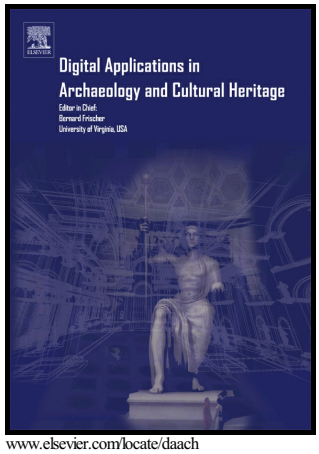

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From stucco to digital: topometric documentation of Classic Maya facades at Holmul

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Abstract

This article addresses the use of a structured light 3d scanner to document ancient Maya architecture. A rationale for the project is outlined along with some practicalities of operating the equipment in remote locations and archaeological tunnels. The two case studies describe the documentation of painted stucco friezes at the archaeological site of Holmul, Guatemala, by the Corpus of Maya Hieroglyphic Inscriptions of the Peabody Museum of Archaeology and Ethnology, Harvard University. Holmul buildings boast some of the most elaborate and well-preserved stucco sculptures in the Maya world. The paper concludes with highlighting the current challenges in creating and using high-resolution 3d replicas for research and conservation purposes.

Introduction: saving ancient Maya heritage

Archaeologists working in the Maya area face formidable conservation challenges. The humid and hot tropical climate with its rapid wet-dry cycles, aggressive biota (microbial biofilms, fungi,