Group III

```
[1] def Name( ):
[2] .....
[3] ..... print ("__TheaterZero__")
```

Fawzi Bata | Jens Slagter | Job Handele | Rhea Ishani | Shreyas Vadodaria

Group III

```
[1] __name__ == "__TheaterZero__":
```

ANALYSIS

MOTIVATION

- No place to express the extensive culture of the syrian refugees
- New generation (56% of population) does not know the life outside the camp
- Cultural arts and crafts are being forgotten because they can't be passed down to the next generation

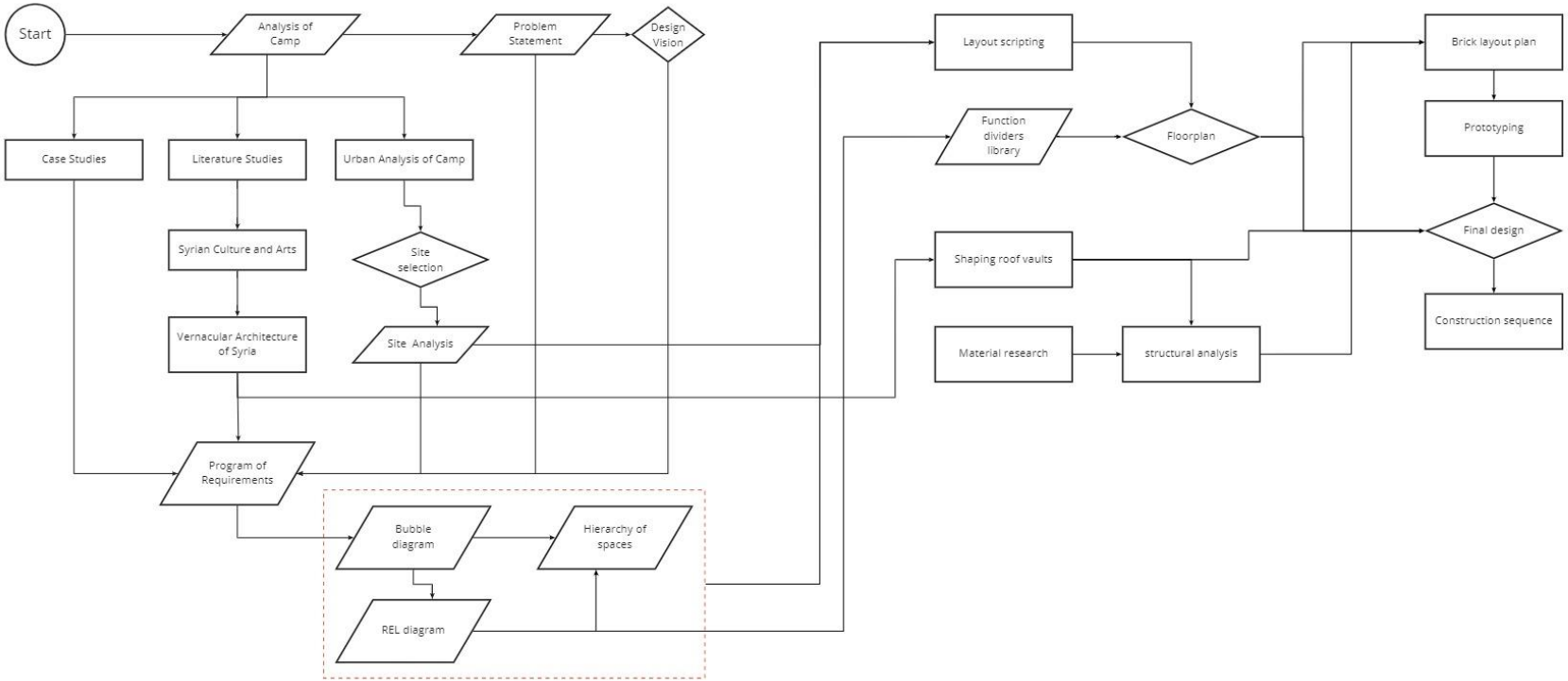
DESIGN_GOALS

- Provide a system that helps design a cultural centre focused around theatre
- Help the refugees expressing their architectural culture and performance arts and crafts
- Direct link to refugees (no influences from external organization)

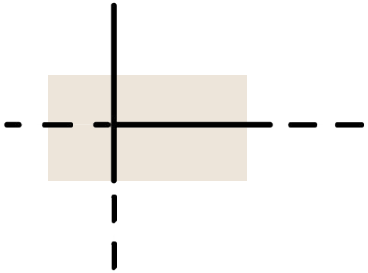
DESIGN PROPOSAL

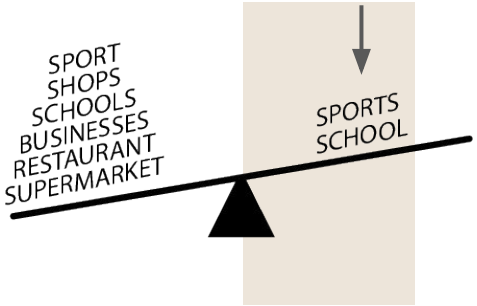
"We propose a cultural center built by the people themselves, allowing for the transfer of Syrian culture, knowledge, and craftsmanship, focused around theatre, to the younger generation."

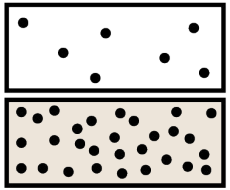
Flowchart

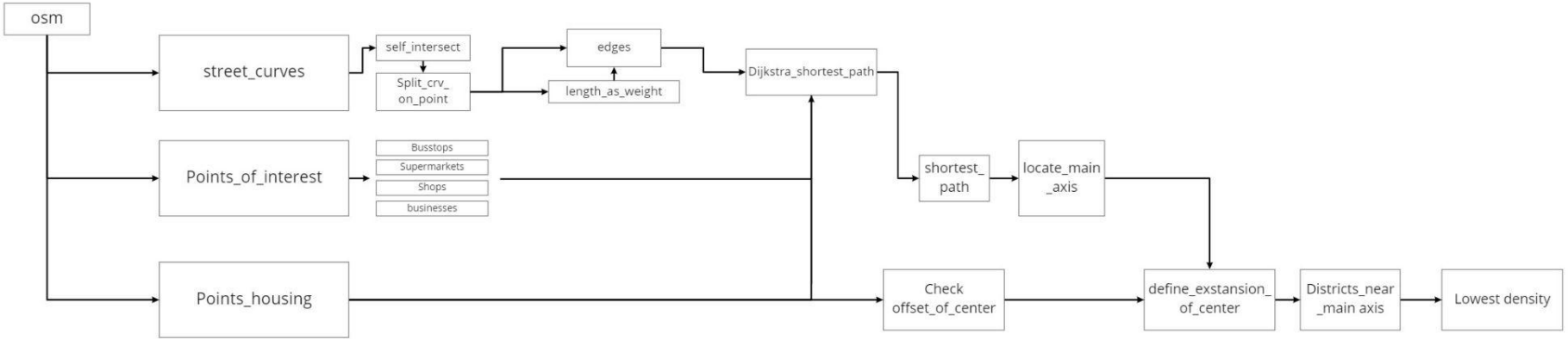

Start
Analysis of Camp
Problem Statement
Design Vision
Case Studies
Literature Studies
Urban Analysis of Camp
Syrian Culture and Arts
Site selection
Vernacular Architecture of Syria
Site Analysis
Program of Requirements
Bubble diagram
Hierarchy of spaces
REL diagram
Layout scripting
Function dividers library
Floorplan
Shaping roof vaults
Material research
structural analysis
Brick layout plan
Prototyping
Final design
Construction sequence

