













Present day Anilpuram









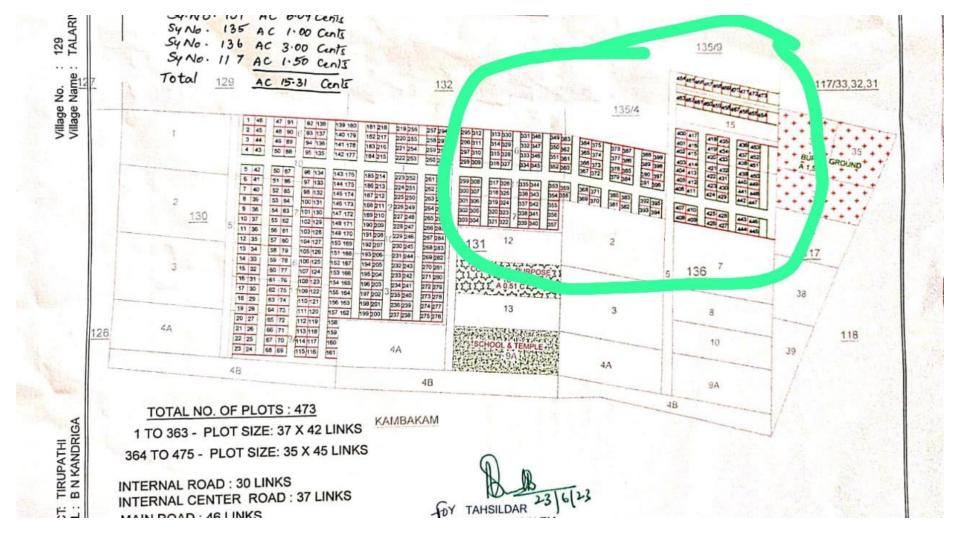


Present day Anilpuram











Cluster Courts

Food Corridors not roads

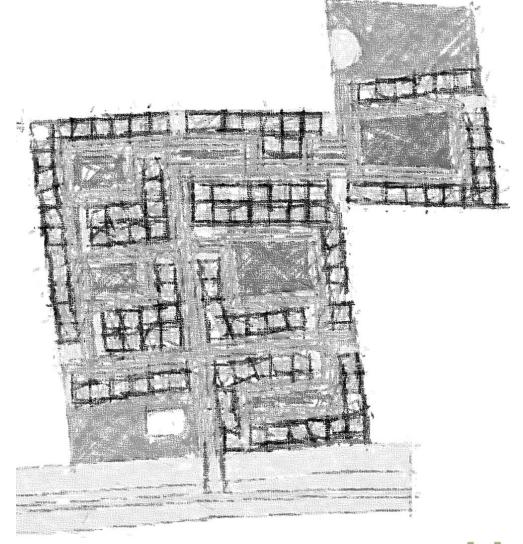
Eco plots not just allocated cents of land

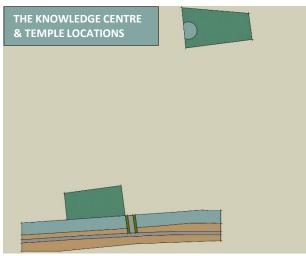
Community usage plots

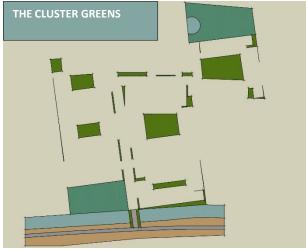
Sustainably built structures

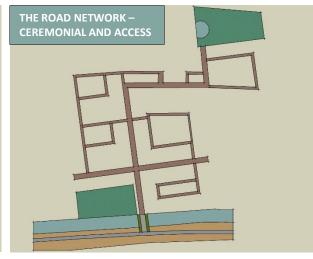
Managing water and waste

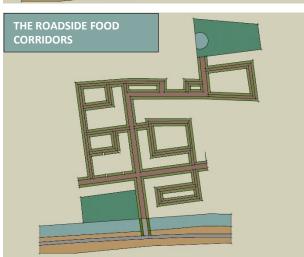
Culture and heritage of the village community

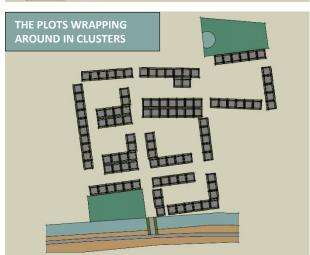








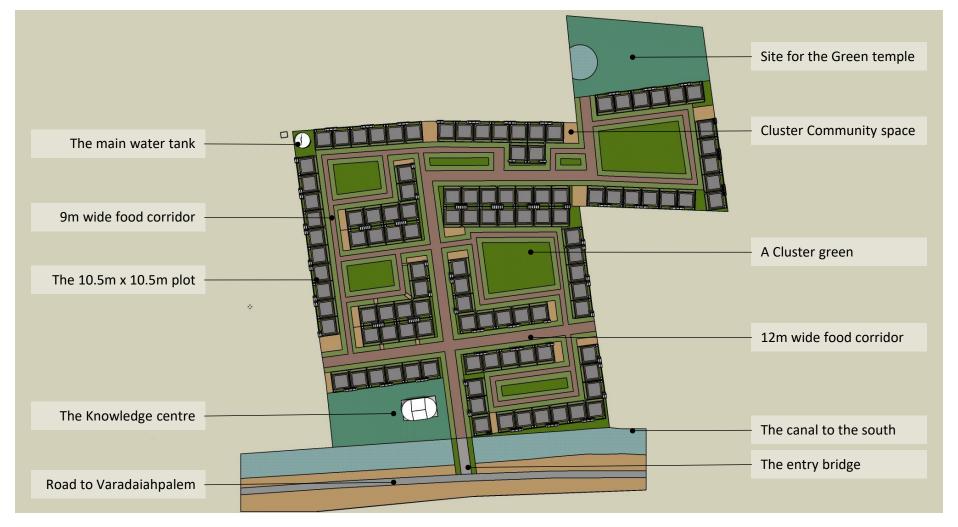






Development of the masterplan





The ANILPURAM village layout – 112 PLOTS OF 10.5 MTS X 10.5 MTS – 9 CLUSTERS – 18 CLUSTER COMMUNITY SPACES





A Bird's eye view from the Southwest



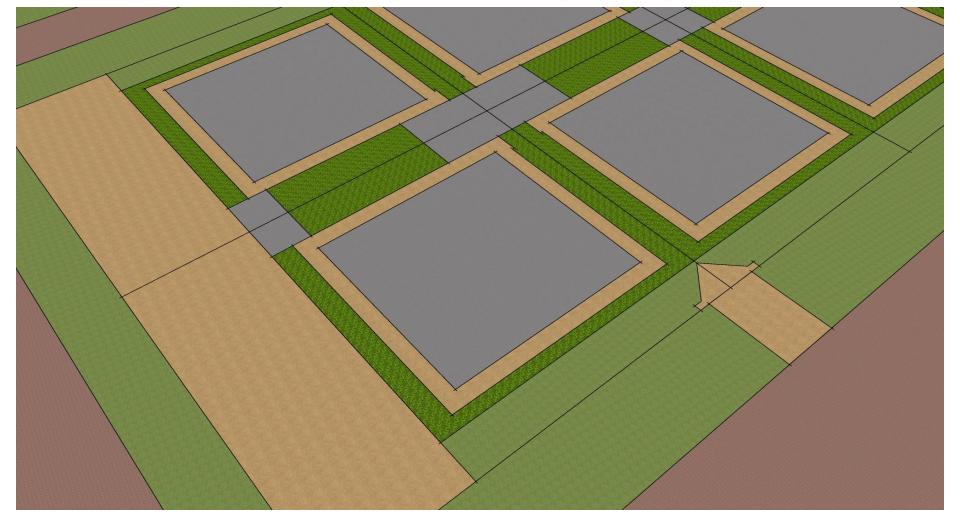




A Bird's eye view from the Northwest







The plot module: Clear demarcations for buildable areas (grey), planting (dark green), common planting (light green), and access (brown).



by Initiative for Green Habitats



The Plot Module: Wash areas & toilets (rear), and plot corner & entry (front). The toilets are common and house solar panels for the houses.





The Plot Module: Bio fences connecting the masonry corners define the plots.





The Plot Module: Planting fruit bearing, medicinal and trees of religious significance. Veg. strips on all sides; high capillary plants at the rear





The Plot Module: The houses are built in the demarcated quadrangle.



A 12 METER X 12 METER PLOT SIZE (includes a 1.5m x 12m common green to the front)

A 9 METER X 12 METER PLOT SIZE (includes a 1.5m x 9m common green to the front)

A 10.5 METER X 12 METER PLOT SIZE (includes a 1.5m x 10.5m common green to the front)



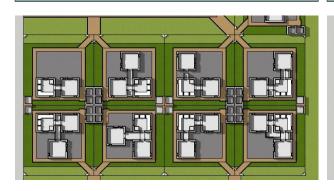




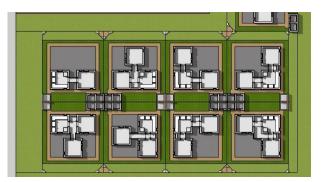
144 SQ MTS – A LOT OF FLEXIBILITY IN THE BUILT AND BEYOND THE BUILT

108 SQ MTS –MINIMAL FLEXIBILITY IN THE BUILT AND BEYOND THE BUILT

126 SQ MTS – MODERATE FLEXIBILITY IN THE BUILT AND BEYOND THE BUILT







Determining the appropriate plot size – To not reduce the plot of each family to merely a land value but provide what caters to their way of life.





A bird's eye view of a cluster. Each cluster has more than one entry and exit. Allowing for free-flowing movement across clusters.





A bird's eye view of a cluster. The cluster greens could be used for play, functions, and workshops, apart from planting.





The social significance of cluster development is invaluable. All resources, waste management, greens, sunlight and energy are shared.



by Initiative for Green Habitats



Toilets, a wash and soaking greens to the rear; entries and common greens to the front. Shared resources = shared responsibilities.

The ANILPURAM Sustainable Village





Modular units for the kitchen, bedroom, living room, pujas, storage, entries etc are laid out in different ways to create a variety of houses. From entries from fore courts to exits to rear courts, these modules allow for it all.





