

8

An update on Late Lapita: Its manifestations and associated implications

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Abstract

It is now more than 20 years since Summerhayes introduced the concept and framework of Early, Middle and Late Lapita in an attempt to more accurately define and categorise the distinctive pottery found across an extensive zone in the south-west Pacific. Since that time, the terminology has been universally accepted and many more sites containing Late Lapita have been uncovered. This paper summarises current knowledge in relation to Late Lapita pottery across the distribution and what it implies in terms of Late Lapita societies. It suggests that while there are a series of motifs and decorative techniques that show similarity across the distribution, as argued by Summerhayes, the current evidence is overwhelmingly indicative of increasing regional diversification in Late Lapita pottery styles. Communities who had been established for several generations began to build an increasingly local identity, comprising both elements of their heritage and regionally specific social and physical environments.

Introduction

Lapita pottery first appeared on the global stage, or at least to a select educated elite, more than 100 years ago with the publication of Father Otto Meyer's finds of very distinctive highly decorated pottery from Watom Island in the Bismarck Archipelago (Meyer 1909). Since that time, generations of interested and informed individuals, through the implementation of formalised small and major archaeological research projects, have contributed to the current understanding of what Lapita pottery represented and its position in the history of Pacific colonisation and settlement (Kirch 2017:74–106; Sand 2010a). It was from the 1970s that regional and chronological variation in Lapita pottery was first identified. Green carried out detailed summaries of Lapita pottery, based on vessel shape and the style and frequency of decoration, ultimately identifying regionally distinct styles, namely Western and Eastern, which he suggested were influenced by both temporal and spatial aspects (Green 1979). A distinctive Far Western style, thought only to be found in the Bismarck Archipelago, was soon added (Anson 1986). The idea that Lapita provinces (Far Western, Western, Eastern and Southern) was perhaps a better way of conceptualising Lapita was also subsequently proposed (Kirch 1997; Sand 2000). Finally, the later characterisation and relabelling of Lapita

pottery across its distribution as Early, Middle and Late by Summerhayes largely replaced the long-standing geographically specific terms and provinces (Summerhayes 2000, 2001). This both moved away from geographic-specific terms but also argued for connections across the distribution from New Guinea to Tonga during the Middle Period (former Western) and although diluted, even into the Late Lapita Period.

While the distinctive pottery has always been a focus of Lapita culture studies, the poor preservation and mixing of most Lapita sites and the generally small nature of the sherds from the now 293 sites (Bedford et al. 2019), has always been a challenge in terms of defining vessel form and full designs, and therefore in determining levels of similarity or difference. Another related challenging aspect of Lapita pottery studies is determining the definitive chronology of particular sherds from sites that might represent mixed deposits encompassing Lapita occupation over several generations. The end of Lapita is also generally associated with sites that date within a flat section of the radiocarbon calibration curve so dates often have a standard deviation that covers hundreds of years, which makes them of limited use in determining in any fine detail the period that Late Lapita encompasses.

It was this situation, of primarily dealing with small mixed sherds, that originally stimulated a focus on motif comparisons (Anson 1986; Green 1979) and perpetuated it as a major area of research (Chiu 2019; Chiu and Sand 2005; Noury 2019; Summerhayes 2000). However, there are inherent pitfalls in placing too much emphasis on the quantitative comparison of motif suites as attributes, as the complexity of dentate-stamped application or the position on a vessel can be equally suggestive of different periods, regional connections or divergence (Burley and Leblanc 2015:181; Sand 2015). Equally problematic is whether motifs are in fact being shared or are simply derived from earlier more complex designs, friezes or bands (Burley et al. 2002; Sand 2015).

While there is variation across the Lapita distribution and there are many challenges related to mixed deposits, chronological accuracy and gaps in sampling, for the purposes of this discussion a broad definition of Early, Middle and Late Lapita is outlined. There is of course an arbitrary element to aspects of any chronological and stylistic division of Lapita as it was a pottery tradition that represents continuous production over more than 400 years, at least in some regions. There are no abrupt breaks in the pottery style. Early Lapita appears in the Bismarck Archipelago at around 3200 to 3000 BP across a number of sites and is largely restricted to that region (Kirch 2021:162–163; Specht and Gosden 2019).¹ Distinctive vessel forms that dominate the earliest assemblages and are not found in sites further east include: open bowls that are sometimes on stands and in some cases have stepped rims and legs; flat dishes with cut-outs on the rim; and base and pedestal stands with excising and or full cut-outs through the vessel wall. Other forms that are common and found in later assemblages include jars, some of which were carinated. Fine dentate stamping where the decoration is tightly spaced is dominant, sometimes in association with applied relief, but coarser dentate, incised and plain vessels are also present (e.g. Kirch 2021:318–319; Summerhayes 2000:231). Middle Lapita develops from around 3000 BP and is associated with the rapid movement and initial colonisation of previously uninhabited islands from the Reefs–Santa Cruz across to Tonga. Carinated jars and flat dishes, some of which are connected to stands or pedestals,² dominate the assemblages. Carinated jars with incurving rims also feature. The dentate stamping is less fine and the designs less concentrated (Sand 2015:145–160). Incised and plainware vessels remain a component of the assemblages. From around 2800 BP Late Lapita develops and is described by most researchers,

1 In the earliest sites in the Reefs–Santa Cruz (SZ8) and Vanuatu (Makué), there are a very limited number of sherds/vessel forms that suggest some elements of Early Lapita. These are primarily excised stands and dishes with collared and cut-out rims (see Bedford 2015:37; Sand 2015:147–149).

2 The majority of which are not excised and none have cut-outs through the vessel walls.

in contrast to Early and Middle, comprising fewer vessel forms (i.e. stands and dishes have dropped out) of smaller dimensions, carinated vessels became less common and unique new vessel forms appear. The dentate decoration comprises more simplified patterns executed in an open and sparse style, often in the form of single lines (curved or linear) with stamps whose teeth were rectangular in form and were around 1–2 mm in size, as opposed to the earlier needle-point dentate. A new distinctive decorative technique, namely shell impression, is also present. Zone markers, a defining feature of Middle Lapita designs, particularly on carinated vessels, become rare. Overall, Late Lapita is thought to have undergone a simplification in both form and decoration that involved diminished input of labour and a shift away from stricter social rules relating to vessel form and design use in association with pottery function (Bedford 2015, 2019; Bedford and Galipaud 2010; Burley et al. 2002; Burley and Dickinson 2004; Clark 2007; Clark and Anderson 2009; David et al. 2011; Sand 2015; Specht 1968:131–132; Summerhayes 2000; Wu 2016). It is difficult to be definitive regarding the timing of the end of Lapita due to the flat section of the calibration curve at this crucial period, but most archaeologists would agree that dentate stamping continuing anywhere much beyond 2700 BP seems highly unlikely (Burley et al. 2018; Kirch 2021:163; Sand 2010b:233).

The focus of this paper is to profile Late Lapita pottery, that phase of production that demonstrates some connection with the final use of dentate stamping across the distribution, and discuss what it implies in terms of Late Lapita societies. Current data suggests that while there are a series of motifs and decorative techniques that show similarity across the distribution, as argued by Summerhayes, the overall trend is indicative of regional diversification, with some near neighbour connections developing in Late Lapita pottery styles. Communities who had been established for several generations began to build an increasingly local identity, comprising both elements of their shared heritage, and regionally specific social and physical environments.

Late Lapita

This review of Late Lapita is necessarily selective and restricted, largely due to logistical considerations, but also to enhance accuracy. It focuses on *stylistic attributes*, primarily on vessel form and decoration where dentate stamping has been recorded and securely provenanced. Other associated vessel forms are discussed and an exception is made for shell-impressed decoration that is generally recognised as a distinctive and unique decorative technique that appeared in association with the demise of dentate stamping. Incised decoration is another significant component of the Lapita story generally, including the Late period, but is not focused on here. Pottery production and compositional aspects are also not included, although most researchers have demonstrated that Late Lapita pottery overwhelmingly tends to be produced with locally available clays and tempers.

