

ZAAATARI WOMEN & CHILDREN'S MEDICAL CENTRE

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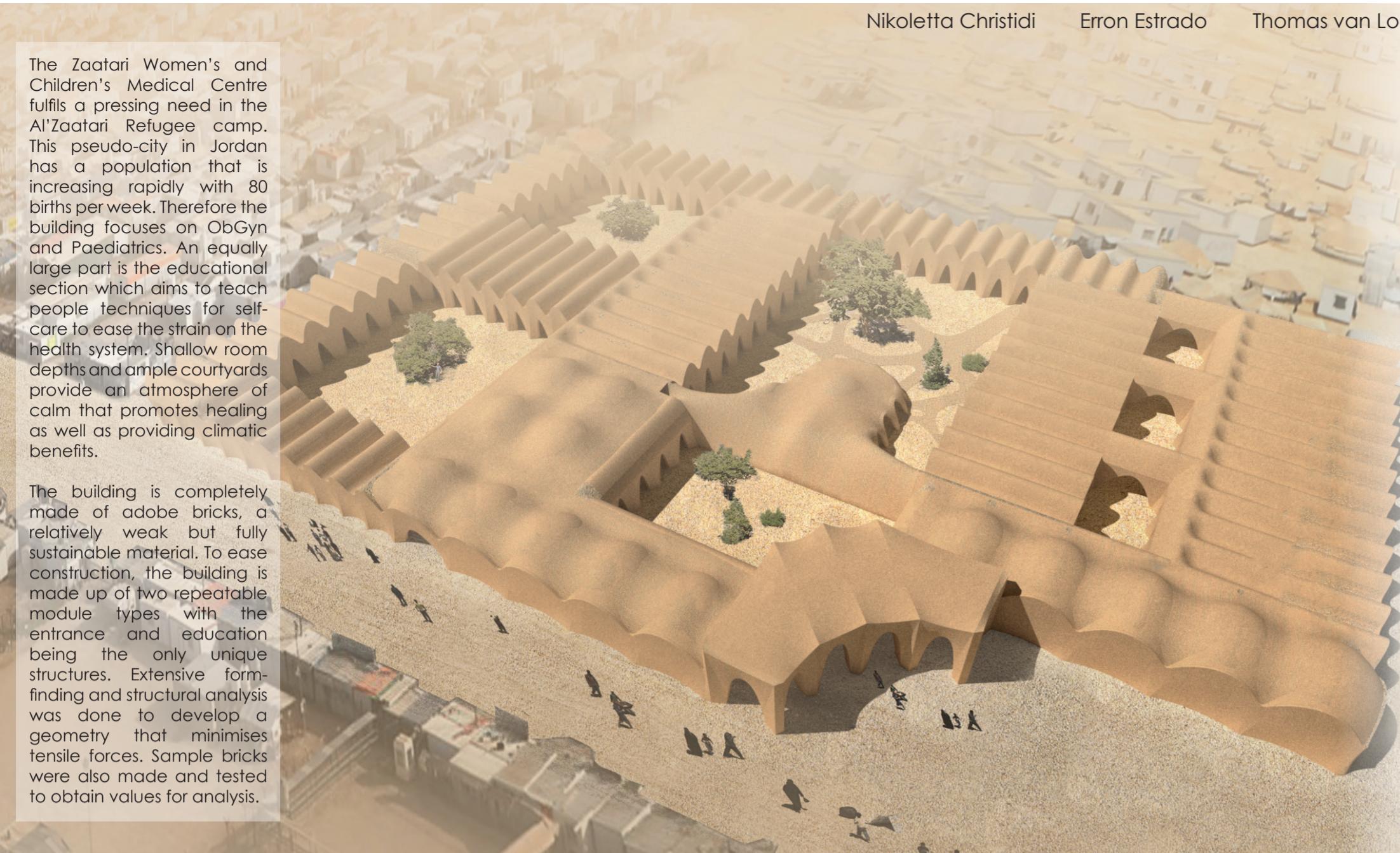
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AR3B011 - EARTHY

The Za'atari Women's and Children's Medical Centre fulfills a pressing need in the Al'Za'atari Refugee camp. This pseudo-city in Jordan has a population that is increasing rapidly with 80 births per week. Therefore the building focuses on ObGyn and Paediatrics. An equally large part is the educational section which aims to teach people techniques for self-care to ease the strain on the health system. Shallow room depths and ample courtyards provide an atmosphere of calm that promotes healing as well as providing climatic benefits.

