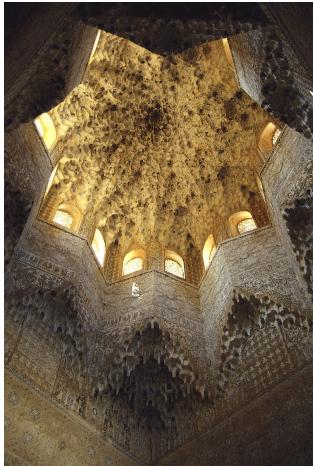


Bayt alturath



بيت التراث

House of heritage

Problem Statement

Refugees coming to the Zaatari camp have been displaced from their home country and their **identity** is at stake. By providing them certain **facilities**, their cultural identity could be **preserved**. A **Heritage center** could help to retain their **identity** where one could engage and stay rooted to their **culture and history**.



"The war has largely affected our work because out of 100 professionals ahead of the war, there are now only 15 across Syria," Qarkoush said.

Design vision

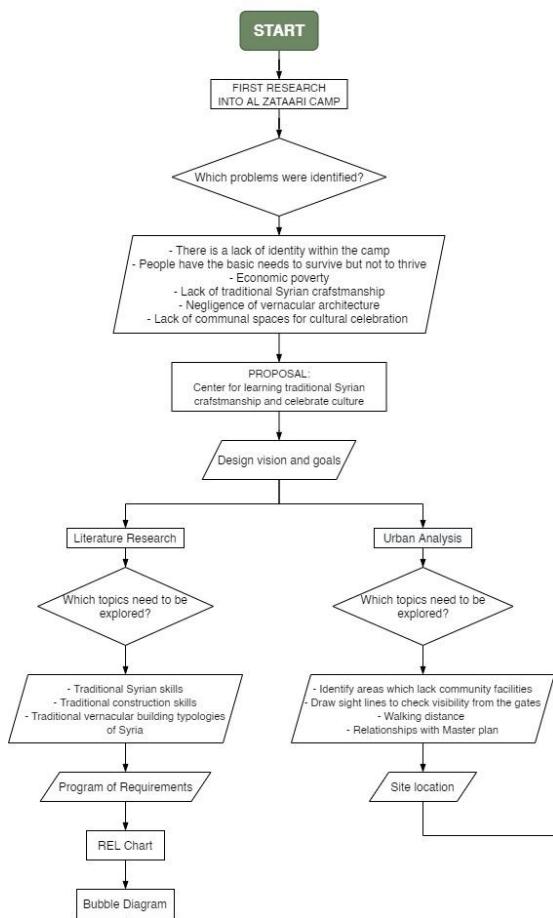
"Our aim is to revive the traditional arts and craftsmanship of Syria while empowering the members of the community with skills that will make them economically self sufficient.

Goals

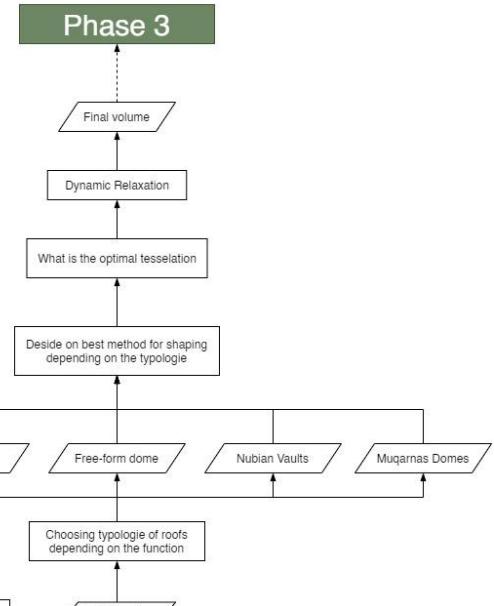
- Reviving the Vernacular Syrian architecture
- Reviving traditional Syrian arts and crafts
- Creating jobs for refugees by giving them the means to start their own business
- Providing more communal spaces in the camp



Flowchart



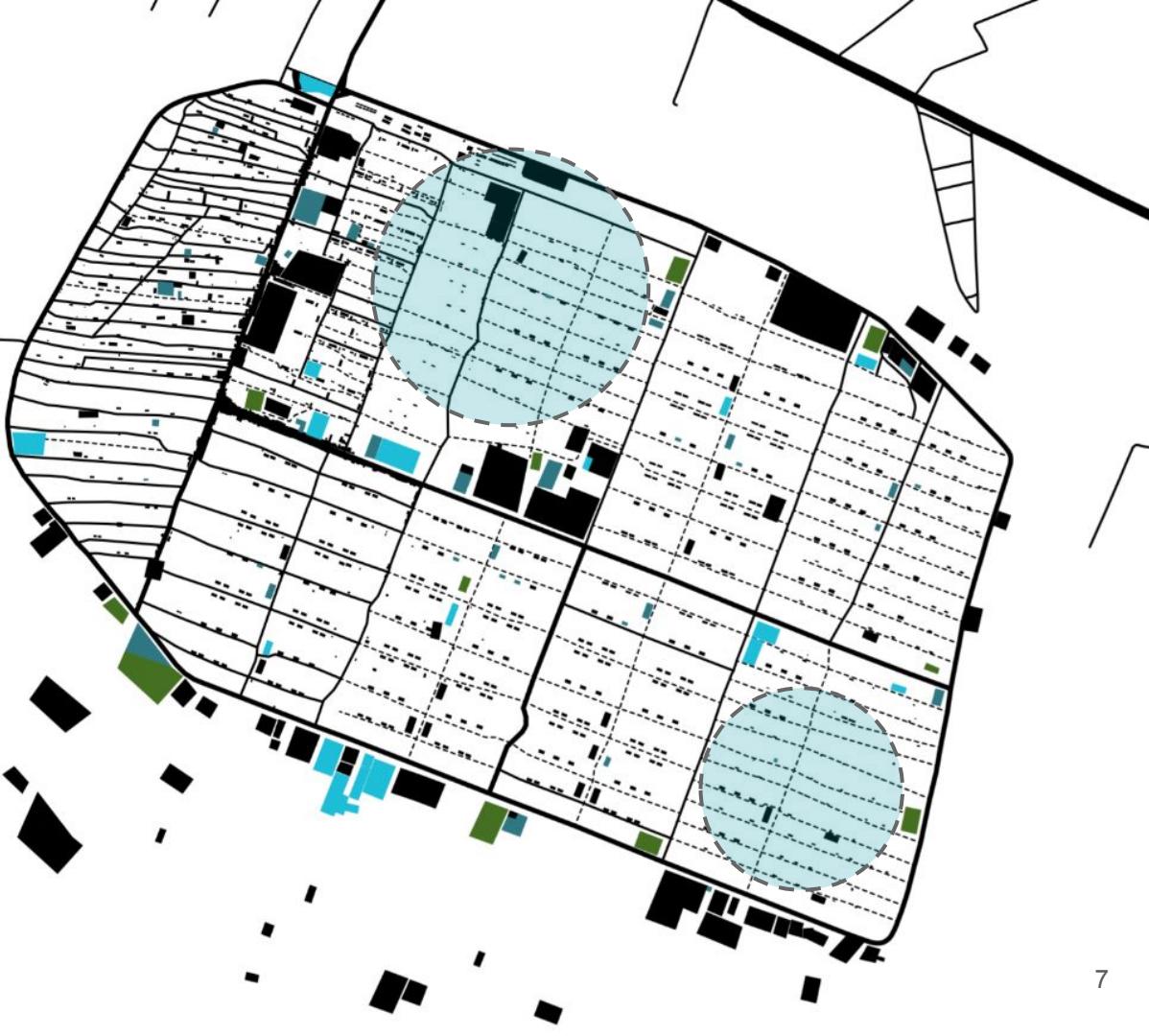
Phase 1



Phase 2

Youth centres and community centres

- Community Centres
- Youth Centres
- Recreational Areas
- Possible locations



Site Location

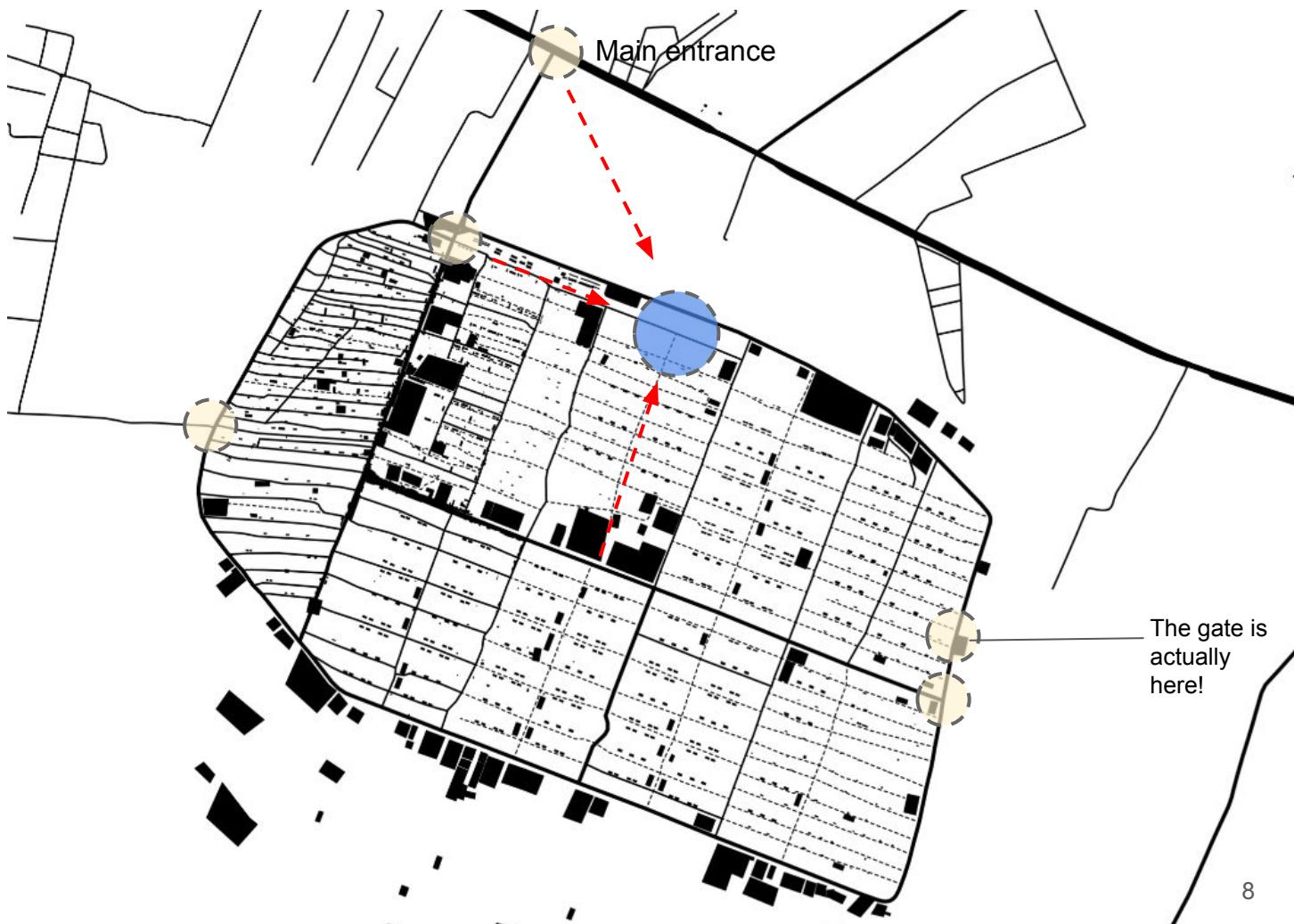
Gates



Heritage center



Sight lines



Site Location



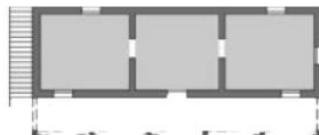
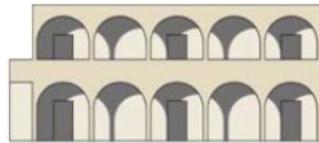
Traditional Syrian Crafts

TEXTILE WORK	WOOD WORK	CERAMIC WORK
Al Aghabani	Mother of Pearl Marquetry	Pottery
Brocade	Al Ajami	Al Qishani
Oriental rugs	Oud (Musical Instruments)	Mosai



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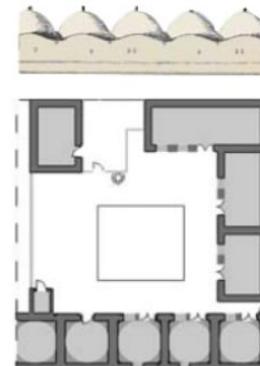
Vernacular architecture- Spatial Configuration



House with Riwaq



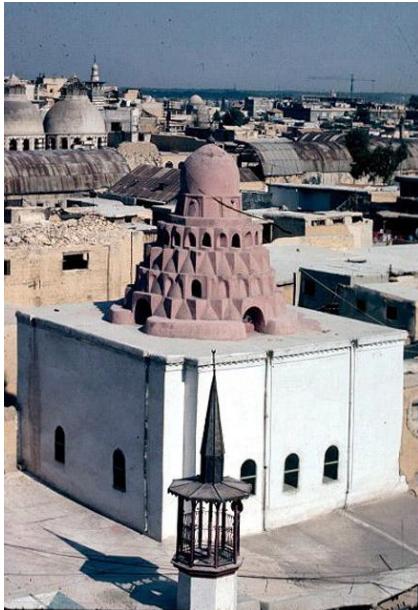
House with Liwan



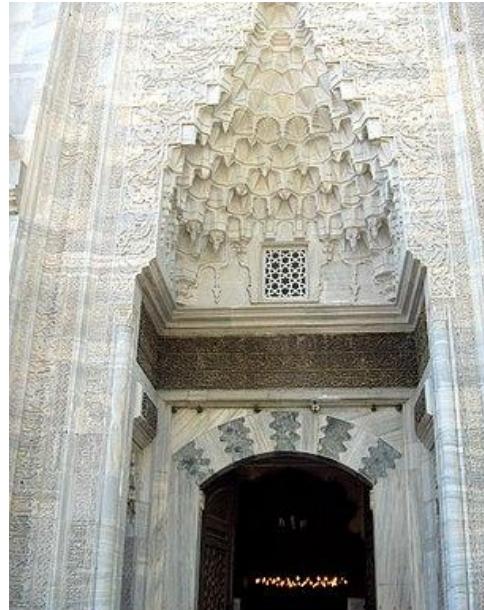
House with courtyard

Source: Traditional Syrian architecture, Corpus Levant

Vernacular architecture- Muqarnas



Muqarnas as dome



Muqarnas on the wall

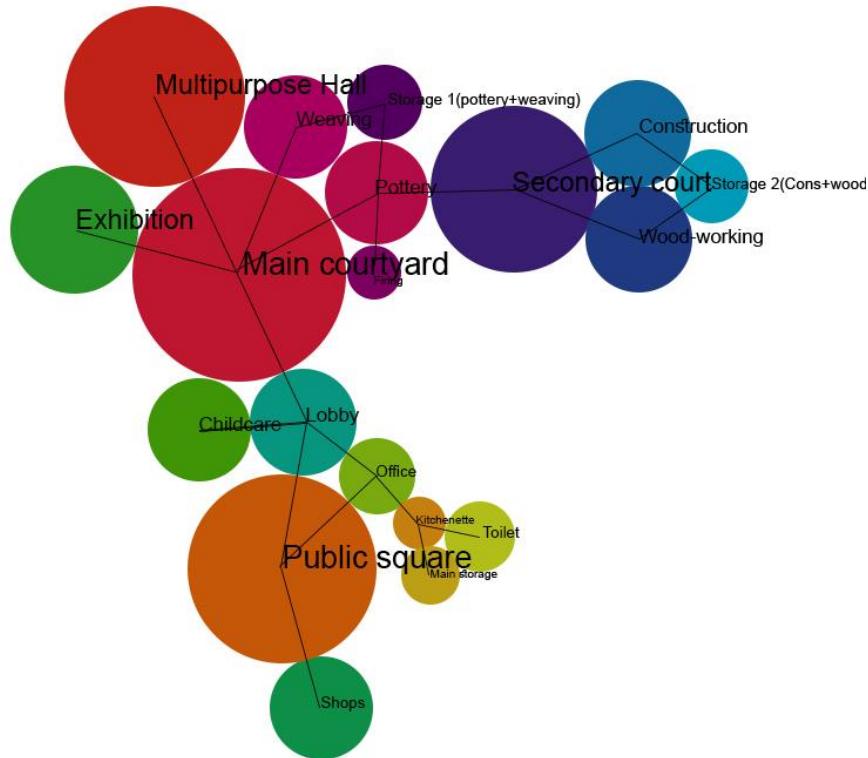


Muqarnas on a column

Program

Function Type	Program	Sub-Spaces	Area (sqm)	Space Type
Communal spaces	Entrance lobby		35	Closed
	Multipurpose hall		120	Closed
	Main Courtyard		100	Open
	Public square		150	Open
	Secondary Courtyard		60	Open
Workshop Rooms and storage	Textile	Al aghabani Workshop Room	40	Closed
		Weaving workshop room	40	Closed
	Pottery	Workshop Room	40	Closed
		Firing room	10	Closed
	Storage 1 (textile + pottery)		20	Closed
	Wood Work	Workshop Room (also has spraying area)	40	Closed
	Construction Skills	Workshop Room- for lectures, demo	40	Closed
	Storage 2 (Wood-work + construction)		20	Closed
Miscellaneous	Shop (divided into multiple shops)		100	Closed
	Exhibition Room		60	Closed
	Chidcare		40	Closed
	Office (small/admin)		15	Closed
	Library		60	Closed
	Conference/Meeting Room		30	Closed
Services	Toilet		20	Closed
	Storage		15	Closed
	Kitchenette		10	Closed