After undertaking a census of available data in theses, published material and online databases that include Late Lapita across the distribution, it is quickly apparent that there are major gaps in the data available. In some regions in Remote Oceania, it is well defined and represented in both vessel form and full design motifs. These include particularly Fiji and Tonga and to a lesser extent New Caledonia and Vanuatu. Others, where a distinctive Late Lapita pottery style is more difficult to determine, include Samoa, where there is only one known Lapita site to date, the submerged site of Mulifanua (Green 1974:172; Petchey 1995). However, the sherds from that site in combination with the limited number of Lapita sherds from Futuna and ‘Uvea Islands (Sand 1990, 1998) all provide some detail on Late Lapita and can be connected with the much more robust Tongan pottery sequence. Perhaps surprisingly, the Reefs–Santa Cruz Lapita pottery collections, which number in the thousands of sherds, provide limited detail on Late Lapita. Most of the sites were

heavily mixed and the sherds are generally small. In Near Oceania, the situation is varied, with the Solomon Islands having a very limited number of sites, mostly in the intertidal zone, where the dentate-stamped sherds are again generally small. In the Bismarck Archipelago, where the largest number of Lapita sites are known, the sherds from Late Lapita sites tend to be small and often come from mixed deposits. While there is abundant evidence of expanded or more open designs, the use of less refined tools, and sherds with shell impression, establishing full design structures and vessel forms is difficult (Wu 2016). On mainland New Guinea, the sites located at Caution Bay provide important data relating to this period, as they are all essentially date to the Late Lapita Period and there are a number of reconstructable vessels (David et al. 2011).

Regional profiles

Tonga

The Tongan archipelago is almost the ideal situation archaeologically for defining Late Lapita in the far east of the distribution. Over many decades, focused research has recorded 34 Lapita sites across 12 islands, almost all of which are described as Late (Bedford et al. 2019). There is only a single major site, that of Nukuleka on Tongatapu, which has been identified as a founding settlement, where Middle Lapita-style pottery is well represented (Burley et al. 2012). The later transition from Late Lapita to plainware is argued to be generally easily identifiable, with Lapita occupations largely located on beach sands, while plainware sites tend to be associated with stratigraphy that indicates a build-up of sediments and rapid midden accumulations (Burley et al. 2001:101). However, even in such potentially ideal conditions there are limitations on precise definitions for Late Lapita, particularly due to sherd size.

In a summary of vessel typology, Burley et al. (2002:217) cautioned that as different types were established primarily through rims only, it could only be considered as a general approximation and that it was likely that an extremely high degree of variation in vessel form existed in the Tongan decorated pottery assemblage overall.³ Connaughton (2014), who specifically focused on trying to define and delineate Late Lapita and Polynesian Plainwares in Tonga, further refined this. The broad summary of vessel forms is outlined as follows: small cups/bowls of less than 12 cm in diameter, everted to straight-rimmed bowls, inverted rimmed bowls, short-necked jars, everted rim jars and a distinctive collared rim jar (see Figures 8.1 and 8.2). All assemblages are dominated by everted rim jars (both carinated and globular), while bowls with everted/straight rims and inverted rims are the second and third most dominant forms. These two forms dominate all collections and account for between 25 and 54 percent of all vessel forms. Vessels with handles also appear in Tonga during Late Lapita, although this is poorly defined (Burley et al. 2002:216–217, Table 3; Connaughton 2014:96–101, Fig. 4-2, 5-2; Kirch 1988:158, Fig. 95).

³ This is particularly emphasised in the category 'strongly everted jars', where carinated vessels are grouped together with flat-bottomed dishes (although are not considered associated with Late Lapita) and carinated and globular jar forms are combined (Burley et al. 2002:Fig. 2). This broad grouping is acknowledged (Burley et al. 2002:217, 223) but it has also demonstrated that carinated sherds are a dominant feature of many sites and often associated with decoration (Burley et al. 2002:Table 4; Connaughton 2014; Kirch 1988:158).

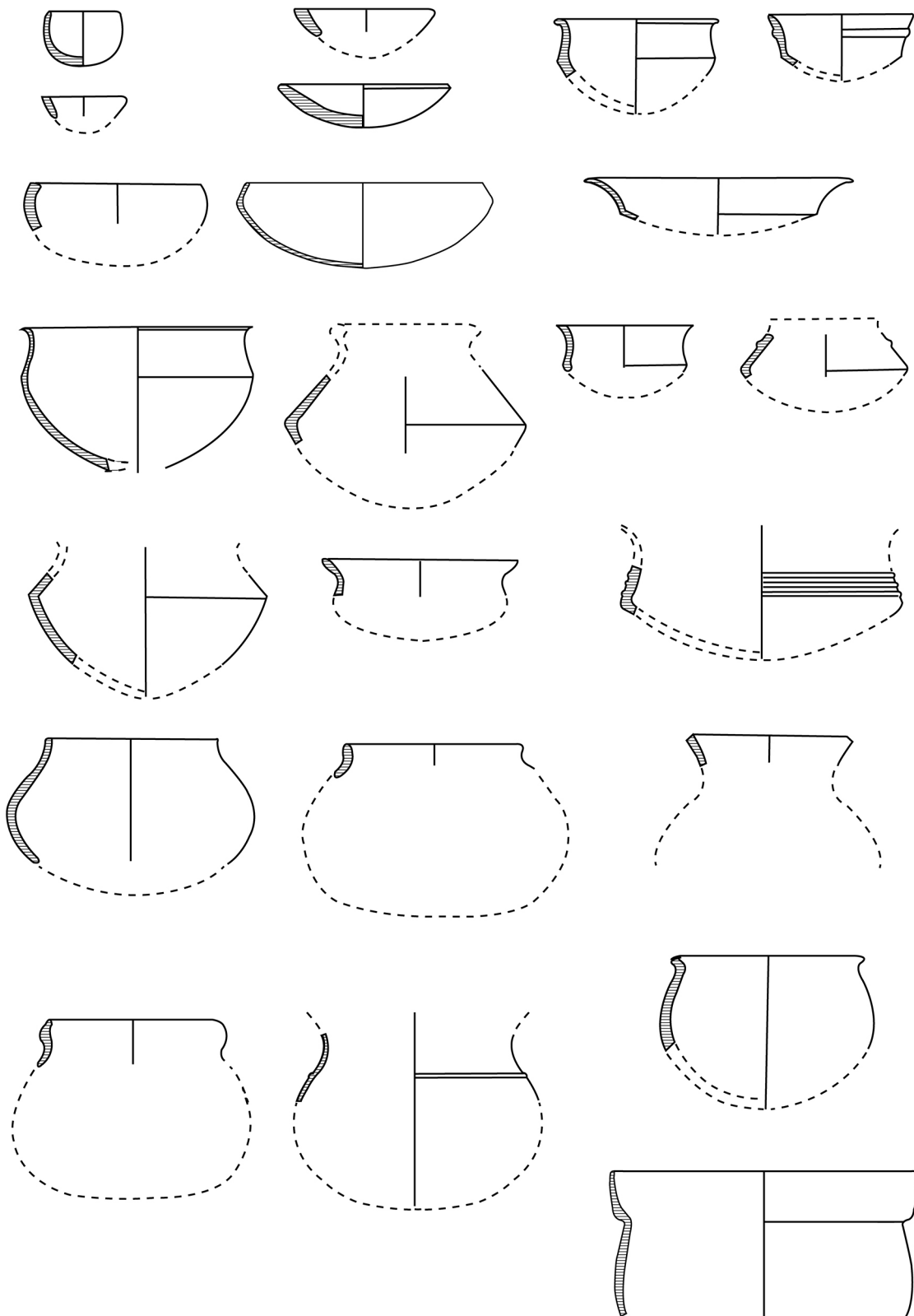


Figure 8.1: Summary of Late Lapita Tongan vessel forms. Not to scale.

Source: Derived from Burley et al. (2002); Connaughton (2014); Kirch (1988) and Poulsen (1987).

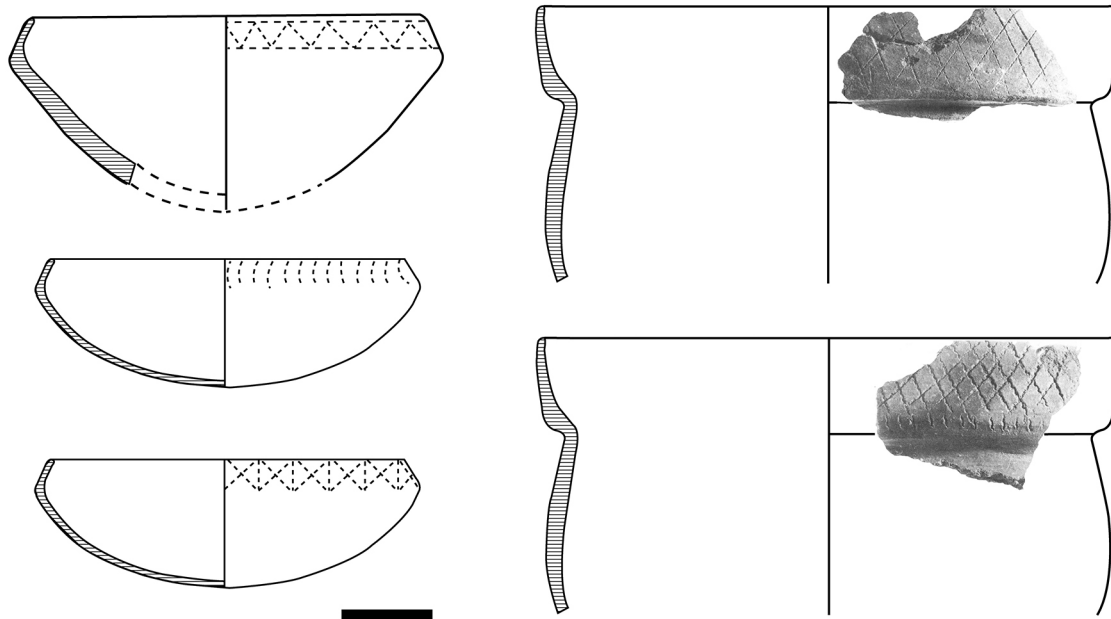


Figure 8.2: Dentate and shell-impressed Lapita designs from Tonga.

