

A Revision of New Caledonia's Ceramic Sequence

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ABSTRACT

The terminology presently used for the prehistoric ceramic chronology in the archipelago of New Caledonia in southern Melanesia was defined by J.C. Galipaud in the late 1980s. Divided into two periods named Koné and Naïa-Oundjo, each characterised by different pottery traditions, the terminology of this chronology has been a useful research tool for the last two decades. But renewed excavations at numerous sites, as well as a wide program of dating conducted since the early 1990s by the local Department of Archaeology, show that a number of changes to the characteristics and chronological boundaries of the archipelago's varied ceramic traditions are now required. This paper proposes a synthesis of these recent studies, highlighting major typological and geographical shifts in the nearly 3000 years of ceramic history in Southern Melanesia. Questions concerning the first appearance of ceramics, the persistence of the Lapita series, the transformations of post-Lapita traditions, the first clear definition of the 'Balabio tradition' and the diversification of late ceramic traditions will be raised as a revised chronology is detailed. This leads to a proposed new nomenclature, defining four different ceramic periods for New Caledonia.

Keywords: New Caledonia, ceramics, chronology, Melanesia, prehistory

INTRODUCTION

Since the late 19th century, the study of prehistoric ceramics found in vast quantities all over New Caledonia has been the central theme of archaeological research in this Southern Melanesian archipelago (fig. 1). Early observations showed marked differences between sets of pots, and since the late 1940s, each new generation of archaeologists has tried to refine the ceramic chronology (cf. Glaumont 1879; Avias 1950; Gifford and Shutler 1956; Golson 1961; Chevalier 1967; Frimigacci 1975; Galipaud 1992a). Gifford and Shutler made the first wide-scale series of stratigraphic excavations on Grande Terre in 1952, with potsherds being the predominant finds, but they did not name the ceramic types they identified (Gifford and Shutler 1956: 70–75). Two decades later, the first attempts at naming ceramic traditions led D. Frimigacci to distinguish three main groups: the 'pots of the Lapita Complex', the 'paddle-impressed pots' and the pots of the 'Melanesian cultural ensemble' (1974; 1977; Frimigacci and Maître 1981). This general seriation prompted Roger Green to propose in the early 1980s the first robust ceramic sequence (Green and Mitchell 1983). This started with the Lapita cultural horizon, and a paddle-impressed pottery he called Podtanean. The late part of the sequence, comprising a different array of incised pots, was defined as an Oundjo style horizon. As part of his PhD, J.C. Galipaud

reworked this sequence and published a series of papers which divided the cultural chronology into two periods of roughly the same duration (Galipaud 1988, 1992a). The early period, called Koné, starting in the middle of the second millennium BC, was mainly characterised by dentate-stamped Lapita pots and paddle-impressed Podtanean pots, both inferred to have been produced until the beginning of the first millennium AD (Galipaud 1996). The later period, called Naïa-Oundjo, saw a succession of pottery traditions, with a marked difference between the north and the south of the 400 km-long Grande Terre. During the first millennium AD, pots of the Plum tradition produced in the south had horizontal handles, while pots in the poorly-defined Balabio tradition were made in the north. The second millennium AD saw the production of mainly ovoid Nera tradition pots in the south, while in the north, oval Oundjo tradition pots were used. This general terminology has been used until today to define the major pot types in the archipelago (cf. Sand 1996a).

Over the last two decades, our team has conducted numerous archaeological research programs on the prehistoric and historic remains of the archipelago (Sand *et al.* 2008). Study of the ceramic assemblages has highlighted their diversity and regional specificity. When viewed in conjunction with many new C¹⁴ dates, some with AMS precision, from newly-excavated sites as well as re-dated older collections, this diversity illustrates that a simple two-phase division of the cultural chronology (Koné and Naïa-Oundjo) is today too broad to highlight the major dynamics at play during the archaeological sequence and has thus become difficult to use effectively. This difficulty

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Figure 1. Map of New Caledonia showing the major archaeological sites mentioned in the text.

has ramifications beyond archaeology *sensu stricto*. Our outreach programs have found that the wider public and especially school students are confused by issues such as the use of the term ‘Oundjo’ to define a pottery tradition as well as a time period. To clarify the main points of confusion identified through recent studies and as a contribution to the never-ending review of ceramic chronologies in Island Melanesia, we propose in this paper to refine the sequence of New Caledonia by subdividing it into four clearer periods that better identify change over time and space.

