

Experimenting Bamboo as an Architectural and Socio-Cultural Feature. Case Study: The Bamboo House at Eco-Pesantren Daarut Tauhiid, West Bandung, West-Java, Indonesia

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ABSTRACT

A house can be defined as merely a dwelling, or beyond. Further, it is a unique association of people, culture, and technology; since its creation is often derived from the basic understanding of the user (people), the habit (culture), and the building technology. The basic idea of this house is to create a sustainable living space using bamboo as an ignored indigenous material.

This house featured bamboo as the main building material since it has become one of the most famous indigenous materials in West-Java for ages. For the Sundanese, bamboo is the expression of their creative well-being through the art of craftsmanship. As a building material, bamboo is considered as one of the sustainable materials for its renewability, restorability, and versatility. It is also well-known for its forming flexibility, resistance of earthquake, low construction cost, and its abundance. In this house, bamboo is utilized both as structural and ornamental elements used in interior and exterior of the house as column, flooring, wall, stairs, and blinds. Its combination with modern materials (concrete, masonry, steel) creates a rich visual experience within the house.

To create a sustainable building is to ensure its sustainability capability in its design process, construction methods, and materials used – furthermore, in its ability of altering the user's lifestyle subtly. Designed as an eco-responsive building, the house was planned to have minimum interference with the nature. The 9 existing 37 years old clove trees within the site are preserved and the building's ground level is elevated. This house is managed to use the natural air flow and lighting, taking advantage from the abundant sunlight of tropical area and fresh natural mountain breeze. By preserving the bamboo-tradition, the house is also inexplicitly preserving the collective creativity of its native society.

Keywords: *house, bamboo, environment-friendly, indigenous material, sustainable material, collective creativity*