

HOUSE OF TIMING

House of Timing

This project is facing two challenges:

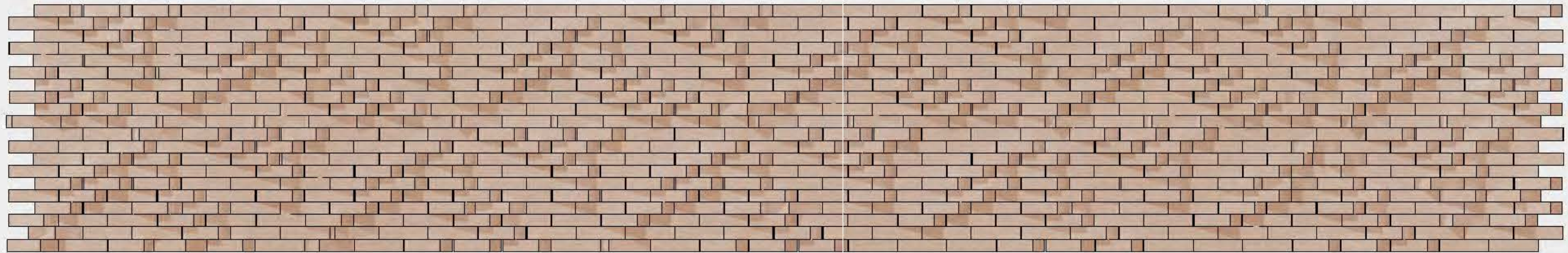
A lot of houses in Maseru were left unfinished (roofs were missing), due to layer-to-layer construction system and the money was short.

A lot of people in Maseru deep inside want to avoid the rural area economically and culturally (they despise the traditional architecture and materials), the traditional value was missing here.

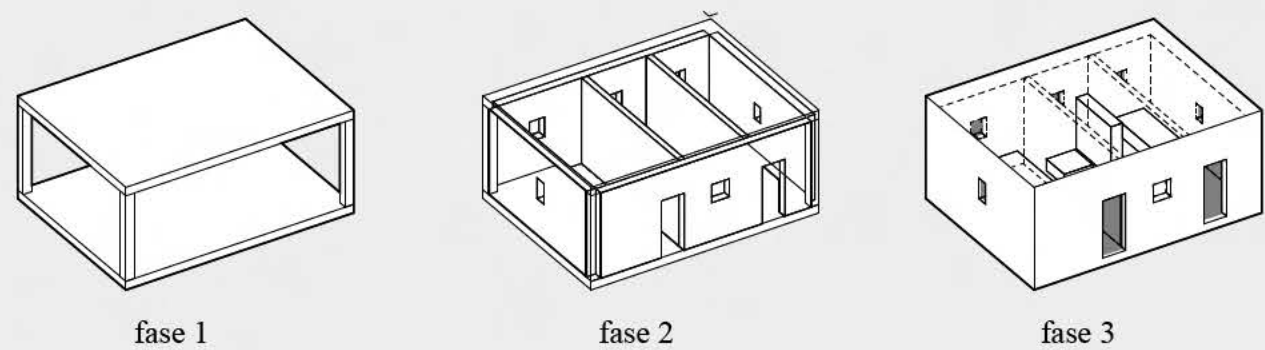
So, this project proposes two key concepts:

Room-to-room construction system, it has advantage economically and give people a household more liberal.

Take back the adobe bricks and thatched roof from tradition, use them to create a new modern life.