Note: The crosshatched motif on the collared vessels are in dentate stamping and shell impression. Black scale is 5 cm.

Source: Adapted from Poulsen (1987).

Late Lapita decoration in Tonga is characterised by expanded and simplified dentate-stamped designs that are consistently applied across the range of vessel forms (Burley et al. 2002:220, 223; Connaughton 2014:166). Over 230 design motifs, categorised into 25 themes, have been identified across Tonga. This includes the Nukuleka site, so the data may be skewed in terms of what characterises Late Lapita,⁴ but it is significant to note that across all the recorded sites only a very small number of design motifs dominate. Six categories account for over 70 per cent of motif applications in the assemblage as a whole (Burley et al. 2002:Table 7, Fig. 3). The dentate-stamped designs overwhelmingly comprise single lines (see Figure 8.2). Other decorative features that are common include applied relief, occurring as raised horizontal bands (sometimes multiple and often notched), vertical bars and as nubbins. Incision and shell impression is present and used frequently to apply the same suite of motifs as dentate stamping (e.g. Figure 8.2) and can be found in combination on the same vessel in several cases (Burley et al. 2002:218, Table 5).

Samoa, Futuna, ‘Uvea

The number of Lapita sites and recovered pottery from Samoa, Futuna and ‘Uvea is very limited, compared to other regions. They comprise the single submerged site of Mulifanua for Samoa (Green 1974; Petchey 1995), one site on Futuna and three on ‘Uvea (Frimigacci 2000; Sand 1990, 1998). Despite the limited assemblages, they do provide some detail as to the nature of Lapita in the region and the connections with near neighbours. The focus here is pottery from Mulifanua where, over a number of years, a significant number of diagnostic sherds (558), albeit small and worn, have been collected and studied in some detail (Green 1974:170–175; Petchey 1995:55–89). The dentate decoration illustrated from this site is striking for the domination of single-line dentate with notable gaps between stamping—that is, the designs are expanded and simple (Green 1974:172; Petchey

⁴ Although the site is heavily mixed, Burley et al. (2002:222) argue that the same design percentages are valid for Nukuleka.

1995:Fig. 3.5–9, Table 3.5). Notched applied relief is also present. These features and the motifs have clear parallels with Late Lapita decoration in Tonga. Vessel form is more difficult to establish and is more speculative due to sherd size. Petchey (1995:Table 3.8) proposed seven suggested vessel forms, most of which have parallels in the Tongan and Fijian Late Lapita, including collar-rimmed vessels, shallow bowls and cups.

Fiji

The well-preserved archaeological deposits identified in the Sigatoka dunes of Viti Levu Island in Fiji provide an almost unique and ideal situation in regard to defining Late Lapita pottery. A series of three discrete cultural horizons were long ago identified at the dunes (Birks 1973), each separated by layers of sterile sand, which incorporated different phases of the Fijian ceramic sequence. The tight chronological window represented in each of the phases and the limited disturbance of the large collections of pottery,⁵ enabled the reconstruction of a whole series of vessels that date to the Late Lapita phase, found in the Level 1 deposits (Birks 1973; Burley and Connaughton 2010; Burley and Dickinson 2004; Petchey 1995). The collections from the different phases at Sigatoka have been crucial to the establishment of the Fijian pottery sequence and have allowed the identification, from much more fragmented collections, of the same vessel forms and decoration across much of Fiji.

A whole series of archaeological investigations have been undertaken at Sigatoka over more than 60 years. Major excavations associated with Level 1 deposits include the pioneering excavations of the Birks in 1965 and 66 (994 m² associated with Level 1 deposits) (Birks 1973); salvage excavations in 1993 following exposure of materials due to cyclone damage (Hudson 1994; Petchey 1995); and in 1998 and 2000, 85 m² was excavated when Level 1 deposits were exposed through natural erosion (Burley and Dickinson 2004). The Birks' identified a total assemblage of 87 diagnostically complete pottery vessels, along with partial vessels, pot lids, pot rests and pottery disks (Birks 1973:51–53). The main vessel forms comprised: open-necked jars (Type 1, five subtypes), bowls (Type 2, five subtypes), narrow-neck water jars (Type 3, four subtypes) and covers/lids (Type 4), then pot rests and discs (Figure 8.3). Pottery recovered from the 1993 excavations was more fragmentary. For example, 338 Lapita sherds were assigned to only four vessels. The four vessels were all carinated jars with outcurving rims (Type 1D), decorated predominately with single-line dentate stamping producing expanded motifs (Petchey 1995:106, Table 4.3). The later (1998, 2000) excavations identified 22 whole vessels, which largely aligned with the same earlier Birks typology, with the addition of a Type 2 variant (Figure 8.3e) (see Burley and Dickinson 2004:18, Table 2 and Appendix A for a summary). Another later find, following erosion from the same Level 1 zone, were large pieces of a carinated (Type 1D) vessel. The decoration was simple single-line dentate producing an expanded motif (Figure 8.3q) (Burley and Connaughton 2010:145). It both confirmed Lapita connections and a variation on vessel form and design that had earlier been identified in 1993 (Petchey 1995:112–116).

If the pottery recovered from these three periods of excavation is accepted as representing Late Lapita in Fiji, then it is characterised by a range of vessel forms with limited decoration, apart from notching on the rim of Type 1 vessels (Figure 8.3). It is overwhelmingly a plainware collection but there are a number of decorative techniques used, including dentate stamping on specific vessel forms (Birks 1973:51, Table 2; Petchey 1995:112–116). These are single-line dentates on the rim and body of Type 1 vessels (Figure 8.3d–f, n, p, q) and inverted rim, Type 2E bowls (Figure 8.3o). Other decorative techniques include shell impression (Birks 1973:162, Plate 25), incision, and rare applied relief (one example of nubbins and two of continuous notched applied horizontal relief (Birks 1973:154, Plate 8)).

