

Bamboo Canopy: Towards a Light Construction of Bamboo

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Abstract

Despite the abundance of highly sustainable bamboo, people tend to overlook its structural performance for constructive purposes. This work therefore explores the potential of bamboo architecture to develop light-weight building system and also to create an effect of lightness. Developed by a team at the school of architecture of Southeast University, Bamboo Canopy is an outdoor stage canopy in Anji, China, that pushes the boundaries of bamboo as a material for building woven gridshell structure. The work is designed as a long-lifespan bamboo structure, with the design team and locals participated in its construction, and has been put in use since 2019. Positioned on a public stage, Bamboo Canopy experiments with the combination of sustainable construction and local craftsmanship to produce a

highly engaging architectural intervention that activates the existing place. With its wing-like form, it invites visitors to join the performance scene – as they approach the shell, the structure reveals itself – with a 12.4-meter span and 6-meter roof overhang, the canopy covers more than 150 square meters with only 1.2 square meters touching the ground.



Figure 1. Interior view of Bamboo Canopy. Photographed under commission by the authors.



Figure 2. The project in use as a stage. Photographed under commission by the authors..



Figure 3. Exterior view of Bamboo Canopy. Photographed by Yifan Wang.