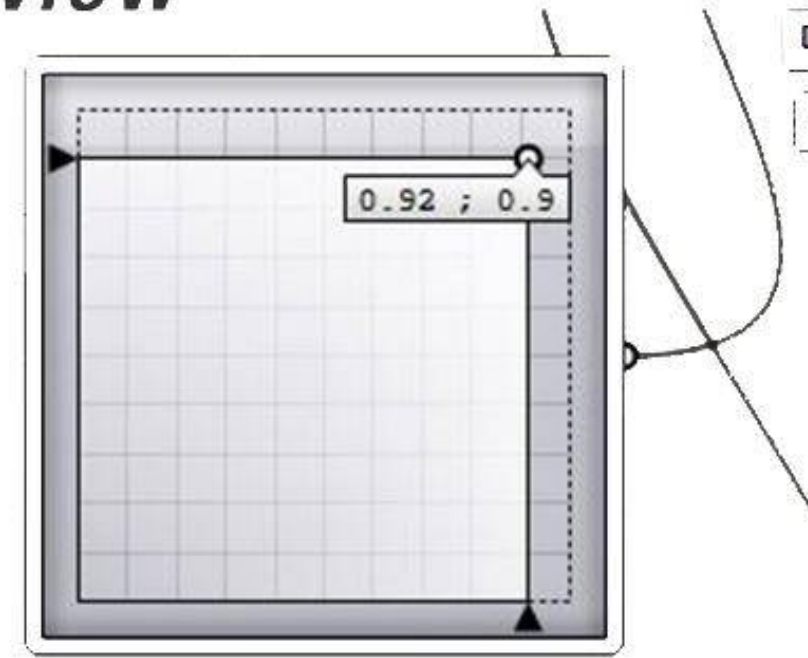
perspective view



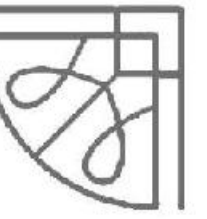
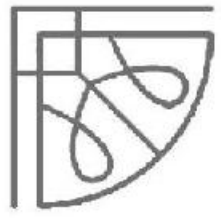
module side view



plan view



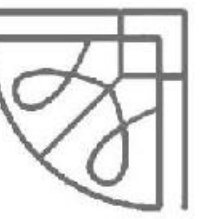
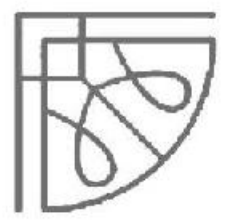
PARAMETRIC PAVILION



