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The SAC Burial Ground, Watom Island, Papua New Guinea

R.C. GREEN[1], DIMITRI ANSON[2] & JIM SPECHT[3]

[1]Department of Anthropology, University of Auckland, Auckland, New Zealand

[2]Department of Anthropology, Otago Museum, Dunedin, New Zealand

[3]Anthropology Division, Australian Museum, P.O. Box A285, Sydney, NSW 2000, Australia

ABSTRACT. Discussion of the burial practices associated with the Lapita cultural complex has previously been limited through lack of evidence. This is rectified by presenting the basic mortuary data on a sample of eight adult inhumations from the SAC burial ground in the Reber-Rakival Lapita site on Watom Island and comparing them with three individual burials from Lapita sites in Fiji and Tonga. A common preference for burial in flexed positions within a small rounded pit feature is evident in the sample, although this practice does not apply to every case. There is, however, less consistency in orientation of the body, the greatest number being with the head to the west.

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In Green's (1979) review of the Lapita cultural complex, little discussion of associated human burials was possible because the known examples were so few: Reber-Rakival, Watom; Natunuku, Fiji; To.1, Tonga. Among these only the locality of SAC (then site 8 or FAC) at Reber-Rakival on Watom Island, East New Britain Province, Papua New Guinea, suggested that an area within a site contained a possible burial ground. It was here that Specht (1968:126) described three burials located in trench I within an area of 6m^2, in the lower-most occupation zone designated C2. A direct date on a bone sample from parts of the three roughly contemporary burials yielded a result of 2,420±110 B.C. (ANU-37b) (Specht, 1968:124). As part of the Lapita Homeland Project (Allen, 1984), Green and Anson with the initial assistance of Specht returned to Watom Island and the Reber-Rakival site with several objectives. One of these was to recover further Lapita-associated burial material by exposing a larger area at the SAC locality, one of several localities investigated within the Reber-Rakival area (Fig.1). Thus the SAC Watom excavations represent the first recorded investigations of a burial ground associated with the Lapita cultural complex. The other three burials dealt with in this volume are each individual cases from separate sites in Fiji and Tonga (see below). Other objectives were aimed at gaining stratigraphically secure radiocarbon samples which would help to pin down the chronological ages of the various occupation deposits associated with Lapita pottery on Watom and confirm the postulated late position of these among Lapita assemblages assigned to Far Western region (Anson, 1983, 1986).

