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## Lapita pottery makers' marks: The memory of signs and wonders?

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### Abstract

What have been described as makers' marks on Lapita pottery were first reported by Donovan in 1973 and have been noted sporadically ever since. As Donovan herself noted, the placement and complexity of at least some of them refute the idea that they are merely 'the result of trials with tools'. So what are they? Ancient DNA analysis links the early Lapita people of Vanuatu and Tonga (and thereby by extension everywhere else in the Lapita distribution) directly back to Taiwan and on the latest evidence beyond, to the southern coastal regions of the Chinese mainland. These new data open up the geographic range of legitimate comparison for aspects of Lapita design and material culture. In particular, suggested links between the iconography of the Lapita 'double head' motifs and those on Liangzhu culture (5200–4200 BP) jade objects from the area around modern Shanghai, noted by Spriggs (2019), allow further comparisons with that culture in regard to incised signs on Liangzhu pottery. These have been proposed by some to be part of a widespread Chinese Neolithic phenomenon seen as the precursor to full writing systems by the time of the Shang culture. Are the Lapita makers' marks a distant memory of these Chinese developments?

you may not make use of strange arts or go in search of signs and wonders – Leviticus 19:26.<sup>1</sup>

### Introduction

The art of writing for *Festschriften* has become an increasingly dying one, as papers become ever more rigorously reviewed to international journal standards and their very constrained formats. For me, the ideal Festschrift paper should be a somewhat whimsical and 'out-there' take on an interesting academic problem related to the work of the honouree. This chapter is offered in that spirit. I know that Glenn views the death of the art with the same shake of the weary old head as I do. So, I am happy to attempt a revolt against the current trend of too-perfect, too-serious and frequently all-too-tedious Festschrift papers.

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1 This is taken from *The Bible in Basic English*, published by Cambridge University Press, 1965 (translation by S.H. Hooke).

The problem to be addressed here is a real one; what are the marks on Lapita pots that are dentate stamped, which are separate from and clearly not part of the decorative designs found on them, often occurring on the underside or the inside of pots and so not immediately visible unless looked for? These have been variously labelled as pot-marks, trademarks and decorator's marks, and were first noted for Lapita pots by Lorna Donovan in the second volume of her master's thesis (Donovan 1973). I use the more neutral term makers' marks, simply meaning deliberate, non-decorative marks made on the pot by the potter or potters prior to firing, using the same technique as used in the decoration of the pot—in this case, dentate stamping.

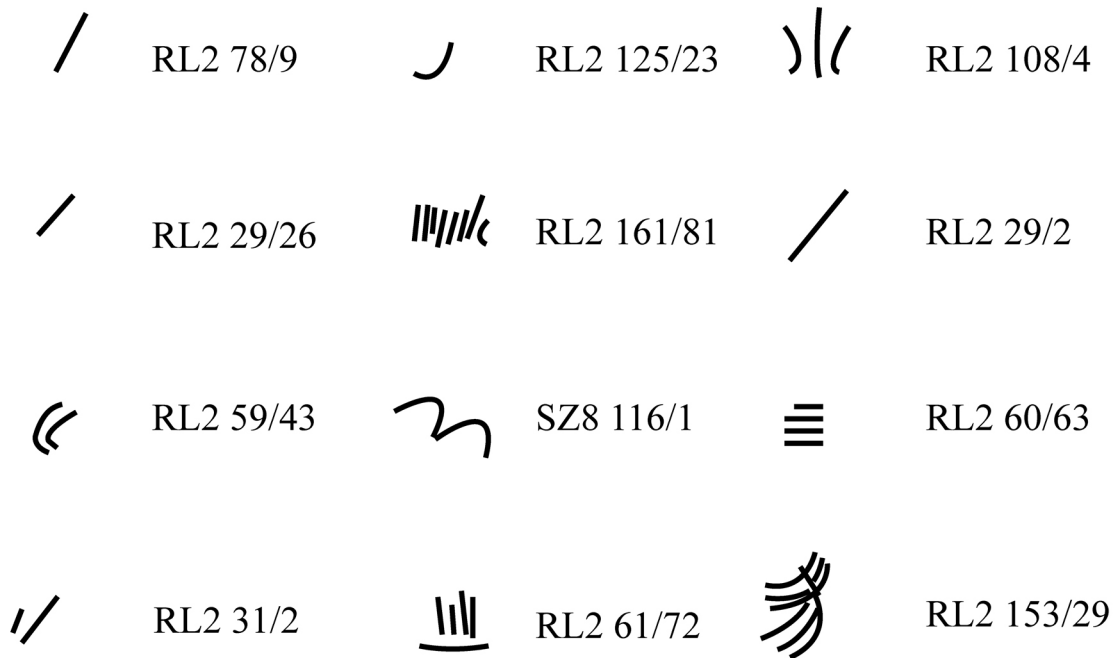
The 'out-there' take is to consider whether there is a link between such makers' marks and those on Chinese Neolithic pottery, taken by some scholars to be the precursors of writing. The link may be seen as somewhat of a chimera given the distances involved between the Lapita realm and China. One might invoke convergent evolution, such marks appearing independently in distant societies because they served similar purposes. But I argue that just such a direct link is now possible to conceive of, because of advances in ancient DNA studies in China, Southeast Asia and Near and Remote Oceania pertinent to the origins of the initial stream of Lapita migrants into Remote Oceania (Lipson, Cheronet et al. 2018; Lipson, Skoglund et al. 2018; Lipson, Spriggs et al. 2020; McColl et al. 2018; Posth et al. 2018; Skoglund et al. 2016; Wang et al. 2021; Yang et al. 2020; Yu and Li 2021): a southern East Asian origin for the early Lapita people and a southern East Asian origin for their makers' marks.

