











Wood from Hong Kong's demolished pier finds new life in sludge facility

Design firm LAAB shows how to incorporate the characteristics of wood fenders from the pier into the design of the cafe at T-Park Sludge Treatment Facility in Deep Bay

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When the old Wan Chai Star Ferry pier in Hong Kong was demolished in 2014, it did not entirely disappear. Pieces of it now live on in an unexpected place – the city's waste-to-energy plant, the T-Park Sludge Treatment Facility, on the shores of Deep Bay.

"We receive 500 visitors a day," says Cary Wan Ga-ling, an officer with the Environmental Protection Department, which oversees the two-year-old facility.

The complex takes sludge from the city's water treatment plants and burns it for energy, but it also includes a spa, a roof garden and a cafe. "We don't just want to show people the sludge facility," Wan says. "Since we're far away from the city, we thought we needed a cafe, so people could eat and relax, but it had to be different from other cafes."

Wan says T-Park is completely self-sufficient, with more than enough energy to fuel its own desalination plant, which draws seawater from Deep Bay and converts it to fresh water.

Wastewater is used to flush toilets and clean sludge trucks. That inspired the Environmental Protection Department to salvage 100 wood fenders from the Wan Chai pier when it was demolished, with the intention of using them to create furniture for the facility's canteen, T-Cafe, which opened last summer.

The department turned to local firm LAAB to design the cafe. "LAAB's work is quite interesting because they do a lot of upcycling," Wan says.

Since it was founded in 2013, LAAB has earned a reputation for stylish interiors that make ample use of recycled and repurposed materials. But the T-Park project proved to be more of a challenge than it anticipated.

The wood fenders are made of Indonesian shorea wood, a tropical hardwood that is ultra-durable and resistant to moisture. That is how they were able to survive 46 years in the waters of Victoria Harbour, but it also meant most woodcutters in Hong Kong were unwilling to work with the material, which they said was too hard to handle. It did not help that each of the fenders was encrusted in a thick layer of barnacles.





Luckily, a shop in Sheung Shui stepped up to the task and cut the fenders into manageable pieces, stripping them of their barnacles and iron bolts. LAAB then took them to its own workshop, but that was when it encountered another problem.

"Our design had a lot of curves, but when we started to cut the wood, we realised it would be very difficult," LAAB's architecture director Yip Chun-hang says.

The wood was too thick and uneven to cut using a computer-guided cutting machine, so they revised their design to enable it to be made by hand. "This project was material-driven," Yip says.

The result is a collection of benches, chairs and tables that fills the cafe's ample space, which has a sweeping view of Deep Bay and the Shenzhen skyline. "We wanted to create clusters where people could sit together" because most people visit T-Park in groups, Yip says.

The best-quality wood was cut into thin strips, which were used to make communal tables, curving benches and a high table that takes advantage of the view. Because the wood was too hard to bend, the benches were made by layering interlocking pieces of wood on a plywood frame.

Rougher wood was used for coffee tables that maintain its seaworn essence, as well as two statement benches made of fenders that were left mostly intact, barnacles and all. "We wanted to leave all the holes and scars in the furniture," Yip says.

When the team designed decorative frames to mount on top of the communal tables, they inserted LEDs inside the bolt holes to create feature lights.

Most ingeniously, the LAAB team took pieces of the most seriously decayed wood and cast them in marine blue resin, creating stools that look like miniature aquariums. Yip says this was something of an accident: they initially used clear resin, but it turned an unattractive yellow with age, so they added a bit of blue dye to make it look better.





Wan says the "T" in T-Park stands for "transformation" and the ethos extends to other parts of the cafe. Discarded school chairs are used for some of the seating while dishware is supplied by CoDesign's I'mperfect project, which rescues ceramics with minor defects that would normally be discarded. Handwash and dish detergent are provided by local eco-friendly soapmaker So...Soap!. Customers are expected to wash their own dishes, which Wan says is a way to get the public to think about their role in reducing waste.

There is more to come. LAAB used only 60 of the 100 wood fenders, so it is now using some of the leftover wood to make a postbox for visitors to send postcards from the sludge facility. "It's fun," Yip says. "People like seeing the history."

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