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Scientific study of physical and chemical properties of elemental carving for woodwork preservation (Article)

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Abstract

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This study aims to investigate the physical and chemical properties of the woodcarvings that characterize their structural indicator to resist the deterioration. The main objectives of this study are to identify the visual characteristics of the wood components and to examine the physical and chemical properties of the wood that characterize its structural integrity. The re-searcher conducted a scientific analysis of the selected wood components as specimens using magnification hand lenses (macroscopic method) and microscopic tests to determine the wood characteristics and physical properties. This included to characterize the physical properties of wood surfaces and to observe the types of wood in details via the instruments. The results show that Meranti (Shorea spp) and Chengal (Neobalanocarpus heimii) woods were used for different types of woodcarving due to their distinctive properties and visual characteristics. Chengal wood which is classified as heavy hardwood has more durable properties as compared to the Light Red Meranti which is classified as light hardwood. Furthermore, fiber structure in Chengal is more compact than those in Meranti. The study suggests that the wood carving made from Chengal provides specialized structure and it has high resistance towards deterioration. © BEIESP.

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Wood carving Wood preservation Wood properties

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