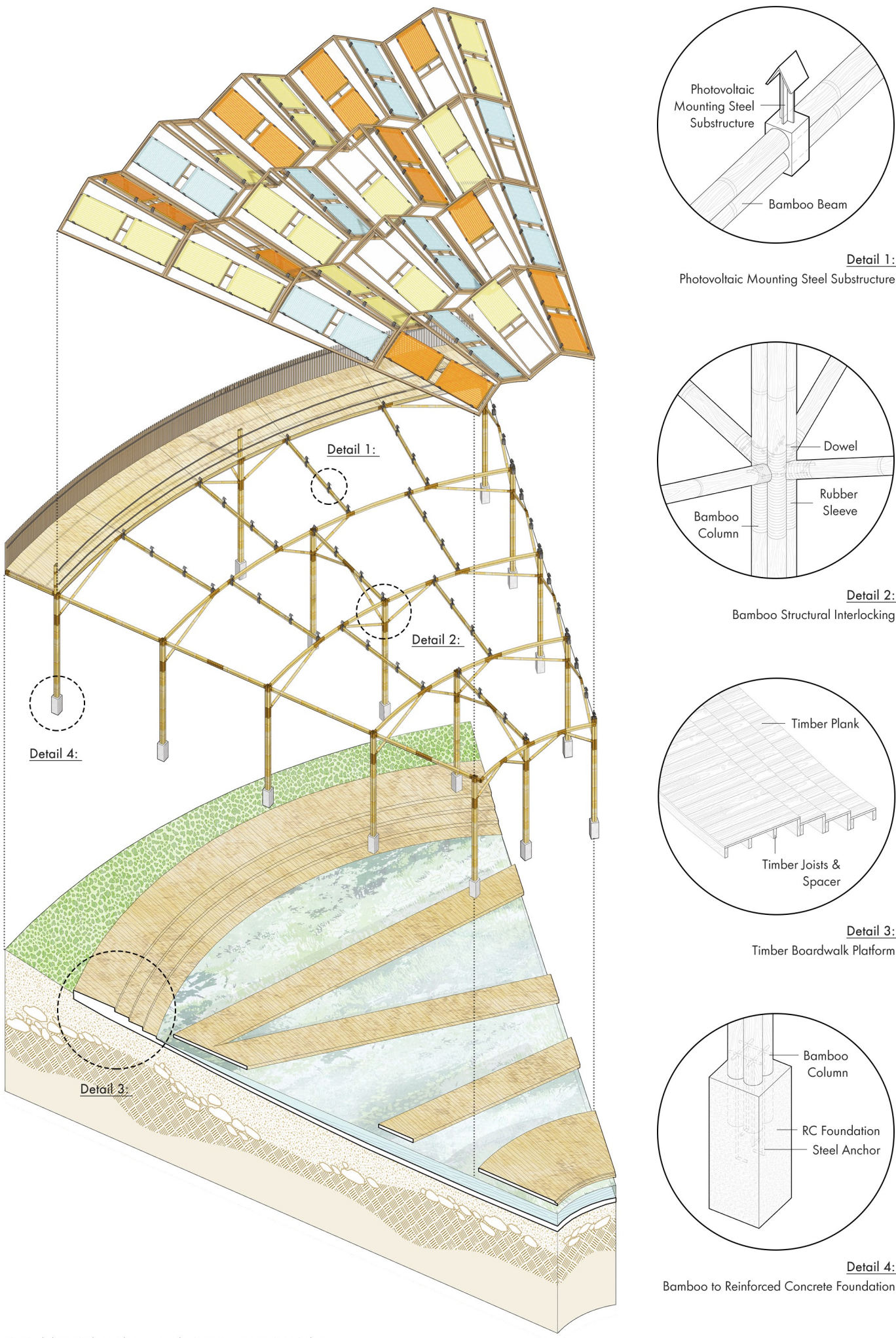
