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– ARTICLE –

Vanuatu Mortuary Practices over Three Millennia: Lapita to the Early European Contact Period

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ABSTRACT

New discoveries and previously-unpublished data on burials from south, central, and north Vanuatu are reviewed in this paper, offering a synthesis of mortuary practices over three millennia, from Lapita to the early European contact period. Relying on five attributes describing the practices and behaviours (body and bone treatment, position and orientation of the body, ornaments and associated artefacts, and use of single or multiple burial), the analysis emphasizes two major episodes of structural changes in the overall funerary system following initial settlement of Vanuatu. The first occurred towards the end of the Lapita period and the second is indicated by the distinctiveness of the second millennium AD burials. A possible interpretation of these changes, following the lines of Thomas's 'genealogical approach' (2001) is proposed.

Keywords: Mortuary practices, Vanuatu, Southwest Pacific, Lapita, Post-Lapita, Second millennium AD

INTRODUCTION

This paper belongs to a relatively recent genre of regional, archipelago-based, surveys of prehistoric and early European contact period mortuary practices in the western Pacific (i.e. Fitzpatrick and Nelson (2007) for Palau in Micronesia and Valentin and Sand (2008) for New Caledonia). Syntheses such as these have only really become possible during the last decade. This is due to the fact that both the tempo of research in the region has increased and that bioanthropologists have become involved in archaeological projects from the excavation stage onwards, value-adding to what was possible in previous research often carried out by archaeologists without extensive training in the excavation of human remains. New approaches, particularly that of *l'Anthropologie de terrain* (Duday *et al*. 1990), have extended interpretation of burial layout and ritual so that patterning in mortuary practices can be better explored.

In the case of Vanuatu, the pioneering archaeological research of the Shutlers on Futuna, Tanna and Efate, and that carried out by Garanger on Efate and Tongoa led to the discovery and study of a large sample of burials, providing fundamental knowledge on mortuary practices of the second millennium AD for the centre and south of the archipelago (Garanger 1972; Shutler and Shutler 1966; Shutler *et al*. 2002). The discovery in 2004 of the Lapita cemetery at Teouma on Efate (Bedford *et al*. 2006, 2009, 2010) provided a new data set and insight into the mortuary behaviour of the earliest colonists of Vanuatu. Other discoveries, including previously unpublished data from Aneityum, Epi, Erromango and recent work on Malakula (Bedford *et al*. this volume), have further supplemented our knowledge of mortuary practices, particularly of the Post-Lapita period. This present paper is an extension of an earlier attempt (Valentin *et al*. 2009). It summarises and explores patterns of change in mortuary behaviour in a wider socio-economic context, over the 3000 years of human settlement of the south, centre and north of Vanuatu.

A range of attributes is used in this paper to describe the remains of funerary rituals (Parker Pearson 2003). Descriptions of body and bone treatment, position and orientation of the body, ornaments and associated artefacts, and the use of single or multiple burial are presented with the aim of highlighting differences in practices over time. More than 200 burials are included in this study and presented in a chronological format. The identification and interpretation of changes in practice involve a search for points in time where cultural activities, such as mortuary practice, undergo structural changes. This is a methodology promoted by Thomas (2001) with his 'genealogical approach' used in interpretations of the British Neolithic, which we believe has some applicability for understanding the Pacific's past as well. Our analysis identified two major transformations in burial practices that are detailed and discussed. The first of these changes appeared towards the end of the Lapita period at *c*. 2800 calBP and the second is marked by the distinctive structure of the funerary system over last 1000 years.

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BURIAL PRACTICES DATING TO THE BEGINNING OF THE THIRD MILLENNIUM BP

Mortuary practices in association with the initial occupation of Vanuatu some 3000 years ago are documented at three sites. The most spectacular is the Teouma Lapita cemetery on the south coast of Efate Island where 68 burial features have been identified (see Figure 1 for location of excavated burial sites in Vanuatu). The other sites where Lapita period burials have been identified are two small islands off the northeast coast of Malakula. They comprise three burials from Vao Island and five from Uripiv Island (Bedford *et al.* this volume).

Teouma Lapita cemetery

The Teouma burials dating to *c.* 3000 calBP were placed in a former coral rubble upper beach, and in solution holes

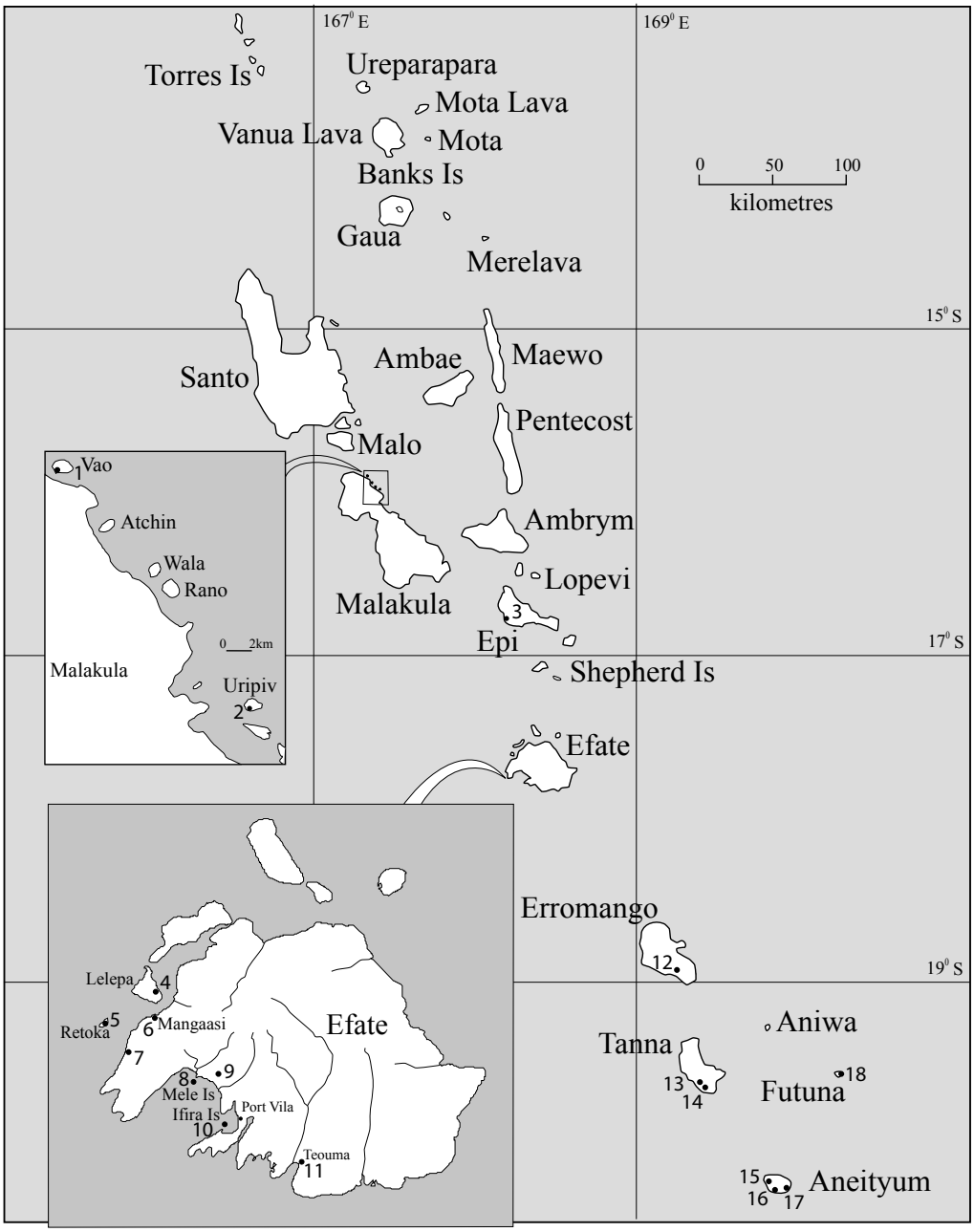

Figure 1. Map of Vanuatu showing location of excavated burial sites on Islands of Vao (1); Uripiv (2); Epi at Burumba (3); Lelepa at Mortutu, Wele, Taupele, and Smouta (4); Retoka (5), Mele (8); Ifira (10); Efate at Mangaasi (6), Mangaliliu (7) and Teouma (11); Erromango at Raowalai (12); Tanna at TaRs1 (13) and TaRs3 (14); Aneityum at Imkalau (15), Anelcauhat (16) and Umej (17); and Futuna at FuRs1A, 3, 5, 9 and 12 (18).

