

## Simplicity and Resilience: The Essence of the Da Vinci Bridge and the People of Marou



The southern bridge serves energy storage and rainwater harvesting functions through stone and activated carbon filtration.

The Da Vinci Bridge on Naviti: Union of the Earthly and the Divine

As previously mentioned, Cyclone Winston (2016), the most devastating in Fiji's history, destroyed almost every structure on Naviti Island. However, the Marou Bridge survived intact, a fact that the islanders attribute to the intervention of Dakuwaqa, the shark god, and the ancestors who sustained it during the storm. This miraculous event not only confirmed its practical importance but also revealed its profound spiritual significance, making it a symbol of resilience and sacred connection.

Why the Da Vinci Bridge?  
Ease and simplicity:

Its self-supporting design, without nails or complex tools, makes it ideal for remote environments like Naviti.

Local materials (bamboo, coconut fiber) and ancient techniques integrate it into the ecosystem without disturbing it. Physical and Spiritual Connection:

Symbolic: It acts as a "cloud bridge," connecting Vuravura (the physical world) with Burotu (the spiritual world). For the islanders, each crossing is a ritual act honoring their ancestors.



The northern bridge serves energy storage and recreational purposes, and is built with bamboo. Stones and flowerpots hang from natural ropes tied to the bridge structure.

The irregular triangle that defines the heart of the Marou community is a symbolic and functional space where three key walkways converge: one originating from the energy center and two that run parallel to the beach, connecting the iconic Da Vinci Bridges. This triangle acts as the central axis of two circles that visually and urbanistically unite the entire complex, highlighting its role as a meeting point and reference point for the community.

Strategically located near the community center, this space is conceived as a multifunctional plaza intended to be the hub for gatherings, leisure activities, and cultural activities in the town of Marou. Its design is inspired by traditional elements, with a floor based on the patterns of mats, in shades of brown and beige, evoking local craftsmanship and the connection to the land. The walkways combine natural materials such as stone and wood, creating a welcoming and harmonious environment that reinforces the relationship between the community and its natural surroundings. This space is not only a physical point of convergence, but also a symbol of unity and connection between all the elements of the design: the energy center, the Da Vinci bridges, the offshore platforms and the cemetery, thus celebrating Marou's cultural identity and sustainability.

## Components of the Whole - Ideas for Integrated Design

This slide presents a series of conceptual explorations and individual proposals that complement the overall design of the main project. Each element explored here, although presented independently, is intrinsically linked to the central idea of the connecting circle that articulates the overall design. The objective of this presentation is to detail specific ideas-from material approaches to possible functional and aesthetic solutions-that, together, enrich and expand the potential of the unifying concept, offering detailed insights into how particular aspects could be realized within the overall framework of the project.