An outline of some of the results from the excavations

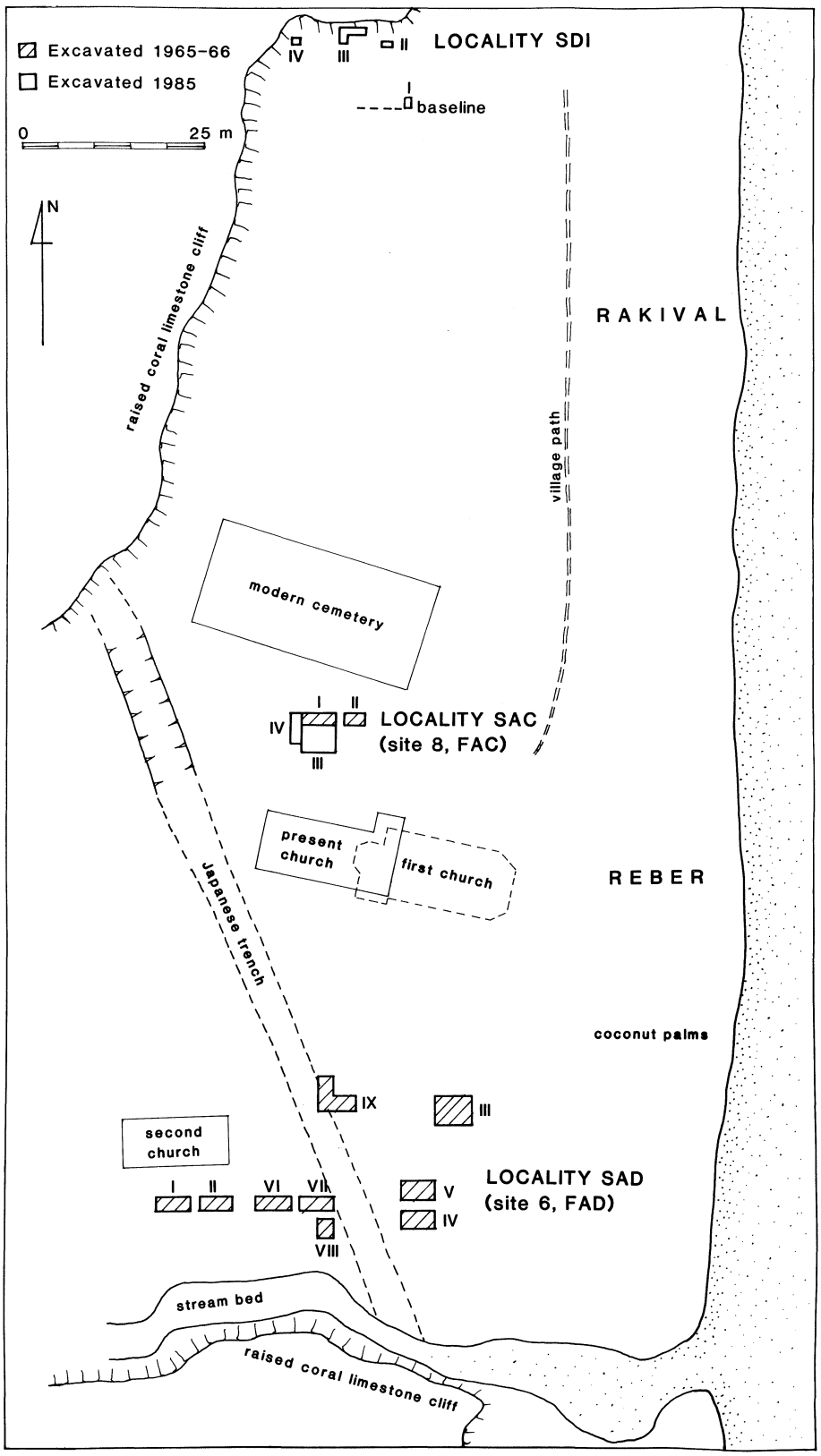

Fig.1. Map with excavation localities in the Reber-Rakival village area on the island of Watom, East New Britain Province, Papua New Guinea.

conducted on Watom in 1985 has already been published (Green & Anson, 1987). The excavations allowed us to define a sequence of occupation at the SAC locality which supports and expands on Specht's initial observations. They also furnished shell samples yielding a series of radiocarbon determinations which permit more precise dating of the deposits. The present report provides fuller information on the stratigraphic and chronological contexts of the three burials found by Specht and the five additional burials recovered by Green and Anson. It also describes the plan of the burial ground and the position and nature of the inhumations that occur there, to furnish a context for the description and analyses of the human remains that are the subject of subsequent papers in this volume.

Stratigraphic Sequence and Chronological Age

Specht's (1968:123) description of the SAC stratigraphy is fully confirmed by our excavations. They demonstrate that there were two Lapita cultural deposits underlying a primary volcanic ash from the Rabaul eruption dated to between the 7th and 9th century A.D. (Walker *et al.*, 1981:186; Green & Anson, 1987:123). Overlying the primary ash are thick deposits of secondary ash and more recent material. The lower cultural deposit is a grey sandy layer labelled by Specht as zone C2. It is now dated by two calibrated determinations on a shell sample from its base to the first four to five centuries B.C. (Green & Anson, 1987:124). The initial occupation associated with zone C2 appears to have been residential in function (see below). Subsequently this part of the Reber-Rakival site was converted to a burial ground. All inhumations are within this deposit, with some features extending down into the coralline beach sand at the base of the site. Although no further dates have been obtained for the upper part of zone C2, a 500 to 100 B.C. age is entirely consistent with the previous date on the bones themselves, and the date for a shell at the base of the layer above.