I have elsewhere suggested that some distinctive elements of the Lapita design system, particularly the 'double head' motifs, can be traced back to representations on jade objects found in, among other places, the Liangzhu culture (5200–4200 BP) of the Yangtze region (Spriggs 2019) and I would like to extend that assertion here. If such a connection is allowed, then it permits us to look at other potential parallels in that and other preceding and neighbouring Chinese Neolithic cultures. These include makers' marks that have been plausibly identified as precursors to the development of writing in China during the Bronze Age. The perhaps whimsical suggestion is that the marks on Lapita pots could have had a similar function to those on Neolithic Chinese vessels. They are not, of course, actual writing but they could be what would, under different circumstances, lead towards the development of writing. Clearly this path was not taken in the Pacific in Lapita and later times—to assert otherwise leads to madness rather than whimsy and is surely not what the endangered art of Festschrift writing should encourage.

## The corpus of Lapita Makers' marks

So, what are these marks and how common are they? The starting point must be Donovan (1973:II:75–76). Table 4 in her thesis, labelled 'Suggested Decorator's Marks' within a section titled 'Trade Marks', includes images of 11 marks from site SE-RF-2 (there RL2) and one from site SE-SZ-8 in the Reef Islands and Santa Cruz in the Southeast Solomons (Figure 7.1), excavated by Roger Green (Green and Cresswell 1976). Part of the short text reads:

Of course, the suggestion that marks could be the result of trials with tools, in preparation for the design further up the vessel wall, cannot be ruled out. Though some do fit easily into this category, others show more purpose and placed as they are, on plain sherds, away from the decoration, seem to indicate a means of recognition.



**Figure 7.1: Makers' marks identified by Donovan (1973:76) from sites RF-2 (here RL2) and SZ-8 in the Reefs–Santa Cruz Islands of the Southeast Solomons.**

Source: Redrawn by Stuart Bedford.

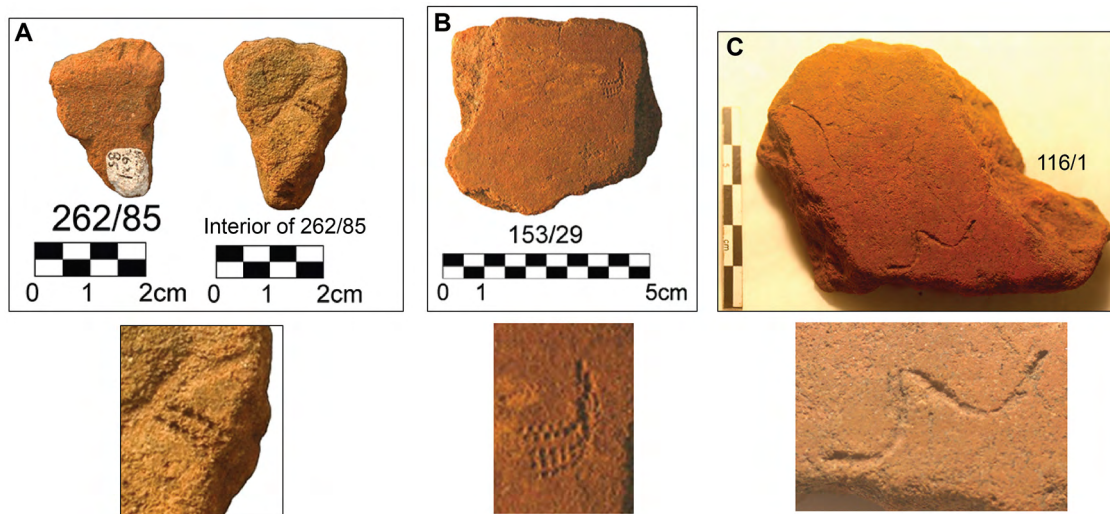
These collections have subsequently been studied by Scarlett Chiu as part of the Lapita Pottery Online Database (LPOD),<sup>2</sup> although only 5 of the 12 sherds were included in that restudy.<sup>3</sup> Of these five sherds, reanalysis suggests that the two with the simplest of marks of the whole series (RL2 125/23 and 29/26), a straight line and a curved line, are just incidental scratches (or not able to be differentiated from such), while a third small body sherd (RL2 29/2) does not bear any mark such as attributed by Donovan to it, its external surface bearing a standard dentate-stamped complex design. If it did possess a longer straight-line mark beyond merely a scratch, it would have been noticed by the LPOD recording team; possibly the sherd was mislabelled by Donovan or renumbered at some later stage.

The two remaining sherds (Figure 7.2B–C: RL2 153/29 and SZ8 116/1) indeed bear what appear to be makers' marks: two adjacent curved stamps of about 12 tines each arranged parallel to each other and touching in the case of the SZ8 sherd, and five curved stamps of about 12 tines each with the three below overlapping the two above in the RL2 sherd, so the sequence starts with the top two and then the bottom three.<sup>4</sup> The SZ8 marks appear on the plain exterior of the lower part of a large vessel and those of the RL2 sherd on the exterior of a plain body sherd, vessel form unknown.

<sup>2</sup> The LPOD database (last accessed 27 May 2022) is accessible at: [lapita.rchss.sinica.edu.tw/web/?cat=4](http://lapita.rchss.sinica.edu.tw/web/?cat=4).