## The Kava Circle: Nature, Culture, and Technology in Balance



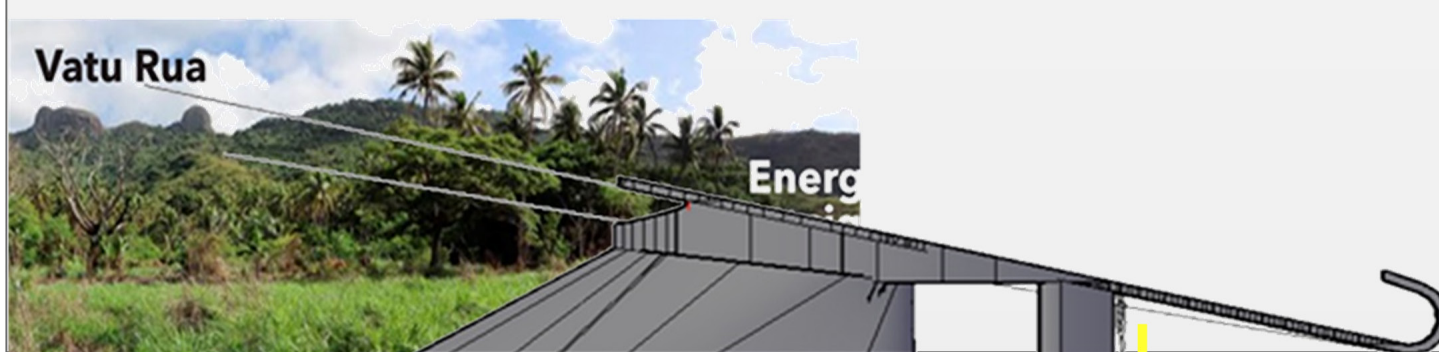
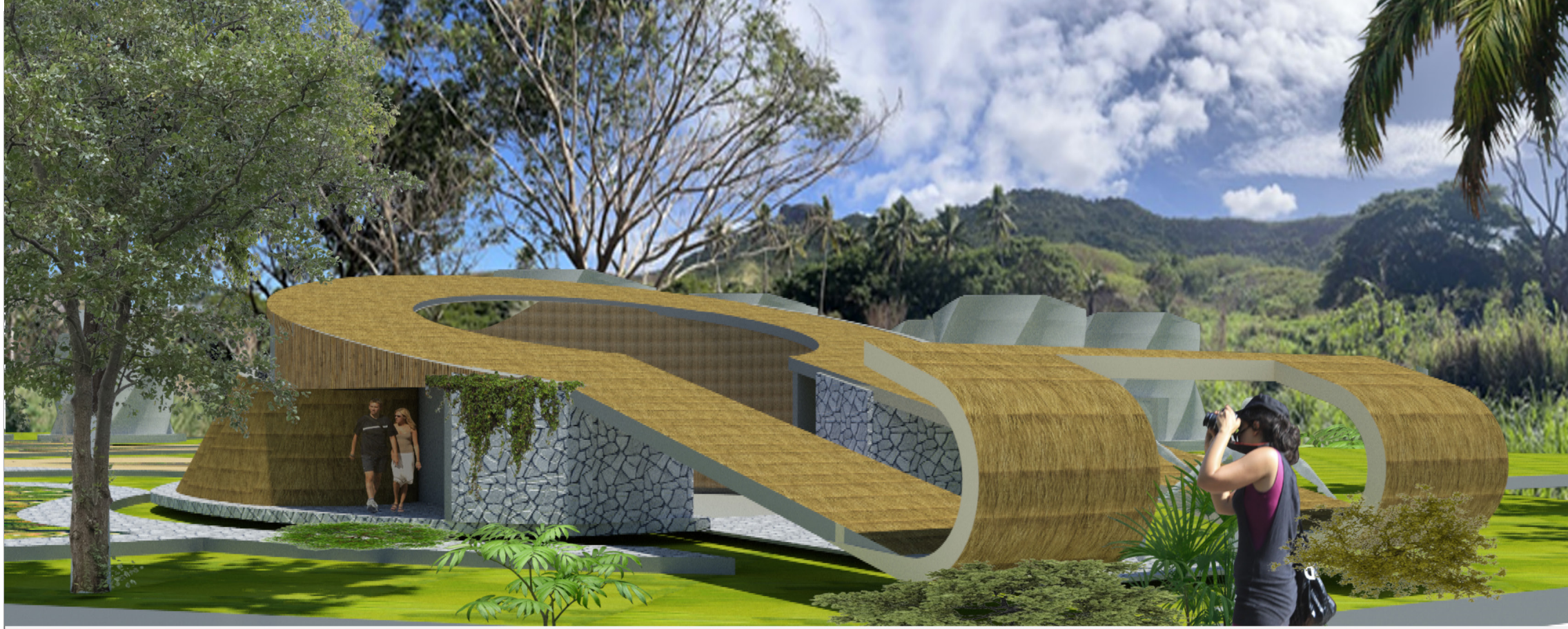
This urban design not only responds to the practical needs of the competition, such as energy generation and water harvesting, but also reflects the rich worldview of the Marou people, promotes the protection of key species such as green turtles (essential to the region's ecological balance), and, most importantly, seeks to value and celebrate its people.

After a process of exploration and inquiry, the project sought to integrate all the key elements: the village, the cemetery, the energy center, the coast, the sea, and important buildings. It was concluded that a tree trunk, spreading its roots radially, could serve as a unifying metaphor. Inspired by the cultural significance of the kava plant, whose deep roots symbolize unity and ancestral connection, the concept of a central tree was adopted as a starting point.