The upper cultural deposit is a black loam layer labelled by Specht as zone C1. It everywhere seals in zone C2, and at its base sometimes exhibits truncated features intruded into zone C2. These features, as well as a greater quantity of Lapita pottery and other cultural items in the deposit, indicate that the locality returned to residential use at this time. The deposit is dated by a shell sample from the base of zone C1 which, when calibrated, gives an age that probably lies between the first few centuries B.C. and the first few centuries A.D. (Green & Anson, 1987:124). In the final stage before the ashfall, the upper black loam layer appears to represent gardening activity that formed a palaeosol when it was sealed by the ash of the Rabaul eruption. Our opinion is that the inhumations in zone C2 constitute the only stratigraphically well defined and securely dated burial complex of the Lapita cultural complex.

Layout of the Burial Ground

The total surface area of cultural deposits exposed at locality SAC now covers some 42m^2. These allow us to define a set of structural features associated with the zone C2 deposit (Fig.2). From subsurface coring carried out by C.A. Key at the time of Specht's excavations, we know the initial Lapita occupation at this locality was on a well drained coralline beach flat with a low lying dune just behind. The first thing of note is that in Specht's rectangle II, very few features were encountered, and no burial material. Based on profiles in relation to present sea level, this very low lying portion of the site towards the present day beach must in the past have been much closer to the tidal zone. Inland of this in rectangles I and III is a low coral block and igneous stone alignment running parallel to the beach in a north-south direction. In some instances it overlay pits and postholes from an initial residentially-oriented occupation. To the west and inland of this alignment all eight burials were located within a fairly compact area. The alignment appears to be part of the a boundary wall associated with the burials as both are late features within zone C2. It seems likely that it once formed an enclosure.

Specht located and fully excavated the first three burials in rectangle I, but through lack of time was then unable to complete excavation of the entire rectangle. Anson and Green removed the backfill down to the plastic which he had left at its base (with the intent of returning later), and continued to define the remaining structural features. This lead to the discovery of portions of three additional burial features, which extended either into rectangle III to the south or rectangle IV to the west. Two other burials were found, one close to this cluster, partly in rectangle III and partly in rectangle IV, while the last was somewhat to the south in rectangle III. The total area excavated was too small to define the full extent of the burial ground, or additional inhumations that may have lain within its confines.

Inhumations

It seems likely that gardening activities to a depth of circa 30cm turned over and incorporated into zone C1 a small amount of pottery, obsidian, bone and other material from the top of zone C2. This is consistent with the evidence for disturbance of some of the skeletal material, fragments of which extended into the upper part of zone C2 and occasionally into the lower spit of zone C1. As a result of this rather random activity, some of the skeletal remains, such as those from burial 2, were very disturbed and fragmentary, while in other cases such as burial 6, the skeleton was largely complete and in articulation. The other difficulty encountered was that burial features often extended down into the underlying sand beach to within the tidal zone and on a daily basis filled with water. This meant that nearly all the human bone was wet, soft and difficult to remove intact; or, when excavated, difficult to