and on the surface of the uplifted reef terrace immediately adjacent to the beach (Bedford *et al.* 2006, 2009, 2010). Six field seasons of excavations at Teouma were completed in 2010, during the course of which a total of 68 burial features were identified. A preliminary total of 91 individuals are represented. The deceased consisted almost exclusively of adults of both sexes and infants (newborn or pre-term), with adults representing more than 80% of the total (Buckley *et al.* 2008; Kinaston *et al.* 2009).

Inhumation was the preferred method for disposal of the body (cf. Thomas 1980). On current evidence at least 59 individuals were treated by inhumation, and only one individual was cremated (Scott *et al.* 2010). Infants appear to have been interred in a simple manner and in some cases are closely associated with adults. The infant bodies were placed in various positions and orientations and there was no evidence that any bones were removed after decomposition. No definite grave goods were found but in some cases unmodified shells were in apparent association.

Contrasting with the infants, all the adults and one adolescent underwent more complex funerary treatment (see Valentin *et al.* 2010 for a more detailed discussion), recalling what Hertz (1907) has labelled 'secondary burial'. At an early stage of the procedure, single bodies were deposited in pits dug into tephra deposits filling solution holes in the raised reef or into mixed tephra and beach deposits. There was no clear consistency in position and orientation. Bodies were frequently placed on the back (*c.* 75% of the cases), sometimes on the face (*c.* 15% of the cases) and more rarely seated (*c.* 10% of the cases), with varied positions for the limbs. Arms were generally parallel to the body, with elbows frequently extended. Hips and knees were commonly flexed and even hyperflexed.

This interment phase was not the final treatment of the adult corpses. At a further stage, after a period of time during which the body had decomposed, certain bones were removed, especially ones from the upper part of the skeleton including skull, ulnae and radii, sternum, clavicles, scapulae, humeri and ribs. In some cases human remains were re-arranged *in situ*. Residual inhumations at Teouma were nevertheless treated with particular care. Additional elements seem to have been placed within some graves at this stage, including *Conus* shell rings, collections of human bones and decorated Lapita pots. Final infilling of the graves was handled with particular attention and included, in a number of cases, the placement of large coral boulders and/or rectangular coral slabs over the top of the graves.

In rare instances, adult and adolescent bodies were adorned with ornaments. These included two *Trochus* shell rings on the left forearm of a single individual, *Conus* shell bracelets on the ankles of two other individuals, and, in several cases, unmodified shells of a large mangrove bivalve (*Geloina coaxans*) were associated with individuals. Human bone collections, including selected skeletal remains of one or several individuals in various arrangements, and pots containing human remains were also recorded (Bedford and Spriggs 2007). Several other pot bases were found in areas where scattered human remains were numerous, suggesting that they may also have originally contained human bones. Whole pots were placed close to some of the burials (for description see Bedford *et al.* 2009, 2010; Valentin *et al.* 2009, 2010). Pots may have been smashed over some of the graves during the funerary process or otherwise broken during or immediately after use of the area as a cemetery.

Malakula Lapita burials

Excavations at two sites on Uripiv and Vao Islands, off northeast Malakula have uncovered eight Lapita burials dating between 3000–2600 calBP (Bedford *et al.* this volume). They comprised the skeletal remains of five children of indeterminate sex from Uripiv and two adults (male and female) and one adolescent (female) from Vao. The burials were both single (six cases) and multiple (one case on Vao). The method of interment was primary inhumation, with no evidence of bone removal. No obvious consistency was observed in body position or orientation. The children were placed in flexed or extended position, on the back or on the left side in shallow graves. The adults were buried on their backs with their arms along the sides of the body and the lower limbs extended while the adolescent was face-down with the arms along the side of the body and the knee flexed with the feet on the pelvis.

There were no personal ornamentation or grave offerings associated with any of the Lapita burials on Malakula. The multiple burial was a double inhumation and enclosed the adult skeletal remains of a middle-age female and of a young male. The two corpses were placed parallel to each other, exhibiting the same attitude, with the arm of the female overlapping the right side of the male. Epidemic disease or interpersonal violence, causing simultaneous death, may have led to this interment pattern.

BURIALS PRACTICES DATING TO THE SECOND HALF OF THE THIRD MILLENNIUM AND THE SECOND MILLENNIUM BP

Post-Lapita burials dating between *c.* 2400 and 1000 calBP have been excavated from Efate, Malakula and Epi Islands. From Efate Island there is a cluster of burials at Teouma (Area 7C), 75 m south of the main Lapita cemetery and dating to *c.* 2400 calBP, perhaps just after the end of human habitation, and several burials from the Taplins site in the Mele area dated to the mid-late third millennium BP. In the north of Vanuatu, seven Post-Lapita burials, dated to *c.* 2300–2000 BP, have been recovered from the Uripiv and Vao island sites of Malakula (Bedford *et al.* this volume). The only other recorded burials from this period are from the Burumba site on Epi Island. There are five burials dating to *c.* 1400–1000 calBP, and they mark the end of this middle phase of mortuary practice.

Teouma Area 7C

Teouma Area 7C was an excavation located on the top of a low natural mound feature, some 75m south of the main Lapita cemetery, where a cluster of burials dated to *c.* 2400 calBP was identified. Twenty square metres of Area 7C were excavated in 2008 and five individuals (B1, B2A, B2B, B3, B4), all adults, were found about 20cm below the current ground surface. Two of them were recovered in tephra deposits while the other three were in, or above, a shell midden (Figure 2). Only three skeletons were complete enough for sex identification and all were female. Direct dating of the skeletons produced the following results: B1 2680–2213 calBP, with 2496–2302 calBP at 90.8% probability (Wk-24480, 2423 ± 30 BP), B2A 2694–2333 calBP, with 2540–2333 calBP at 82.5% (Wk-24481, 2455 ± 30 BP), B2B 2697–2340 calBP, with 2543–2340 calBP at 78.2% (Wk-24482, 2465 ± 30 BP), B3 2694–2183 calBP, with 2504–2292 calBP at 83.9% (Wk-24483, 2423 ± 30 BP) and B4 2690–2315 calBP, with 2506–2315 calBP at 85.4% (Wk-24484, 2452 ± 30 BP)[4]. The dates indicate the short-term use of this area for interment.

Clearly contrasting with the earlier adult burials from Teouma, the deceased in Area 7C were interred in a simple manner, with no evidence of any bones having been deliberately removed subsequent to decomposition. Skulls and bones from the upper part of the body were found *in situ* in correct anatomical position (Figure 3). The burials were primary inhumations, where the original position and orientation could be defined in four cases. Both orientation and position seem to show some level of regularity but the

4 Calibrated radiocarbon dates are at two standard deviations using OxCal 4.1 (Bronk Ramsey 2009), with a delta-R of 40 ± 44 for Vanuatu marine shell samples as calculated by Fiona Petchey (University of Waikato, Radiocarbon Dating Laboratory). The bone dates from Teouma Area 7C were calibrated by Fiona Petchey using mixed marine and terrestrial curves based on measured isotope data. We have opted to use INTCAL09 for all terrestrial calibrations, and have not incorporated a Southern Hemisphere offset given the position of the thermal equator at the Inter Tropical Convergence Zone (ITCZ) as the boundary between the atmospheres of the Southern and Northern Hemispheres (cf. Petchey *et al.* 2011:34).

