

ABSTRACT

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ANALYSIS OF CONSTRUCTION SYSTEM USING BAMBOO MATERIALS IN SAKA BUANA MOSQUE IN BANTEN

Bamboo is a plant that grows abundantly in Indonesia. It grows quickly, making it easy to find and use as a strong material. Bamboo is both sturdy and lightweight, making it suitable for construction. The purpose of this explanation is to provide a basic understanding before discussing the case study in this paper.

The main reason for this discussion is about Saka Buana Mosque, as an architectural project that uses bamboo as its main material. The mosque use a natural bamboo construction system with simple yet well-modified techniques, allowing it to stand as the largest bamboo mosque, as reported. Bamboo has flexible and elastic properties, good durability, and is commonly used in small-scale buildings. However, in the construction of Saka Buana Mosque, located along the Ciujung Toll Road in Banten, bamboo is used innovatively in a large-scale structure. This mosque demonstrates the versatility of natural materials by combining bamboo with modern construction techniques, proving that bamboo can be adapted for larger buildings. The goal of this analysis is to examine how bamboo functions as a construction material in terms of strength and durability, specifically in Saka Buana Mosque. The use of bamboo highlights its great potential as an efficient and practical material in architecture, proving that it can be a strong and reliable option for construction.

This understanding encourages a clear analysis to explain why natural materials like bamboo are still widely used and to share architectural knowledge with the public.

Keywords: Saka Buana Mosque, Bamboo, Architecture, & Construction