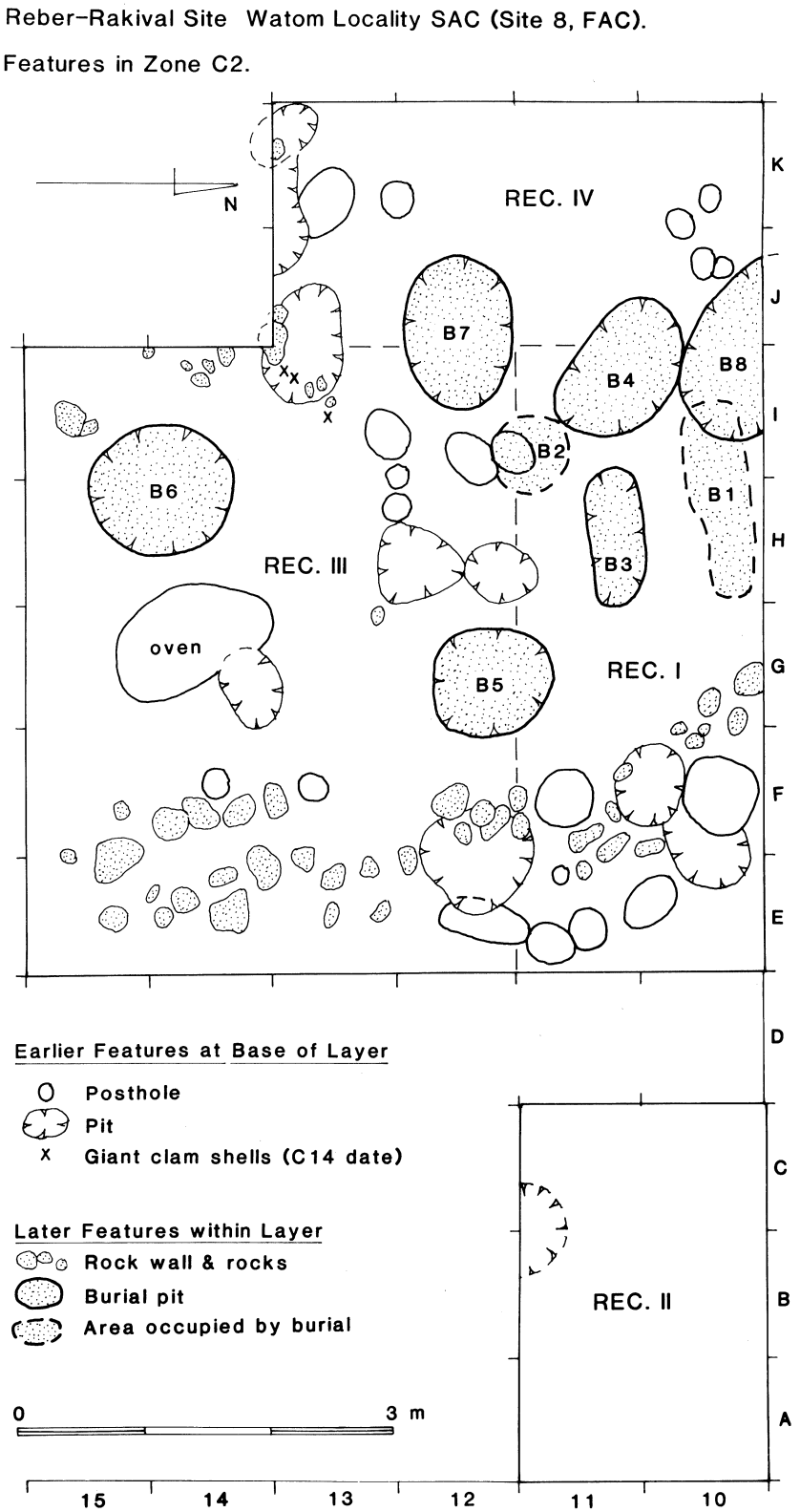

Fig.2. Plan of features including burial pits at base of zone C2 in the SAC locality of the Reber-Rakival Lapita site on Watom Island.

dry and harden.

As Specht (1968:126) was unable to detect or define a pit for burial 1, it is possible only to indicate the area in which that skeleton lay. Inhumation presumably consisted merely of covering the body with earth. For all other burials, pits or parts of pit features could be defined. This may be significant as only burial 1 was in a fully extended and supine position. There was no skull, though a slab of igneous rock was placed where the skull ought to have been and the body had been oriented with its shoulders to the west and its feet to the east. All the other inhumations were in oval to rounded pit features, suited in size to either bundle burial or placement of the body in a flexed position.

Three burials, each in a pit feature, were definitely in tightly flexed positions. Burial 3, excavated by Specht, was a reasonably complete skeleton placed on its back in a supine flexed position. The body had been interred with the head to the west but turned to face north. In burial 4, although the skull was missing, the position of the arm, leg and pelvic bones indicated that this too had been a supine flexed inhumation where the body had been placed on its back with shoulders to the west. Burial 6, which consisted of a nearly complete skeleton, was lying in a seated flexed position on its back. In this case the body had apparently been positioned with shoulders to the south. The skull, however, had dropped forward to the north.