<sup>3</sup> I thank Scarlett Chiu for looking through the database for me in search of these and other makers' marks. It may be that the other seven sherds were undecorated body sherds and so not studied for the LPOD, or that they have lost or changed their labels, or were perhaps destroyed as part of other studies to produce thin sections or in related provenance studies. Further examination of the collection, currently impossible because of COVID entry restrictions to New Zealand at time of writing, is warranted.

<sup>4</sup> Donovan's drawing (here Figure 7.1) suggests three below and three above, but the photo kindly supplied by Scarlett Chiu from LPOD clearly shows only five stamps.



**Figure 7.2: (A) RL2-265-85, an additional makers' mark missed by Donovan from the RF-2 site and identified by Scarlett Chiu; (B) makers' mark on RL2 153/29 as identified by Donovan; (C) SZ8 116/1 as identified by Donovan.**

Source: Photographs A and B by Scarlett Chiu. Photograph C by Stuart Bedford.

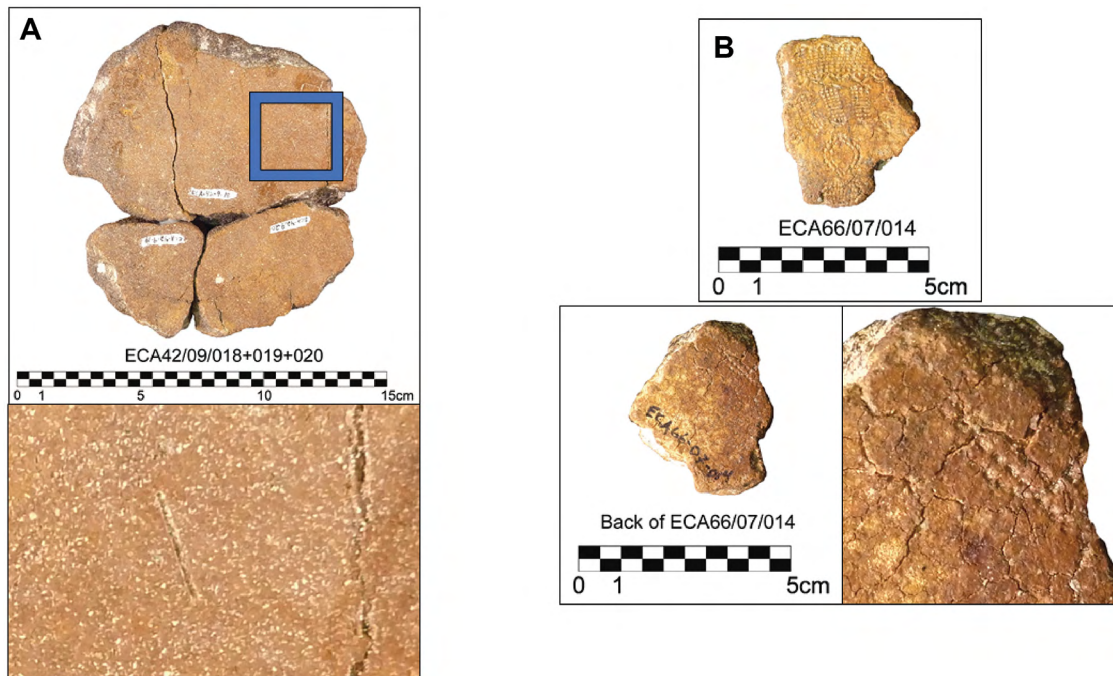
It is notable (see Figure 7.1) that the 'missing' seven sherds, with the exception of RL2 78/9, are what one might call 'complex' marks consisting of more than a single stamp: two in the case of RL2 59/43 (curved) and RL2 31/2 (straight), three in the case of RL2 108/4 (two curved and one straight), four for RL2 60/63 (straight), five for RL2 61/72 (straight) and eight in the case of RL2 161/81 (seven straight and one curved stamp). This strongly suggests that when relocated six of them at least will indeed turn out to qualify as makers' marks.

In addition, Chiu located a further sherd from the collection with a makers' mark, RL2-265-85, which has two parallel straight or slightly curved stamp impressions on the inside of the flat base of a pot, of at least five times each (Figure 7.2A).

Heading back into Near Oceania,<sup>5</sup> in the Bismarck Archipelago there are examples only from Eloaua (site ECA) in the Mussau Group (Figure 7.3A–B), excavated by Kirch (2021). They consist of one simple (single line) possible makers' mark (ECA 42-09-18 & 19 and 20) and one complex (three stamps) mark (ECA 66-07-014). A third sherd (ECA-V-234) displays some deeply incised lines on the inside rim of an otherwise dentate-stamped pot. These are clearly deliberate but are arguably a form of decoration. As these lines were not created using the decorative technique of dentate stamping found elsewhere on the pot, they are excluded from further consideration here.

The single-line makers' mark is found on the base of a flat-bottomed dish and is made using a stamp of about 16 tines. The straightness of the line suggests it was not two stamps of 8 tines end to end. It is hardly visible at all, which casts doubt on whether it was done to be seen, but post-depositional weathering could possibly account for that. Similar single lines were postulated as makers' marks in the Reefs–Santa Cruz pottery but two of them appear to be merely scratches, another claimed by Donovan was not noticed on the sherd indicated and the fourth and final example is one of the 'missing' sherds.

<sup>5</sup> I am greatly indebted to Scarlett Chiu for bringing these two Near Oceanic examples to my attention, derived from her analysis of the LPOD.



