

LAGI 2025 Fiji Narrative Template

Title : DWELL

Artist : Sujin Lim

Concept Narrative

DWELL is a site specific landmark artwork that reimagines resilience, community, and home in the face of a changing climate. Shaped like three monumental coral inspired structures, the installation occupies a 10 meter by 10 meter footprint and rises up to 9 meters high. The organic forms celebrate the living reefs that have long sheltered and sustained life in the Yasawa Islands, while offering a vision for how communities can dwell in harmony with nature's rhythms.

Each coral form is designed to integrate beauty and function. Embedded with solar photovoltaic modules along the upper surfaces, the structures capture sunlight gracefully while preserving their sculptural essence. Together, the system generates over 75 kW of clean electricity, a reliable source of energy to support Marou Village's daily life such as lighting, refrigeration, communications, water pumping, and beyond.

Simultaneously, the undulating surfaces channel rainwater into concealed storage tanks at the base of the structures. This integrated water harvesting system strengthens the community's access to freshwater throughout the dry season.

As night falls, DWELL softly comes alive with energy efficient LED illumination powered by the day's solar energy. Gentle waves of light pulse across the coral surfaces, transforming the installation into a vibrant nocturnal gathering space, a beacon of connection, memory, and aspiration.

Designed with modular construction in mind, each coral form can be transported in segments and assembled on site, ensuring practicality within the logistical challenges of Naviti Island. Materials are carefully selected for durability against salt air, high winds, and cyclonic conditions, ensuring long term resilience.

DWELL invites the people of Marou and visitors alike to inhabit a space where art, infrastructure, and culture converge, where dwelling is not just surviving but thriving in harmony with the land, the sea, and one another.

1. Technical Narrative

Our design integrates three core technologies: solar photovoltaic panels, rainwater harvesting, and low-energy LED lighting. These were selected to reflect the spirit of environmental care and resource self-sufficiency in island communities like Fiji. The solar panels are installed on the flat top and angled surfaces of the sculpture's base, chosen for maximum exposure to sunlight without interfering with the artwork's

coral-inspired form. Rainwater is collected through sculpted grooves along the coral surfaces and directed into a subsurface cistern for reuse in irrigation or graywater systems. LED lighting embedded in the base and sculpture is powered by stored solar energy and programmed to pulse gently at night, evoking the rhythm of ocean currents.

The installation is designed to generate approximately **75,000 kWh of electricity per year**, based on the LAGI 2025 requirement. This energy is sufficient to power the sculpture's lighting and provide additional capacity for nearby public infrastructure or buildings. The rainwater system is estimated to collect up to **50,000 liters annually**, depending on regional rainfall, with storage capacity built into the base.

System inputs include **sunlight** and **rainwater**, both naturally abundant and renewable in the Fijian context. System outputs include **clean electricity** (DC converted to usable AC power), **ambient lighting**, and **stored rainwater** for sustainable use.

2. Prototyping and Pilot Implementation Statement

The prototyping process for DWELL will focus on validating the structural integrity, energy performance, water harvesting efficiency, and aesthetic impact of the coral inspired forms. Our team will work closely with local fabricators and community members to create a scaled prototype of one of the coral structures in a designated site in Suva.

The prototype will include a complete section of the coral surface embedded with functioning solar photovoltaic modules, an integrated rainwater harvesting channel, and internal LED lighting. Through this prototype, we will test the solar energy output under real conditions, evaluate water collection efficiency, and refine the lighting programming for nighttime operation. Structural components will be subjected to wind load tests to ensure resilience against cyclonic events.

In collaboration with the residents of Marou Village, we will organize participatory workshops during the pilot phase. These workshops will introduce the design intent, basic system operations, and maintenance techniques. Community members will be invited to contribute to final aesthetic choices, surface treatments, and aspects of site preparation to ensure that the final installation reflects local values and nurtures a sense of ownership.

The full scale pilot installation in Marou Village will be implemented using modular construction techniques. Each coral form will be fabricated in manageable segments that can be transported by small barges and assembled on site using simple mechanical connections. Local skilled labor will be prioritized during assembly to build capacity and economic opportunity.

The pilot project will serve not only as a functional energy and water solution but also as a living model of collaborative design and climate resilience. Through this hands on, community centered approach, DWELL will foster pride, stewardship, and long term success for the people of Marou Village.

3. Operations and Maintenance Statement

The DWELL installation is designed to require minimal yet consistent operations and maintenance to ensure its long term functionality and beauty. From the outset, our team is committed to building a maintenance framework that empowers the residents of Marou Village to confidently care for the system as part of their everyday life.

Maintenance responsibilities will be divided into accessible tasks that can be easily performed without specialized tools or technical expertise. Regular visual inspections of the solar photovoltaic modules will be conducted to check for debris or damage, with simple cleaning of panel surfaces using water and soft cloths recommended at least twice per year. Rainwater harvesting inlets will be checked monthly during the rainy season to ensure they are free from blockage and sediment build up.

The energy storage system, housed safely within the bases of the coral forms, will be monitored with a simple user interface that provides status updates on battery health and system performance. Annual technical checkups will be planned in collaboration with local or regional renewable energy service providers to ensure system reliability and to address any potential wear.

LED lighting components are selected for long life and low maintenance. Replacement of individual lights, if necessary, can be easily performed through modular access panels incorporated into the coral structures.

Knowledge transfer will be supported through training sessions during the pilot phase and supplemented with easy to understand operation manuals created specifically for the Marou community. Residents will have access to visual guides for maintenance routines, troubleshooting checklists, and contact information for external technical support if needed.

By building community pride, technical capacity, and a shared sense of stewardship, DWELL is intended to live not only as a functional infrastructure but as a cherished living part of the village for generations to come.

4. Environmental Impact Assessment

The DWELL installation is designed to minimize environmental disturbance while enhancing ecological and community resilience. Every aspect of the project has been carefully considered to align with the unique coastal and island ecosystem of Marou Village.

Construction activities will use lightweight modular segments to avoid heavy land clearing or soil compaction during transport and assembly. Materials are selected for environmental durability and non toxicity, reducing the risk of harmful chemical leaching into the soil or groundwater. Local vegetation will be protected throughout the

construction process, and areas temporarily affected by installation will be restored with native plantings where appropriate.

The solar photovoltaic system will produce clean electricity without emitting greenhouse gases, contributing to the long term reduction of fossil fuel dependency in Marou Village. The integrated rainwater harvesting system will enhance local freshwater resilience without placing additional strain on underground aquifers or natural water bodies.

Nighttime LED illumination is designed with low intensity, warm toned light to minimize disruption to local wildlife and to avoid contributing to light pollution. Lighting controls will include automatic dimming or shut off during late night hours to further reduce ecological impact.

The modular nature of the design allows for full or partial removal in the future without leaving permanent scars on the land. All components can be disassembled and responsibly recycled or repurposed if necessary.

Overall, DWELL serves as a model of low impact regenerative infrastructure, harmoniously integrating with the natural environment while providing lasting benefits to the community. Mitigation strategies such as erosion control during construction, sensitive siting of footings, and careful material selection ensure that the project will have a net positive environmental impact.