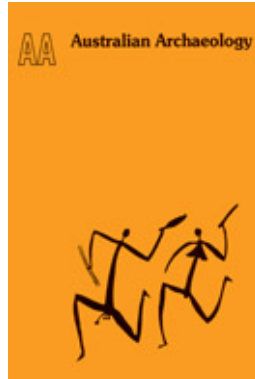


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PIT STRUCTURES FROM SELMINUM TEM CAVE,
WESTERN PROVINCE, PAPUA NEW GUINEA

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The use of man-made pits in the hunting of pigs and wallabies has been widely reported from montane Papua New Guinea (Bulmer 1968:313). The construction of food storage pits does not, however, seem to have been recorded (Ryan 1972:433).

The purpose of this article is to describe two man-made pits which are located within a limestone cave in the Hindenburg Ranges of Papua. A preliminary discussion of their possible functions follows. The structures described were noted during a study of cave sedimentation in montane Papua New Guinea.

Selminum Tem is the name given by the Tifalmin and Wopkaimin tribes to a large cave located in the Hindenburg Plateau of Western Papua. The cave is located at latitude 5° 10'S and longitude 141° 20'E. The entrance is in a large doline on the surface of the plateau, which lies at an elevation of 2500m between the Bahrman Range and the Hindenburg Wall, a 700m fault scarp in limestone overlooking the headwaters of the Ok Tedi river. Figure 1 gives the location of the cave.

The cave can be divided into two sections: an upper cave, whose entrance is reached by a 24m climb from the base of the doline, and a lower cave, some 20km in length, reached by an entrance at the base of the doline. Both caves were visited and mapped by a British speleological expedition in 1975 (Brook 1976:122).

The upper cave entrance is on a broad ledge near the base of an overhanging limestone cliff in the doline. The smoke blackened wall and extensive hearths suggest long-term use as a hunting shelter, and the site is within the hunting territory of both Wopkaimin and Tifalmin groups. The upper cave is one of two cave sites on the plateau which are regularly visited for the hunting of flying foxes (Dobsonia sp. and Aproteles sp.) (D. Hyndman pers. comm.).

The upper cave, which is 160m long, is an abandoned mixed phreatic-water table cave (Ford and Ewers 1978:1790). A plan of the cave passage is shown in Figure 2. The passage is typically 25m wide and between 2 and 8m high. Speleothem deposition and roof collapse have formed several alcoves in the passage, two of which contain percolation water inlets. Extensive clastic sediment deposition has resulted in the formation of sediment banks up to 2m high. These are formed from laminated silty clays, pale yellow brown (2.5Y7/4) in colour.

Two pits are located in alcoves on the eastern side of the passage. Their plans and cross-sections form Figure 3, and Plate 1 is of the second pit.

Pit 1 is in a small alcove which is 55m from the entrance of the cave. The site is beyond the limit of daylight penetration. The pit appears to have been excavated in a gently sloping bank of sediment. It is 1m deep and approximately 50cm in diameter. The pit