As one heads within the village, bio fences and masonry corners of the plots abut the green corridors of food along which you travel.





At the entry to a cluster, you see the green corridors turn in, a cluster community space and a hint of the greens within.





Each house has it's own set of trees and plants, addition to what can be grown along the food corridors and the cluster greens.





Common entries to each house. The greens outside can be maintained by the families in a cluster.





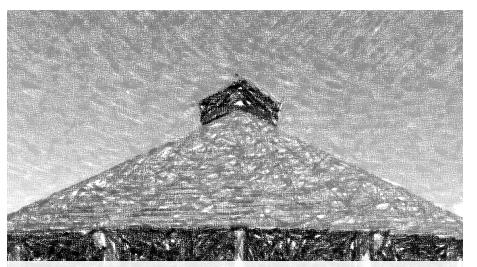
Aerial views of the residences...

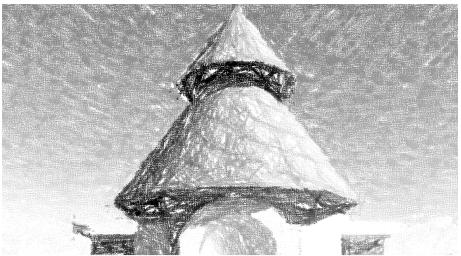




Aerial views of the residences...







ANILPURAM

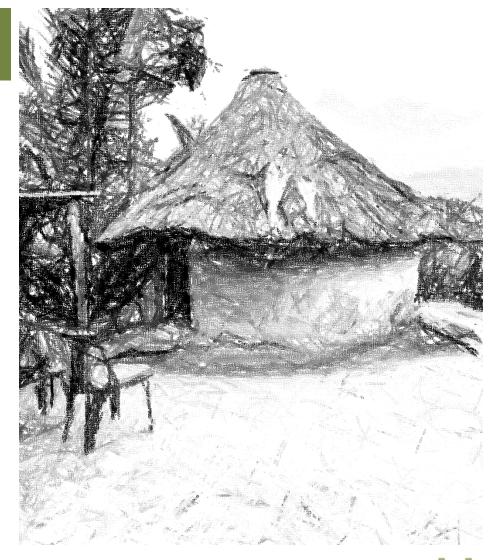
BUILDINGS AND CONSTRUCTION STRATEGY





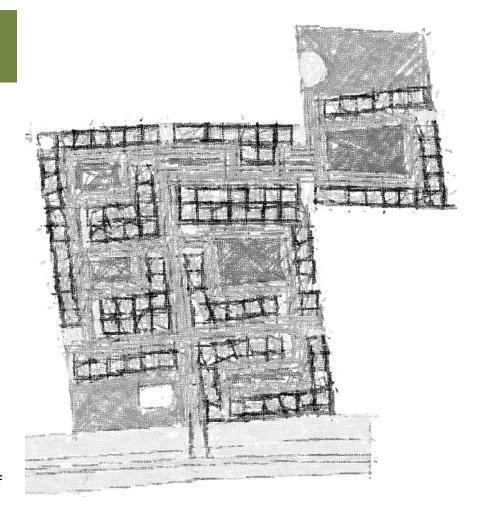
A note on the design considerations

- 1. Using design as an homage to the built heritage of the Yanadi community of Anilpuram
- 2. Design as 'what could have been if the traditional Yanadi design Archetype was explored'.
- 3. Using the community buildings to explore this architecture.
- 4. Focus on thermal comfort through passive architectural features, while also taking cues from the traditional Yanadi hutment.
- 5. Finalise a material and building system matrix that can finally potentially achieve the highest sustainability ceiling possible.
- 6. To achieve the above through the adoption of low-tech technologies, with a high livelihood potential.



STRATEGIES FOR CONSTRUCTION

- 1. Waste as a raw material for construction (construction debris, reclaimed timber roofing, reclaimed timber doors/windows, recycled plastic roofing, etc)
- 2. Other pozzolanic materials like fly-ash and GGBS to be explored for inclusion into construction
- 3. Aim for a zero-cement construction??!!
- 4. Aim for a zero-steel construction??!!
- 5. No Glass!
- 6. Shell Lime being brought to site to be explored/tested for various components
- 7. Set up local livelihood initiative, starting with the building products for Anilpuram:
 - i. CnD (construction debris) building products (blocks, kerbs, pavers, cast in-situ components, precast jambs and lintels, etc)
 - ii. Reclaimed timber building products (doors and windows, roofing structures, furniture
 - iii. Small scale metal fabrication (moulds, formwork, etc)
- 8. Set up separate building workshops for pre-casting and prefabrication as listed in point 6 above
- 9. Establish and maintain building component banks (kit of parts)



Foundation alternatives

- Boulder trench foundation using CnD
- Masonry foundation using CnD blocks
- Rough Laterite rubble masonry

Walling alternatives

- Mud CnD concrete walls (toilet in residential plots, Knowledge Centre, water tank)
- Rammed earth walls (Knowledge centre, water tank)
- •Mud CnD CSEB masonry (houses)
- •Ikra walls (guest house)
- Laterite aggregate CSEB masonry (temple)

Lintels and plinth tie bands

- •Bamboo reinforced masonry
- Stone
- Mud concrete

Roofing Structure alternative

- •Reclaimed timber roofing
- Treated bamboo roofing

Roof cover

- •RICRON recycled plastic roofing sheets
- Bamboo mat corrugated boards (very expensive currently)

Door and Windows

- Reclaimed timber door and window shutters, frameless
- Reclaimed timber door an window shutters, with precast jamb cum frame
- •No gla
 - Non-industrial hardware (stays, latches, hinges, tower bolts, etc)

Flooring alternatives

- •Lime plaster
- Stabilised Rammed earth floors

Wall finishes

- •Lime plaster
- •Lime-mud
- •Lime render
- Mud paint

MATERIALS AND BUILDING SYSTEMS BEING CONSIDERED FOR ANILPURAM



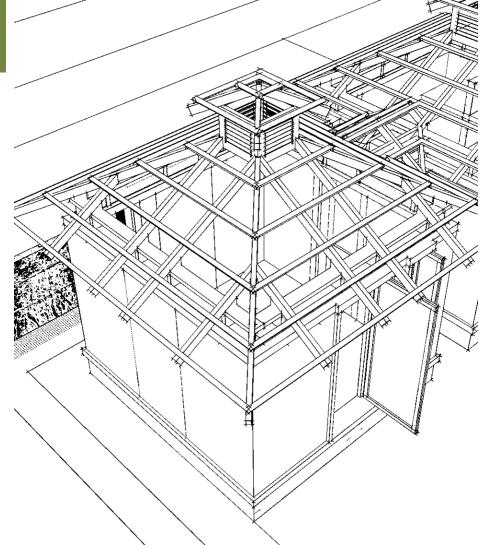




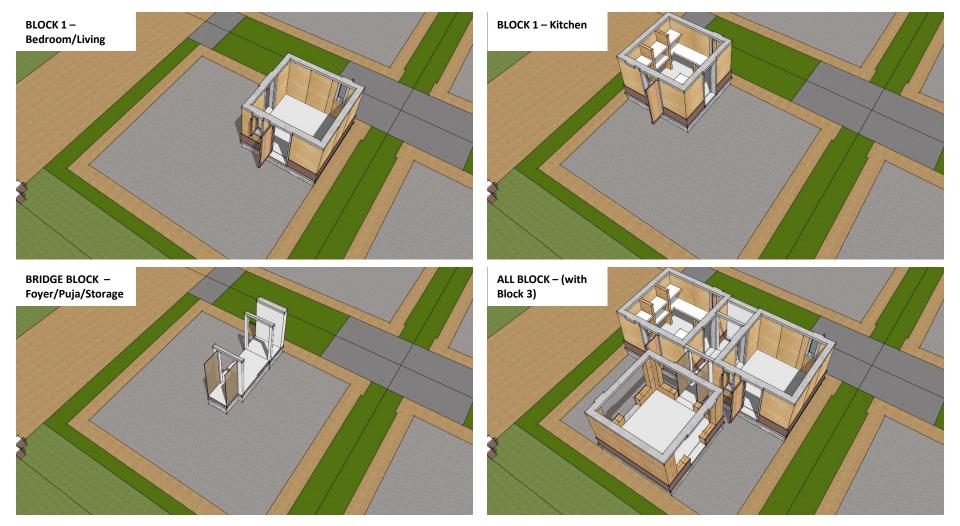


Residence – Types 1 to 10

- 1. The typical residence adopts a square form as its main module as a mutation of the Yanadi hut archetype.
- 2. This rebirth of the Yanadi hut takes into consideration the current lifestyles and aspirations of the Yanadi people.
- 3. There are three such equal sized room modules, measuring 3.23 mts x 3.23 mts. One for the Living/Bedroom, one for the Kitchen, and one is a semi covered unit.
- 4. The module references the benefits of the high volume of the Yanadi hut, by employing a 30 degree sloped roof, with a vent at the apex of the roof.
- 5. The windows are kept narrow to ensure minimal heat gain. Also, instead of glass we have wooden/cane shutters
- 6. In addition to the modules, there are bridge modules that connect the square rooms. These bridge modules provide an assortment of add-ons: vestibules, puja niches, storerooms, etc.







The Residence Building Modules: Blocks 1&2 have entries on 2 sides, which allow for a variety of arrangements. Functional Filler modules bridge gaps.



