

Kamikatsu Zero Waste Center - Kamikatsu, Shikoku, Japan

Essay by Ami Suzuki

The Kamikatsu Zero Waste Center, designed by Hiroshi Nakamura & NAP, is located within the serene mountain range of Kamikatsu, Japan. Kamikatsu was the first town in Japan to ever issue a “Zero Waste Declaration” and currently peaks at a recycling rate of 80%. The Zero Waste Center was modeled to reflect the community’s goal in creating zero waste, where the structure allows residents to recycle in 45 organized waste categories. Aside from functioning as a recycling site, the facility is also a community focal point that includes a reuse shop, community hall, activity space, and hotel. Starting construction in 2016, the Kamikatsu Zero Waste Center was opened to the public during the COVID crisis in 2020 and is currently an attraction spot for Kamikatsu.¹

Owning up to its name, the Zero Waste Center was built with the thought of producing minimal waste. “A building assembled by trash” is indeed a perfect description of the architecture, as most of the facades and fixtures are built from waste materials that were either donated by the town residents or found at a demolished building site (such as pottery shards and ceramic cullets). Although items such as roofing materials, air-conditioning, and plumbing equipment had to be bought anew, the effort to limit new resources was a big help in reducing environmental impact and the overall cost of the project.²

For the structure and interior of the building, cedar logs extracted from the surrounding forest were utilized. This choice was another incentive to follow the Zero Waste principle. By having local vendors handle the logging, lumber manufacturing, drying, and processing of the logs, the project ultimately helped revitalize the town’s economy as well as their woodland service. Compared to sawn square timber, cedar logs also had the benefit of retaining their initial thickness, which meant less waste, greater strength, and high cross-sectional performance.³ In consideration of spatial efficiency and the flow line of rain and dust, Yamada Noriaki (structural engineer) employed a simple jointing method for the structure. After roughly sawing the log, the diagonal pillars were sandwiched between beams of half-split timber and fastened with bolts. By eliminating the need to process the joints, the method allowed the members to be assembled easily by fastening each end with a single bolt. The simplicity was aimed for locals to easily handle maintenance and recycling when dismantled.⁴ To truly aim for zero waste is not about how you dispose of waste but rather how to eliminate it, and the Kamikatsu Center is the replica of such term.

¹ Global Design News

² CNN

³ Share Your Green Design

⁴ WHY Kamikatsu

Works Cited

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