Figure 2. Midden and Post-Lapita burials (B2A, B2B, and B4) in Teouma 7C area (Efate, central Vanuatu).

Figure 3. Post-Lapita burials (B1 and B3) in Teouma 7C area (Efate, central Vanuatu).

sample is small. One individual (B1) was laid on the back with lower limbs extended, and two individuals (B3 and B4) were placed on the back, with lower limbs flexed on the left side. In three occurrences (B2A, B3 and B4), arms were on the side of the body, with one or both elbows tightly flexed and hands close to the head. These burials display two types of orientation: two individuals (B3 and B4) had the head to the west, and two (B1 and B2B) to the southeast. No artefacts were associated with the bodies.

Taplins rock shelters

At the Taplins site, in the Mele area, five subsurface graves in two rock shelters located at the base of a cliff were excavated in 1973 and 1974. Direct dating of human bone from Taplins 2 (individual C2) produced a determination of 2800 ± 75 BP (NZ-4463; Ward and Houghton 1991: 230). It is now considered however that early radiocarbon assays on bone before the mid-1990s were unreliable (Bronk Ramsey *et al.* 2004; Petchey 1997). The Taplins 1 skeleton and one of the skeletons from Taplins 2 have recently been directly dated by Valentin and Buckley. They provided late- and mid-third millennium calBP ages respectively, which will be presented in detail elsewhere.

The findings at Taplins 1 consisted of a single inhumation of a male adult with several associated artefacts. The body was in an extended position oriented in a west-east axis with the feet to the east. At Taplins 2, another rock shelter immediately adjacent to Taplins 1, four graves contained the skeletal remains of four males (A2, B2, B3 and C1), two females (C2 and F), one adolescent (A1) and one young child (B1) and associated artefacts (Ward and Houghton 1991). Individuals display no clear indication of post-decomposition skull removal. Of the four individuals for which position could be identified, three were extended and one was hyperflexed, all aligned on a north-south or northwest-southeast axis (Ward and Houghton 1988).

One grave (Grave III) appears to have contained a double inhumation with a male (C1) and a female (C2) in an asymmetrical arrangement. The deceased were laid next to each other, head to toe, along a northwest-southeast axis. The male was on his back in a fully extended position while the female was on her side in a crouched position with knees against her chest. A whole ceramic vessel was found beside the skeletons. This kind of asymmetrical arrangement of simultaneous burials has been described in particular funerary circumstances during which one or several individuals are killed and placed in the grave of

an important person who died 'naturally', to accompany them to the afterlife (cf. *'morts d'accompagnement'*, Testart 2004). Whether this sort of interpretation can be applied to the Taplins 2 situation is unclear, as simultaneous 'natural' deaths cannot be excluded.

Malakula Post-Lapita burials

The seven Post-Lapita burials excavated on Uripiv and Vao Islands dating to *c.* 2300–2000 calBP contained the skeletal remains of one child who died at the age of about five years and six adults varying from young to middle-age, amongst whom two male and three females were identified (Bedford *et al.* this volume). The burials, both single (five cases) and multiple (one case) were primary inhumations with no evidence of bone removal, apart from one single case from Uripiv in which the absence of the lower limb bones may represent deliberate removal. At Uripiv and Vao, individuals were seated, on their back or on their side, with flexion of the limbs in various degrees and planes. Orientation of the bodies showed some level of regularity, with the head to the northwest in six of the seven burials. No personal ornaments or grave goods were associated with any of these burials.

The double burial excavated on Vao Island contained the skeletal remains of a middle-aged female and a five-year-old child. In this case, the child was placed on the chest of the female, who was partly seated with her hips and the knee flexed in the sagittal plane. Epidemic disease or interpersonal violence may have contributed to simultaneous death and interment. This double burial was the first of a sequence of three interments in what may have been a household compound.

Burumba

The only excavated prehistoric burials on Epi Island come from the Kalala Plantation site, Burumba, located about 200 m from the shore in the middle of the west coast of the island. A single test-pit was excavated at the site in 2005, revealing two distinct layers containing cultural deposits, one near-surface and another below a thick tephra deposit. A shell date from the upper cultural deposit returned a calibrated date of AD 1724 to modern, with AD 1801 to modern at 85.7% probability (Wk-18950, 465 ± 35 BP). Further excavation was carried out at the same location in 2006 (Valentin and Bolé fieldnotes 2006). The opening of a 2 × 5 m area exposed five burials (B1, B3 to B6) 80–90 cm below the surface (Figure 4). The burial pits were dug into sterile white sand from the directly-overlying black sandy cultural layer 3. They contained skeletal remains of nine adults. Two of the burials were fully excavated (B3 and B5) and directly dated. One skull fragment from Burial 5 produced the calibrated result of 1399–1304 calBP at 95.4% probability (Wk-25769, 1464 ± 30 BP) and one femur fragment from Burial 3 a calibrated age of 1230–1005 calBP, with 1173–1051 calBP at 88.5% (Wk-25770, 1189 ± 30 BP). A charcoal sample from the fill of Burial 3 returned a calibrated age of 1405–1303 calBP (Wk-19644, 1467 ± 33 BP). This date is inconsistent with the direct date for the skeleton and seems likely to represent either earlier activity at the site or an inbuilt age associated with the burning

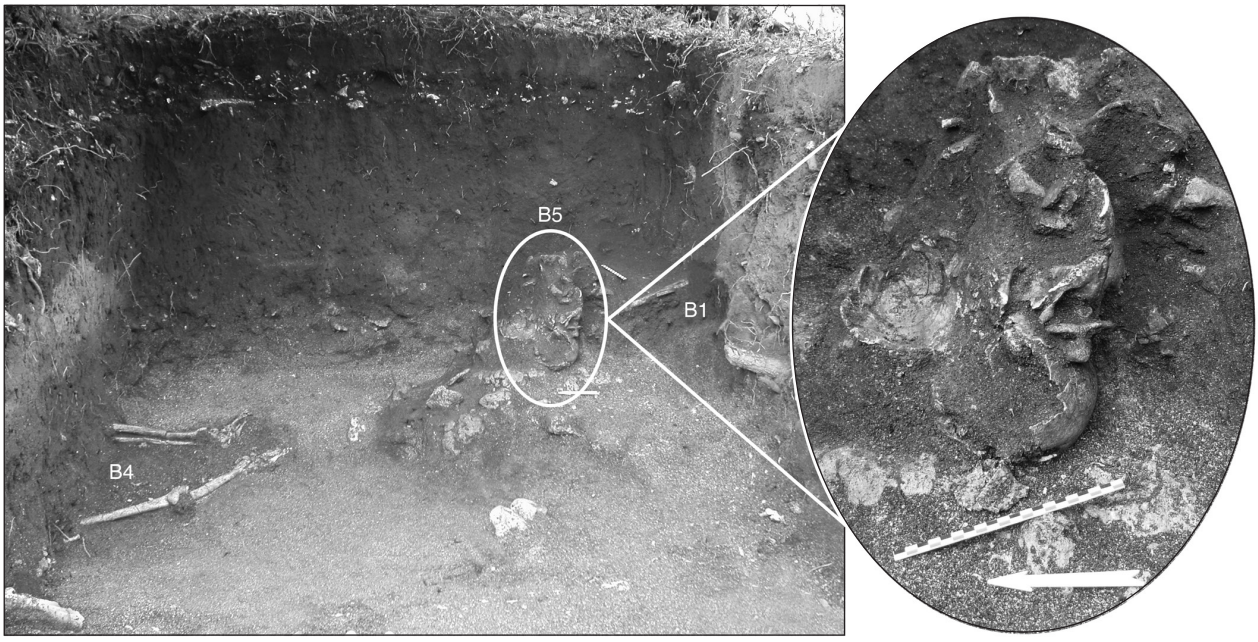

Figure 4. Stratigraphic section and first millennium AD burials (B1, B4 and B5) at the Burumba site (Epi, central Vanuatu), close up of B5 inset.

of old wood.

