

NEW ZEALAND ARCHAEOLOGICAL ASSOCIATION MONOGRAPH 25: Stuart Bedford, Christophe Sand and David Burley (eds), *Fifty Years in the Field: Essays in Honour and Celebration of Richard Shutler Jr's Archaeological Career*



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FIFTY YEARS IN THE FIELD. ESSAYS IN HONOUR AND CELEBRATION OF RICHARD SHUTLER JR'S ARCHAEOLOGICAL CAREER

Edited by Stuart Bedford, Christophe Sand and David Burley

NEW ZEALAND ARCHAEOLOGICAL ASSOCIATION MONOGRAPH

FURTHER DETAIL ON THE ARCHAEOLOGICAL EXPLORATIONS IN THE SOUTHERN NEW HEBRIDES, 1963-1964

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INTRODUCTION

This paper revisits an earlier era of Pacific research, the pioneering phase of the archaeological investigations in Vanuatu (the former New Hebrides/Nouvelles-Hébrides). While it is largely modelled on the initial published version of the 1963-64 expedition (Shutler and Shutler 1968) to the central and southern islands of the group (Figure 1) it includes here for the first time plates (Plates 1-7) of the referred to artefacts that were only included in a typescript copy of the paper (Shutler and Shutler 1965). The majority of the site locations are also presented (Figures 1-3). These details along with the original

fieldnotes (now held at the Vanuatu Cultural Centre) were supplied to the junior author by Richard Shutler Jr. This article does not elaborate further on the original objectives, which were to investigate the archaeological *terra incognita* that was southern Vanuatu and in the process establish a cultural chronology, but as noted above it fills in some key elements relating to site location and stratigraphic information along with the original artefact plates. Some general comment is also made on the recovered artefacts in an attempt to set them within a chronological and a wider regional context, almost 40 years after they were initially excavated. Most



FIGURE 1. Southern Vanuatu. Left inset is Port Vila Harbour and central inset is southern Tanna showing excavated and recorded sites.

measurements are in inches and feet (with metric conversions) as per the 1960s fieldnotes and publications.

This expedition was a classic pioneering venture which had its inception at the Tenth Pacific Science Congress in 1961 where the Pacific Area Archaeological Program was initiated (Green 1961). At that Congress it was agreed that the Shutlers would investigate the southern islands of Vanuatu while José Garanger would investigate the central islands. Almost a year was spent in the south and central islands (Efate) of the then New Hebrides by the Shutlers. An enormous amount of fieldwork and excavation was carried out with all the islands of the south being visited. Depending on circumstance and weather varying amounts of archaeological investigation were undertaken. This length of time in the field generated a large quantity of excavated materials. The 1966 report summarised the fieldwork and presented some of the basic data (Shutler and Shutler 1968). Further discussions on associated radiocarbon dates and chronology appeared later (Shutler 1970, 1971, 1973; Shutler and Shutler 1975).

SURVEYS AND EXCAVATIONS

Aneityum (At)

We begin again, as in the published 1968 article, with the most southern island of the group where surveys and excavations were carried out between November 1963 and January 1964. A total of 20 sites were recorded, including 17 on the coastal plain and three in the interior (Figure 2). Eleven of these sites were caves or rockshelters (RS) while another 7 were "old" village sites. Two areas of boulders with petroglyphs were also recorded. Detailed test excavations were carried out at five sites, three open village sites (At1, 4 and 7) and two rockshelters (AtRS1 and 3). A number of other sites were also visited and tested but returned little result. These included cave/rockshelter sites AtRS6, 7, 8, 9, 10 and 11 (Figure 2 and Appendix 1).

Atl was a midden site located at the site of the modern coastal village of Anelgauhat (Figure 2). A mission station had been established at the site in the nineteenth century and became a draw card for people from other areas. The site comprised a very extensive but shallow midden which extended along the coast. Ten 3 by 6-foot (.9 by 1.8m) pits were excavated at various places in the midden to depth of 18" (33.3cm) at which point sterile beach sand was identified. A much larger areal excavation (which necessitated the removal of the front porch from the Shutler's accommodations) measuring 16'4" by 8'9" (4.87m by 2.56m) was undertaken at the point of the midden where pottery had been found on the surface. The upper layer (6"[11cm]) comprised a black midden rich in shell, European items and two types of pottery, one thin-walled and the other a thinbiscuit ware. This layer overlay a grey midden layer (6-



FIGURE 2. Aneityum showing recorded and excavated sites.

12"[11-22cm]) which contained shell but no European material or pottery. This site was the only location in the southern islands where pottery was recovered. However its association with items of European manufacture in the uppermost levels of the site immediately cast doubt on its origins. No dating was undertaken at this site due to the shallow and mixed nature of the deposit. A number of other shell artefacts were noted. These included a small flaked Tridacna sp. chopper or scraper; the ground end of a Conus sp. shell with perforation (Plate 1b); a Conus sp. shell with its spire ground off (cf. Gifford and Shutler 1956:Pl. 8a, b); a small piece of cut shell, and a possible shell fishhook blank similar to those from central and eastern Polynesia (cf. Emory and Sinoto 1961:52, Fig. 45; Suggs 1961:85, Fig.26d) made from cut pearl shell with an irregular central perforation (Plate 1f).

At4 was an open site located some distance from the sea near Anelgauhat Bay (Figure 2). The site comprised a shallow midden measuring some 60 by 75 feet (18 by 22.5m). Five, 6 by 3-foot (1.8 by .9m) pits were excavated across the midden. The midden, comprising shell, ash, charcoal and firecracked stone, sitting on top of a sterile beach sand, appeared largely unstratified with an average depth of c.18" (33.3cm). A large oven feature, which cut into the basal sand to a depth of 36"(66.6cm), was also in evidence. European objects were found throughout the midden. An unfinished adze made from the side of a *Conus* sp. shell was located at the bottom of the midden.