Bubble diagram for adjacencies



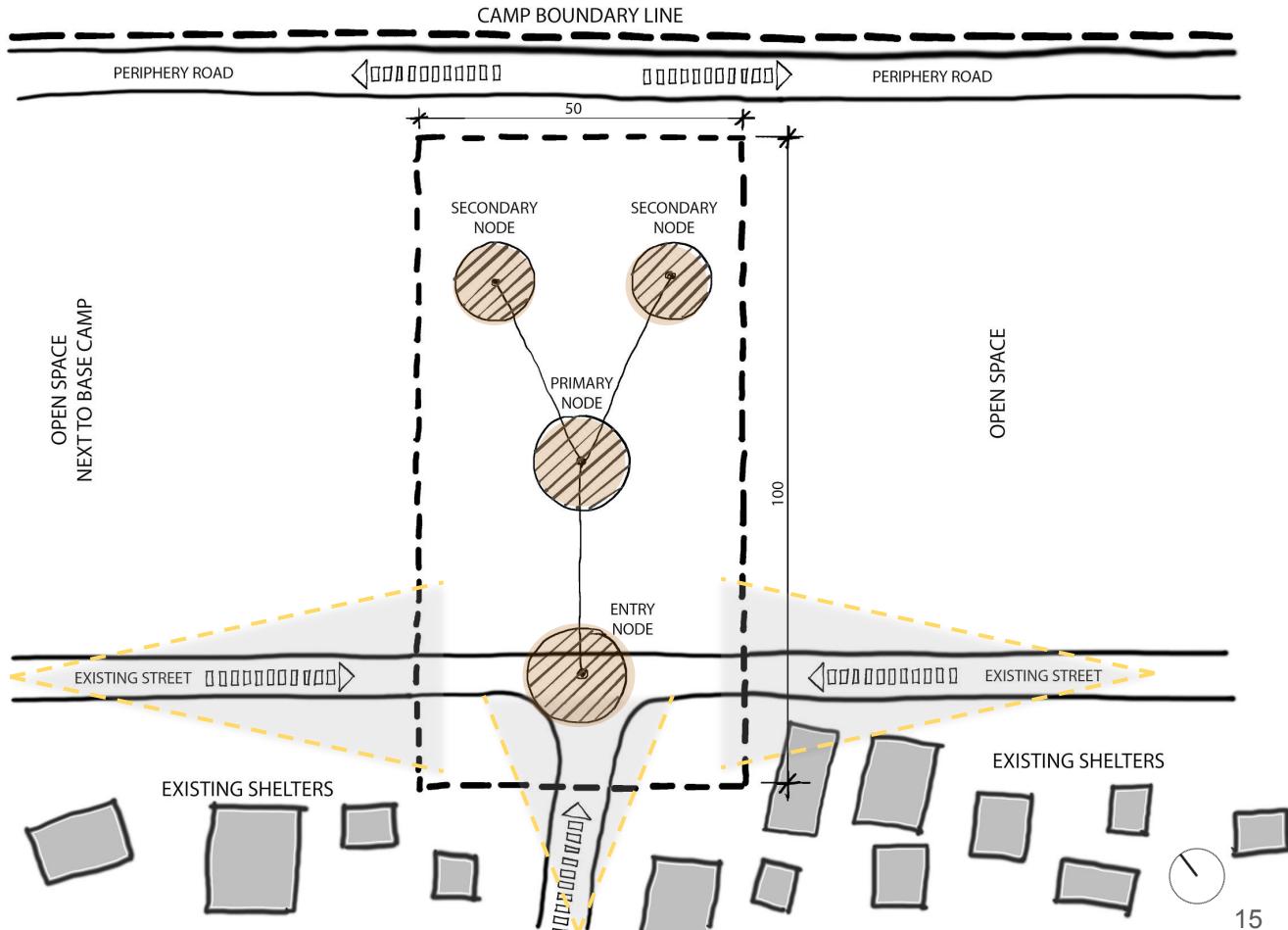
Site analysis

Site access and visibility

- Showcasing Syrian architecture
- Visibility from the street

Site nodes and connectivity

- Helps to identify circulation
- Hierarchy of spaces
- Nodes as central open spaces for gatherings



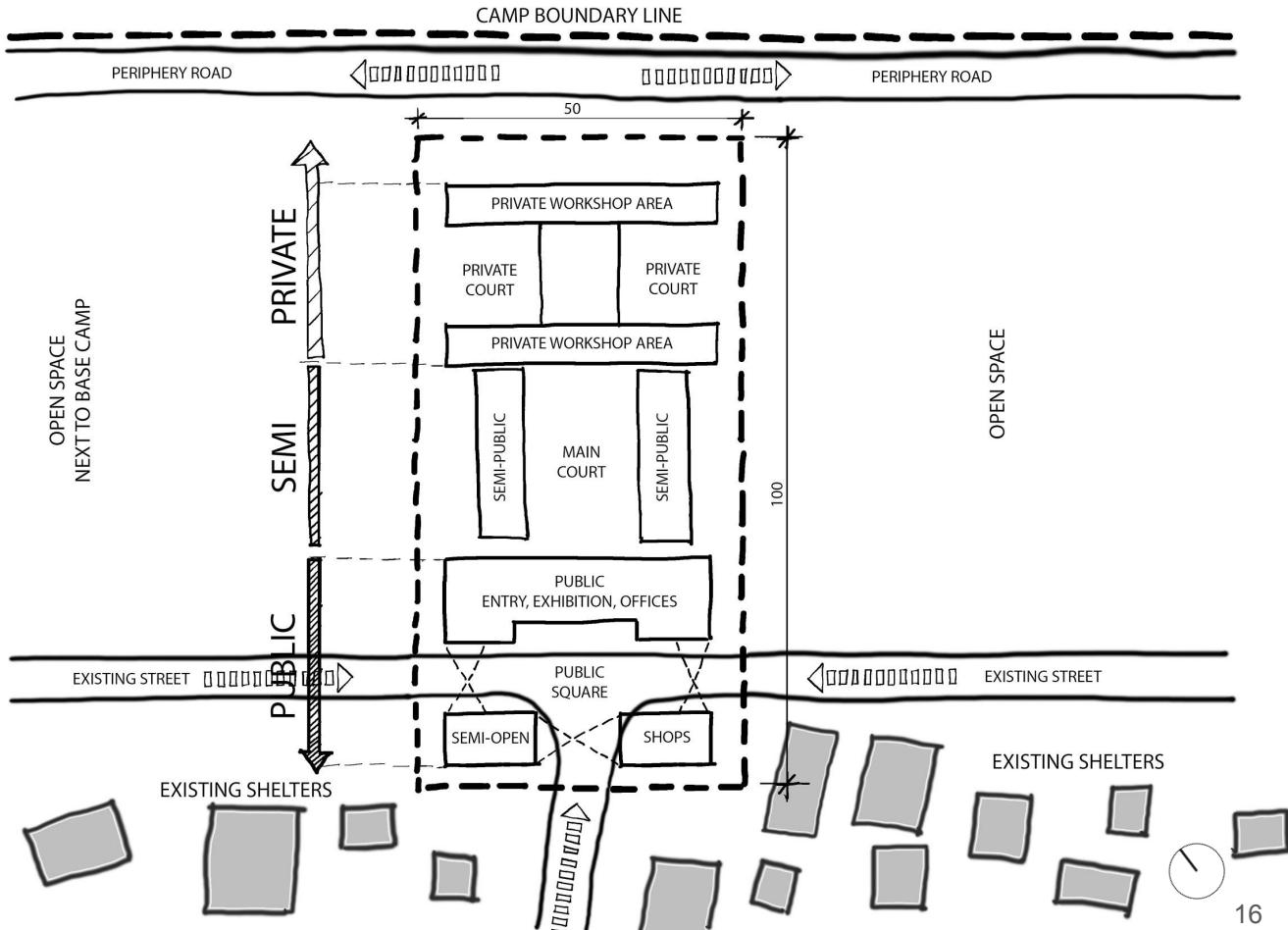
Site analysis

Site Zoning

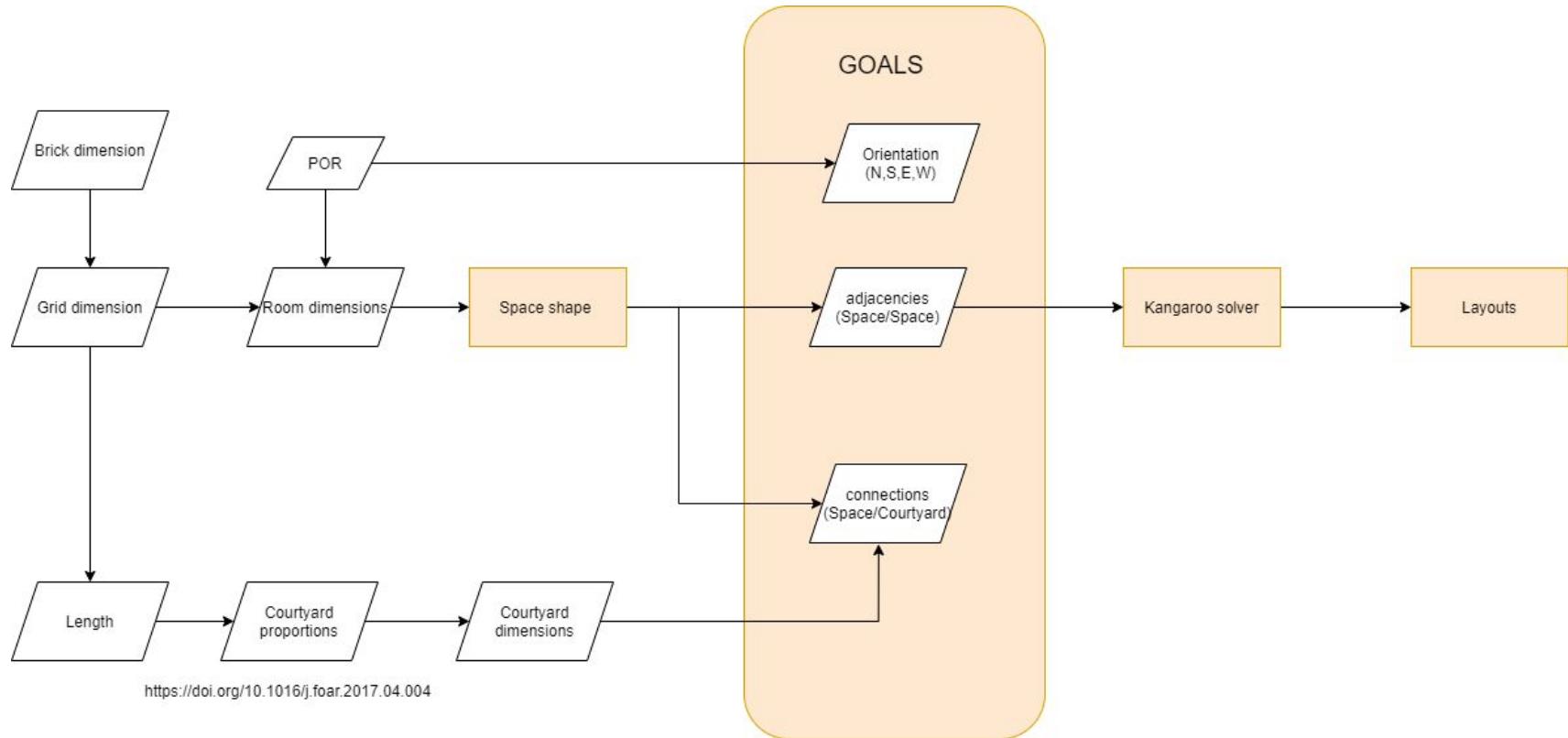
- Hierarchy of zones
- Public to private transition of spaces
- Security

Site climate

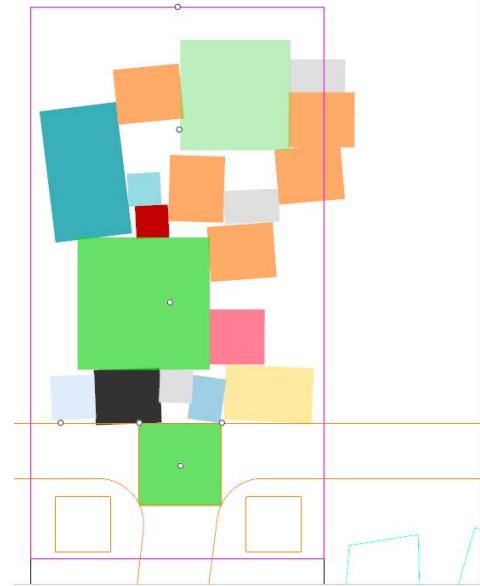
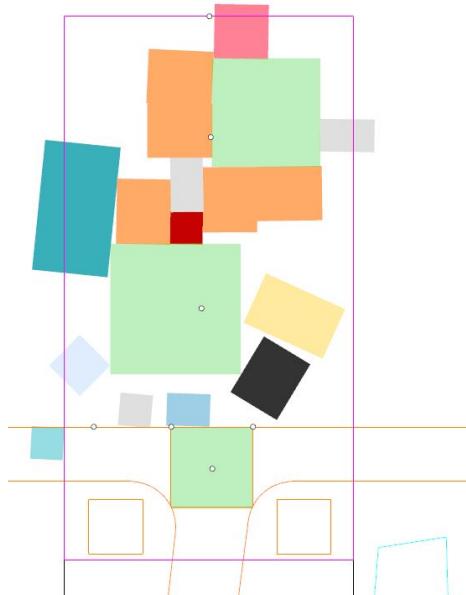
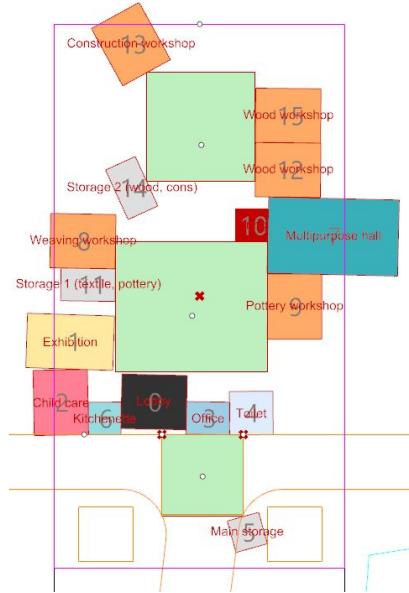
- Hot and dry summers
- Trees to shade the courtyard
- Higher massing towards the South to self-shade.