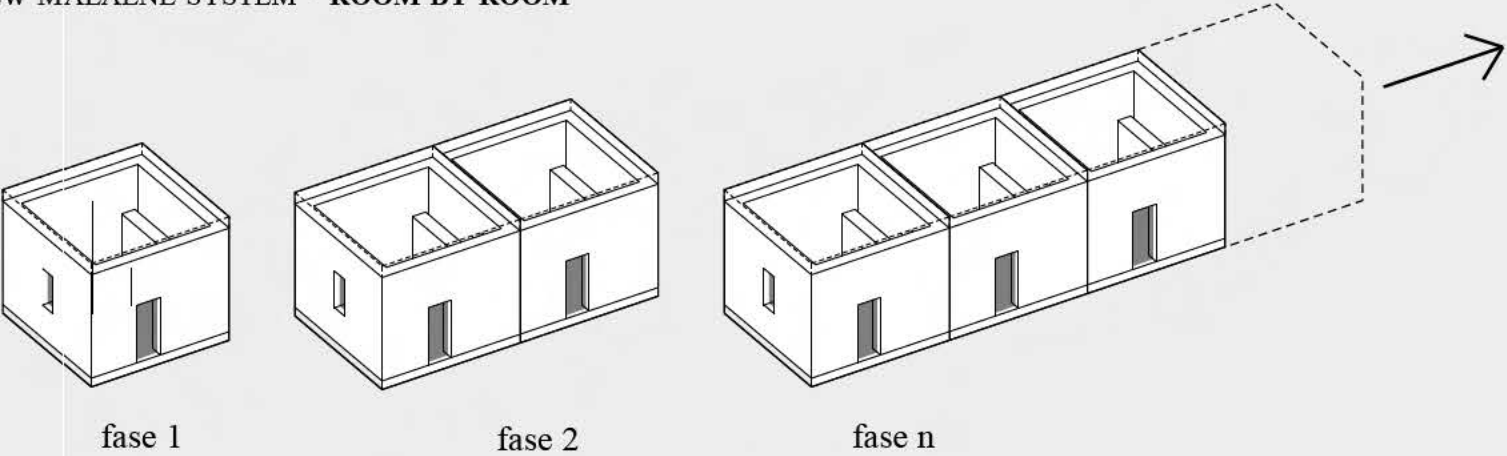


CURRENT LESOTHO INCREMENTAL DEVELOPMENT - LAYER BY LAYER



Developing area with a house finished to lintel level **awaiting** the final stages

NEW MALAENE SYSTEM - ROOM BY ROOM

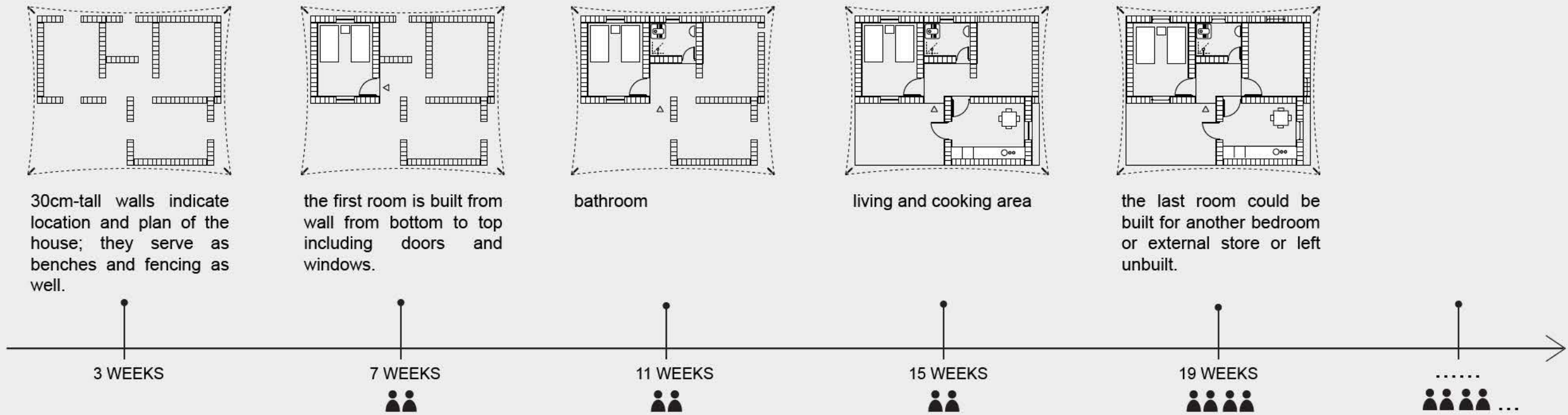


In Lesotho, the incremental development is often layer by layer (all the foundations and floor slabs, followed by all the walls, then the roof and, finally, the finishes) rather than room by room. This is a time-consuming method with a result that there are many unfinished structures around and more urban sprawl than there needs to be. The layer-by-layer incremental development leaves land unoccupied for much longer periods than the room-by-room incremental development.

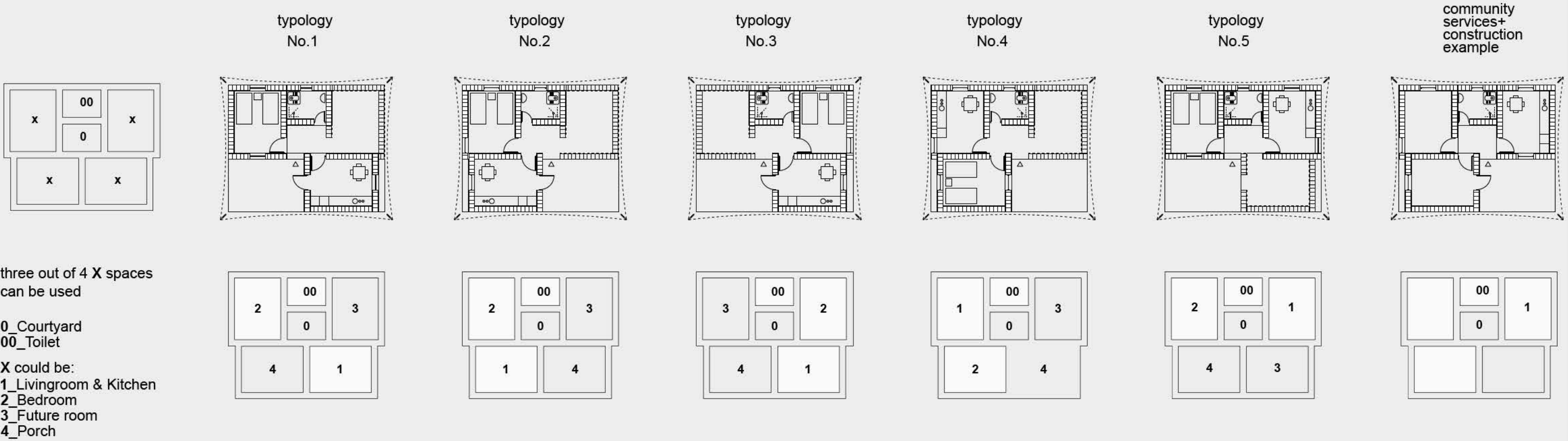
With this project we encourage people to build room by room, in a way that less land would stand idle and improved housing conditions could follow more quickly.