5 Described as in good condition and 'undisturbed since deposition' (Birks 1973:17).

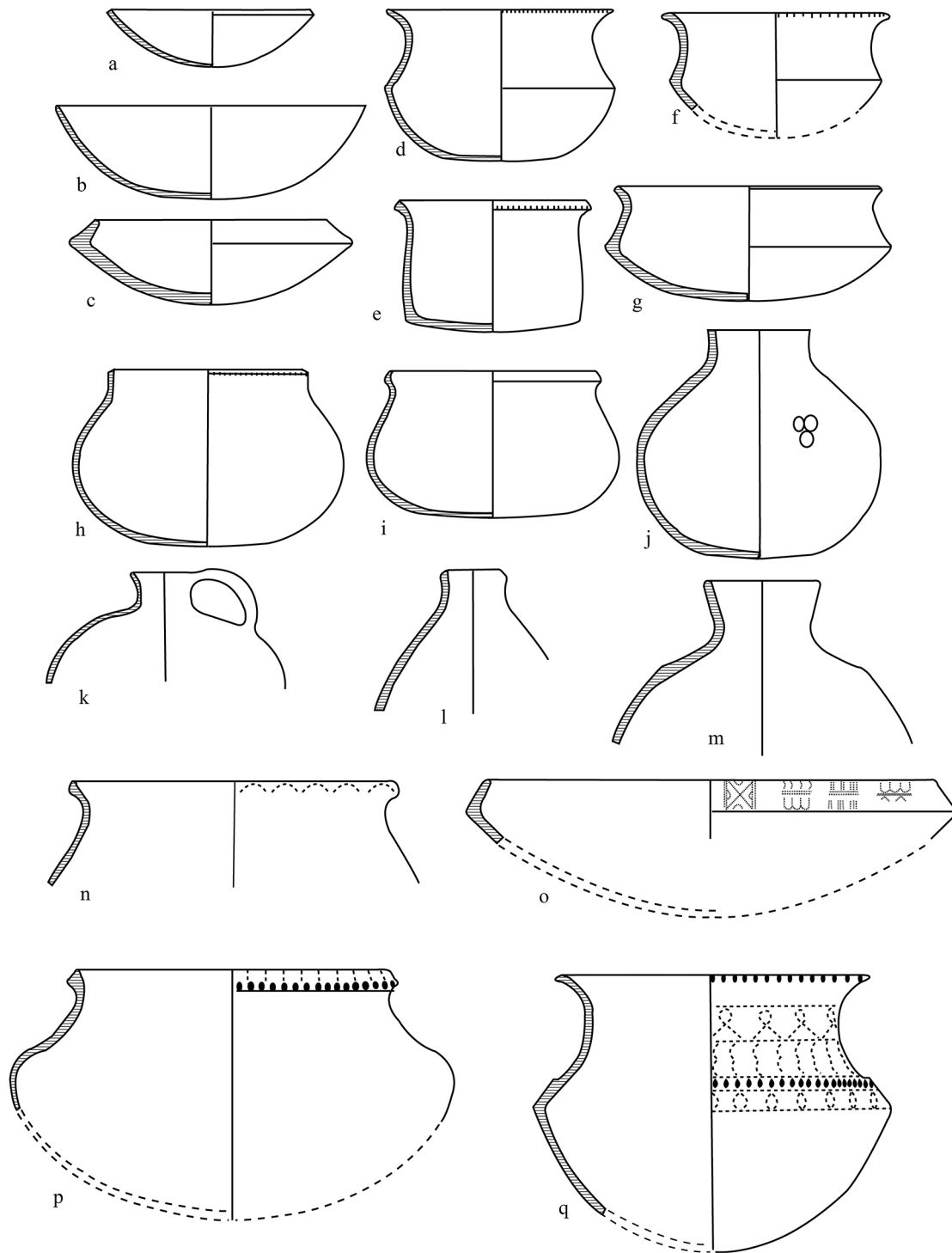


Figure 8.3: Summary of Fijian Late Lapita vessel forms and decoration.

Notes: Stands are not illustrated. Not to scale. (a–b) Type 2A; (c) Type 2E; (d), (f), (g) Type 1D; (e) Type 2 other; (h–i) Type 1C; (j) Type 3A; (k) Type 3B; (l) Type 3C; (m) Type 3A, (n, p) Type 1A, (o) Type 2E, (q) Type 1D.

Source: Derived from Birks (1973); Burley and Dickinson (2004) and Burley and Connaughton (2010).

Vanuatu

Across the Vanuatu archipelago, 30 Lapita sites have been identified (Bedford et al. 2019). However, many have collections of a limited number of small decorated or diagnostic sherds that provide limited information beyond dentate motifs. Those that are most useful in establishing Late Lapita in Vanuatu are those located on the islands of north-east Malakula, namely Vao and Uripiv, the Teouma site on Efate in central Vanuatu, and on Aneityum, the southernmost inhabited island of the archipelago. Lapita pottery from Malakula has been outlined and summarised (Bedford 2019) but even at these well-preserved sites, it is difficult to definitively tease out what might be Middle and/or Late Lapita. Rather, chronological and regional change in pottery form and decoration appears likely to have been very rapid in all periods, but this aspect is often obscured by both broad categorisations of Lapita pottery and radiocarbon dates (Bedford 2019:236). Even Middle Lapita on Vao clearly shows the development of new vessel forms and dentate-stamped designs when compared to other regions. Despite these challenges, a number of distinctive pottery features from these islands gives some indication of the last phase of Lapita in the north. A number of these features can also be identified among the very mixed collections retrieved from nearby Malo Island (Hedrick n.d.). There are the standard features, expanded motifs, larger dentate teeth, appearance of shell impression and a more limited range of vessel forms along with the development of other distinctive forms (Figures 8.4 and 8.5). The latter includes a carinated vessel that has an inverted rim and a ledge on the lower section of the carination (Figure 8.4j). Late Lapita vessel forms in the north as identified thus far are primarily restricted to carinated and globular jars with varying rim forms. Open bowls, so commonly seen in sites further east, are absent. Unrestricted zigzag decoration, both dentate and incised, is a signature feature (Figure 8.5). Shell-impressed decoration, in association with the Late Lapita decorative suite, has been recorded at Teouma and at sites on Malo and Santo Islands.

The Teouma Lapita site on Efate encompasses an occupation period of potentially several hundred years that starts with first arrival and Middle Lapita through to the Post-Lapita Erueti Phase (Bedford et al. 2010). More than 400 vessels have been identified associated with the Lapita period, which includes vessels primarily decorated with dentate stamping, but also incision and applied relief, and much rarer, shell impression. Like many other Lapita sites of prolonged occupation, it is not always easy to differentiate chronological phases in the pottery sequence and identify what might be definitively Late Lapita. A further complicating factor at the site was the identification of both fine and expanded dentate decoration (the latter usually assumed to be a feature of Late Lapita) in the earliest occupation phase of the site. A distinct zone of the site associated with the Lapita phase of occupation also had a high percentage of incised and plain carinated jars (Spriggs and Bedford 2013). There are, however, a number of distinct vessel forms and motifs that can be identified as Late Lapita at the site and others that might be categorised as such more tentatively, namely carinated and globular jars (Figure 8.4e, f). Again, open bowls are not present. An example of the very distinctive carinated vessel found in Malakula is also present at Teouma. A step or ledge is present on the underside of the carination and it is decorated with its own distinct face motif (Figure 8.4l). Other very simple dentate-stamped motifs occur on outcurving jars and globular incurving jars. Shell impression occurs on two vessels and a single sherd is decorated with a curved flat stamp (Figure 8.5g).