**Figure 7.3: Maker's marks on sherds from Talepakemalai site, Eloeua Island, Mussau Group.**

Notes: (A) ECA42-09-18 & 19 & 20 with maker's mark indicated; (B) ECA-66-07-014 showing design, interior surface and close-up of interior makers' mark.

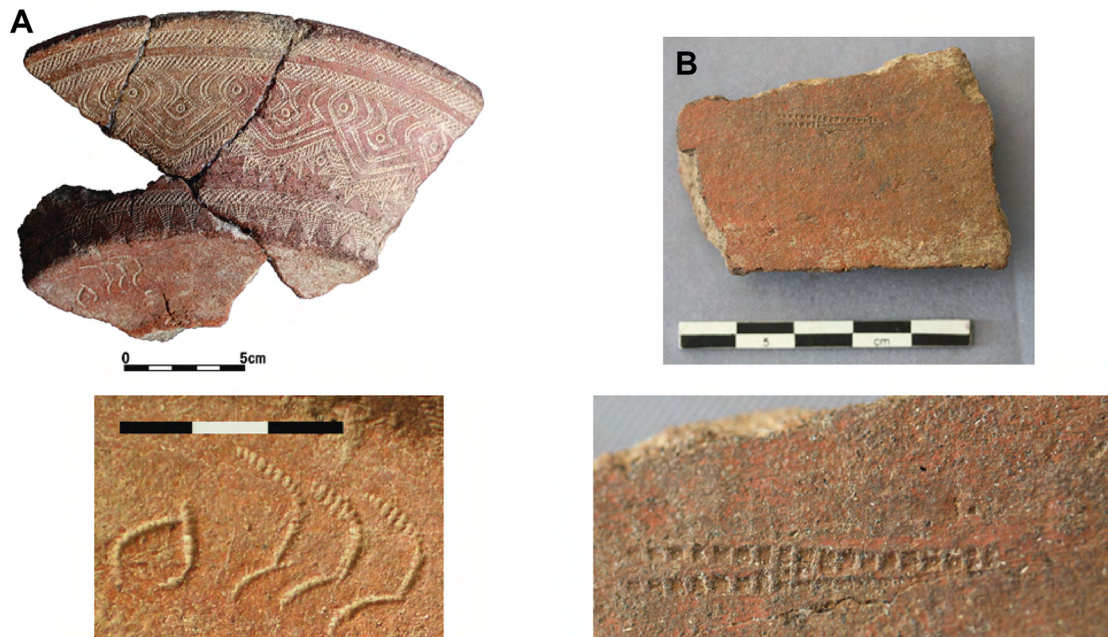
Source: Photographs by Scarlett Chiu, used with the permission of Patrick Kirch.

The ECA 66-07-014 sherd has three parallel straight dentate lines of different lengths consisting of at least seven tines in one, whose true extent is obscured by a crack and the sherd edge, more than nine in the middle line and only about four in the third line. The marks appear on the interior of a dentate-decorated sherd.

The final examples come from the Teouma Lapita cemetery site on Efate, Vanuatu, and were excavated as part of a joint Vanuatu Cultural Centre/Kaljoral Senta (VKS) and The Australian National University salvage and research project between 2004 and 2010, directed by the VKS Directors of the time, and Stuart Bedford and the author (Bedford et al. 2006, 2010). One sherd in particular (Figure 7.4A) is what first prompted my interest in such makers' marks. It comes from Teouma Dish 2 (TD2) with joining sherds coming from Layer 3 burial deposits in Area 2, Squares A3 and B4 excavated in 2005; several further sherds from the same vessel were more widely scattered. The marks occur on the exterior of the curving base of a dish on an attached stand and begin 6 mm below the wall-base join. They consist of what may be four impressions of curved dentate stamps with about 16 tines running right to left and four further slightly curved stamps with 7 or 8 tines running left to right, to produce the most complex of the makers' marks encountered so far in Lapita assemblages.

The other makers' mark occurs on an otherwise plain exterior just below the carination of a presumably dentate-decorated vessel from Layer 2 of Square I1, bag 3240, also excavated in 2005 (Figure 7.4B). It consists of two diverging and partially overlapping straight stamps of 17 or 18 tines each.





**Figure 7.4: Makers' marks from Teouma Lapita site, Efate Island, Vanuatu.**

(A) Maker's mark on Teouma Dish 2 (TD2) showing placement on the vessel, with the start of the attached ring foot to the bottom of the upper photograph; (B) makers' mark on sherd 3720.

Source: Photographs by Stuart Bedford.

## What do the makers' marks represent?

The first point to be made is how rare such marks are among the Lapita corpus. In Scarlett Chiu's interrogation of the LPOD she found five cases out of 35,494 sherds examined from 94 different sites.<sup>6</sup> In addition, Teouma, which represents one of the largest Lapita pottery assemblages found to date, produced only two examples out of many thousands of sherds. There are seven 'missing' sherds from SE-RF-2 reported by Donovan, of which six could plausibly be considered makers' marks. This gives a maximum total of 14 sherds from four sites across the Early Western and Western Lapita provinces. No makers' marks have been reported from Eastern Lapita contexts,<sup>7</sup> nor from the many thousands of Lapita sherds excavated in New Caledonia or in the Arawe Islands off New Britain in the Bismarck Archipelago.

<sup>6</sup> Chiu found one such mark among 3760 sherds from SZ-8, two out of 7289 sherds she examined from site RF-2 and two out of 4580 sherds from ECA (pers. comm. 12 and 13 January 2022).