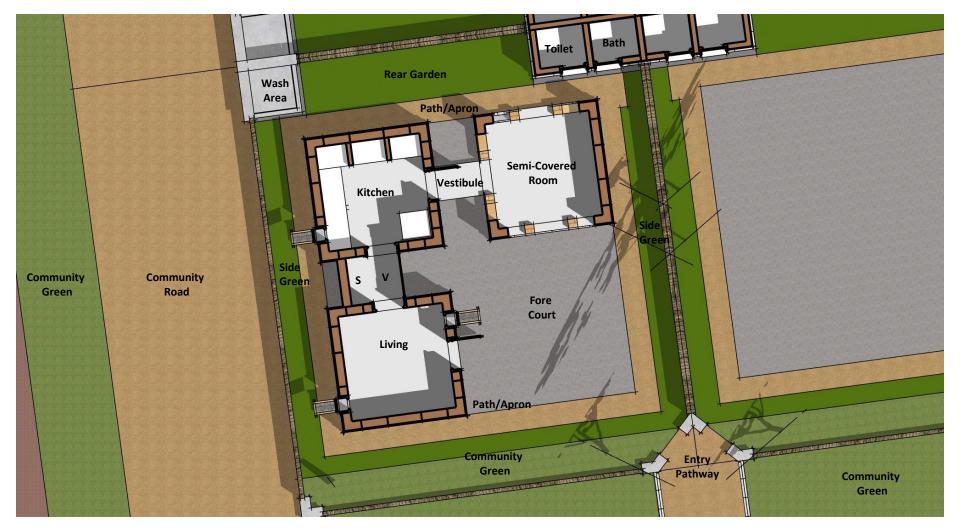
RESIDENCES: A TYPICAL RESIDENCE





A bird's eye view of a typical residence





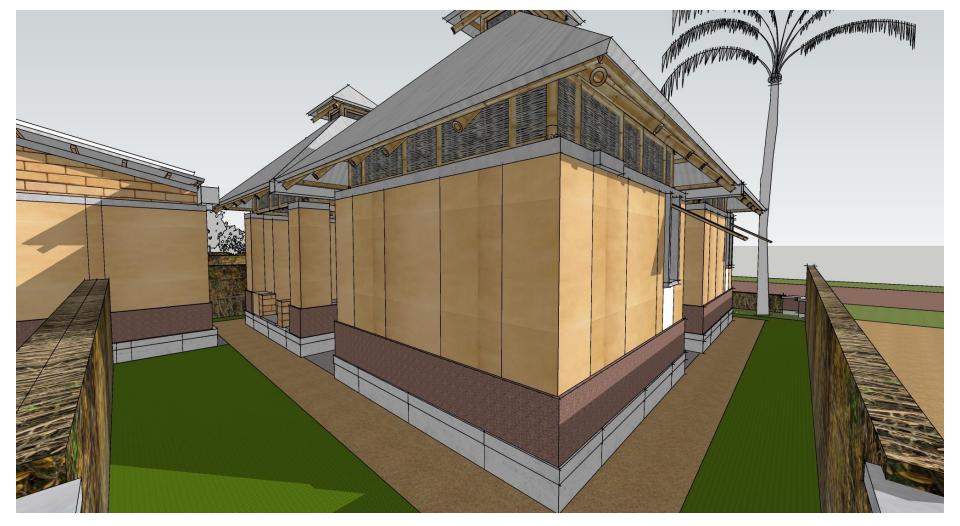
A bird's eye view of a typical residence





Forecourt of a typical residence, with all three blocks (1-Living/Bedroom, 2-Kitchen, 3-Semi built)





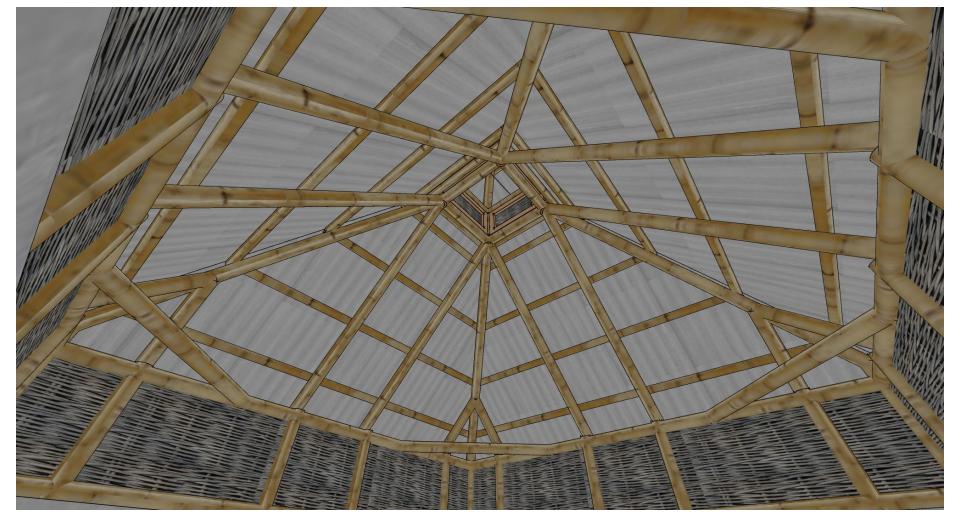
Rear yard of a typical residence





A view of a typical Living/Bedroom unit – Block 1





A view of a typical Living/Bedroom unit – Block 1







A view of a typical kitchen unit – Block 2





A view of a typical Semi Built unit – Block 3

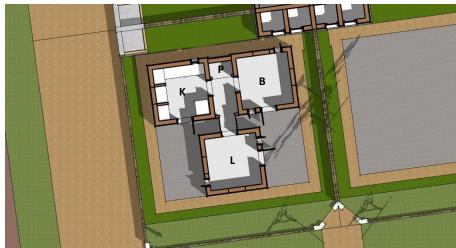


RESIDENCES: VARIATIONS











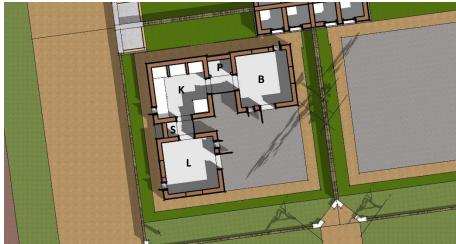
RESIDENCE - TYPE 1

L = Living, K = Kitchen, B = Bedroom, SC = Semi Covered Room, P = Puja, S = Store











RESIDENCE – TYPE 2

L = Living, K = Kitchen, B = Bedroom, SC = Semi Covered Room, P = Puja, S = Store











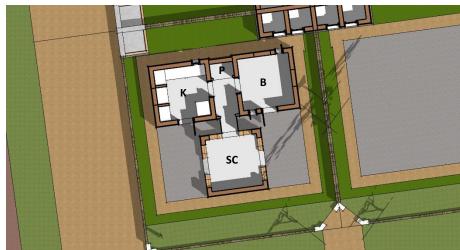
RESIDENCE - TYPE 3

L = Living, K = Kitchen, B = Bedroom, SC = Semi Covered Room, P = Puja, S = Store











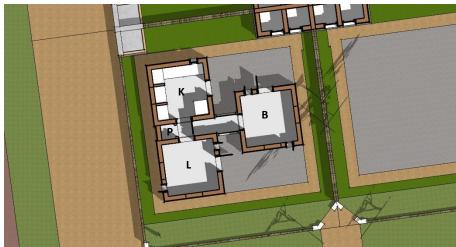
RESIDENCE – TYPE 4

L = Living, K = Kitchen, B = Bedroom, SC = Semi Covered Room, P = Puja, S = Store











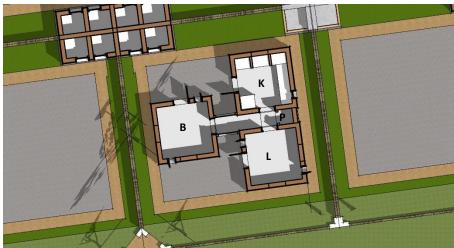
RESIDENCE – TYPE 5

L = Living, K = Kitchen, B = Bedroom, SC = Semi Covered Room, P = Puja, S = Store











RESIDENCE – TYPE 6

L = Living, K = Kitchen, B = Bedroom, SC = Semi Covered Room, P = Puja, S = Store











RESIDENCE – TYPE 7

L = Living, K = Kitchen, B = Bedroom, SC = Semi Covered Room, P = Puja, S = Store









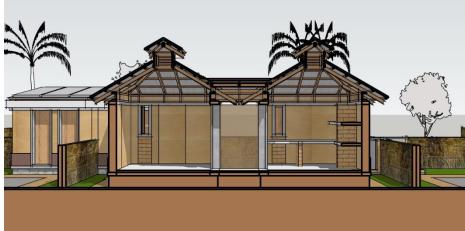


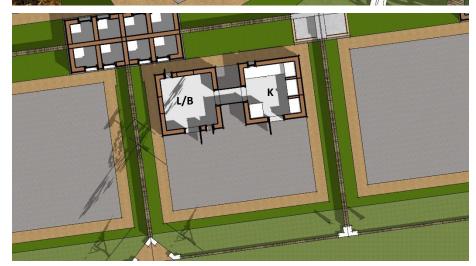
RESIDENCE – TYPE 8

L = Living, K = Kitchen, B = Bedroom, SC = Semi Covered Room, P = Puja, S = Store











RESIDENCE – TYPE 9

L = Living, K = Kitchen, B = Bedroom, SC = Semi Covered Room, P = Puja, S = Store











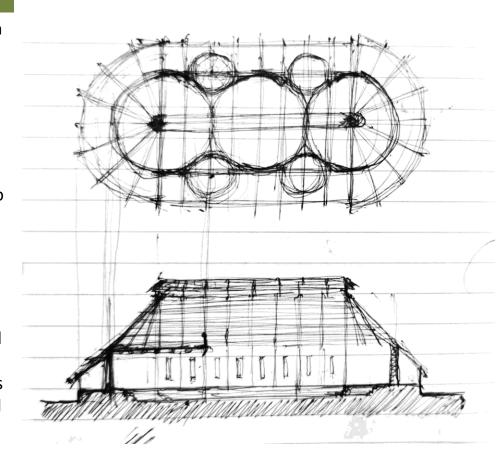
RESIDENCE - TYPE 10

L = Living, K = Kitchen, B = Bedroom, SC = Semi Covered Room, P = Puja, S = Store