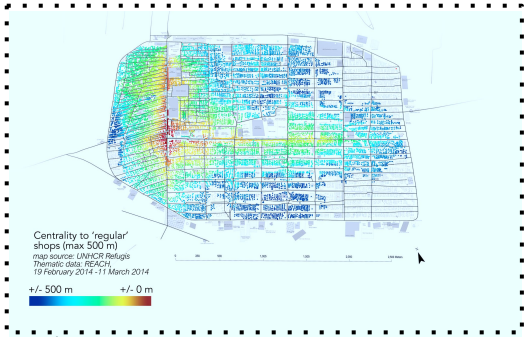
SITE SELECTION

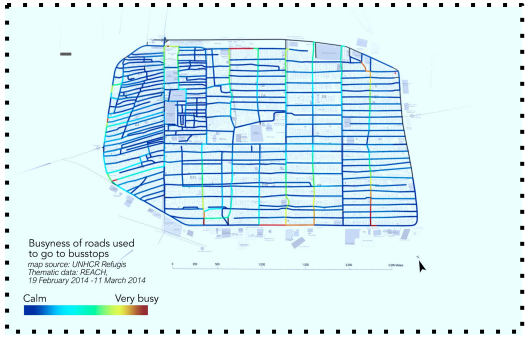


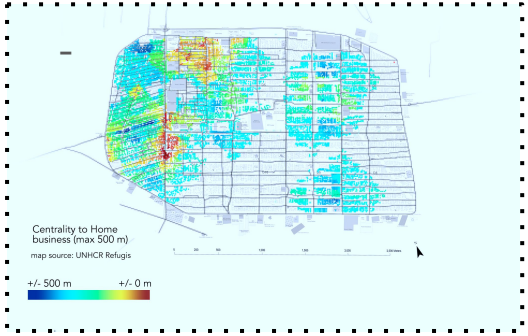




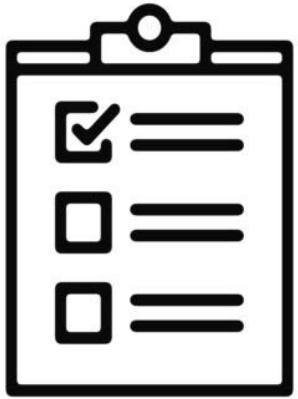


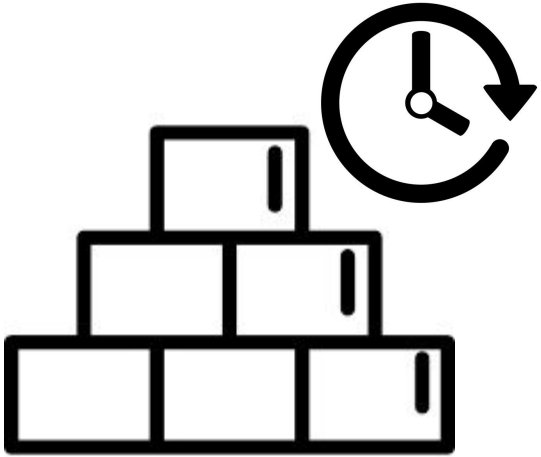

Centrality to 'regular' shops (max 500 m)
map source: UNHCR Refugis
Thematic data: REACH,
19 February 2014 -11 March 2014
+/- 500 m
+/- 0 m


Busyness of roads used to go to busstops
map source: UNHCR Refugis
Thematic data: REACH,
19 February 2014 -11 March 2014
Calm
Very busy


Centrality to Home business (max 500 m)
map source: UNHCR Refugis
+/- 500 m
+/- 0 m

how is all this participatory?





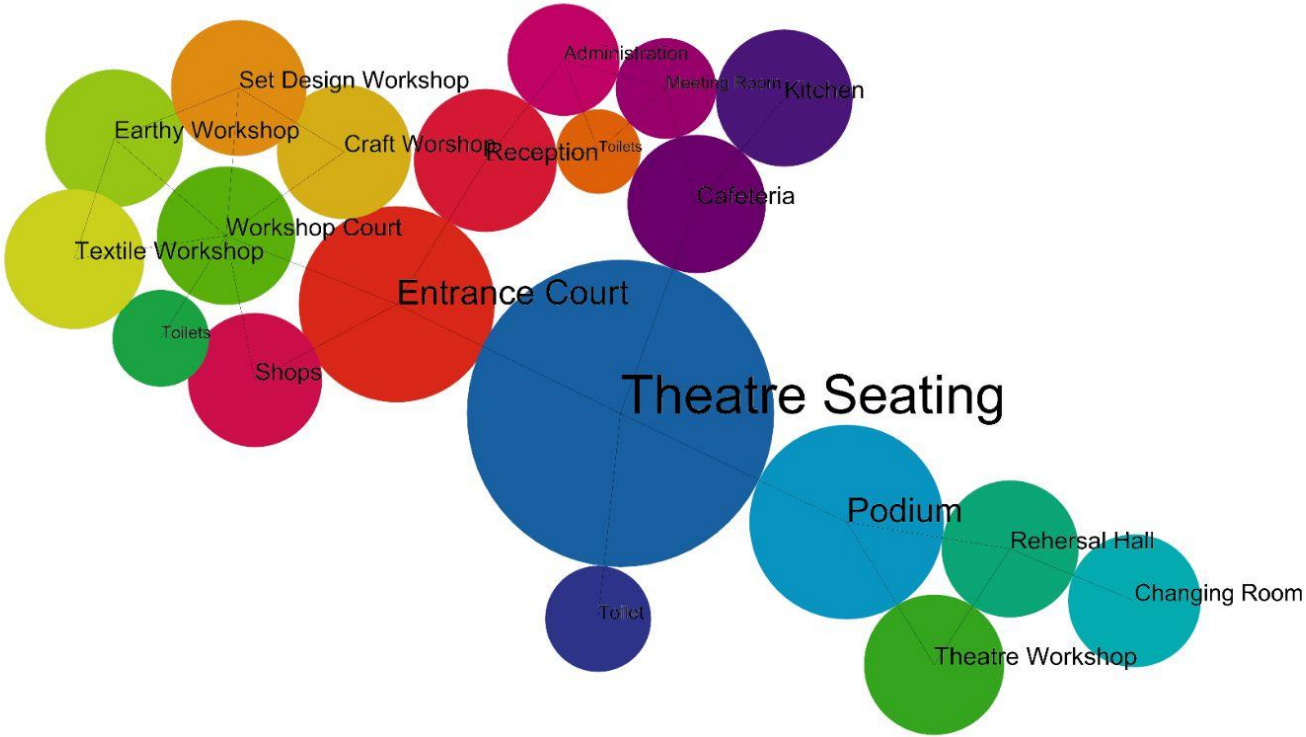
PROGRAM REQUIREMENTS

		Area/user m²	Users	Area m²	Noise	Ceiling height	Accessibility	Nature of space	Additional requirements
Office	Storage			20	No	3	Private	Closed	
	Toilets private			2 x 10	No	3	Private	Closed	
	Workplaces	1,5 - 2	25	50	No	3	Private	Semi-open	
	Lobby			40	No	3	Semi public	Open	
	Meeting room	1,5 - 2	10	20	No	3	Private	Semi-open	
	Cafe/kitchen	1,5 - 2	10	20	No	3	Private	Closed	
Theatre	Changing rooms			2 x 50	No	3	Private	Closed	
	Backstage			100	No	5	Private	Closed	
	Podium/seating	1	500	500	Yes	-	Public	Open	
	Rehearsal space			100	Yes	5	Private	Closed	
	Theatre courtyard			300	Yes	-	Public	Open	Located on the Main street
	Cafetaria	1,5 - 2	50	100	Yes	3	Public	Semi-open	
	Toilets public			2 x 20	No	3	Semi public	Closed	
	Shop			50	No	3	Public	Semi-open	
	Exhibition space			100	No	5	Public	Semi-open	Propper lighting
Workshops	Workshop courtyard			100	Yes	-	Semi public	Open	Accessible from secondary road
	Stage design workshop			100	Yes	5	Private	Semi-open	
	Costume design workshop			100	No	5	Private	Semi-open	
	Earthy building workshop			100	Yes	5	Private	Semi-open	
	Other workshop			100	-	5	Private	Semi-open	
	changing rooms			2 x 50	No	3	Private	Closed	
	Storage			50	No	3	Private	Closed	