<sup>7</sup> I do not include here identical possible makers' marks found on otherwise completely plain vessels from the Late Lapita/Transitional 2600 BP Level 1 at the Sigatoka site, Viti Levu, Fiji, reported by Lawrence Birks (1973:35, 101, 166) from 1965–1966 excavations and by Dave Burley and Bill Dickinson (2004:19) from 1998 excavations. Birks (1973:35) describes the best-preserved example as being 'three pellets (or possibly one) of clay have been placed against the pot wall about 4.0 cms below the lip and squeezed out by pressure from three fingertips held close together'. Given the lack of any decoration on these vessels the marks may have been executed to identify the work of a single potter but equally could merely represent a very minimalist form of decoration.

There is no doubt that a few have been missed, part of the point of this paper being to encourage researchers to look more closely at their assemblages with makers' marks in mind. With some small sherds, what have until now been considered parts of Lapita designs may in fact be makers' marks or fragments of them. But one doubts if further examination would greatly increase the numbers. Nearly 300 Lapita sites are known (Bedford et al. 2019) and yet currently not even 2 per cent of them have produced such marks, and those only covering part of the full geographic range of Lapita.

This precludes them from being considered as trademarks, such as are known on Motu pottery from near Port Moresby, Papua New Guinea. Jim Allen (2017:302, 305) illustrates several from his excavation on Motupore Island in that region, where they were common. He quotes James Chalmers (1887:122): 'every woman has her private mark and marks everything she makes'; also Murray Groves (1960:11, 13): 'each woman in a household makes her own pots with her own trade mark on them ... traditionally they used simple geometric figures as trade marks'. Allen (2017:303) notes that these trademarks are incised designs 'isolated by undecorated space (and thus not part of a continuous band of decoration) and occurring almost exclusively on the interior rims of globular pots', which were very largely undecorated and so less distinctive. He also notes that for pots that do not bear such trademarks, 'more extensive decoration on the bowls may have provided sufficient identification of the maker'. While this could be a factor in the rarity of makers' marks on Lapita pottery there is little evidence that those so marked were any less decorated or distinctive than other pots without makers' marks.

The special situation of Motu pottery is that it was trade ware, with pots moving beyond the household and the village as part of the traditional *hiri* exchange system to the Gulf of Papua, with the trade 'done by an agent acting for more than one potter and thus needing to distinguish between the pots in his care' (Allen 2017:305). This could never be the explanation for such marks on Lapita pots because the overwhelming evidence is that they were rarely exchanged between islands, and indeed that the rare movement of pots between islands may have been incidental to other practices such as marriage exchanges (Spriggs 2020:185, 194).

The simplest explanation would be that the Lapita makers' marks are just 'trials with tools' but one wonders why such trials with dentate stamps would be necessary in the first place? Another suggestion might be doodles, done by a bored potter. This cannot be excluded but even doodles generally represent *something* and so are pictographs of some kind. Their regular placement also needs to be considered.

## A Chinese connection?

Very comparable marks appear on Chinese Neolithic pottery from the seventh to the fifth millennium BP, some seemingly exact parallels for Lapita examples (Figure 7.5). These are interpreted in very contrasting ways by different Chinese specialists. One school sees them as potential precursors to writing, or even as marking a transition towards writing in the case of examples from the Liangzhu culture (5200–4200 BP) and other related cultures (Dematté 1999, 2010; Li et al. 2003; Postgate et al. 1995). Others, most consistently William Boltz (1986, 2000; also Bagley 2004; Keightley 2006), take the stance that writing developed in a very short period of time during the later Shang culture as state formation required a recording system, either for economic transactions, as in the usually postulated sequence for the origin of writing across the world, or for divinatory purposes.



**Figure 7.5: Makers' marks on Chinese Neolithic pottery and later Shang culture numerals for comparison.**

Notes: (A) From Panpo site, Shaanxi Province, Yangshao culture, c. 7000–6000 BP (selected and redrawn from Lu and Aiken 2004:41); (B) from Liangzhu, Zhejiang Province, Liangzhu culture, 5200–4200 BP (from Boltz 1986:Fig. 3); (C) from Banshan and Machang sites, Gansu Province, Majiayao culture 5300–4000 BP (from Boltz 1986:Fig. 3); (D) from Liuwan, Qinghai Province, later Majiayao culture, 4300–4000 BP (selected and redrawn from Boltz 1986:Fig. 3 and Kaogu 1976:Fig. 1); (E) Shang numerals 1–10 (from Postgate et al. 1995:Fig 1b).

Source: Redrawn by Stuart Bedford.

In a now-classic paper, Nicholas Postgate, Tao Wang and Toby Wilkinson (1995:459) noted the need to establish criteria for 'differentiating between genuine writing, on the one hand, and symbols or systems of symbols which resemble it, on the other', noting that no simple criterion was likely to be decisive. They continue:

Symbols may well perform a similar function to writing, such as making a statement of ownership; the difference is that writing needs always to correspond to a segment of language. Moreover, a writing system is only valid if it communicates: there has to be a reader as well as a writer, and for the system to function it must therefore be a finite system, with each side sharing the same repertoire. While it is reasonable to deny that a single sign on a potsherd proves the existence of writing, it may be difficult to decide whether a combination of such symbols represents a writing system if their meaning is unknown (Postgate et al. 1995:459–460).



They also note the difficulty that the earliest independent writing systems originated with 'symbols that could well have conveyed a message independently of their role within the system', given that such scripts are mostly logographic, with 'each symbol corresponding to a word' (1995:460–461).