At7 was a village site located only some 100 feet (30.5m) from and 3 feet (.9m) above the high tide mark. It was said to have predated the arrival of the missionaries (1848) in the



PLATE 1. Artefacts from Aneityum. a unfinished Conus adze, AtRS3, testpit 3, 6-12", 118mm long; b drilled Conus top, At1, Loc. A, pit 8, 0-6", 47mm diameter; c operculum scraper-chopper, AtRS3, pit 1, 12-18", 68mm diameter; d stone adze, gift, 131mm long; e, stone adze, gift, 84mm long; f shell fish hook blank, At1, Loc. A, pit 5, 6-12", 41mm long; g limpet net sinker, AtRS1, pit 5, 12-18", 79mm diameter; h Tridacna scraper-chopper, AtRS1, pit 3, 24-30", 81mm long.

area of Aheityum on the south coast of the island (Figure 2). The site was about a 1/2 acre in area and despite being heavily overgrown, two sets of terraces which were cut into the hillside could be identified. A shell midden was noted in a cut feature at the south end of the site. A single 3 by 6-foot (.9 by 1.8m) testpit was excavated into a midden. The midden comprised largely shell within a sandy matrix and had a maximum depth of up to 48"(88.8cm). It lay on top of a

former beach horizon. Artefactual material was sparse with only a shell with an artificial perforation being of any note.

AtRS1 is a west facing rockshelter located at Anuanopul (Figure 2) some 25 feet (7.5m) above sea level and 200 feet (61m) from the sea. The shelter measured some 42 feet (12.6m) at the opening and extended as far back as 24 feet (7.2m). Debris associated with recent habitation was in evidence and during the period of fieldwork the shelter was

continuously visited by passersby. Numerous recent fireplaces were noted on the cave floor. The cave had three levels which were emphasised by a series of low rock dividing walls delineating living areas. Five pits measuring 3 by 6-feet (.9 by 1.8m) were excavated to bedrock with a maximum depth of 60" (1.10m) being reached in Pit 4. The testpits were excavated in 6" (11cm) spits and revealed evidence of intermittent occupation throughout. Items of European manufacture (glass and nails) were found up to 6" (11cm) below the surface. There was concentrated whole and broken shell throughout the stratigraphy. Hearth features and a series of ash and charcoal lenses along with frequent basalt cobbles were recorded. Fish and other bone was also recovered. Frequent roof-fall debris, some of which formed part of earlier rock wall alignments, were also a feature of the excavations, particularly towards the base of the cultural stratigraphy on top of the basal limestone. Two radiocarbon dates1 were gleaned from the recovered materials suggesting that occupation and use of the shelter was restricted to the last 600 years or so. They included a charcoal date of 470 ± 80 B.P. (UCLA-693) 646-315 B.P. from the lowest cultural layer (Pit 4, 54-60"[1-1.10m]) of the site and a direct date on a Tridacna crocea scraper (Pit 3, 24-30"[44-55.5cm]) 474 ± 46 B.P (P-1195) 246-0 B.P..

Artefactual material was relatively sparse but included the following. A rectangular *Tridacna* sp. scraper (Plate 1,h) (that which was later directly dated), a sea urchin spine bearing a deep cut, an unfinished *Conus* sp. adze, a limpet shell with perforation (Plate 1g) (resembling net sinkers recorded respectively in New Caledonia and Yap [Gifford and Shutler 1956:63, Pls. 3a and 7g; Gifford and Gifford 1959:192, Pl. 41c-f), a piece of cut pig rib and the burnt tip of a ground and polished bird bone. Both flaked *Trochus* and *Tridacna* were in evidence.

AtRS3 is a southeast facing rockshelter located at Inmanhat (Figure 2) measuring some 87 feet (26.5m) wide and extending up to 16 feet (4.8m) in towards the cliff face. Two pits measuring 3 by 6-feet (.9 by 1.8m) were dug to the sterile beach sand at a maximum depth of 90" (1.66m). Recovered artefacts included a flaked operculum "chopper" (Plate 1c), a piece of worked Conus (Plate 1a), and numerous flaked shell debitage. Two dates were gleaned from excavated remains. A Tridacna sp. shell adze recovered from the upper levels of the site (Pit 1, 18-24"[33-44cm]) was directly dated (WSU-139) and returned a Modern reading. Charcoal excavated from the lowest cultural layer of the site (Pit 1, 72-90"[1.33-1.66m]) returned a date of 850 ± 120 B.P. (WSU-140) 971-560 B.P. No stone artefacts were recovered from the excavations but two fully ground and polished, lenticular cross-section basalt adzes were purchased from the Aneityumese. The

largest measured 131 by 59mm and was 32mm thick (Plate 1d) while the smaller adze measured 84 by 57mm and was 26mm thick (Plate 1e). A number of other sites, mostly upraised, wavecut limestone caves and shelters, were briefly investigated or visited (see Appendix 1 and Figure 2).

Tanna (Ta)

Fieldwork on Tanna was undertaken in February, March and into April 1964. Research was restricted to the southern part of the island (Figure 1) as local permission was not granted in the north. Recorded sites were concentrated along the southwest coast. They included five rockshelters, a large village and numerous small midden areas. Volcanic ash originating from the still-active Yasur volcano was regularly noted in the archaeological deposits. Two cave sites were extensively excavated.

TaRS1 is a large west facing cave complex located near the modern village of Bethel. The entrance of the cave is some 150 feet (45.75m) from and c.40 feet (12m) above current high tide level. It comprises principally an outer chamber (24' wide and 54' deep [7.3 by 16.4m]) lit by the cave entrance and a dark inner chamber (60 by 20' [18.3-6.1m]) connected by a narrow passage. The inner chamber was tested and found to be completely devoid of cultural evidence. The outer chamber was completely excavated to bedrock which reached a maximum depth of 126" (2.33m) at the entrance of the cave. The cave had been used until relatively recently as evidenced by items of European origin being noted regularly in the upper 18" (33.2cm) of the stratigraphy. Some evidence of disturbance was also obvious where in one area of the cave European materials were found at a depth of 72" (1.33m).