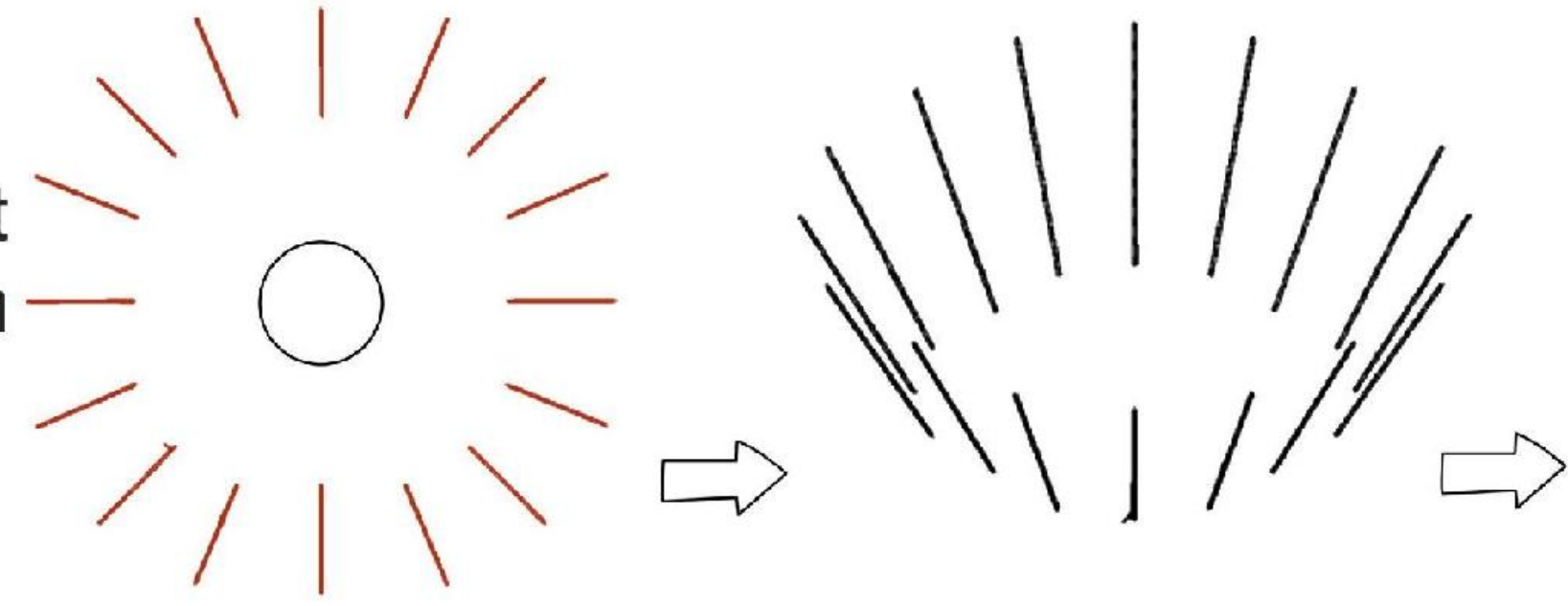
DEGH IS A STRUCTURE INSPIRED BY TRADITIONAL FOOD BIRYANI AND DEGH IS ICONIC POT FOR BIRYANI, THIS STRUCTURE WILL DIRECT ATTENDEE TOWARDS THE DESTINATED PLACE.

