



Reversible Construction

Locally Accessible Materials



Thatch

Naturally breathable and lightweight, thatch provides effective insulation and protection when used as roofing material.



Bamboo

Flexible yet strong, bamboo is woven into door screens to allow ventilation while maintaining privacy.



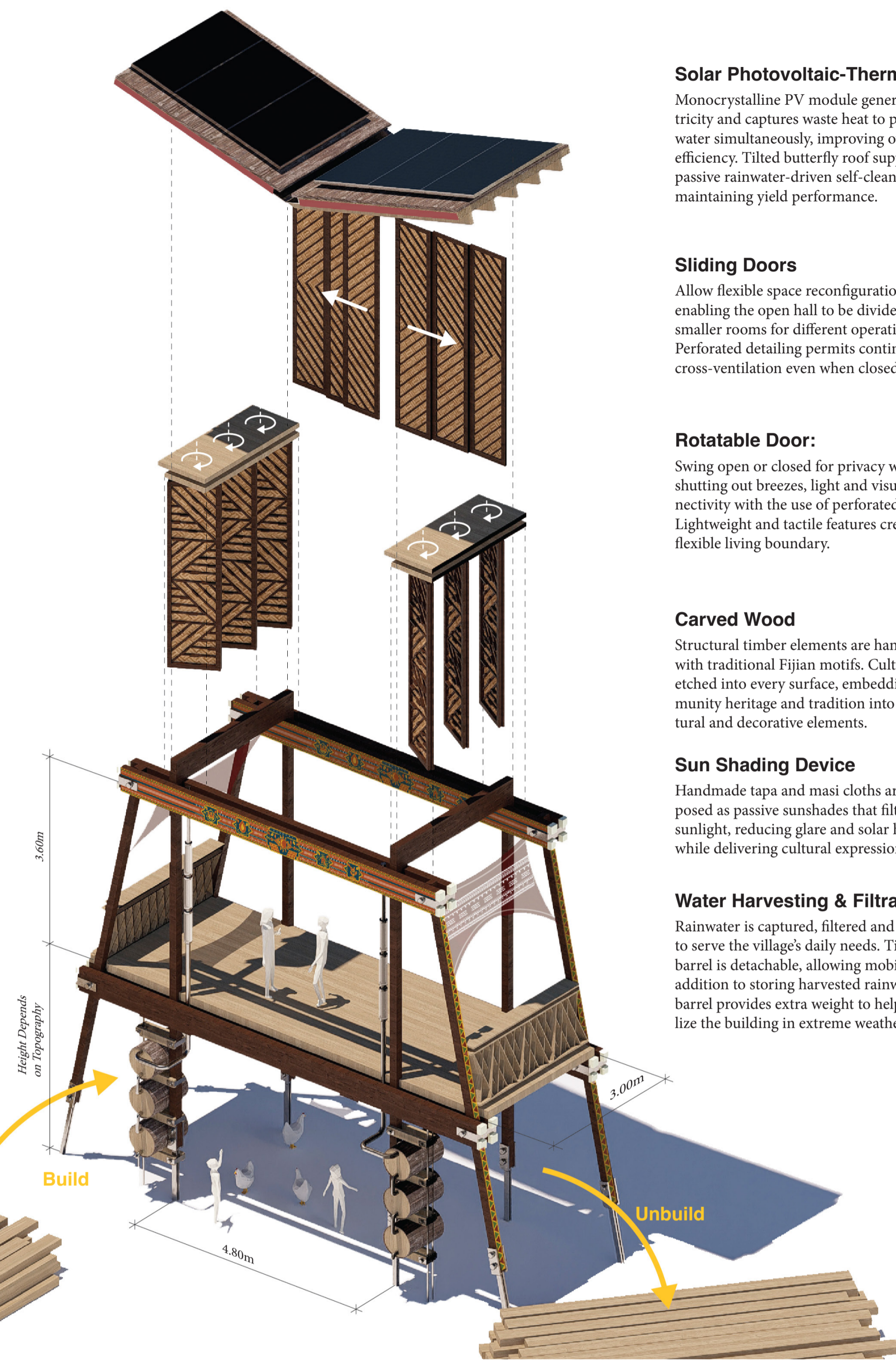
Bark (Tapa/Masi)

Soft, fibrous bark is crafted into tapa and masi cloths, offering texture, warmth, and cultural storytelling.



Timber

Dense and durable, timber serves as the primary structural framework, delivering strength and a tactile, organic warmth.



Solar Photovoltaic-Thermal

Monocrystalline PV module generates electricity and captures waste heat to preheat water simultaneously, improving overall efficiency. Tilted butterfly roof supports passive rainwater-driven self-cleaning, maintaining yield performance.

Sliding Doors

Allow flexible space reconfigurations, enabling the open hall to be divided into smaller rooms for different operations. Perforated detailing permits continuous cross-ventilation even when closed.

Rotatable Door:

Swing open or closed for privacy without shutting out breezes, light and visual connectivity with the use of perforated screen. Lightweight and tactile features create a flexible living boundary.

Carved Wood

Structural timber elements are hand-carved with traditional Fijian motifs. Culture is etched into every surface, embedding community heritage and tradition into structural and decorative elements.

