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QUATERNARY MAMMAL FOSSILS FROM BORNEO: *STEGODON* AND *HIPPOPOTAMUS*

Earl of Cranbrook, A.P. Curren and G.W. Davison

INTRODUCTION

In August, 1999, Cranbrook and Davison bought two intriguing fossils at an antiquarian and curio shop in Milan Bazaar, Kuching. The specimens were not individually displayed, but simply lay in a ceramic bowl along with a miscellany of artifacts and other natural objects, including fossil bone shafts and pieces of fossil antler- which we did not buy (Plate VII). As to provenance, the shopkeeper was able to say only that these objects came from Indonesian Borneo.

One is identified as a partial 3rd lower molar of a stegodont, at the evolutionary level of *Stegodon elephantoides* (Clift) 1828 (see Saegusa, 1996). Only three previous proboscidean fossils are known from the island, and this is the first record of the genus. The other is a complex fossil, the main part consisting of a fragment of the upper jaw of a juvenile hippopotamus, containing the distal half of the first permanent molar and the mesial half of the second, the first just emergent from the gum in life, the second unerupted. This is no previous record of a hippopotamus from Borneo.

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The provenance of both specimens is uncertain. Both are heavily mineralised. Both are fragmentary and one, embedded in a matrix of quartzitic sandstone, has apparently been enhanced for sale purposes. Both are also heavily chipped and pitted by natural events in their post-depositional history. From small adherent particles of matrix, it is concluded that they were secondarily deposited in water-borne silicious gravels and sand. Subsequently, they were probably subject to the severities of hydraulic gold mining, at one of many open-cast workings now

operating in West Kalimantan and other provinces of Indonesian Borneo. If so, it is likely that they were recognised in the mine-tailings as having commercial value, and thus entered the curio market.

We are most grateful to Richard Davis for conventional photography, and to Simon Roberston-Young for the preparation and printing of digitised photographs.

DESCRIPTIONS

The stegodont molar

The specimen is a fragmentary lower last molar of a stegodontid, consisting of a partial crown of a tooth, 72 mm in medio-distal length at the crown base. The roots have been lost, leaving a heavily chipped, irregularly convex base to the tooth, consisting of exposed dentine. The crown portion comprises the last three (distal) lochs of a right lower third molar. The terminal loph comprises two lateral cusps, separated by a suppressed, partially divided median cusp. The subterminal loph comprises four, more or less equal-sized cusps. The next loph, the most mesiad remaining, consists of a row of five cusps, of which the two outer members are slightly more robust than the three median cusps. In a mesio-labial position, i.e., at the forward, outer base of this loph, there is a low, distinctly conical cingular cusp. The tips of the cusps of the taller, i.e., penultimate and next mesiad lochs are rounded, seemingly by light wear. They were probably exposed at gum level in life.

Its colouring is a striking feature of this partial tooth. The cementum between successive lochs is black, contrasting with the creamy white underlying enamel. The exposed dentine at the base of the tooth is also shiny black (Plate VIII). The surface of the crown is finely pitted and eroded, revealing the wrinkled, laminar structure of the enamel. The dentine base is also heavily