Configuration flowchart

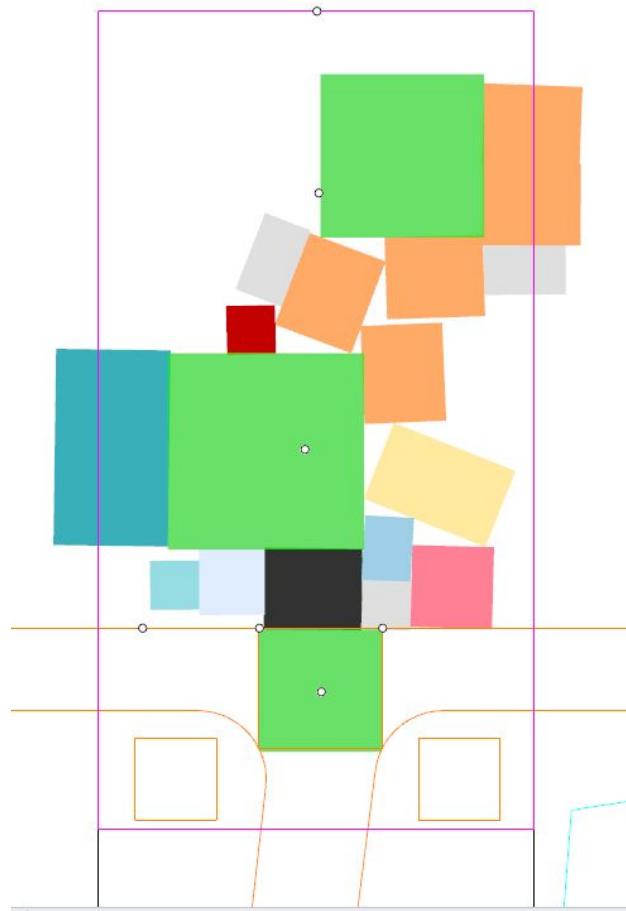


Layout options



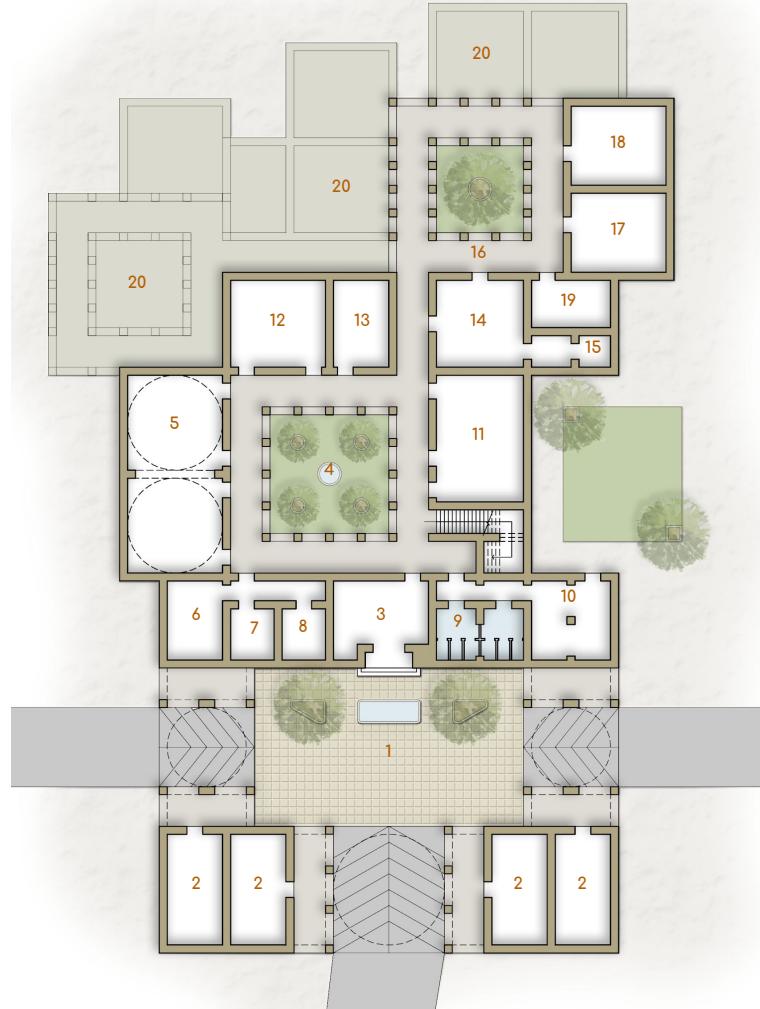
Chosen layout

	Lobby
	Exhibition
	Child care
	Office
	Toilet
	Main storage
	Kitchenette
	Multipurpose hall
	Weaving workshop
	Pottery workshop
	Firing
	Storage 1 (textile, pottery)
	Wood workshop
	Construction workshop
	Storage 2 (wood, cons)
	Wood workshop



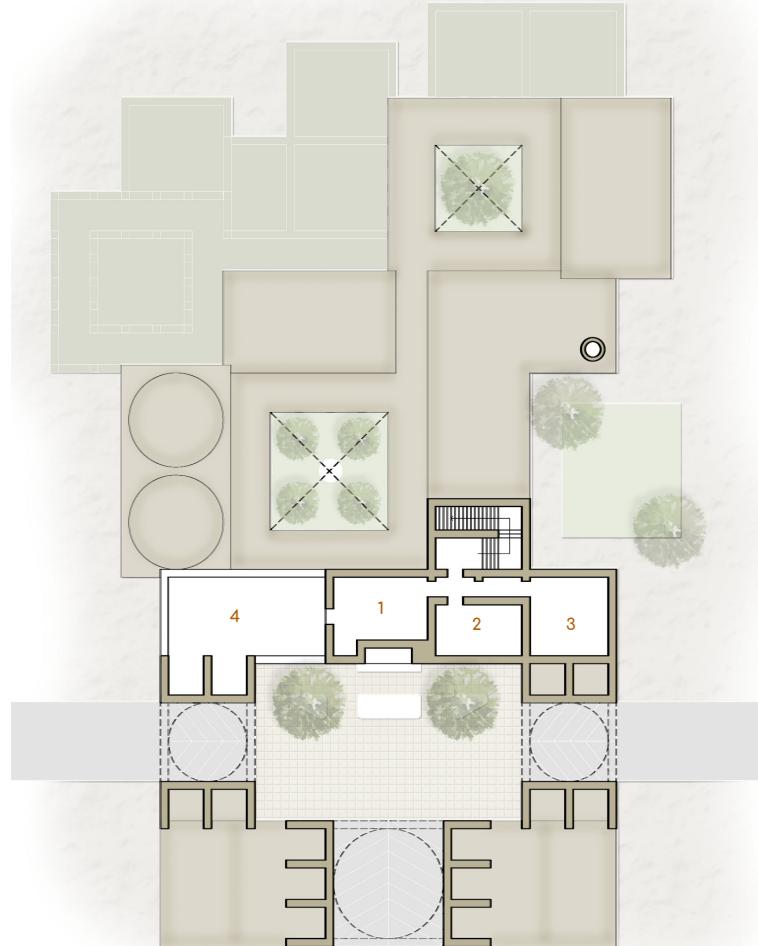
Ground floor plan

1. Public square
2. Shops
3. Entrance lobby
4. Main courtyard
5. Multipurpose hall
6. Office
7. Kitchen
8. Store
9. Toilets
10. Child-care
11. Exhibition
12. Weaving
13. Store (Weaving & pottery)
14. Pottery
15. Firing
16. Secondary courtyard
17. Construction
18. Woodwork
19. Store (Construction & Woodwork)
20. Future expansion

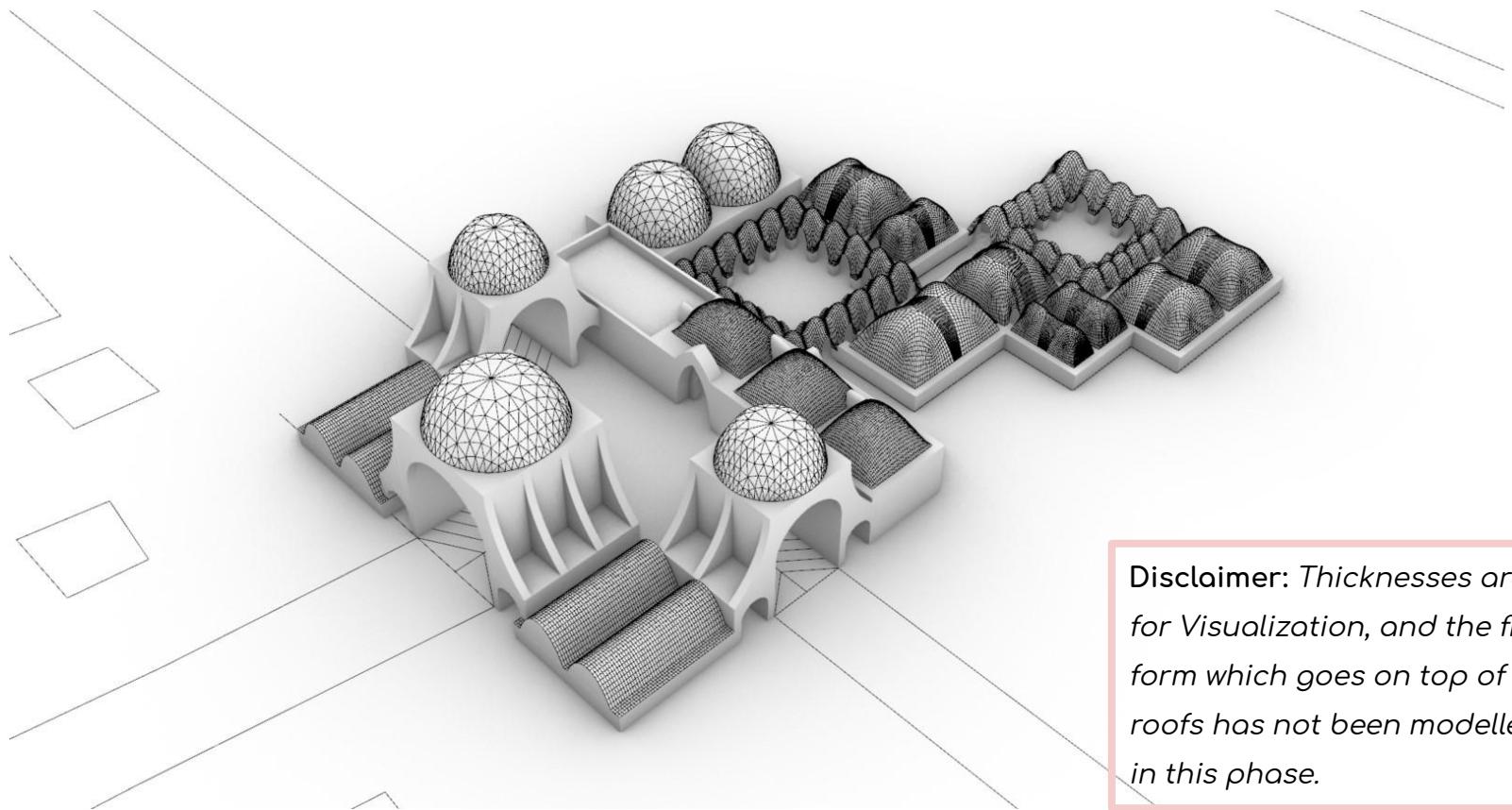


First floor plan

1. Al aghabani
2. Conference
3. Library
4. Drying terrace

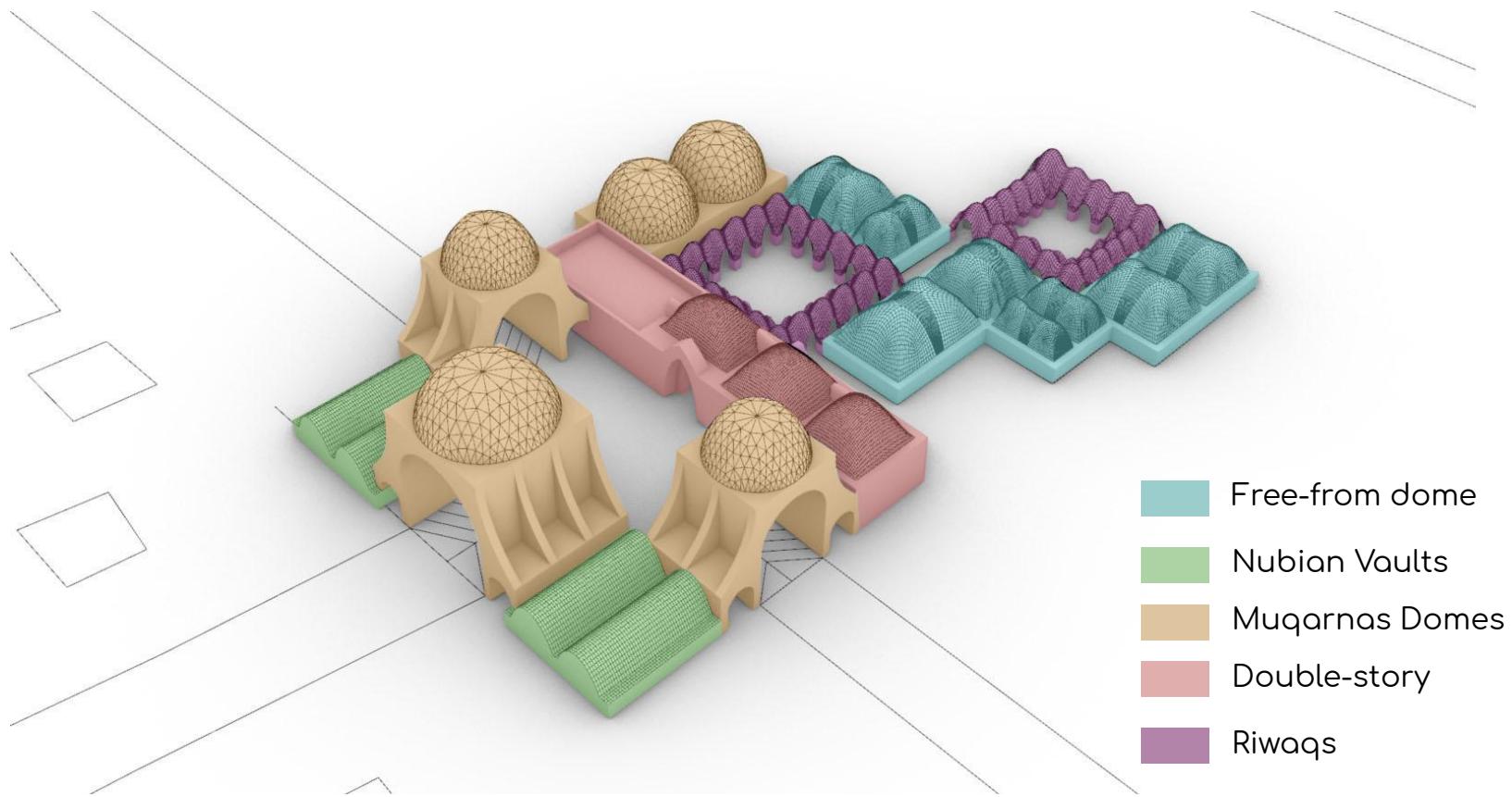


Final 3d model of the meshes

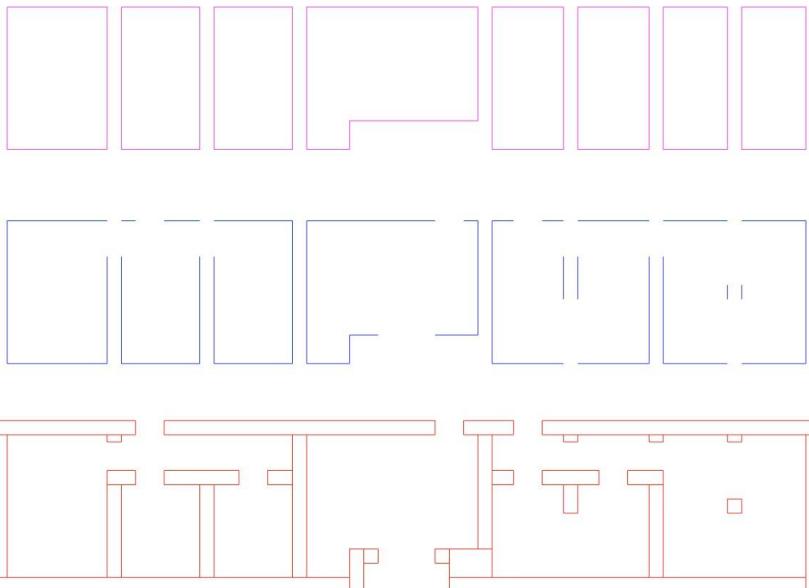


Disclaimer: Thicknesses are for Visualization, and the final form which goes on top of the roofs has not been modelled in this phase.