At Burumba, inhumation appeared to be a single-stage process with no clear evidence of bone having been removed after decomposition. B3 appeared to lack the skull but a modern pit had disturbed this area of the burial. However, the practice of bone manipulation is indicated by Burial 5, which consisted of an assemblage of cranial remains of five individuals. This assemblage seems to be a collection of skulls with no particular position and/or orientation but placed on a pile of small coral slabs and blocks (Figure 4).

B3 and B6 are parallel to each other and about one metre apart. In these two burials the corpses were interred with the torso face-down, upper limbs along the body and with the pelvis on the left side and the lower limbs fully extended and superimposed (Figure 5). In the case of B4, placed 2.5 m east of B3, the body was probably placed on the back with the knees flexed forwards, in the sagittal plane (only the legs were excavated). These three burials were similarly oriented, with the head to the northwest and the feet to the southeast, roughly parallel to the coast.

The only grave good recovered at Burumba was found in association with the male burial B3. It was a single large *bubu* or conch shell (*Charonia tritonis*) modified to create a trumpet (Figure 5). It was in close association with the body, placed over the right hand, and pointing to the northwest.

Figure 5. First millennium AD burial (B3) at the Burumba site (Epi, central Vanuatu); note the conch shell lying on the right hand of the individual.

BURIALS DATING TO THE LAST MILLENNIUM BP

Burials relating to the second millennium AD, including a number dated to the historic period, have been excavated from 27 sites on Tongoa, Efate and its offshore islands, Tanna, Futuna, Erromango and Aneityum islands (Figure 1). In addition, cave burials presumably dating to the last few hundred years are common on several islands in the group, such as on Efate, Erromango, and Tanna (Humphreys 1926: 89) and link to oral traditions concerning traditional burial rites at the time of European contact.

Tongoa

Garanger's 1964 excavations at five mortuary sites on Tongoa Island, in central Vanuatu, revealed at least 22 burial features and skeletal remains of more than 31 adults amongst which six males and five females were identified (Garanger 1972: 90–94). Graves at sites near Mangarisu were marked by various arrangements of standing stones and large conch shells.

The burials, both single (20 cases) and multiple (two cases), were primary inhumations with no evidence of bone removal post-decomposition. Bodies were placed on the back in a fully extended position, except for seven found at the Mangarisu TO-29 site. At this location five individuals from single burials and two from the multiple burial (TO-29–1-33) display various degrees of flexion of the lower limbs (Garanger 1972: Figure 247). Another individual, found in the multiple burial (TO-29–1-33), was placed face down with the lower limbs slightly flexed on the side (Garanger 1972: Figure 257). Burial orientation is typified by variation across all sites. The most frequent orientations were northwest-southeast (15 cases), west-east (seven cases) and southwest-northeast (three cases), and the majority were oriented according to a land-sea axis.

Ornaments were rare and were worn by only seven individuals (Garanger 1972: 100 Table 13). Six pig-tusk bracelets were found with three of the burials (TO-28–3, TO-29–5-37 and two individuals in the multiple burial TO-51 at Panita). One of these pig-tusk bracelets was combined with small shell-disc beads. Nasal ornaments were found in two cases (TO-29–1-33 and TO-29–1-32). Another individual in TO-29–1-33 had a necklace and an armband, both mainly made of small shell-disc beads. Grave goods comprising a stone (TO-29–1-32) and unmodified shells (TO-29–2-30) were found in two burials. Human bone collections, possibly also constituting grave goods, were associated with six burials (four at TO-28–3, one at TO-29–7-14, and one in the multiple burial TO-51 at Panita). These deposits varied from a skull or mandible (TO-28–3),

through to an assemblage of several incomplete bones (TO-29–7-14), to a skeleton in a bundle (TO-28–3). Such secondary deposits were closely associated with the bodies, either placed on the chest, on the thigh, near the head or parallel to the body.

The two Tongoa multiple burials included five and six individuals respectively (Garanger 1972: 91–92, Figure 247, 257). At the Mangarisu TO-29–1 site (Garanger 1972: 91–92, Figure 247, 257), several aspects suggest a single event associated with non-natural, ritualized deaths (cf. Albert *et al.* 2000). These include: (1) a significant number of individuals (including two males and three females) interred simultaneously in a single pit under a standing stone; (2) burials placed in an asymmetric arrangement structured around a central individual: a female was placed perpendicularly to the central individual, at his head, while the other individuals were laid beside and parallel to him; and (3) body positions varying according to sex, with the two males fully extended on the back and the three females in flexed position on the side or on the face. An oral tradition collected by Garanger associates this burial with a chief, Mwasoe Nua, who survived the Kuwae eruption of AD 1452 (Garanger 1972: 91–92; Spriggs 1997: 214–17).

The second multiple burial, excavated at TO-51 Panita (Garanger, 1972: 92–94, Figure 261–262), is more difficult to interpret definitively in archaeological terms. If simultaneity of the six interments is accepted, the observed combination of characteristics may suggest, as in the previous case, a single burial event associated with ritualised killings. This includes (1) a significant number of contemporaneous deaths of adults including both males and females, (2) the radiating arrangement of burials placed with a female lying perpendicularly to the feet of the main male individual, who has a different orientation compared to the other five deceased, and (3) a secondary deposit of human bones on the thorax of this same individual. Oral tradition relates this burial to Ti Tongoa Liseiriki, a chief said to have led the resettlement of Tongoa after the Kuwae eruption of *c.* AD 1452 (Garanger 1972: 92–94; Spriggs 1997: 212–14).

Efate and offshore islands

A total of 47 graves has been reported from 11 sites on the island of Efate and offshore islands of Lelepa, Retoka, Mele and Ifira (or Fila). The graves comprise the skeletal remains of at least 94 individuals, comprising 15 subadults and 69 adults, of whom 19 have been identified as male and 20 female, and ten individuals of indeterminate age and sex (Shutler and Shutler 1966; Garanger 1972; Shutler *et al.* 2002; Valentin *et al.* 2005). These burials were uncovered in rock shelters on Lelepa and in open sites on Lelepa, Retoka, Mele and Ifira islands, and at Mangaasi and Mangaliliu on Efate. All consisted of subsurface burials. Some were marked on the surface, by circles of large shells in two cases on Lelepa (at EF-101–5 and EF-101–6), and large shells including conch shells, upraised stones and basalt and coral slabs at the Retoka site. Shell ornaments associated with the Retoka burials were radiocarbon-dated to the seventeenth century AD (Bedford *et al.* 1998), while the presence of European glass beads with several individuals indicates that the Lelepa and Mele burials date to the European contact period (Garanger 1972). A direct radiocarbon determination on human bone now dates the Mangaliliu burial to a calibrated age of AD 1307–1430 (Wk-20030, 559 ± 30 BP). It had previously been dated erroneously on stratigraphic grounds to 2715–2341 calBP (Valentin *et al.* 2005).

Inhumation was the preferred treatment of disposal of the body in all burials, whether single or multiple. Cremation is not reported, but two clusters of burnt and broken human remains were found some distance from the inhumations at the Mangaasi site (Garanger 1972: 49, Figure 99). Inhumation appeared to be a single-stage process, with no evidence of bone having been removed after decomposition. Burial position and orientation demonstrated limited diversity and repeated patterns. The individuals were generally laid on the back (66 cases out of 79), with the arms usually parallel to the body, legs slightly flexed or extended with the lower limbs parallel to each other (58 cases out of 75). This pattern seems most regular in sites having single or double burials, such as those on Lelepa and Mele islands. Flexion of the limbs was more common in females than in males, and more frequent in the multiple burial on Retoka than in the single and double burials of Lelepa, Mele and Mangaasi. Inhumations at Mangaliliu (one burial) and on Ifira (two burials) were in crouched and tightly flexed positions (Shutler and Shutler 1966; Shutler *et al.* 2002; Valentin *et al.* 2005).