Regular evidence of firescoops and ash lenses were noted in the upper and lower sections of the stratigraphy along with abundant shell midden. A wide variety of artefacts were also recovered. Stone materials included three small polished fragments, possibly from adzes, an adze fragment used as a scraper, and a disc bead (Plate 3c) with a drilled hole in the centre (cf. Gifford and Gifford 1959:194, Pl. 38y). Seven pieces of flaked Tridacna were also recovered. Other shell artefacts included two Turbo scrapers (Plate 3e) (cf. Spoehr 1957:157, Fig.83), a piece of cut Conus, a fragment of a Conus adze, and a Conus shell minus its spire (cf. artefact recovered from At1). Three Conus sp. beads of varying form were also recovered. All of these forms can now be recognised as being somewhat ubiquitous artefacts both temporally and spatially throughout the Pacific. One was ground to a cup shape with a central perforation (Plate 3g) similar to those previously excavated on Saipan (Spoehr 1957:154, Fig.86 top row)

1. All radiocarbon dates are presented in the following format; date, sample number and calibrated age at two standard deviations using Calib. program REV 4.1.2 of Stuiver *et al.* 1998 with delta R as 0 for marine samples.



PLATE 2. Stone artefacts from Tanna. a stone adze, gift, Isiai, 104mm long; b stone adze, gift, Yanuas, 142 mm long; c stone adze, gift, Yanuas, 90mm long; d stone adze, gift, Enfitana, 75mm long; e stone adze Lenakel, 193mm long; f throwing stone fragment, gift, Isiai, 258mm long; g stone disc, *TaRS1*, Burial 1, 63mm diameter; h, stone spherical hammerstone, *TaRS3*, Loc. A, pit 2, 18-24", 57mm diameter.

and Yap (Gifford and Gifford 1959:191-2, Pl. 38m-v). Another was a small flat disc with a central perforation. The third was a small ring (Plate 3d). Sea urchin spines which bore the signs of grinding were also in evidence (cf. Emory and Sinoto 1961: Fig.48b). Worked coral included a

"finger" cut off at one end and a ground bi-pointed piece (Plate 3f) which may have been a gorge fishhook (cf. Emory and Sinoto 1961:53, Fig.47). Four bone tools were found. They included a spatulate object made of a ground pig clavicle (Plate 3j), a large bone cut to form an awl (Plate



PLATE 3. Artefacts from Tanna. a bird bone pendant, TaRS1, pit 20, 6-12", 54mm long; b shell ornament, TaRS3, Loc. A, pit 6, 0-6", 26mm long; c Turbo scraper, TaRS1, pit 20, 36-42", 59mm long; d stone bead, TaRS1, pit 14, 24-30", 27mm diameter; e Conus disc bead, TaRS1, pit 20, 36-42", 16mm diameter; f ground coral gorge, TaRS1, pit 10, 90-96", 46mm long; g Conus cup bead, TaRS1, pit 4, 0-6", 21mm diameter; h baked clay nasal ornament, TaRS1, pit 18, 24-30", 11mm diameter; i bone awl, TaRS1, pit 13, 30-36", 110mm long; j bone spatula, TaRS1, pit 12, 0-6", 138mm long.

3i), the tip of what appears to be a polished bone awl and a small bird bone drilled at one end and polished at the other (Plate 3a). Finally, there was a rather unique nasal ornament in the shape of a truncated cone made of baked clay (Plate 3h). A burial was also excavated within the cave site. It was an extended burial, located some 5 feet (1.5m) below the surface, in a prone position with the hands under the pelvis and the skull orientated towards the southwest. A single worked stone disc (Plate 2g) was buried with the body near

 1650 ± 100 B.P. (Gak-757) 1818-1314 B.P. but subsequent research on the reliability of dating human bone and Gakushuin dates of the 1960s (Kirch 1984; Spriggs 1990) must cast doubt on any such results.

the cranium. A bone from the burial was directly dated to

A charcoal sample from the lowest cultural level of the site from a testpit near the cave entrance (Pit 10, 108-126"[2-2.33m]) returned a date of 2370 ± 90 B.P. (UCLA-

734) 2737-2154 B.P., by far the earliest date of any from the excavations in the south of Vanuatu at that time. All other dates on charcoal from the site, generally from the upper layers (ranging in depth between 6-42" [11-77.7cm]), spanned the last 1000 years or so (645 ± 80 B.P. [UCLA-1295A] 725-517 B.P., 1095 ± 80 B.P. [UCLA-1295B] 1225-796 B.P., 192 ± 45 B.P. [P-1188] 308-0 B.P., 767 ± 47 B.P. [P-1190] 760-652 B.P., 518 ± 46 B.P. [P-1189] 629-503 B.P., 567 ± 46 B.P. [P-1191] 651-513 B.P. and 721 ± 47 B.P. [P-1192] 729-564 B.P. [see Shutler 1973 for stratigraphic details and artefact associations]). Despite the large area excavated and the array of artefacts recovered from this site, the disturbed nature of the stratigraphy, with European material being found up to mid-way down through the deposits, questioned the reliability of any conclusions.

TaRS3 is a shelter located nearby to TaRS1 on the same upraised reef some 75 yards (67.5m) from the sea and about 25 feet (7.6m) above the high tide level. The mouth of this shelter is 90 feet (27.45m) wide and in a section of it there is a cave some 20 feet (6.1m) wide and 40 feet (12.2m) deep. This cave was fully excavated to bedrock as were 23 three by six-foot (.9 by 1.8m) pits in the outer area of the shelter. The maximum depth of the deposit was 60" (1.11m). European objects were recovered from the top 12" (22cm) of the stratigraphy. A burial, that of an adult male, was recorded at a depth of between 36-42" (66.6-77.7cm) below the surface, in an oval grave (50 by 27"[92.5-50cm]). It was in a flexed position on its right side with the skull orientated to the southeast. No artefactual material was found in association with the burial. Evidence for intermittent occupation of the shelter was recorded throughout the stratigraphy in the form of ash lenses, firescoops and hearths along with midden (frequent shell) debris. Artefacts were relatively sparse. They comprised a large ground Conus sp. top with central perforation, part of a small star-shaped pendant (Plate 3b), a basalt sphere (Plate 2h) which may have been used as a hammerstone and the fragment of a pumice abrading stone.