SINGLE UNITS' TIMELINE AND GUIDING

Single Unit Construction Timeline:

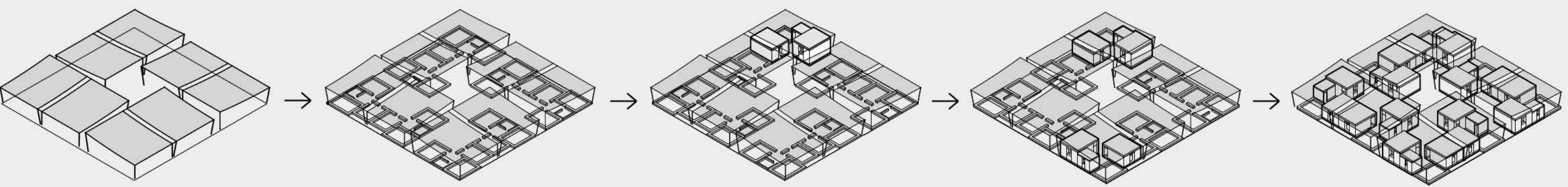


Guiding for Housing Units:





NEIGHBOURHOOD GROWTH TIMELINE (30*30 area as example)



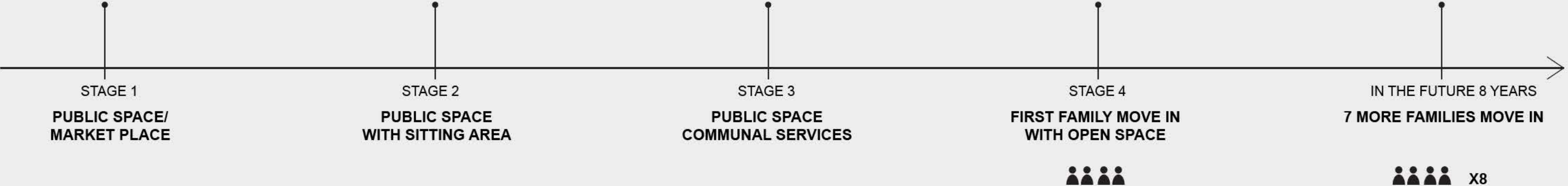
light synthesis fabric structure to provide shades for public space or future building sites to protect people from harming summer sun.

30cm-tall walls indicate possible building solutions like a 1:1 plan on site.

communal services: latrine, kitchen and warehouse are ready for the coming builders ie. the future dwellers; it will also be a 1:1 example for the coming builders.

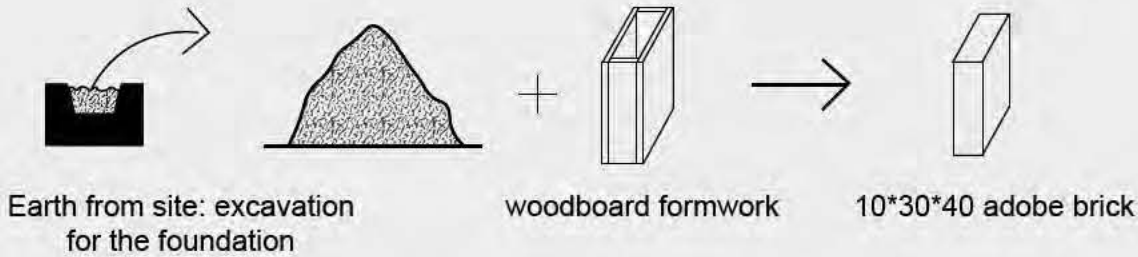
the first house unit built room-to-room in sequence: living room kitchen, bedroom, bathroom and a room to be continued.

migrants start to sprawl into Maseru, little by little, more housing units are built.



