



MAD(E) IN MUMBAI wins
Flood Resilient Housing Design Competition

AQUEOUS COMMUNES

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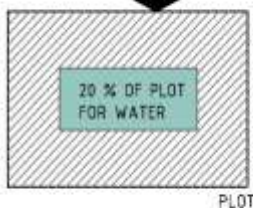
 Patanka (Building Rescue)



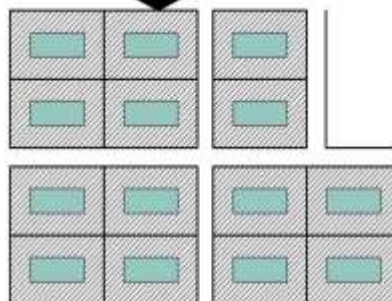
1. BUILDING CITY SCALE RESILIENCE:

In order to address resilience at city scale, We propose that each residential plot in flood plains begins to develop 20 % of land towards soaking flood/rain water. These water bodies become rain water harvesting systems, which collect, store, purify and celebrate water. The houses and neighbourhood develop along these catalysts.

295 m² of residential plot = 60 m² surface area for water

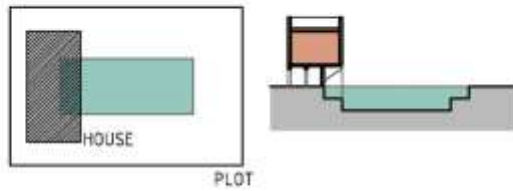


1 ACRE of residential plots = 800 m² surface area for water

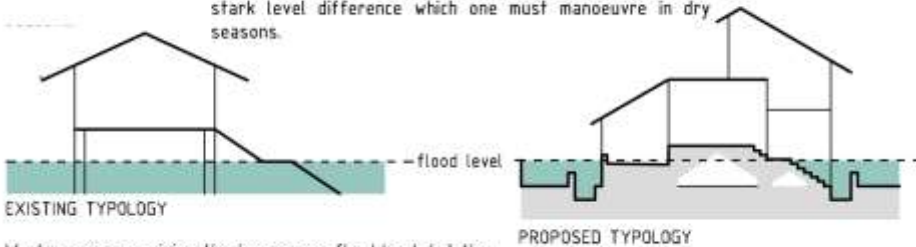


2. AQUEOUS HOUSE

The house develops around the water pond.



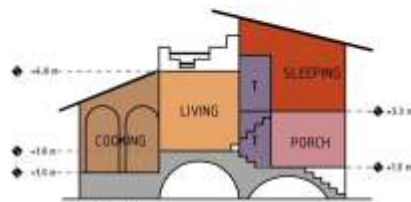
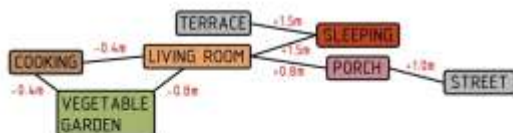
The existing house typology for flooding is a house raised on stilts. This typology not only loses relationship with the ground level, but also introduces a stark level difference which one must manoeuvre in dry seasons.



We too propose raising the house over flood level, but the rise is gradual, so that the house gradually rises over corbelled arches, keeping intimate relationship with ground plane.

3. HOUSE TYPOLOGY:

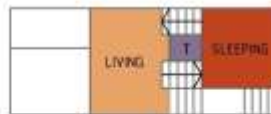
The house develops around the water pond. It rises gradually by 1 m on corbelled arches to form a porch facing the street. The house rises further by 0.8m to form a living room. One can go down few steps and enter the vegetable garden from the living room. Kitchen too overlooks into vegetable garden. One could climb 1.5m and reach sleeping space which on climbing 1.5 m opens up into terrace.



