THE SARAWAK MUSEUM JOURNAL

https://museum.sarawak.gov.my

The Sarawak Museum Journal
Vol. XXXIII No. 54
December 1984

ISSN: 0375-3050
E-ISSN: 3036-0188

Citation: Brace, C. L & Vitzthum, V. (1984). Human Tooth Size at Mesolithic, Neolithic and Modern Levels at Niah Cave, Sarawak: Comparisons with other Asian Populations. The Sarawak Museum Journal, XXXIII (54): 75-82

HUMAN TOOTH SIZE AT MESOLITHIC, NEOLITHIC AND MODERN LEVELS AT NIAH CAVE, SARAWAK: COMPARISONS WITH OTHER ASIAN POPULATIONS

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INTRODUCTION

Changes in human tooth size provide the most easily quantified evidence for human evolution, and, using these, it has been possible to show that there has been a dramatic and continuing reduction that has taken placeover the last 50 to 100,000 years (Brace, 1967, 1979). Not only that, it is also clear that this evolutionary trend did not stop with the appearance of modern Homo sapiens or the end of the Pleistocene, but has continued right up into the period of recorded history (Brace and Mahler, 1971).

The best evidence for this overall picture has been that provided by the analysis of data from Europe, principally because Europeans have been collecting the requisite materials for a longer time and have assembled larger amounts than has been true for other parts of the world. However, since the association with the putative mechanisms for producing the observable change is no more than circumstantial, it is of crucial importance to see what the evidence looks like in other parts of the world. The transect from mainland Asia to Australia is particularly interesting because it runs from an area where elaborated food preparation practices have been employed for as long as anywhere in the world out to an area where their use is more recent than anywhere else. It was gratifying to discover, then, that maximum dental reduction in modern Asian populations could be shown for southern Chinese while the smallest amount of reduction was found in aboriginal groups from the southern part of Australia (Brace, 1978, 1980).

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During a data collecting trip in 1973–74, the senior author was able to acquire human tooth size measurements from key collections from Australia to Hong Kong. The present paper reports upon the metrics of human dental material that has been recovered over a period of time from the Niah Great Cave in northern Sarawak.