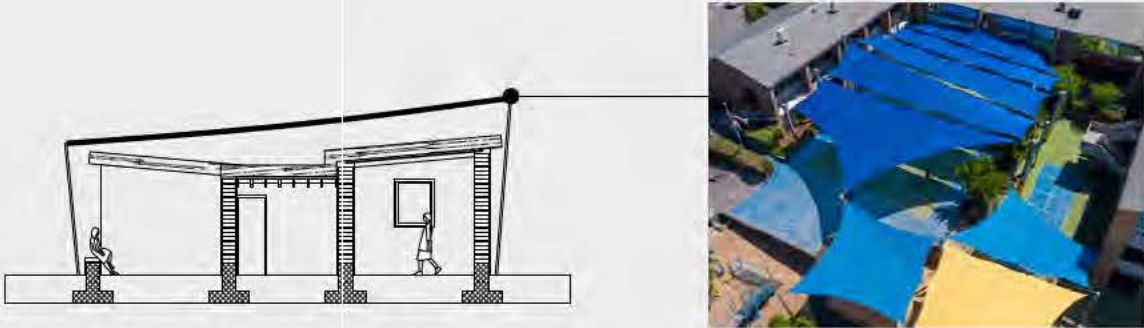
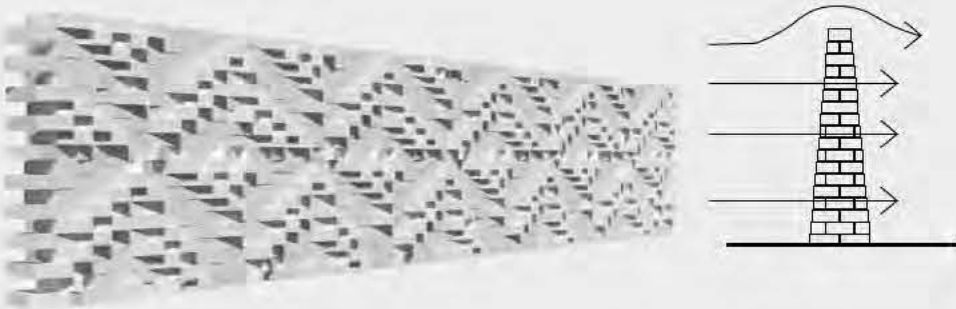
Simple materials and labor-intensive technologies:

For the Basothos, the traditional houses made of thatch and adobe (ex. rondavels) represent the past, the outmoded, even though these materials are the best answer to the thermal and climatic level.



In Lesotho, strong wind from north-west is a problem of living condition in winter.
In this project, we propose to build up 2 meters-high adobe brick wall with 20% holes to create a windbreak on the north-west side of each site.

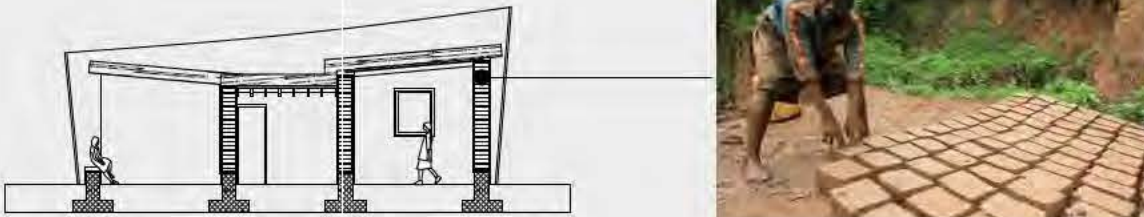
Windbreak Wall



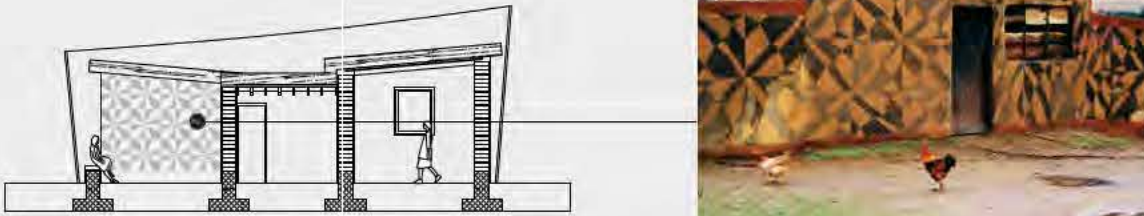
Synthesis shade fabrics protect people from strong summer sun.



Traditional techniques like thatching have been developed over centuries and can keep the heat out during the day and the warmth in at night.

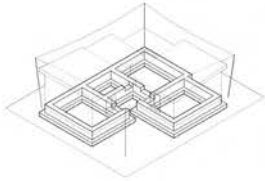
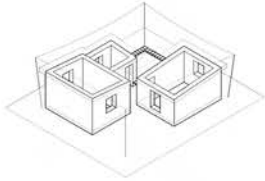
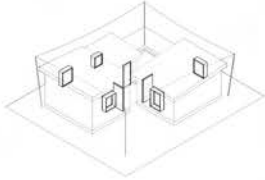
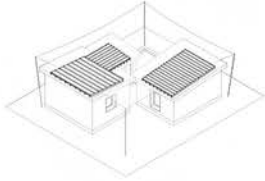
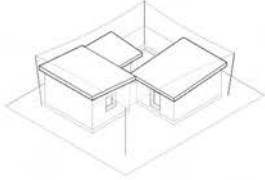
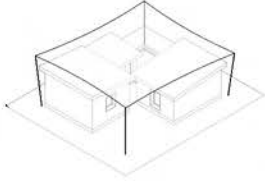