THE GRAND DEGH

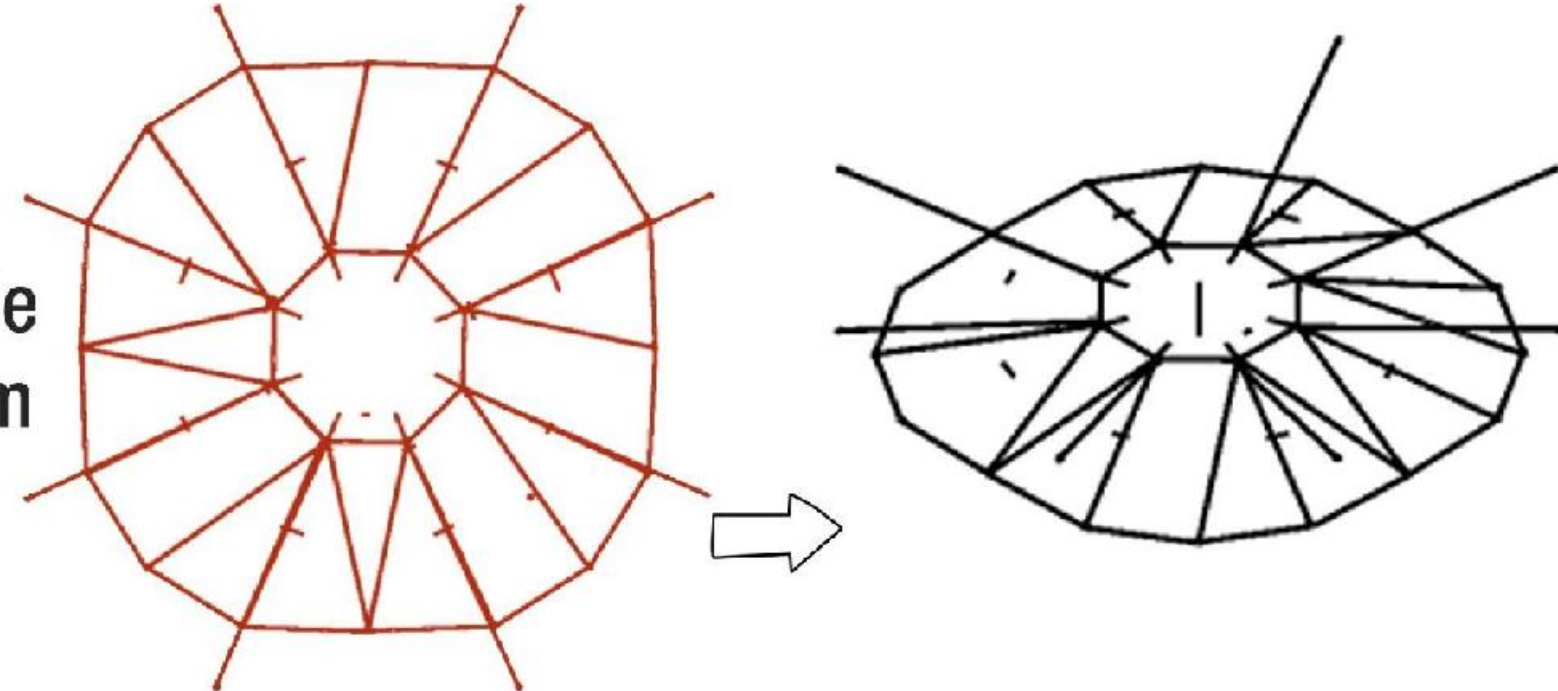