Body orientation at the Lelepa, Retoka, Mangaasi and Mele sites shows a consistent pattern, with the regular positioning of the head to the northeast (64 cases out of 75). According to Garanger (1972, 1996), burial orientations at Mangaasi and on the islands of Mele, Lelepa and Retoka differed from each other but all seemed to be oriented towards a common location off-shore from Devil's Point on west Efate, where according to oral traditions the country of the dead has its main entrance (Guiart 1973). On the other hand, most of the Efate burials are oriented along a land-sea axis with the head to the land.

The deceased of Efate and the offshore islands of Lelepa, Retoka, Mele and Ifira were commonly associated with various types of ornaments (Garanger 1972; Shutler *et al.* 2002). Necklaces made of shell and glass beads were found in all 27 Mele burials along with shell bead armbands (in ten cases) and belts made of small shell-disc beads (in two cases), and a nasal ornament (one case). Similar shell and glass bead necklaces (four cases) and armbands (two cases), a pig-tusk bracelet (one case) and a nasal ornament (one case) were present with five of the nine Lelepa individuals. On Ifira, one of the two burials was associated with a necklace made of 800 small, flat *Conus*-shell

beads, along with two mother-of-pearl pendants and a flat, ground *Conus* top. The five Mangaasi deceased were all adorned with shell-bead necklaces, and with shell-bead armbands in four cases and bead belts in two cases. These were all made of small shell-disc beads and sometimes incorporated shell, fish vertebrae, and cetacean tooth pendants. Other Mangaasi burial adornments included *Trochus* bracelets (two cases) and a nasal ornament (one case).

Ornaments were found with most of the male and female burials at Retoka, which have been discussed in detail elsewhere (Garanger 1972; Spriggs 1997; Luders 2001). They included various necklaces (29 burials), and belts made of small shell-disc beads and various other elements (11 burials), shell-disc armbands (18 burials), pig tusks (22 burials), *Trochus* sp. bracelets (ten burials), *Ovula* sp. bracelets or anklets (seven burials) and a nasal ornament (one burial). At Retoka, ornament frequency and distribution vary according to sex. Ornaments are more frequent in male burials than in female burials, as are armbands and pig-tusk and *Ovula* sp. bracelets, while belts and *Trochus* bracelets were more frequent in female burials.

Grave goods are rare in Efate-region burials and consist of a *Tridacna* adze in one Retoka burial, two modified mother-of-pearl shells in two Retoka burials, 'magic stones' made from coral or basalt in two Retoka and one Mangaasi burial, and unmodified shells in five Retoka and one Mangaasi burial. Also included in burials as grave goods were primary interments of animals: a pig was incorporated in the deep multiple burial of Retoka, a bird in one Mele double burial, and a pig inhumation has been found at Mangaasi (Spriggs, 1996 fieldnotes). Secondary deposits of human bones were also associated with five primary inhumations at the Retoka site. One was a bundle of long bones placed close to inhumations, including an upper limb still in articulation and adorned with six *Trochus* sp. bracelets. A second consisted of a partial skull placed on the thigh of a primary inhumation. Three others were secondary deposits in bundles placed by the side of a primary burial. Bones were re-arranged in these, mimicking both the anatomical order of the skeleton (with a skull at one end and a hip-bone at the other) and the orientation of the adjacent burial.

The Retoka multiple burial, associating 46 individuals and one pig in a spectacular arrangement, is said to be that of Chief Roy Mata.[5] Description and related oral history have been presented and discussed in detail elsewhere (Garanger 1972: 58–77, Figure 145, 152–177, 198; Luders 2001; Spriggs 1997: 207–11; Testart 2004; Valentin 2005). From a strictly archaeological point of view, it can be noted that four aspects of the Retoka burials match the definition provided by Albert *et al*. (2000) for identifying single events associated with ritualized death. The interments at Retoka are located in a special area, namely the offshore islet of Retoka. They correspond to simultaneous deaths of numerous adults that are equally distributed according to sex (19 males and 16 females). The spatial arrangement of the bodies is structured around a central individual, and body position is different according to sex, with the males on their backs with limbs extended while the females are on their backs, sides or faces, with the body and limbs in a flexed position. These ritualized deaths may have been those of individuals killed to accompany an important dead person in the afterlife (cf. '*morts d'accompagnement*', Testart 2004). This is indicated by an asymmetry in mortuary patterns discernible on two distinct levels. First, with the overall arrangement of the burials, where 11 embracing couples were placed in a circular arc at the feet of the central burial. Secondly, it is seen in the relative arrangement and position of male and female burials, suggesting social domination of males over females. There is a female in a flexed position placed perpendicularly to the feet of the central individual, and females are generally in a flexed position associated with fully extended males.

The two double burials found on Lelepa (EF-101–5 site) and on Mele Island do not reflect an analogous pattern. In both cases the burial associated a female and an infant (Garanger 1972: 34, 41). At the Lelepa site, a female was interred on her back in an extended position, with an infant in a foetal position on her left forearm. On Mele Island, a young female was interred lying on her back with her forearms flexed on her breast and holding a bird in her hands. A new-born was placed between her feet in a foetal position and covered with red ochre. The asymmetrical arrangement of the burials might suggest that the infants were killed to accompany the women. More likely, however, is the possibility of two simultaneous natural deaths, as mortality rates were high at the time of European contact, a period to which these burials can be dated by the glass beads included in the necklaces worn by the deceased (Garanger 1972).

Erromango

Cave burial was a common practice on Erromango well into the European contact period and many near-coastal burial caves have been identified in archaeological surveys across the island (Spriggs and Roe 1989; Van Dijk 1998). Spriggs and Roe (1989), for instance, recorded 17 burial cave and cave complexes containing a combined total of at least 79 individual surface burials. The caves generally included five or fewer skeletons, but site ER-L-1, a cave complex at Suvu Beach north of Dillons Bay contained more than 23 individuals. At Telaovat (site O-3) near Ifo, more than 16 bodies had been placed on ledges and in crevices and walled areas within a field of coral boulders. Cave site L-5 in the Vetiel area contained at least nine individuals.

5 The Retoka burial site is the spectacular mass burial said to be of the celebrated chief Roy Mata. Retoka, along with other sites on Lelepa and Efate that are associated in oral traditions with this chief, have recently been declared a World Heritage Area, 'Chief Roi Mata's domain'.

Bodies were often laid on their backs with limbs extended in these Erromango caves (cf. Humphreys 1926:183). Stone walling to create compartments or blocking walls within the burial caves are common on the island.

At L-1 and L-5, glass beads of likely nineteenth century date were observed in association with the burials, and at L-20 a glass bangle was found in association with one of three burials there. Ornaments were not otherwise common, but as the sites are easily accessible it is possible that artefacts have been removed by past visitors; some of the caves have been known as 'tourist' sites since the nineteenth century and skulls have certainly been removed on occasion. At cave site L-17 in the Untaptit area, a *Conus* ring and 35 pierced shells from a necklace were found in association with the burials. One extended inhumation was laid on a bed of wooden poles in the same cave.

Open burial sites associated with former village sites were observed but not systematically recorded during the surveys of the 1980s. They generally appear as circular depressions in the ground. Humphreys (1926:182–4) records that a 2m-deep circular pit of 3–4 m diameter was dug and then a recess created in the side of the pit, into which the body was placed feet-first. The opening of the recess was blocked but the pit was not filled in.