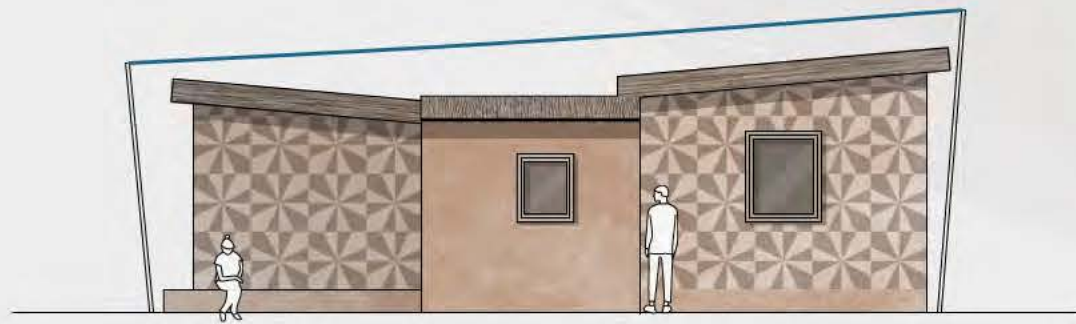
Adobe Bricks and Mud Render can be made almost for free; In Maseru of which climates typified by hot days and cool nights, the high thermal mass of adobe mediates the high and low temperatures. of the day, moderating the temperature of the living space.



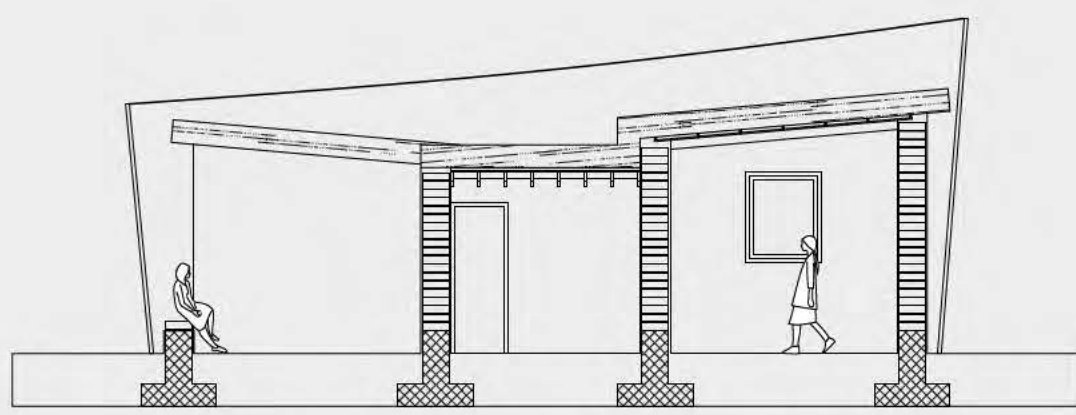
symmetrical patterns resembling Litema which are mural designs practiced by Basotho women to decorate exterior walls of their houses.