شاميانا 2.0
SHAMIYANA 2.0



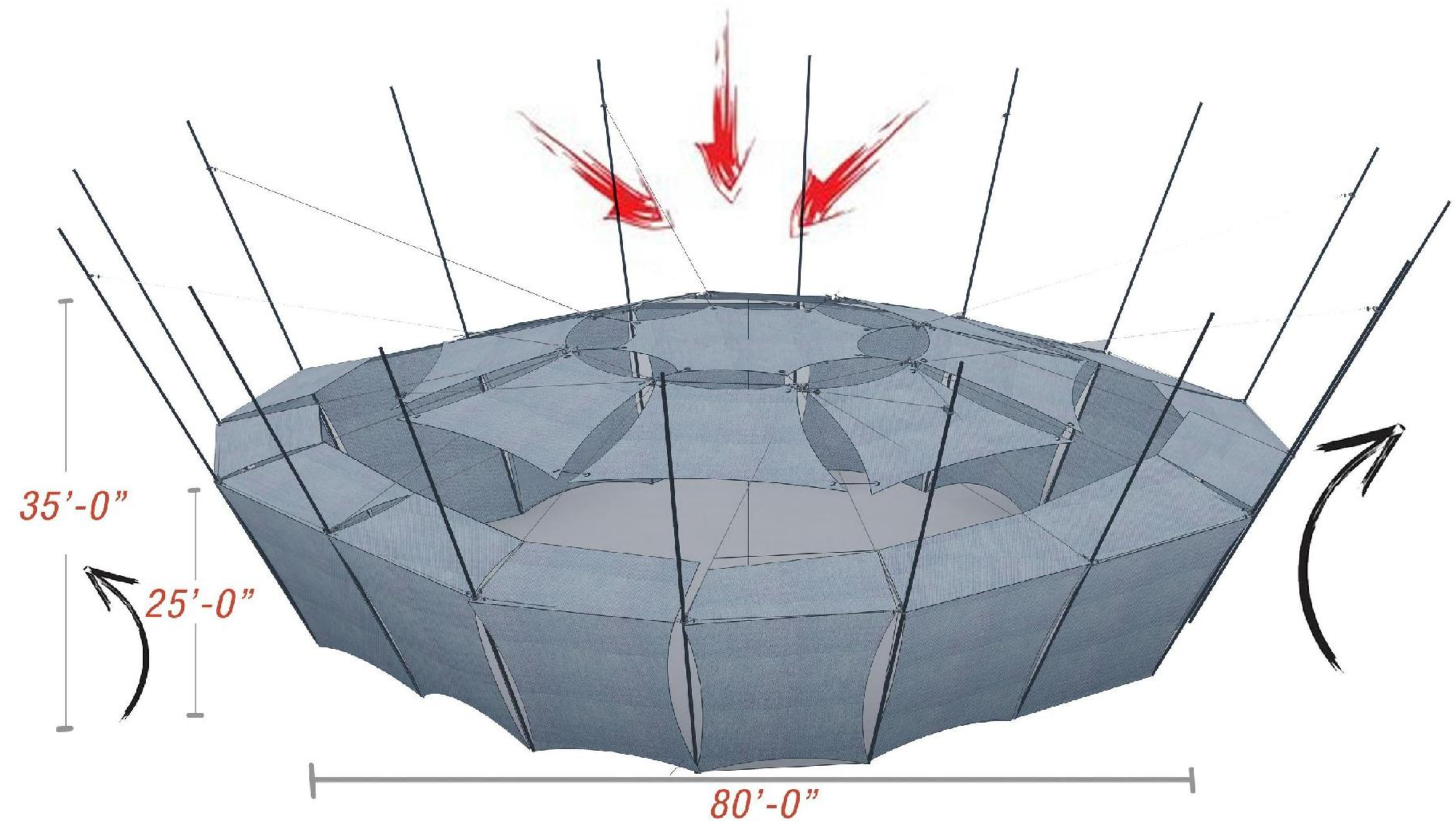