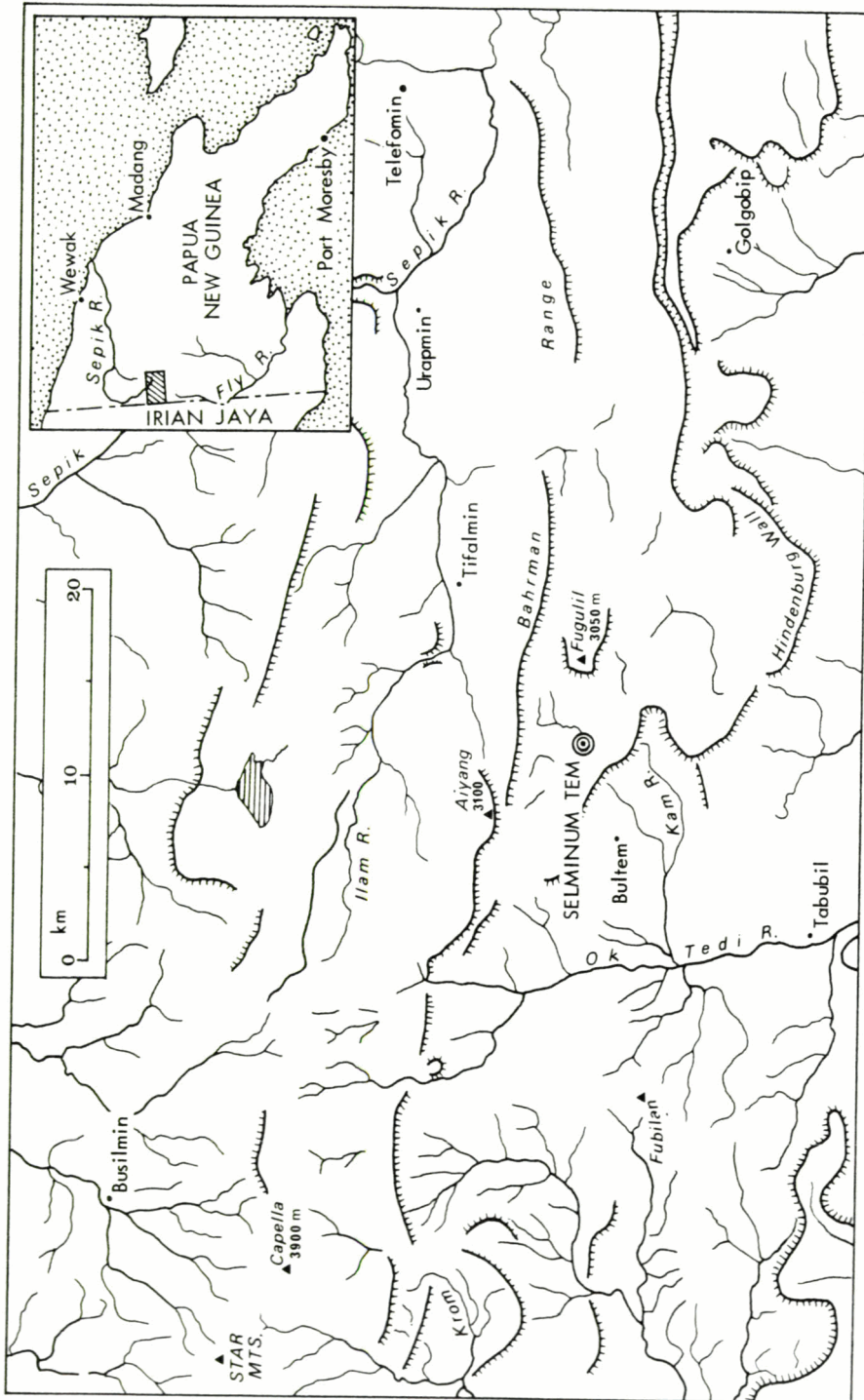


Figure 1 Location of Selminum Tem

Figure 2 Plan view of Selminum Tem upper cave

