LOOKING TO EPI: FURTHER CONSEQUENCES OF THE *KUWAE* ERUPTION, CENTRAL VANUATU, AD 1452

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INTRODUCTION

Epi Island is located roughly at the center of the Vanuatu archipelago where the island chain forks into its characteristic Y-shaped divergence (Fig. 1). Prior to AD 1452, Epi formed part of a larger landmass that is today popularly referred to as *Kuwae*. The name Kuwae has been passed down via oral traditions of communities from the Shepherd Group of islands located just southeast of Epi. Several of the Shepherd Group were actually once part of the larger Kuwae landmass. These oral traditions describe migrations of people between Efate and Kuwae and detail the catastrophic eruption of the latter, along with the concomitant formation of the contemporary geography of Epi and the Shepherd Group. Rich in detail, these oral traditions attracted the attention of the anthropologist Guiart (1973; see also Hébert 1963-5), who studied them during his research around Efate and the Shepherd Group.

Attention was further drawn to Kuwae through Garanger's (1972) study of the archaeology of the Shepherd Group, which revealed evidence of the terrible effect this eruption had on past populations occupying that southern region of Kuwae (see Fig. 2 for the present and past geography of the region). Neither Guiart nor Garanger, however, researched questions of the relationship of Epi Islanders with Kuwae. Today, it is often not fully recognized that Epi was once part of Kuwae. This paper argues that Epi's history is bound by its past relationship with Kuwae, especially through the eruption, which greatly affected its population. Hitherto, no research has attempted to understand what was the relationship between Epi and Kuwae, or what was the effect of the eruption (cf. Galipaud 2002).

This article will, therefore, look to Epi Island for further evidence of the effects of the eruption. In establishing what these consequences might have been, evidence from multiple disciplines is presented, including published geological and linguistic data, along with recent results from archaeological and cultural heritage fieldwork. Overall, this article is an attempt to posit a new research agenda for Epi and to redirect available information about Epi society into better understanding of how its history has been framed by the Kuwae eruption. This paper should encourage discussion by specialists, particularly archaeologists and linguists, about the social changes that occurred across the area following the eruption.

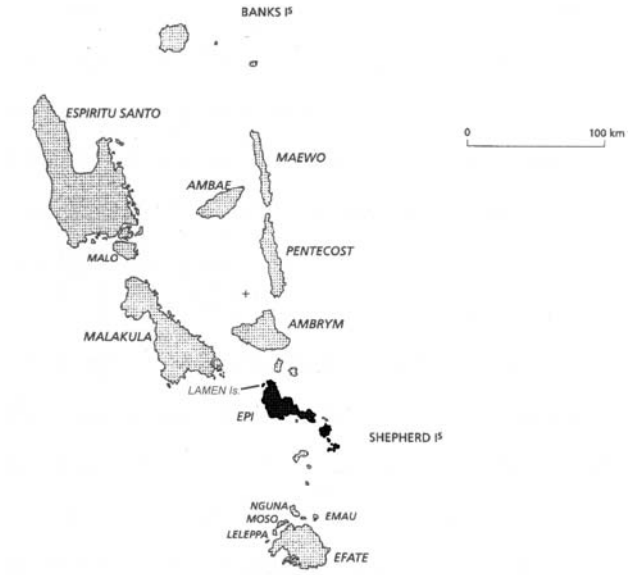

Figure 1. Part of the Vanuatu archipelago showing the positions of Epi and the Shepherd Group at the base of the y-shaped divergence of this island chain. The highlighted islands are those that were once part of the Kuwae edifice. Map adapted from Bonnemaison et al. (1996.)

BACKGROUND

Clark's (1996) essay on the linguistic consequences of the Kuwae eruption discussed how the cataclysm of 1452 influenced the linguistic makeup of the Shepherd Group of islands in central Vanuatu. He concluded that

> the original languages of Kuwae are lost

and also that

> … it is unlikely that archaeological evidence would throw any light on the resettlement question (Clark 1996:278 & 282).

Clark also stated that the

> present-day islands of Tongoa, Ewose, Valea, Tongariki, and Buninga, collectively known as the Shepherd Group, are all that remain of Kuwae (Clark 1996:275) (Fig. 2).

However, it is clear from geological evidence that the bulk of the land now called Epi formed the western extent of the theorized Kuwae edifice, which joined Epi into a

single landmass with those islands of the Shepherd Group listed above; in fact Epi represents by far the largest remaining fragment of old Kuwae.

For the sake of clarity, use of the name Kuwae in this paper logically relates to the pre-1452 period of history, while the names Epi and the Shepherd Group relate to the post-eruption period. Clark did not regard Epi as being of significance for the question of the social consequences of the Kuwae eruption. This omission may be understood since research on Kuwae has focused exclusively until now on the Shepherd Group.[1] The dearth of research on Epi society inhibits discussion about this part of Kuwae[2]; an effect further compounded by suggestions of severe social and cultural dislocation on Epi caused by European contact and depopulation (cf. Young 1992:212).