The Knowledge Centre, KC

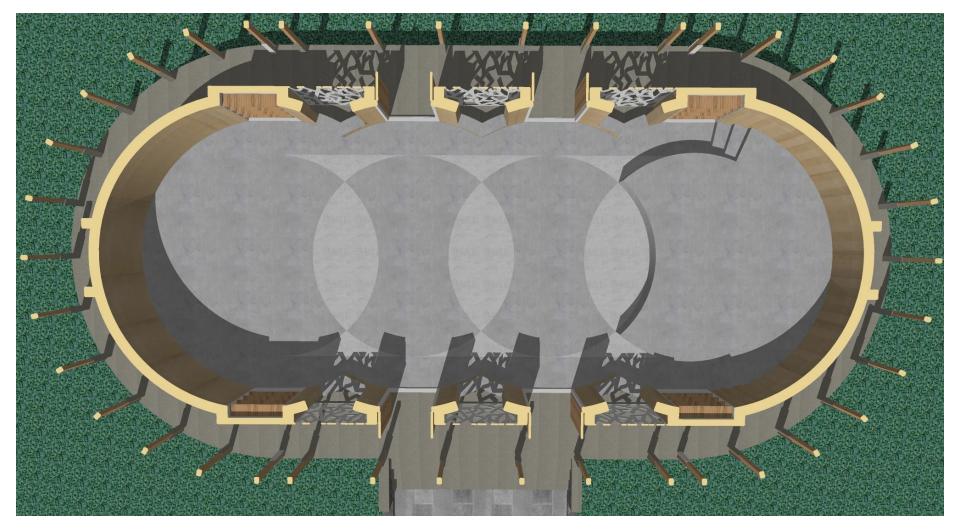
- 1. One can consider this building as a large-scale version of the Yanadi hutment that is laterally stretched.
- In essence it follows the schematic layout of the earlier built KCs in Santoshpuram, etc, but adds a protected verandah around the main internal space. This becomes a usable space for a gallery and serving meals, and for additional village folk when needed.
- 3. The KC is aligned north-south along the longer axis, to provide greater views to the hills to the west.
- The structure is made using a combination of monolithic earthen walls and CSEB masonry walls.
 The two ends form two semicircles (in plan) and form the two sides of the circular hut.
- 5. Reclaimed timber (or structural bamboo) is envisaged for the roofing structure. Extrapolating from the apex of the traditional hut, the ridge of the roof culminates in a ventilating uplift. A stack effect, due to the added volume is induced and shall aim to keep the insides cooler. This component also brings in daylight from two translucent roof modules.





Bird's eye of the Green Temple





Plan of the Knowledge Centre





Longitudal Section through the Knowledge Centre





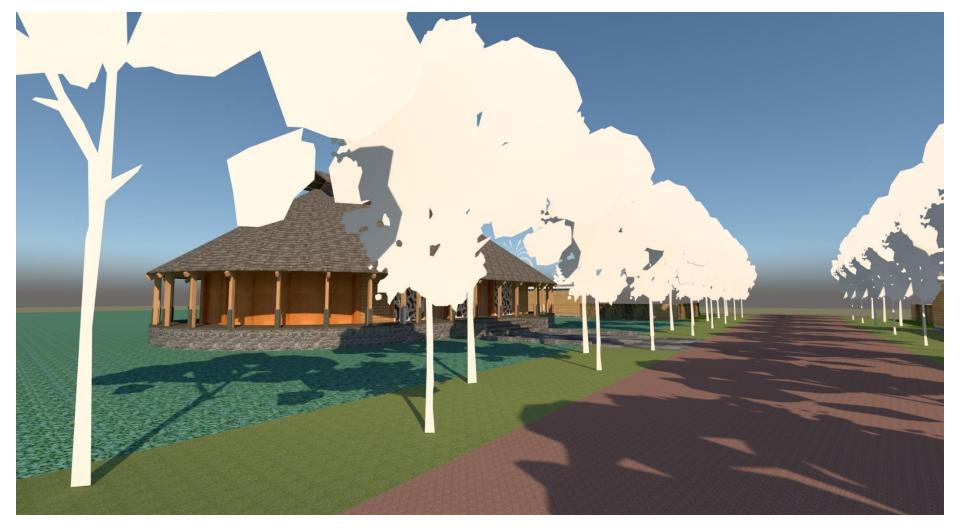
Lateral Section through the Knowledge Centre





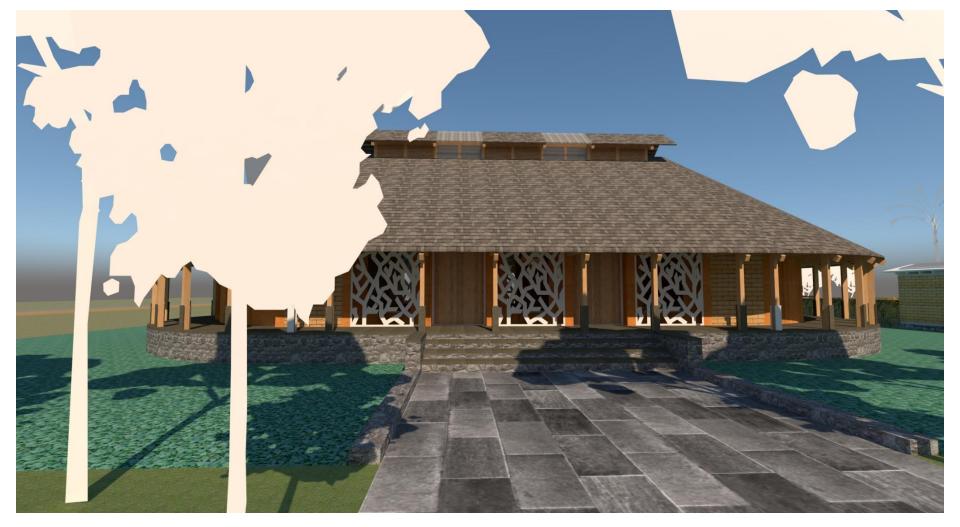
The Knowledge Centre is the first structure that you see when you cross the bridge over the canal into Anilpuram





The deep verandahs of the KC provide refuge during hot sunny days, or during the monsoons.





The architecture of the Knowledge Centre provides an anchor point for heritage of the Yanadi people right at the entry to their village.



by Initiative for Green Habitats



The KC is approached through a front stone paved court. A stone masonry plinth raises the structure a couple of feet above the ground.





Behind the verandah columns, one sees both mud concrete masonry and monolithic earthen walls. That is broken by jaali screens and doors.





The verandah around the KC is wide enough for people to sit and be served food. It wraps all around the building.





Inside the KC, the flooring and walls hint at the geometry of this structure. A dias is raised up on one side.



by Initiative for Green Habitats



Two double doors on either side open to east (entry) and west (hills). The jaalis provide diffused light cutting out harsh glare.



by Initiative for Green Habitats



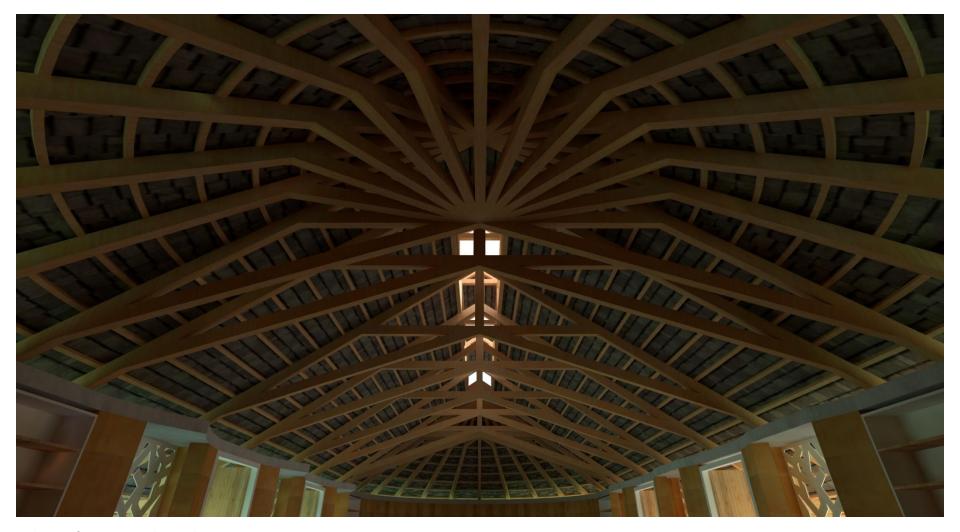
Masonry seating is provided in front of the jaali walls on either side of the KC hall. One can fix a mosquito screen alongside the jaali.





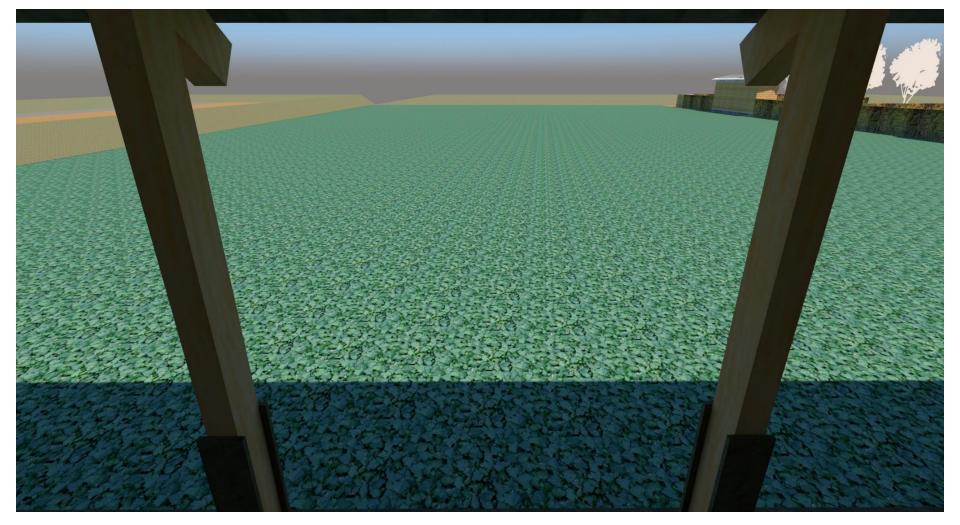
Looking down towards the dais from the other end of the KC hall.





The roof structure above the KC.





A view towards the west (where the hills are)





The west side verandah wraps around the northern side.





The Knowledge Centre from the SW corner.



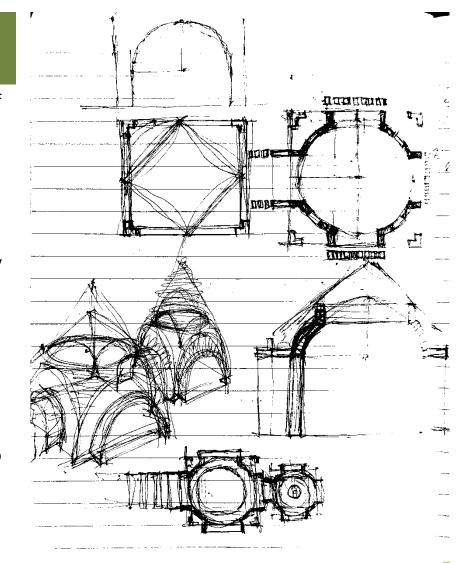


The Knowledge Centre from south.



