

A Study of Skeletal and Dental Remains from Watom Island and Comparisons with Other Lapita People

MICHAEL PIETRUSEWSKY

Department of Anthropology, University of Hawaii-Manoa,
2424 Maile Way, Honolulu, Hawaii 96822, USA

ABSTRACT. Human skeletal and dental remains from Watom Island, East New Britain Province, Papua New Guinea, dated circa 500 to 100 years BC and associated with the Lapita cultural complex are described. The remains, often poorly preserved and incomplete, include six adult male and two adult female skeletons. Morphometric features of the mandible include a broad short mandibular body, divergent ramus and the rocker jaw condition. The teeth, slightly to moderately worn, are small, caries free and exhibit periodontal disease. Males are tall (174 cm) and the long limb bones are typically gracile. Squatting facets and costo-clavicular sulci are common. Except for a few, mostly minor, healed bone fractures, there is little evidence of disease. Comparisons indicate that the people of Watom are, in some respects, similar to Polynesians and other Pacific populations by virtue of their tall statures, rocker jaws and shovel-shaped incisors but they further exhibit striking morphological differences, such as small teeth, gracile long limb bones and broad short mandibles not seen in other Pacific populations. Multivariate analyses of mandibular measurements reiterate this unique Watom mandibular morphology and further separate the Watom and Lapita samples from Polynesian samples. Broader multivariate comparisons place Polynesians with South-east Asian and East Asian groups well differentiated from Melanesian samples lending support to the view that Polynesians are not of Melanesian origin. A weaker connection between Lapita Watom people and mandibular samples from eastern Melanesia and Polynesia is further implied in these results. Finally, this study demonstrates that until larger and earlier dated Lapita skeletal remains become available, the biological relationships and origins of the Watom and Lapita people remain elusive.

PIETRUSEWSKY, M., 1989. A study of skeletal and dental remains from Watom Island and comparisons with other Lapita people. *Records of the Australian Museum* 41(3): 235–292.

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