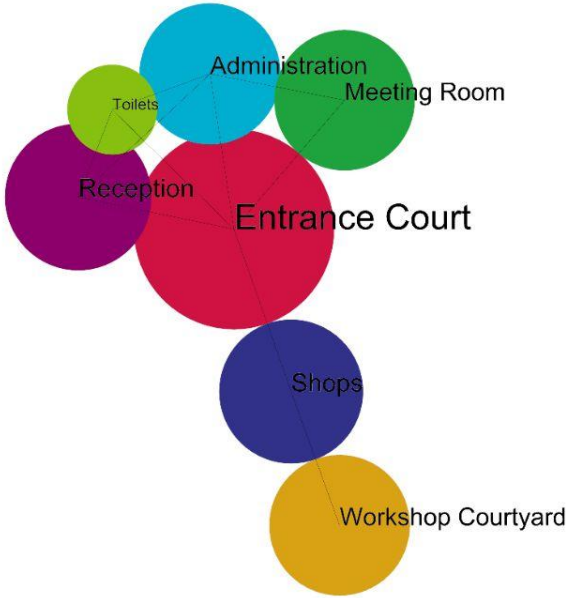
REL CHART

Courtyard																				
Arrival Space	5																			
Toilets	5	2																		
Strage Room	2	3	2																	
Meeting Room	3	3	4	2																
Cafeteria	2	3	2	4	4															
Kitchen	5	1	5	1	2	2														
Theater hall	1	2	1	2	4	2	4													
Rehearsal space	4	1	2	2	5	2	1	4												
Theater Courtyard	3	5	5	1	1	1	3	1	1											
Podium	3	4	5	5	2	2	5	5	2	3										
Backstage	5	4	5	3	3	1	2	1	1	4	2									
Entrance hall	4	2	1	1	2	3	4	2	2	1	1	4								
Changing rooms	4	5	3	4	3	1	3	2	2	3	3	1	2							
[W] Stage design, Other	2	5	5	3	1	3	1	3	3	2										
[W] Costume Art & jewelry	2	4	2	5	2	5	2	1												
[W] Earthy buildings, Pottery	2	2	2	1	1	5														
Shops	5	5	4	4																
Exhibition Space	4	5																		

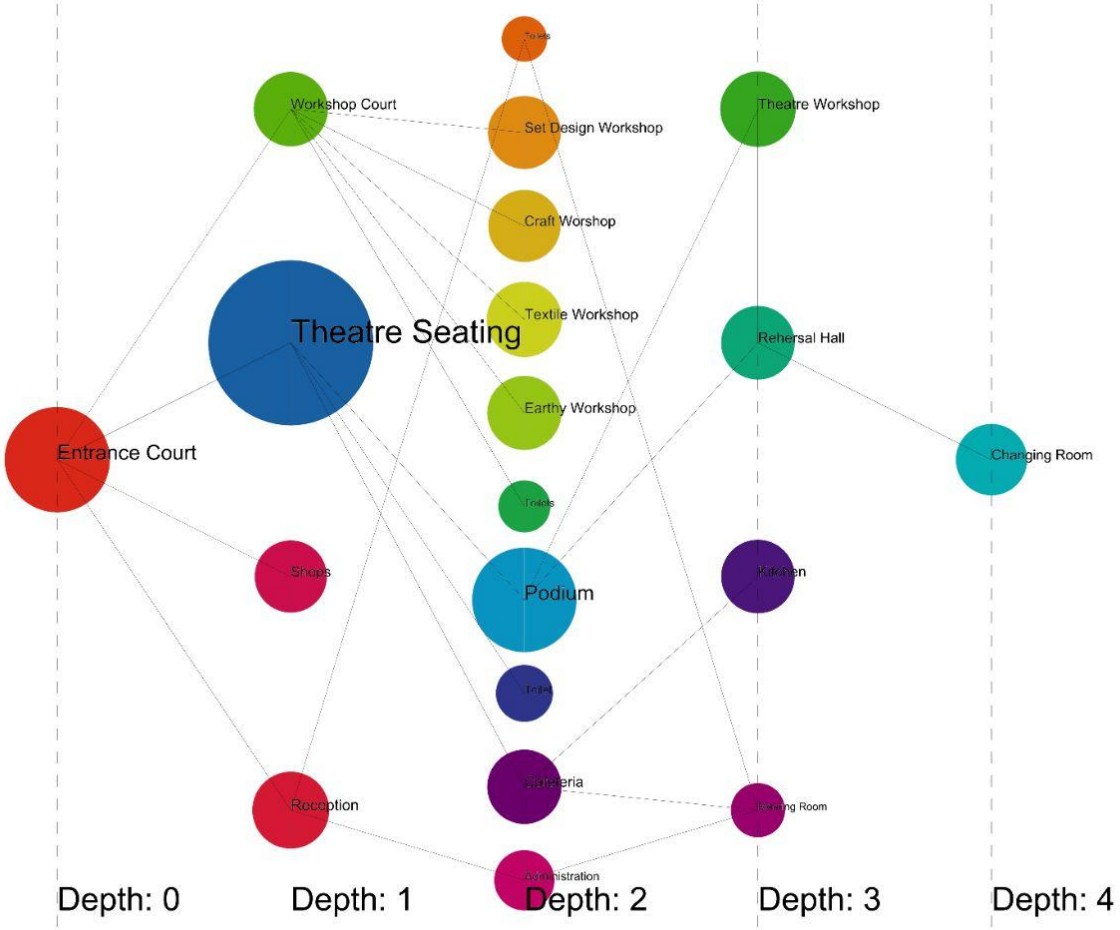
BUBBLE DIAGRAM 1



BUBBLE DIAGRAM 2

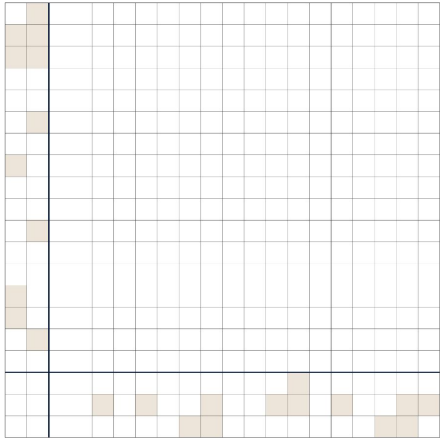


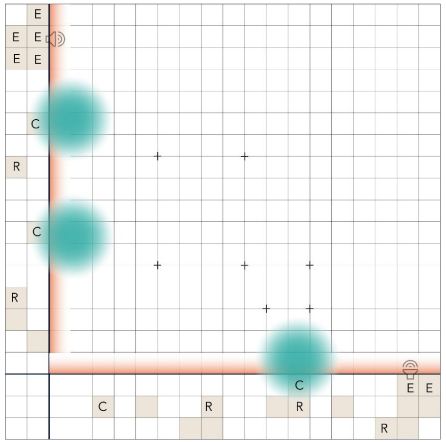
DEPTH CHART


Workshop Court
Set Design Workshop
Theatre Workshop
Craft Worshop
Textile Workshop
Theatre Seating
Rehersal Hall
Earthy Workshop
Entrance Court
Changing Room
Podium
Reception
Depth: 0
Depth: 1
Depth: 2
Depth: 3
Depth: 4