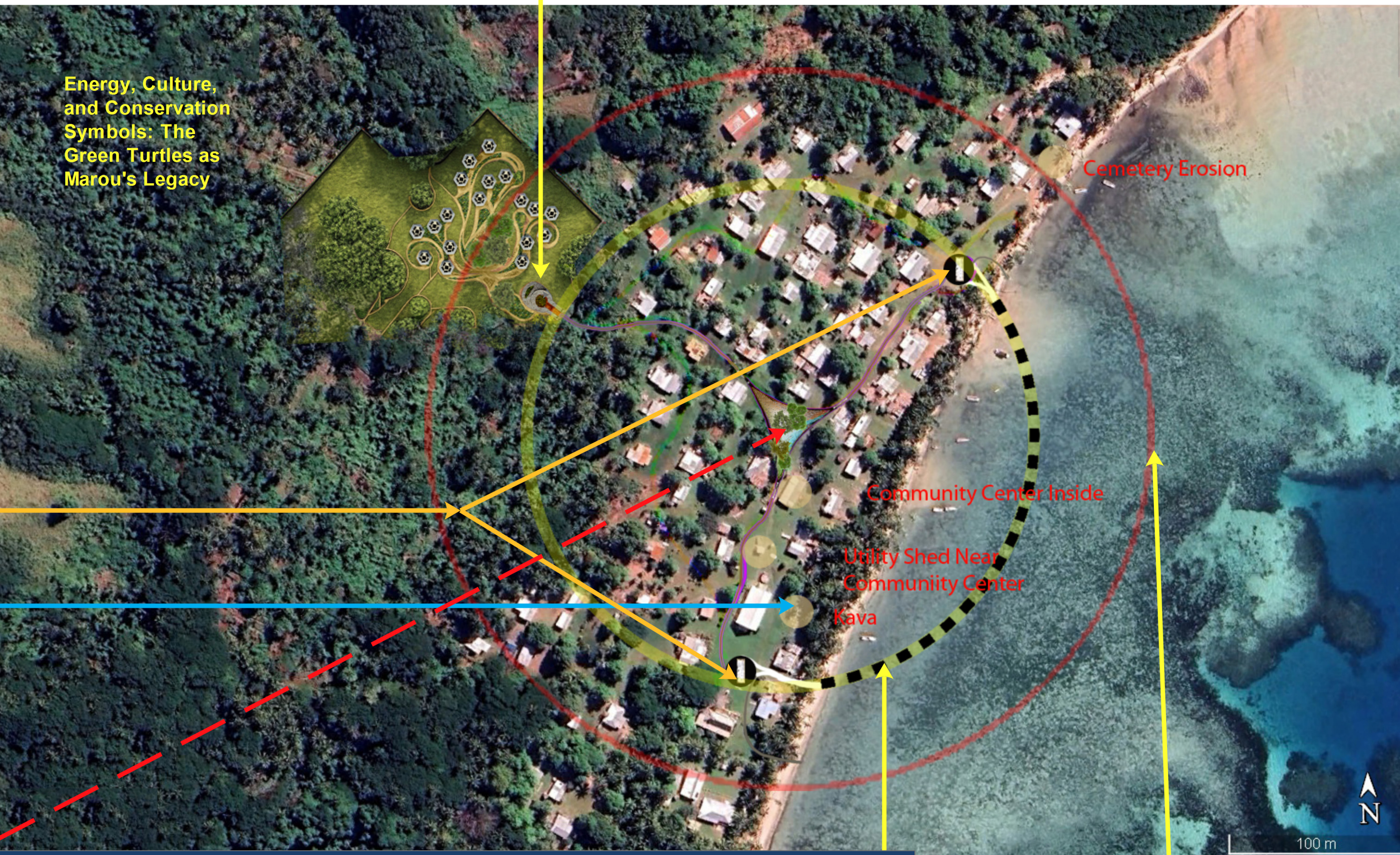
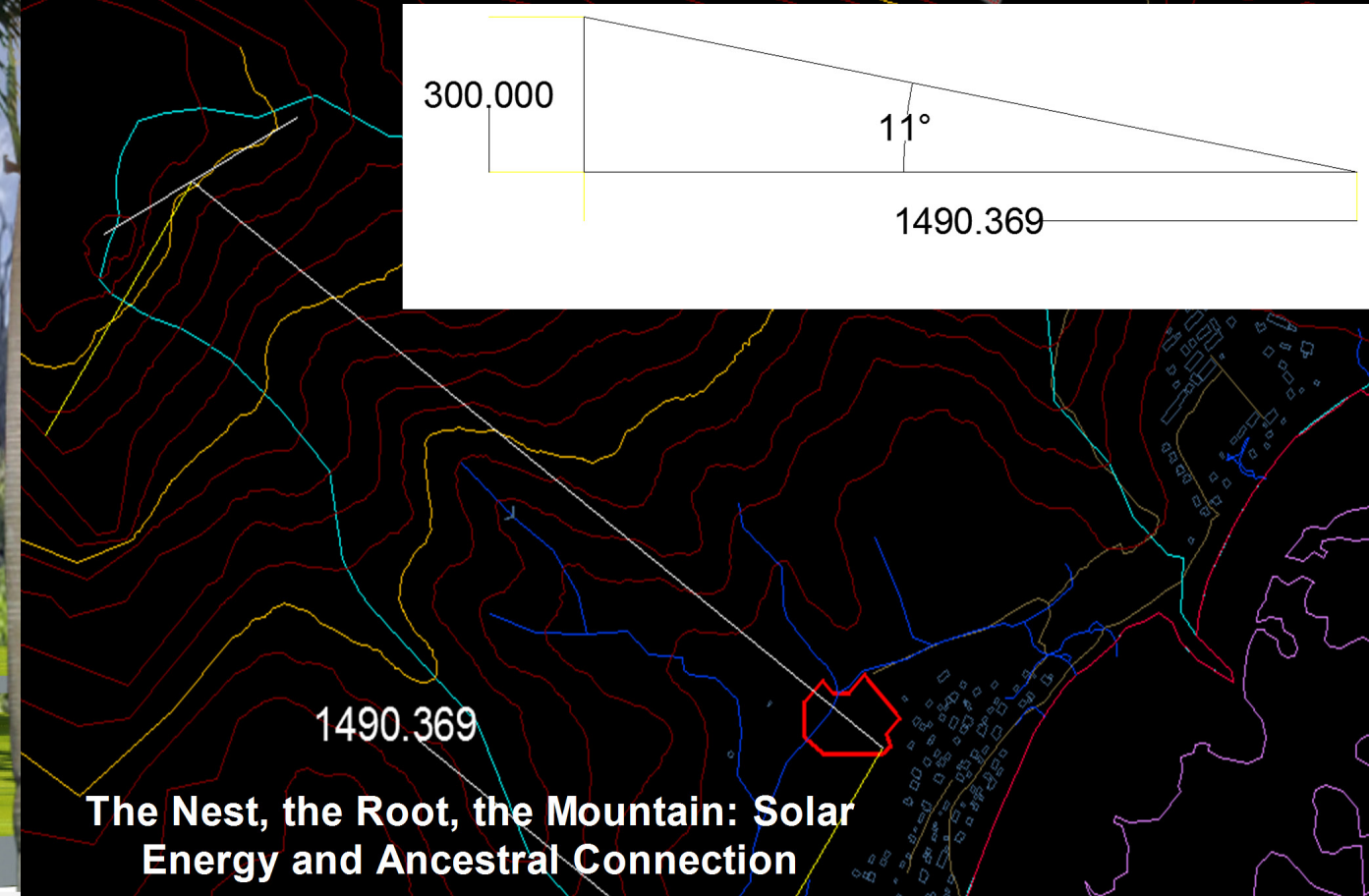
From this idea, the circle was chosen as a geometric figure to represent the spreading of the roots, creating a concentric system that visually and functionally integrates all the design components. From the central core, which represents the heart of the village, the invisible lines of the circle connect the cemetery, the energy center, the coast, and the sea, reflecting both the community's ancestral culture and modern needs. Furthermore, this design seeks to protect the green turtle habitat by implementing natural barriers, such as mangroves, which reduce coastal erosion and improve water quality.