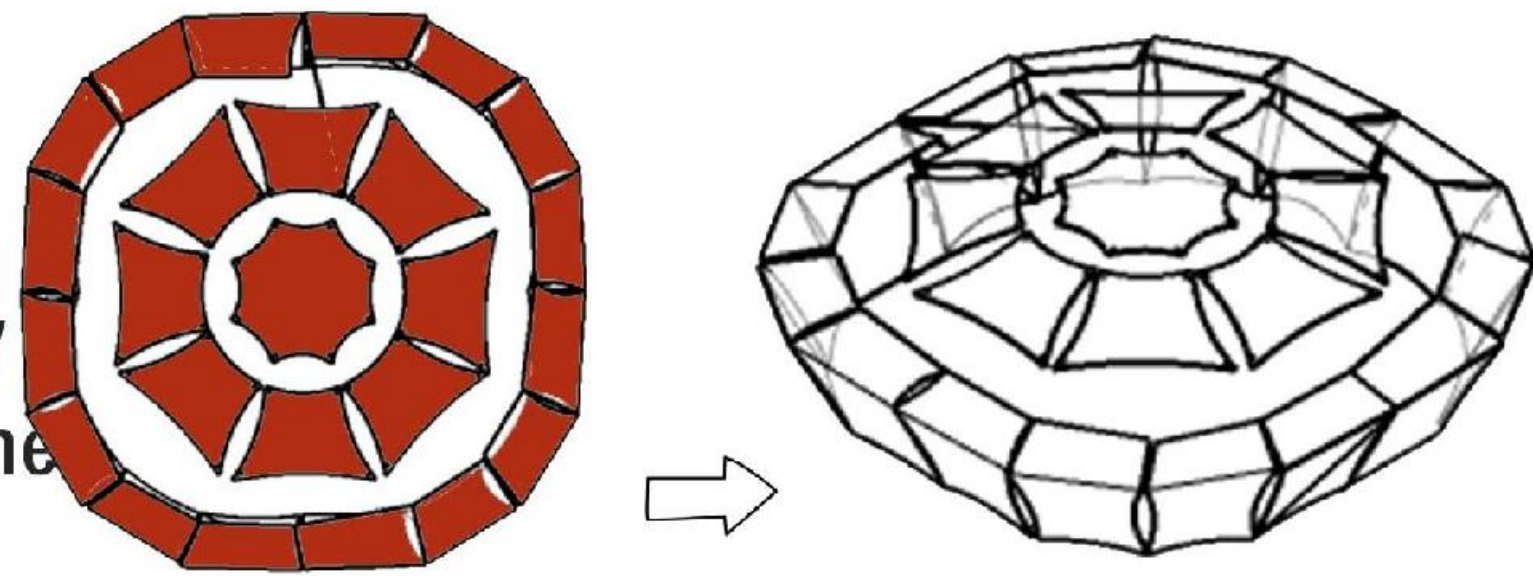
1, Mast Design