LAYOUT RULES

- Locating primary & secondary roads
- Context study: location of Educational Residential &
  Commercial spaces
- Overlap program of requirements with dedicated labels of
  Private, semi-private & public
- Theatre central activity space
- Entrances to spaces aligned towards courtyards

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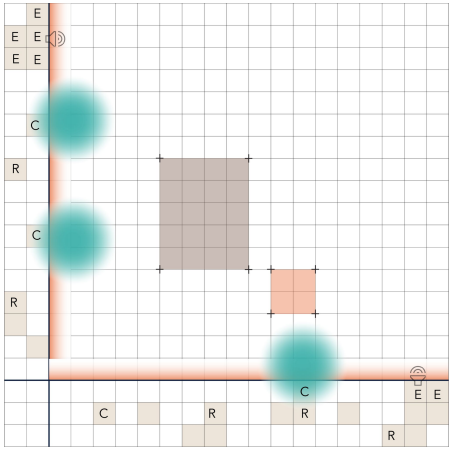
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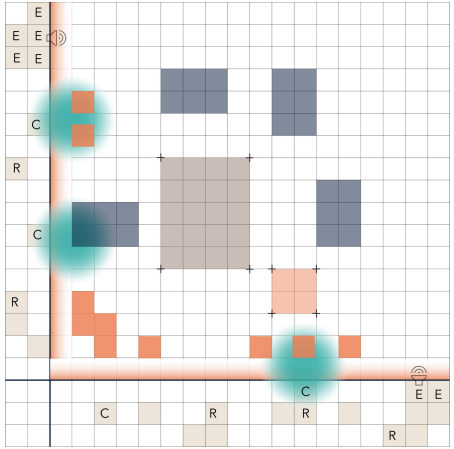
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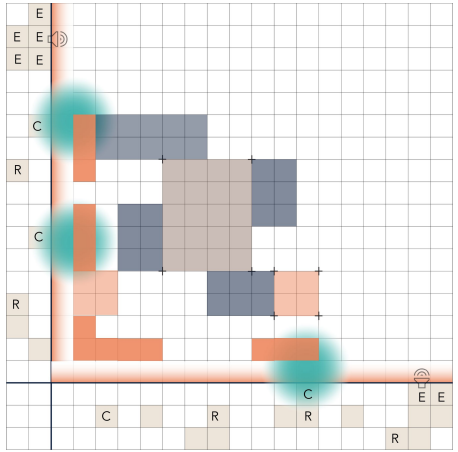
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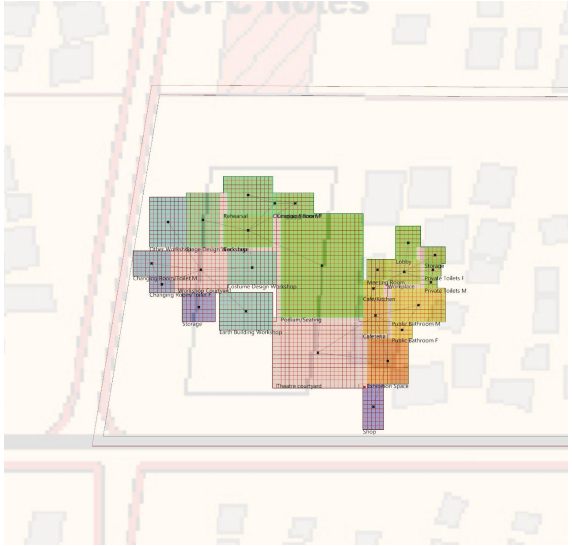
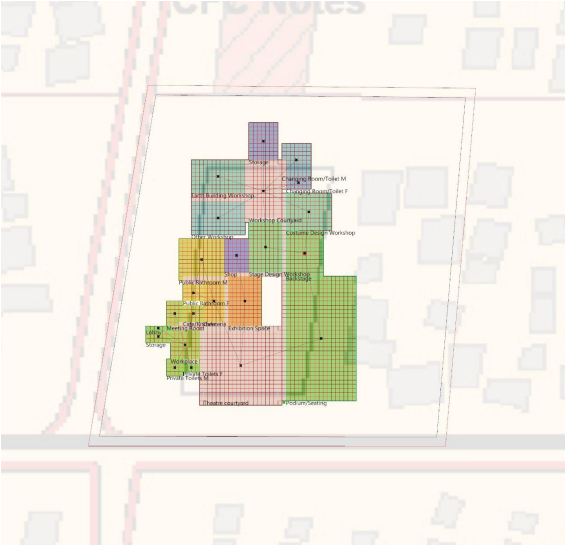
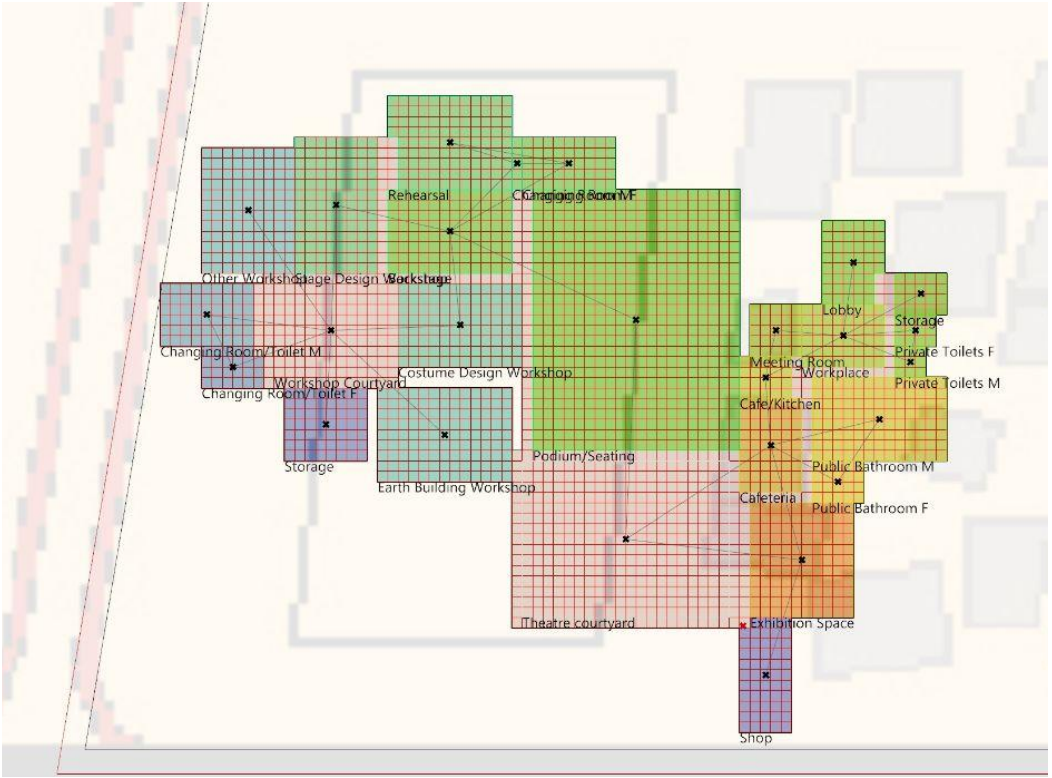
LAYOUT ITERATIONS