PROJECT COST ESTIMATE

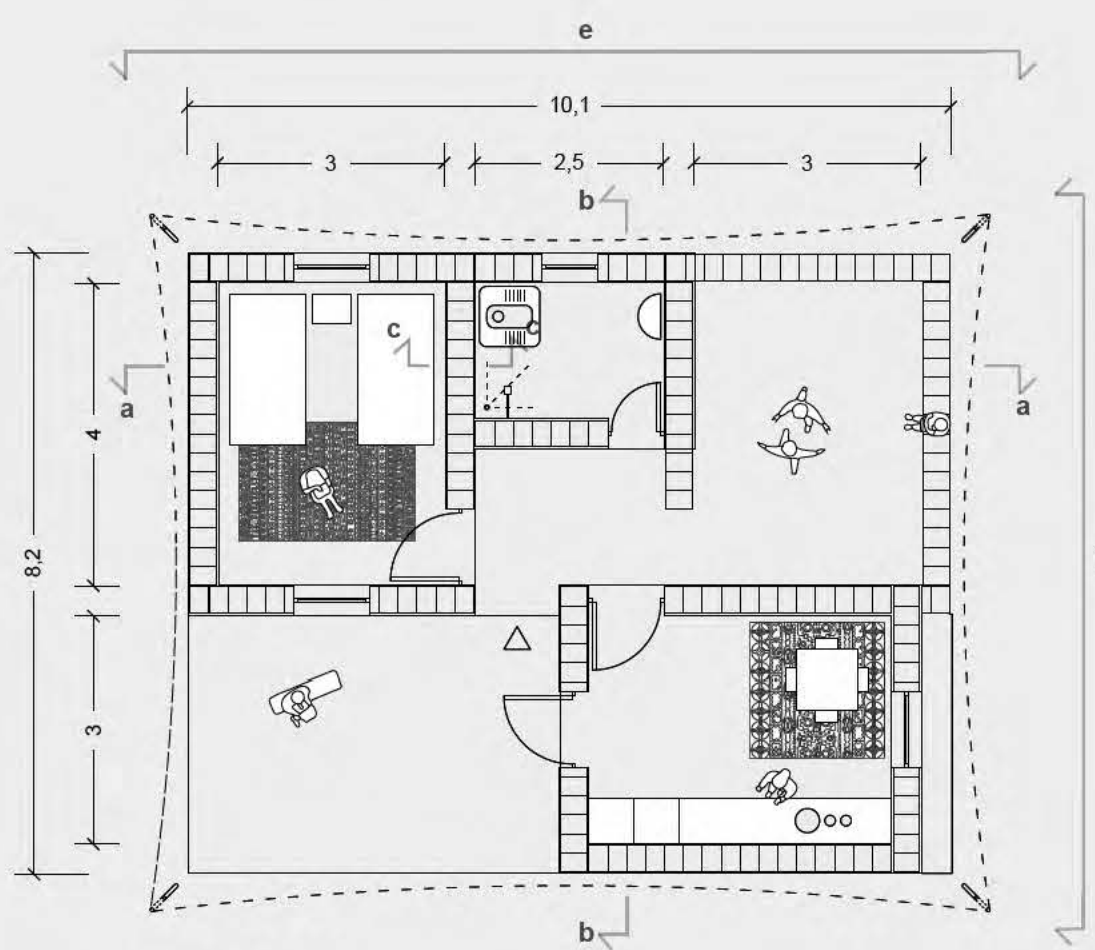
PROJECT	ITEM ESTIMATES	QUANTITY	RATE	UNIT	ITEM TOTALS
	FOUNDATION				
	REINFORCED CONCRETE SUITABLE FOR GROUND BEARING SLABS, AND STRIP FOUNDATIONS (INCLUDING SAND, CEMENT, ROUGH SNAD, CRUSHED STONE AND REINFORCEMENT) (FROM BRIEF Q&A)	9.68	M1695.00	M ³	M16,407.60
	WALLS				
	HANDMADE ADOBE BRICKS	MANY	M0	EACH	M0
	REINFORCE MESH REF. 6x2.4M SHEET (FROM CASHBUILD, R338.95, 6x2.4M)	64.60	M23.53	M ²	M1,520.04
	DOORS & WINDOWS				
	WOODEN DOOR MEDIUM DUTY TRADITIONAL (FROM CASHBUILD, R419.95, 813x2032x40MM)	3	M419.75	EACH	M1,259.25
	ALUMINIUM FRAME WINDOW (FROM CASHBILD, R779.95, 1000x1200MM)	5	M779.58	EACH	M3,897.90
	ROOF WOOD STRUCTURES				
	SAWN PINE TIMBER RAFTERS (FROM BRIEF Q&A)	90	M24.00	M	M2,160.00
	MASONITE STANDARD BROWN (FROM CASHBUILD, R109.95, 2440x1220MM)	32.30	M37.02	M ²	M1,195.75
	ROOF THATCHING				
	STRAW	MANY	M0	EACH	M0
	DOUBLE ROOF SHADING				
	SQUARE TUBING (FROM CASHBUILD, R141.95, 25x25MM, 1.6MM x 6M)	4	M141.88	EACH	M576.52
	SEMI-TRANSPARENT FABRIC FOR SHADING RIPBLOCK 400GRM NAVY (FROM FABRIC SUPERSTORE, R99, 180CM)	94.84	M54.22	M ²	M5,142.23
	LABOURER COST	30	M140.00 X 2	DAY	M8,400.00
	2 LABOURERS, M140 x 2 (FROM BRIEF Q&A)				
	TOTAL				M40,559.08