SECTION



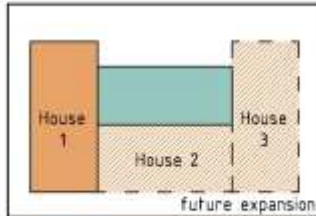
ENTRANCE LEVEL PLAN



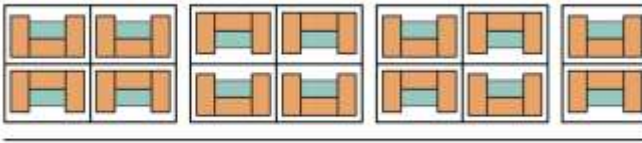
UPPER LEVEL PLAN

4. ADDRESSING NEIGHBORHOOD FORMATION:

The plot could also accommodate more than one house over time and develop into an intimately stitched neighborhood. This will also reduce cost of infrastructure as it will be shared between three houses.

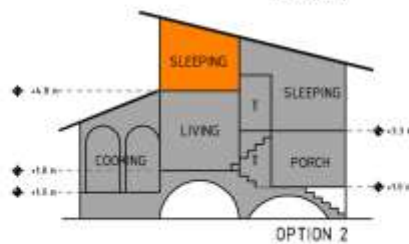
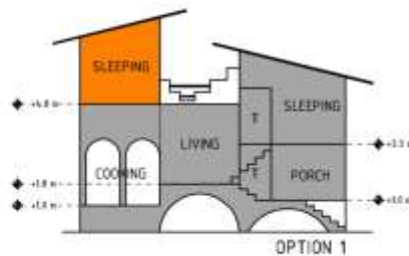


The Neighborhood grows along the water body. With this density one could accommodate 40 houses for 1 acre.



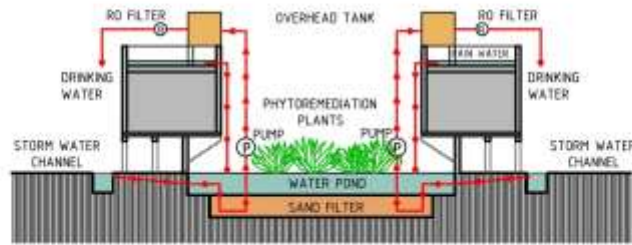
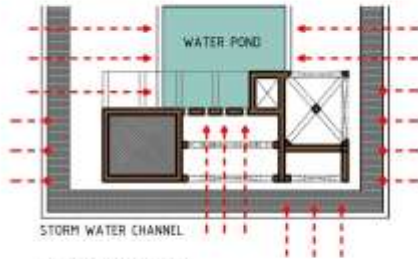
6. INCREMENT OVER TIME:

The house is imagined as a flexible configuration that expands over time as per needs of the family.



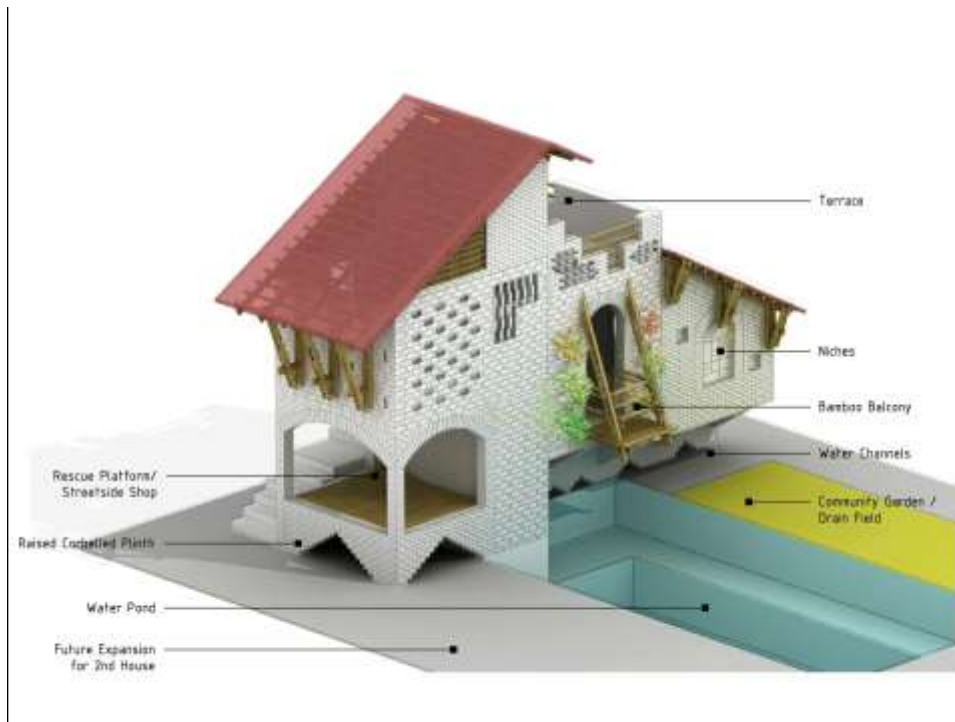
6. WATER NETWORK:

The house lifts itself on corbelled arches and makes a way for water to flow towards the pond. The storm water channel installed along the periphery of the plot transfers the water to the pond. The rainwater collected on the terraces and roofs is also transferred to the pond. The water in the pond is treated by phyto remediation plants and sand filter and pumped to the overhead tanks of houses. For drinking purpose, the water is treated through RO filter.

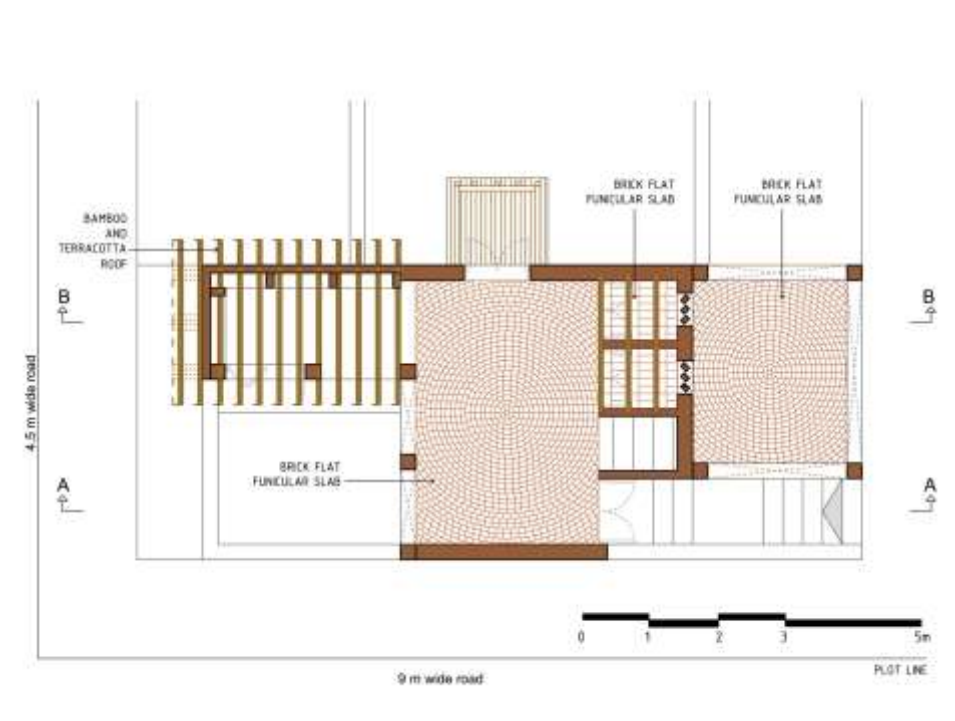
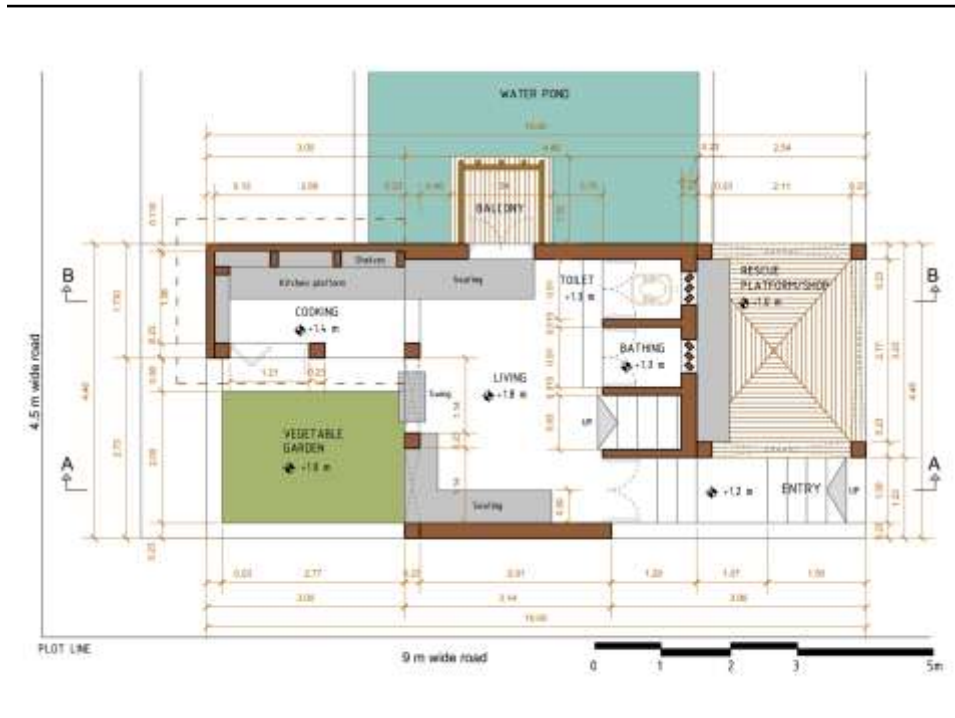