The only excavated burials on Erromango come from the rock shelter of Raowalai (U-5) near the southern end of the island, with its entrance facing to the southeast. The walls of the shelter display red painted rock-art, which in other caves on the island appears to have an association with funerary use (Wilson 2002:148). Excavation by Spriggs in 1994 revealed late use of the cave for habitation, with ovens and hearths in the top 50cm or so of the deposit. Below this were exposed parts of two adult burials. Post-burial habitation is dated to a calibrated age of AD 1524–1955 (ANU-9702, 200 ± 60 BP) from unidentified charcoal of a large oven. The base of a *Trochus* sp. shell associated with the upper burial (B1) produced a calibrated age of AD 1325–1629 (ANU-9705, 910 ± 70 BP). Two dates on unidentified charcoal from the burial fills provided divergent calibrated dates: AD 1432–1664 (ANU-9204, 350 ± 70 BP) from the primary fill of B2 and AD 1030–1297 (ANU-9703, 810 ± 80 BP) from probably-mixed fill of B1 and B2. The first of these is in agreement with the shell date for the upper burial and suggests an equivalent age for the two burials, but the second may represent the burning of old wood. The two burials were dug into sterile clays so there is no earlier source for the charcoal that the burial pits might have disturbed. The bones were not removed from the site.

The uppermost burial (B1) was an extended primary burial lying on its left side. The right arm was flexed at the elbow, while the left may have been flexed under the head (which was just outside the excavated area). Almost at right angles and under the legs of the first burial was the second burial (B2), with the bones in a much more friable state. The corpse seems to have been laid on its back with arms parallel to the body. B1 was oriented with the head to the south and feet to the north (i.e. a sea-land axis), while the head of B2 would have been to the northwest (but again was outside the excavated area) and with feet to the southeast (i.e. parallel to the shore). The only possible grave offering was the base of a *Trochus* sp. shell (dated) placed between the legs of the upper burial. The burials seem to represent two separate episodes of interment.

Futuna and Tanna

Surveys and excavations carried out on Futuna and Tanna Islands during 1964 recorded burials in seven rock shelters, (Hoffmann 2003; Shutler and Shutler 1966; Shutler *et al.* 2002). Human skeletal remains, representing more than 26 individuals, both adults and subadults, were found in two types of contexts: in two cases on Futuna (FuRs3 and 9) burials were placed on the ground surface in the shelter, whereas in two cases on Tanna (TaRs1 and 3) and three on Futuna (FuRs1A, 5 and 12) bodies were buried within the rock shelters. There was also a single case on Futuna at FuRs2 of broken human bones associated with pig bone in an earth oven, seemingly a non-burial context.

Evidence of stone arrangements was reported at the FuRs12 site on Futuna Island, where several of the 15 burials were rock-lined and/or covered with rocks. Stone walls creating compartments or blocking walls within shelters were also present at three further shelters on Futuna (FuRs1A, 3 and 5). Burial 14 in FuRs12 had had a small fire lit on its chest at the time of burial, perhaps an example of the ritual of 'warming the chief's soul on its way to the spirit world' (Capell 1958:15, quoted by Hoffmann 2003:167).[6] Bone samples from six burials on Futuna were dated during the 1960s at Gakushuin laboratory, but these are now regarded as unreliable (Shutler *et al.* 2002). Items associated with the bodies show similarities with those found in Efate and Aneityum graves and thus suggest the Futuna burials can be dated to the last 800 years. On Tanna, the TaRs1 burial, which is bracketed by radiocarbon dates of 2500 and 700 calBP, is at least 700 years old, and the TaRs3 burial is undated.

Position and orientation of the burials were not recognizable in surface inhumations from Futuna. Subsurface burials at TaRs1 and TaRs3 on Tanna and at FuRs1A and 12 on Futuna were identified as primary inhumations. No evidence of bone having been removed after decomposition was reported in these sites but secondary burials (3 cases at FuRs12) indicate body manipulation. Position and orientation were defined in seven burials, five on Futuna at FuRs12 and the two on Tanna. On Futuna, bodies were

6 An unopened earth oven with the remains of a cooked taro pudding was found at the western end of the burial area at FuRs12 at the same level as the burials, and was interpreted by the excavators as a ritual offering in relation to them (Hoffmann 2003:165).

placed on the side, usually the right, in a flexed or tightly-flexed position. Burial orientation, recorded for four burials at FuRs12, followed a west-east or southeast-northwest axis, with the head to the west in three cases, and to the east in the other. On Tanna, the corpses were laid on the face with the hands under the pelvis (TaRs1), and on the right side in a flexed position (TaRs3). The bodies were parallel to the shoreline with the heads to the southwest and to the southeast.

Ornaments were associated with a number of the burials on both Futuna and Tanna. *Conus* rings were associated with the surface burials at the Futuna FuRs3 and FuRs9 rock shelters. Other items noted in association with the burials from FuRs3 included a *Cypraea* scraper, a basalt hammerstone and a piece of flat coral ground to a point, and at FuRs9 a unique pig-tusk bead was found. A large quantity of ornaments accompanied the burials at FuRs12, including *Conus* sp. rings (four burials), one in association with the thoracic vertebrae, *Conus* disks and bead necklaces (three burials) and various pearlshell pendants and perforated pearl shells (four burials), which in one case was associated with the rib area. Other ornaments from this site were of singular occurrence and included a yellow stone bead, an oyster shell pendant on the pelvis of an individual, a red *Spondylus* pendant among the ribs of another, a shell adze or hammer beneath another, and single pieces of flaked limestone and flaked *Tridacna*. No artefacts were found in association with the burials at rock shelters FuRs1A and 5. On Tanna the TaRs1 burial was associated with a worked basalt disc found near the skull. No ornaments were noted at the TaRs3 burial.

Burials at FuRs12, on Futuna, display a unique clustered pattern. The graves were concentrated at the back of the rock shelter and, in at least two examples, one or two burial(s) overlapped another, with subsequent burials disturbing the earlier, even though there was free space towards the opening. This arrangement suggests the intention of grouping the dead in a reserved place, with successive interments over time.

Aneityum

The traditional burial form for high chiefs (*natimarid*) on Aneityum was for the body to be buried beneath the house-floor with the head exposed. When able to be removed, the head was taken to a sacred spot and venerated. The chief's principal wife was strangled to accompany her husband in the afterlife (Miller 1975:146). Commoners were disposed of at sea.

Four burials have been observed during archaeological surveys on Aneityum. The first was discovered on the surface of an inland rock shelter adjacent to the Umej River by the Shutlers (Site AtRs7: Hoffmann 2003:125). It had an associated blue glass trade-bead dating to the nineteenth century. Another, found exposed in the side of Imkalau creek at a depth of 2.6 m, was excavated in 1978 (Spriggs 1981:109–11, App. 12.4–5). No grave pit was detected but it is likely that a shallow grave was dug within the storm beach as it accumulated. A marine shell in seeming association with the skeleton dated to AD 667–950 (ANU-2654, 1640 ± 50 BP). The layer in which it was placed is sealed above by a topsoil deposit dated on midden shell to a calibrated age of AD 1054–1395 (ANU-2369, 1200 ± 80 BP), and approximately 50 cm below the skeleton there is an alluvial clay lens dated on dispersed charcoal to 1932–1533 calBP (ANU-2188, 1810 ± 90 BP).