Roof Typologies

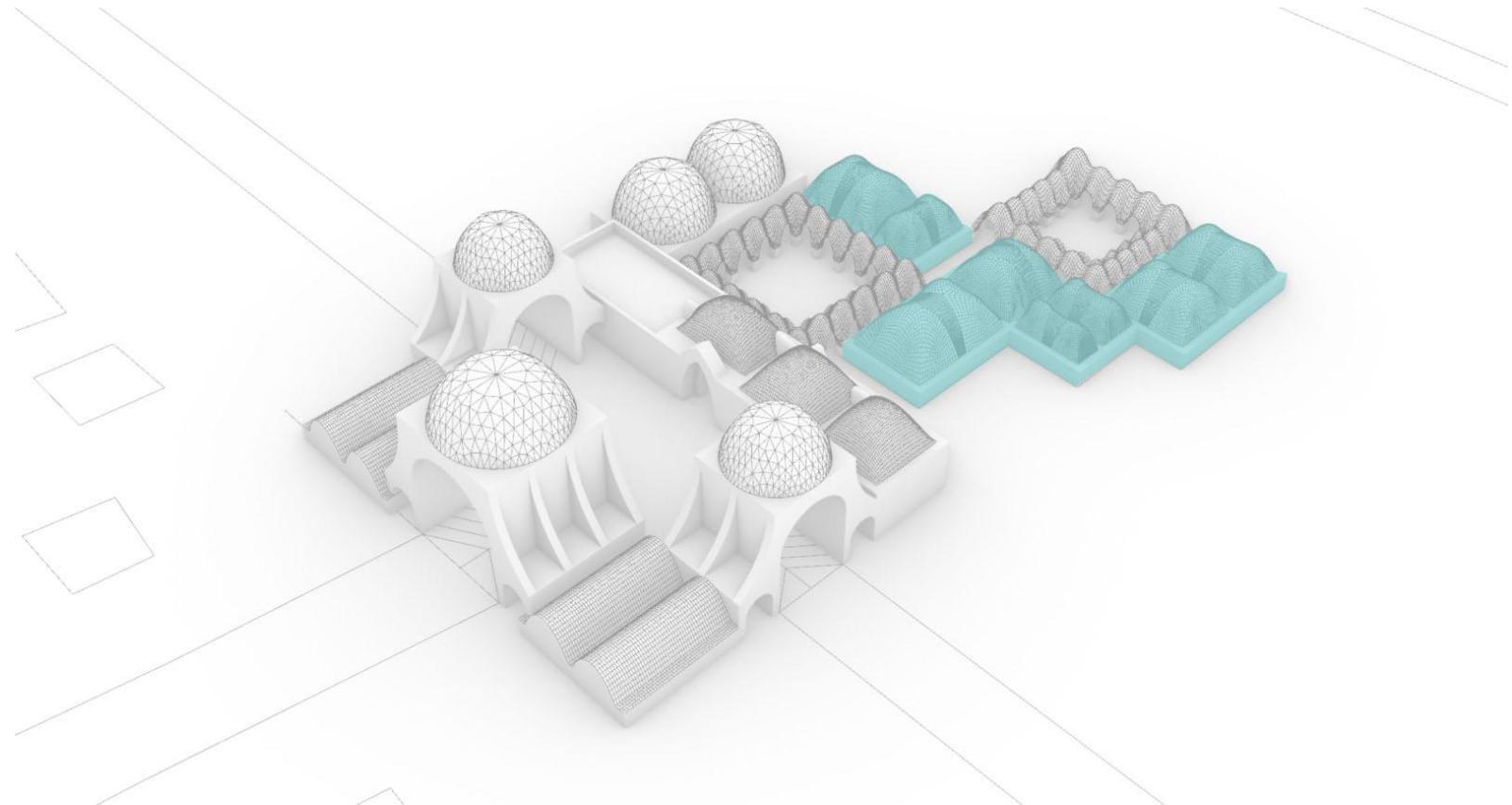


Form Finding Method



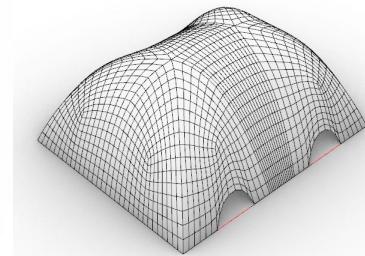
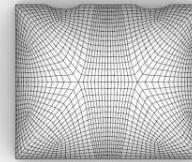
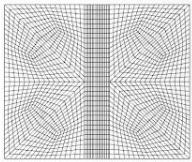
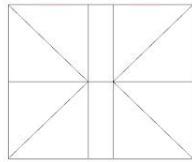
1. Pink : Identify Boundary for Mesh
2. Blue : Get points anchored to wall vs free to move for openings
Red [optional] : Wall shape to get points within wall to also become anchors
3. Dynamic Relaxation : Use Kangaroo plugin & Tessellation, or Python script to relax the shapes.

Workshop spaces- Free-form domes

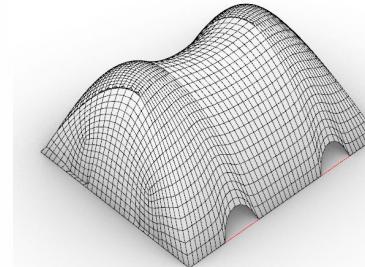
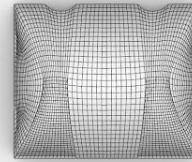
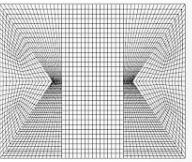
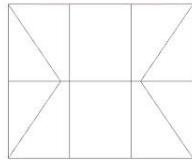


Exploration

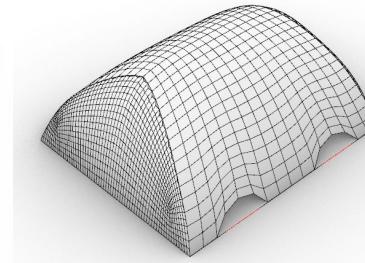
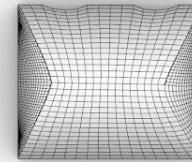
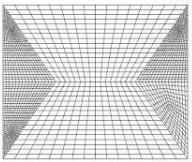
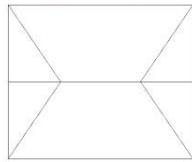
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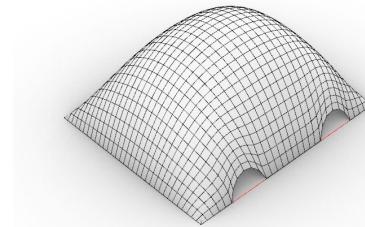
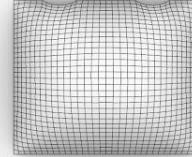
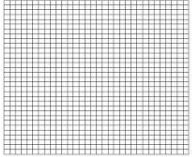
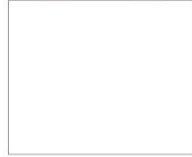
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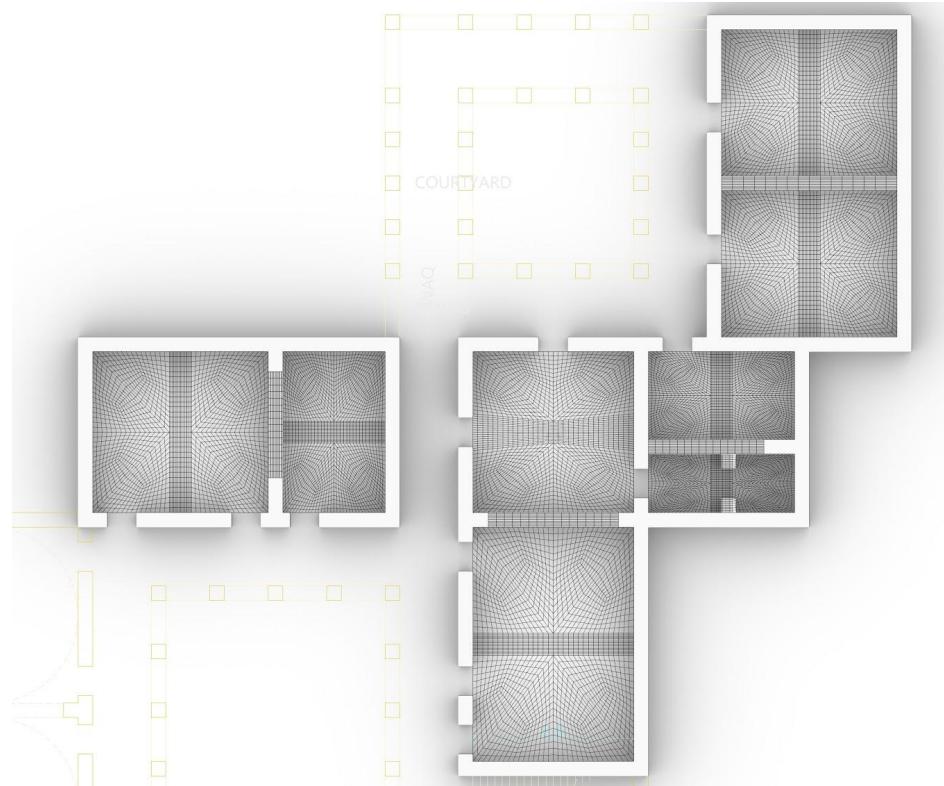


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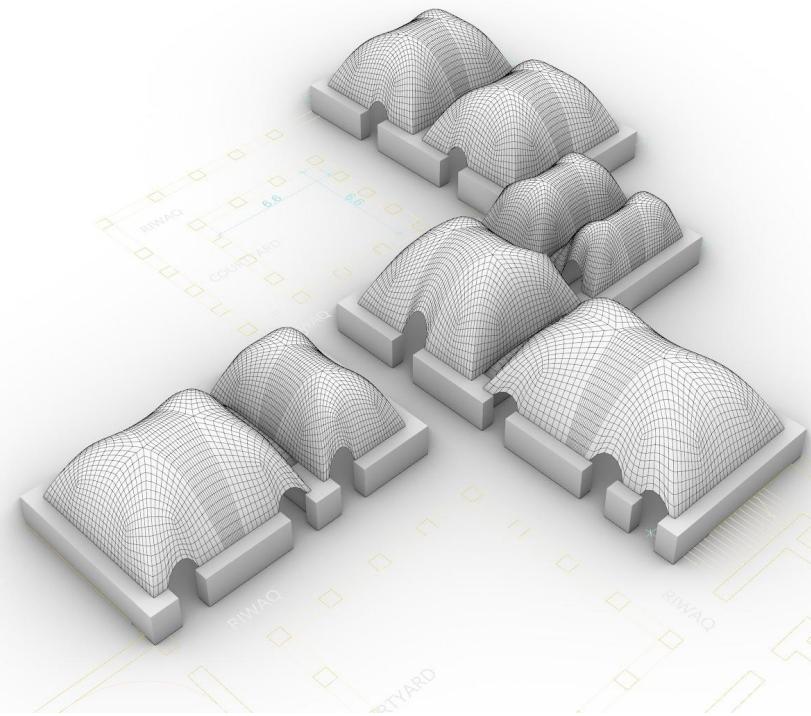


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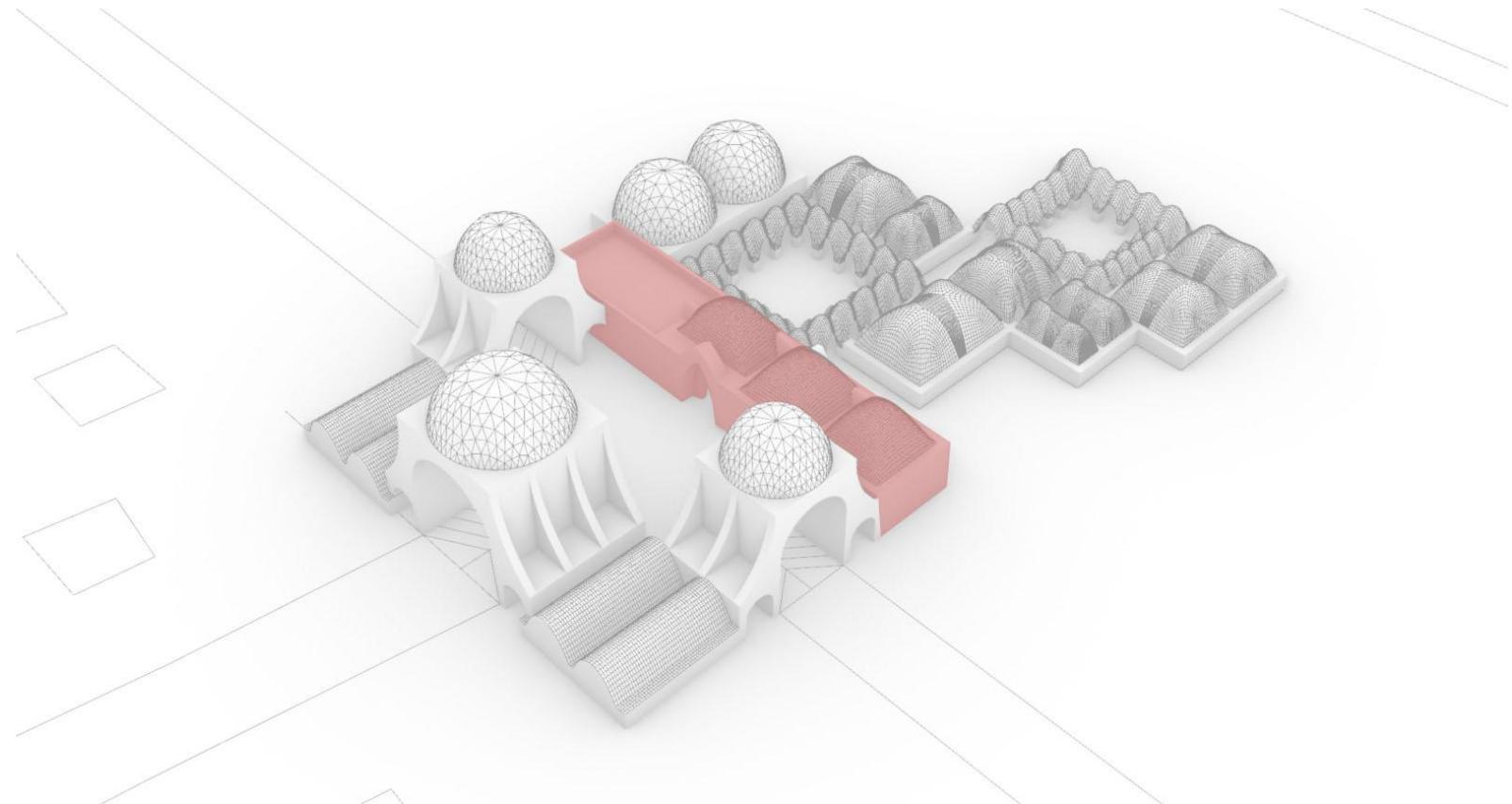