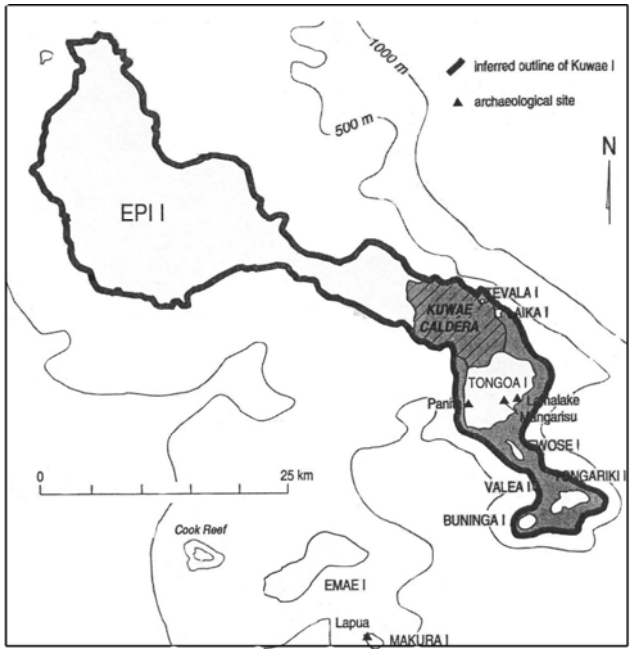

Figure 2. Approximae extent of Kuwae Island before 1452. Diagram from Spriggs (1997), adapted from Monzier et al. (1994).

The following discussion is organised into sections particular to the field of study drawn upon (geology, archaeology etc.), and presents an argument different from Clark's (1996) conclusions, already mentioned. In brief, the available geological and linguistic data suggest a degree of population and language continuity from Kuwae, represented today by Epi's indigenous populations and languages; the languages of Kuwae are not lost. Two oral traditions from Epi recorded by the author relate indirectly to the eruption and also suggest population continuity.

Recent heritage survey fieldwork on Epi by the author, for the Vanuatu Cultural and Historic Sites Survey (VCHSS) group[3], along with preliminary observations from recent archaeological excavations[4] by Bedford and Spriggs (pers. comm. 2005), show that Epi has much to offer toward understanding the wider consequences of the Kuwae eruption. Preliminary archaeological evidence from west Epi and its cultural heritage sites demonstrates a potential for helping to understand aspects of the settlement process across Epi over the last five hundred years, specifically the influences from Malakula via pottery production, trade, and graded societies.[5] Around southeast ern Epi, major cultural influence from the Efate-Shepherd community is visible in the heritage places present there. These sites are briefly described, as they relate to the ethnographic record for Epi and highlight the unique position that Epi holds within Vanuatu as a crossroads or interface between two strongly contrasting cultural groups.

GEOLOGY OF THE KUWAE ERUPTION

The last 40 years of research into the geology of Epi Island and the Shepherd Group has confirmed the past existence of Kuwae. The heart of the eruption was located between present day southeastern Epi and Tongoa (see Fig. 3). Although research and debate on the temporal and violent nature of the Kuwae eruption is ongoing (Cronin pers. comm. 2006), the eruption clearly reached catastrophic proportions (cf. Delmas *et al.* 1992). Kuwae's southern areas were most severely affected, fragmenting into the present islands of Tongoa, Ewose, Valea, Tongariki and Buninga. Epi, the largest remaining portion of old Kuwae, experienced destructive but significantly less severe impacts from the eruption.

French geologists Aubert de la Rüe (1956), Espirat (1973) and Geze (1963) all studied the region between the 1950s and 1960s and suggested the prior existence of a single volcanic edifice joining Epi and the Shepherd Islands:

> Tous ces îlots donnent l'impression d'être les vestiges d'une île volcanique engloutie par quelque cataclysme (Aubert de la Rue 1956:84).

Moreover, Guiart's and Hébert's research during the 1950s and 60s (see Espirat *et al.* 1973; Hébert 1963-5) documented Tongoan oral histories about Kuwae, and Garanger's (1972) excavation of occupation levels underneath volcanic pyroclastics on Tongoa influenced Espirat (1973) to endorse the authenticity of the Tongoan oral histories about Kuwae. However, questions remained as to the actual extent of the pre-eruption landmass:

> Les données géologiques sont donc en accord avec celles de la légend [Kuwae] (Espirat 1973:37) … On doit cependant admettre dans cette hypothése que Buninga et peut-être Valea etaient déjà isolées de Kuwae, ce qui peut être néanmoins compatible avec la legend compte tenu de ses imprécisions ou déformations. (Espirat 1973:39).