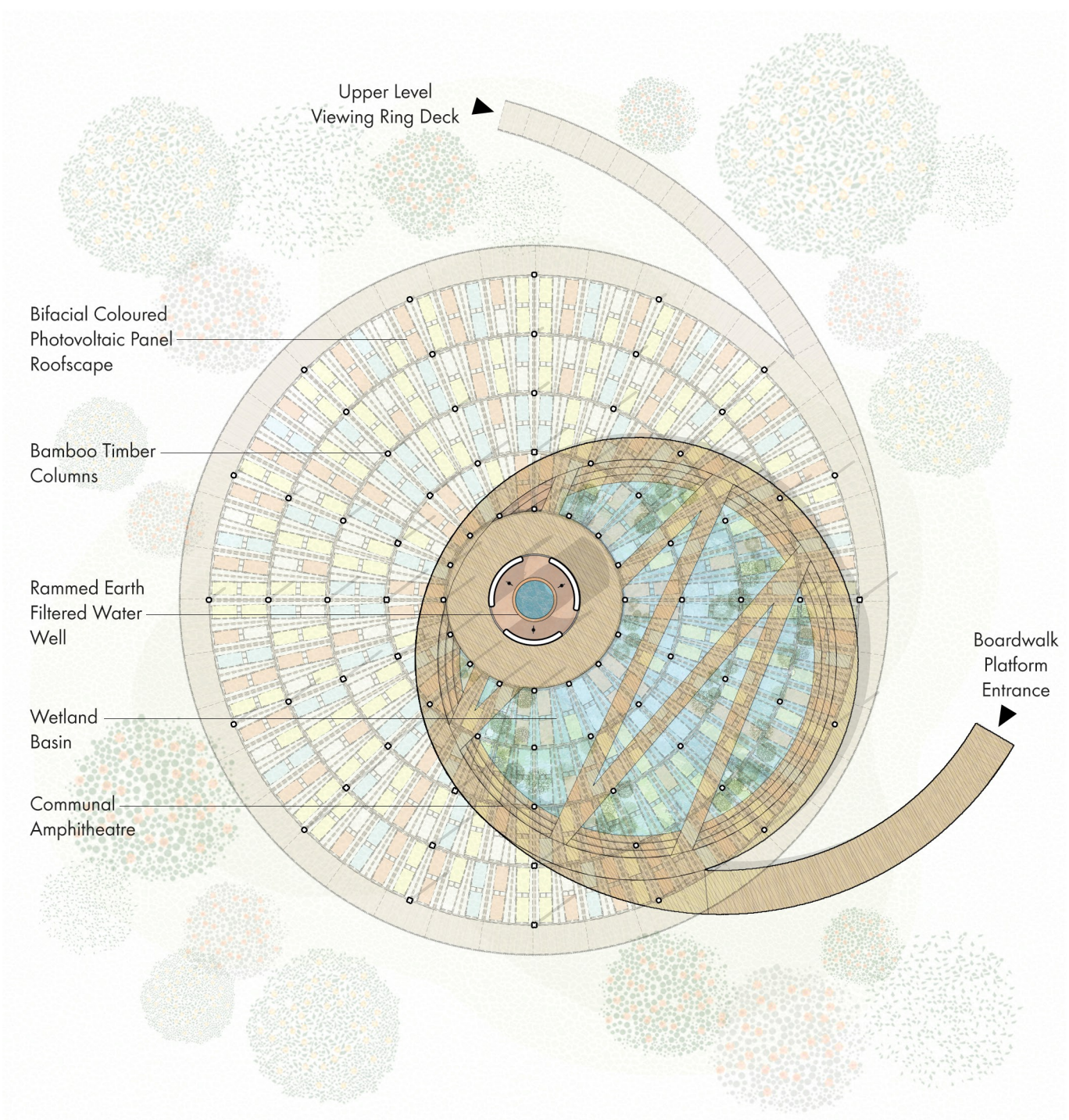