Burial 2 was initially represented by bones of the lower body (Specht, 1968:126) and additional excavation recovered only a few more fragments from the infracranial portion of the skeleton. Green and Anson were able to demonstrate, however, that inhumation had occurred in a pit feature which appeared to cut away the upper part of an earlier posthole at its base. Specht believed burial 2, with its somewhat scattered bone, had been disturbed by burial 3, a point we were unable to confirm. The burial 5 pit also sealed in or cut through earlier features. Few bones from it occurred in rectangle I, and those in rectangle III were generally not articulated but remained in a pile towards the central part of the pit. It had no skull and only fragments representing other parts of the skeleton. In rectangle III burial 7 consisted of a few leg and feet bones plus some vertebral material and cranial fragments. Definition of the upper part of the skeleton proved difficult when excavation was extended into rectangle IV, although further bones from that portion of the body were recovered. Bits of scattered human bone, including part of a mandible and portions of a cranium plus a scapula, were found scattered in the squares to the west of the burials in rectangle IV. Some skeletal fragments were found within the first spit of the sandy grey deposit of zone C2 and may be disturbed remains from burials 4 or 7. Similar bone material, including a second mandible, was found in spit 2 of zone C2 just west of burial 8.

In rectangle IV articulated portions of the upper limb bones were found in burial pit 7, while in burial pit 8 the lower limbs, a few bits of skull, several teeth, scapula and vertebrae were found among many fragmentary bones. However, in neither case could we identify a fully complete and articulated human skeleton.

In respect to modes of inhumation, two categories plus a set of disturbed remains can be identified. The first, represented by burial 1, is an articulated, extended supine inhumation without a skull and not in a pit feature, which is unique. The second is the articulated flexed burial in an oval to rounded pit, represented by burials 3, 4 and 6. The lack of a head in the case of burial 4 appears to us to be the result of post-depositional disturbance in antiquity. This view is supported by Pietrusewsky (1989a) on the basis of the presence of the atlas vertebra. We believe other skeletal fragments, including a mandible found in the grey C2 zone deposits to the west of this burial, are probably some of the pieces missing from that skeleton.

The third grouping includes burials 2, 5, 7 and 8. In all these cases the excavations recovered incomplete skeletons, and only occasionally were the bones in positions of articulation. Several interpretations can be offered for this. One is that these inhumations represent incomplete secondary bundle burials. While burial 5 could possibly be such a case, this certainly does not appear to be the situation with respect to the other three, where some articulation was in evidence and subsequent disturbance in antiquity is a more likely factor. Thus our impression is that burial 7, which included some cranial material, was originally in a position very similar to burial 4. Burial 8 may also have been of this type. Finally burial 2, clearly disturbed in antiquity, exhibits enough articulation among the few remaining bones not to support a secondary or bundle burial option. That leaves only burial 5. Here the pit base extended well below the high tide level, so that bone preservation was extremely poor; the fragmentation plus problems in excavation made it difficult to judge the degree of articulation.

Leaving the secondary or bundle burial option as an unlikely interpretation for burials 2, 5, 7 and 8, the deliberate disturbance of a primary burial in antiquity could still apply to burials 2 and 8. Here the evidence of an incomplete, semi-articulated skeleton could imply partial disinterment following primary burial and subsequent decay of flesh and ligaments, making possible the later removal of some bones and especially those of the skull. Such an interpretation, while not impossible, is more difficult to apply to burial 7 where fewer bones are missing. For burial 5 the evidence does not allow a choice between this practice and a secondary burial option.

The postulation of secondary or of deliberately disturbed primary burial has to be balanced against a more general explanation involving all burials, namely that of later disturbance and loss or removal of a variety of skeletal parts through more random activities. This would have occurred after the locality was abandoned for burial purposes and again used first for residential and then gardening functions. The result is that there are no complete and fully articulated skeletons present and a wide range of bones is in fact missing. It is this last interpretation which we favour.