In 1967, the common presence of thick pyroclastic beds across south Epi and the Shepherd Group was described as the "product of the last volcanic episodes to affect this area" (Warden 1967:10). Soon after, an investigation into geological gravity anomalies across Epi and the Shepherd islands concluded that Epi represented the western half of a breached volcano (Malahoff & Wollard 1969:13; Malahoff 1970:13). By the mid-1970s, evidence from the ocean floor had significantly enhanced the picture. The Royal Navy research vessel HMS *Hydra* facilit-

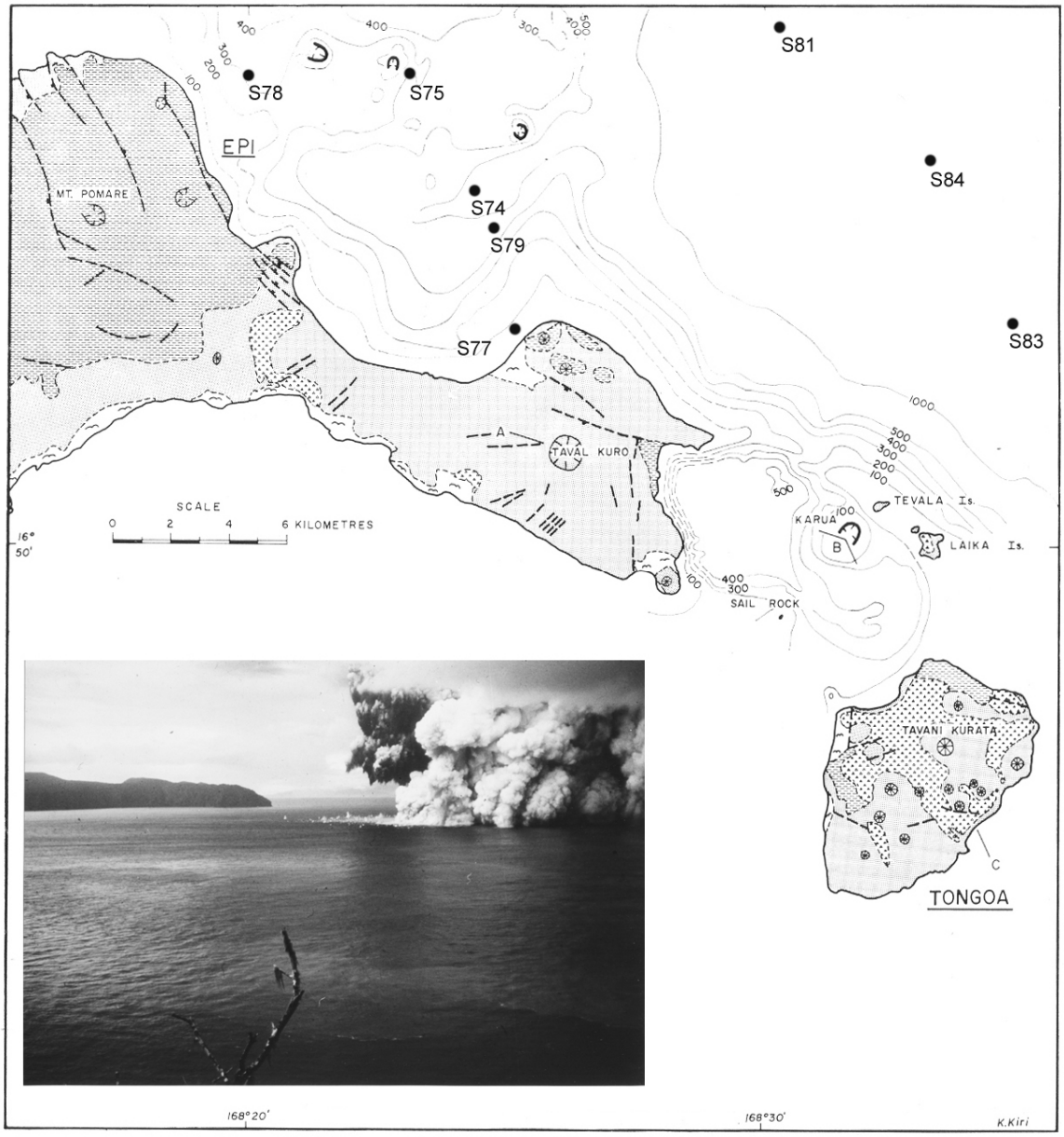

Figure 3. Bathymetric chart of the Kaura sub-marine caldera. Note location of active vents and the location of ocean floor samples (S##). Diagram adapted from Macfarlane (1976 and 1977). Inset: Black and White photo of Kaura erupting in the 1970s, view north to southeast Epi. Photo by Macfarlane, VCC photo archive.

ated collection of sea floor sediments from east of Epi's Drummond Bay, and the production of a bathymetric chart for the region. Ninety-five percent of the sediment samples constituted black glass clasts and pumice formed by "volcanic ash or dust fall-out into the sea from air-borne eruption columns" (Carney 1976:10-11). Decisively, the bathymetric chart clearly revealed a 12 km-wide oval caldera, 400-500 m deep, directly between Epi and Tongoa (Carney & Macfarlane 1977: 12).