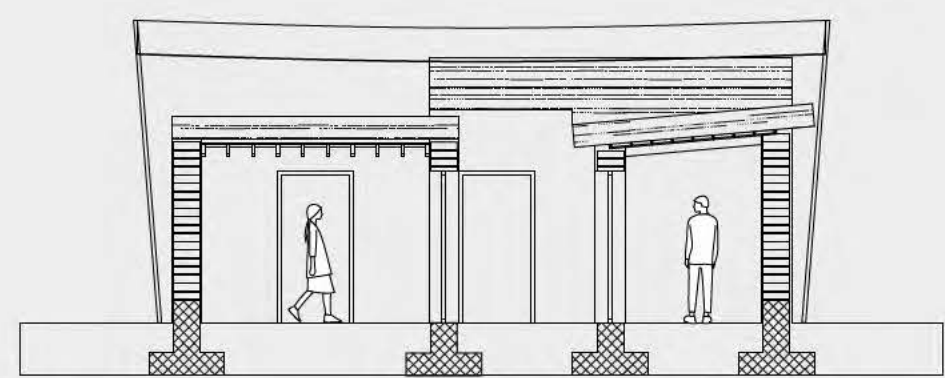
elevation e 1:100



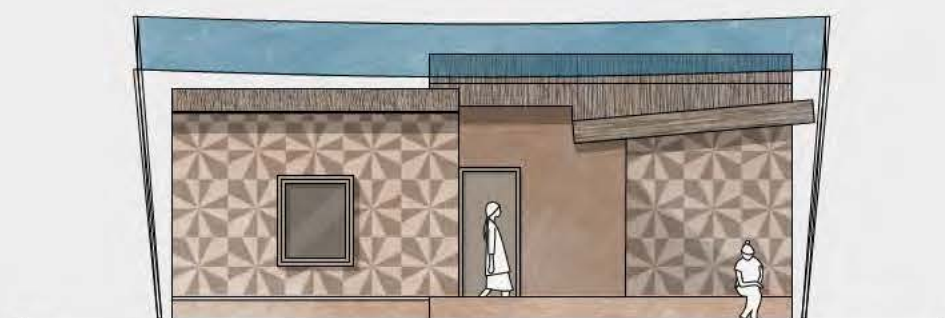
section aa 1:100



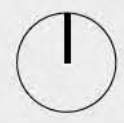
plan 1:100



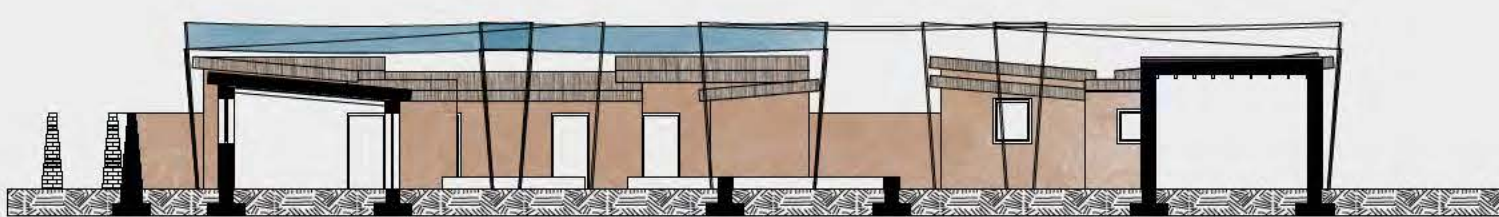