The building is completely made of adobe bricks, a relatively weak but fully sustainable material. To ease construction, the building is made up of two repeatable module types with the entrance and education being the only unique structures. Extensive form-finding and structural analysis was done to develop a geometry that minimizes tensile forces. Sample bricks were also made and tested to obtain values for analysis.



- 80,000 inhabitants

- 80 births per week

- 20% of population is below the age of 5

- Lack of hospitals in the East region

1 Gynaecology, Obstetrics, and Paediatric Facilities

2 Education Department to teach self-care



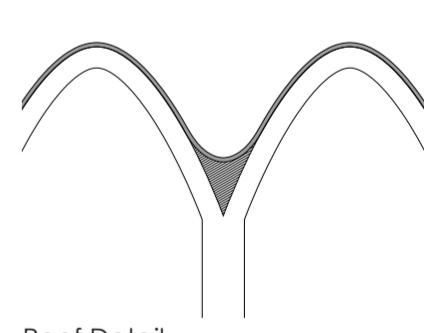
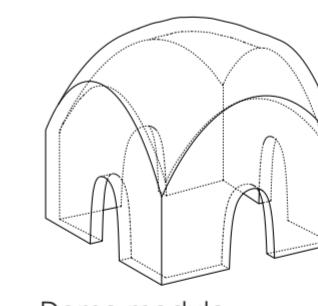
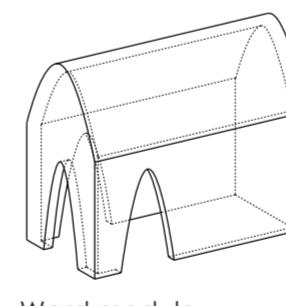
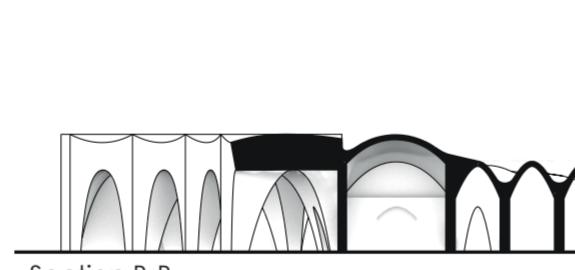
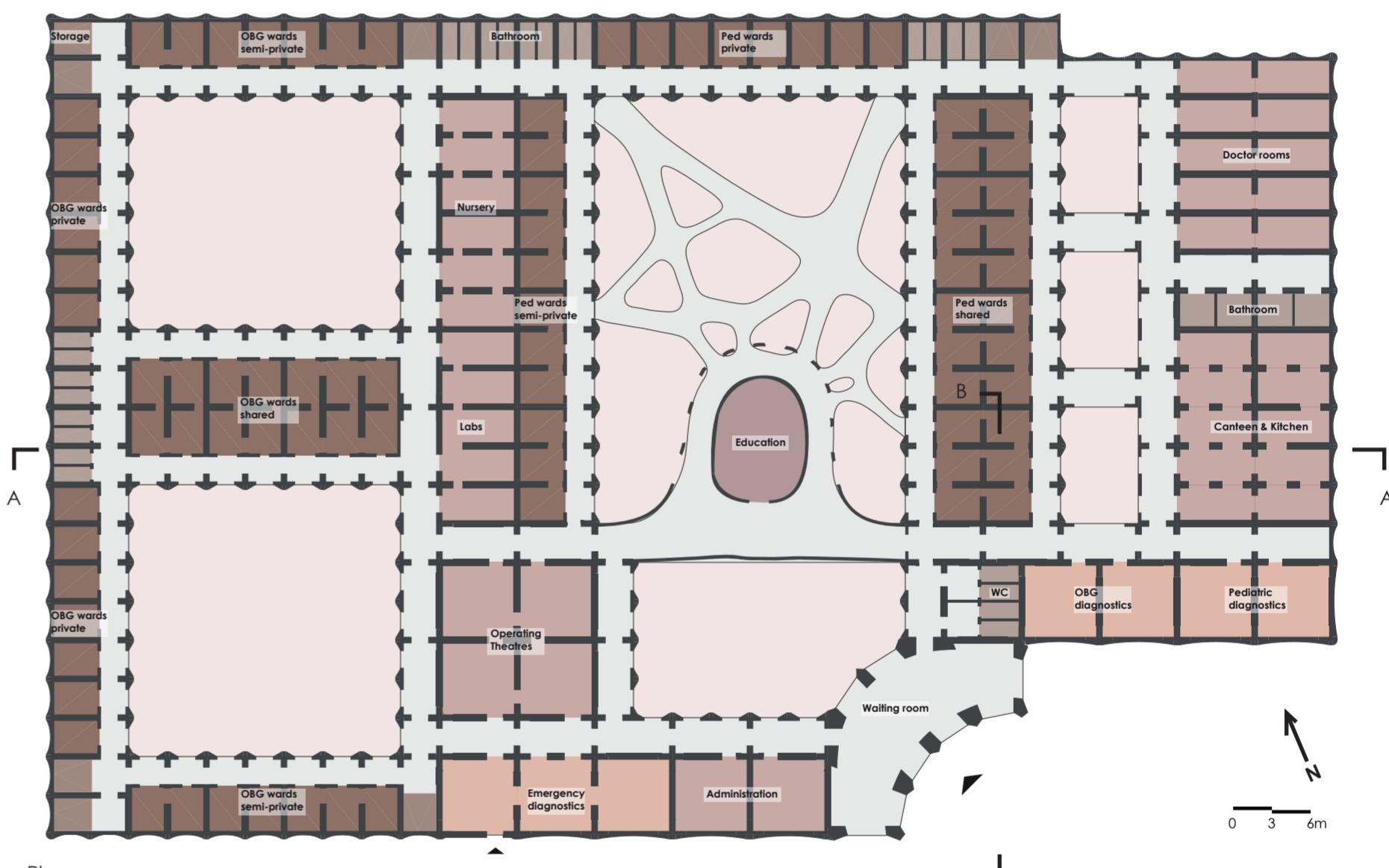
Entrance