In addition, two chiefly multiple burials are known from Anelcauhat, found in the area of the high chief's compound (*nopotan natimarid)* for the traditional chiefdom of the area. The first burial was found in the mid-1970s during construction of a house. Bones and associated ornaments were removed and stored by the then-*natimarid* Chief Naulita, and later studied by Spriggs and Thorne. This study revealed that the burial contained the cranial and infracranial remains of two adults, a male and a young female (Alan Thorne, pers. comm. 1981 to MS). The second burial was found after *Conus* shell rings and a basalt pendant were recovered from a pigpen some 18m southeast of the first burial. Excavation in 1983 revealed a partially disturbed near-surface burial comprising the remains of four adults, amongst which two males and one female were identified along with additional remains of another adult (Douglas 1984; Spriggs 1997: 217–8). There were further scattered remains of at least two other individuals within the excavated area. Marine shells between the legs of the female produced a calibrated age of AD 1500–1823 (Beta-8165, 690 ± 50 BP). This recent age seems confirmed by a calibrated date on unidentified wood from a specialized oven for cooking *Cordyline terminalis* roots found underneath the burial of AD 1454–1649 (Beta-7675, 330 ± 50 BP), providing a *terminus ante quem.*

Bodies were treated by inhumation, which appears definitive at Imkalau. By contrast, the treatment of the deceased appears extended at the second Anelcauhat multiple burial, where the skull of a male is missing. Bone manipulation is also indicated by the presence of a secondary bone deposit in the same burial. At Imkalau, the male corpse was laid out on its back with the knee and hip hyperflexed and the feet in front of the pelvis. The right arm was semi-flexed at the elbow and rested on the thigh. The upper half of the body above the pelvis had been washed away but the head would have been to the northwest, roughly parallel to the shore. At Anelcauhat, three individuals were in extended position on their backs, arms by their sides, and side-by-side with their heads to the north, away from the shore. These burials are thus oriented on a land-sea axis with the head to the land.

No ornaments were found at Imkalau. Ornaments associated with the deceased from the first multiple burial at Anelcauhat consisted of pig-tusk beads and large *Tridacna* sp. shell beads. In the second multiple burial from Anelcauhat, a range of ornaments was recovered. With

the skull-less male were a concentration of pig-tusk beads and large *Tridacna* beads around the pelvis and pig-tusk beads in the neck area. Associated with the female burial was a concentration of pig tusk beads around the pelvis, along with a large *Tridacna*-shell bead and two whale-tooth beads. Several marine bivalve shells were found between her legs. Also recovered from this grave feature were *Conus*-shell rings, a basalt pendant and a secondary deposit of human bones, consisting of the bones of a single individual in a bundle. This form of bone deposit is very similar to that found in central Vanuatu burials on Tongoa and Retoka.

The second Anelcauhat multiple burial includes three bodies interred simultaneously and placed parallel to each other in the same position and orientation. They were arranged with the female in the middle between the two males, one of them having the secondary bundle of bones on the external side of his legs. In this case, the relatively small number of individuals, the uniformity in their ornaments and positions and the similarity of their arrangement suggest simultaneous deaths potentially caused by epidemic disease or violent events. However, the location of the grave in a place of high status and asymmetry in the arrangement of the bodies indicated by the overlapping of the male over the female, may suggest that the female and a male were ritually killed to accompany an important male individual in the afterlife (cf '*morts d'accompagnement*', Testart 2004). This possibility is confirmed by oral tradition.

DISCUSSION

While we are mindful of the gaps in the archaeological record, the small number of funerary sites and in most cases the small sample-sizes in the current data-set, it is possible to clearly identify two major episodes of important structural change in the overall funerary system. The first occurred towards the end of the Lapita period, and the second is indicated by the distinctiveness of the second millennium AD burials. Differences over time appear in all the components of funerary practices under review and are summarized below.

Summarising changes over time

Inhumation was the preferred method of disposal of the dead in central and southern Vanuatu over the last 3000 years. Evidence of cremation is rare, with a single case at Teouma. It does not seem to have been practiced at later periods in the Efate-Shepherds region and ethnographically is only known in Vanuatu from a single exceptional case on Tanna (Humphreys 1926: 90). Other types of body treatment were also probably in use in the region at least during the last 1000 years, but remain difficult to outline. In the Tongoa-Efate region, secondary deposits of human bones were associated with about 8% of the burials. As the approximately one hundred inhumations excavated in central Vanuatu for that period do not show evidence of removal of bones post-decomposition, we suggest the possibility that the re-deposited bones (or at least some of them) were taken from bodies exposed in the open air.

Body treatment has changed over time. The complex, highly structured and multi-stagal procedure used during the early Lapita period at Teouma was abandoned by *c.* 2800 BP and a more simple treatment was later favoured, in which the dead appear to have been buried for eternity. One recent archaeological exception contrasts with this configuration. A skull is missing in the multiple burial at Anelcauhat, Aneityum, dating to within the last 450 years. This accords with recorded traditional practices of skull veneration of chiefly remains on the island (Spriggs 1997: 217–218), a practice also reported on several other islands in Vanuatu in the recent past, such as on Malakula (Deacon 1934).

Positioning of the corpse in the grave seems to have become standardised over time. The wide array of body positions observed in the earliest burials of Teouma clearly contrasts with the limited diversity in placement observed in the later burials. About 75% of the individuals were placed on the back at Teouma, and 85% of the later burials from central and southern Vanuatu also display this attitude. The prone position, seen in about 15% of the earliest burials, appears to be much less common during all later periods; only 2% of burials of the last thousand years in the Tongoa-Shepherds region show this attitude. Strong flexure of the limbs, particularly of the lower limbs, is a regular feature of the earliest burials. It is uncommon in burials of the last millennium, with only 30% of individuals showing a slight to moderate flexion in the Tongoa-Shepherds region.

As noted already during the nineteenth century (Codrington 1885), the Oceanian cultural system of orientation is rarely able to be superimposed on the cardinal system of orientation. Using landmarks, the Oceanian system included both a cardinal west-east or northwest-southeast axis and an alternative orthogonal system combining a sea-land axis and an axis parallel to the shoreline (Ozanne-Riviere 1997). According to linguistic reconstructions (François 2004), it was applied from the period of Lapita settlement of the Western Pacific onwards. These features of the orientation system may have marked Vanuatu funerary practices since the first settlement of the archipelago. However, the Lapita burials do not show consistency in orientation of the body of either type. By contrast, the later burials seem to follow some regularity in cardinal orientation even if the available sample is limited. Consistency in body orientation characterises the second millennium AD burials, for which the land-sea axis of the Oceanian spatial system appears frequently used from Aneityum in the south to Efate in the centre.

Ornamentation of the body appears to have increased both in terms of quantity and variety over time. Adorned bodies are a rare occurrence amongst the earliest burials

and are more frequent later, although with regional variation. Ornaments are less common in association with the Tongoa burials than those on Efate and Futuna. The apparent lack of ornaments in the earliest Lapita burials is not related to any paucity of these kinds of artefacts in the material record. Ornaments are regularly found in Lapita midden contexts in Vanuatu and elsewhere (Bedford 2006). Changes in the nature and type of items found with the dead are also striking. The types of ornaments present in burials of the last millennium are absent in earlier sites. Some of them appear to indicate Polynesian influence, such as beads and bracelets made of pig tusk (Garanger 1972, Shutler *at al*. 2002; Spriggs 1997: 218).

Grave goods are a striking feature of the Lapita burials at Teouma, most particularly the association of decorated pots with the deceased. This is a practice that seems to decline even during the Lapita period, as demonstrated by their absence at the Malakula sites. The Post-Lapita burials from Teouma Area 7C show a similar absence of associated pottery, although the unique case at Taplins may suggest some level of connectivity with earlier practices. This lack, however, is directly influenced by the fact that pottery production ceased in southern Vanuatu by 2000 calBP and in the central islands by 1200 calBP. Pottery production and association with burials existed, nevertheless, during the historic period in the north of Vanuatu (Deacon 1934: 649). Conch-shell trumpets in association with burials are rare features of the first millennium AD, there being only one case from Burumba. But their association with funerary ritual is demonstrated in several sites in central Vanuatu dating to the last 1000 years (Garanger 1972). Other grave goods, such as unmodified shells, while uncommon, appear to exist throughout the chronological sequence.