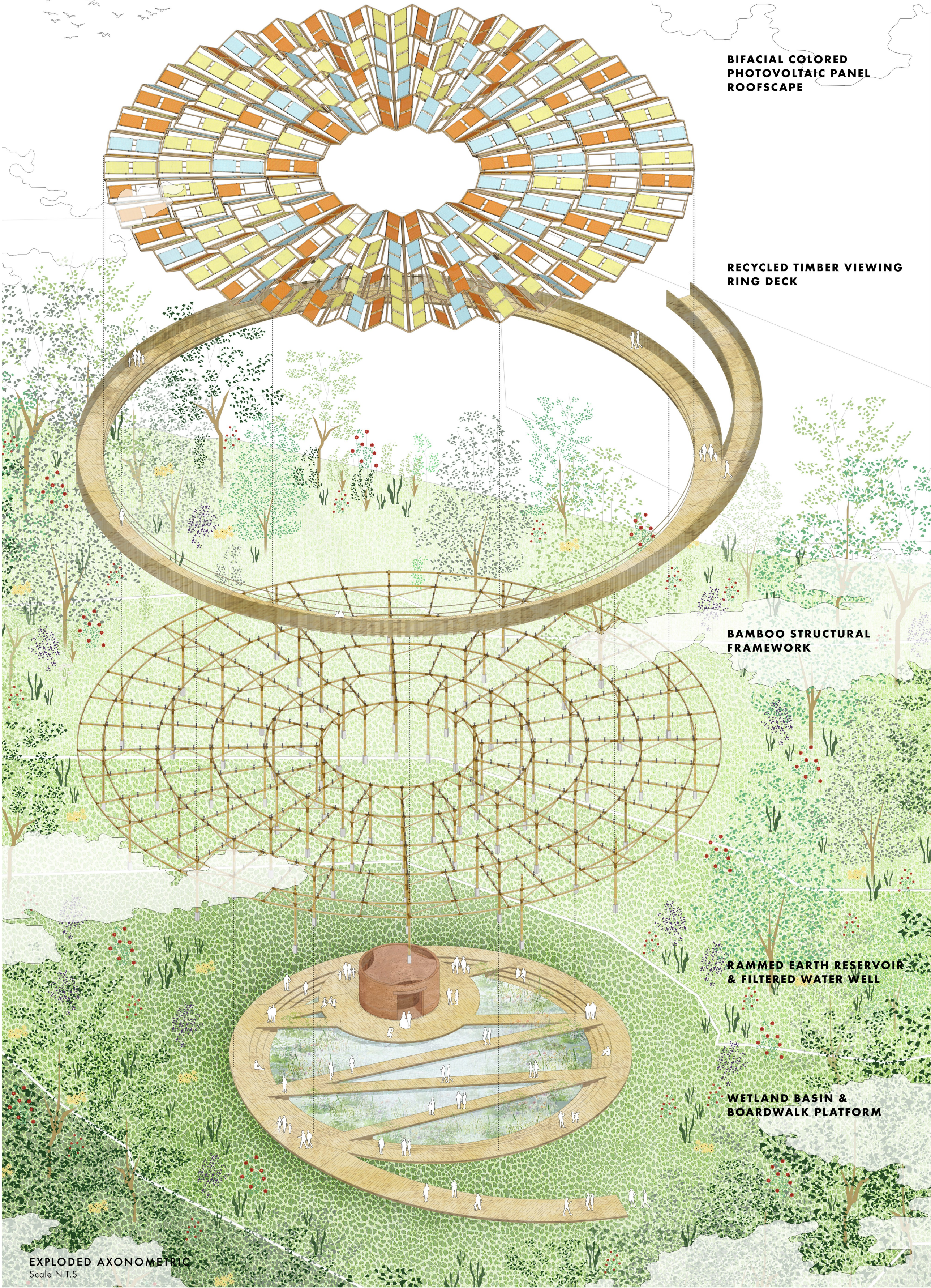