It quickly became clear that the 'blanket' deposits of pyroclastics and tephra across the terrestrial landscapes of Epi and the Shepherd Group, and also across wide areas of the sea floor, were markers of the formation of the submarine caldera. Garanger (1972) certainly recognised that a major eruption took place in the 1400s. However, at the time of Carney and Macfarlane's (1977) research, the caldera-forming event was wrongly estimated to have occurred 2300 years BP, based on C14 dates from Garanger's excavations (Carney & Macfarlane 1977:12). The eruption was, therefore, considered by the geologists to date well before the date estimates for the event based on Tongoan oral traditions and genealogies, which suggested the eruption took place only a few centuries ago (Garanger 1972; Clark 1996:276).

More recent research has refined the dating of this event and placed it much closer temporally to the Tongoan genealogies. Delmas *et al.* (1992), analysing ice-core samples from the South Pole containing volcanic ash originating from a source at "high or mid southern latitudes", dated the eruptive event to 1452. Monzier *et al.* (1994) produced a second bathymetric map of the submarine caldera and also published C14 dates from carbonized trees found *in situ* below the eruptive flow deposits on Tongoa.

Monzier's date of 1420-30 was revised by Robin *et al.* (1994) to 1452, and further corroborated by Eissen *et al.* (1994). This allowed a link to be made between the mid-fifteenth century date and Delmas' high or mid southern latitude region, and, therefore, to recognize the source as Kuwae. This eruption is argued to have been one of the biggest eruptions in the last 10,000 years, explosively ejecting roughly 35 km^3 of volcanic material across the region and into the upper atmosphere, affecting global climates for some years (Pang 1993; Simarski 1996).

ENVIRONMENTAL IMPACT

The most detailed geological evidence of the impact of the Kuwae eruption on Epi's terrestrial environment comes from Quantin's (1982) soil science reports, and also unpublished notes by David Luders written after discussions with Monzier regarding the likely environment during and following the eruption (Luders 1994).

The southern area of Kuwae was most severely affected by the eruption, marked by the fragmentation of the Shepherd Group and the extent of pyroclastic shield deposition, from southeast Epi to Tongariki across the ocean floor. Air temperatures across this space may have reached 300°C or more, and combined with the fallout would have obliterated the preceding landscape and transformed it into desert for some years. The degree of landscape destruction in this immediate area is clearly recounted in Tongoan oral history; the name Tongoa derives from the plant name *warotongoa,* a pioneering species recorded as growing on Tongoa five or six years after the eruption, when reoccupation of the area began.

Further away from the eruptive centre the fall-out grades from coarse pyroclastic debris into tephra, which blankets the northern and western portions of Epi, as well as other islands further afield including Efate (Spriggs 1997), Paama, and southeast Malakula (Quantin 1982). Quantin (1982) reports that sediment cores from across north and west Epi show between 40 to 60 cm of tephra, which typically overlies older, slightly more developed tephra deposits and perhaps indicates increased emissions from Kuwae in the years prior to the final event. Curiously, the extreme northern part of the island reveals little or no sign of this tephra fallout, the reasons for which are not apparent. Excavations in 2005 by Bedford and Spriggs (pers. comm. 2005) at coastal sites in western Epi revealed the presence of the Kuwae tephra layer immediately on top of sterile beach deposits, while excavations inland were nowhere able to penetrate below the tephra. It is possible that Bedford did not distinguish between the recent and older tephra deposits. Certainly, Quantin had difficulty distinguishing them:

> La classification des sols d'Epi et des îles Shepherd pose des problèmes... les sols sont 'polyphases' … suivant l'importance que l'on donne aux dépots récents superficiels ils peuvent être classés differémment. A partir de quelle limité peut-on distinguer un sol "peu evolue" d'un sol 'moyennement evolue… (Quantin 1982: 4).

In any case, at least half a metre or more of Kuwae ash now covers the majority of the Epi landscape. Such a heavy fallout probably blocked out all sunlight for a period. Tremendous problems ensued for resident populations (Luders 1994); ash and static electricity probably induced acid rain, destroying any gardens not already covered by the ash. Marine resources would have become increasingly important for food, but offshore areas would have suffered adversely through extensive sedimentation and 'rafting' of pumice debris. Inland fresh water sources would have been hard to find, potentially contaminated by unconsolidated ash and debris.