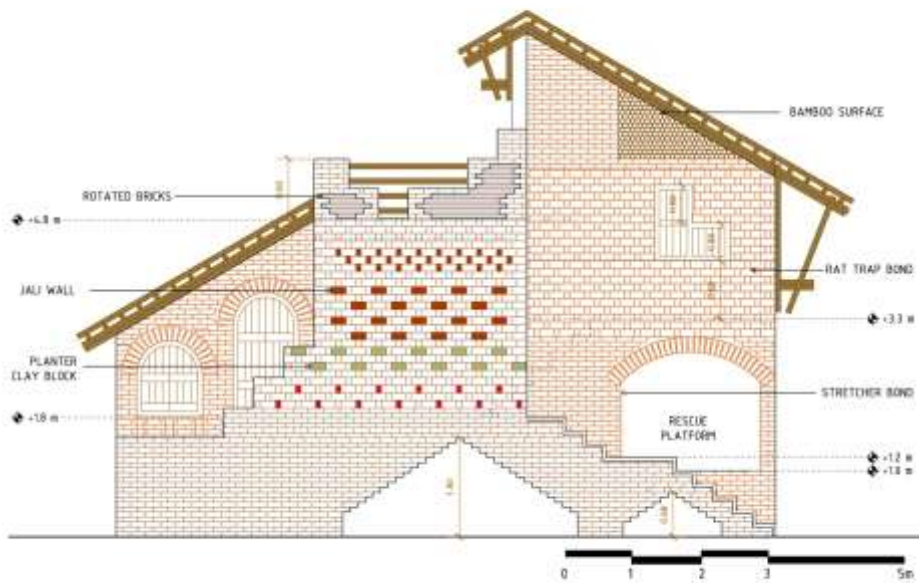
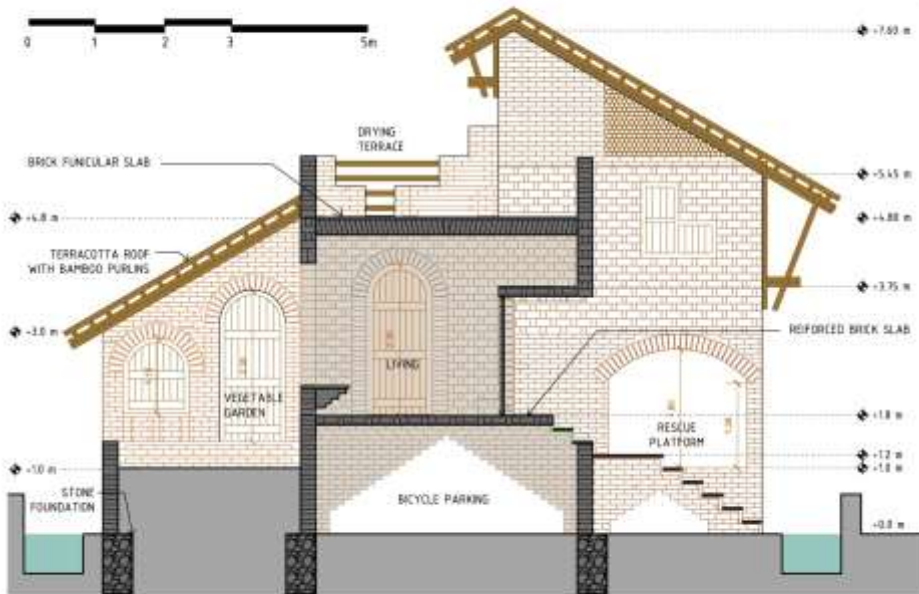
SECTION THROUGH THE POND