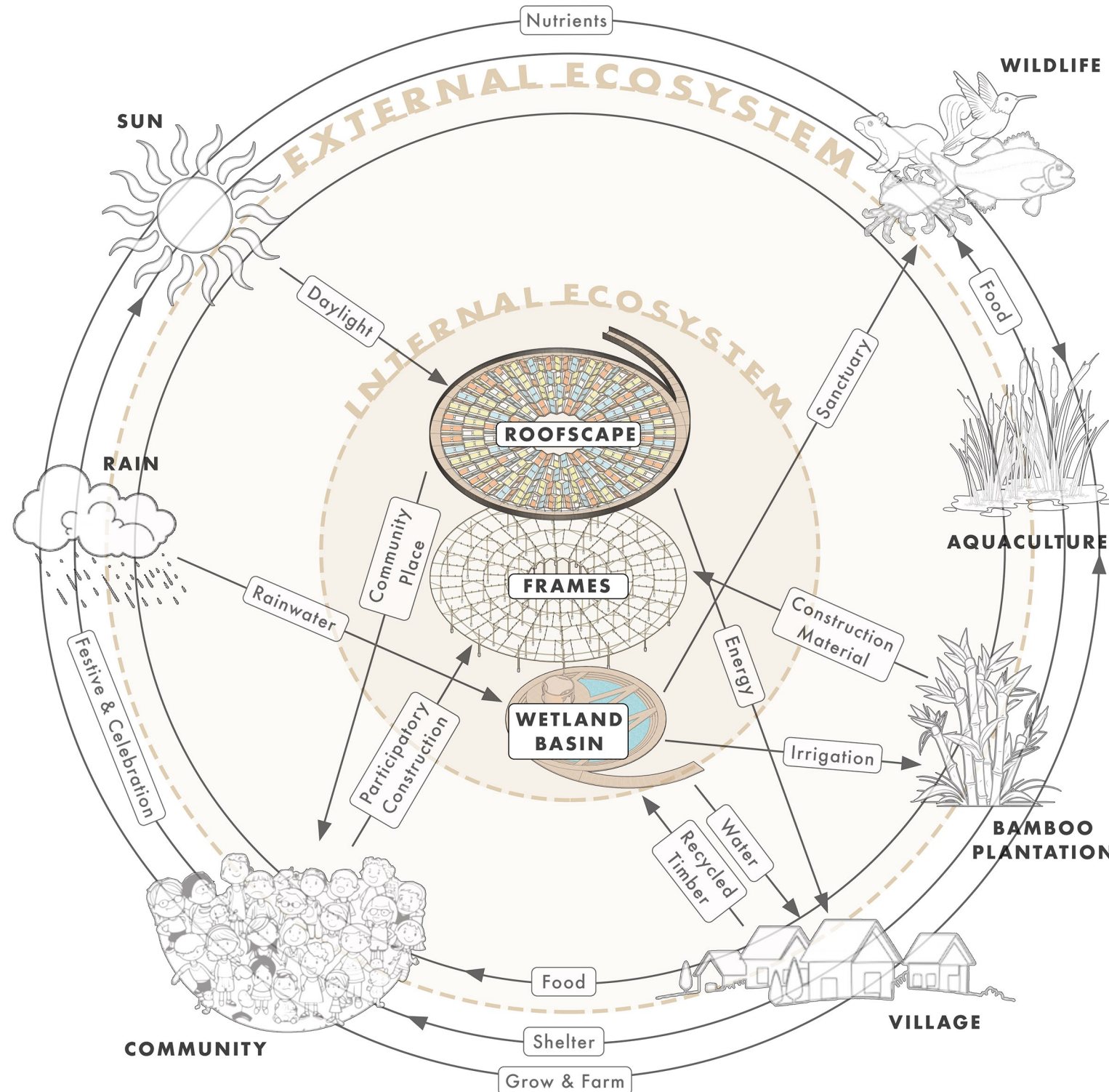
BUILDING LAYERS & MATERIALITIES

Considering the limited resources and difficulty of logistic for on-site industrialized construction in Marou Village, the design of the land art generator takes a vernacular twist to incorporate indigenous materials and construction method in a responsive manner to its context. The design of the 48m-diameter pavilion can be divided into 8 identical modules of segment, and each segment contains 4 tiers of band in different radius sizes. Each band comprises of bamboo roof trusses and columns mounted on concrete footing, lifting the photovoltaic panels fixed in gable-form steel frame. All these modules can be break down in smaller, lightweight parts to be transported more easily. The construction method is rather hands-on, less-relying on machineries, incorporating low-tech strategy, and encourage participatory initiative to create an accessible and practical way to replicate by the Marou community.