Sun Shading Device

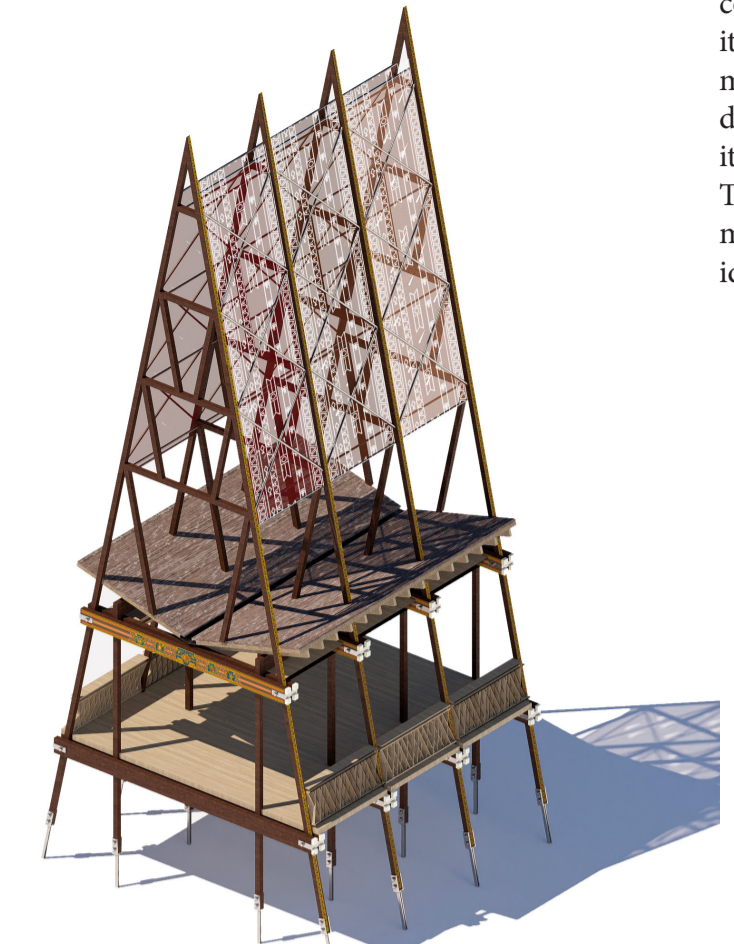
Handmade tapa and masi cloths are repurposed as passive sunshades that filter harsh sunlight, reducing glare and solar heat gain while delivering cultural expression.

Water Harvesting & Filtration

Rainwater is captured, filtered and stored to serve the village's daily needs. Timber barrel is detachable, allowing mobility. In addition to storing harvested rainwater, the barrel provides extra weight to help stabilize the building in extreme weather.

Construction Techniques and Materials Selection

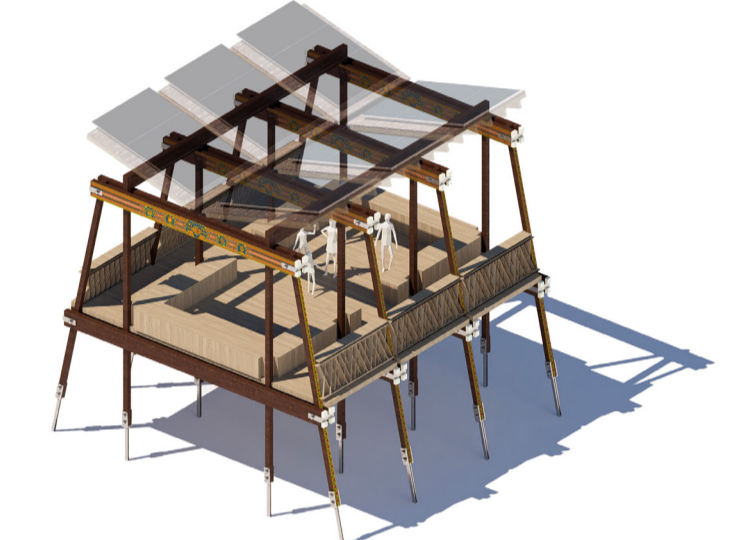
TFOL is a modular, low-carbon architectural prototype designed for community-led regeneration, using locally sourced, culturally familiar materials that support reversible construction. Its low-cost, low-maintenance design is adaptable to diverse socio-economic and ecological contexts, with a decentralized utility system that allows it to scale based on village needs. The plug-and-play modular system enables each unit to be easily assembled, disassembled, relocated, or repurposed, offering flexibility across changing environments. More than functional, TFOL celebrates Fijian heritage through the use of native materials and handcrafted patterns that reinforce cultural identity and a sense of place.



3x Module Mist Catcher



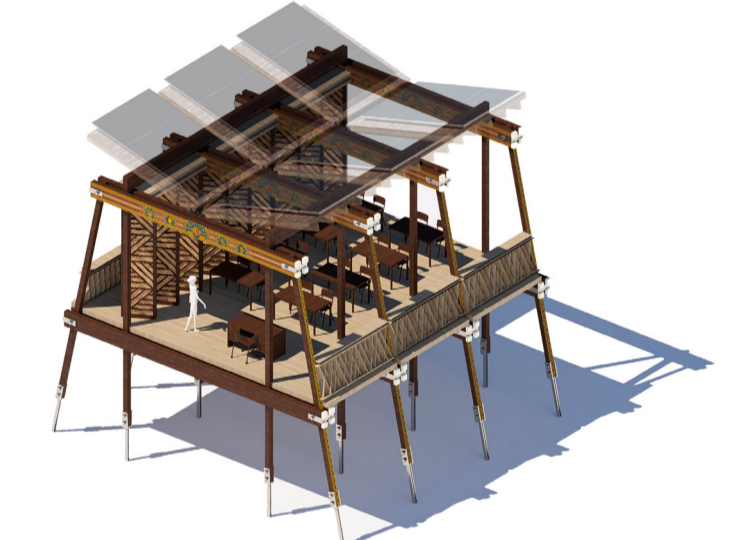
1x Module Shelter/Homestay



3x Module Community Space



1x Module Vertical Circulation



3x Module Classroom



2x Module Storage + Seed Bank