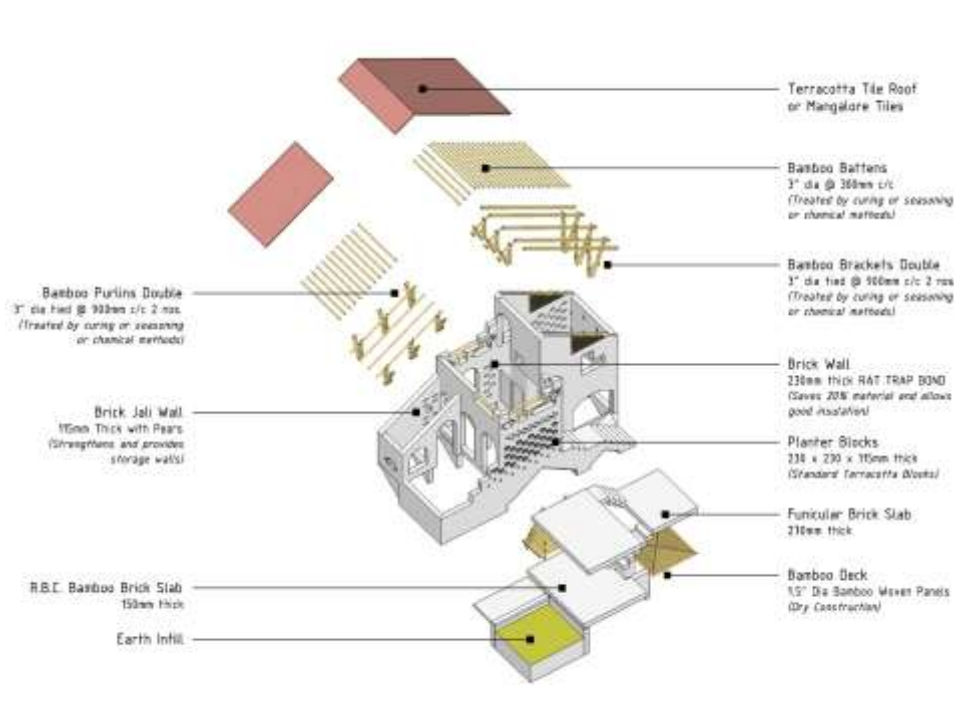
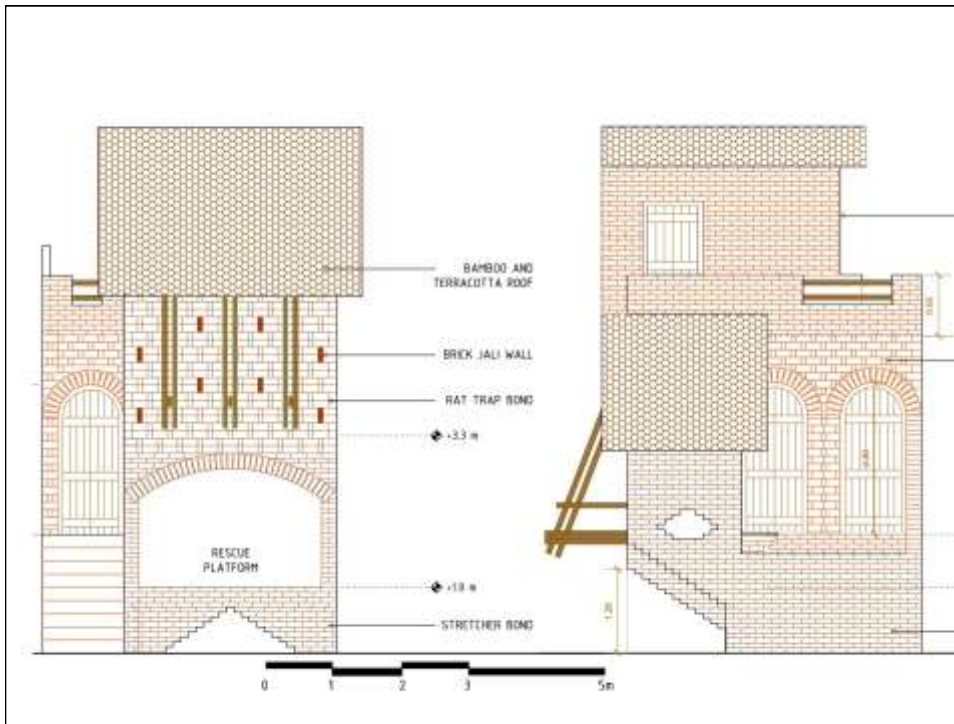