FIRST SETTLEMENT PHASE: THE ‘LAPITA PERIOD’

Until the 1990s, debate about the precise dating of the first settlement of Southern Melanesia was somewhat confusing. Some scholars suggested late Pleistocene or early Holocene colonisation of the region (Shutler and Shutler 1975), but most authors favoured a late Holocene Austronesian spread to account for first settlement. Proposed dates for initial discovery ranged widely, though 1500 BC became generally accepted and this was used by Galipaud as the starting date for his early Koné period. A central question

concerned the cultural characteristics of the first settlers, and notably the problem of the relationships between the Lapita series and the paddle-impressed pots of the Podtanean tradition (Green and Mitchell 1983). Some results seemed to indicate that Podtanean was introduced before Lapita, implying a two stage settlement of the archipelago (Gorecki 1992; Galipaud 1999; and see Sand *et al.* 2001).

Since the mid-1990s we have been conducting a long-term program focussing on first settlement to answer accurately some of the questions raised in these debates, and to define more precisely the chronological span of the Lapita pottery tradition and related wares. The excavation of known and newly-discovered early sites, has allowed us to see the Lapita-related period from a totally fresh perspective (Sand 2010). The first objective was to better define the date of first settlement, to align New Caledonia with revisions to long-standing chronologies throughout the south-western Pacific (cf. Specht and Gosden 1997; Kirch 2001; Burley and Dickinson 2001). Over 80 AMS and conventional C^{14} dates clearly indicate that the first Lapita settlement of the archipelago occurred between 1100 and 1050 BC (cf. Sand 1997), nearly 500 years after Galipaud’s estimates for the beginning of the Koné period

(Galipaud 1992b:105). This dating agrees well with the results obtained for Lapita sites in the rest of Remote Oceania, showing a progressive settlement of this vast region (Green and Jones 2008; Bedford 2007; Clark and Anderson 2009; Burley and Dickinson 2001; Sand 2000).

In its early phase, the Lapita series in New Caledonia appears to stem from the Western Lapita style, but our studies of form and dentate-stamped motifs indicate a rapid evolution towards specificities that have been defined as a ‘Southern Lapita’ variant (Sand 2000). This variant can be identified through the predominance of specific ceramic shapes, for example in the larger proportion of carinated pots at the expense of the flat-bottom dishes common in other regions, or the multi-staged building of large pots with a double carination and composite rims, to name the most evident (fig. 2). Observations show a construction technique mostly restricted to slab building, with carinated pots ranging in diameter from less than 25 cm to over 65 cm wide. More restricted sets of bowls on pedestals, ringfoot cylinders, incurved pots and flattened lids were the other main forms produced in the ‘Southern Lapita Province’ (Sand 2010). Specific dentate-stamped motif series appear in the central decoration band, with a major development of stylised faces (Chiu 2007; Sand 2000) (fig. 3). Statistical analysis shows a unique association of certain series of band-motifs with particular central motifs, in proportions that do not match what is known in Lapita sites further north and east.

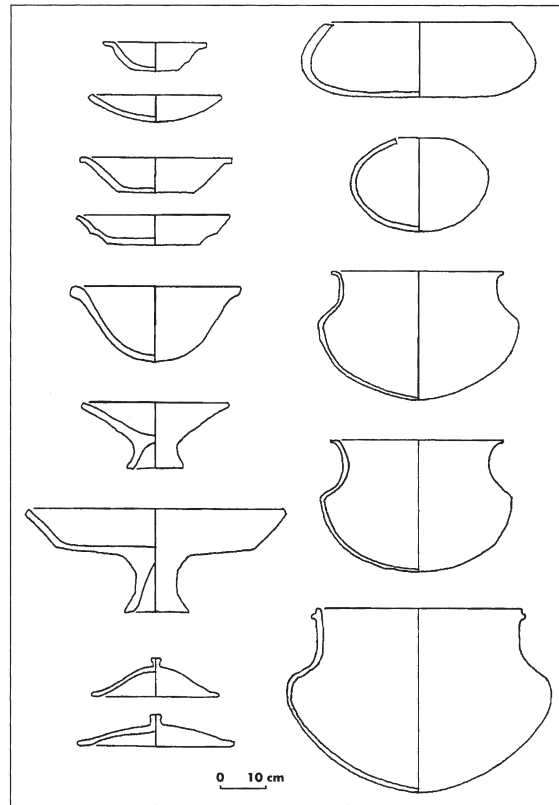


Figure 2. Examples of the major types of dentate-stamped pot-forms identified for ‘Southern Lapita’.