The Green Temple

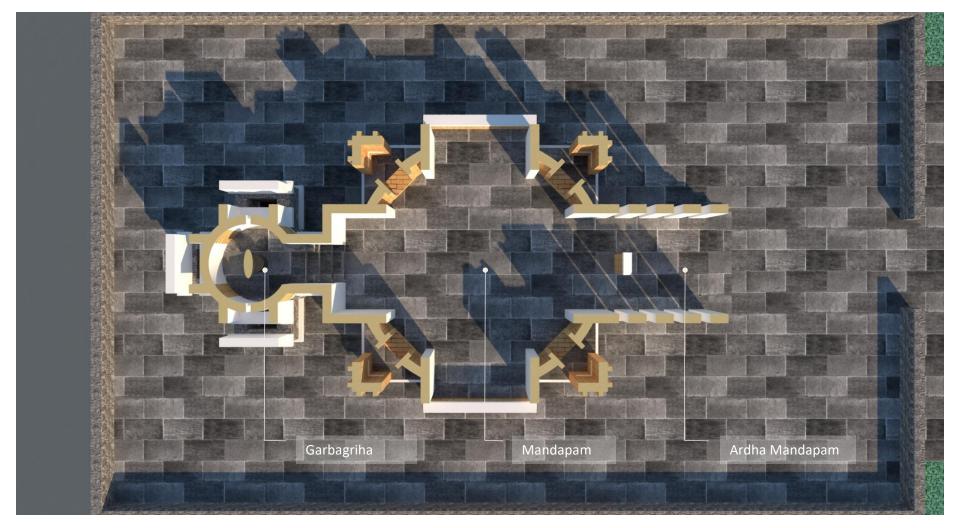
- 1. The Basic design of the temple combines elements of progression in a traditional south Indian temple in plan, references the Mandala in the plan layout of the spaces, and incorporates in the third dimension, the form of the traditional Yanadi hutment.
- 2. The progression into the temple is through the Ardha mandapam (the entry passage), then onto the Mandapam (the main congregation space) and finally the Garba griha (the sanctum).
- 3. In the third dimension, squares turn into circles, rectangular portals turn to arches, cuboids into cylinders and flat slabs to domes and conical roofs.
- 4. The temple itself orients itself to face east, is approached via a stone paved forecourt.
- 5. A surface holding pond, to the west of the temple, collects runoff water and leads into a smaller pond to the east of the temple.
- 6. Avenue trees surround the temple complex, with space for future development.





Bird's eye of the Green Temple





Plan of the temple.





Section through the Temple





Section through the Temple





Entering the temple site





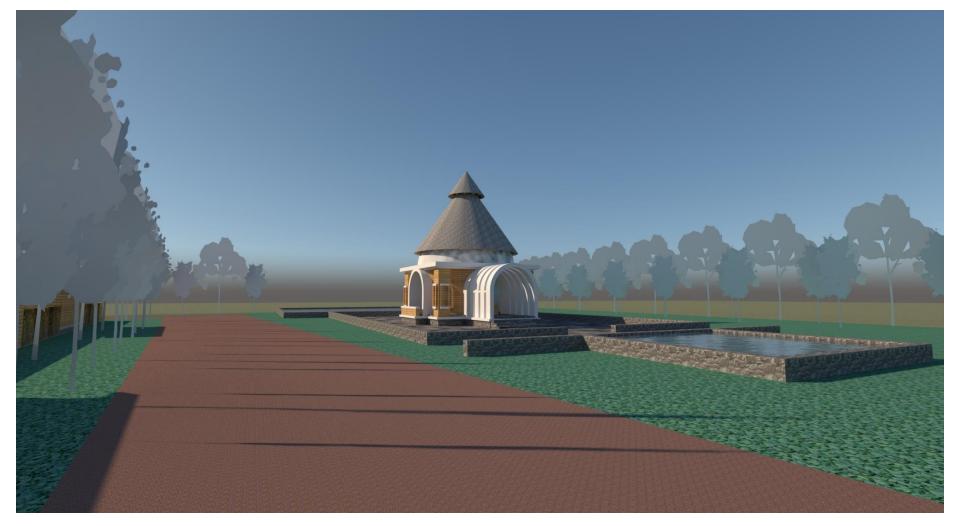
Looking eastwards from the approach road





The southern side of the temple





Looking westward from the SE corner of the temple site





Entering the temple court. The eastern pond is to the right





The temple fore court.







At the temple steps.





The temple from the Southeast corner of the temple court.





The temple from the west side (back of the temple).





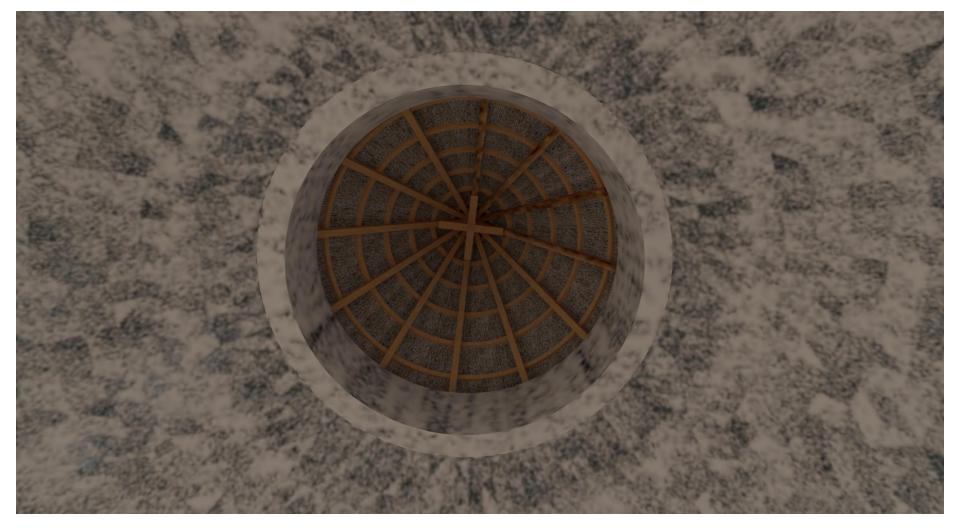
At the Ardha mandapam





At the Mandapam





The roof over the mandapam





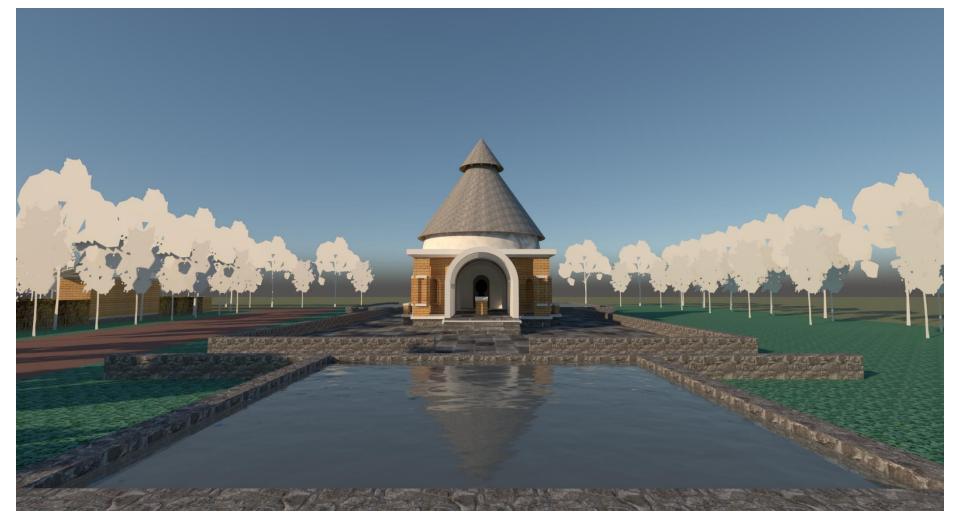
The Garba griha with the idol.





Looking back out, eastwards to the entry to the temple.





The temple, from across the east side pond



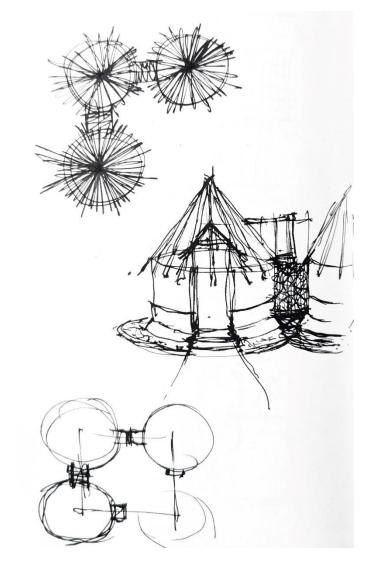


The temple, from across the east side pond



The Guest Residence

- 1. This Guest residence can be seen as the closest to the original archetype, but with upgradations.
- 2. As is the other residences, this building has three modules which are circular like the traditional built form, and each of these circular structures, has a conical roof.
- 3. In keeping with the original archetype, the springing point of the roof is kept low, at around 4 ft. This is the essential difference between this residence and the other residences, where the walls are about 6.5 ft high.
- 4. Following the structural system of the other residences, this building too is built using a precast foundation system, monolithic poured concrete walls, has bamboo roofs, but is covered with thatch, and has a protective waterproof layer below.