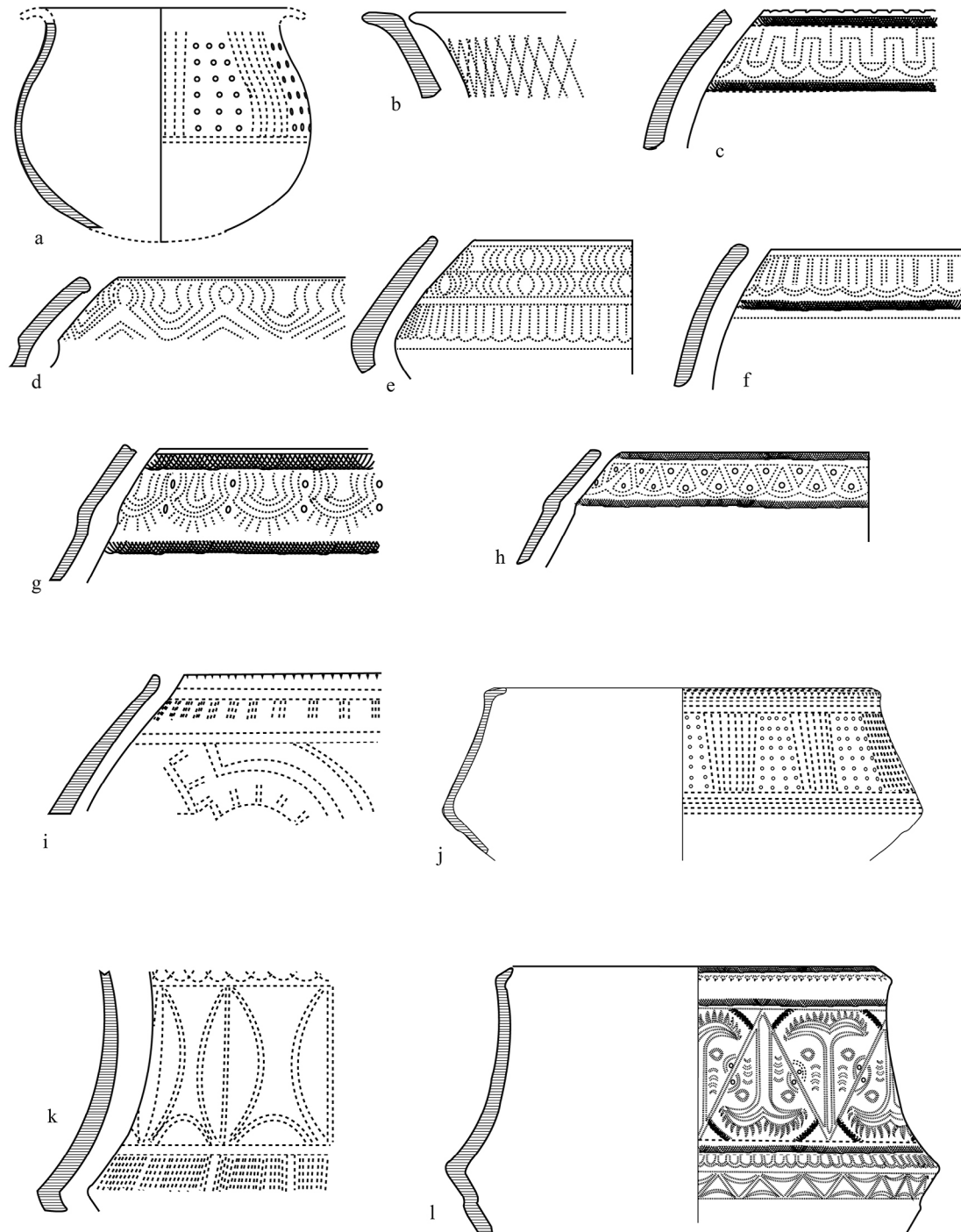


Figure 8.4: A selection of Vanuatu Late Lapita vessel forms and decoration.

Notes: (a) Impressed circles and single-line dentate, Vao Island; (b) single-line crosshatch on rim, Teouma, Efate Island; (c) globular jar with incurving rim, dentate stamping on rim (Vao); (d) globular jar with incurving rim, note step on rim (Vao); (e) globular jar with incurving rim and soft carination, single-line dentate (Teouma); (f) globular jar with incurving rim, (Teouma); (g–h) globular jars with incurving rim and step, dentate on rim (Vao); (i) globular jar with incurving rim, simple dentate, Uripiv Island; (j) carinated jar with inverted rim and step below carination (Uripiv); (k) carinated jar with expanded dentate motif (Uripiv); (l) carinated jar with inverted rim and step below carination, expanded dentate-stamped face motif (Teouma).

Source: Author's archive.

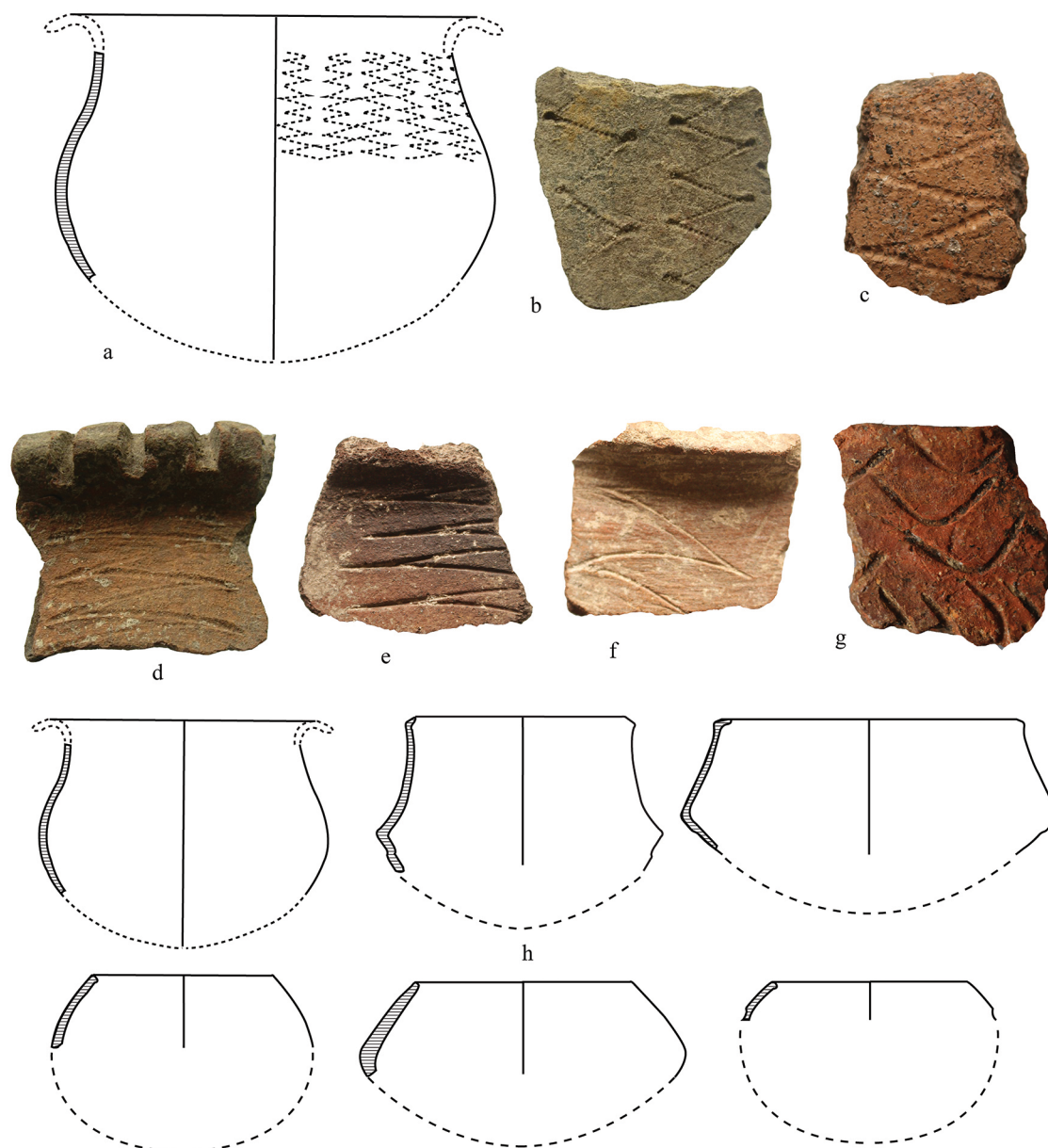


Figure 8.5: Late Lapita zigzag dentate and flat tool stamped decoration from Vanuatu.

Notes: (a–b) Dentate-stamped, Vao Island; (c) dentate-stamped, Aneityum Island; (d) flat tool zigzag (Vao); (e–f) flat tool and/or incised zigzag motif (Aneityum); (g) flat tool, crescent-shaped impressed motif, rim sherd, Teouma, Efate Island; (h) a selection of Late Lapita vessel forms found in Vanuatu.

Source: Author's archive.

On Aneityum, the only Lapita site thus far discovered is located at Anelcauhat Harbour on the south-east of the island (Bedford et al. 2016). All sherds are generally small and the only vessel form associated with Late Lapita at the site is a globular jar with outcurving rim. Decoration is dominated by unrestricted dentate-stamped, incised and/or impressed zigzag motifs (Figure 8.5c, e, f). Impressed zigzag and other motifs, which appear to have been made using a flat stamp, have also been identified in Late Lapita deposits in the Loyalty Islands (Sand 2010b:132, Photo 51; Sand et al. 2002:139, Fig. 10). In summary, Late Lapita across Vanuatu itself shows both variation and some level of similarity, but is very different, particularly in vessel form and dentate decoration, to what is identified as Late Lapita found in sites further east. Perhaps not surprisingly, closer affiliation, at least in some aspects, is found with sites in New Caledonia.

New Caledonia

New Caledonia has long been endowed with a multitude of Lapita sites (current total 38) identified across the Grand Terre and the adjacent Loyalty Islands (Bedford et al. 2019). The discovery over generations of large sherds from various sites and particularly the 15 largely reconstructable vessels from the burial pit at Koné have greatly enriched the definition of Lapita in New Caledonia. However, mixing of deposits at most sites is again a challenge in determining chronological phases of the pottery sequence, but a broad summary is outlined here, gleaned information primarily from Sand (2010b:97–167).⁶ The colonising phase in New Caledonia is characterised by Middle Lapita, identified at a whole series of sites across the islands. It is also a phase that goes through rapid transformation with a tendency towards a diminished suite of vessel forms of decreasing size and the development of a suite of distinctive dentate motifs. This has led researchers there to position and label Lapita from New Caledonia as a Southern Lapita variant or province (Sand 2010b:167). Late Lapita pottery displays further transformation and local variation, particularly between the Grand Terre and the Loyalties. There is an increase in the number and range of incised motifs, simplified, often single-line dentate-stamped motifs (Sand 2010b:Photo 56, Fig. 77) and the appearance of shell impression as a decorative technique (Sand 2010b:Photo 36). Vessel forms become more restricted, with carinated (generally less angular) and globular jars dominating, but also distinctive, unique vessels appearing (Figure 8.6). Unrestricted dentate-stamped zigzag motifs are common, and as noted above, the same motifs are produced in the Loyalties with a flat-edged tool. Paddle-impression also first appears in association with simple dentate stamping. Open bowls are absent.