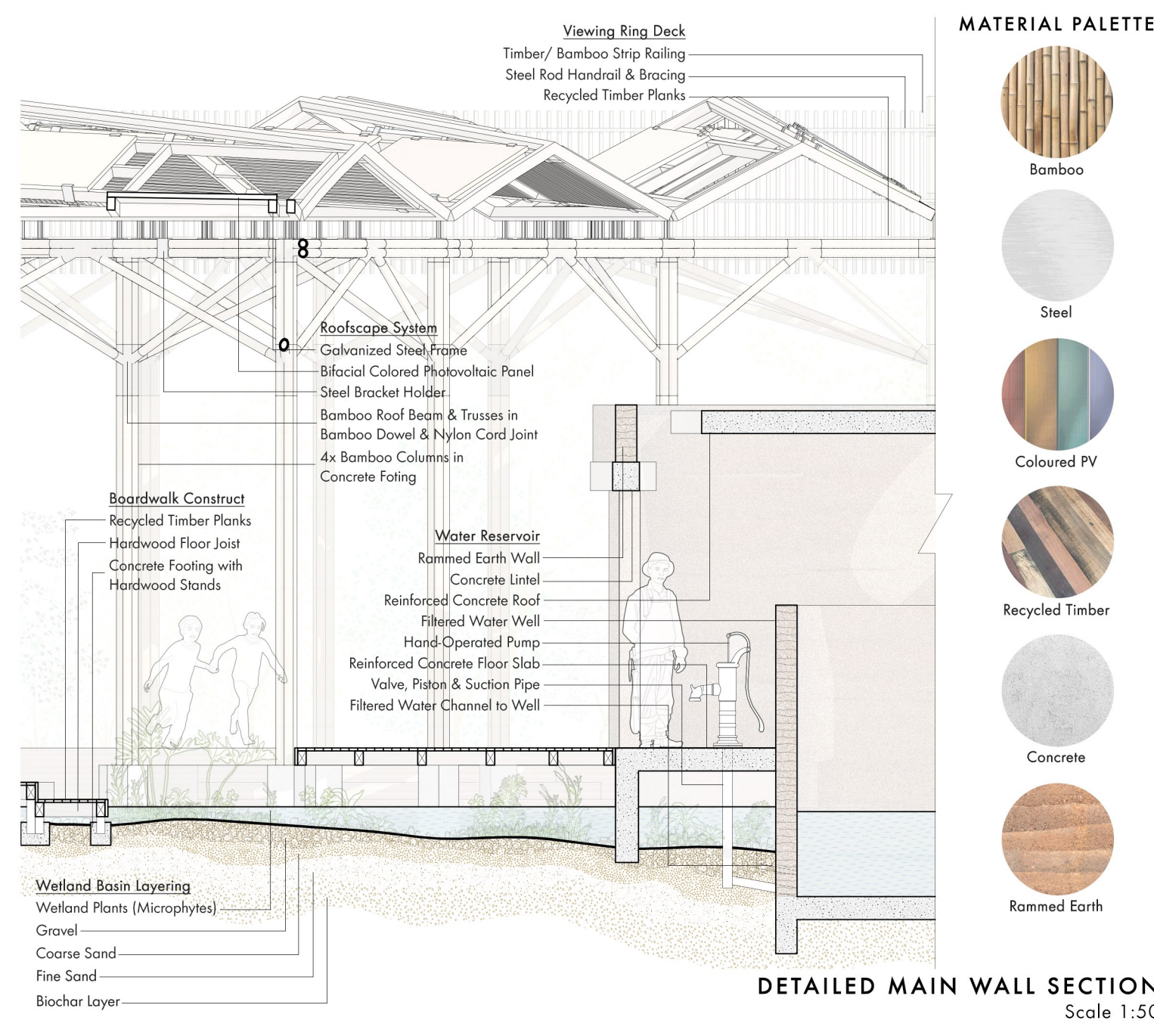


COMPONENT-BASED DESIGN

The design adopts a component-based system, where each unit is crafted from a 45-degree module combining a timber platform, bamboo structural framework, and bifacial colored photovoltaic panels. This modular approach allows for ease of construction, enabling the formation of the entire canopy with just eight repeated components.



Central to the pavilion's design is a circular material ecology that all inputs whether material, energy, or water is seen as a part of an ecological loop. The bamboo and recycling timber as stock for future scaling, are grown using the harvested rainwater from the pavilion, whereas the rainwater collected in the wetland basin becomes a catalyst for the growth of aquaculture plants for village consumption too. The generated energy also at the same time feeding back to the water pump distribution system around the village, while the water can be use for cleaning and maintenance of the roofscape too. The multipurpose pavilion complements its own functions as a circular and reciprocal system, benefiting both the village and its environment.



OF THE TRADITION & TECHNOLOGY

CONTEXTUAL-ORIENTED MATERIALITY & CONSTRUCTION METHOD

The material selection for the construct also adhere to the notion of low carbon footprint and as naturalistic as possible to complement a recovering cycle of material ecology. Large portion of the pavilion uses mainly locally grown bamboo to form the overall columns and roof structures. Whereas the accessible platforms are made in recycle timber planks or local hardwood species, namely Duku, Vesi, Rosawa, or Damanu. The well and the feature structure is made of rammed earth casted with mixture of mud, soil, and sand too. The only industrialized components are the roofscape with a total of 360 colored photovoltaic panels in gable-form galvanized mild steel frames. The assembly of all these elements are designed in non-destructive joineries, hence allow disassemble and reassemble when replacing parts or reconfiguration.