Trigger (1998:54–55) notes that using graphic recording systems to represent ideas ('semasiography') is common in small-scale societies and includes using signs to record names. Such potential 'logographs' where a graph stands for a whole word may evolve into writing after developing as a more systematic system to record additional categories of information such as numerical data.

In their section on Chinese writing, Postgate, Wang and Wilkinson reject as precursors to writing the early Yangshao culture pottery with incised signs usually placed, pre-firing, on the black band running round the outer rim of select vessel types, although occasionally on the base of the pot. Such pots, dating to 7–6000 BP in the Yellow River valley at sites such as Banpo and Jiangzhai (Figure 7.5A), were often used in child burials, and so had a ritual association. At these sites more than 200 sherds with usually single marks consisting of one to seven incised strokes have been found and similar signs are found on more than one vessel and in more than one site (Dematté 2010:2124–2215). Postgate et al. (1995:467, cf. Boltz 1986) consider all such earlier Neolithic marks as 'numerical or potters' marks' and therefore not writing.

Ping-ti Ho (1975:233) claims the marks on Banpo pots include the earliest representation of numerals in the world, but as David Keightley points out in a review, this assertion is based on a very selective comparison with later Shang and Chou period numerals. Keightley (1977:391) notes that until such marks are found in a Neolithic context,

which requires a definite meaning (such as, to take an ideal case, ten vessels a mark for 1 to 10 scratched on each one) the conclusions are bound to be speculative.

Postgate et al. (1995) seem less sure about the pre-Yangshao culture Jiahu site, Wuyang, Henan Province just south of the Yellow River, a Neolithic site dating to 8600–7500 BP, where turtle plastron and carapaces and bones are engraved with signs, some of them identical to later Chinese characters. They conclude that 'one cannot *a priori* rule out the possibility that these were short texts with a symbolic meaning of some kind' relating to divination (ibid.:467). There is further discussion of this site by Xueqin Li and colleagues (2003), who note incised marks on nine tortoise shells and two on bone associated with graves dating to 8600–8200 BP. They associate them with divination, illustrating four of them and comparing them to later Shang culture characters. Up to eight out of 11 signs are considered comparable to Shang numerals 1, 2, 8, 10 and 20, while three are comparable to characters for eye, window and possibly a human figure. All but the eye and human figure signs are comparable to examples illustrated in Figure 7.5 (and also in Lapita pottery). There are, however, specialists such as Dematté (2010:213) who suggest that the signs may in fact be recent forgeries on old bones!

Signs on pottery jars of the Dawenkou culture (c. 6000–4500 BP), which developed from Yangshao, get an honourable mention by Postgate et al. (1995), some of them combining more than one incised element, but these authors follow Boltz (1986) in considering them 'clan name' representations. They occur as both incised and painted signs, generally associated with adult burials but with child burials at one site (Dematté 2010:215–218). They seem unlike the makers' marks we have been discussing until now and were on occasion filled with red colour to be prominently displayed on the pot. Such prominence is the opposite of what we see with Lapita makers' marks examples.

Postgate et al. (1995) definitively date the emergence of writing in China to 4500–4000 BP, associated with both the Liangzhu culture (5200–4200 BP) in the Yangzi Valley, immediately south of the Dawenkou culture and in close contact with it (cf. Dematté 1999:252), and the contemporary

Late Longshan culture (4500–4000 BP) of the Middle and Lower Yellow River Valley to the north (Postgate et al. 1995:468), deriving from the Dawenkou culture in Shandong and also in contact with the Liangzhu culture. But the ‘inscriptions’ on pottery of these cultures, with five and eight signs incised (Liangzhu), and 11 signs in five vertical rows (Longshan), as well as an even more elaborate ‘inscription’ in a similar cursive script from Longqiu, Gaoyou, Jiangsu Province (illustrated by Postgate et al. (1995)), seem far more elaborate than the Neolithic makers’ marks illustrated in Figure 7.5, which includes examples from the Liangzhu culture itself (Figure 7.5B). It is often not clear, particularly in secondary sources, where on the pots these simpler Liangzhu marks occur but illustrations suggest on the base of some flat-bottomed vessels, so ‘hidden’, but also prominently on the middle body of others.

The Majiayao culture (5300–4000 BP) developed from Yangshao and its final phase, Machang culture (4300–4000 BP), partly overlapped in time with Liangzhu and the earliest Bronze Age cultures. On Machang culture painted pots associated with burial use (Figure 7.5C, D),<sup>8</sup> we find painted signs on the lower otherwise unpainted body of the pot or on the base of flat-bottomed vessels (Kaogu 1976)—that is, in less easily visible positions. One interpretation given by the excavators of the Liuwan site was that they may have related to specific clan pottery workshops.

There is no definitive relation between the more elaborate Longshan and Liangzhu ‘inscriptions’ and the earliest identifiable writing in Chinese. If they are in fact writing, they could well represent a quite different language or, as Dematté (2010:214) suggests for some of the cursive script examples, could be recent forgeries or in one case represent a child’s doodles. Dematté (1999) traces the lineage between these various cultures, mediated through Longshan to Early Bronze Age Erlitou cultures and on to Shang, to make a convincing case for their influence on at least the form of writing that developed in the later Shang, a Yellow River culture heavily influenced by eastern coastal cultures such as Liangzhu. Both Liangzhu and Longshan cultures had certainly reached a threshold in terms of social complexity and state formation where one might envisage true writing as being necessary or at least extremely useful for administrative purposes—Renfrew and Liu (2018) suggest the Liangzhu culture as the earliest state society in East Asia.

