Cosmology and structure: The 'tauhu' in the 19th-century 'whare' Mari

Journal of the Polynesian Society, The
Volume 126 Issue 1 (Mar 2017)

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Abstract: Maori construction and structural principles have received limited detailed attention since Reverend Herbert W. Williams published 'The Maori Whare: Notes on the Construction of a Maori House' in this journal in 1896. Since then, publications
that have considered Maori construction have relied heavily on this text. Subsequent discussion of Maori construction has examined 19th-century practices largely through Western historical and technical perspectives. This paper discusses Maori building concepts and technology from a bicultural viewpoint, involving both Maori tectonics and cosmology, and Western engineering principles. In doing so it draws from a close scrutiny of 'whare' 'house' components, written and oral accounts of Maori cosmology and building, and from the analysis of large-scale structural models. The article focuses on the 'tahuhu' 'ridgepole' as a principal component of Maori architecture that activates both the primary cosmological structure of Te Ao Marama 'creation narrative' and the structural system of the 19th-century Maori house. It is argued that the 'tahuhu' in its metaphorical manifestation as the 'atua' 'god' Tane (within Te Ao Marama) corresponds in the construction of the 'whare' with the holding up of the roof, understood as Ranginui, the sky father. Monumental in scale and ancestry, the 'tahuhu' mobilised a cooperative social dimension to its deployment in the 'whare', co-opting manpower from 'hapu' and 'iwi' 'subtribal and tribal groups'. The paper concludes that the 'tahuhu' was a key element in a sophisticated and high performing Pacific building technology that was, in many ways, antithetical to Western building principles. Located in the abstract and conceptual distance of machine function, Western analysis appears to have failed to identify and understand the effective capacity of socially-collective Polynesian engineering.