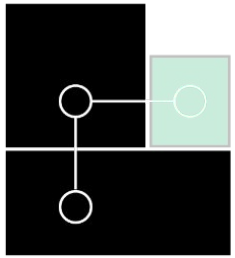




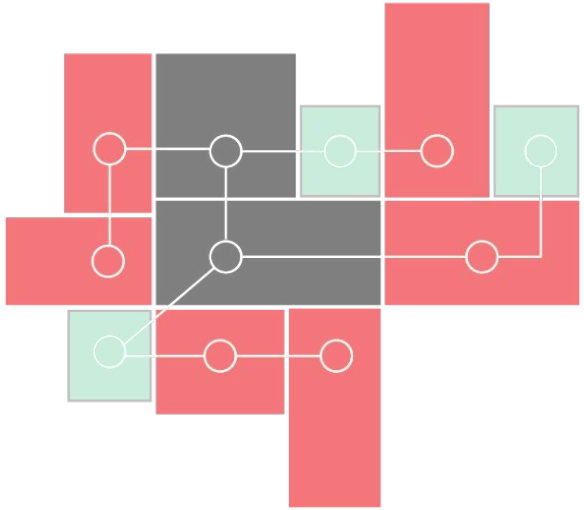
LAYOUT ITERATIONS



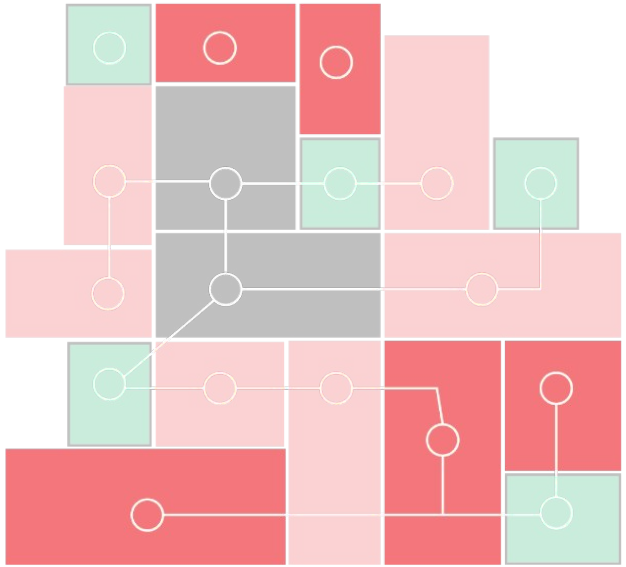
BASE



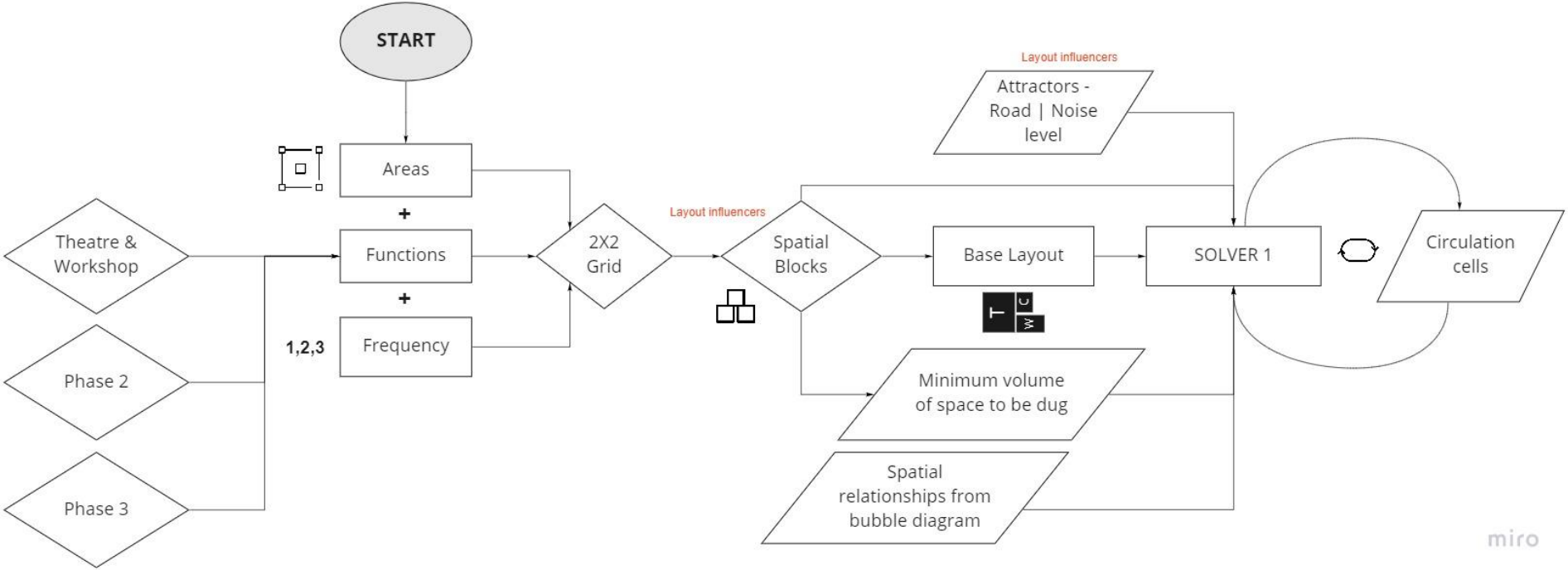
PHASE I



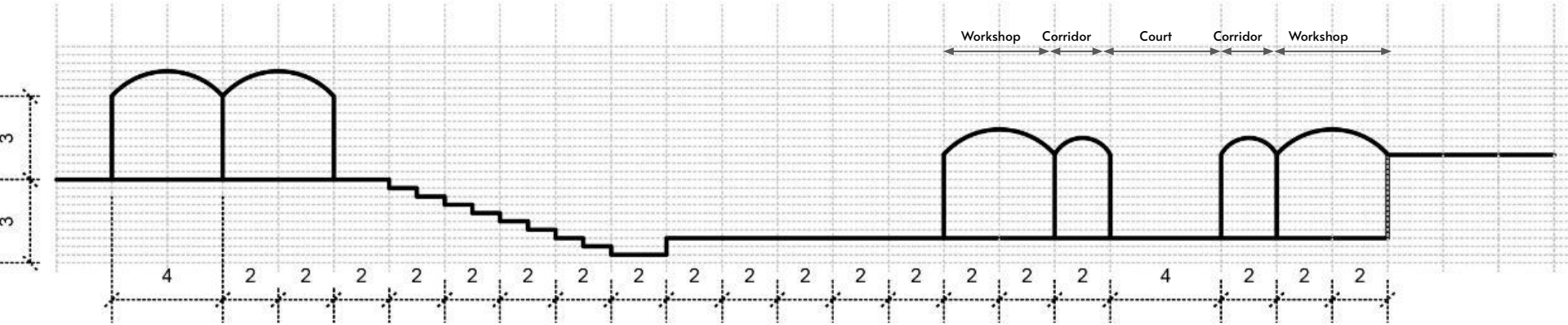
PHASE II



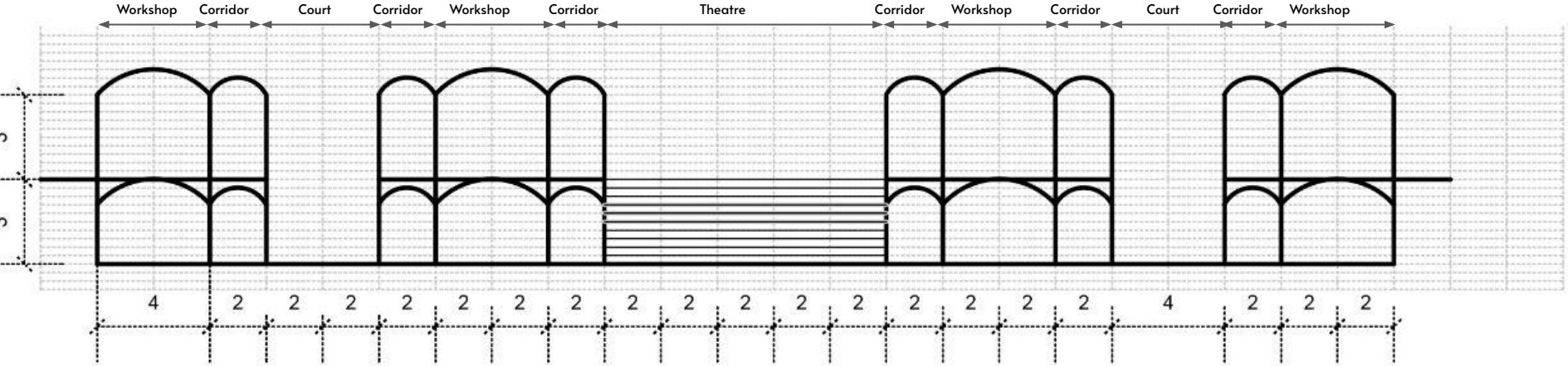
LAYOUT TOOL


START
Areas
+
Functions
+
1,2,3
Frequency
Theatre & Workshop
Phase 2
Phase 3
2X2 Grid
Layout influencers
Spatial Blocks
Layout influencers
Attractors - Road | Noise level
Base Layout
SOLVER 1
Circulation cells
Minimum volume of space to be dug
Spatial relationships from bubble diagram
miro