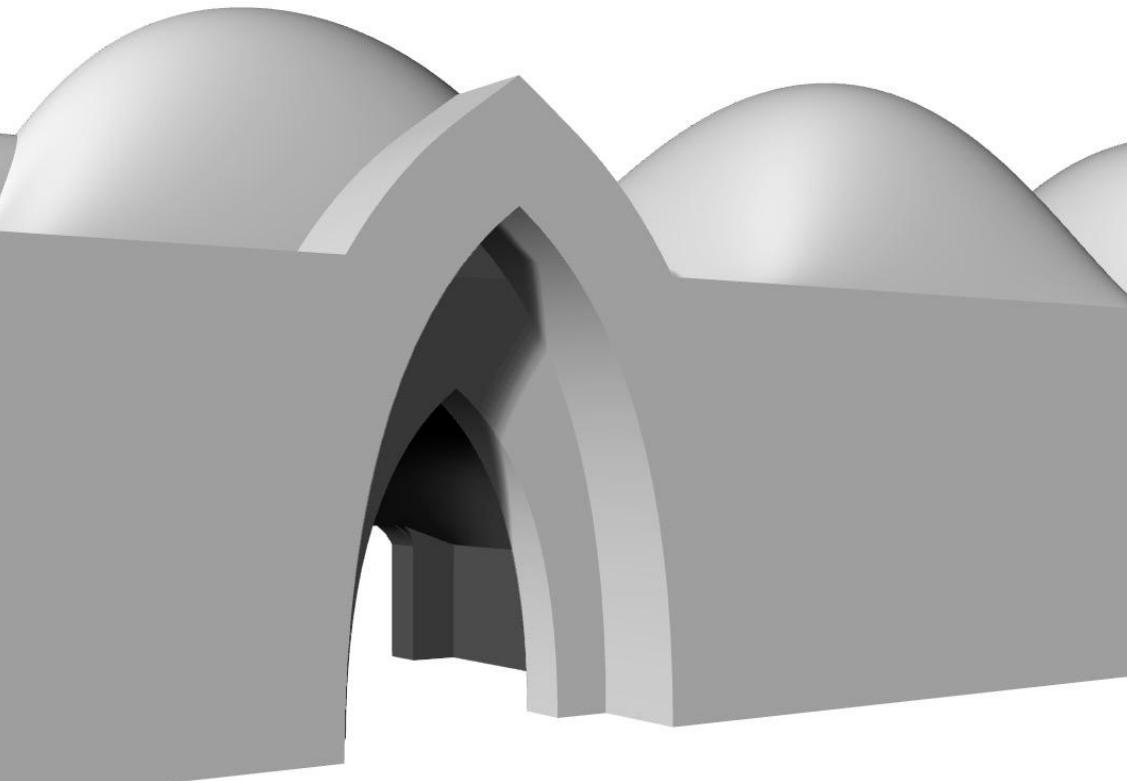


Application

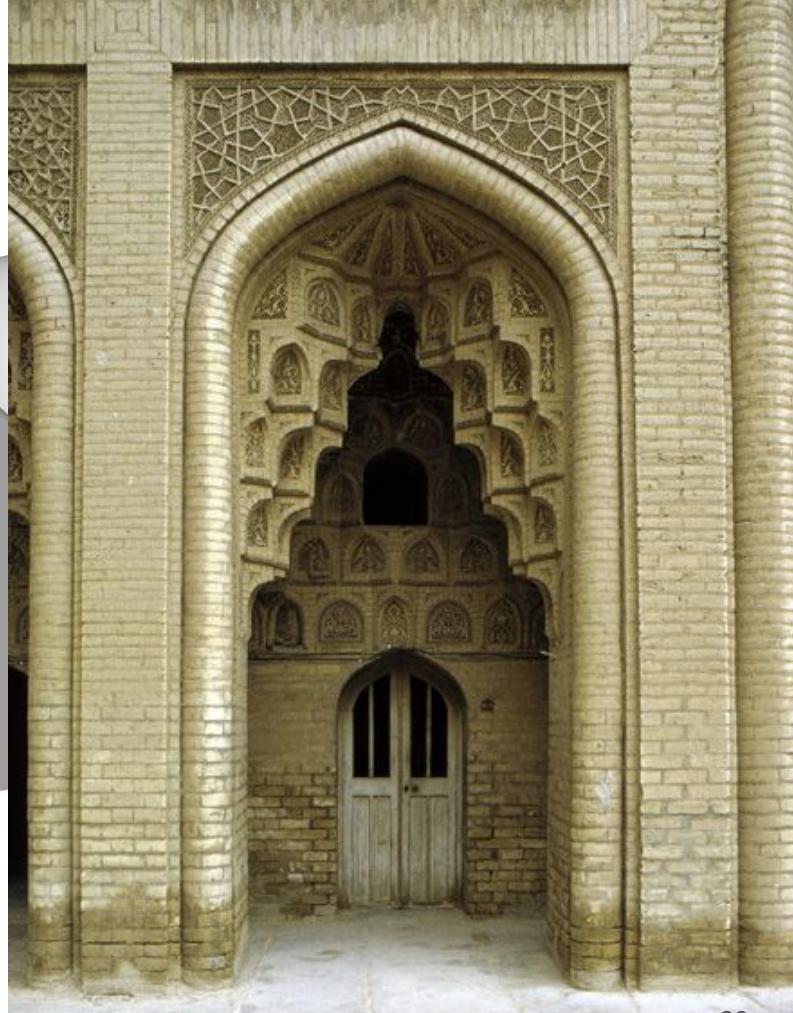


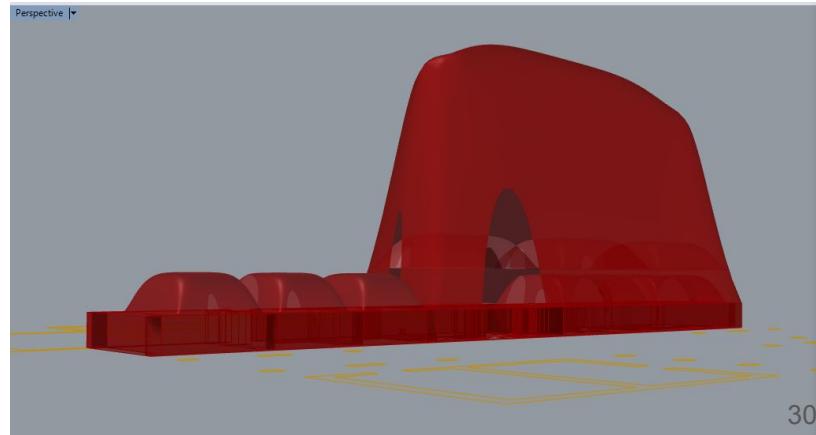
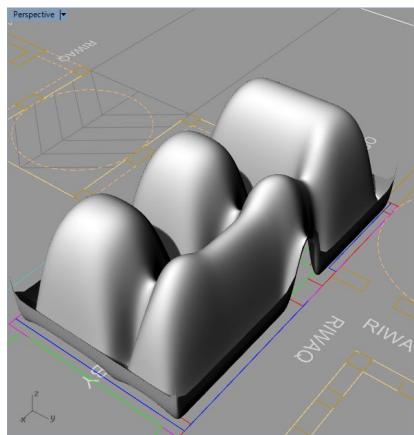
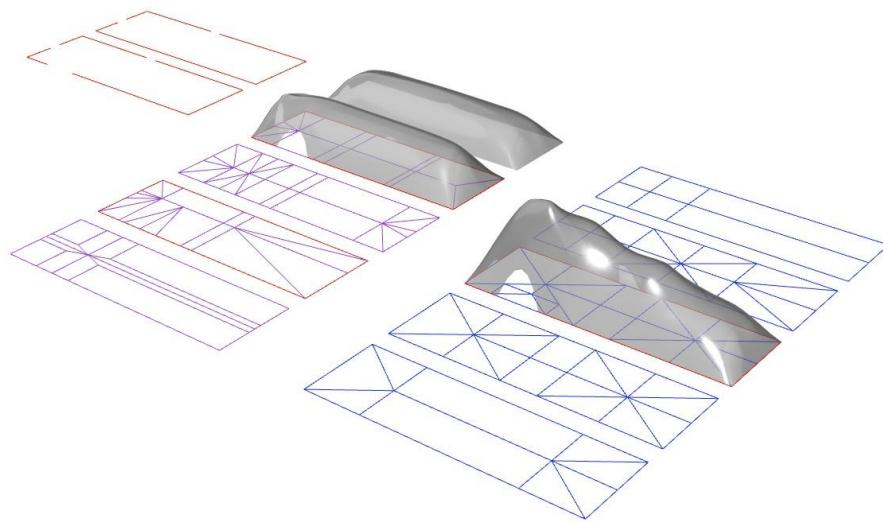
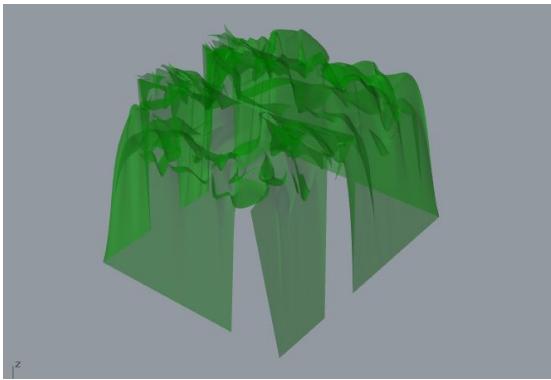
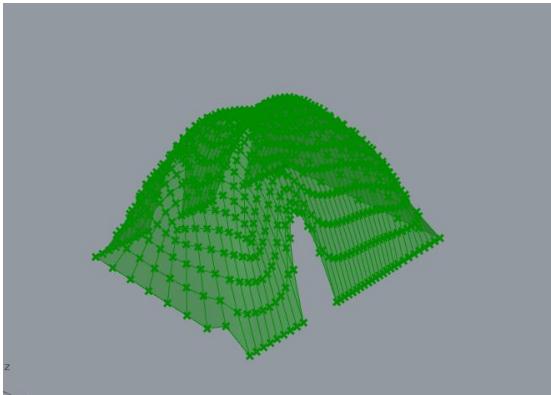
Double Story Building



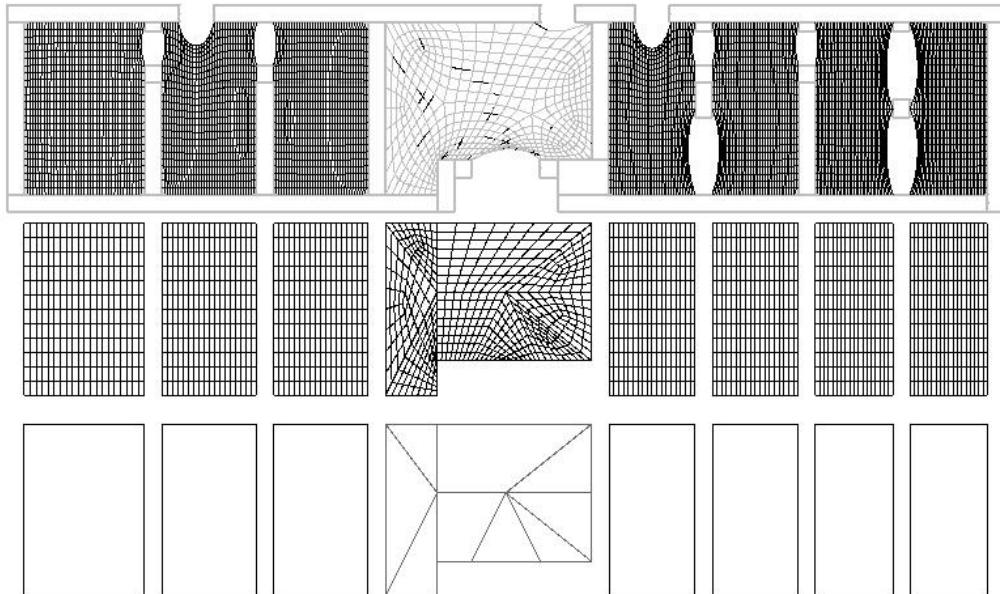
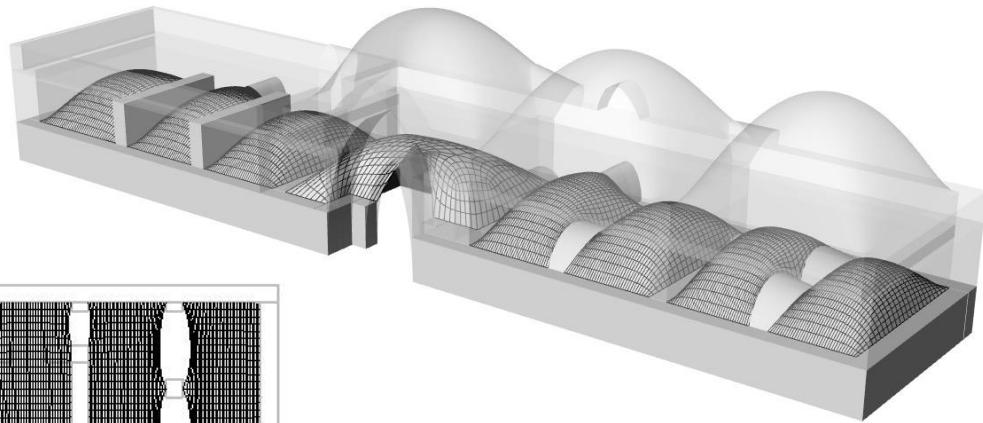


