



The benches are inspired by and made from rubbish in the Shin Mun River | Photo source HIR Studio

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UPCYCLED PLASTIC WASTE TURNED INTO STYLISH PUBLIC FURNITURE

 ARCHITECTURE & DESIGN

Using waste found in the Shing Mun River and around in Hong Kong, two designers created twelve benches that show the potential of a circular economy to reduce marine pollution

Spotted: An estimated eight million tonnes of plastic contaminate the world's oceans every year, adding to the 180 million tonnes that are already there. Ninety per cent of the plastic enters the oceans via rivers, including the Shin Mun River in Sha Tin, Hong Kong. In an attempt to alleviate this problem, two designers from Hong Kong-based HIR studio have created a collection of twelve benches. Looking to the Shin Mun River for inspiration, Howard Chung and Irene Cheng collected single-use plastic waste and upcycled them into stylish pieces of public furniture. The pair found that due to the lack of recycling bins and collection points, only thirteen per cent of Hong Kong's plastics are repurposed, and plastics are often being downcycled into rubbish bags or containers, therefore only extending them by one lifecycle.

Chung and Cheng tracked down a supply of recyclable HDPE plastics, with the help of NGOs Waste No Mall and the Sha Tin Recycling Centre, which collects from public housing estates and green stations every week. The process of designing the benches involved taking 20,000 items of salvaged plastic, weighing roughly half a tonne and mixing them with virgin plastic to ensure that the furniture was strong enough to withstand plastic use. As they found that there were still too many impurities in the composition from the recycling factories in Hong Kong, the pair turned to a factory in Foshan in southern China to produce the benches. There, the Sha Tin plastic was first shredded, then melted and then squeezed from a gigantic pipe, before being pulverised into pellets and set in moulds.

The serpentine form of the Shing Mun River inspired the soft flowing forms of the benches, allowing for both a few private spaces, as well as somewhere comfortable to gather. The twelve upcycled benches now sit in the Sha Tin Town Hall.

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Takeaway:

In Sha Tin alone, more than 17.5 million pieces of plastic are dumped into the Shing Mun River each year, causing overwhelming damage to the environment. The benches that Chung and Cheng designed for the Sha Tin Town Hall demonstrate that rather than downcycling single-use plastics, they can be made into something that can be recycled over and over again. Although the project has only put a small dent in the volume of plastic waste Hong Kong generates, the pair have shown that change is possible with the repurposing of single-use plastics and the advocacy of a circular economy.