⁶ Of the 38 identified sites in New Caledonia, 15 are classified as encompassing the period from Early to Late within the local ceramic series (Bedford et al. 2019).

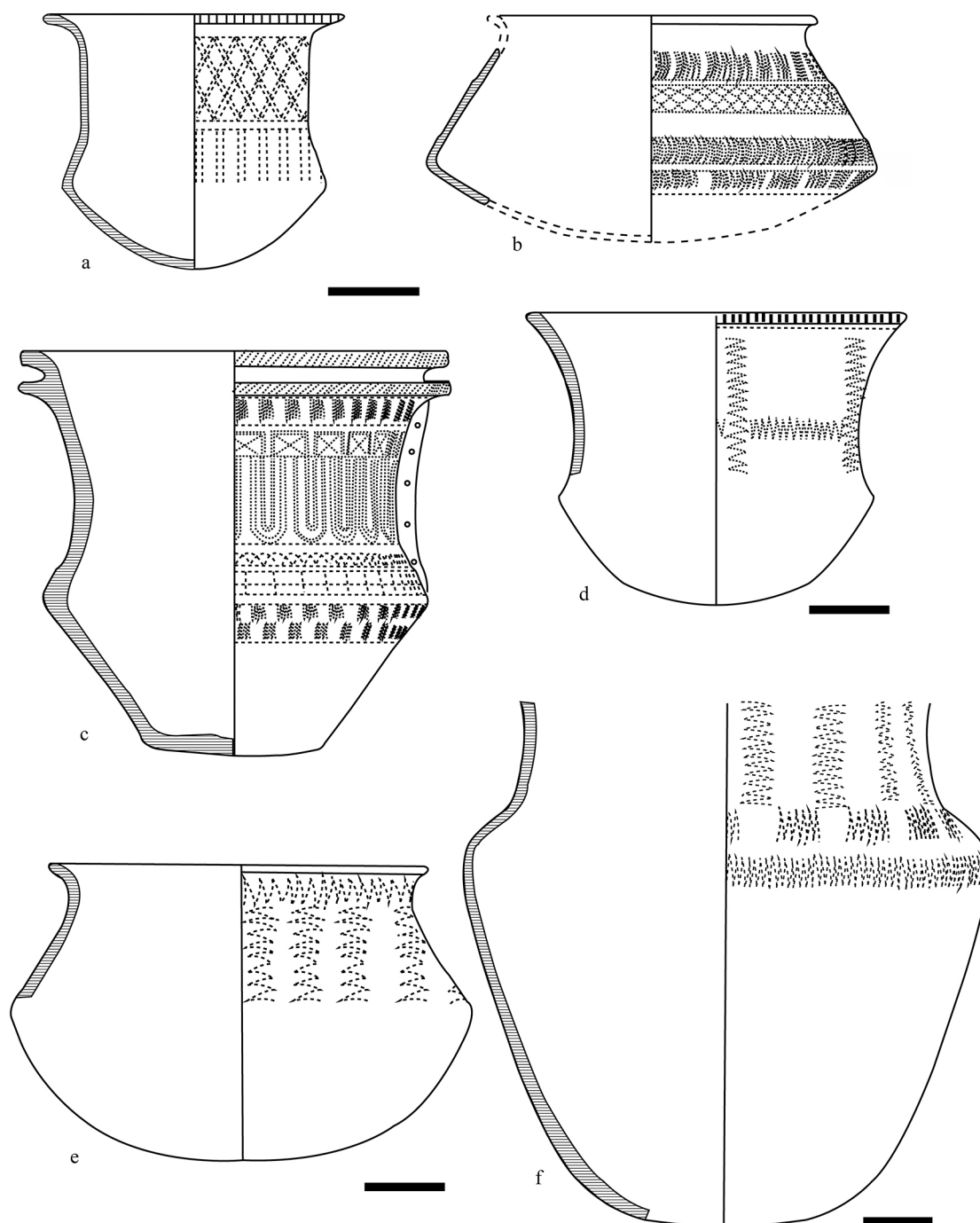


Figure 8.6: A range of Late Lapita New Caledonian vessel forms and decoration.

Notes: Zigzag dentate is prominent. (a) Patho site, Maré Island; (b) St-Maurice, Vatcha, Iles des Pines; (c–e) vessels from the Kurin site, Maré Island; (f) Lapita site, Koné. Black scales are 5 cm.

Source: All derived from Sand (2010b).

Reefs–Santa Cruz

The Lapita sites from the Reefs–Santa Cruz Islands have been central to much of the Lapita debate since their identification and excavation in the early 1970s. Due to their key location, as the first islands beyond Near Oceania, along with the abundant evidence for Lapita settlement, they were identified as both a key gateway into Remote Oceania and a central node of connection back to the homeland in the Bismarcks (Green 1979). The extensive excavations and recovery of thousands of decorated sherds were instrumental in the pioneering classification systems of Lapita pottery that were primarily based on motifs, and ultimately led to the identification and labelling of a distinctive Western and Eastern Lapita style (Green 1979). However, what has always been recognised was the shallow nature of all of the sites, the heavy mixing of the deposits and the small size of the vast majority of the sherds. Of the 9748 sherds (dentate, incised, other and plain) analysed by Donovan (1973) from the three major sites (RL2 [4545], RL6 [1549] and SZ8 [3654]), the majority came from the uppermost layer of all sites (described as garden soil) and surface collections (Donovan 1973:12–13, Tables 5a, 7a, 9a).⁷ Donovan identified and compiled a list of 99 motifs and associated alloforms from all of the pottery collections (1973:Appendix III, 1–64), which provided a foundational dataset for comparison that has been used for decades (i.e. Chiu 2019). Identification of vessel form was not attempted by Donovan due to small sherd size, but following a vast increase in the number of sites discovered elsewhere since, including a whole series of almost complete vessels, a reliable definition of vessel forms and associated designs has been recently completed by Sand (2015:146–159). However, almost all of the forms and designs illustrated are associated with complex vessel forms and/or designs that are most compatible with the Middle Lapita Phase. Only a single jar with outcurving rim, which displays a motif comprising very simple single-line dentate and incision, stands out as being potentially Late Lapita (Sand 2015:156, Fig. 34).

In summary, the Reefs–Santa Cruz collections overall provide limited information in terms of defining Late Lapita, both due to the mixed nature of the deposits but also because most of the sites may indeed not date to that period (Bedford et al. 2019:Table 1.1, 14–15). Donovan’s assessment of levels of skill in relation to the decoration of the sherds, where a 5-point scale was established, is instructive. It is significant to note that of the 5742 sherds that were assessed, only 177 (3%) were classified as fitting into the two lowest levels of skill (4 and 5) (1973: Appendix III, 77, Table 3). Shell impression was present although rare (10 examples) (Donovan 1973:Appendix III Table 5), as were unrestricted zigzag motifs and single-line dentate stamping.

Solomon Islands

The main Solomons chain has presented major challenges—much to do with geomorphological complexities—in terms of identifying Lapita sites, and some have even argued that the region was largely leap-frogged during much of the Lapita period (Sheppard 2011).⁸ Sites where dentate-stamped sherds have been recovered are extremely rare. Three sites have been identified in the intertidal zone in New Georgia Province that provide some insights into the Late Lapita Period, although the small number of dentate-stamped sherds⁹ and questions over chronology make determining full vessel form, design and possible associations with much of the collections difficult. Simple, single and parallel dentate stamping appears on carinated jars from Honiavasa and it is also found in

7 Dentate-stamped sherds from the surface (S) and uppermost Layer A (LA), from the various sites were as follows: RL2, S 40 (1.6%), LA:1647 (66%) 67% of total (2494); RL6, LA:586, 62% of total (949); SZ 8, S:416 (18%), LA: 789 (35%), 53% of total (2261).