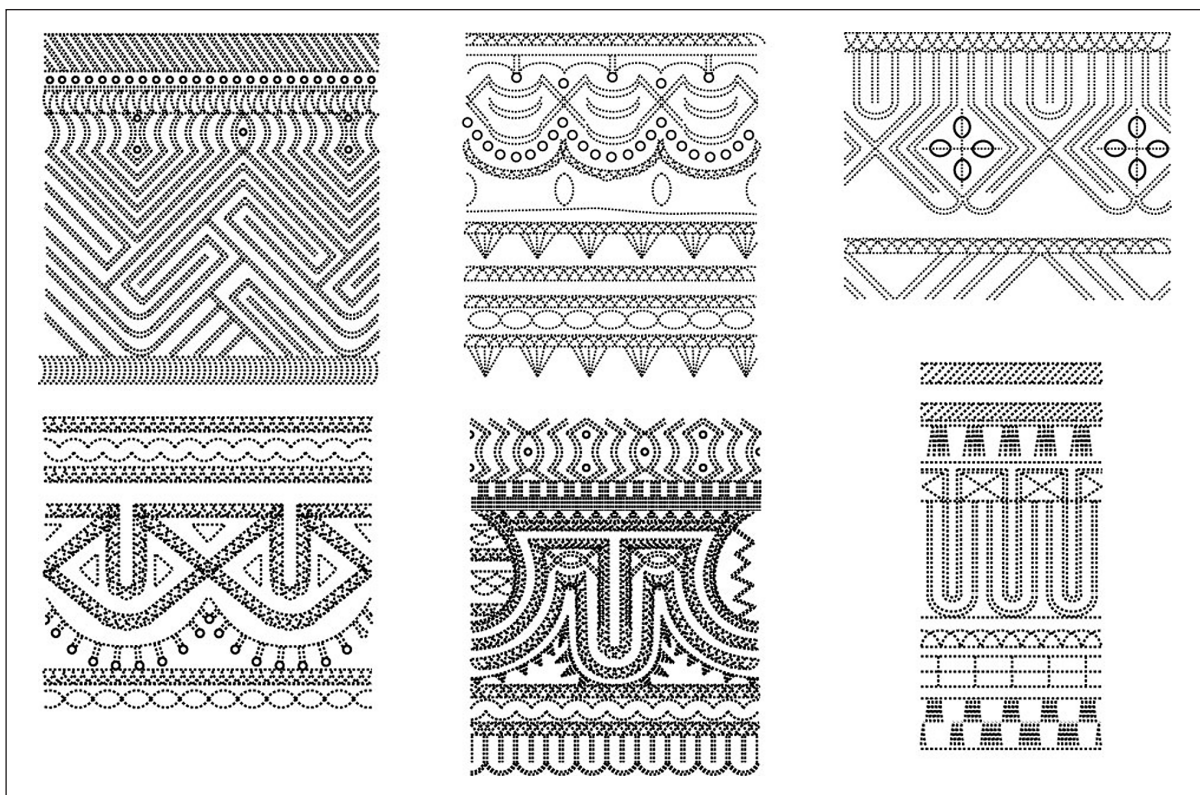


Figure 3. Diversity of dentate-stamped Lapita motifs developed in the ‘Southern Lapita Province’. Digitised by B. Ducourneau.

In association with pots decorated by dentate tools, New Caledonia's first settlers also produced carinated ware bearing a restricted range of the incised decorations found through-out Island Melanesia, as well as some pots decorated by shell impression, often with thinner and harder walls (Sand 2010). Lapita pottery is renowned for being tempered with coral sand in association with lithic tempers. The collections excavated in New Caledonia exhibit a diversity of temper types, spanning the whole range from single coral-sand tempering, sometimes representing nearly half of the fabric, to only mineral tempering, along with diverse mixes in-between (Chiu 2003). There appears to be a chronological trend on Grande Terre, with often thick walled pots in the early part, and thinner walled pots characterising the late part of the Lapita series.