TYPICAL SECTION

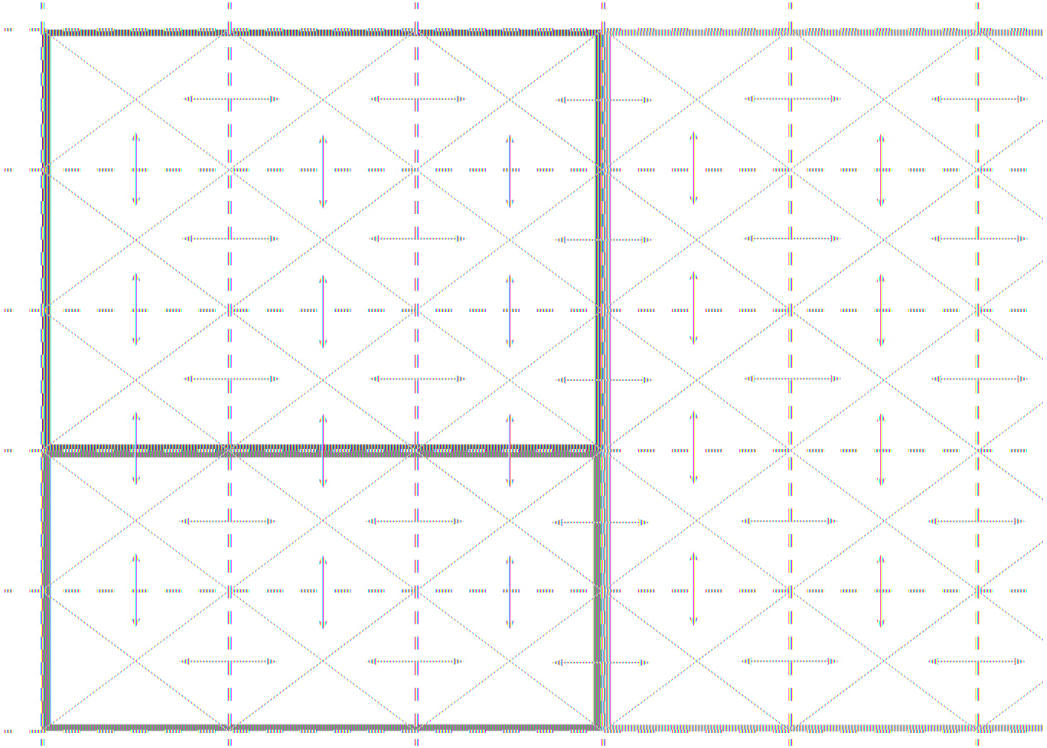


TYPICAL SECTION

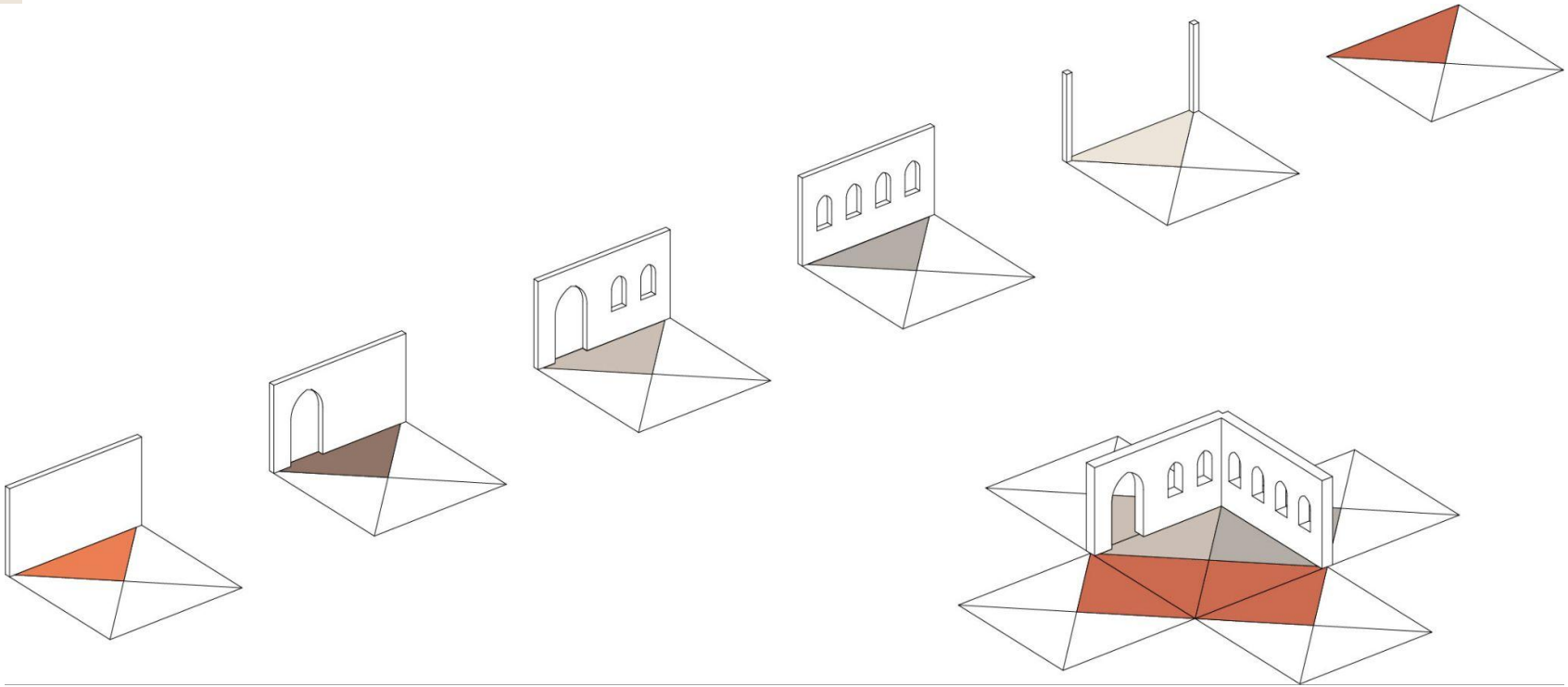


OPENING CONFIGURATIONS CONCEPT

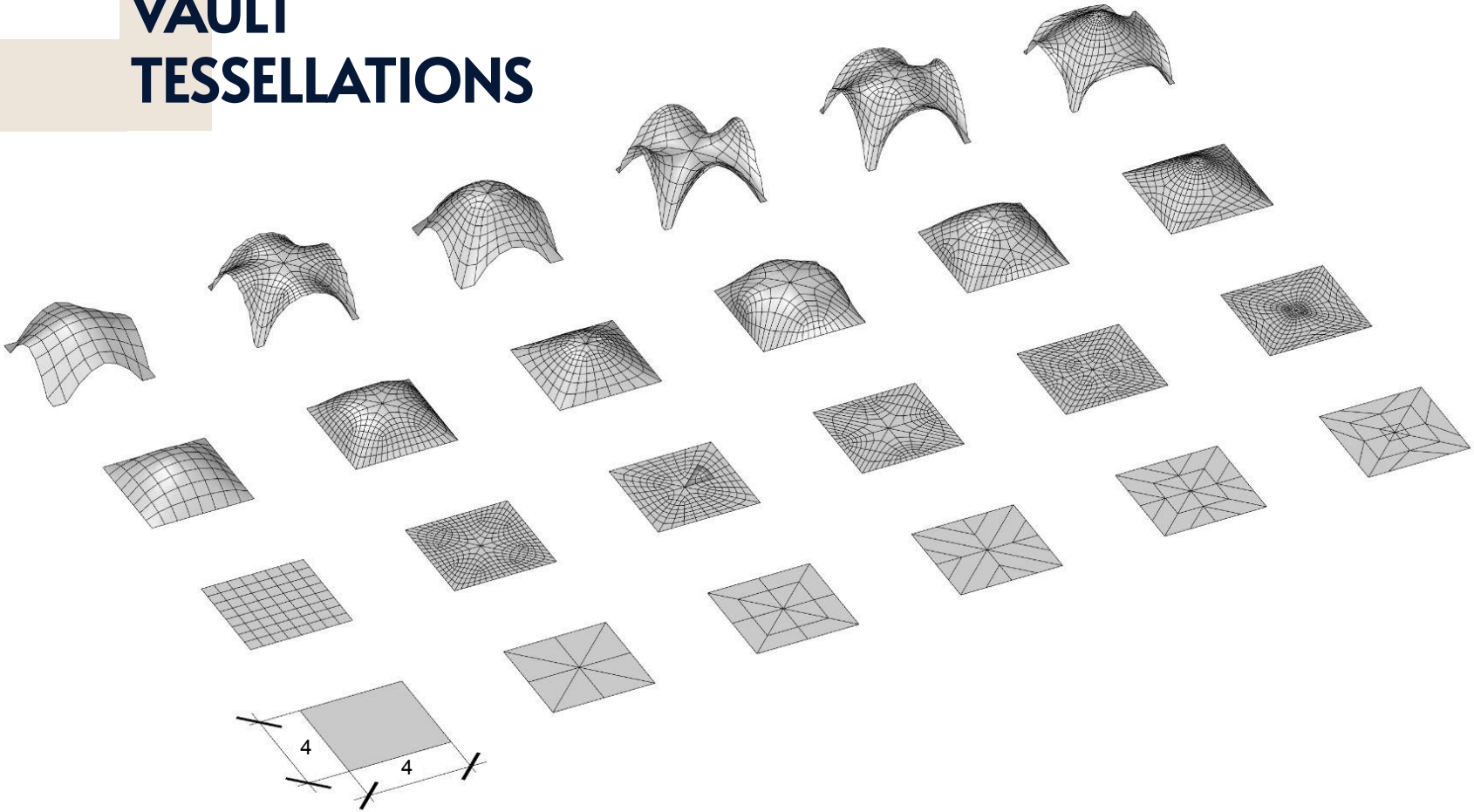
- Decide type of wall depending on the functions on both sides of edge
- Work with REL diagram and function requirements
- If the program is the same: no wall