Thirty to fifty kilometres from the eruptive centre, around today's west and north Epi, air temperature increased to perhaps to 40-50°C for a brief period during the eruptive climax. At this distance from the eruptive centre Monzier suggests disturbances to life would have been far reduced in comparison to that experienced across southeastern Kuwae. For north and west Epi, therefore, it is difficult to rule out the survival of small pockets of population in marginal areas. It is possible that the dense populations on Epi at European contact were, at least in part, the result of a process of internal regrowth and resettlement by the post-eruption population of Kuwae.

LINGUISTIC CONTINUITY - A VIEW OF THE REGION

The argument presented here is an interpretation by a non-linguist of the available linguistic evidence for the Epi languages, particularly the publications regarding sub-grouping hypotheses for the central Vanuatu languages by Clark (1985) and Tryon (1976a, 1976b, 1979, 1986, 1999), and also the summary information presented in Early's (1994) dissertation. The argument presented here is inevitably a simplified view of a much more complicated and intricate web of social relations within and between Vanuatu's islands. Furthermore, its possible that some languages were lost as a result of the extensive depopulation across Epi which followed the sustained presence of European 'Blackbirder' ships and settlers from the 1850s, especially languages of the coastal areas. The total number of Epi's past languages is unclear, but it is believed to be considerably more than the five known today (Early 1994:31). Bearing this in mind, the following argument is intended to provoke questions and further research by linguists into the possibility that the Epi languages are actually survivors of languages spoken on Kuwae.

Epi's remaining five languages form a single lower-order "small closed sub-group" that belongs to an Epi-

Efate sub-group within the Central Vanuatu group of languages (Clark 1985; Tryon 1976, 1986:241-2). They are related to the languages of the Shepherd Group and Efate (Early 1994:41) via a "few shared innovations of morpho-syntactic nature". Two probably recent and distinct phonological developments common to the Epi languages, however, serve to separate them from the Efate languages (Tryon 1986:5).

According to Tryon (1973:8)

> in terms of lexicostatistics the two subgroups [Epi and Efate] cannot be said to be in close relationship

and

> consonant alterations [on Epi] are the result of independent parallel development (Tryon 1986:257).

A major division is perceived between the Epi languages and those found further north within the Central Vanuatu group of languages (Clark 1985:221). Although no study has specifically addressed the question of Malakulan or Ambrym language loans or influences within the Epi languages, there is presently no evidence to support such a position (Crowley pers. comm 2004). According to Early (pers. comm. 2005) and Crowley (pers. comm. 2004), the extant languages of Epi, albeit generally little studied, do not show evidence of borrowing or of extensive recent links to languages of the neighboring islands. Depopulation and the loss of coastal languages, however, limits the potential for identifying signs of linguistic borrowing from adjacent islands, and thus our chances of better understanding the situation.

Without ruling out population re-settlement of Epi from neighboring islands, the linguistic data imply that internal population growth could have formed a significant part in resettlement. In other words, the linguistic situation on Epi today suggests a degree of internal continuity in language and population, stemming from Kuwae's older populations. If the converse were true, and post-Kuwae resettlement on Epi was dominated by immigration from neighboring islands, cognate percentages between the Epi languages and Efate languages such as Nakanamanga, or Malakulan languages, would likely be much higher than the 55-65% estimated by Early (pers. comm. 2005).

Although cognate percentages offer limited means for defining linguistic relationships, they nonetheless serve to illustrate the point. Following Clark's (1996) methodology for describing the resettlement process across the Shepherd Group by speakers of the Namakir and Nakanamanga languages from Efate, the use of cognate percentages actually diminishes Efate as a significant source of immigration. The only exception is the settlement by people of the Efate-Shepherds cultural group of southeastern Epi (Miller 1987:340-346). This will be discussed later in relation to the cultural heritage of that area. In answer to Clark's (1996) hopes of identifying vestiges of Kuwae's supposedly lost languages, therefore, perhaps research on Epi will find them.

EPI ORAL TRADITIONS – SUGGESTIVE OF CONTINUITY

Past researchers on Epi, including Young (Luwia *et al.* 1986: 36), Tryon (pers .comm. 2005) and Early (1994:21), along with the present author, have noted the presence on Epi of a widely known origin narrative recounting migrations of populations out of a single 'homeland' village called *Purvanua*. The migrations implicitly describe the growth of the population at Purvanua and the progressive settlement of villages in all directions across the island landscape.[6]

Purvanua is located in Epi's high midlands, near the sources of multiple water courses, and may have supported the core of the surviving post-eruption population. Over time, the surrounding lands ameliorated, and populations grew and spread out once again, re-colonizing lost lands. The Epi origin narrative explains the broad pattern of language distribution across the island. Especially evident are the migrations out of Purvanua that were responsible for the Lewo language distribution across the north and eastern side of Epi. Given the effects of the eruption on populations present across this region, Epi's origin narrative is argued here to have evolved after the eruption.