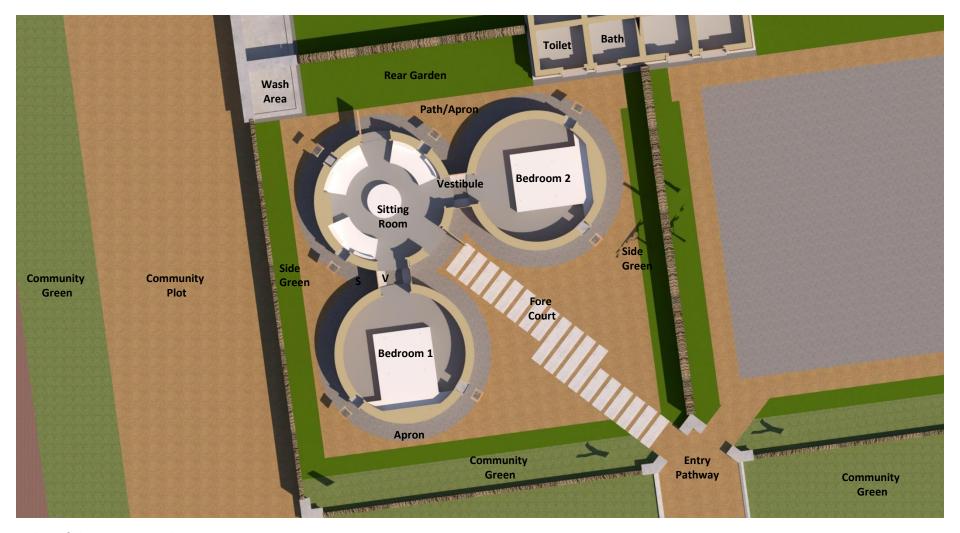






Bird's eye of the Guest Residence





Plan of the Guest Residence





Section through Bedroom 1 and the forecourt – cut through the windows





Section through Bedroom 1 and the forecourt – cut through the centre of the bedroom





Section through Bedroom 2 and the Sitting Room – cut through the centre of the two rooms





Section through Bedroom 2 and the forecourt – cut through the windows







At the entry to the plot of the Guest Residence





At the fore court of the Guest residence

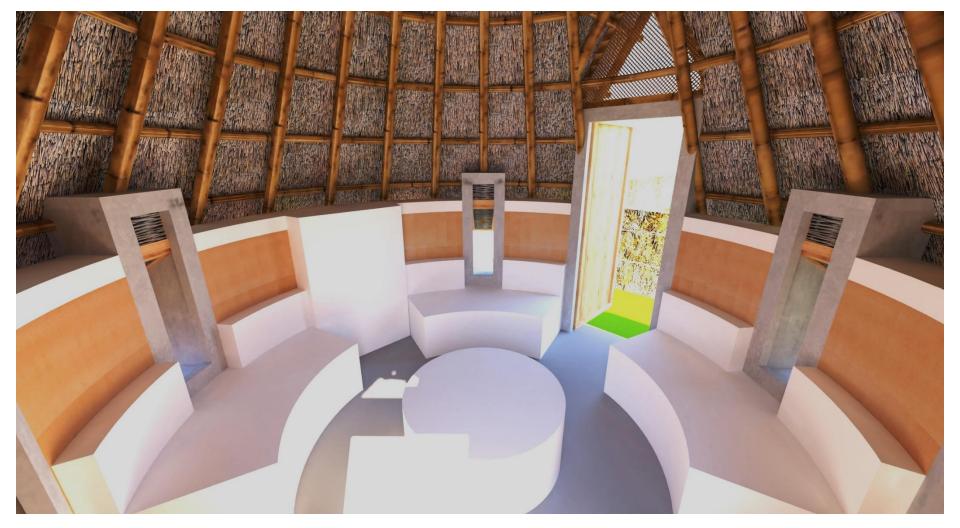




The rear corner of the Guest Residence







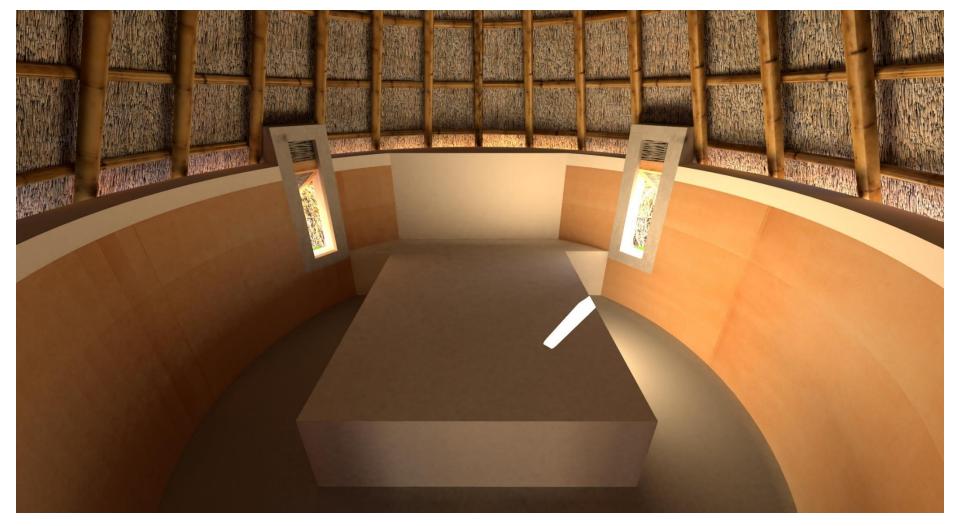
Entering the Sitting Room, which is the central pivotal structure. This room leads into the two bedrooms and leads to the rear garden & bathroom/toilet.





From the Sitting room, looking back to the entry. The two bedrooms are seen on either side.





Looking into one of the two bedrooms





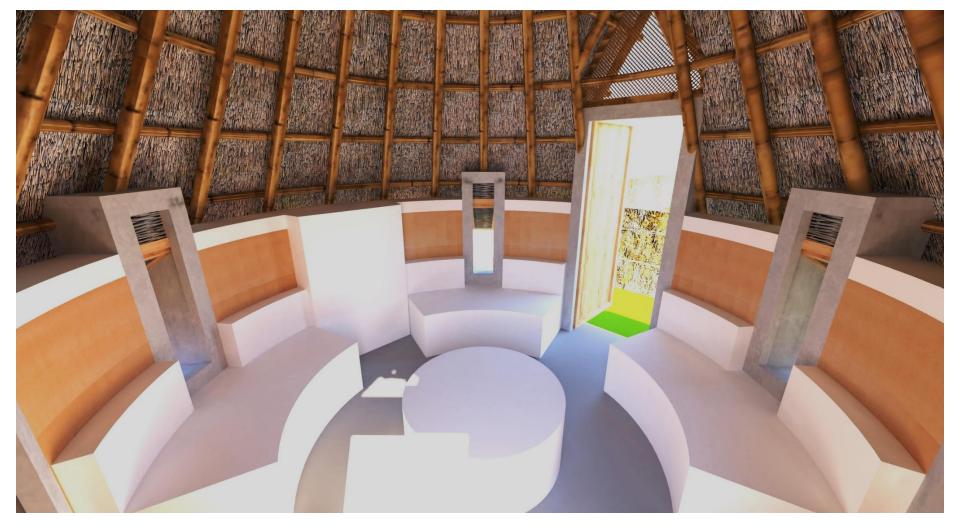
From inside Bedroom, looking towards the central sitting room





From inside Bedroom, looking up at the roof



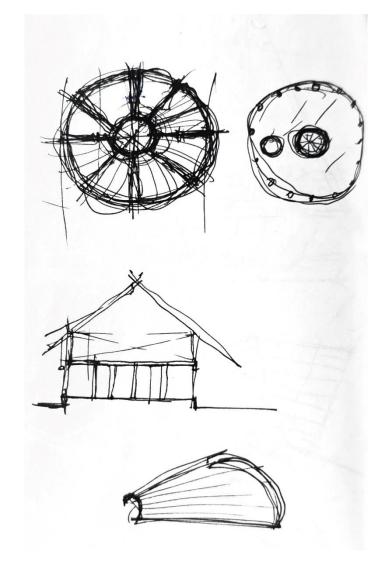


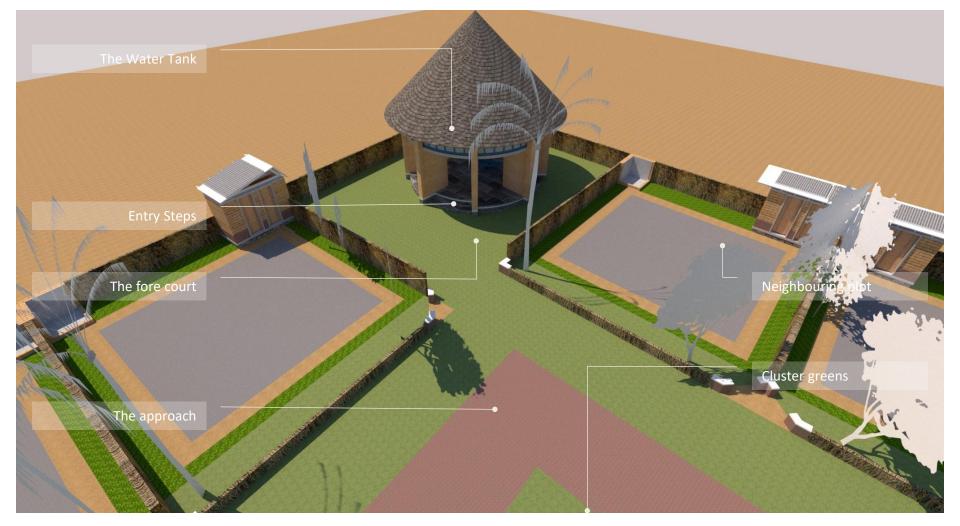
From inside Bedroom 1, looking towards the central sitting room



The Water tank

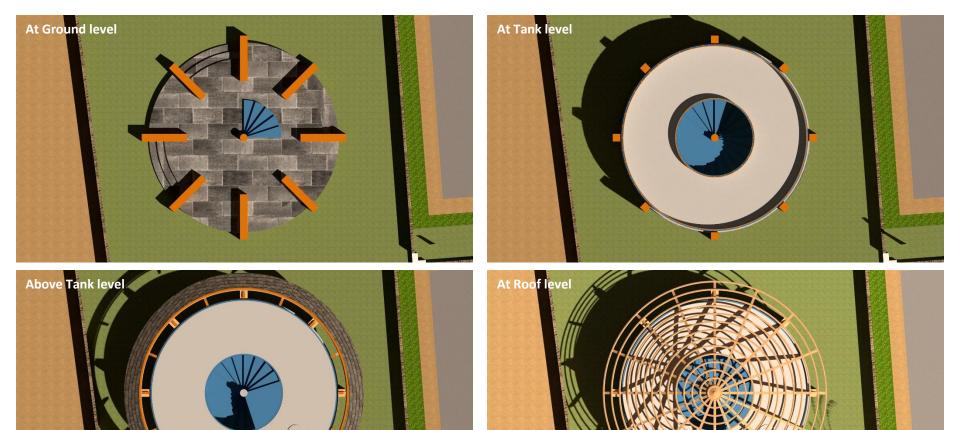
- 1. The original agenda of exploring the Yanadi architype is continued in the guest residence, and the water tank.
- 2. It is a structure on a masonry plinth, following a circular plan form, with radially arranged monolithic earthen walls supporting a slab above on which a GRP water tank structure is erected.
- 3. A central spiral staircase rises up to access the top of this water tank and the access hatches there.
- 4. A conical bamboo roof with bamboo purlins and a thick thatch cover is erected above this structure, and supported on the wall fins.