A number of artefacts were also gifted by Tannese during the expedition, principally adzes (Plates 2a-e) and three fragments of the long cylindrical Tannese "throwing stones" (Speiser 1996[1923]:210) (Plate 2f). No radiocarbon dating was undertaken on materials from the cave site.

Aniwa

A short visit was made to the small (8km²), low lying Polynesian "outlier", Aniwa. A total of sixteen sites were recorded, including 15 open village sites and one cave. The open sites comprised small shallow midden areas. The locations of all the sites along with associated oral traditions were known by the local population suggesting that they all dated to the relatively recent past. One stone



Figure 3. Futuna showing recorded and excavated sites.

adze was purchased on Aniwa (Plate 7d). A planned return to the island, when excavation was to be carried out, was foiled by bad weather.

Futuna (Fu)

During April and May 1964 fieldwork was concentrated on Futuna, an island comprising a mountainous central plateau rising abruptly some 2000 feet (610m) from the sea. Habitable land is severely limited (total area of 11km²) with the modern population and the apparent archaeological sites concentrated in a few areas. The island is another Polynesian "outlier". A total of 19 rockshelters and 19 open midden sites were recorded (Figure 3). Excavations were undertaken in the northeastern part of the island on one open site and seven rockshelters.

Fu1 was the site of an old village, largely comprising a shallow (6-12"[11-22cm]) mixed sparse midden deposit which covered an area of approximately 90 by 45 feet (27.45-13.7m). Recovered artefacts included two coral files (Plate 5a, h), a fragment of a possible limestone file, an oval pumice abrading stone with a plano-convex cross-section (Plate 4c), two fragments of similar but larger abrading stones, a short piece of a "throwing stone" (identical to those found on Tanna) and a *Tridacna* sp. shell adze (Plate 5c).

Ful4 was another old village site from which a number of artefacts were surface collected. They included three polished stone adze fragments with oval outlines



PLATE 4. Stone Artefacts from Futuna. a basalt flake, *FuRS1A*, Room 2, 6-12", 74mm long; b stone adze, *Fu14*, surface, 115mm long; c pumice plano-convex abrader, *Fu1B*, surface, 61mm, long; d stone adze, *Fu14* surface, 164mm long; e throwing stone fragment, *Fu14*, surface, 134mm long; f stone adze, *Fu14*, surface, 74mm long; g stone club, *Fu15*, surface, 284mm long.

(Plate 4b, d) and a further polished stone adze which had been retouched into a rectangular form (Plate 4f). Another fragment of a Tannese "throwing stone" (Plate 4e) was also collected.

Fu15 was a further midden (scattered shellfish and firecracked rock) area located near Fu14. A curved trimmed stone slab (Plate 4g) which was said to be a club was retrieved from the surface of the site.

FuRS1 is a rockshelter which had been formed by wave action on a section of upraised reef. The entrance was some 40 feet (12m) wide with a depth of up to 10 feet (3.05m). A single excavation measuring 7 by 9 feet (2.1 by 2.7m) was undertaken in the floor of the shelter. This area

was excavated to bedrock at a maximum depth of 24" (44.4cm). Evidence of intermittent occupation was found throughout the stratigraphy in the form of ash lenses, fireblackened stones and shellfish. Artefactual material was sparse and comprised only flaked *Tridacna* and a *Tridacna* sp. shell adze (cf. Plate 5c). Further excavation took place in an adjacent shelter (*FuRS1a*), which measures 40 by 20 feet (12-6.1m). It was completely excavated to bedrock at a depth of some 36" (66.6cm). Similar evidence of intermittent occupation which had been found in *FuRS1* was recorded in *FuRS1a*. Scattered human remains (two individuals) were recovered from the stratigraphy. Artefactual material (not directly associated with the human bone) included a piece of a polished stone adze, a



PLATE 5. Artefacts from Futuna. a coral file, Fu1A, surface, 42mm long; b Conus ring pendant, FuRS12, Burial 14, 38mm diameter; c Tridacna adze Fu1A, surface, 72mm. long; d shell adze FuRS12, Burial 12, 62mm long; e pig tooth bead, FuRS9, Burial 1, 18mm long; f stone bead, FuRS12, between Burials 8 and 9, 16mm long; g shell pendant, FuRS12, Burial 1, 38mm long; h coral file, Fu1A, surface 55mm long; i Conus bracelet, FuRS12, Burial 1, 60mm diameter; j very small conus top beads, FuRS12, Burial 8.

worked basalt flake (Plate 4a), an oval shaped sandstone abrader and a piece of coconut cup. Two radiocarbon determinations on charcoal samples both returned late dates ([Unit II, 12-24"(22-44cm)] 285 \pm 45 B.P (P-1194) 469-153 B.P. and [Rm. 2 6-12"(11-22cm)] 187 \pm 45 B.P (P-1193) 307-0 B.P.). Human bone from the *FuRS1a* burial returned a date of 620 \pm 90 (Gak-758) 705-507 B.P.

FuRS2 is a small wavecut rockshelter. A 12 by 6-foot (3.6-1.83m) wide trench, laid across the shelter, was excavated to bedrock at some 36" (66.6cm) below the surface. Numerous fire-blackened rocks, frequent charcoal and shellfish were found throughout the top 18" (33.3cm) of the site. A large earth oven comprising concentrated basalt and coral cobbles was revealed at a depth of 18" (33.3cm) and continued to a depth 36" (66.6cm). Shellfish and human skeletal material and other bone was recovered from amongst the debris of the earth oven. No artefactual material was recovered.