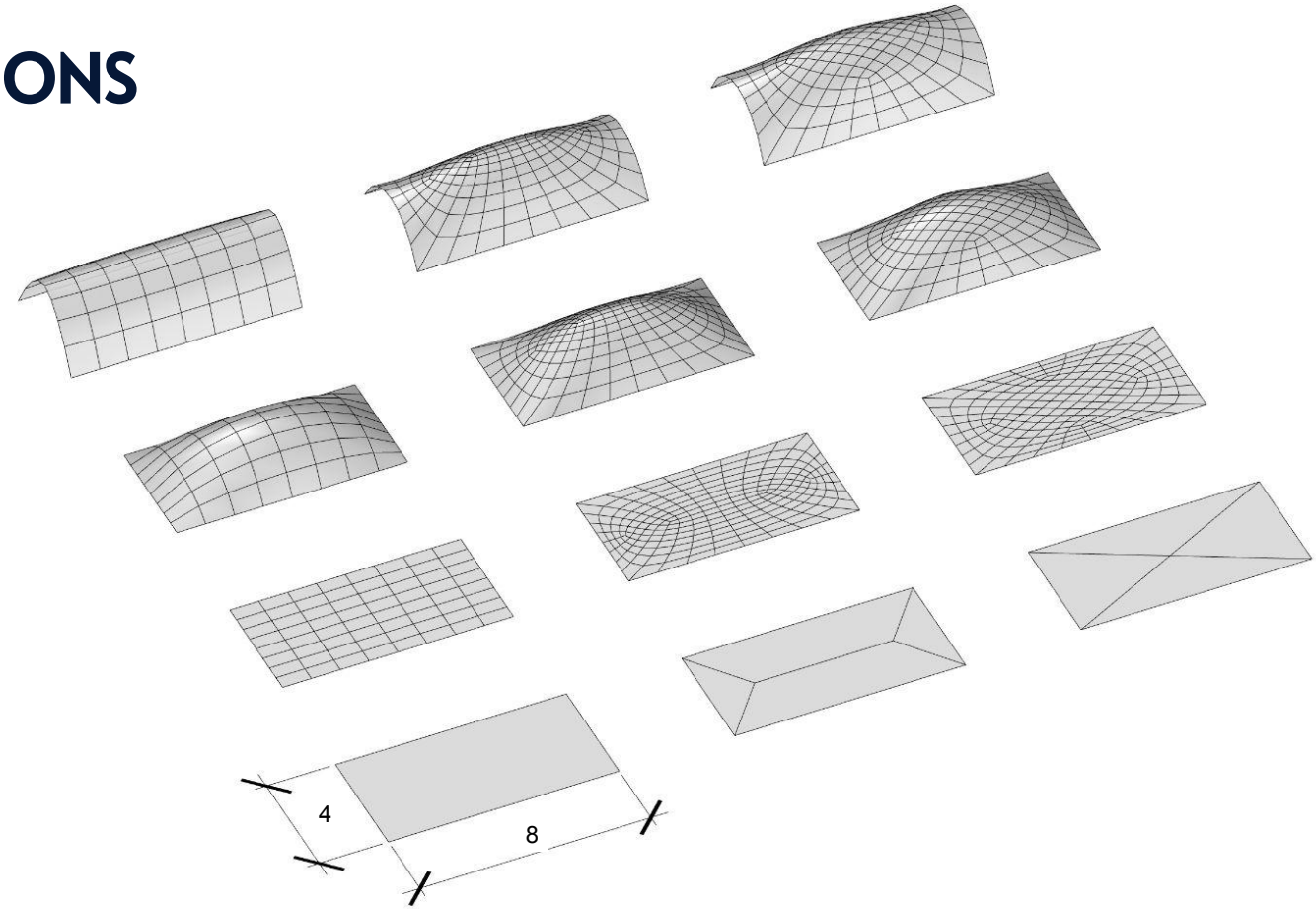
OPENING CONFIGURATIONS CONCEPT



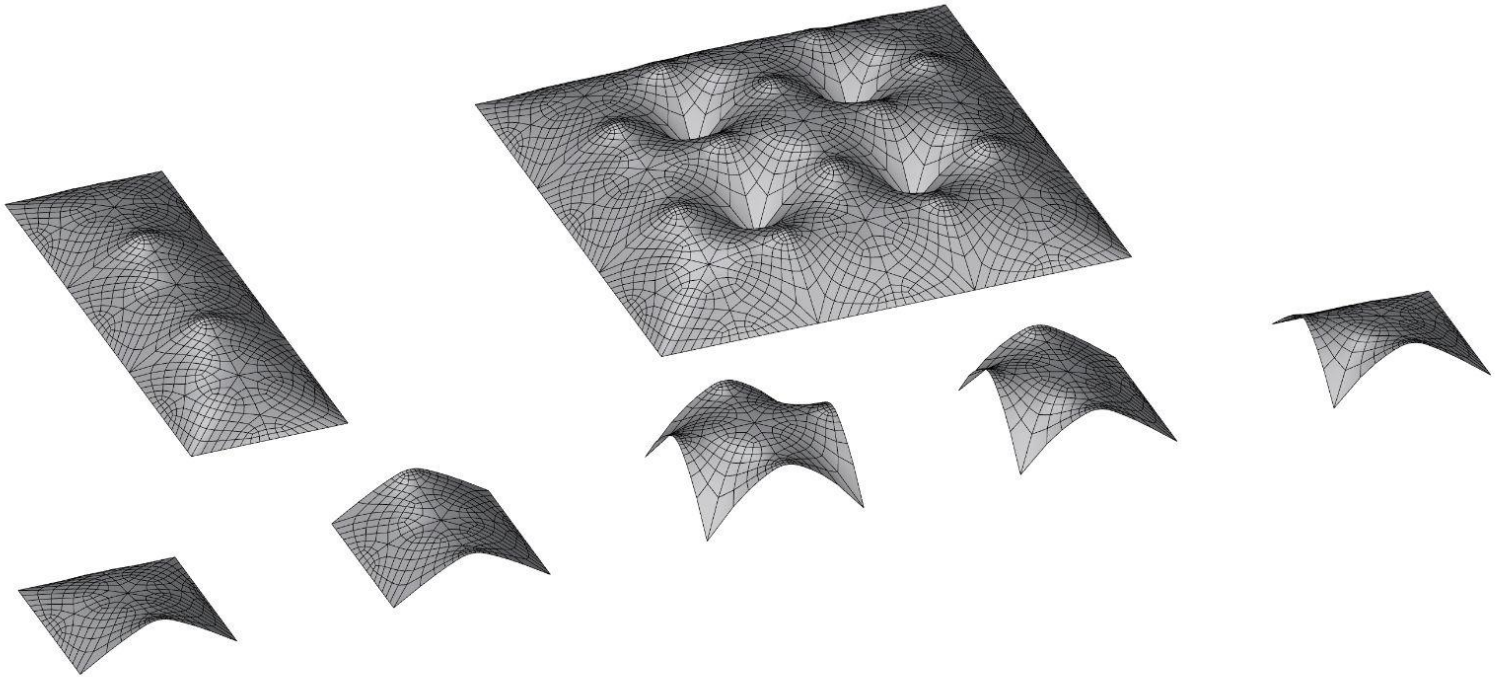
VAULT TESSELLATIONS



VAULT TESSELLATIONS



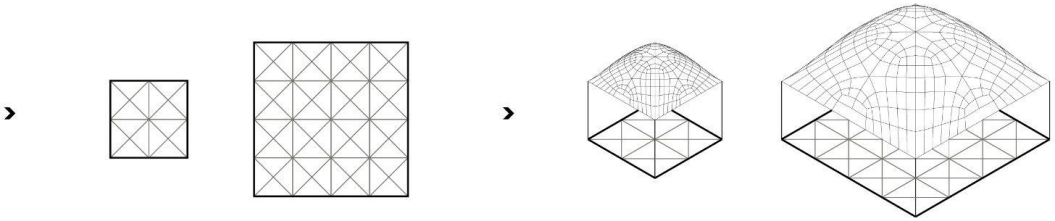
ROOF MODULES



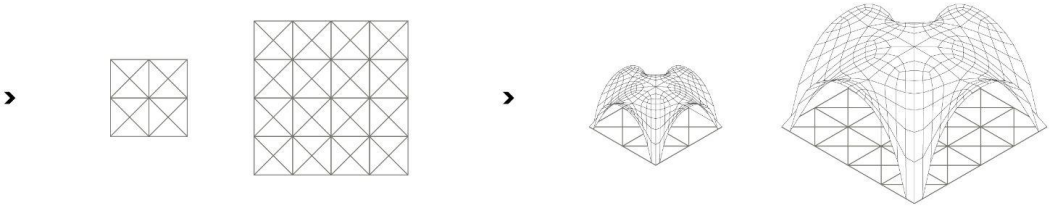
ASSEMBLING ROOF TYPES

Cells in width (w)
Cells in height (h)
Supported cell edges

Case 1
w=h <= 4 cells
w=h = multiples of 2 cells
Supports on Outer Edges



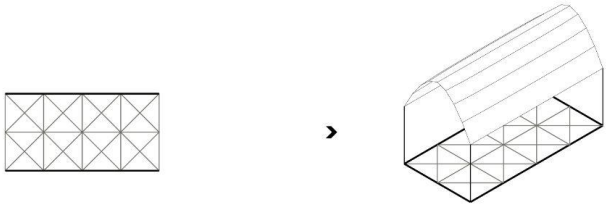
Case 2
w=h <= 4 cells
w=h = multiples of 2 cells