As a brief aside, a curious preface to the 'origins' narrative involves the landing of two separate canoes, *Varasoro* and *Narasoro*, from Efate during an exodus as a result of fighting. The migrants are said to have walked up a valley to Purvanua, but no place names are provided for this initial movement, unlike the detailed list of place names mentioned during the later spreading out from the Purvanua 'homeland'. Significantly, Early (1994:21) notes that a Church Elder from Burumba village, who had schooled on Tongoa, said that he introduced the 'canoe story' to Epi in the 1930s, upon his return from Tongoa. Indeed, according to Tongoan traditions a canoe called *Navasor* belonged to one of the *Taripoamata* chiefly titleholders associated with the first wave of migrations to southeast Kuwae from north Efate (Luders 2001; Luders pers. comm. 2005).

However, as stated in the preceding section, the existing linguistic evidence does not support the view of settlement across north and west Epi by speakers of Efate languages. The process by which this tradition has seemingly been altered is easily understood when considering Young's (1992) insightful remarks about working among the Epi people 'whose roots were so shallow, tenuous and tangled', and who were, at the same time, involved in a 'restless reinvention of their culture' (Young 1992:216). These remarks highlight the powerfully dislocating impact that European contact, and the colonial experience, had on Epi's culture and society.

A second oral tradition and song, recorded by the author and apparently coeval with the period of occupation of Purvanua, describes the activity of two women searching deep inland for the bush-rope called *Bao*, an wild edible rope with tubers similar to yam and known as a reliable food source during times of famine. During this narrative, the two women were described cleaning debris blocking the mouth of a spring water source when they

happened upon a live man buried just under the ground. The women pulled the man out and he dusted himself off. The symbolism of this narrative seems plain; progenitors of Epi's future population, in a dire situation and utilizing food sources only ever consumed during famine, searching for life-sustaining water, find a man buried under the ground. Significantly, famine and limited freshwater availability are two expected environmental conditions following an eruption on the Kuwae scale.

ARCHAEOLOGY, ETHNOGRAPHY, AND HERITAGE PLACES - SETTLEMENT IN THE POST-ERUPTION PERIOD

In continuing the discussion of Epi's changing settlement pattern, it is clear that at some point during the period of population expansion from Purvanua, an input of products and ideas, and seemingly also people, occurred from Malakula across north and west Epi. As mentioned above, it is also clear that people of the Efate-Shepherds cultural group settled around the southeast Epi region. Together, these external influences were ultimately responsible for the cultural mosaic, or crossroads, that Epi had become by the time of contact (Bonnemaison 1996:221).

Prior to Bedford and Spriggs' archaeological reconnaissance along west Epi in 2005, no archaeological excavations had been undertaken on the island.[7] During their fieldwork several collections of pottery, gathered as curios by villagers from their gardens, were examined. This material was identified as being very similar in form and design to Malakulan pottery dating to the last 500 years (Bedford pers. comm. 2005). Excavations at coastal and inland sites of west Epi recovered this same type of 'Malakulan' pottery exclusively within the upper portions of the surface tephra layer at each site. This pottery type clearly belongs to the post-eruption period of settlement on Epi and suggests a clear contact between the two islands (Tryon 1999:117-18).

Malakulan influence is present in the ethnography of north and west Epi and is also strongly reflected by the cultural heritage sites present across this region. Deacon recorded several rank names for the *Nimangki* graded societies of west Epi, noting that Lamen Island, northwest Epi, was the most likely route of entrance of these graded societies into Epi (Deacon and Wedgewood 1929:498-506). Lamen Island's origin narrative clearly implicates Malakula as the source of the small island's founding population. The island also reveals archaeological influence from Malakula, especially in the large stone tables, or dolmens, used for the pig-killings of the Nimangki grades (Figs 4 & 5). Individual dolmens are also associated with abandoned men's-houses (*kumal*) in the villages of Paia and Nikaura, northeast Epi (Capell 1938), and may represent the former presence of graded societies. This 'road' through Lamen was also most likely responsible for the presence on Epi of customs of the *Tumbo na Toru*, probably derivative from Malakulan Ambat hero traditions (Reisenfeld 1950:95). Finally, Reisenfeld mentions the use of imported Malakulan carved figures around northeast Epi, while the Russian ethnographer Miklouchо-Maclay (1879) drew a carved ancestor figure, likely from north or west Epi, that may well have been the result of such an import.