FuRS3 is again a very small (10' wide by 3' deep [3.05-.9m]) shelter, the mouth of which was sealed by a dry stone wall. Scattered human bones (of up to six individuals) were seen across the floor of the shelter. Miscellaneous artefacts also noted across the shelter floor included, a perforated *Cypraea* sp., a small *Conus* sp. ring (cf. Plate 5b), worked *Turbo* sp. shell and coral, and a flaked basalt cobble which appeared to have been used as a hammerstone.

FuRS4 and 5 are two large wavecut rockshelters which were divided into a series of "rooms" by low dry stone walls. Testpits were excavated in each of the "rooms" to the sterile bedrock which was at a maximum depth of 30" (55.5cm). Hearth features were exposed in both shelters at depths ranging from 12 to 18" (22-33.3cm). Despite frequent evidence of intermittent use of the shelters in the form of abundant shellfish, faunal remains, basalt cobbles, ash lenses and a burial in *FuRS5*, no artefacts were recovered from the excavated areas.

FuRS9 is a small rockshelter in which the bones of a number of individuals were scattered across the floor. No excavation was undertaken at the site but mixed with the bones were several artefacts including a *Conus* sp. bracelet (cf. Gifford 1951:220, Fig.1i; Gifford and Gifford 1959:191, Fig. 38i-l; Gifford and Shutler 1956:64, Pl. 6a-e) and a polished pig tusk bead (cf. Suggs 1961:138) (Plate 5c).

FuRS12 was one rockshelter site that proved to be particularly significant in terms of the number of burials² encountered (15). The shelter measures some 45 feet long by 12 feet (13.7-3.6m) wide and was completely excavated to bedrock down to a maximum depth of 48" (88.8cm). The burials were located at the back of the shelter where they had

been dug through the shallow midden and had been placed on the bedrock. Many of the graves were either rock-lined or covered with rocks. Grave goods which accompanied a number of the burials are further outlined below.

Burial 1 included the scattered skeleton of a child which had been later disturbed by the subsequent secondary burial of an adult. Several artefacts appeared to have been placed with the child. They included two very degraded perforated half pearl shells (cf. Emory and Sinoto 1964:147; Gifford and Gifford 1959, Pl. 35), three triangular pearl shell pendants, two of which had been perforated at the apex (Plate 5g), a *Conus* sp. bracelet (Plate 5i) and an assortment of *Conus* sp. beads. Human bone from the burial was dated to 760 \pm 80 B.P. (Gak-759) 891-557 B.P.

Burial 2 was a tightly flexed skeleton of an adult lying on the right side with the skull orientated to the west. A perforated, rectangular shaped shell pendant lay on the pelvis and amongst the ribs was recovered a perforated red *Spondylus* sp. shell (cf. Suggs 1961:129), a fragment of an oval pearl shell pendant, and a small rectangular pearl shell plaque. A radiocarbon determination on human bone returned a date of 1460 ± 90 B.P. (Gak-760) 1534-1185 B.P..

Burial 4 was that of an adult male, in a flexed position with skull face down, orientated to the east. Rocks both lined and covered the grave. Associated artefacts included three half pearl shells with perforations along the edges and 14 *Conus* sp. beads. Human bone from Burial 4 was dated, returning a radiocarbon determination of 1640 ± 90 B.P. (Gak-761) 1730-1332 B.P.

Burials 8 and 9 were badly disturbed by later inhumations in close proximity. Burial 8 was a loosely flexed skeleton of an adult on its left side, with the skull orientated to the west. It partly cut into Burial 9, that of another adult which in turn had been disturbed by the later burial of a child. Around the neck of the skeleton in Burial 8 was over 450 small *Conus* sp. beads which appeared to once have formed a necklace (Plate 5j). The only other artefact of note, although difficult to provenance to either burial, was a cylindrical biconically drilled stone bead (Plate 5f). Human bone from Burial 9 returned a radiocarbon date of 1410 \pm 150 B.P. (Gak-762) 1685-988 B.P.

Burial 12 comprised the scattered remains of a flexed adult skeleton. A worked flake of limestone was recorded at the distal end of the right tibia, and small flat *Conus* sp ring (cf. FuRS3 and Plate 5b) lay on top of the proximal end of the left tibia. A roundish shell adze of elliptical cross-section (Plate 5d) lay under the bones.

Burial 14 was that of a semi-extended adult lying on its right side with skull orientated to the west. A *Conus* sp.

2. All human remains excavated from Futuna have been recently (1999) returned to the Vanuatu Cultural Centre.



PLATE 6. Artefacts from Efate. a *Tridacna* adze, *Ef3*, Loc. D, unit 3, 71mm long; b *Terebra* adze, *Ef3*, Loc. B, trench B, pit 4, 0-6", 87mm long; c *Tridacna* adze *Ef3*, Loc. B, trench I, pit 8, 6-12", 63mm long; d *Conus* adze, gift, 82mm long; e *Tridacna* adze, gift, 123mm long; f *Conus* adze, gift, 94mm long; g *Tridacna* adze *Ef1*, trench C, pit3, 12-18", 99mm long; h limestone adze, *Ef2*, 0-12", 135mm long; 1 shell adze *Ef3*, Loc. C, trench A, pit 4, 6-12", 70mm long.

ring (Plate 5b) lay on the thoracic vertebrae. Bone from the burial was dated to 510 ± 90 B.P. (Gak-763) 658-323 B.P.