Entrance design intent



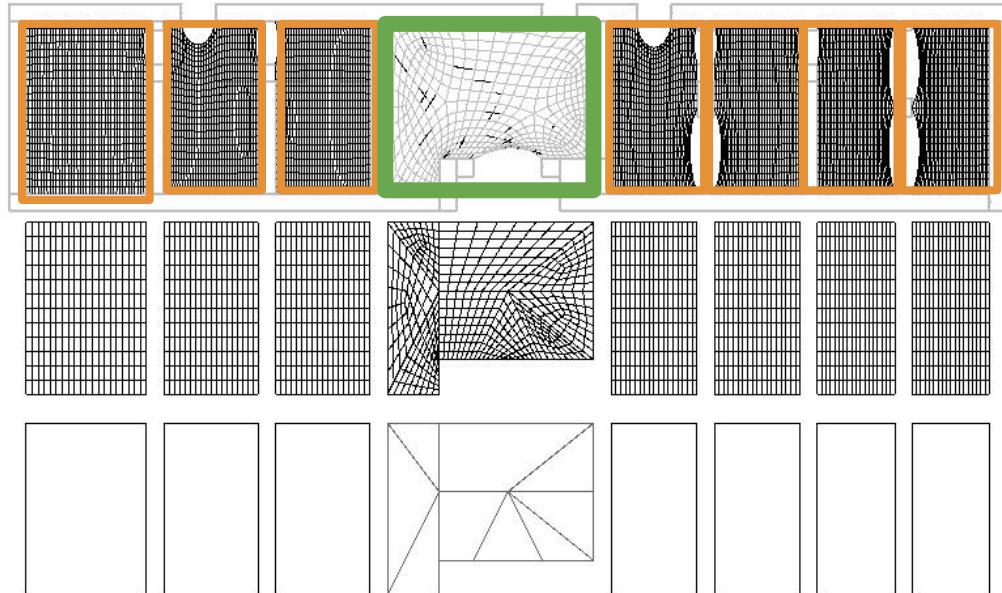
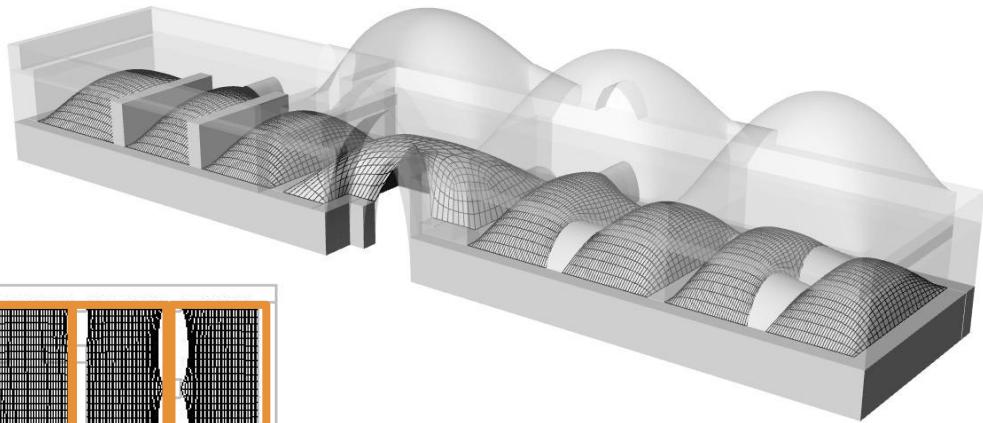


Explorations

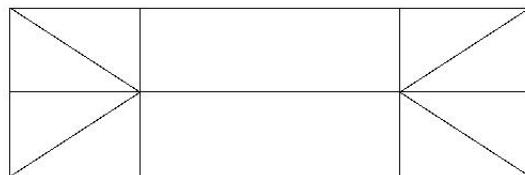
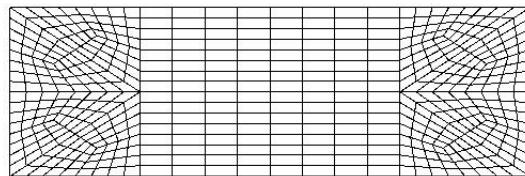
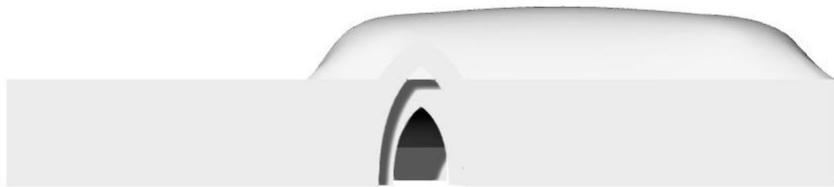


First floor

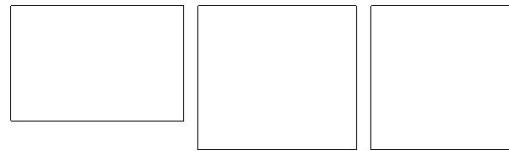
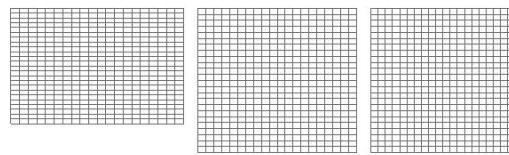
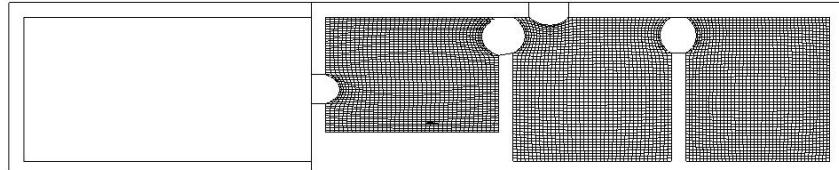
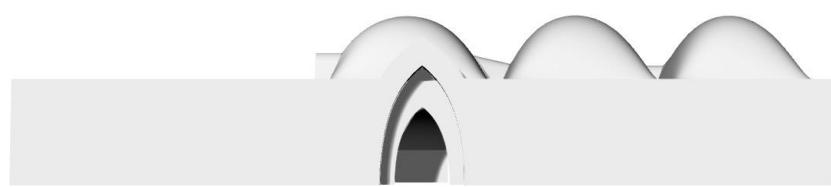
Nubian/Barrel Vaults Free-Form



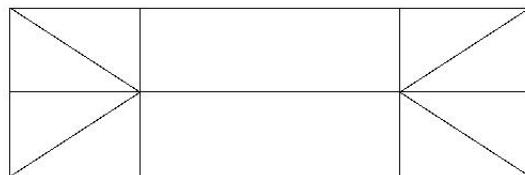
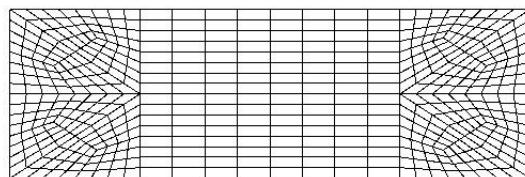
Option 1



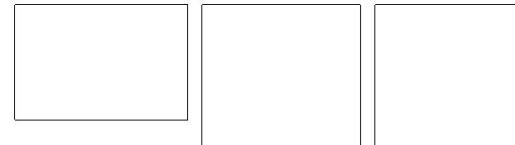
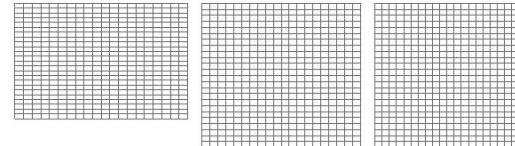
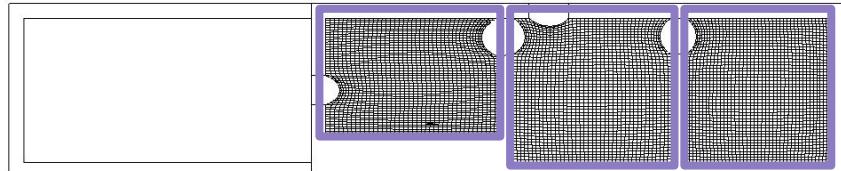
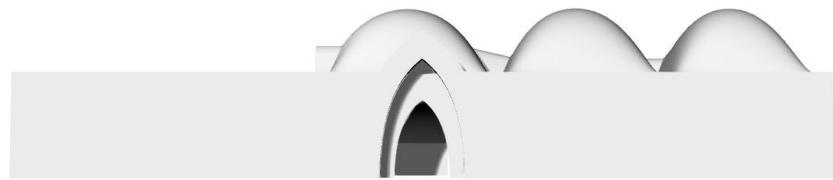
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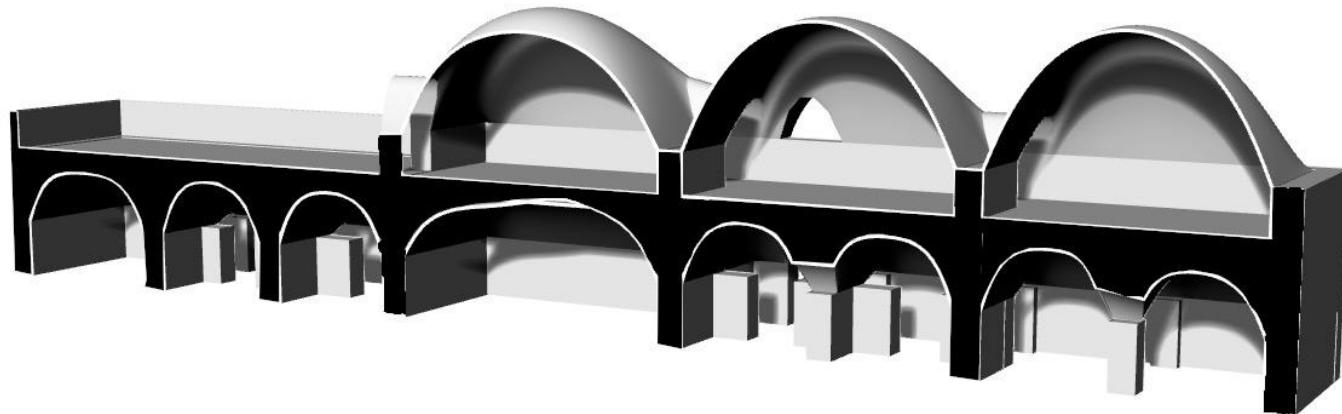


