When Penguins Fly

Our mission is based on three objectives; First, to compliment the planned development of St Kilda Triangle with dynamic and integrated programs punctuated by their abilities to educate, excite and provide renewable energy for thousands of people.  Second, to showcase power generation and storage solutions that are cultural and environmental points of interest on land, in the air, and underwater.  Third, to implement a native plant protocol and new urban amenities to increase resiliency and adaptability to climate change while honoring the Boon Wurrung and heading toward a sustainable future.

Five KILDA KITES soar with winds blowing across Port Phillip Bay and generate 210,000 kWh of electricity each year. A simple underground pulley, lever, fulcrum and winch system maintains the altitude and stability of each airfoil. Transducers convert lift, pitch, and yaw resistance into useable energy. When winds are calm the kites are reeled back to their ports on the beach and become sun shades for public benches facing the bay.

User experience and way finding is inspired by the dynamic meditative patterns of Aboriginal dot paintings. Pedestrians of all ages can generate electricity by jumping on circular drum pads installed along the *TIME LINE*.  This activity aims to bring people together as they generate electricity and contemporary Aboriginal beats in real time.  At almost 400 meters long, the TIME LINE will generate an average of 6,750,000 kW hours of electricity a year, day and night, rain or shine. That’s enough for 625 homes!

The convection power of water allows *BATTERY REEF*to maximize energy storage by keeping the environmental and economic costs of cooling to a minimum. The design and location of *BATTERY REEF* blends with ecosystem services as it invites aquatic flora and fauna to establish a healthy reef habitat. Battery reef can be scaled up to meet growing demands for energy storage. Rather than consume valuable space for energy storage, *BATTERY REEF* cleans water, protects shoreline, and encourages diversification of plants and animals. As it grows, *BATTERY REEF* becomes a sustainable public park with unique opportunities to educate, entertain and generate revenue for St Kilda.

*WATT TIME* Horizontal LED screens retrofitted to Catani clock towerdisplay Land Art Generation capacity in real time. *WATT TIME*  visualizes data for the public, connects them with the process, and shows them their tax dollars at work for good.

As a salute to community strength and resiliency, the *EMERALD HILL NGARGEE*mural on the large retaining wall of the Palaise amphitheater depicts a lively spiritual drama and mystery of the Boon Wurrung Corroboree. This location is also the jumping off point for the *TIME LINE*.

The *TIME LINE* connects points of interest as it guides visitors through depictions of significant historical events of the Boon Wurrung and the Kulin Nation. Large full color panels installed along the *TIME LINE*feature UV protected photos of St. Kilda's Triangle in the past, as well as paintings and text about its rich history. This is an opportunity for families to learn about the Boon Wurrung - the original people and custodians of this land for thousands of years.

"Our Language is like a pearl inside a shell. The shell is like the people that carry the language. If our language is taken away, then that would be like a pearl that is gone. We would be like an empty oyster shell. "

- Yurranydjil Dhurrkay, Galiwin'ku, North East Arnhem Land \*

Six *LANGUAGE SHELTERS* located along the *TIME LINE* protect, honor, and share tradition. Boonwurrung is almost entirely an oral language with a rich history of storytelling. Inside each shelter, people of all ages are welcome to have an intimate listening experience, leaning back and listening to recordings of Boon Wurrung elders sharing folk tales, creation stories, or personal family histories.

The shape of the language shelter, inspired by sea shells and Aboriginal mia mia huts, is a deep vibrational listening space where each listener is immersed in the Boonwurrung language. Examples include The Story of Bunjil the Eagle and the Journey of the Lilk-Lilkyawa (the Eels). It's a communal experience, in that there are six seats in each shelter so the stories can be experienced as a group. While listening, visitors look out over the rest of the park, the beach and ocean vista. While the listening experience is purely in Boonwurrung and not infringed upon by another language, along the inside top lip of each shell is a statement etched into translucent glass, which provides an excerpt from the featured tale in English.

*THE PEOPLE'S PERCH*is a mixed use structure designed to be climbed on, in, and around so that health enthusiasts of all skill levels can push their limits. Intersecting planes of glass, steel, and vegetation create a see through structure with interior walls and spaces well suited for art exhibitions and performances.

A carefully selected combination of re-introduced native plants becomes a wildlife corridor that connects people and local fauna to adjacent open spaces, land ribbons, and parks. A wide range of plant characteristics have been considered in order to develop a landscape and habitats that self-regulate and provide needed resiliency to increasingly powerful weather events in the future.

Jacka Boulevard is reduced to two lanes and given a new, gently curving, path. The scenic route calms traffic and improves pedestrian experience. New space is made available on each side of the road for beach adapted plants and storm water infiltration. Resiliency to dynamic shoreline conditions is increased and maintenance costs drop as a result.

St Kilda Triangle is a proving ground for sustainability. The opportunity to equally improve environmental health, social equity, and economic prosperity has inspired us to develop programming that works with and improves ecosystem services. Our designs for generating electricity from the sun as wind and from humans as movement aim to physically and mentally connect people with the forces of nature and the value of clean renewable energy. Planting design re-introduces 16 native plants listed as vulnerable in Victoria. Criteria for plant selection included habitat improvement for local fauna resulting in a landscape that will self-regulate when it reaches maturity. Narrative design throughout the site connects people with a robust urban ecosystem and the Boon Wurrung culture. The Boon Warrung were the original stewards of this land. Transforming St Kilda from a parking lot into a vibrant energy producing cultural and social site promises to inspire new stewards of this destination every day.

\* Source for above quote:

"Our Languages Matter / An Introduction to Boon Wurrung and Woi Wurrung" by Bridget Caldwell, Lindsay Magazine 2017