The chronology of paddle-impressed Podtanean ware has been debated for a long time, especially because of early dates obtained from excavations on the Naïa site in the 1960s (Smart, nd; Vanderwal, nd; Galipaud, 1997) and from the rockshelter of Tiwi in the late 1980s (Galipaud 1992b). Detailed studies of this easily-recognisable pot type in our excavations have shown clearly that Podtanean ware appears to be nearly absent in the earliest levels of the earliest Lapita sites. The non-decorated ware produced at first settlement comprised plain pots with out-curved rims, often with a notched lip. The rise of paddle-impression took place during the development of 'Southern Lapita', as a specific local component on lightly carinated pots showing a clear distinction of angle when compared to Lapita pots. Podtanean pots are a special feature of Lapita in New Caledonia, although their production continued well after the demise of dentate-stamped decoration.

Defined in Galipaud's chronology as lasting nearly 1500 years, the production of Lapita ware in New Caledonia has now been reduced to less than 300 years, ending sometime around 800 BC (Sand 1997). The end part of the Lapita phase is characterised by an increase and diversification of incised motifs, the appearance of a series of simplified dentate-stamped motifs, and the development of more shell-impression in some sites. Pottery forms also changed, with the final disappearance of small, flat-bottomed dishes, while carinations became less angular. Variations in typology and chronological trends between sites and regions of the archipelago can also be observed. In the Loyalty Islands, for example, Lapita pottery quickly became predominantly decorated with simple half-moon shaped zig-zag patterns made with an edged tool instead of a combed tool (Sand *et al.* 2002). All these data highlight a dynamism in the Lapita pottery sequence, in only about ten generations, and not a static tradition over centuries as previously thought (cf. Galipaud 1992a:189).

On the foregoing basis, it appears that the very specific period of initial settlement, characterised by Lapita ceramics and the major changes that followed immediately afterwards, justify giving this part of the New Caledonian sequence its own name. As the name Lapita originated

from a New Caledonian site (Gifford and Shutler 1956; Sand and Kirch 2002), we propose simply to name this first settlement phase the 'Lapita period'. The loss of dentate-stamped decoration around 800 BC marked the end of a period characterised by ceramic and other cultural traditions stemming directly from a cultural complex generated outside the archipelago (Green 2003), and opened the way for a process of internal cultural development.

THE 'KONÉ PERIOD' REVISED: POST-LAPITA CERAMIC DIVERSIFICATION

At the time the last pots bearing dentate-stamped Lapita motifs were made on Grande Terre, potters were already developing new types of ceramics that, although deriving from Lapita, evinced local characteristics (Sand 1999) distinct from pottery being produced elsewhere in the southwest Pacific (Bedford 2006; Clark 1999). This ceramic shift parallels new settlement strategies, with people starting to move permanently inland, diversifying their habitat and probably adapting their political systems to a growing and geographically-expanding population. Many changes are identifiable in the prehistoric sequence over the succeeding 800–1000 years.

The main pottery type during most of the period remained paddle-impressed, in the Podtanean tradition. The early part of the sequence is characterised by narrow paddle-impressions, mostly on thin-walled pots with light carination and rims with a flat lip. Over time, the grooves became larger, the pots thicker and the rims took a more rounded form (Sand 2001) (fig. 4). At the same time, a whole series of incised pots and bowls came into production. The early lightly-carinated pots, mixing incision and paddle-impression on the west coast of Grande Terre, can be related in form to the previous period, but the appearance of new chevron, triangular and shell-impressed motifs, on non-carinated or bowl-shaped ceramics, show major internal evolutions (Sand 1999). All these pots appear to have still been slab-built, another connection to Lapita technology.