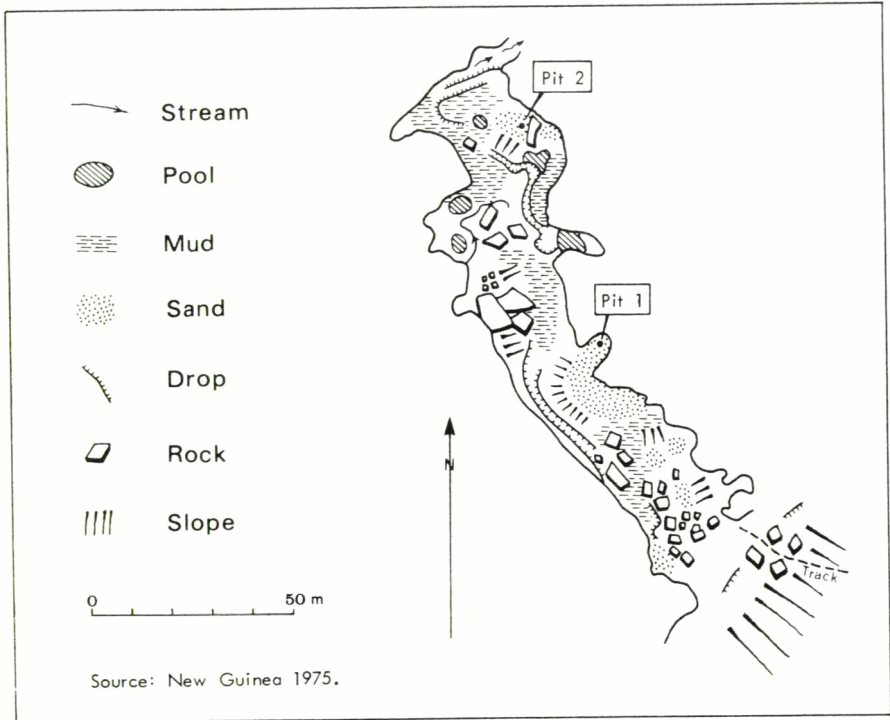


Figure 3 Structural details of the pits

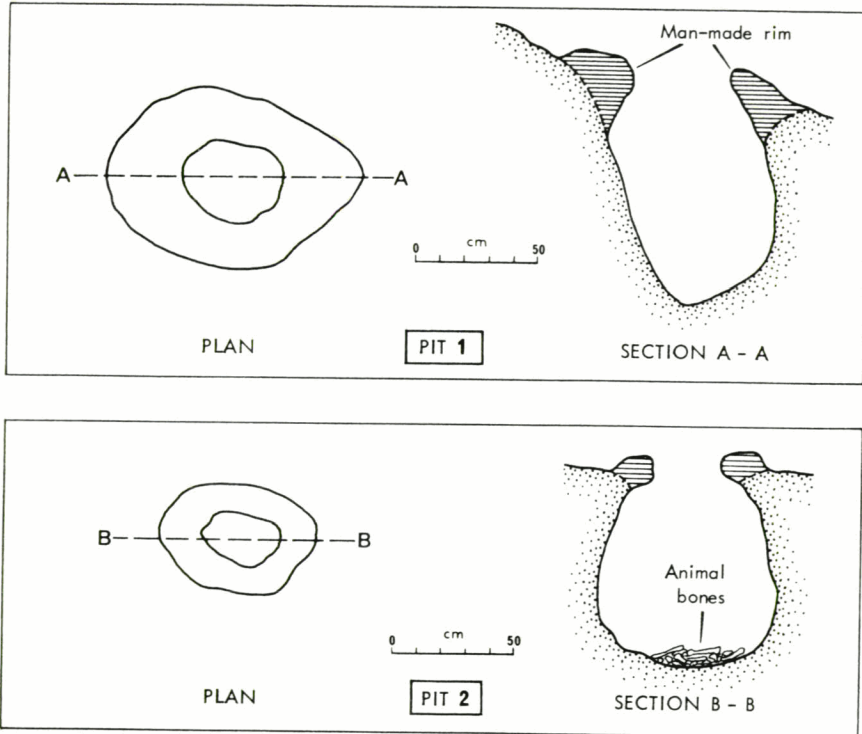
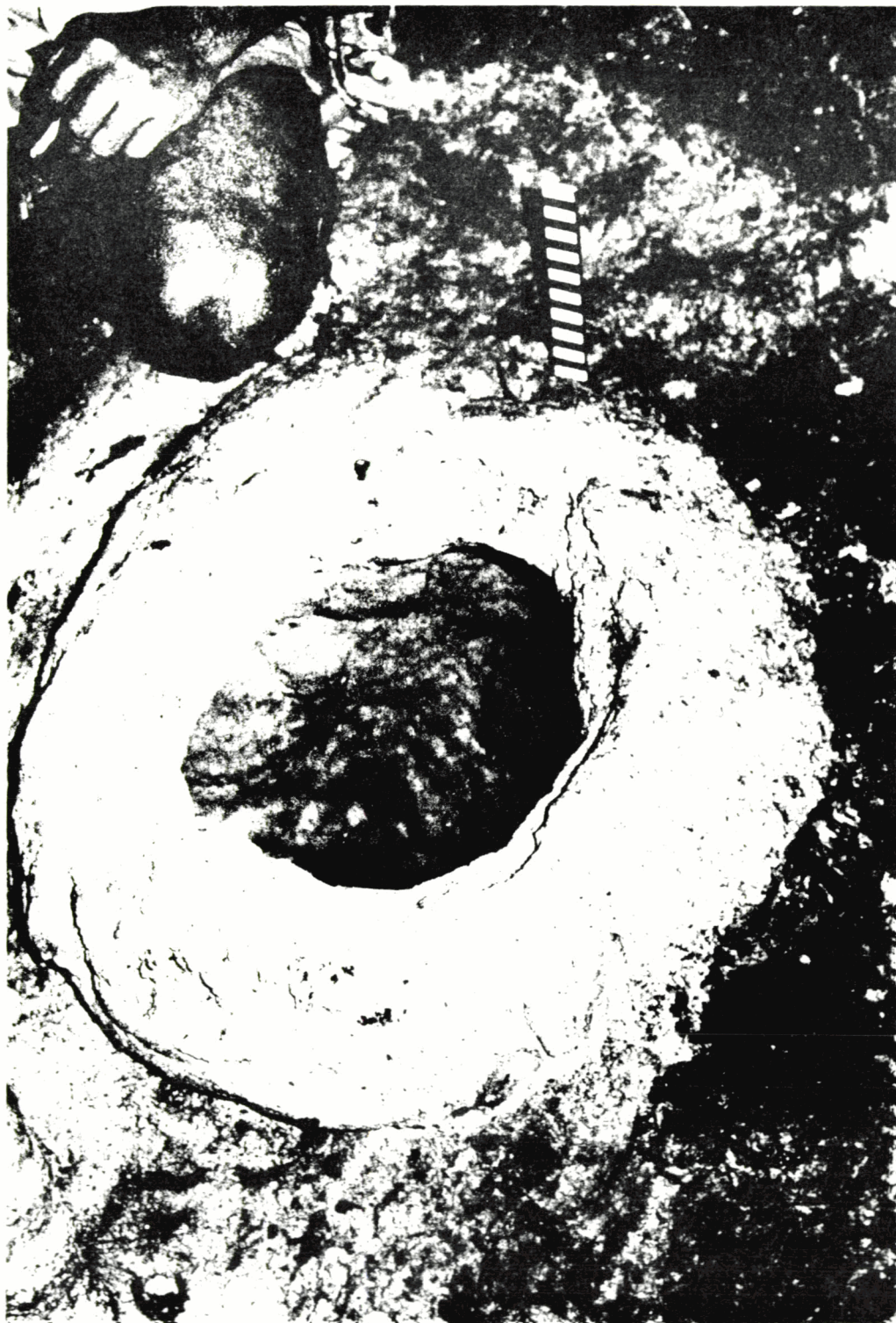