2, Cable System

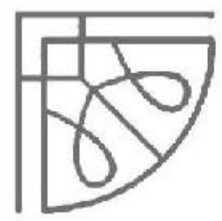


3, Fabric/ Membrane

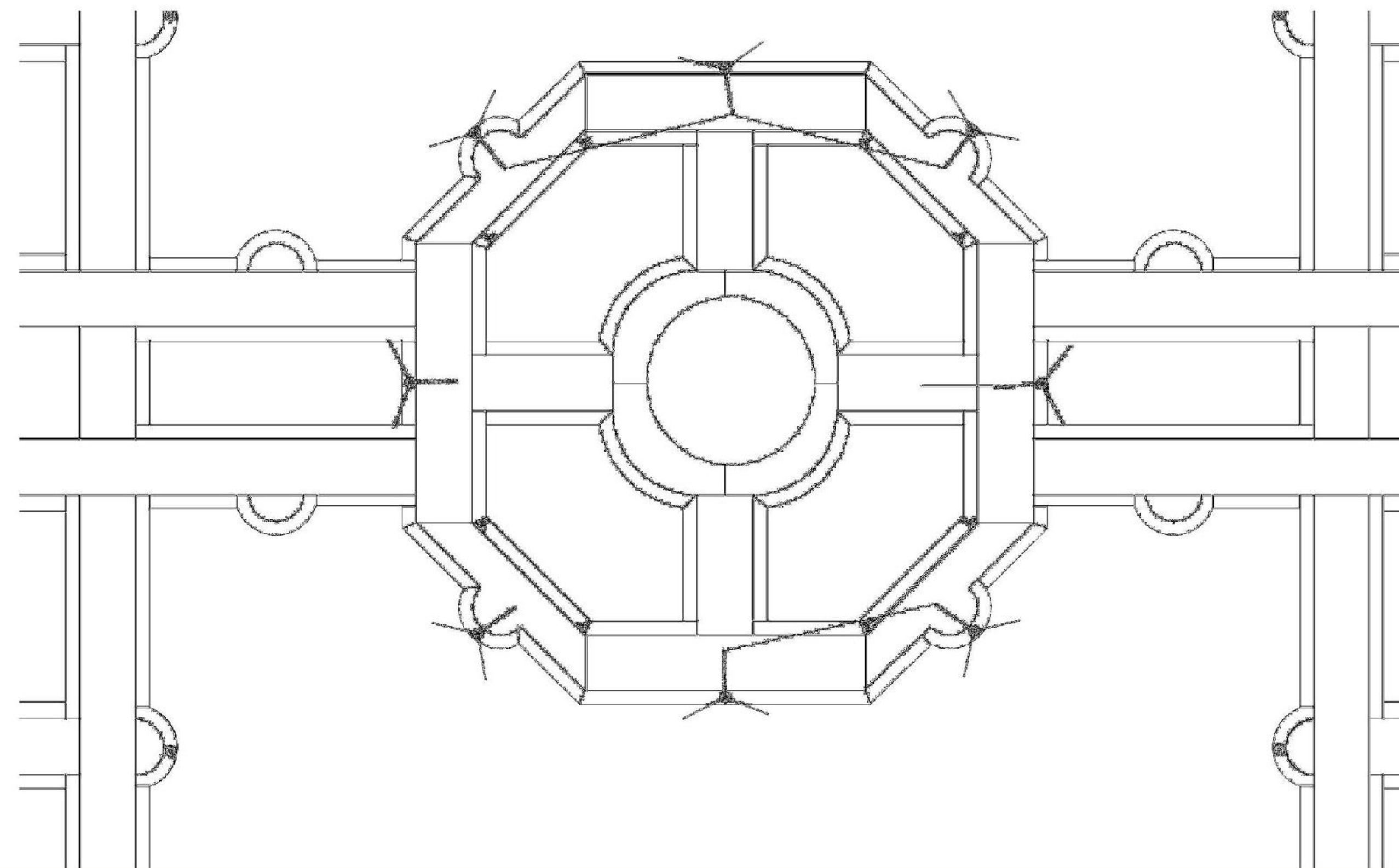


Initially Dagh was designed in a manner to control heat and air pressure from external sources and control the environment but it ended up at same solution that we are earlier doing long span Fabric with huge sizes which makes it difficult to sustain for a long time.

THE GRAND DAGH (DEVELOPMENT)

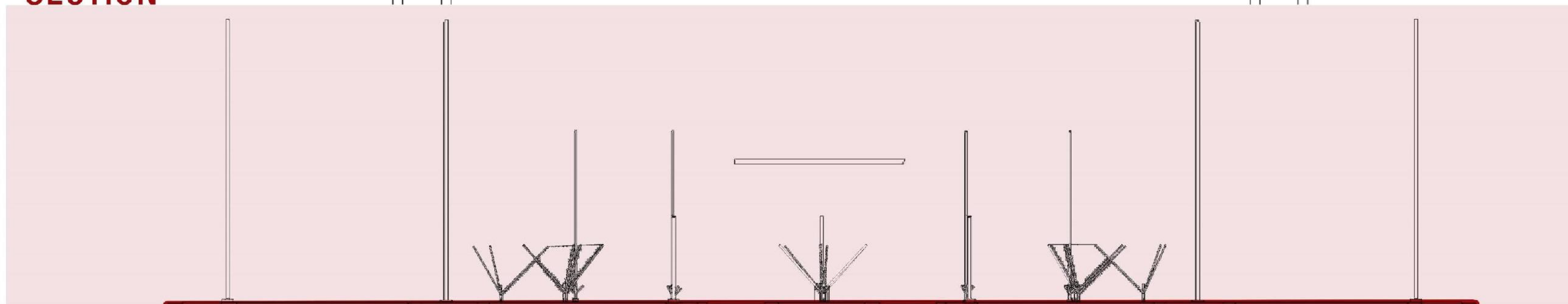


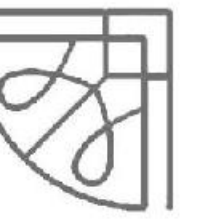
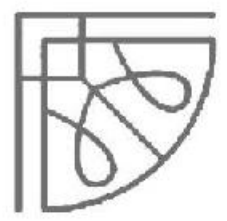
1, Mast Design (Column/Pole)