Bird's eye of the Water Tank





Plan of the water tank at multiple levels – Above the plinth, At the Tank, Above the Tank and at roof level





Section through the Water Tank – cutting through shear support walls





Section through the Water Tank – cutting adjacent to the shear support walls





Entering the Water tank site





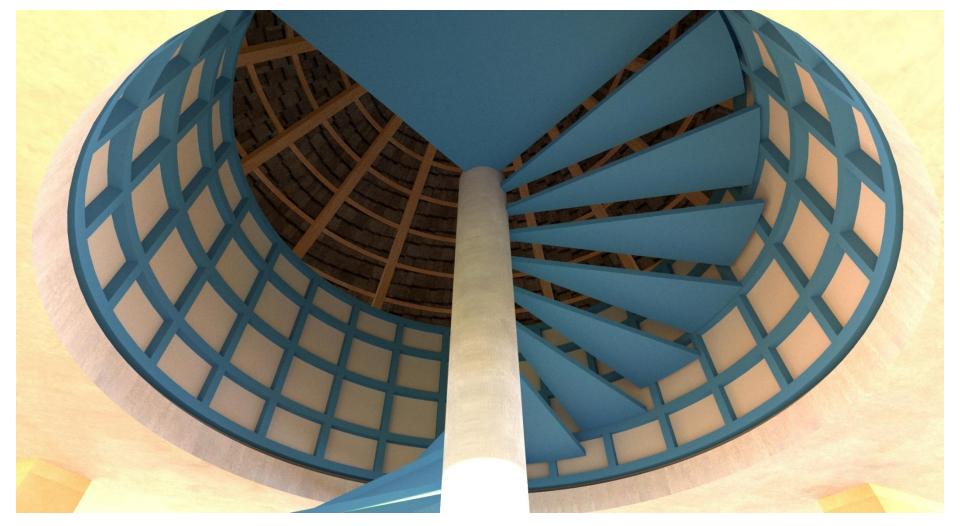
In front of the tank





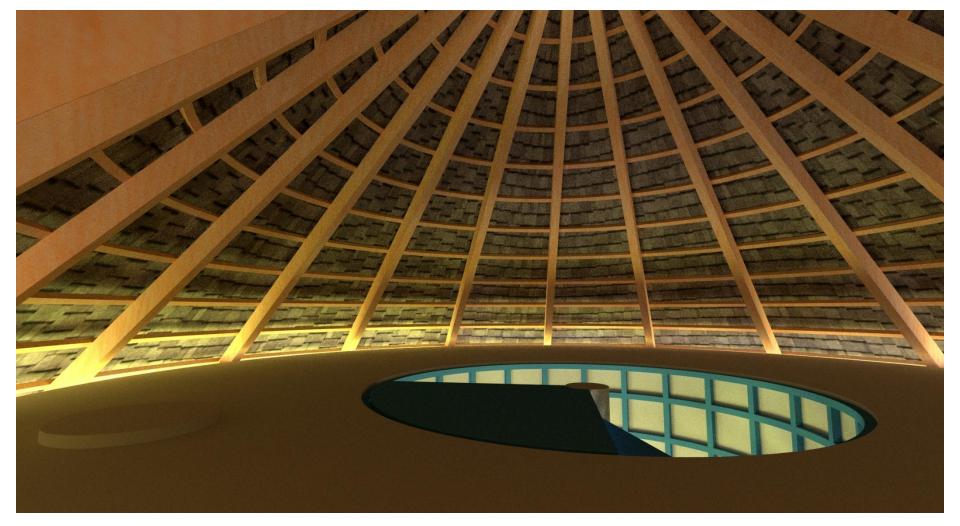
At the centre of the tank base, a spiral staircase rises up to access the top of the tank





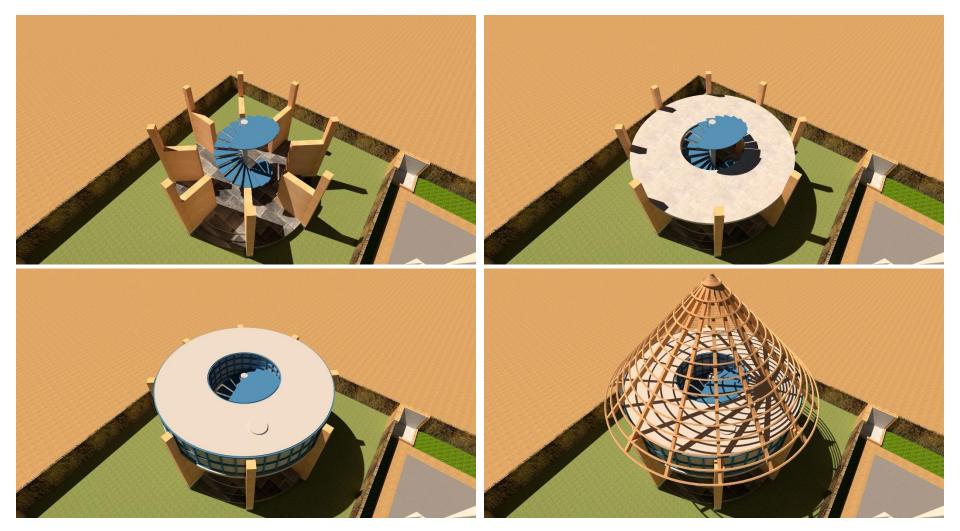
Looking westward from the SE corner of the temple site





Up above the tank. The roof extends above and creates an additional space above this tank for activity.



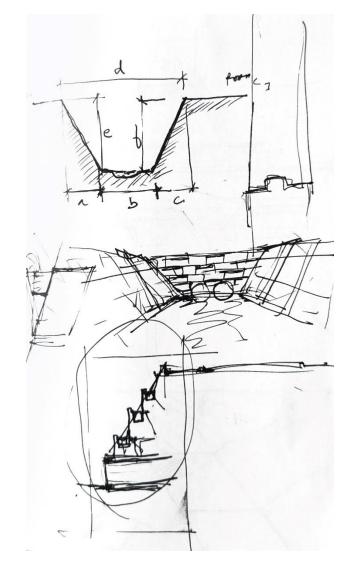


The assembly of the water tank structure

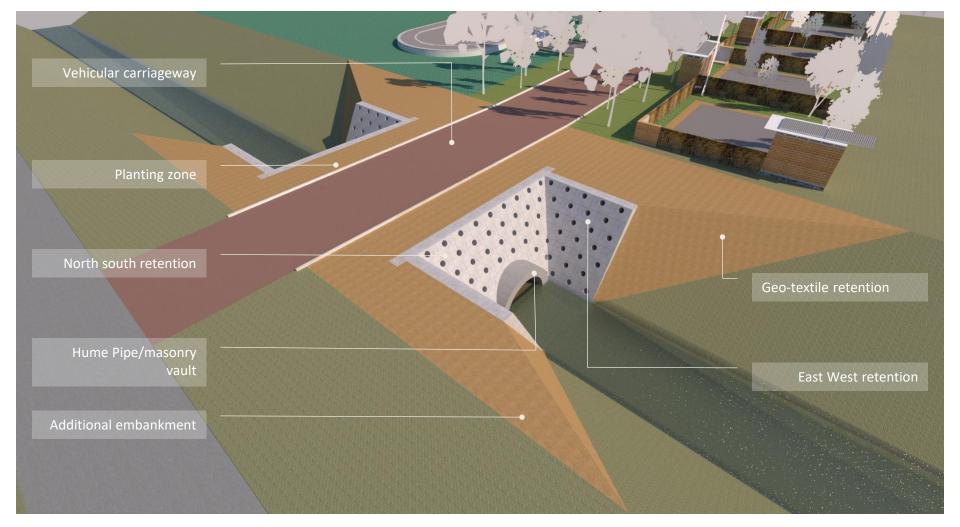


The Bridge

- 1. The entry bridge to Anilpuram is emblematic of the sustainability philosophy of the village that lies across it.
- 2. It is made of masonry components, but of a much larger scale, and made with construction debris aggregates, precast, and then lifted and set in place.
- 3. The bridge is essentially an earthen bridge, but with the masonry facia to protect the retention portions within.
- 4. At the base is a large hume pipe over which the earth is filled, and the masonry containment is laid.
- 5. A few of the precast masonry containment blocks have large holes in them for plants to be grown, which adds a bit of colour to the bridge. These holes also serve as weep holes for any moisture to be released.