Figure 4. One of many pig-killing dolmen stones from Lamen Island. Photo courtesy of the Vanuatu Heritage Register (VHR), Roe (1993).

Figure 5. Two of three dolmen support stones still standing. This place is remembered for its role in the sacrifice of a posen lesepsep *(devil). Elder Ruben of Paia village in picture. Photo Andrew Hoffmann, 2004 (VHR).*

An abandoned ceremonial ground (*nasara*) just inland from Nelson Bay, west Epi, shows where a series of 2 m high stones stood and dominated a smaller series of stone 'enclosures', each roughly 3 m long. These possibly framed upright carved figures, reminiscent of Malakulan *Nimangki* structures (Figs 6 & 7). In the 1920s the eth-

nologist Bernard Deacon noted, following a brief conversation with an Epi male, that

> no stones were set up round or in front of the *tavuru* [carved image]

for Epi *Nimangki* ceremonies. It would seem that this opinion was misleading, or that by the time Deacon visited Epi the *Nimangki* had evolved and changed, restricting or removing altogether the use of stones.

Figure 6. Selvie Charlie, an Epi Cultural Fieldworker, standing by one of the large megaliths at Lumbil nasara.

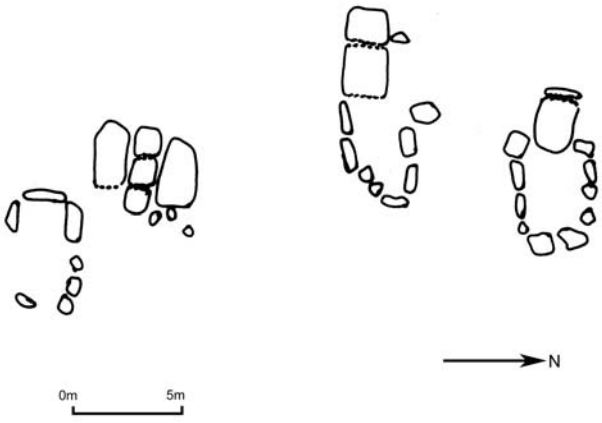

Figure 7. Plan of Lumbil nasara megaliths. Courtesy: Vanuatu Heritage Register (VHR)

More information is forthcoming for southeastern Epi, from both the ethnographic material and the heritage places present there. Bonnemaison's map of the traditional social structures of Vanuatu clearly draws a line differentiating Epi's western and northern regions from the southeastern region, the latter being allied with the Efate-Shepherds cultural area and described as a title system chieftainship of "Polynesian type" (Bonnemaison 1996: 201, Fig 227). Within the latter, power is transmitted by the passing of hereditary custom names. These are held by the highest chief, together with an "ordered set of lower titles all owing allegiance to the chief" (Bonnemaison 1996:212).

The first detailed information available about the island of Epi dates only from the 1880s, although there had been intermittent contact with Europeans for something like a century by that time. Since the 1880s, remarks have been made about the presence of a dialect of the Efate language Nakanamanga (now extinct) in southeastern Epi (Ray 1893:107-8; Miller 1987:344-5). The former presence of this community is clearly reflected in heritage properties that include the supposed grave of Roi Muri, brother to the significant north Efate chiefly figure Roi Mata, along with numerous other graves of chiefs such as Varatia Mata. These structures are reminiscent of chiefly burials on Efate, especially the presence of conch shells at the base of obvious headstones (Figs 8 &9).

DISCUSSION AND CONCLUSION

Available geological evidence indicates that the Kuwae eruptive impact was far more severe across southeastern areas than across north and west Epi. Physically, the evidence makes it unwise to rule out the possibility of human survivors in the latter areas. It is also possible that groups fled and returned to reoccupy Epi, as a population unit which maintained its linguistic characteristics. Nevertheless, at least 40-60 cm of tephra covered most of Epi, which certainly had deleterious effects on crop production and viable garden lands, and also would have made access to fresh water sources difficult. The island environment was reduced in its ability to support large populations for some time, perhaps years, and it is probable that significant mortality followed.

Linguistic evidence for Epi is limited, but the comparative work published by Clark (1985) and Tryon (1976a; 1976b; 1986; 1985) strongly suggests that Epi's five languages together form a small closed sub-group (Tryon 1976). The significant split between the Epi languages and those spoken further north suggests that population movement from Malakula, Ambrym and Paama was not a dominant process in the resettlement of Epi. Moreover, the distant relatedness between the Epi languages and those of Efate suggests that speakers of Efate languages were not responsible for settlement across western or northern Epi, although the southeastern region was clearly resettled by members of the Efate-Shepherd lnguistic group.