Plate 1 The second pit structure in Selminum Tem. Note the overhanging moulded rim. Scale bar is 20cm long.



is asymmetrical in cross-section, being elongated downslope. An overhanging rim is present. This rim is formed from compacted sediment and overhangs the interior wall by 20cm. A small hearth is located nearby.

The second pit is located in an alcove 150m inside the cave, near the top of a sediment bank. The area is totally dark and quite moist. The pit is excavated in a horizontal sediment surface, the sediment being similar to that previously described. The pit is 90cm deep and 75cm in diameter, and is nearly circular. The interior walls are smooth, and the rim has been smoothed after construction. A shallow stratum of well-preserved limb bones, probably flying fox (Aproteles bulmerae and Dobsonia moluccensis) and Kapul (Pseudocheirus spp. and Phalanger spp.), covers the base of the pit. The walls of the pit are covered with fine scratch marks, about 30cm above the base of the pit. A small hearth (0.5 square metres) is located nearby, against one wall of the alcove.

Tifalmin hunters who accompanied the author showed reluctance to enter the cave. In company with the author, they inspected the pits but were not able to offer any explanation of their function, nor were they familiar with them. Cranstone (1971:135) notes the use of pit traps for pigs amongst the Tifalmin, and Hyndman (1975:52) states that pigs are hunted by the Wopkaimin. Neither author mentions the use of pits for hunting other mammals.

Three possible functions for the cave pit structures could be envisaged:

1. Pit traps for small mammals, which are known to enter limestone caves.
2. Storage pits for flying fox or small mammals which have been trapped by other means. This explanation would account for the scratch marks inside pit 2, and the small hearths nearby. It is custom amongst Tifalmin hunters to consume at least half of any game whilst hunting; the Wopkaimin eat internal organs only of the game animals while they are away hunting.
3. A ritual function associated with the cult of an ancestral deity, recorded from the area (Quinlivan 1954:19).

The author would welcome correspondence from individuals who have seen similar structures elsewhere, and who can suggest a possible function for the pits.

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