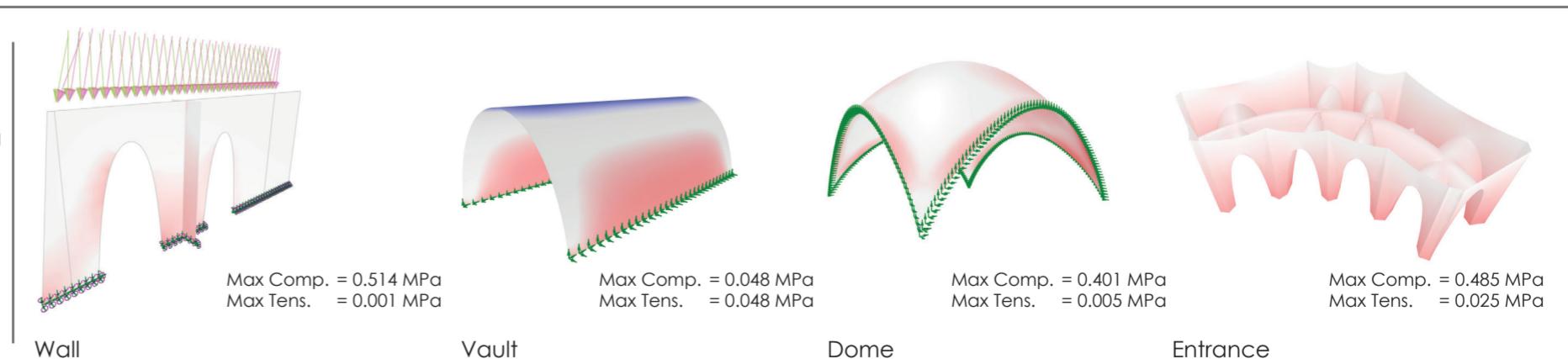
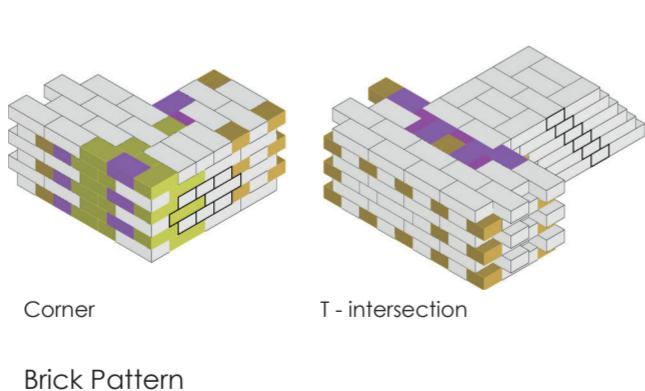
Courtyard