section bb 1:100



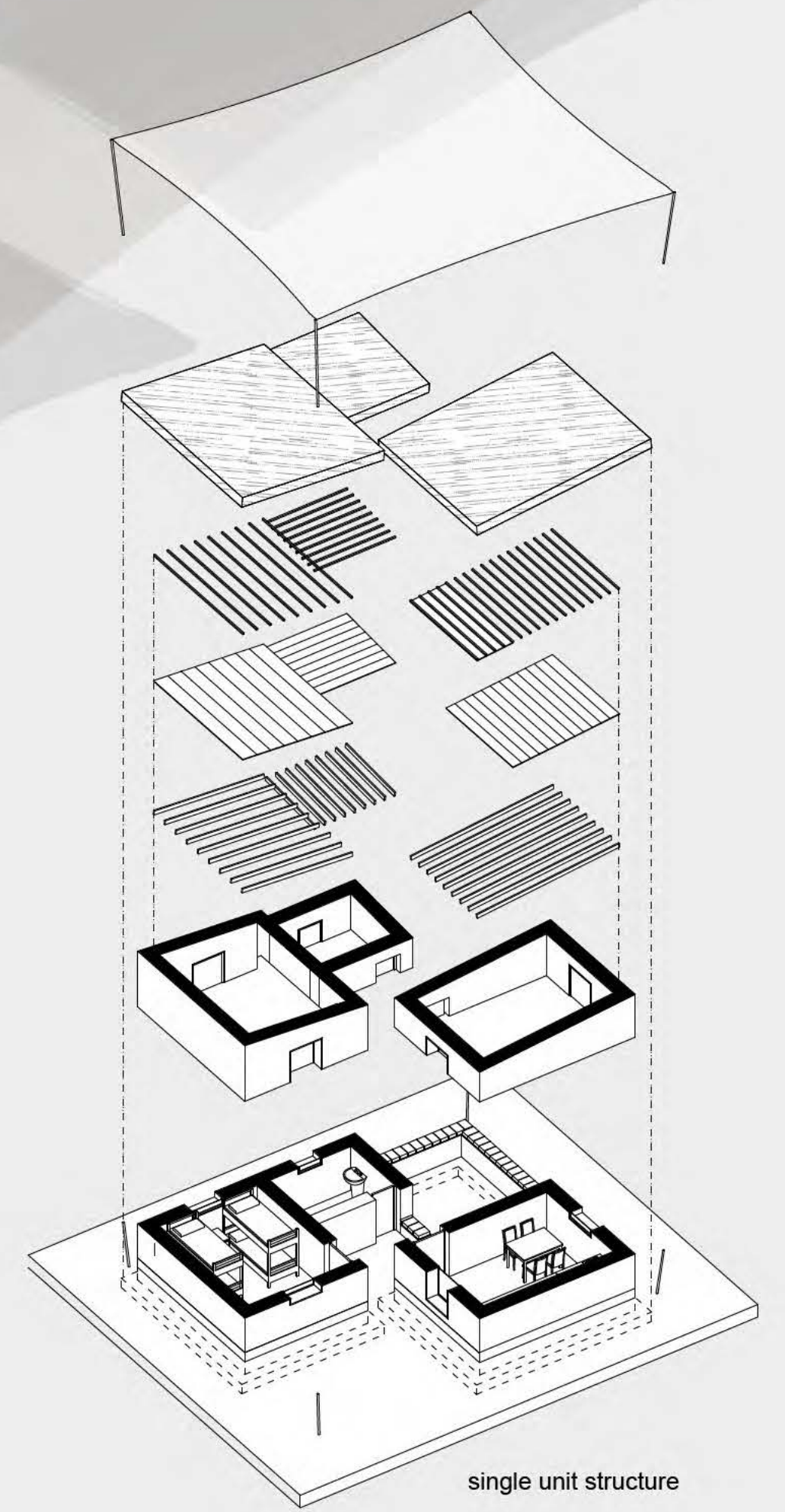
elevation f 1:100



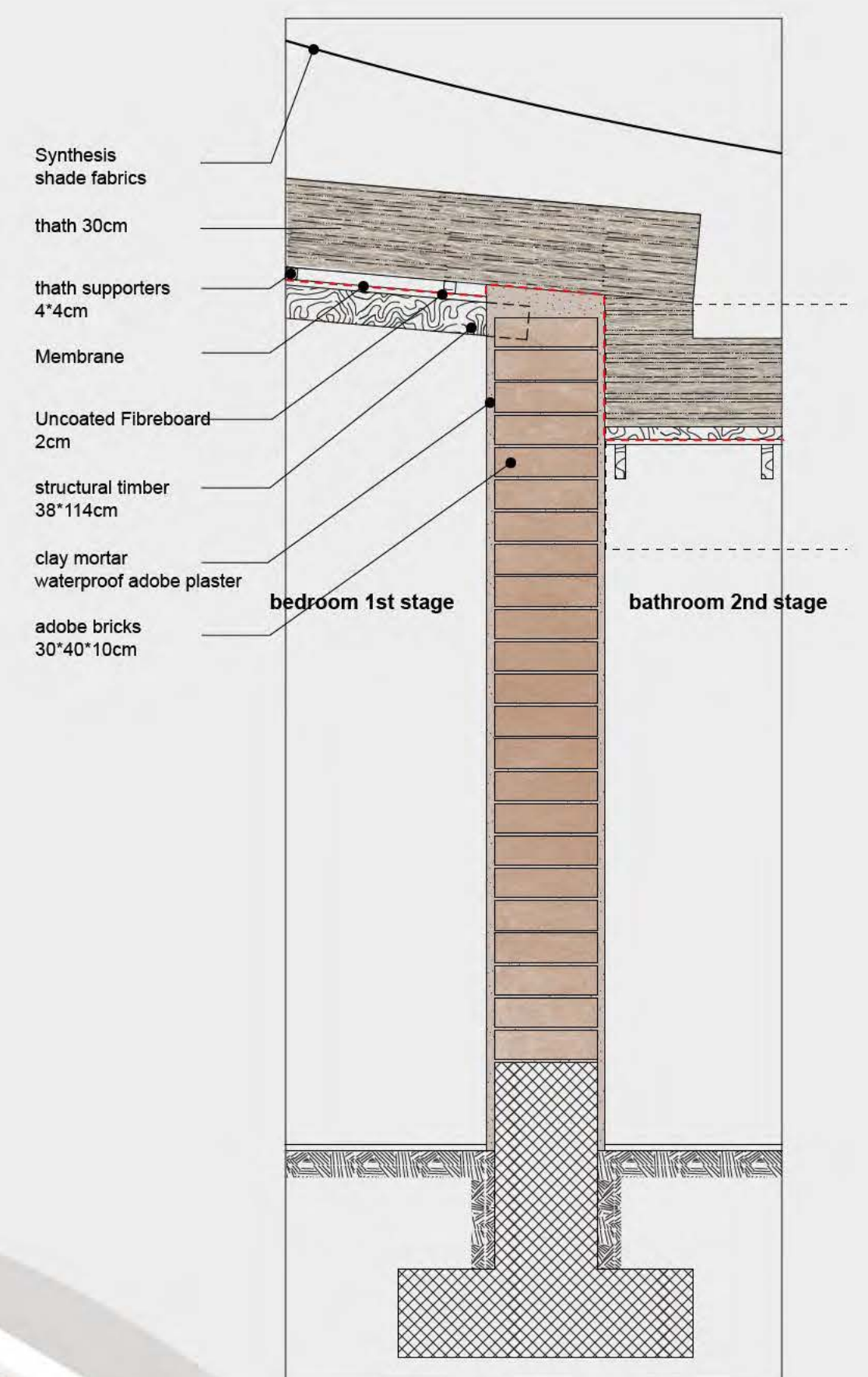
site plan 30m*30m 1:200



section gg 1:200



single unit structure



section cc 1:20