Other dates from the excavations included charred leaves from a large earth oven (Tr. 2, 18"[33.3cm]) which dated to 905 ± 190 B.P. (WSU-184) 1258-536 B.P. and a charcoal sample from the front of the shelter (Tr. 3, 36-

42"[66.6-77.7cm]) which returned a modern date (200 \pm 190 B.P. [WSU-196] Modern). The wide time span in the dates for the burials (1640 \pm 90 B.P. [Gak-761] 1730-1332 B.P. to 510 \pm 90 B.P. [GaK-763] 658-323 B.P.) appeared to initially suggest that the site had been used for burials over a very long period. However as noted above, recent questions surrounding the reliability of both the dating of

human bone and dates in general from the Gakushuin Laboratory cast serious doubt on their reliability (Kirch 1984; Spriggs 1990). The ubiquitous nature of the artefact forms across the burials also suggests there may not have been a great time span represented. The anomalies of dating human bone have more recently been further reinforced by a recent case in Vanuatu. Garanger's initial dating of human bone from a burial on Retoka Island suggested it dated to some 700 years ago (Garanger 1972:77). More recent direct dating of shell ornaments from the burials indicate that they are more likely to date to a much more recent period of c.400 years ago (Bedford *et al.* 1998:187).

Erromango

A brief visit only was made to Erromango due to inclement weather. Six caves bearing cultural deposits were recorded. One of them was a burial cave. The only artefact found on the island was a piece of shell money or *navela* (Plate 7g), a prestige item exchanged between chiefs on important occasions and often during marriages. Two forms of the shell money are known, the large circular ring form (Speiser 1996[1923]:Pl. 78, 11) or the straight form as found by the Shutlers. In 1996 a similar piece of shell money was excavated at the Ifo site from deposits pre-dating 2000 B.P. suggesting that this artefact form and social role has some antiquity on Erromango (see Bedford and Spriggs this volume).

Efate

Survey and excavations were carried out on Efate and the smaller offshore islands of Fila and Mele in June 1964. Four village sites and eight rockshelters were recorded (see Figure 1) and excavation took place at two villages and three rockshelters. Pottery, which had not been found in the south, had been regularly reported on Efate since the early part of the 20th century (Douceré 1922; MacLachlan 1939) and not surprisingly it was encountered at a number of the excavated sites.

Ef1 was a large midden area located on the Efate mainland directly opposite Fila Island. Twelve pits measuring 6 by 3-foot (1.8 by .9m) were excavated to the sterile beach sand at a maximum depth of 18" (33.3cm). Artefacts recovered from the midden included a *Tridacna* sp. adze (Plate 6g), a number of perforated shells, a possible *Terebra* sp. shell gourd stopper (cf. Emory and Sinoto 1961:47-8, Fig. 37), and three drilled Circe shells. No pottery was found at this site. A radiocarbon determination from a charcoal sample (Tr. C, 12-18"[22-33.3cm]) returned a date of 495 \pm 47 B.P. (P-1184) 621-478 B.P.

Ef2 was another shallow somewhat sparser midden site located on the Efate mainland. A total of seventeen 6

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by 3-foot (1.8 by .9m) pits were dug to bedrock across the site which had a maximum depth of 24" (44.4cm). Artefactual material was sparse but did include seven pot sherds (only one of which was decorated), a small section of a cut *Conus*, and a limestone adze (Plate 6h).

Ef3 was the site designation given to Fila Island as a whole. A grand total of sixty-three pits measuring 6 by 3 feet (1.8 by .9m) were excavated in three different locations across this small island (a total area of less than a square kilometre). The maximum depth of midden at any location was 36" (66.6cm) but European items were found as deep as 12" (22cm). Three radiocarbon determinations from charcoal samples from different testpits and different levels returned dates of 815 ± 180 B.P. (WSU-200 [30-36"(55.5-66.6cm)]) 1064-510 B.P., 1020 ± 130 B.P. (WSU-199 [18"(33.3cm)]) 1258-673 B.P. and 1090 ± 140 B.P. (WSU-198 [6-12"(11-22cm)]) 1291-709 B.P.

A large collection of sherds, decorated with incision, appliqué and punctation, were recovered from the excavations on Fila Island. The design elements were initially seen as comparable to modern Santo pots and to archaeological material from both Fiji and New Caledonia (Gifford 1951; Gifford and Shutler 1956). Once the results of Garanger's excavations were published (1966, 1972) the ceramics from Fila could be comfortably placed within the Mangaasi ceramic tradition. Although the excavated ceramics from Fila have never been illustrated in detail a number of type collections were sent to various institutions throughout the Pacific. During PhD research Bedford viewed the type collections sent to the Australian National University and the Vanuatu Cultural Centre and can confirm that the Efate sherds in the type collection correspond to the latter part of the Efate sequence (late Mangaasi, post 2000 B.P. [see Bedford 2000]). Further confirmation of this is provided by the charcoal dates recovered from the Fila excavations.

Other artefacts recovered included, a flat disc *Conus* sp. pendant (cf. TaRS1, Plate 1b), a round pearl shell pendant and a *Conus* sp. cap bead (cf. Plate 3g). Eleven shell adzes were found, six of *Tridacna* sp (Plate 6a, c, e), three of *Terebra* sp. (Plate 6b), one of *Conus* sp. (Plate 6d, f) and a further of unidentified shell (Plate 6i). Four scrapers or choppers, one of *Tridacna* sp. (Plate 7f) and three of operculum (Plate 7e) were also recovered. Other shell artefacts included two perforated arca shells (Plate 7b) which may have been net sinkers (cf. Gifford and Shutler 1956:192, Pl. 41c-d). Modified pig bone included one piece cut to a point and the other ground to form a spatula. A possible coral file was also noted.