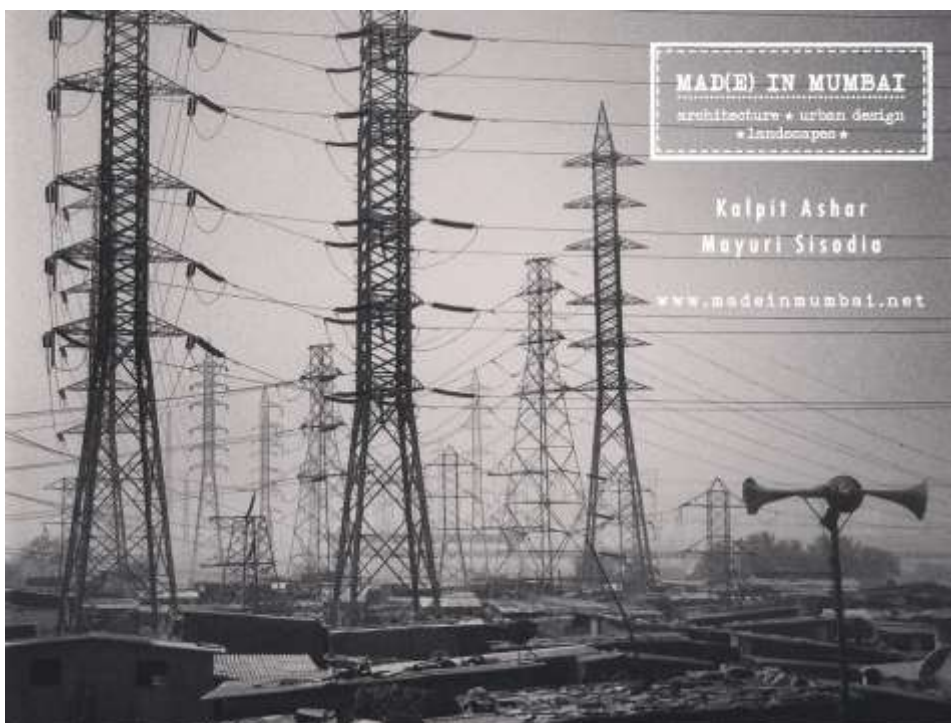












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