The earliest recognisably Chinese logographic script is found on turtle plastrons and bovid scapulae used for divinatory purposes at Anyang, Henan Province, and on bronze ritual vessels dating from Late Shang culture contexts c. 3400–3200 BP (Postgate et al. (1995) provide illustrations and references). Scholars argue whether there was also a larger corpus of writing on perishable materials, such as wooden or bamboo strips or silk, that related to more solely economic transactions. Boltz (2000) rejected the idea, but Bagley (2004) is among those who make this claim; for similar debates elsewhere in the world see Postgate et al. (1995:463–464).

Returning to the more obvious makers’ marks on Neolithic pottery, Li et al. (2003) examine and provide references for a range of sources, but do not include the more detailed treatment of this issue by Dematté (1999; see also Dematté 2010 for an update). They conclude that:

The present state of the archaeological record in China ... does not permit us to say exactly in which period of the Neolithic the Chinese invented their writing. What did persist through these long periods was *the idea of sign use*. Although it is impossible at this point to trace any direct connection from the Jiahu signs to the Yinxu [Anyang] characters, we do propose that

8 One notes that in Boltz’s illustrations of Machang culture signs from Liuwan, he omits those that seem to resemble later Shang graphs more closely (Compare Kaogu 1976:Fig. 17 with Boltz 1986:Fig. 3c and 2000:Fig. 1, number iii). He does the same with those of Yangshao age as well: compare Lu and Aiken (2004:Fig. 4) with Boltz (1986:Fig. 3a and 2000:Fig. 1, number i). Fig. 7.5, here, restores the more complex signs so omitted.

slow, culture-linked evolutionary processes adopting the *idea* of sign use, took place in diverse settings around the Yellow River. We should not assume that there was a single path or pace for the development of a script. (Li et al. 2003:41; italics in original)

That said, as has been shown earlier, the societies under consideration had interconnections with each other, either in terms of direct ancestry or in having clear direct cultural connections allowing diffusion of sign systems or at least 'the idea of sign use' as Li et al. put it in the quotation above.

Dematté (2010:213) sees these marks as 'early signaries and counting systems that served basic recording needs in non-complex societies' and suggests they were 'mnemonic marks for simple recording functions (pot-marks or tallies such as lines, crosses, combs etc.)'. Later, he opines that they 'were used to keep track of quantities, types and probably names' (Dematté 2010:224). Lu and Aiken (2004) try to assess how many of the Neolithic pot-marks could represent numbers, using early Shang numerals as their comparator (see Figure 7.5E for the latter). They concluded that many signs could indeed be so interpreted. But we should remember the strictures of sinologist John De Francis (1991:118–119) on 'claiming a genetic relationship between symbols simply on the basis of the resemblance between the two'. In that paper he demonstrates the exact match between 19 such Neolithic signs and those used currently in proofreading by American writers and publishers!

A common theme is the association of such marks with ritual activities (as well as Dematté 1999, 2010, see Keightley 1996). The pots on which these marks occur are frequently found in burials and so such a link is indeed not unlikely. The highly decorated Lapita pots with a display rather than cooking function would fit such a link too, and indeed at the Teouma Lapita cemetery in Vanuatu such pots also accompany burials, including having skeletal remains placed inside some of them (Kirch 2021:93–97; Leclerc et al. 2018; Summerhayes 2000).

Of the other Lapita sites with such marks, the spatial layout of RL-2 has been extensively studied by Green and colleagues (Green and Pawley 1999; cf. Sheppard and Green 1991). Sherd density was greatest in association with a rectangular structure interpreted as the main house of the settlement, and particularly in its south-eastern quadrant. Based on ethnographic analogy with 'house societies' (cf. Chiu 2005) and the lack of evidence for separate ritual structures, Green and Pawley (1999:81) suggest 'Ritual activity may well have been focused within the main dwelling house', where the greatest quantity of decorated pottery was in fact recovered. SZ-8 was a large Lapita settlement site but when excavated was found to be heavily disturbed and no details of its internal layout were revealed in excavation (Green et al. 2008). The main stilt house structure at Talepakemalai, site ECA, Area B, is interpreted as a ritual structure 'focused around some form of ancestor cult' (Kirch 2021:520–521). Kirch notes the presence of particularly high concentrations of fine decorated pottery, shell valuables and imported obsidian, curated human remains, a unique anthropomorphic bone figurine and a ceramic drum, and evidence of feasting.

In the three Lapita sites with makers' marks for which we can interpret details of site layout and function, a ritual emphasis has been suggested, either as a cemetery, or a house-like structure with evidence for ritual activity. Scholars such as Scarlett Chiu and Arnaud Noury attempt to 'read' the meaning of particular Lapita designs as clan or 'house' symbols or otherwise denoting social connectedness, or as representative of ancestral or cosmogonic figures (Chiu 2005, 2015, 2019; Noury 2005, 2019; Noury and Galipaud 2011).

The Lapita makers' marks are not part of the designs as such and are often hidden inside the vessel itself, or below the carination or on the base of flat-bottomed vessels, as are some of the Chinese examples. Do these hidden locations also convey social information? Although not writing as such, could they too be 'read' by those initiated into their meaning?