Without discounting the probability of significant influence from neighbouring islands through trade and some level of migration, it is argued that the major process of population regrowth and spread across Epi following the eruption was internal. As a result, some of the languages of old Kuwae should have been maintained, such that the languages of Epi probably represent survivors of the linguistic diversity present on Kuwae prior to the eruption. Further comparative linguistic work is needed to clarify this point.

At least two oral traditions from Epi clearly relate to the period following the eruption and are suggestive of population continuity. The origin narrative about Pur-

vanua and the spread of population from here across Epi broadly reflects the process of language distribution on Epi, and explains the movement of Lewo speakers down the eastern coast. This narrative names places and villages present on the post-Kuwae landscape surface today, implying the villages belong within the post-eruption period.

Figure 8. View of Roi Muri's grave at Gamal Pokasi, Filikara, south east Epi (courtesy VHR archives).

The second narrative symbolises the devastated environment following the eruption, and the survival of the population. Reference to the consumption of hardy famine food and the difficulty in accessing fresh water, as well as reference to a possible revival of population from 'under the ground', together seem clear as applying to the post-eruption period.

Bedford's observations of the presence of Malakulan type pottery in excavated sites in western Epi provides strong evidence of contact between the two islands, as discussed by Tryon (1999). It also highlights the potential for future archaeological research on Epi. The unique situation of a trade partnership between Epi and Malakula during the last 500 years may provide much insight for studies into the 'reality' of archaeological interpretations based on ceramic form and design.

The scarce ethnographic evidence available for Epi highlights cultural traits in common with Malakula, namely the presence of the *Nimangki* society and the *Tumbo na Toru* - Ambat related cultural heroes. Heritage properties in north and west Epi also implicate Malakula as an important source of cultural inspiration across that region. Present knowledge about the development of graded societies suggests that their entrance into central Vanuatu was very late in history, and that Epi marked their southerly limit. Therefore, refined survey in Epi may provide some chronology for the presumed southern spread of these graded systems.

Figure 9. Roi Muri's grave headstones and conch (bubu) shells, Filikara, south east Epi (courtesy VHR archives).

In contrast to the Malakulan influence in north and west Epi, refugees returning from Efate to the Shepherd Islands also reoccupied areas along Epi's southeastern coastline. The heritage properties present around villages like Filikara, including the possible grave of Roi Muri and his *farea* grounds, reflect well this cultural history. The potential for archaeological investigation of this and other graves will add to existing interpretation of the Roi Mata grave on Retoka Island, Efate, excavated by Garanger (1972) in the 1960s. Finally, research into the antiquity of the unique cultural interface between the graded societies and the 'Polynesian' type society found at contact on Epi may be particularly rewarding, especially as a model for better understanding settlement and cultural exchange in this volcanic archipelago.

NOTES

1. Europeans have been aware of versions of the Kuwae oral tradition since Oscar Michelsen, missionary to Tongoa, first documented it in the 1890s (Michelsen 1893 see also Johnston 1995:235). Frederick seems to be the first geologist to discuss the eruption (Frederick 1893). Significant among this past corpus of research are the studies by Hébert (1963-5), Espirat *et al.* (1973) and Garanger (1972), who documented the oral traditions, archaeology and geology of the Kuwae event from the Shepherd Group 'point-of-view', providing evidence supporting

the historical accuracy of the Shepherd Islands oral traditions of Kuwae and re-vivifying interest in the region.

2. Only piecemeal ethnographic records exist, the languages are over all poorly documented and no adequate descriptions of Epi society are available. See Early (1994: ch 2); Lynch & Crowley (2001:100-107); Miller (1987:344-442) and Young (1992). See also Capell (1938); Deacon (1929); Miklukho-Maklai (1879); Riesenfeld (1950) and Speiser (1996[1923]).

3. With invaluable assistance from Salkon Yona, Epi island fieldworker for the Vanuatu Cultural Centre, and under the auspices of UNESCO's World Heritage Centre, the main objectives of this fieldwork were guided by the republic of Vanuatu's *World Heritage Preparatory Assistance Project* goal to define a Volcanoes Serial Site nomination.

4. Made during archaeological reconnaissance for Spriggs' and Bedford's 2005-07 *Northern Vanuatu as a Pacific Crossroads* project, supported by the Australian Research Council.

5. See Tryon, D. (1999) discussion of a likely pottery trade from south Malakula to west Epi.

6. The present author mapped the movements of people according to one informant, Late Benyamin of Rovobay Epi. However, multiple informants interviewed during research mention similar spreading of populations across Epi.

7. See Roe (1993) and Damilip & Huri (1995) for note and reports prepared by the VCHSS following two brief heritage surveys on Lamen Islet, just to the northwest of Epi Island proper, and areas of northeast Epi.

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