8 Ten sites in total, seven in the North Solomons, and three in New Georgia (Bedford et al. 2019).

9 Seven from Nusa Roviana and Honiavasa (Felgate 2003:240, Table 16) and 5 from Poitete, Kolombangara Island (Summerhayes and Scales 2005).

association with horizontal notched applied relief and incision on one outcurving rim vessel from Nusa Roviana (Felgate 2001:Fig. 3). Shell-impressed decoration is also present at Honiavasa (Felgate 2003:228, Fig. 49). At Poitete, Kolombangara Island, dentate stamping is again simple and designs expanded; and vessel forms identified were restricted to carinated and globular jars with outcurving rims (Summerhayes and Scales 2005:15). Open bowls were not identified at any of the sites. Much greater numbers of dentate-stamped sherds have been found in the northern Solomons, including four sites on Buka (DJQ) and Sohano islands (DAF, DAA, DKC) and three on Nissan (DFE, DGD/2, DES) but all have been classified as Middle Lapita (Bedford et al. 2019; Spriggs 1991). Although there are hints of features that might indicate Late Lapita it is difficult to assess as the vast majority of the sherds come from intertidal deposits and only a limited number are illustrated.

Bismarck Archipelago

The Bismarck Archipelago is where Lapita was first identified and where by far the largest number of Lapita sites (88) have been identified to date (Bedford et al. 2019). The sites range from major settlements covering several 1000 m² to find spots where several sherds were found on the surface. The early sites in the Bismarck Archipelago were long ago identified as the earliest and most complex phase of the ceramic tradition, the Early Lapita style (Anson 1986; Green 1979). Summerhayes, in a series of publications where motifs, vessel form and production strategies were compared, has argued that the pottery from a number of these early sites is largely the same in almost all aspects indicating its arrival as a package (Summerhayes 2000, 2010). Early Lapita is largely restricted to this region although there are hints of certain decorative features, somewhat diluted, that are present in the earliest sites as far east as New Caledonia and Vanuatu (Bedford 2015). However, like most other regions in the Pacific, mixing of the Lapita deposits, at the vast majority of the identified sites, along with small sherd size has hindered defining a fully comprehensive Lapita pottery sequence. Designation of what might be described as Middle and/or Late Lapita often tends to be assigned through the radiocarbon dating of a site, rather than through pottery seriation or recognisably distinctive features. However, there are decorative features across many sites that can be associated with Late Lapita, including simpler often single-line dentate-stamped motifs, expanded designs, a more restricted range and some unique vessel forms, along with the appearance of shell- and flat tool-impressed (both curved and straight) decoration. For the purposes of this summary, the research of Wu (2016), who specifically focused on defining Late Lapita in West New Britain, is particularly informative. Her research built on that of Summerhayes (2000) and it highlights a whole series of distinctive dentate designs, vessel forms and decorative techniques that are likely to be associated with Late Lapita. However, it also demonstrates the mixed nature of many of the sites where designations as to period are assigned primarily through radiocarbon dates that at the end of Lapita fall into a flat section of the calibration curve.¹⁰

Wu (2016:374–376) and Summerhayes (2000:232–234) summarise and define Late Lapita from the Arawes and Garua as follows. There is a dramatic reduction in the range of vessel forms with flat dishes, stands and bowls dropping out. Vessel form became dominated by outcurving rim jars, and a new form, an outcurving rolled rim jar, appeared. Some of the latter were carinated. Dentate decoration continued but was coarser and less elaborately executed. Motifs often comprised well-spaced single lines and are found in combination or association with other decorative techniques including fingernail impression, wide incision, channelling, stick-impressed appliqué layers, scalloped appliqué layers and shell impression. Distinctive expanded motifs are seen particularly with a style

¹⁰ Wu noted that at some sites the Late Lapita samples were small and that the layers tended to be heavily mixed often with Post-Lapita contexts (2016:249).

of 'face' motif (sometimes a combination of dentate stamping and other techniques) that seems distinctive to the region and period (Specht 1991:Fig. 7a, b; Summerhayes 2000:121, Fig. 7.11; Wu 2016:240, Fig. 6.34a). Plain arc and straight-line stamping was also abundant. Also noted was some variation between sites.

Mainland Papua New Guinea

The discovery of Lapita pottery on the southern coast of mainland Papua New Guinea was a major advance, breaking through what appeared to be a Lapita boundary of long standing (McNiven et al. 2011). The recovered pottery is also very valuable in terms of discussions of Late Lapita, as almost all of the pottery discovered thus far dates to that period. The sites comprise primarily of those found in the Caution Bay area and a single site, named Hopo, on the east of the Vailala River in the Gulf of Papua (Skelly et al. 2014). Several decorated and plain vessel forms can be identified (Figure 8.7). Plain vessels include carinated jars with outcurving rims and globular jars with restricted rims (David et al. 2011:Fig. 6), while decorated vessels can be definitively identified on carinated jars and shallow bowls with straight or everted rims (David et al. 2011:Fig. 2; McNiven et al. 2012:Fig. 6). Overall, the dentate decorations are simple, expanded and applied with tools with coarse teeth. Shell impression is present (David et al. 2019:Fig. 3.12; McNiven et al. 2012:Fig. 7, c and e), as are impressed curved lines made with a flat tool (David et al. 2011:Fig. 2, b, e and h), a similar decorative technique noted in the Bismarcks, Vanuatu and New Caledonia during this period.

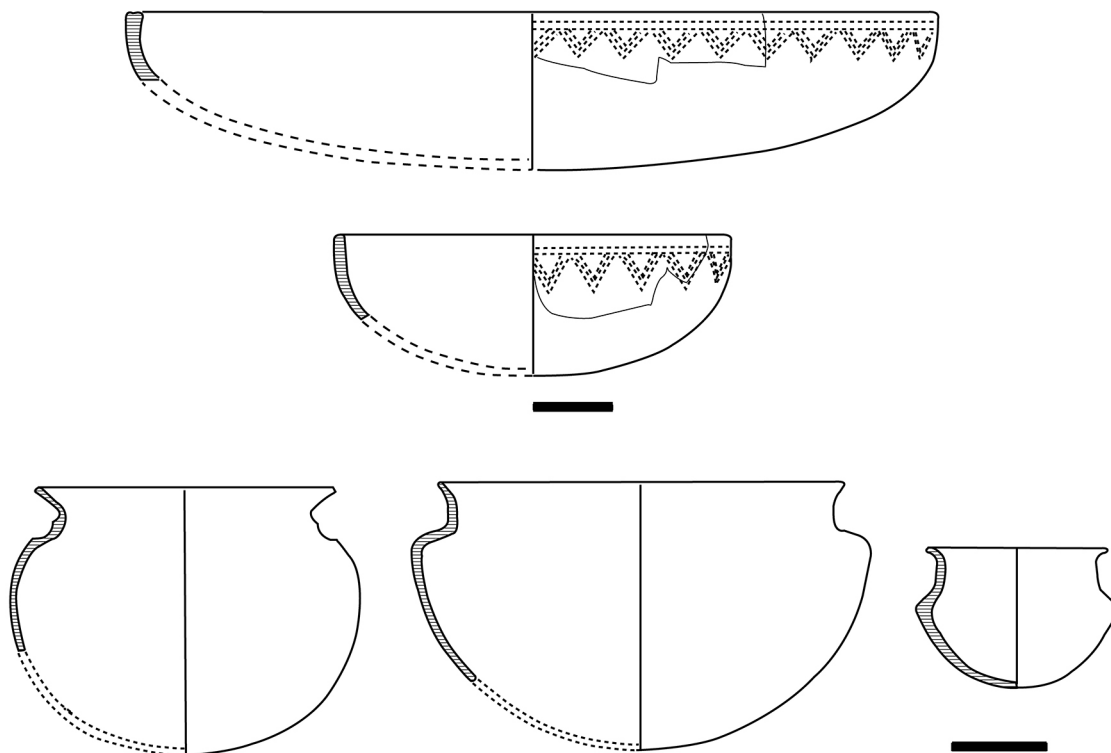


Figure 8.7: South Papuan coast Late Lapita vessel forms and decoration.

Note: Black scales are 5 cm (upper) and 10 cm (lower).

Source: Derived from McNiven et al. (2012:Fig. 6) and David et al. (2011:Fig. 6).

Discussion

This census of Late Lapita across the south-west Pacific is cursory at best, but it has highlighted a number of key aspects and challenges in profiling and classifying this phase of pottery production. Some might question the validity of dividing Lapita pottery sequences into rigid phases at all when in reality, there is no abrupt break and the divisions are simply a heuristic device to aid in the description and the clarification of chronological change. There is the question as to how accurate and well-defined the various phases of Lapita are, particularly given the often-mixed nature of most sites, the limited accuracy of radiocarbon dating and the potential that the pottery is changing within a generation and not over hundreds of years. Other factors such as taphonomic bias, sampling strategies, varied site functionality and the quantification of motifs also play a role in further complicating accurate profiling of Lapita pottery and discussions of similarities and differences. This seems particularly pertinent for defining Late Lapita in many places.