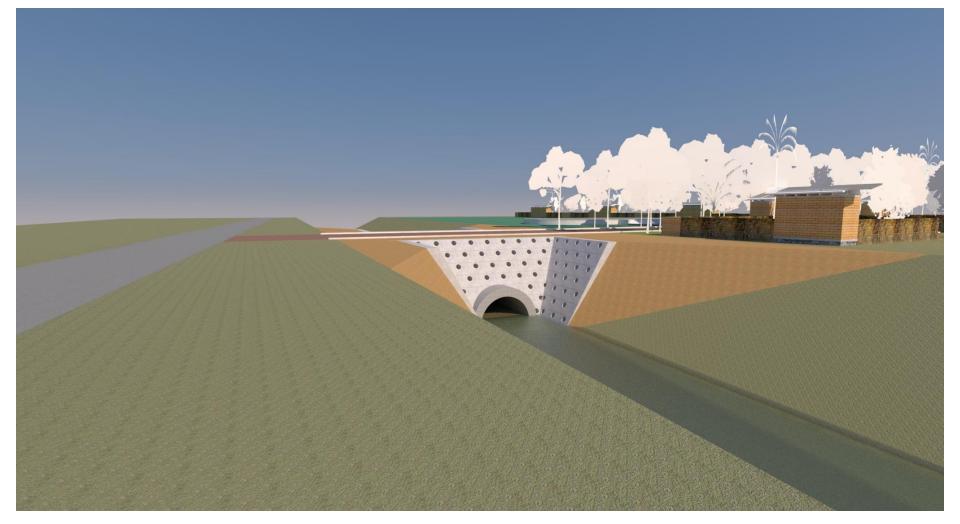






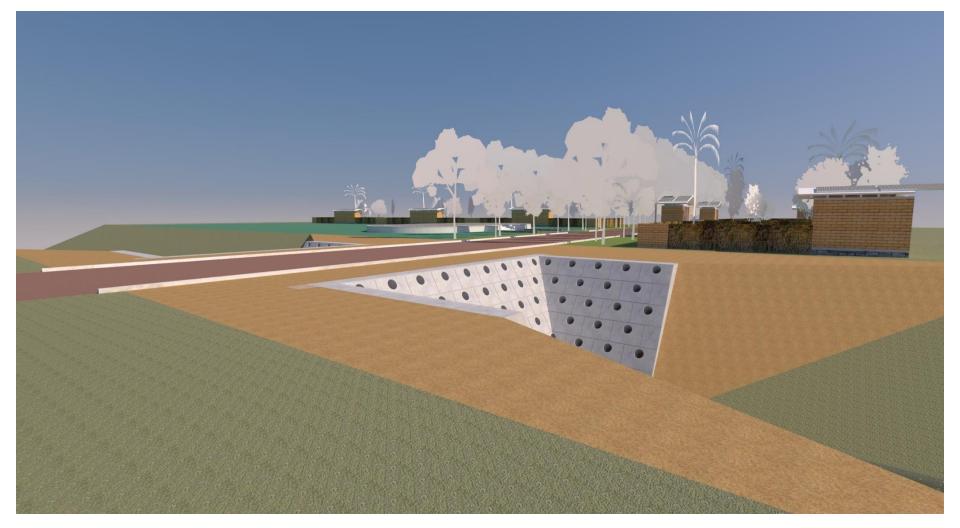
Bird's eye of the Green Bridge





The bridge on approach from Varadaiahpalem





Near the bridge

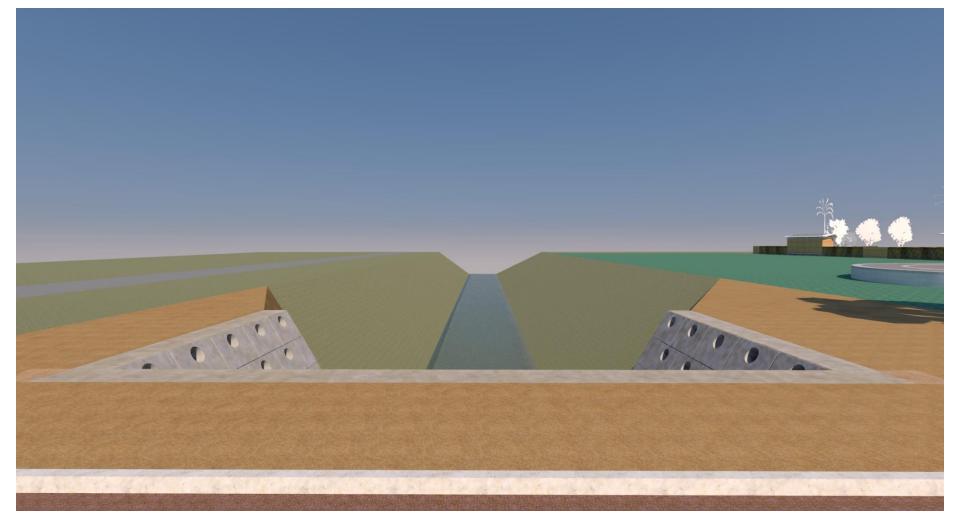




Entering the bridge



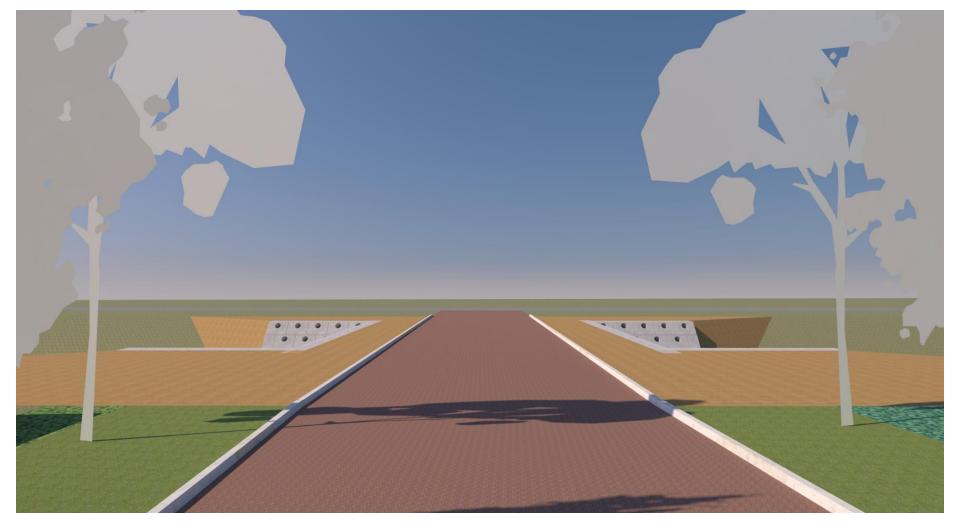




On the bridge, looking towards the side

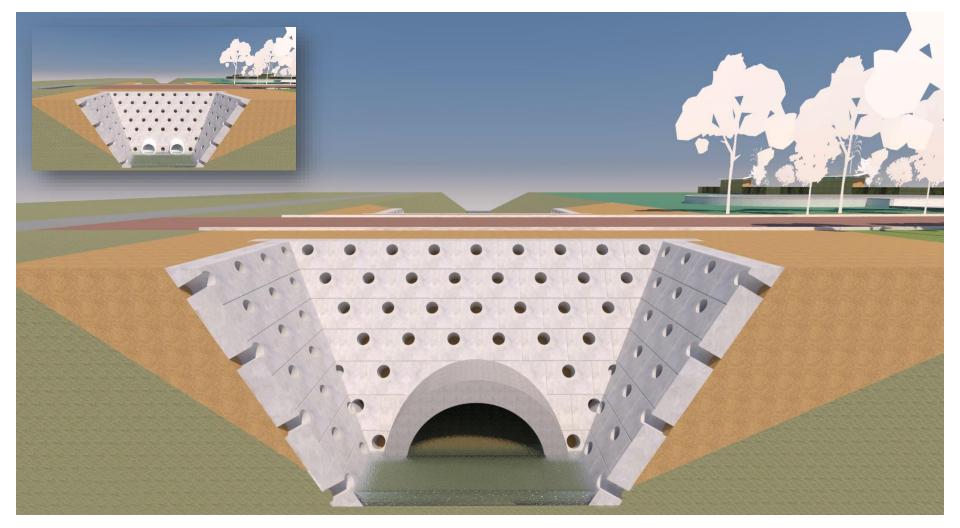






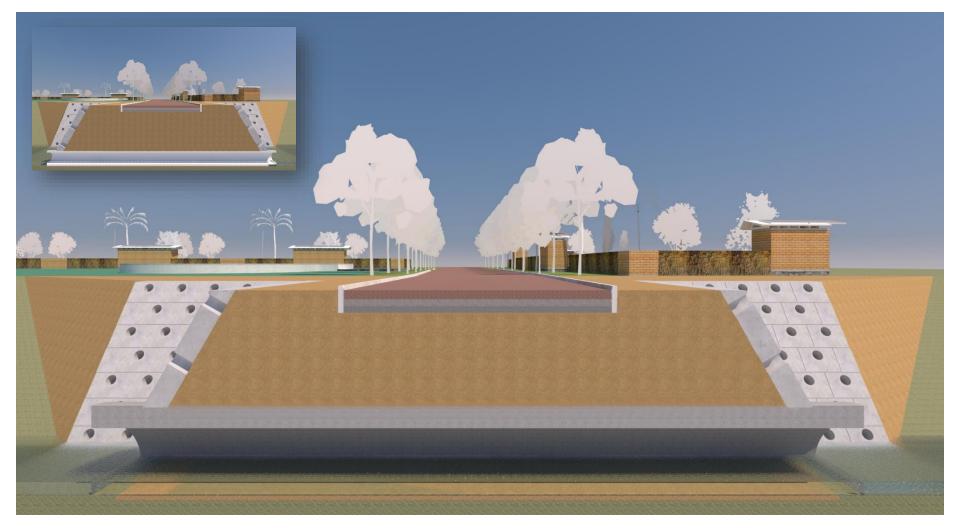
Looking back across the bridge from within the village





Section across the bridge. The planter holes are clearly visible.

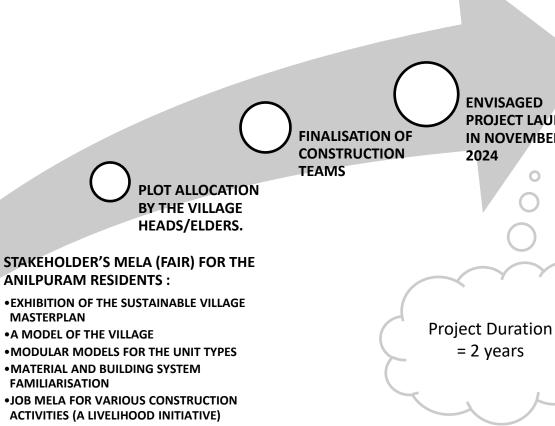




Section across the bridge. The planter holes are clearly visible.



What lies ahead...



ENVISAGED PROJECT LAUNCH

2024

= 2 years

IN NOVEMBER

OF

ACQUISITION

ADDITIONAL

THE VILLAGE

LAND FOR



Thank You