Another feature that seems to appear late in the sequence is the inclusion of animals in the grave, with no evidence of animal burial recorded in association with the earliest human burials. This is in contrast with burials of the last millennium, where animal burials are sometimes found. In contrast, the placement of human bone collections within the grave or beside the grave is a practice that is found throughout the sequence. However, the form of the association of secondary human remains deposited in the grave changed over time, from an association with the skeleton to an association with the corpse. Another striking difference found between the earlier burials and those of the last 600 years or so is the appearance during the latter period of multiple primary burials associated with the practice of '*morts d'accompagnement*'.

An interpretation of changes to mortuary practice at end of the Lapita period

Discussions of the British Neolithic have hypothesised that the changes that are seen in burial practice during the later Neolithic represent a transformation from ancestor ritual to funerals (following Barrett 1994). The place of burial in the earlier Neolithic is not so much a place to separate the living from the dead but rather a place of transition 'in which dead people were transformed into another kind of being or substance' (Thomas 2001: 137). It represents the creation of a place where the dead were actively present, 'enabling them to be physically encountered, handled or displayed during the course of ancestral rites' (Barrett 1994: 51). The described activities seem very similar to those that are indicated at Teouma, the revisiting and reopening of burials, the removal of bones, the placing of bones of one individual with those of another, the reordering of otherwise articulated remains, collections of bones arranged by anatomical part, an unrelated jaw in association a skull and so on. Such ancestor rituals were 'concerned with invoking the presence of the dead in order to structure, and provide sanction for, activities amongst the living' (Thomas 2000: 655).

The subsequent change to simple, definitive interment of intact bodies represents a shortening of the overall duration of mortuary activities to a single archaeologically-visible moment, a change from a process of transformation to an event of deposition (Thomas 2001: 157). It represents a changing relationship between the living and the dead. The societal change was a profound one: 'The burial of single persons as distinct events suggests that descent rather than simply group membership was now the most significant principle of social ordering. Social identity would then start to take on a narrative rather than an inclusive form: each person would locate him- or herself in a genealogy leading back into the past, rather than a community existing in the present' (Thomas 2001: 156).

On Vao there is no evidence for post-burial manipulation and this would seem to suggest that this shift had started to occur towards the end of the Lapita period in Vanuatu (Bedford *et al*. this volume). Evidence of this late Lapita shift towards simple inhumation may be generalised across the Lapita realm: a simple form of inhumation is found in other relatively late Lapita and immediately post-Lapita burials at Watom, East New Britain Province, PNG, in New Caledonia at Koné (WK0013 B and C) and in Fiji at Naitable and Yalobi (Anson *et al*. 2005; Pietrusewsky *et al*. 1997, 1998; Nunn *et al*. 2007; Valentin 2003; see Petchey *et al*. 2011 for re-dating of some of these sites). The Teouma 7C burials confirms that this shift had occurred by 2400 calBP in central Vanuatu.

The British Neolithic transformation coincides with a change from mobility to a more sedentary existence, a feature that is also seen during the Lapita period. Towards the end of Lapita the evidence for long-distance transportation of obsidian and (more rarely) pots disappears, and the design system on the pots begins to simplify in association with increased regionalisation. Again as seen with the British example, cultural diversification increases as the original super-community becomes diluted, marking in this case the end of an identifiable and widespread Lapita culture. A set of diverse pottery styles replaces

Lapita across its former distribution, some of the more characteristic items of material culture such as certain shell ornament-types drop out of use and what was essentially a single language began to break up into a series of archipelago-specific subgroups. The socioeconomic changes that accompanied the end of Lapita across its range relate to the transformation of small and scattered pioneering populations that relied heavily on high levels of interaction for their survival into larger self-sustaining communities whose identity and economic and social life focused increasingly on the local (Pawley 1981; Spriggs 1997: 152–162).

Distinctive mortuary practices of the second millennium AD

Mele, Ifira and Futuna are among some of the Polynesian Outliers found in Vanuatu: Polynesian-speaking communities implanted onto small, offshore islands, where their arrival would have likely transformed any populations already present culturally as well as linguistically (cf. Tikopia in the Southeast Solomons: Kirch and Yen 1982). The Outliers clearly in turn influenced neighbouring 'mainlands' such as the Efate-Shepherds, Aneityum, Erromango and Tanna, creating major structural changes in the cultural equilibrium of the region (Spriggs 1997: chapter 7). Polynesian influences, beyond simply the ornaments found in association with burials on Efate (Garanger 1972), Aneityum (Spriggs 1997: 217–218) and Futuna (Shutler *et al.* 2002), may have shaped the structure of mortuary practices used in the region during the second millennium AD.

Among possible influences are the inclusion of animals in graves at Retoka and Mele and the interment of an animal at Mangaasi. Association of fauna with human burials is known at several Eastern Polynesian sites such as at Manihina in the Marquesas Islands, where pigs and dogs were buried with humans (Conte 2002). Incorporation of human remains as secondary deposits in the graves on Tongoa, Retoka, Futuna and Aneityum is another aspect of burial that may relate to these influences. Association of secondary and primary deposits of human remains are described at Manihina, Eastern Polynesia (Conte 2002; Maureille and Sellier 1996) and also for several Western Polynesian sites, such as at 'Atele, Tonga (Davidson 1969) and Petania on Uvea (Wallis) Island (Sand and Valentin 1991). While there are no direct parallels between Vanuatu and Western Polynesian burial sites in their structure, spatial organisation and modalities of use, a form of ideological influence may also be recognised in the 'display of power' reflected in the Retoka burial site (Garanger 1972; Testart 2004; *contra* Luders 2001) and in chiefly graves in Tonga (Kirch 1988; Sand *et al.* 2006).

We also need to entertain the possibility of interaction with the Fijian archipelago, where ritually-killed individuals or *'morts d'accompagnement'* appear to be a recurrent component in the late prehistoric funerary system and were related to the social rank of the deceased (Valentin *et al.* 2007). What is seen in the multiple burials at Retoka, Mangarisu and Aneityum clearly echoes Fijian ethnohistorical and archaeological descriptions (e.g., Rechtman 1992: 170, Figure A19; Schutz 1977: 152, cf note 1 in Valentin *et al.* 2009; Williams 1858: 189). The similarity in practices suggests interaction between the two archipelagos during the second millennium AD. Such a possibility is independently supported by linguistic evidence, similar late pottery-forms and comparable ritual patterns in western Fiji and in northern Vanuatu at this time (Bedford 2006; Bedford and Spriggs 2008; Geraghty 1983).

However, the importance of Polynesian and Fijian influences is not perhaps to be found in trying to map Polynesian or Fijian patterns onto Vanuatu practices (cf. Bedford and Spriggs 2008: 110), but is simply that the presence of Polynesian populations in the archipelago and renewed long-distance contacts such as those with Fiji changed the milieu in which people operated, requiring innovative patterns of response – including those involving funerary practice. These were not necessarily directly 'borrowed' from outside in any simple manner. Funerary practices, however, became an added arena for the display of socio-political power, in a way that had not been seen previously in Vanuatu.

CONCLUSION

Using a 'genealogical' approach we have sought to document major changes in funerary practices over the 3000 years of Vanuatu history. While we still lack robust chronological coverage over the full period and in some cases the samples are small, certain changes can be clearly identified. The complex mortuary practices of the colonising Lapita communities that were associated with ancestor rituals transform very quickly to a more simple and definitive burial protocol. Over the last thousand years the frequency of ornamentation in association with the corpse increased considerably. During the same period, burials involving *'morts d'accompagnement'*, individuals killed to accompany important chiefs into the afterlife, become prominent in central and southern Vanuatu. From ethnographic sources we know that there were diverse and often complex mortuary practices throughout the archipelago at European contact. In general it would seem that mortuary ritual had become increasingly an arena for the display of wealth and socio-political power during a period of renewed outside contacts with Fiji and Western Polynesia.

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