## The Central Triangle: The Heart of Marou and Community and Technological Connection

**Note:** Due to limited visual information specific to the proposed site, the image presented in this sheet has been selected as a conceptual representation of a similar space. It is intended to illustrate the design idea and the desired atmosphere and should not be interpreted as an exact representation of the final site.



The design of the entrance to the Naviti Energy Complex combines functionality, cultural symbolism, and respect for the natural environment. Inspired by the shape of the island, its arms extended toward the sea and Vatu Rua Mountain, this space includes a semi-open tunnel that protects against prevailing winds and cyclones while offering strategic views of the mountain. At its center, a circle represents the nest of green turtles, a symbol of fertility, rebirth, and balance, connecting the importance of conserving these emblematic species. Roots, or paths, emerge from the earth from the energy complex and continue to form an entrance that guides visitors toward the tunnel, where a raised window frames the majesty of Vatu Rua Mountain, inviting contemplation and reflection on the ancestral relationship between the island's inhabitants, nature, and the spiritual. This building, the nest or access to the complex, also serves as the storage center for the batteries of the entire energy complex. From here, the roots extend towards the center of the town, symbolizing the integration of the project with the community and its surroundings.



The proposed design for the Marou Village energy and cultural complex is a harmonious celebration that unites advanced technology, ancient traditions, and sustainable practices. Inspired by kava (yaqona), the roots of the plant considered sacred, symbolizing unity and spiritual connection, these roots connect the energy complex, the village, and its natural environment physically with walkways. At the heart of the design is a central triangular plaza, formed by the intersection of three meandering walkways that act as connecting axes between key points: the energy complex at sea, the two complementary plazas, and the access to the main tunnel. This triangle, whose edges are slightly angled inward, is not geometrically perfect, giving it an organic form that reflects the dynamic nature of the community. At each vertex of the triangle, modern bridges are planned, designed to reinforce both the modernity and symbolism of the design, representing the connection between the earthly and the divine under the aegis of Dakuwaqa, the ancestral shark god.

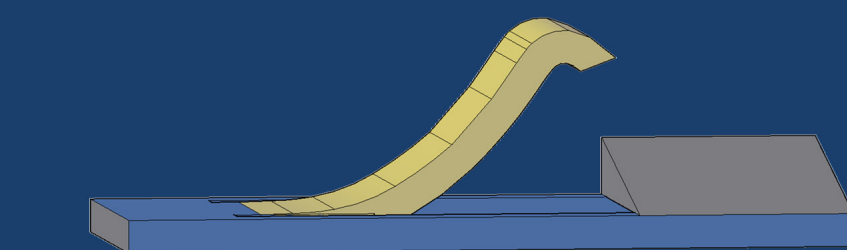
This central triangle is the core of an imaginary circle that connects the plazas, the tunnel, and the sea, with part of this circle extending into the ocean to house floating platforms equipped with hydropanels. These platforms not only generate clean energy and collect drinking water, but also evoke the divine protection of Dakuwaqa, who watches over the waters and ensures the balance between humans and the ocean. In particular, the project leans toward an urgent ecological purpose: the protection of green turtles, a vulnerable or endangered species. Inspired by the figure of Dakuwaqa, known in iTaukei mythology as the protector of sea creatures, the design seeks to honor his legacy by integrating elements that celebrate the ancestral relationship between the inhabitants of Marou and the sea, reinforcing the community's commitment to the conservation of the marine ecosystem.

## The Dakuwaqa Embrace: A Protective and Resource-Generating Platform



The design of this offshore structure is based on the Fijian palm tree, a symbol of resilience that combines protection (leaning trunk), sustenance (coconuts with water), and adaptation (leaves that capture resources). Our platform replicates this triple function:

1. Tilt toward the island: Like the palm tree's trunk, it breaks the waves.
2. Hydropanels: They mimic coconuts by generating drinking water from the humidity in the air.
3. Solar panels: They are equivalent to leaves, capturing energy from the sun.



The offshore platform presented in this project responds to a comprehensive vision of sustainability and coastal protection, inspired by the natural adaptation of Fijian palm trees. This design seeks to replicate their resilient qualities by strategically interacting with the environment, offering effective solutions to mitigate the impact of waves and optimize resource generation. The structure incorporates three essential elements that reflect the palm tree's functionality: a sloping trunk that acts as a wave barrier, hydropanels that generate drinking water from air humidity, and optimally positioned solar panels to capture energy. Its 11-degree tilt to true north maximizes the efficiency of the energy systems and promotes rainwater runoff, enabling adaptive performance in variable maritime conditions.

In addition to its technical function, the platform integrates natural barriers such as mangroves and coastal vegetation, reinforcing environmental protection by absorbing residual wave energy. Symbolically, it pays homage to Dakuwaqa, the guardian of the waters in Fijian mythology, whose protective spirit is reflected in the structure's strategic placement.

## Roots and Circles: Vital Connection between Energy, Memory and Territory



The design of this complex integrates essential elements of Marou into a system of interconnected circles that symbolize the relationship between energy, history, and the natural landscape. From the heart of the village, concentric lines project, linking the cemetery, the access tunnel to the nest, the Da Vinci-inspired bridges, and the offshore platforms, forming an imaginary structure that reinforces the integration of the territory.

The energy center derives from three trees planted on the site, whose metaphorical roots expand and distribute energy throughout the village. A second circle connects this core to the cemetery, framing a space of memory linked to the cycle of life and renewal. To reinforce its integration with the environment and mitigate erosion, the cemetery is surrounded by trees adapted to saltwater, creating a balance between ecological conservation and spiritual permanence.

Through these circles and roots, the design seeks to represent not only the functionality of the space, but also the deep connection between the community and its environment. The radial layout of the energy system and its links to the landscape reflect Marou's philosophy: energy, tradition, and nature as a single organism.