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Informing historical preservation with the use of non-destructive diagnostic techniques: A case study at Ecab, Quintana Roo, Mexico.


Summary: This paper presents work performed at the northeastern tip of the Yucatan peninsula aiming to assist in the preservation planning for the 16th century church at Ecab. The main goal of the presented work was to accurately document the existing site using non-destructive methodologies in order to perform visual and structural diagnostics off-site. The non-destructive methods used in the two day documentation of the church were 3D laser scanning, stereo panoramas, high-resolution imagery, aerial photography and thermal imaging. Documenting the current state of health is extremely important, and the data acquired can also inform plans for protection and preservation of cultural patrimony. The scope of this project was aimed towards the structural diagnosis and preservation of a historical monument, but the implications of combining all of these diagnostic methodologies reach much farther into the realm of historical, archaeological and anthropological analyses.

Keywords: cultural heritage; preservation; non-destructive evaluation; e-documentation
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