Two tightly flexed adult burials were also uncovered on the Fila Island excavations. One of the burials was that of a female which was accompanied by a collection of



Plate 7. Artefacts from Efate, Aniwa, and Erromango. a *Conus* top disc, *Ef3*, Loc. B, trench A, pit 6, 0-6", 38mm diameter, Efate; b arca net sinker, *Ef3*, Loc. D, pit 2, 0-6", 76mm long, Efate; c very small flat *Conus* disc beads, *Ef3*, Loc. E, Burial 2, Efate; d stone adze, gift, 124mm long, Aniwa; e operculum scraper-shopper, *Ef3*, Loc. B, trench B, pit 1, 0-6", 63mm diameter, Efate; f *Tridacna* scraper, *Ef3*, Loc. B, trench B, pit 12, 6-12", 67mm long, Efate; g shell money, gift, 401mm long, Erromango.

| Island/Site | provenance | Lab No. | material | C14 B.P | Cal. B.P 2sd |
|-------------|---------------------------|------------|-------------------------|-----------------|----------------|
| Aneityum | | | | | |
| AtRS1 | Pit 4, 54-60" | UCLA-693 | charcoal | 470 ± 80 B.P | 646-315 B.P. |
| AtRS1 | Pit 3, 24-30" | P-1195 | Tridacna crocea scraper | 474 ± 46 B.P | 246-0 B.P. |
| AtRS3 | Pit 1, 18-24" | WSU-139 | Tridacna shell adze | Modern | |
| AtRS3 | Pit 1, 72-90" | WSU-140 | charcoal | 850 ± 120 B.P. | 971-560 B.P. |
| Tanna | | | | | |
| TaRS1 | burial | Gak-757 | human bone | 1650 ± 100 B.P. | 1818-1314 B.P. |
| TaRS1 | Pit 10, 108-126" | UCLA-734 | charcoal | 2370 ± 90 B.P. | 2737-2154 B.P. |
| TaRS1 | Pit 16, 36-42" | UCLA-1295A | charcoal | 645 ± 80 B.P. | 725-517 B.P., |
| TaRS1 | Pit 14, 24-30" | UCLA-1295B | charcoal | 1095 ± 80 B.P. | 1225-796 B.P. |
| TaRS1 | Pit 14, 6-12" | P-1188 | charcoal | 192 ± 45 B.P. | 308-0 B.P. |
| TaRS1 | Pit 13, 30-36" | P-1190 | charcoal | 767 ± 47 B.P. | 760-652 B.P |
| TaRS1 | Pit 13, 24-30" | P-1189 | charcoal | 518 ± 46 B.P. | 629-503 B.P. |
| TaRS1 | Pit 20, 36-42" | P-1191 | charcoal | 567 ± 46 B.P. | 651-513 B.P. |
| TaRS1 | Pit 15, 42-48" | P-1192 | charcoal | 721 ± 47 B.P. | 729-564 B.P. |
| Futuna | | | | | |
| FuRS1 | Unit II, 12-24" | P-1194 | charcoal | 285 ± 45 B.P | 469-153 B.P. |
| FuRS1 | Rm. 2 6-12" | P-1193 | charcoal | 187 ± 45 B.P | 307-0 B.P. |
| FuRS1 | Burial 1 | Gak-758 | human bone | 620 ± 90 B.P. | 705-507 B.P. |
| FuRS12 | Burial 1 | Gak-759 | human bone | 760 ± 80 B.P. | 891-557 B.P. |
| FuRS12 | Burial 2 | Gak-760 | human bone | 1460 ± 90 B.P. | 1534-1185 B.P. |
| FuRS12 | Burial 4 | Gak-761 | human bone | 1640 ± 90 B.P. | 1730-1332 B.P. |
| FuRS12 | Burial 9 | Gak-762 | human bone | 1410 ± 150 B.P. | 1685-988 B.P. |
| FuRS12 | Burial 14 | Gak-763 | human bone | 510 ± 90 B.P. | 658-323 B.P. |
| FuRS12 | Tr. 2, 18" | WSU-184 | charred leaves | 905 ± 190 B.P. | 1258-536 B.P. |
| FuRS12 | Tr. 3, 36-42" | WSU-196 | charcoal | 200 ± 190 B.P. | Modern |
| Efate | | | | | |
| Ef1 | Tr. C, 12-18" | P-1184 | charcoal | 495 ± 47 B.P. | 621-478 B.P. |
| Ef3 | Loc. D, Pits 3, 7, 30-36" | WSU-200 | charcoal | 815 ± 180 B.P. | 1064-510 B.P. |
| Ef3 | Loc.E, Pit 2, 18" | WSU-199 | charcoal | 1020 ± 130 B.P. | 1258-673 B.P. |
| Ef3 | Tr.3, Pits 7,8,9, 6-12" | WSU-198 | charcoal | 1090 ± 140 B.P. | 1291-709 B.P. |
| Ef7 | 36-42" | WSU-197 | charcoal | 1225 ± 175 B.P. | 1512-764 B.P. |
| Ef7 | 26-32" | UCLA-1295C | charcoal | 455 ± 80 B.P. | 632-311 B.P. |

TABLE 1. Radiocarbon dates mentioned in the text.

grave goods including a necklace of over 800 small flat *Conus* sp. disc beads (Plate 7c), a flat ground *Conus* sp. top with a central perforation (Plate 7a) and two triangular pearl shell pendants (cf. FuRS12, Burial 1, Plate 5g).

Two further rockshelters were excavated on Efate although both proved to be sparse in terms of both midden and artefactual remains. *EfRS6* is a small shelter on the Efate mainland at Malapoa Point. A large trench was excavated to bedrock which was at maximum depth of 36" (66.6cm). No artefactual material at all was recovered from this site.

EfRS7 is another small rockshelter located on the Efate coast, south of Fila Island. A five by ten-foot trench was

excavated to bedrock across the shelter. Maximum depth was 48" (88.8cm). A single bi-pointed piece of ground coral similar to the one recovered from TaRS1 (cf. Plate 3f) was recorded. A charcoal sample from a lower layer (36-42"[66.6-77.7cm]) of the midden returned a date of 1225 \pm 175 B.P. (WSU-197) 1512-764 B.P. whilst another from the layer above (26-32"[48.1-59.25cm]) returned a date of 455 \pm 80 B.P. (UCLA-1295C) 632-311 B.P.