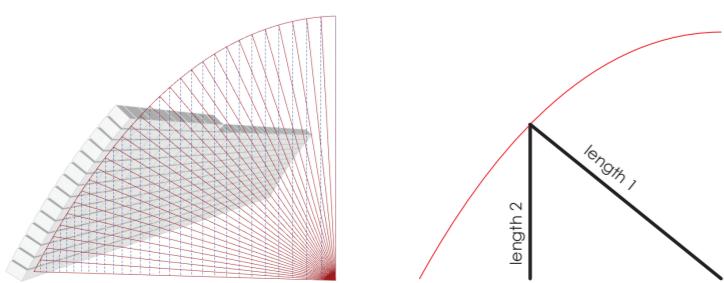
Hallway



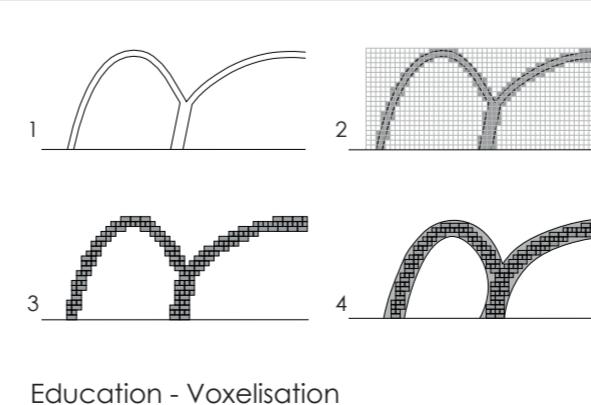
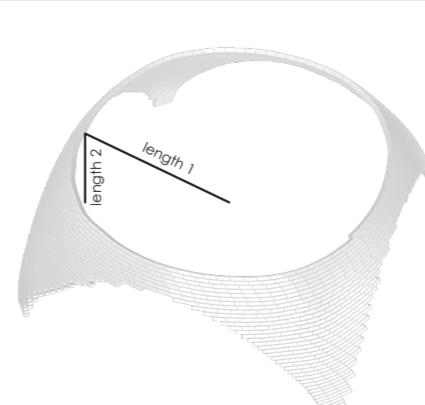
Composition:	Clay, fine sand, coarse sand, paper shreds
Size:	10 x 20 x 6 cm
Comp. strength:	0.514 MPa
Tens. strength:	0.100 MPa
Young's Modulus:	150 MPa
Density	1450 kg/m³
Brick Properties	



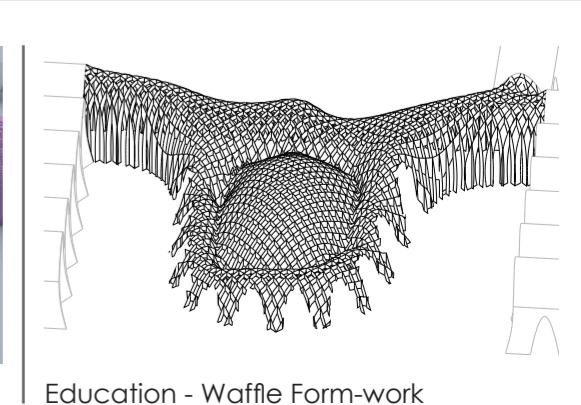
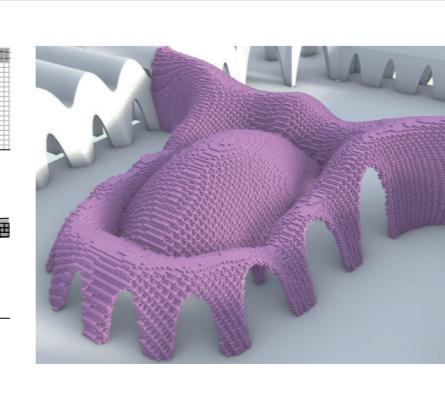
CONSTRUCTION



Vault and Dome Construction Method



Education - Voxelisation



Education - Waffle Form-work