Despite these hurdles, the data we have at hand does provide us with a basic, general summary of Late Lapita, much of which was identified decades ago. There is a reduction in the range of vessel forms and the appearance of new vessel forms. Dentate stamping becomes very simple, motifs are expanded, and often single-lined and new decorative techniques appear, including shell (Figure 8.8) and flat tool impression. Late Lapita from Fiji and Western Polynesia is the best defined and most detailed due to the dominance of Late Lapita in that region and some unique preservation situations. Late Lapita is overwhelmingly plain, with a range of distinctive jars, open bowls and vessels with handles. Carinated jars, both plain and decorated, are well represented. Many of the vessel forms are restricted to this area and are not found further west. Dentate stamping is simple and expanded. Shell impression and unrestricted zigzag dentate and or incised motifs also appear. In Vanuatu and New Caledonia, Late Lapita vessel form seems even more restricted, with carinated and globular outcurving and incurving rim jars dominating. Open bowls are not present and a number of unique vessel forms appear. Dentate stamping is simple, and both shell impression and flat tool impression appear. In the Bismarcks, vessels become restricted, primarily to outcurving rim jars, some of which are carinated. A range of new decorative techniques appear, including shell and flat tool impression. Dentate stamping is simple and motifs are expanded and less structured. Open bowls have not been identified. Finally, on the mainland of New Guinea, a similar pattern emerges: restricted vessel forms but including some regional variants, expanded dentate decoration and shell and flat tool impressed motifs. Distinctive shallow bowls are present there.

Looking across the entire Lapita distribution, the evidence during the Late Lapita Period overwhelmingly indicates increasing divergence in the pottery between and across archipelagos. However, there are key indicators that suggest some level of continued interconnectedness remained across much of the Lapita region. The appearance of new and distinctive decorative techniques during this period, such as shell and flat tool impression, along with simple motifs such as unrestricted simple zigzag designs, are strong evidence of such connections. Moreover, as Summerhayes noted, 'these similarities were not the product of pottery exchange. They were the product of information exchange that necessitates the movement of people. Communication was ongoing indicating a more socially interactive network' (2000:233).

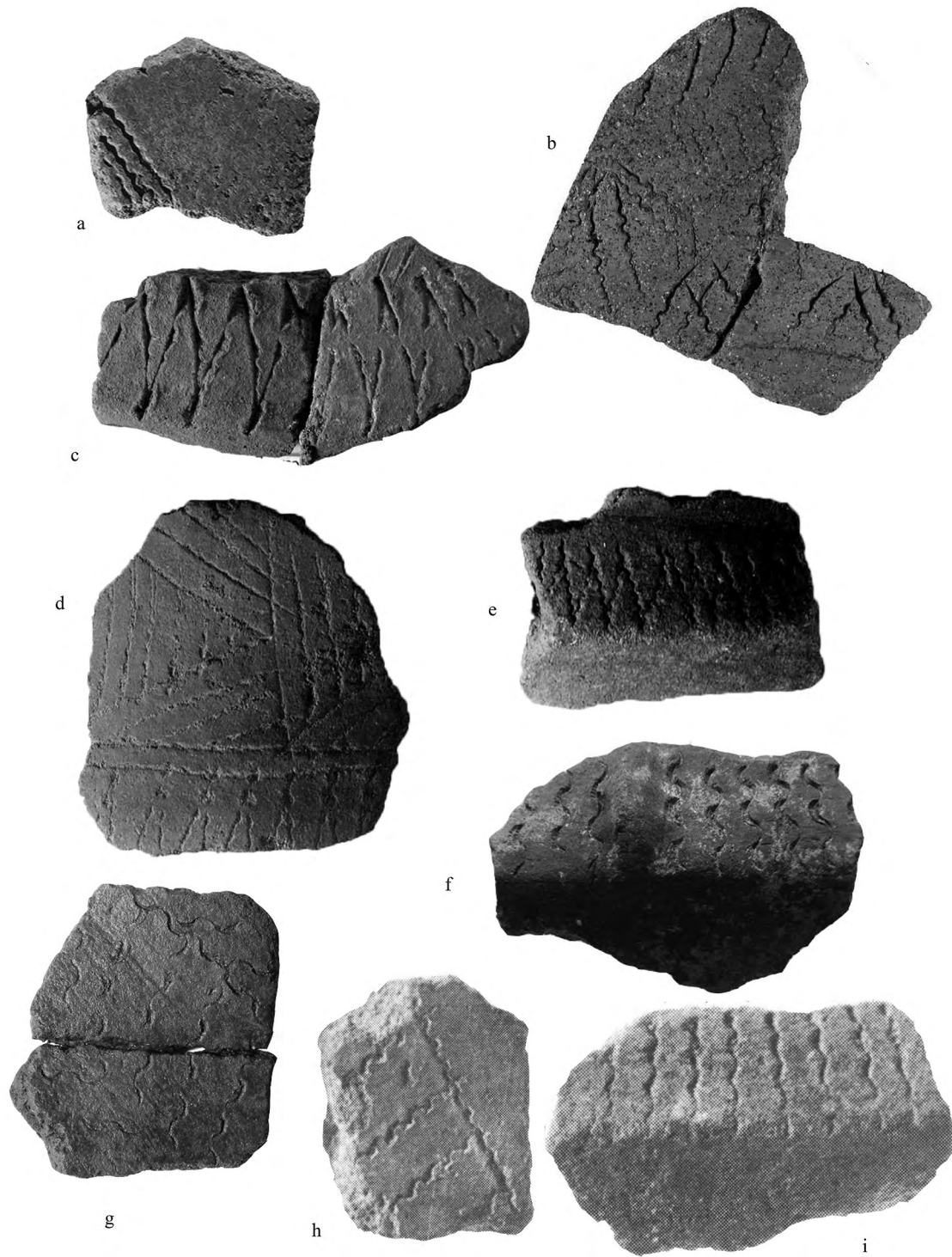


Figure 8.8: Shell-impressed sherds from Lapita sites across the distribution.

Notes: (a) Moiapu 3, Caution Bay; (b) FSZ, Garua Island, Bismarcks; (c) carinated vessel, RF2, Southeast Solomons; (d–e) New Caledonia (Sand 2010b:Photo 36); (f) carination with vertical nubbin, Teouma, Efate Island; (g) Port Olry, Santo Island; (h–i) Tonga. Of the nine sherds illustrated with shell decoration here, four are carinated vessels.

Source: (a) David et al. (2019); (b) Wu (2016:Fig. 8.5a); (c) DigitalNZ: digitalnz.org/records/32425050/lapita-sherd; (d–e) Sand (2010b:Photo 36); (f–g) Author's archive; (h–i) Poulsen (1987).

Conclusion

During the late phase of Lapita across its distribution, from New Guinea to Samoa, we would expect and assume that Late Lapita pottery shows considerable variation. Regional and local variation in vessel form and dentate design is seen during the Middle Lapita period and the processes involved are further amplified as time and distance are extended and varied population movement is registered across the region (Posth et al. 2018). These drivers of diversity shaped all aspects of society, including pottery production, during the Lapita period and were likely to be increasingly influential with the passing of each generation. Lapita groups managed to find and colonise whole archipelagos across vast areas of the Southwest Pacific, including previously uninhabited, increasingly isolated islands as they moved east. High levels of interconnectivity during this period were essential for the long-term viability of these small colonising communities. As populations grew and became self-sustaining, contacts beyond the local region were diluted but they did continue. Late Lapita pottery indicates clear connections with near neighbours (i.e. southern Vanuatu with the Loyalty Islands) but the appearance of certain distinctive decorative features across the entire distribution also confirms some wider level of interconnectivity, the further elucidation of which has yet to be fully determined.

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Since I embarked on a PhD at The Australian National University in 1995, focusing on the archaeology of Vanuatu, Lapita has always loomed large. Equally prominent has been the figure of Glenn Summerhayes, dating from initial encounters with him during my studies and subsequent career. He also pointed me in the right direction for this paper regarding Late Lapita in the Bismarcks. He has always been a font of knowledge and lots of fun, especially when behind the Weber barbeque. In all that time, we have only managed fieldwork once together, on Wala Island in Vanuatu, but hopefully in the near future a planned expedition can be undertaken and an advance in Lapita knowledge may be the result. Christophe Sand provided key information and images associated with Lapita from New Caledonia. Financial support for my research, and that associated with the Vanuatu data generated here, has come from the Australian Research Council, The Australian National University, the Australia-Pacific Science Foundation, National Geographic, the Sasakawa Foundation and the Max Planck Institute. Two reviewers provided productive comments and key references.

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