

A 100% CIRCULAR BUILDING

The People's Pavilion, designed by Dutch architect firms, bureau SLA and Overtreders W, made a design statement of the new circular economy as a 100% circular building where no building materials are lost in construction.



The People's Pavilion is a powerful design with new collaborations and intelligent construction methods.

Courtesy of Filip Dujardin, v2com

Courtesy of Filip Dujardin, v2com

It was designed as part of the 2017 Dutch Design Week (DDW) and World Design Event (WDE) in Eindhoven, The Netherlands, which attracted future makers from all over the world.

To accomplish this feat, bureau SLA and Overtreders W followed a radical new approach referred to as "100% borrowed", meaning that all materials needed to construct the 250m² building were borrowed from traditional suppliers and producers, and were returned completely unharmed, since no screws, glue, drills or saws were used in the construction.

Materials included concrete and wooden beams, lighting, facade elements, recycled plastic cladding and even the Pavilion's glass roof.

There were, however, one exception: The coloured tiles on the Pavilion's upper facade were made from plastic household waste materials collected by Eindhoven residents, and at the end of the Dutch Design Week, were distributed among those very residents who contributed.





The coloured tiles on the Pavilion's upper facade were made from plastic household waste materials collected by Eindhoven residents.

Courtesy of Filip Dujardin, v2com

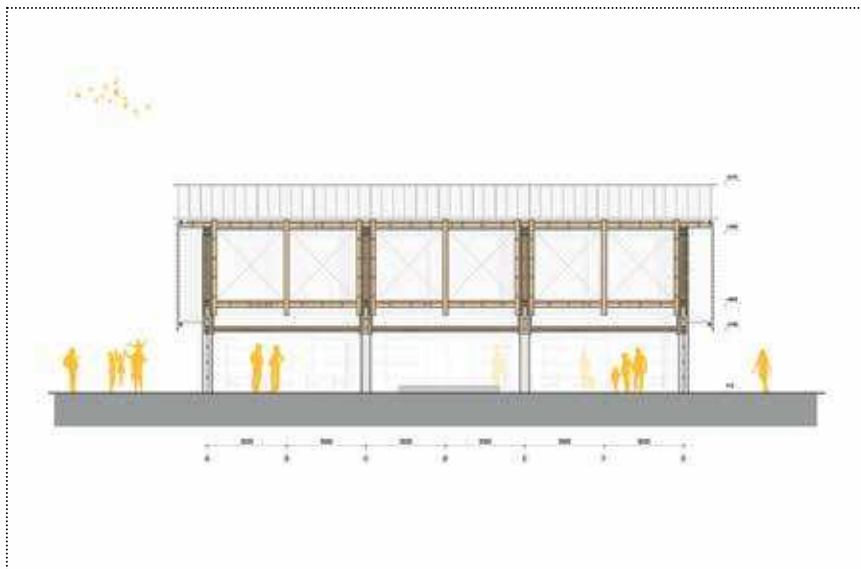


All materials needed to construct the 250m² building were borrowed from traditional suppliers and producers, and were returned completely unharmed, since no screws, glue, drills or saws were used in the construction.

Courtesy of Filip Dujardin, v2com



Courtesy of Filip Dujardin, v2com



Drawing: Long section. Courtesy of bureau SLA, v2com

HOW DID THEY DO IT?

The base for the People's Pavilion consisted of 12 concrete foundation piles and 19 wooden frames, designed in collaboration with Arup. The frames consisted of rough, unplanned wooden beams of standard dimensions, held together with steel straps. The concrete piles and frames were connected with 350 tensioning straps, creating an 8m high primary structure for the 250m² building.

The glass roof was made using a system that is commonly employed in the greenhouse industry, while the recycled

CONTINUES ON PAGE 10



The glass roof was made using a system that is commonly employed in the greenhouse industry.
Courtesy of Filip Dujardin, v2com



All the interior elements, including the lighting and church benches, were borrowed.
Courtesy of Filip Dujardin, v2com

CONTINUED FROM PAGE 9

plastic tiles, made from household waste collected by the Eindhoven residents, were fixed to the Pavilion's upper facade.

The glass facade on the ground floor was a leftover from a refurbishment of BOL.com's headquarters and was used for a new office space after the Dutch Design Week. The podium consists of borrowed concrete slabs, and the lighting, heating, bar and other interior elements of the People's Pavilion were also borrowed.

Full thanks and acknowledgement are given to bureau SLA, Overtreders W and v2com for the information given to write this article. **W&R**

MATERIAL LENDERS:

FOUNDATION PILES:

IJB Group, Lemmer.

WOOD, STEEL MATS:

Stiho Group, Nieuwegein.

FACADE TILES:

Govaerts, Hasselt (B).

GROUND FLOOR FACADE:

Tetris, Amsterdam.

ELECTRICAL WIRING AND LIGHTS:

Elektroned.

GLASS ROOF:

DEGO, Monster.

CONCRETE FLOORING:

Heezen, Eindhoven.

TENSIONING STRAPS:

Logistiek Concurrent.

CONTAINERS FOR PLASTIC WASTE:

Van Hapen, Eindhoven.

PLASTIC WASHING/SHREDDING:

Morssinkhof, Haaksbergen.

CHURCH BENCHES:

Keizersgrachtkerk, Amsterdam.