THE SARAWAK MUSEUM JOURNAL

https://museum.sarawak.gov.my

Crossref

The Sarawak Museum Journal
Vol. LV No. 76
December 2006

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

Citation: Earl of Cranbrook. (2000). Northern Borneo Environments of the Past 40,000 Years; Archaeozoological Evidence. The Sarawak Museum Journal, LV (76): 61-109

NORTHERN BORNEO ENVIRONMENTS OF THE PAST 40,000 YEARS; ARCHAEOZOOLOGICAL EVIDENCE

Earl of Cranbrook

ABSTRACT

Almost half a century has passed since the Sarawak Museum began investigations at 'Niah Great Cave', or Subis cave, Niah (T. Harrisson 1958b). Here, the West Mouth has provided South-east Asia's longest dated archaeological profile (T. Harrisson 1959b, 1967, Zuraina Majid 1982). The trenching system was established on rectangular cuts descending from a pointon the original surface and measured vertically in inches (Solheim 1977). At the centre of the site, two samples at the 106 inch level yielded compatible C^{14} ages with overlapping 95% confidence limits in the band 40 500- 40 600 years (T. Harrisson 1970, Shutler 1979). Although no deeper samples were taken for dating, the dig continued downwards fruitfully (Medway 1960b).

NORTHERN BORNEO ENVIRONMENTS OF THE PAST 40,000 YEARS: ARCHAEOZOOLOGICAL EVIDENCE

by
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INTRODUCTION

Almost half a century has passed since the Sarawak Museum began investigations at 'Niah Great Cave', or Subis cave, Niah (T. Harrisson 1958b). Here, the West Mouth has provided South-east Asia's longest dated archaeological profile (T. Harrisson 1959b, 1967, Zuraina Majid 1982). The trenching system was established on rectangular cuts descending from a point on the original surface and measured vertically in inches (Solheim 1977). At the centre of the site, two samples at the 106 inch level yielded compatible C^{14} ages with overlapping 95% confidence limits in the band 40 500 - 40 600 years (T. Harrisson 1970, Shutler 1979). Although no deeper samples were taken for dating, the dig continued downwards fruitfully (Medway 1960b).

Following the consensus accepted by Jablonski & Whitfort (1999), the Late Pleistocene era is dated from 128 000 years ago (yr) to 11 000 yr, and the Holocene from 11 000 yr to the present. The past 40 000 years cover the close of the last and most severe of the Pleistocene glaciations and the climatic reversal of the Holocene. Effects on the natural world and on human society at north temperate latitudes are well understood. Here, as ice sheets advanced and retreated, boreal plant and animal communities alternated with temperate counterparts, which survived inhospitable conditions by retreat to southerly latitudes (Kurtén 1972, Wilson *et al.* 2000). Research on past climates in the tropics has been more recent and, on land, based

principally on plant (pollen) studies (Flenley 1997). The aim of the present paper is to review corresponding zoological evidence, drawing mainly on the results of Sarawak and Sabah archaeology.

Copious animal remains have been recovered from cave excavations. The relevant material includes the first collected examples of the prehistoric fauna of Sarawak, bought by A.H. Everett in 1878-9 from gold prospectors working in the neighbourhood of Bau, and said to derive from caves at Jambusan and Paku (T. Harrisson 1958b). Many samples of better provenance derive from the archaeological programmes of the Sarawak Museum, at Niah and elsewhere in the State. Important results have also been obtained from Sabah caves, especially at Baturong and Madai (T. & B. Harrisson 1971, Bellwood 1984, 1985).

In archaeology, animal finds provide insight into the contemporary environment by reference to their known or inferred ecology. Comparative study of the animal specimens can reveal evidence of evolutionary change. If, as in these Borneo caves, human frequentation is confirmed by actual remains or inferred from finds of artifacts, the identity of associated animal species provides insight into the lifestyle of these people. Archaeozoology can thus put together a picture of former environments and adaptive pressures on wildlife, and also relate to human society of these past eras. Towards the end of the story, evidence of domestication is of particular interest. In this context, two canid specimens of early Holocene age (Cranbrook 1988a) are revisited, with the new conclusion that these are probably the remains of domestic dog.

A common scale for radiometric dates of Borneo sites is thwarted by the variety of technologies used, in different laboratories and at different times. In these pages the accepted notation 'yr' is used to denote years before present time. Where quoted, C^{14} ages follow the conventions of original sources. Some are therefore given as dates BC, others 'before present'