

Cargo Proa Prototype

Building blog



Women boat builders - Dromuninuku

NOVEMBER 2023

Following on from the village women's canoe building workshop, we got requests for more workshops and chose the village of Dromuninuku, 30 kms east of the beautiful town of Savusavu, Vanua Levu. The cruising around there is fantastic, and almost free of cruising boats, despite Savusavu being a clearing port for Fiji.

Salote and 2 of the other graduates from the April workshop (Siana (Dromuninuku) and Lo (the neighboring village of Naweni)) ran the workshop, producing a catamaran canoe in 9 x 4-6 hour days. Not bad for a group of women who did not know what foam, epoxy or fibreglass were when they started.

Sue (my wife) and I oversaw the workshop, but had little to contribute. We also got a small taste of village life, an experience neither of us will ever forget. Villagers don't have much in the way of possessions, but are genuinely happy, in stark contrast to many westerners I know.

The canoe building is a big deal, as shown by the attendees at the award ceremony. Representatives from the UNDP, the Provincial Council, the Ministries of Fishing and Health and CATD handed out certificates to the women, then watched as the boat was launched. The ceremony speeches emphasised the importance of small boats for fishing (neither village has any, they fish standing in the water inside the reef at high tide), the need for lightweight, easily built

(no power tools, all right angles), rot proof boats (not plywood). One person did comment that this is what traditional boats would look like if foam, fibreglass and epoxy could be obtained from coconut trees!

Women on waste

On the first day, we took a stroll along the beach and I commented on the rubbish. Two days later, the women had organised clean ups at both villages and beaches, organised the Health Department to pick up the waste and set up an organisation called Women on Waste/WOW, whose mission is to do similar clean ups in all Fijian villages.



The clean up was held half way through the workshop and all the village kids got involved. It was cool walking along the beach picking up plastic with 20 laughing kids helping. They remained working till the very end, which is more than some of the adults managed. Result was a couple of tonnes of waste collected. As importantly, they cajoled the Health Department into permanently providing 3 cu m rubbish bags and a truck to pick them up when they are full.



Solar electric water taxi

The day before we left for Dromuminuku, the students at CATD launched the prototype solar/ electric water taxi. Another box boat, built in a few weeks. While I was away, the students removed the petrol power head from a 40 hp outboard and

are replacing it with a 10 kw (13 hp) water cooled brushless electric motor. The water taxis typically use a 15 hp motor to drive a 6m hardwood skiff. It will be interesting to compare performance. The roof of the prototype is 5 x 305W solar panels, the boat should be fuel free as long as the sun is shining.



Innovation hub

I have been talking to a New Zealander who reckons what we are doing in Fiji is worth supporting and who, coincidentally, wants a C50 built. On the ferry on the way back from Dromuminuku we had a meeting with the UNDP about the next step in the project. The upshot was that they have provided support to set up a boat building operation, a classroom and a plastic recycling centre.

This is the first stage of the Innovation Hub being set up here at Nadave. The boat will be built by the graduates from the Sustainable Boat Building course we ran earlier this year as part of the co-operative approach that CATD uses to continue the education of ex students so they can, if they want to, start their own business. This is seen as key to the future security (economic and political) of the country. We plan to employ a foreman or two who will supervise and teach the students how to infuse composites and build boats to western standards. My role will be to make sure it runs smoothly.

IF ANYONE IS, OR KNOWS OF SOMEONE WHO WOULD BE INTERESTED IN THE FOREMAN JOB, please let me know.

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When the workers are not working on the C50, they will be building cargo proas, mini cargo proas, canoes, Harriettes and E-boats for local use. If the C50 build is satisfactory, more will follow.

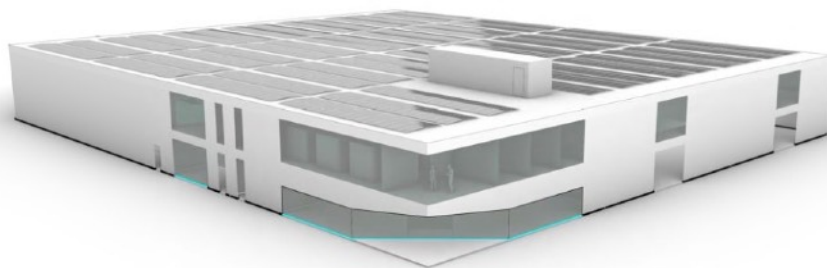
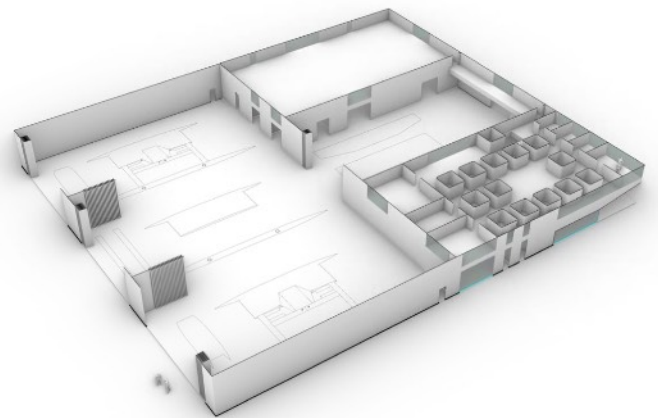
How important is all this? 3 weeks have passed since the meeting on the ferry. Yesterday, the UN Assistant Secretary-General - Ms. Kanni Wignaraja and the Fijian Minister of Rural Affairs performed the ground breaking ceremony for the building. The shed will be as environmentally sustainable as we can make it as an example of what can/should be done. It will also be a zero waste boatbuilding shed. Fibreglass offcuts, used resin containers, gloves, wrapping materials, floor sweepings, etc etc will all be recycled on site into useful building material.

We intend to employ a videographer to "You Tube" the build and are discussing with The University of Sydney a carbon footprint analysis for the boat, shed and other CATD projects.

The zero waste aspect will be facilitated through funding it looks like we have received for equipment to turn unsorted, unwashed (the expensive parts of recycling) waste plastic into structurally reliable products, using a low temperature solar heater and equipment that will fit on the back of a small truck. We plan to take this around schools, villages and resorts to show that recycling is worth doing. There will also be a village suitable glass crusher to turn bottles into sand, reducing landfill and replacing sand on beaches and in concrete.

One of the things we learnt at Dromuninuku was that villagers are not messy people. They simply have nowhere to put their rubbish and can't afford to have it taken to the landfill. The first step is therefore to get recycling bins in villages, schools and resorts and demonstrate that they have value. We intend to produce the bins from waste plastic for bottles, cans, plastic and batteries, all of which now have value, making them worth collecting and recycling. Any money made from the recycling will be put towards arranging regular pick ups from these bins.

Fun times for all concerned.



Artists impression proa factory