PLAN

SECTION

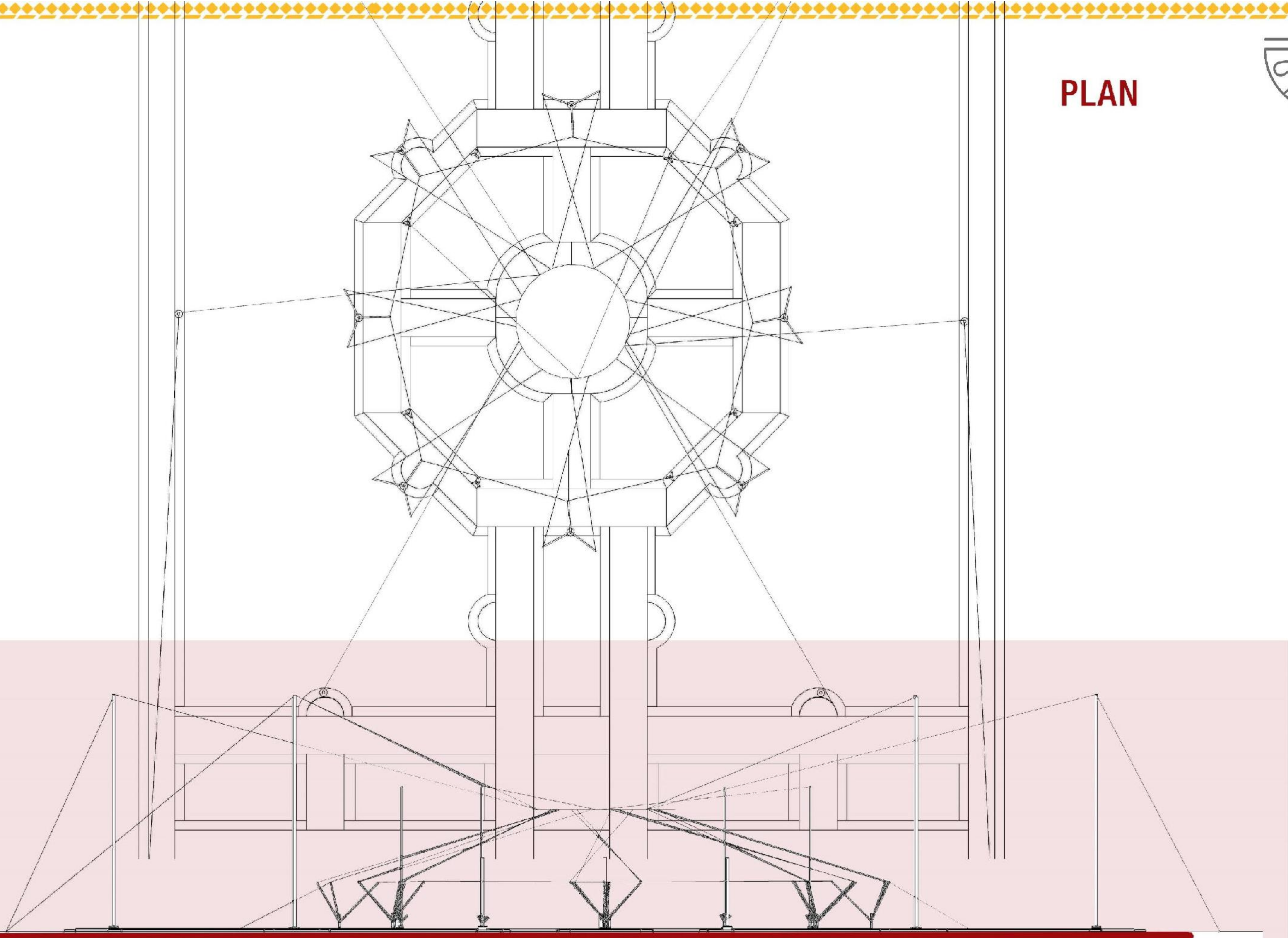




PLAN

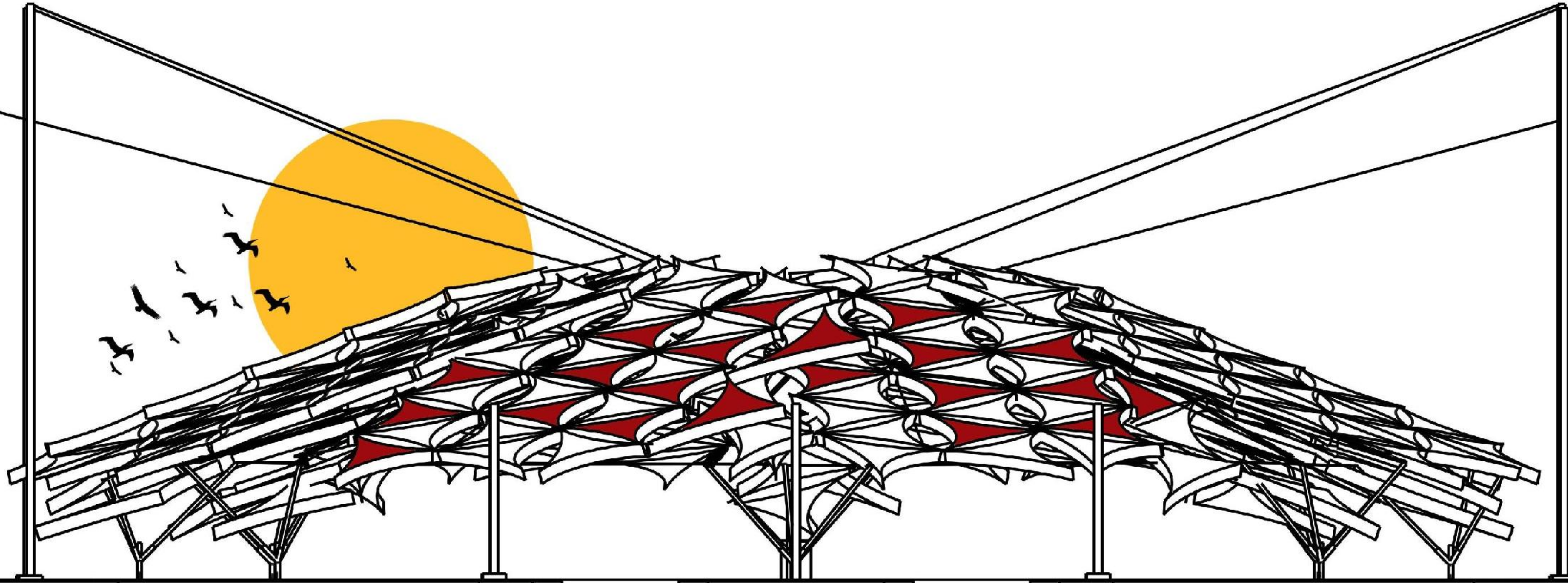
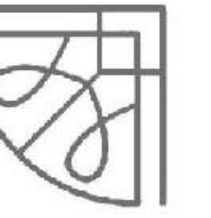
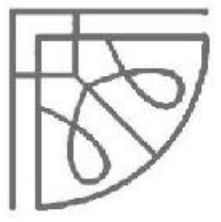
2, Cable System

SECTION



THE GRAND DEGM STRUCTURE

شاميانا 2.0
SHAMIYANA 2.0



ELEVATION

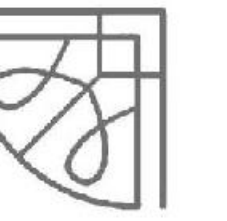
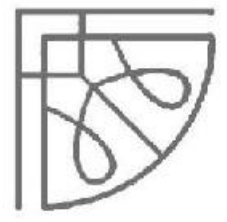
3, Fabric/ Membrane

This membrane is now divided into small parts in which each part is interlinked but not joined permanently.

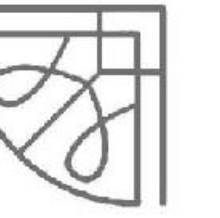
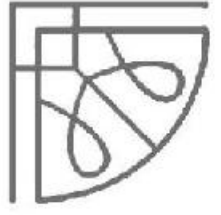
Also by small parts of membrane the wind load will divert and will not effect the structure strength.

THE GRAND DEGM STRUCTURE

شاميانا 2.0
SHAMIYANA 2.0



THE GRAND DEGM STRUCTURE



THANKYOU