Freestanding



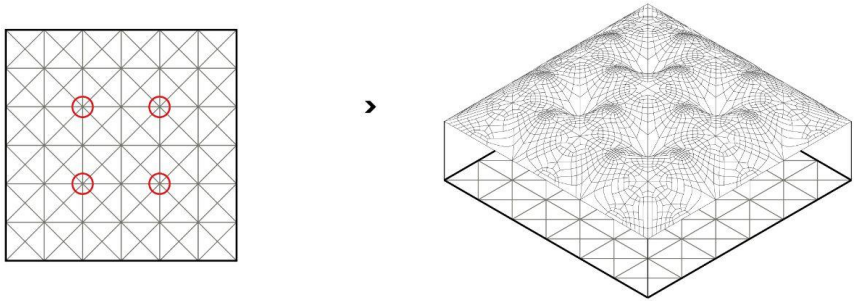
ASSEMBLING ROOF TYPES

Case 3
w≠h
If w>h then h<=2cells
Or h>w then w<=2cells
Supports on Outer Edges

Case 4
w≠h
If w>h then h<=2cells
Or h>w then w<=2cells
Supports on Long Edges



Case 5
If w=h > 4 cells
↳ Add more Supports
Connected Rib Vaults



What next?

- Finalising the layout scripting
- Finalising building modules
- Scripting placement of modules within the layout
- Structural verification
- Construction method
- Physical Prototyping