Bones of a very young child (one to two years) from Specht's excavations were found by Houghton among the 'miscellaneous bones'. They were not identified at the time of excavation and Specht is of the view that they may be from the post-Lapita child of site 6 or SAD (1968:122). Their

stratigraphic context and association with SAC is uncertain.

The orientation of the burials suggest that one preferred mode for the placement of dead was with the head to west. In this category the evidence from burials 1, 3, 4, and probably 7 seems fairly clear. In the case of burial 6, it would appear the torso lay to the south and the head had tipped forward. No statements are possible for the other burials, except 8, where a jaw, which perhaps may be associated with this skeleton, was found in the zone C2 deposit to the west of the burial pit.

Grave pits in general contained no obvious burial goods. Three contained seemingly associated volcanic stones. Exceptions could be parts of an undecorated shell-tempered pot in burial 5, along with some pieces of classic dentate-stamped ware, and the shank of a shell fish hook with burial 4. However, it is clear that neither whole pots nor other important funerary items were placed in the burial pits, as concentration of sherds or other portable artefacts did not occur in these features.

Comparisons with Other Lapita Burials

The only primary burial known from the Lapita period of Tonga, the AK burial, was placed in pit AF of Trench III in site To.1, Tongatapu. While it is not certain that the pit was originally dug for this purpose, due to the layer of red-burned soil in its lower part, it was in the end used as a grave (Poulsen, 1987:21). 'The body was placed with back on the ground, head towards the west, elbows close to the body with the knees up by the left hand' (Poulsen, 1987:22). This unnatural posture is an indication that the body was probably bound in this position, but not because of the small size of the pit, since there was space between the skeleton and pit walls. Disturbance of the fill in the upper part of the pit took place at a considerably later time, removing some major bones of the right leg (Poulsen, 1987:22; Spennemann, 1987:290). A small shell adze was placed at the right elbow, apparently as a grave gift (Poulsen, 1987:22).

A primary Lapita period burial from Lakeba in the Lau Group of Fiji occurred at 800 mm depth resting on a cemented layer of grey to orange sand in Trench 28 of site 196 (Best, 1984:100). There was no evidence for an associated pit feature and pottery from the excavation unit around and immediately above the burial fitted in well with that from the units assigned to the lower deposit but not with those above (Best, 1984:221). In addition, two other groups of human bones, both from very incomplete skeletons, were found below this level (Best, 1984:100 and Fig. 7.9 right).

In the Natunuku area of Viti Levu, Fiji one adult skeleton showing little disturbance lay in a crouched position in a shallow grave in layer 5a at locality C of site VL1/1 (Green, 1979:55; Pietrusewsky, 1989b). The skull faced north. Little more information is available, as the site report is unpublished.

The lack of any obvious pit feature containing the site 196 Lapita burial on Lakeba parallels the situation of burial 1 at SAC on Watom. In the two cases of Tongatapu and Viti Levu the flexed burials are placed in small oval pits as at SAC Watom. The flexed-on-back position of the To.1 skeleton seems most similar to those of SAC Watom burials 3, 4 and 6. While the burial from Lakeba on its side has no obvious parallel, the individual burials for the two other Lapita sites used various flexed positions as at SAC Watom. Only one of them, however, (To.1 from Tonga) exhibits the head to the west position favoured in Watom. Except for an adze in the To.1 burial, grave goods did not feature as part of the burial ritual.

Conclusion

The SAC locality at the Reber-Rakival site on Watom constitutes a securely dated though disturbed set of inhumations assignable to the late period of the Lapita cultural complex. Despite the 79 to 100 Lapita sites now known, and the 49 or so now investigated through excavation (Kirch & Hunt, 1988: 15–17), little information on Lapita burial practices has been forthcoming. However, it is now possible to say that one of the common inhumation practices was focussed on flexed burial, usually within a pit, and with the head often oriented towards the west. Because few inhumations from Lapita sites have been reported, there has been continuing speculation about where people from the Lapita cultural complex were buried. An answer is that they were sometimes buried within large Lapita settlements in a distinct burial ground complex, and at others in more individual circumstances. The problem we face is one of adequately sampling large Lapita sites through the use of excavation strategies that expose all of the different activity areas involved.

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