Sustainable Mycelium Biocomposite Artworks

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Abstract

SDG Goal 12 aims to significantly reduce waste production through prevention, reduction, recycling, and reuse. Art has played a role by utilizing creativity and waste to create sustainable artwork. Cultural innovation and creativity are crucial for finding sustainable solutions. Recycling art has increased the economic and symbolic value of waste. In agricultural countries like Indonesia, agricultural waste provides opportunities for repurposing. With its vast agricultural land, particularly 36,212 hectares of rice fields, Bandung Regency offers significant potential. Utilizing agricultural waste to create biocomposites by combining mushroom mycelium and agricultural residue offers competitive strength, cost efficiency, and biodegradability. However, previous research has mainly focused on durability and mechanical properties, with limited exploration of the artistic value of mycelium-based biocomposites. This study aims to design environmentally friendly sculpture artworks using biocomposites from agricultural waste in Bandung Regency and investigate the art community's perception of this sustainable alternative. The research shows that mycelium biocomposites can be a viable eco-friendly medium for sculptures, accepted in the Indonesian art scene, and add value and meaning to agricultural waste.

Keywords: agricultural waste, mycelium, biocomposite, art, environmental art.