Free-Form

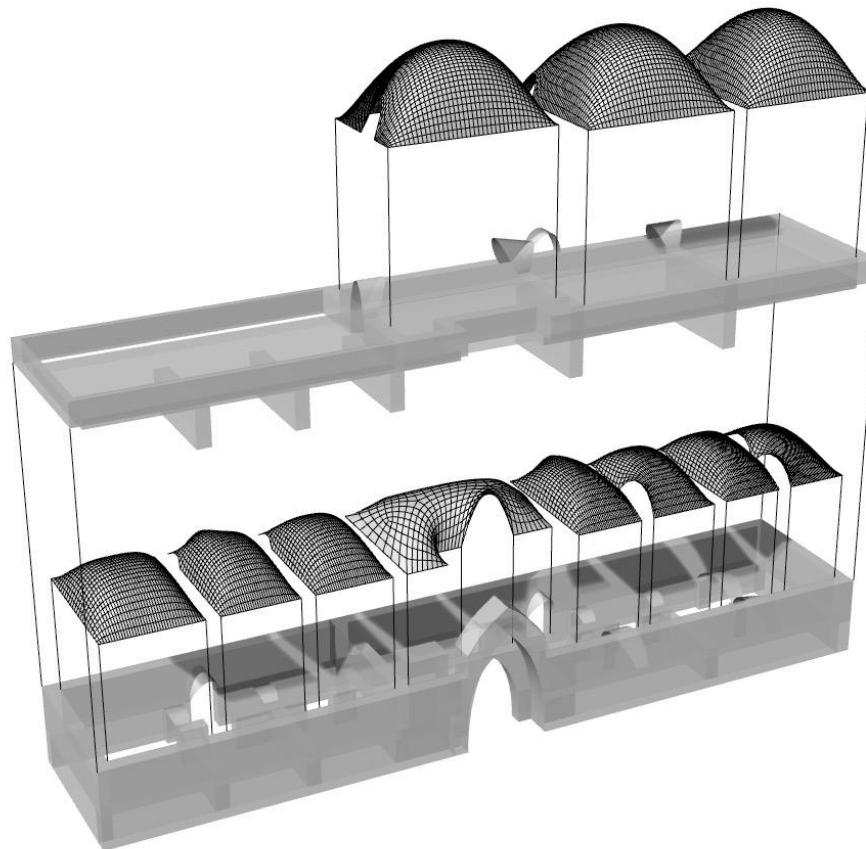


Simple Dome



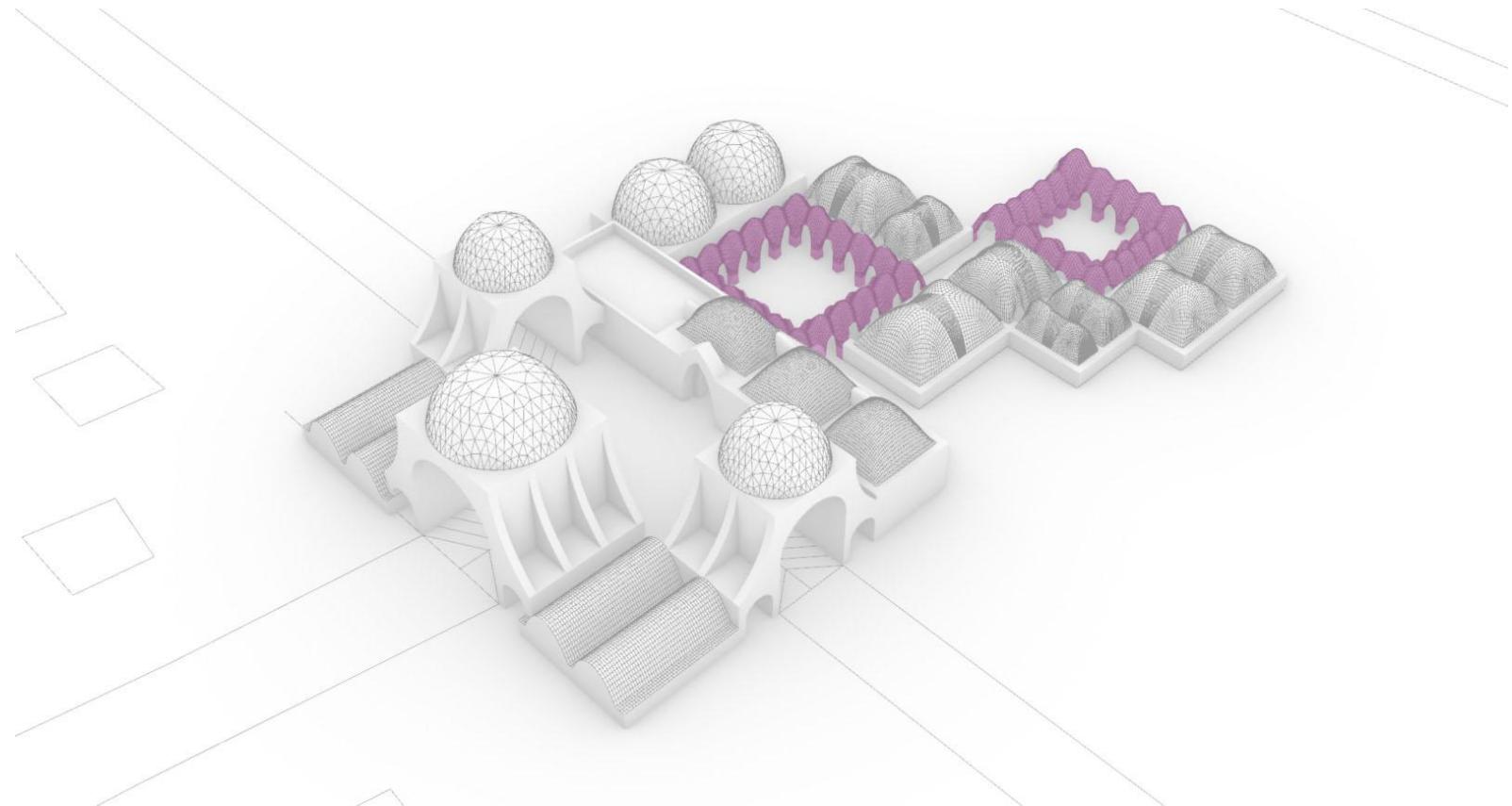


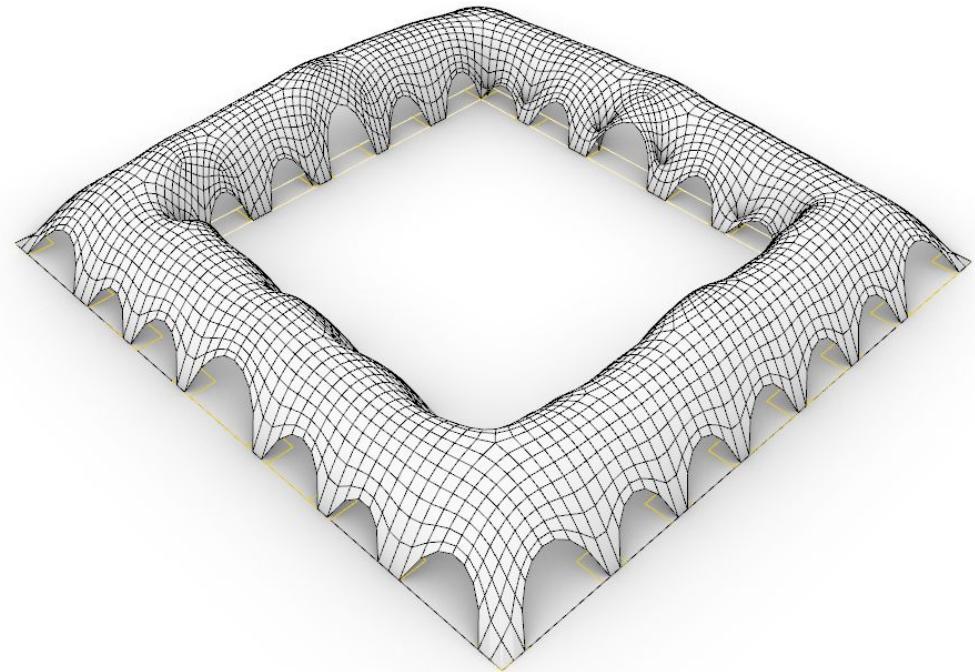
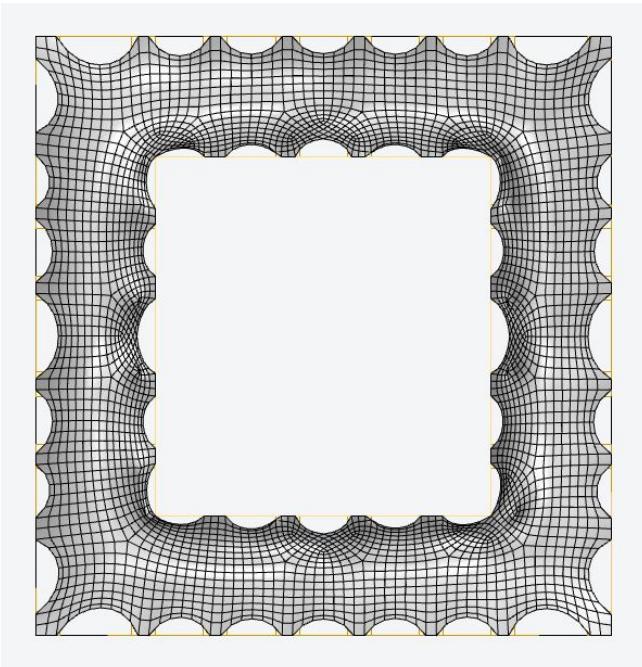
Perspective section : *Thicknesses are for Visualization*



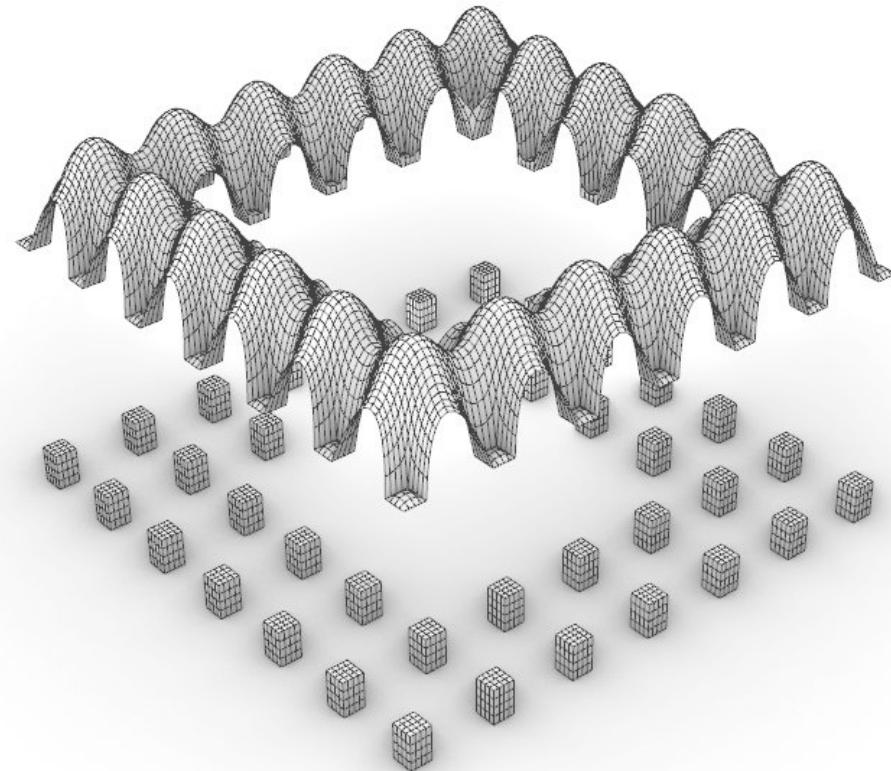
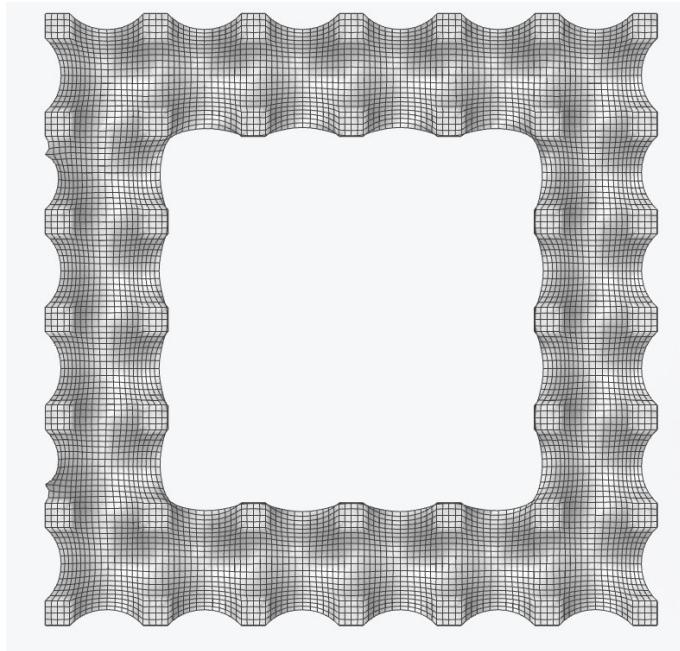
Exploded Axon

Riwaqs



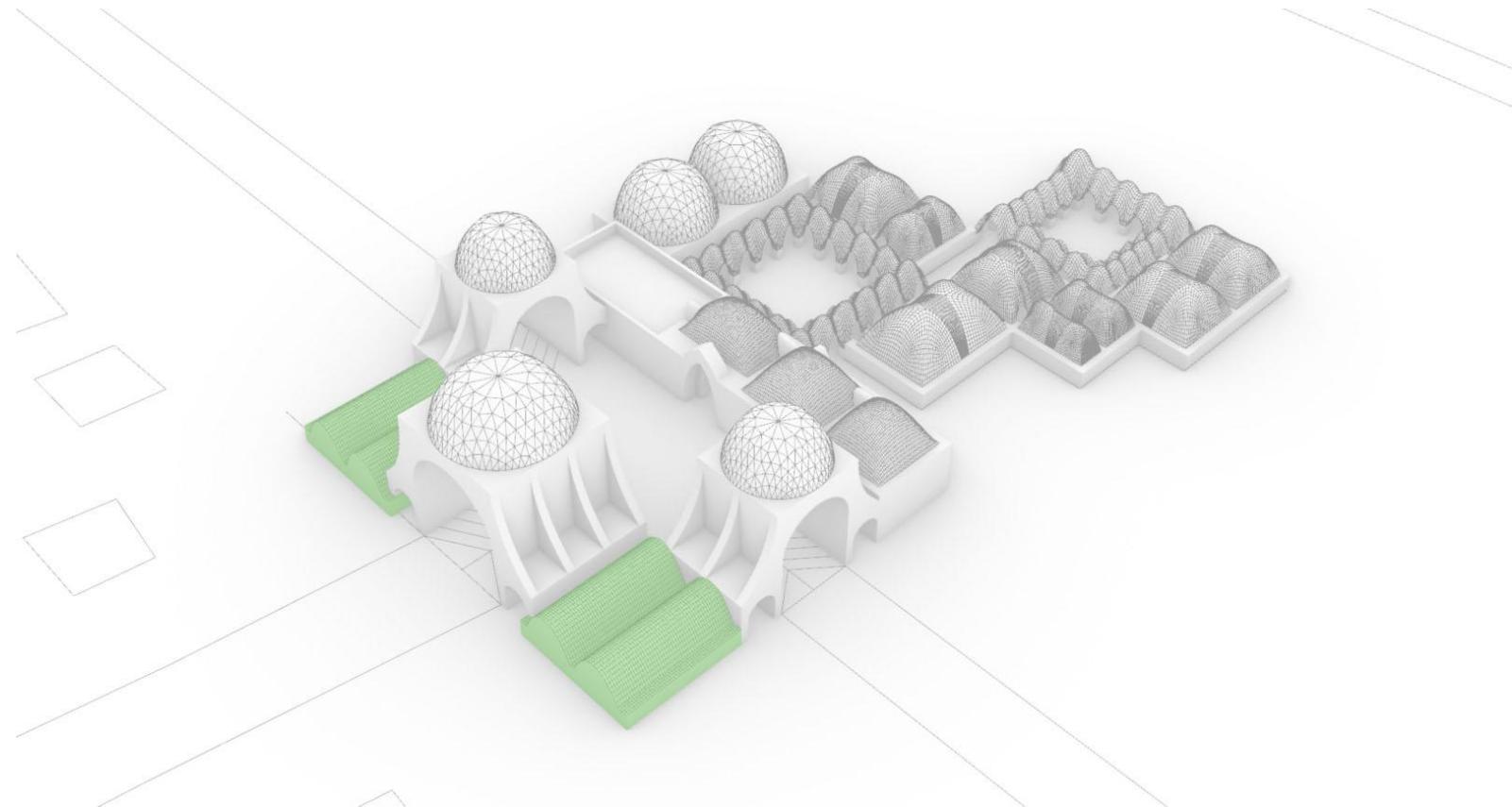


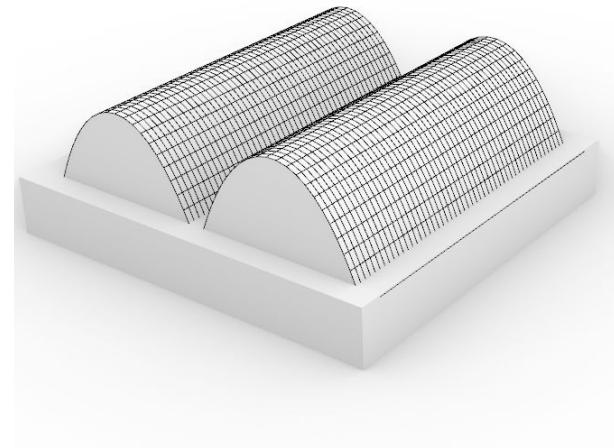
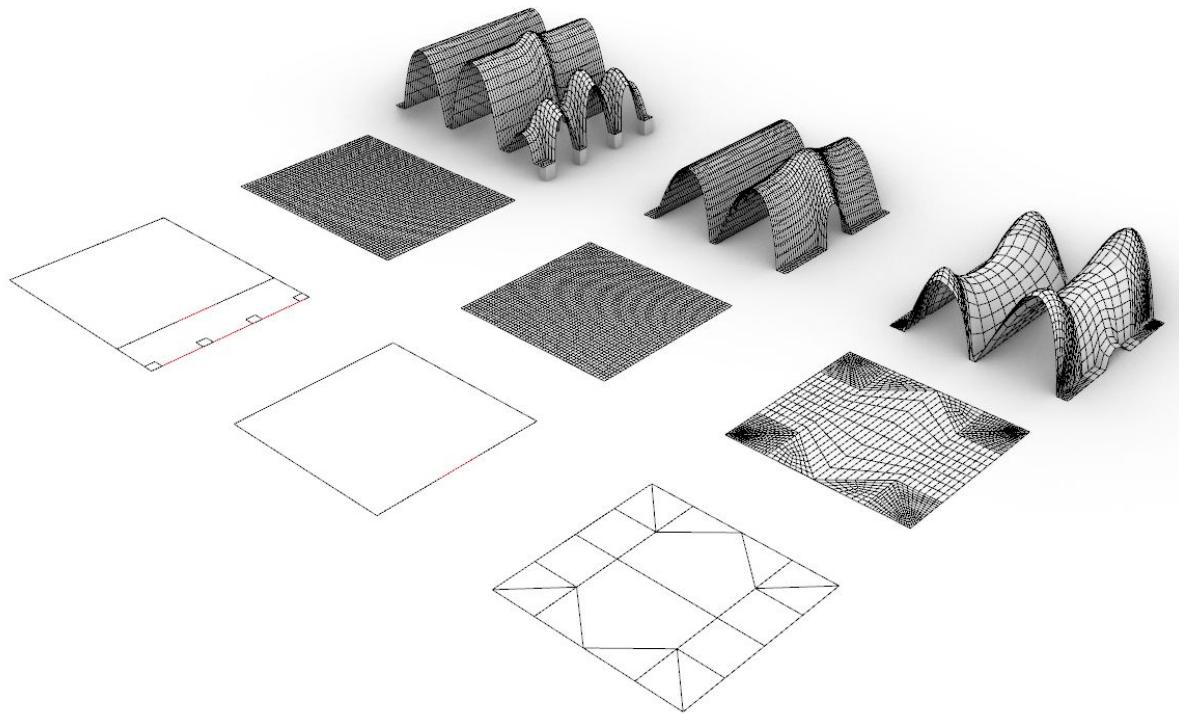
First attempt with line as anchor point