DISCUSSION

The excavations undertaken in the south of Vanuatu in 1963-64 marked the beginning of scientific archaeology in the archipelago. This made it particularly challenging as

there was virtually a complete lack of comparative data from any of the islands. Added to this was the fact that detailed geomorphological information on Vanuatu did not begin to appear until the late 60s and early 1970s. Vanuatu was a vastly different prospect to New Caledonia where the Shutlers had had previous Pacific Island experience (Gifford and Shutler 1956). This was particularly so in terms of geomorphological history and hence site visibility and location. All the islands in Vanuatu have experienced varying degrees of tectonic uplift and volcanic ash fall throughout their history. Human induced landscape change dating from c.3000 B.P. has also in some cases radically altered island environments (cf. Aneityum [Spriggs 1981]). This has made the task of locating sites with any time depth extremely difficult as they can be buried by metres of ash or alluvium (cf. Tanna and Aneityum). Regular tectonic uplift adds another factor - the earliest sites which may once have been located near the sea can now be up to several hundred metres inland (cf. Arapus on Efate [Bedford and Spriggs 2000]). Armed with this information we can now fairly securely argue, as the original radiocarbon determinations in fact indicated, that the majority of the sites excavated in 1963-64 probably date to the last 1000 years or so.

None of these factors however negate the value of the "archaeological explorations" of the early 1960s. The recovered artefacts remain the largest sample of late material for southern Vanuatu. In initial discussions of the artefacts in terms of a cultural chronology it was thought that there were no particularly good chronological markers. This initial conclusion was heavily influenced by the radiocarbon dates which can now be shown, in a number of cases (e.g. human bone), to be less than reliable. Many of the recovered artefacts are in fact excellent chronological markers - but it is principally to the latter part of the archipelagoes prehistory that they date rather than the first 2000 years. Many of the artefact forms discussed are illustrated in Speiser's (1996[1923]) ethnographic account or the more recent Arts of Vanuatu (Bonnemaison et al. 1996).

Of considerable significance is the demonstration of widespread similarities across the central and southern islands (Shutler 1970) and across quite distinctive linguistic boundaries. Items such as pearl shell pendants (Plate 5g), throwing stones (Plate 4e), pig tusk beads (Plate 5e), stone and shell adze forms and *Conus* sp. bead necklaces (Plates 5j, 7c) all appear in excavated contexts on at least two of the islands in the south if not most of them. The pig tusk beads (Plate 5e) were clearly *de rigueur* in the south (Spriggs 1997:218). Similarities in grave goods across the south were noted in earlier publications (Shutler 1970; Shutler and Shutler 1965) and subsequently Spriggs has reported similar burial items in excavated graves on Aneityum with those of Efate (Spriggs 1993:199).

As noted a number of these artefact forms also have parallels over a much wider area which hints at increased inter-archipelagic contact during this period. Kirch (2000:129) has noted similarities in a number of items of late material culture across both Near and Remote Oceania. This is particularly noticeable in adze forms, the lenticular cross-section stone adze, *Terebra* sp. shell adzes and even pig tusk beads. There is no question that the southern islands of Vanuatu experienced considerable Polynesian influence, during at least the last 500 years or so (Spriggs 1997:222) and some of excavated artefacts further attest to that.

The initial "explorations" certainly give us a glimpse of the complicated and yet archaeologically poorly understood period (across much of the western Pacific) that encompasses the last 1000 years. While substantial archaeological "energies" have been focused on the Lapita period over the last decades, such focus will one day have to be directed to an understanding of the more recent archaeological record which is likely to prove equally challenging in its interpretation. The results of the 1963-64 expedition will remain a valuable contribution to this periods further elucidation.

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This article has been produced from the Shutlers published articles and unpublished fieldnotes (now held at the Vanuatu Cultural Centre). It was written principally by the junior author as a tribute to the efforts made by the Shutlers in pioneering archaeological research in Vanuatu. They cited the work of Jean Guiart as having largely inspired the original project. During the fieldwork the Shutlers were supported financially by a National Science Foundation Grant (GS-293) and sponsored by the Bishop Museum. Bedford's more recent fieldwork in Vanuatu since 1995 has always been encouraged and closely followed by Richard Shutler Jr.. Roger Green hunted down his copy of Shutler and Shutler 1965 so that the plates could be copied. As a final point it must be recognised that it is largely due to the detail of the fieldnotes, stratigraphic section drawings and plans that were produced during the fieldwork (reminiscent of that carried out in the field in New Caledonia more than ten years previously [see Sand et al. this volume]) that has enabled later researchers to revisit the excavations to further assess the information gleaned almost 40 years ago.

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APPENDIX 1

Further surveyed sites on Aneityum

AtRS4: a large cave facing south (c.100' long and up to 40' wide [30.5 by 12.2m]) with no depth of deposit.

AtRS5: a cave site at Port Patrick. It faced west and was c.30' wide and 10' deep (9.1 by 3.05m) with a 15' (4.5m) high ceiling. Again there was no depth of deposit. Rock was strewn across the cave floor.

AtRS6: a south facing cave site at Inyanut which was located 100' (30.5m) from sea and some 12' (3.6m) above it. A series of low rock walls were in evidence along with remnants of a canoe and two hearths. The cave was approximately 8' by 3.5' (2.44 by 1.06m). Shell midden

was noted in the entrance of the shelter. A 2 by 3-foot (.6 by .9m) testpit was excavated to a depth of 3 feet (.9m) down to sterile beach sand. The stratigraphy comprised ash, shell and burnt stones. No artefacts were recovered.

AtRS7: a small inland cave site located up the Umej River. It measured some 15 by 15 feet (4.5m) and was infilled with slopewash. The remains of a burial (a blue trade bead and scattered bone) were noted on the surface of the cave. No excavation was undertaken.

AtRS9: a south facing shelter located at Analua which measured 39' long by 12' deep (11.9 by 3.6m). The shelter was occupied at the time of the survey so no further investigation was undertaken.

AtRS10: a shallow rockshelter just east of Unmej Point was 28' (8.5m) long. A single testpit revealed shallow stratigraphy and sparse cultural remains.

AtRS11 (Analua): a south facing shelter measuring 18' 6" long by 9' (5.5 by 2.7m) at its centre. A single testpit excavated in the centre of the shelter to a depth of 1' 8" (44.5cm) revealed a largely sterile matrix with occasional shellfish.