## Liangzhu to Lapita?

The Liangzhu culture developed out of the Hemudu and Songze cultures, the former seen by Peter Bellwood and others as the *Urkultur* or original culture that leads to the Neolithic cultures of Taiwan (for instance Bellwood 1997, 2005, 2013). Liangzhu cultural traits occur in the mainland Chinese coastal provinces opposite Taiwan (Zhi and Hung 2010:20), Liangzhu culture influences into northern Taiwan Neolithic Dabenkeng cultures are attested in stone artefacts, pottery types and jade cutting techniques (Kuo 2019:83–86, 88) and genetic connections posited between Liangzhu and Austronesian populations of Taiwan (Li et al. 2007). More speculatively, recent genetic studies of mainland China and Taiwan draw a link between genetic patterns and an ancestral form of Austronesian language on the Chinese mainland in the coastal region south of the mouth of the Yangzi River (Huang et al. 2022; Wang et al. 2021; Yang et al. 2020; Yu and Li 2021). Cultural connections continued between Liangzhu and successor cultures, and later phases of the Taiwan Neolithic (after the initial Dabenkeng cultures and prior to the Neolithic spread south from Taiwan into Southeast Asia c. 4000 BP) and its manifestation in the western Pacific as Lapita less than a millennium later (Kuo 2019:125–135).

I am ever more convinced of a direct link between the double head or head and mask motifs of both Liangzhu and Lapita cultures and hope to pursue that link in a future paper. If Liangzhu design can be linked to Lapita, just as ancient DNA now links Lapita back to mainland China and Austronesian languages link Lapita at least back to Taiwan, and by extension the mainland, then can we perhaps also link the Chinese Neolithic tradition of signs on pots to later Lapita examples? While one branch of the Chinese Neolithic tradition of signs plausibly leads on to the earliest recognisable Chinese writing of the Shang dynasty, could another branch lead through Taiwan ultimately to Lapita makers' marks on pottery?

Arguably, this too was linked to elite communication and understood by only a few. The Lapita design system itself was doubtless full of symbolic meaning that could be 'read' to varying extents by participants in that culture. With the collapse of elites at the end of Lapita (Earle and Spriggs 2015:522–525), the design system and associated signs or makers' marks became irrelevant and forgotten and that lineage of signs died out. It certainly didn't develop into any later Pacific script, there being none prior to European contact—the only possible exception, Rapa Nui's *rongorongo* script, is generally believed to be a post-European contact phenomenon (Fischer 1997).

There is, however, a major gap between China and the Lapita realm where no early Neolithic makers' marks are known, Island Southeast Asia itself so far drawing a blank.<sup>9</sup> Beyond northern Luzon there is a dearth of early pottery sites, other than cave sites, and what sites there are consist of small assemblages of generally plain or red-slipped pottery. Where open sites are known, as on Sulawesi, decorated pottery assemblages of any size tend to occur only in late Neolithic assemblages, generally after 3100 BP, and thus are not relevant to the origins of Lapita (Spriggs 2011:517–521, cf. Azis et al. 2018). In what are sometimes decorated pottery samples of thousands of sherds in Lapita sites, we have seen that makers' marks are rare. Island Southeast Asian ceramic assemblages tend to be much smaller and therefore the chance of finding such marks is similarly reduced. Makers' marks have never been a focus of any study in Island Southeast Asia and researchers may have mistaken them as parts of decorative motifs; again, hopefully this paper will encourage a more systematic look.

<sup>9</sup> I am grateful to Peter Bellwood, Philip Beaumont, Dylan Gaffney and Sue O'Connor for responding to my email queries seeking examples of early Island Southeast Asian makers' marks.

## Conclusion

In what I hope is in the best 'old-school' tradition of Festschrift writing, being a somewhat whimsical and 'out-there' take on an interesting academic problem, I have pursued the question of Lapita makers' marks as far as one can sanely go (some may think considerably beyond!). Lapita derives in part, and for its earliest phases perhaps in very large part, from the Neolithic traditions of Eastern China, particularly that region around the Lower Yangzi River and further south. Concerning those Neolithic traditions, plausible arguments have been made, particularly by Chinese scholars, for a system of signs that developed into what became the Chinese script of the Late Shang period, itself contemporary with the earliest possible dates for Lapita in the Bismarck Archipelago 3400–3200 BP.

It does not seem beyond possibility that this system of signs, in its pre-writing stage of course, was also useful to elites as the Island Southeast Asian Neolithic spread into the Pacific as Lapita, just as the Lapita design system on the pots was. The echo of these 'signs and wonders' might thus be found as far distant from their origins as the Bismarck Archipelago, the Reef–Santa Cruz Islands and central Vanuatu. The Island Southeast Asian distribution gap needs to be looked at further: at present there are very few substantial assemblages of decorated pottery prior to 3100 BP outside of Taiwan and very little synthesis of surface treatments on pottery from anywhere in the region of interest.

Let me at least hope that having suggested this with suitable caveats, I might yet escape the trials and afflictions of Job and will not have to repent in dust and ashes and answer thus to all concerned:

[He said] Who is this who makes dark the purpose of God by words without knowledge?  
For I have been talking without knowledge about wonders not to be searched out. Job 42:3.<sup>10</sup>

And may I fervently hope that they will be able to say of Glenn, again like Job, that after reading his Festschrift he lived 'a hundred and forty years after this, long enough to see his grandchildren and great-grandchildren. And then he died at a very great age' (Job 42:16, 17).<sup>11</sup>

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10 This is taken from *The Bible in Basic English*, published by Cambridge University Press, 1965 (translation by S.H. Hooke).

11 This is the version from the *Good News for South Pacific Students Bible*, published by the Bible Society in the South Pacific, Suva, Fiji, 1992 edition.



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