



COCOON

Written and Contributed by

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Hand-built by the local artisans along with teachers, students, architects and designers, Cocoon is a community space for teaching and exhibiting projects to visitors of Krishi Vigyan Kendra in Trichy.

What is the project about?

Cocoon is a space for teaching and exhibiting projects to visitors of Krishi Vigyan Kendra, Trichy. The aim was also to create a comfortable and welcoming space for people to sit down, relax and talk. The community building is hand-built by local craftsmen, students and teachers working in collaboration with architects and designers. Local traditional building materials and techniques are combined with modern construction knowledge to produce a building that would be sustainable. The project adopted a locally available material bamboo, to create something complex in its form and simple to execute at the same time. The majority of the farmers in the village are involved in Sericulture farming. The built form of the pavilion has its resemblance to the act of silkworms spinning silk cocoons around themselves.

The structure is made entirely with woven bamboo splits originating from a central column made from bamboo splits weaving out in three directions to complete the entire form of the shell structure. The large entrance canopy is achieved by opening out the bottom bunched stiffener ring over the entry area. All the construction systems were developed by the architect during the design-build workshop and a mock-up was erected. After the workshop architects from our office and our artisans guided and helped the students and local craftsmen to build the structure. The main support for the structure is a woven column of bamboo splits. At the apex of the column, the members branch like an umbrella and are cross-woven in a three-way weaving pattern to form a lattice grid shell structure. Lattice grid structures of bamboo are very strong and can take huge loads without collapsing. A ring of bunched splits was attached at the bottom to stabilize the structure and anchor it to the base at intervals. The ring was split and woven to form an entrance and other apertures in the structure.

What is the impact?

The concept sketch of the structure was developed by the Aarhus School of Architecture, Denmark along with Ar. Byoung Cho, which was not practicable. We were invited to modify the conceptual sketches to design a functional structure and develop the construction methodology to execute the design.

Due to a large number of collaborators, we developed the program as a Design-Research-Prototype-Build model. The project is done in a rural setting but it's not limited by the context; rather the structure fits completely in the backdrop seamlessly. The involvement of communities brought life to the structure.

Project Funded by

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Stakeholders Involved

Local Artisans
CARE College of Architecture, Trichy
Aarhus University, Denmark
BCHO Architects
Manasaram Architects

About Manasaram Architects:

We, at Manasaram, are committed to fighting back climate change by promoting the use of locally abundant, easily renewable, low energy materials. We believe in holistic architectural building practices that are cost-effective, ecologically sensible and sustainable. We also work with consultants to bring ecological thinking to land-use planning in all stages of a particular project.

In order to spread awareness and inspire the youth, to help make widespread ecological and sustainable practices, Manasaram along with CGBMT, its sister trust, provide courses and conduct various workshops for Architecture, Design and Engineering colleges, school children, rural women, artisans and specially-abled.

Links to read more:

[link to the project](#)