Riwaqs with columns as anchor points

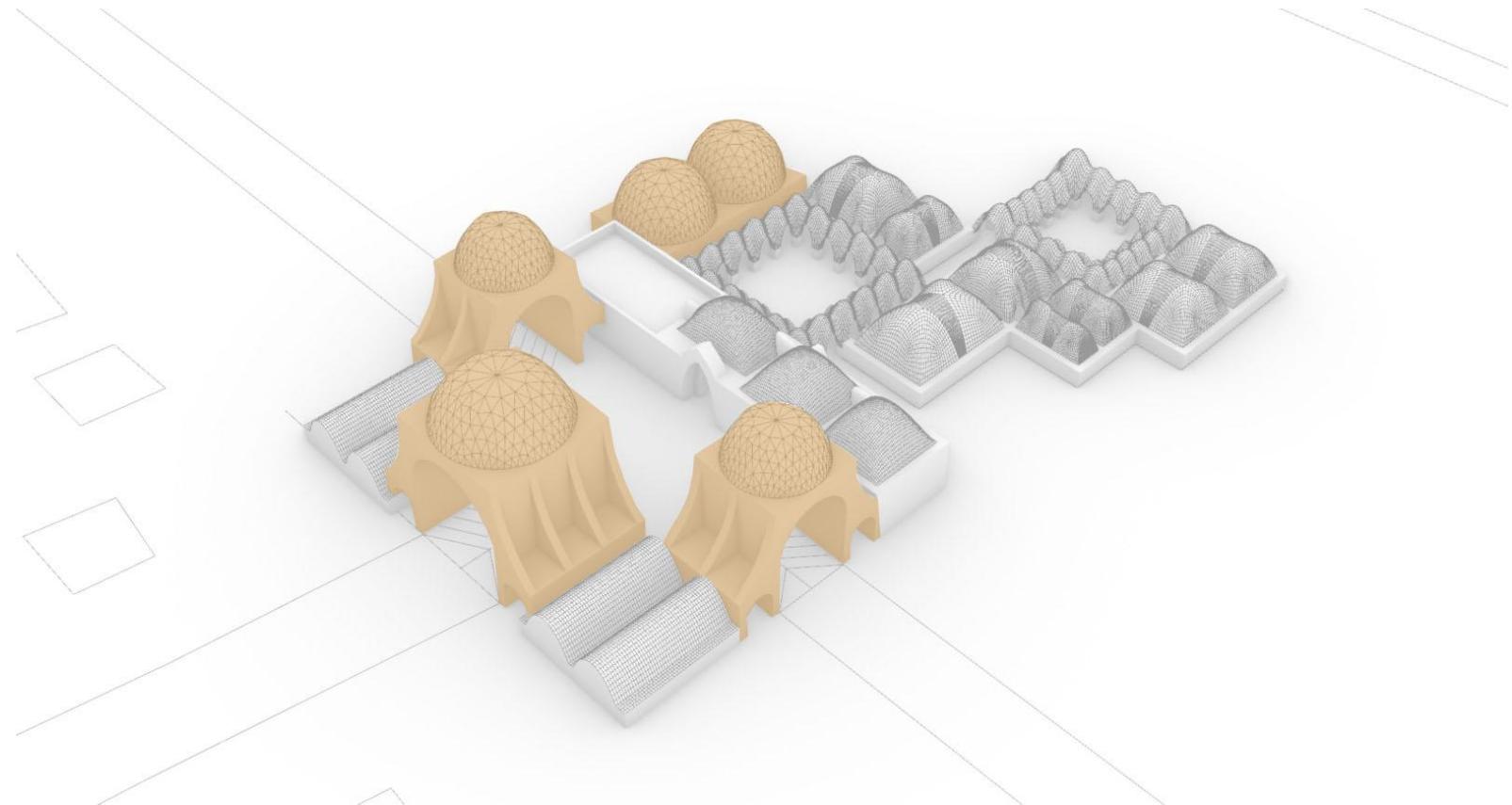
Shops

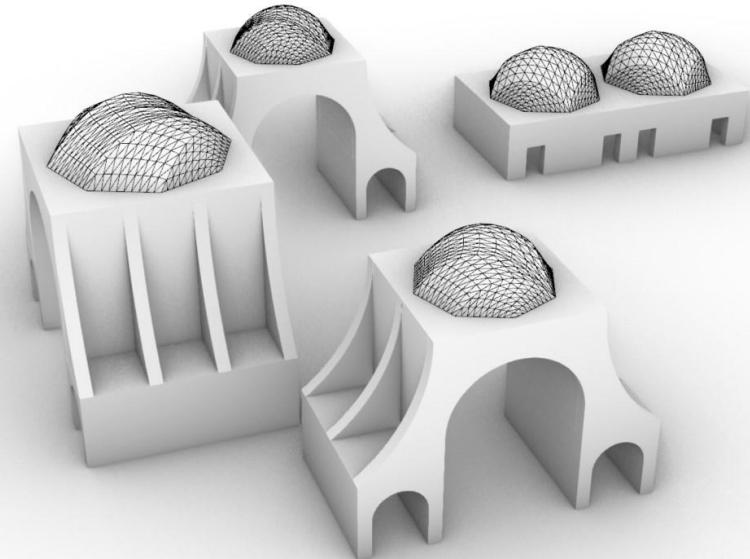
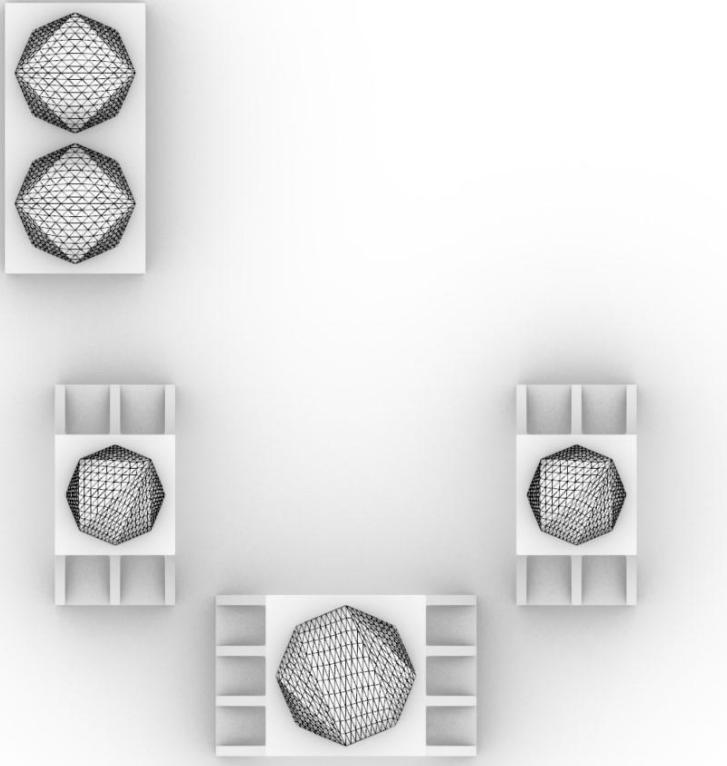




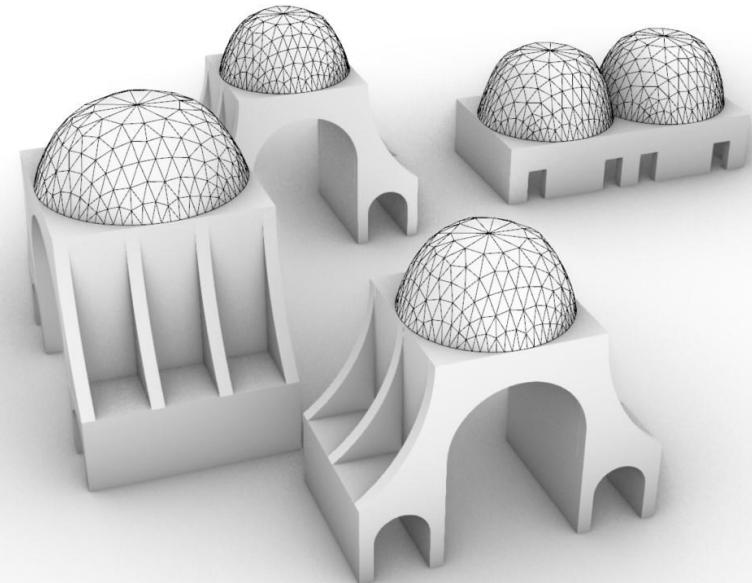
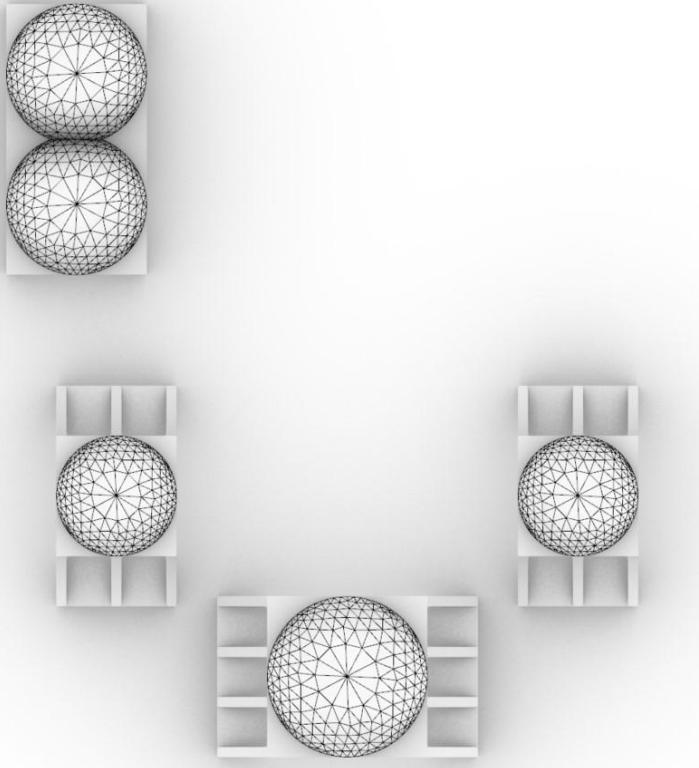
Exploration

Muqarnas Domes



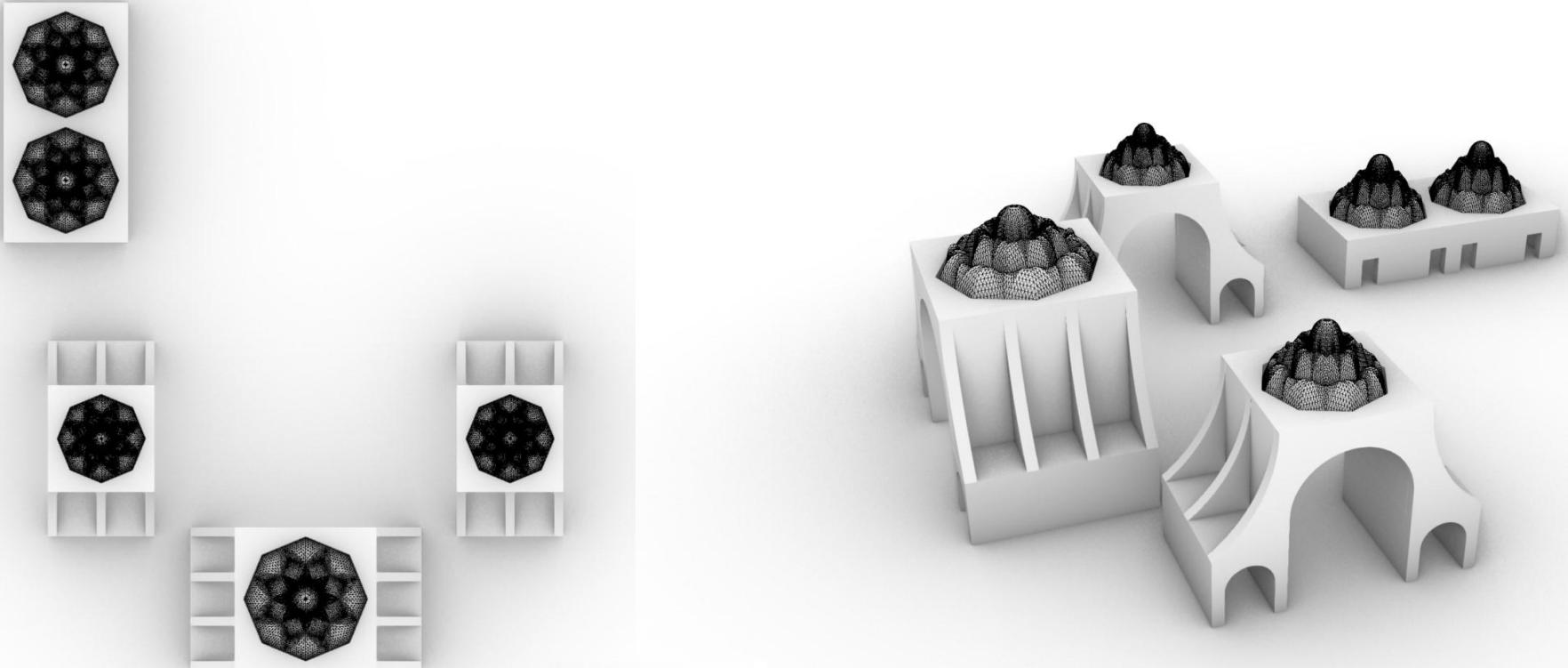


First attempt- octagonal domes

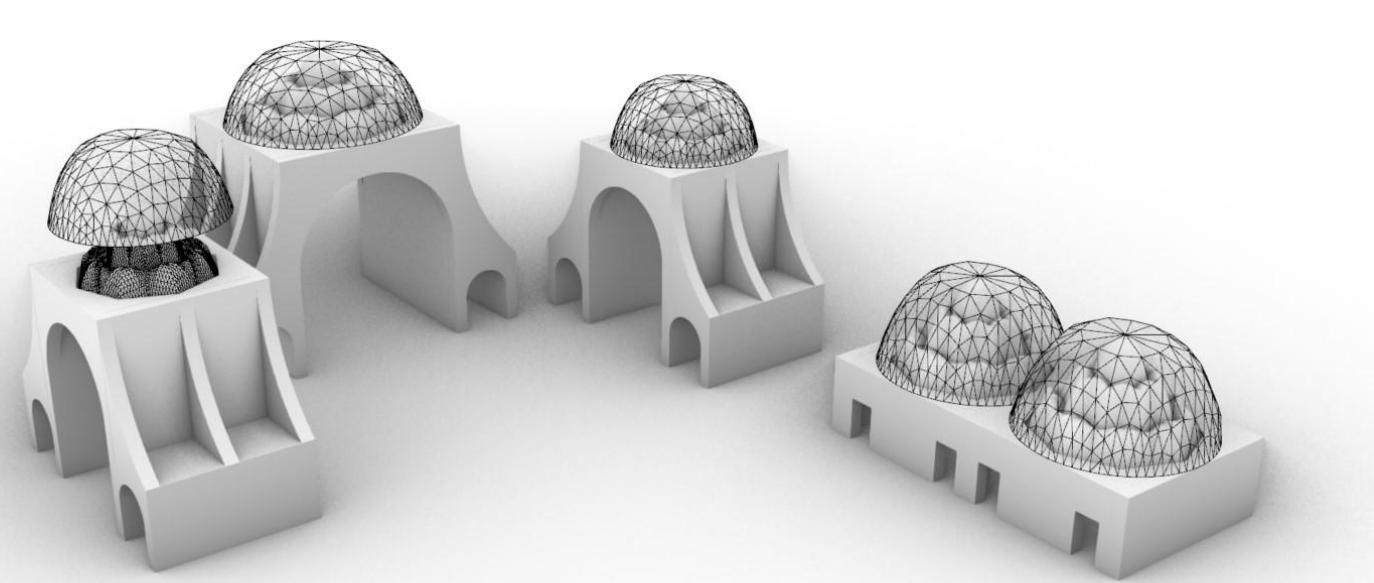


Second attempt- circular domes

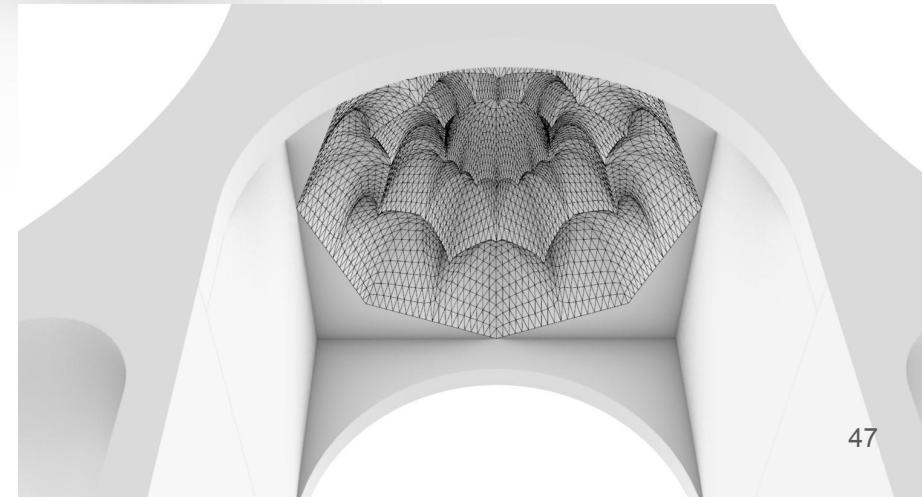
BARBARA ORIGINAL IMAGE OF MUQARNAS DOME



Muqarnas domes



Domes combination



Next Steps

- Focus

- Choose some buildings to simplify and standardize so that unique buildings can be fully detailed, analysed, etc.
- Develop the Muqarnas
- Develop the connection between the riwaqs and the buildings
- Finalizing tessellation
- Refine the roof forms based on structural aspects

- The Grid

- Rethink the grid of the entire plan to adjust to the different grid sizes for different types of constructions (Vaults vs Domes)

Thank you!