Regional diversity, already visible during the Lapita period on a lesser level, becomes more apparent at this stage of the New Caledonian sequence. In the southern half of Grande Terre, it was the incised ware of the Puen tradition that predominated during the second half of the period, often at the expense of the declining Podtanean tradition (Sand and Ouetcho 1993). As pointed out by Galipaud (Galipaud 1997), the link between the two ceramic traditions is evidenced by the presence of paddle-impressed marks on early chevron-incised Puen pots. But the later ware has specific characteristics that need to be recognized and cannot be simply classified in a broad Podtanean pool. Although a few bowls have been identified, Puen pots were mostly of oval shape, mainly without carination, with rounded or incurved rims and bearing a whole set of incised or stamped decorations under the lip

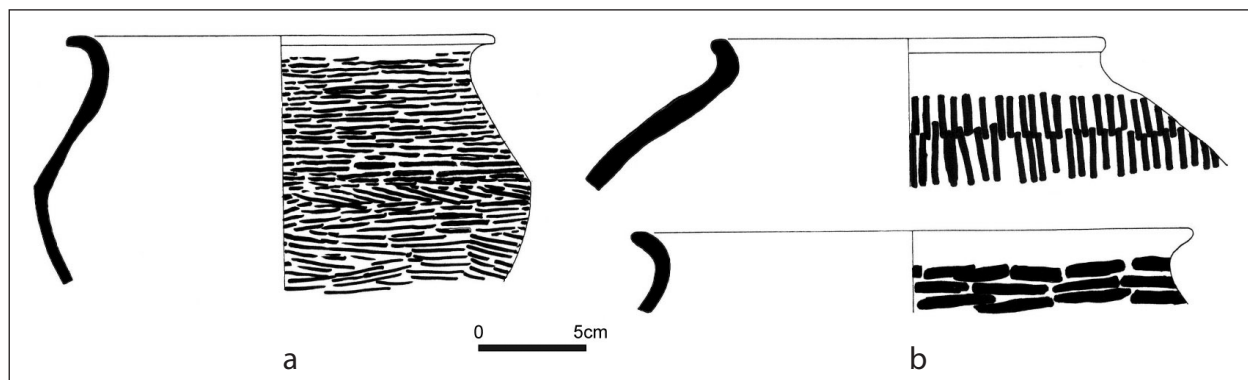


Figure 4. Podtanean tradition pots of the (a) early and (b) late Koné period found in the Tiouandé région (north-east Grande Terre), showing changes in imprint size and rim-form.

(cf. Green and Mitchell 1983, fig. 3) (fig. 5). In the northern part of the west coast, during the same period, we see the development of new forms of simple ovoid pots with incurved rims, bearing shell-impressed and applied clay-band decorations, that we have defined as the Pindai tradition (Sand 1999) (fig. 6). These developments seem to have led to the disappearance of the Podtanean tradition after around 200 BC on the north-west coast. On the east coast, more open paddle-impressions, associated with the development of incisions and a few shell-impressions, develop until the first part of the first millennium AD on pots that appear to lose their carination (Sand 2001: 96–97). Finally, in the Loyalty Islands, this period saw the disappearance of pottery production altogether, after the short-lived production of locally-made pots with specific sorts of incised decoration. Only paddle-impressed pots produced on the north-east coast of Grande Terre are present in sites in the



Figure 5. Example of complete Puen tradition pot. Photo © New Caledonia Museum.

Loyalties after that time, indicating the development of a regional exchange network with only part of the Grande Terre (Sand 1998: 216).

What was certainly the most significant characteristic of the early post-Lapita period, though, appears to have been the progressive diversification of pottery types, probably in parallel with a splitting of languages as small groups settled in a variety of environments (Sand 1995: 111–114). We propose the name 'Koné' for this period of paddle-impressed and incised-applied wares, using the term Galipaud assigned to the entire first half of New Caledonia's ceramic chronology. We feel that shortening the Koné period to the post-Lapita phase better reflects the localised development of the major part of the first millennium BC.

The diversification identified between regions makes it difficult to firmly date the end of the Koné period, as dynamics do not seem to have followed the same chronological path everywhere. The west coast of the northern part of Grande Terre saw the total disappearance of paddle-impression a few centuries before the end of the first millennium BC (Sand 1996), but this type of decoration continued to be produced for another couple of centuries on pots in some locations on the east coast (Sand 2001), from where they were exported to the Loyalty Islands (Sand 1998). In the southern part of the Grande Terre, the major changes appear to have taken place at the beginning of the first millennium AD, with the first appearance of thicker pots and new clay types. All this indicates that the date of AD 200 proposed by Galipaud for the end of the Koné period might be too late and should be taken only as a general chronological marker.

REDEFINING THE 'NAÏA PERIOD' IN THE FIRST MILLENNIUM AD

The late part of the New Caledonian ceramic sequence used during the past 20 years started at the very beginning of the first millennium AD and ended with Europe-

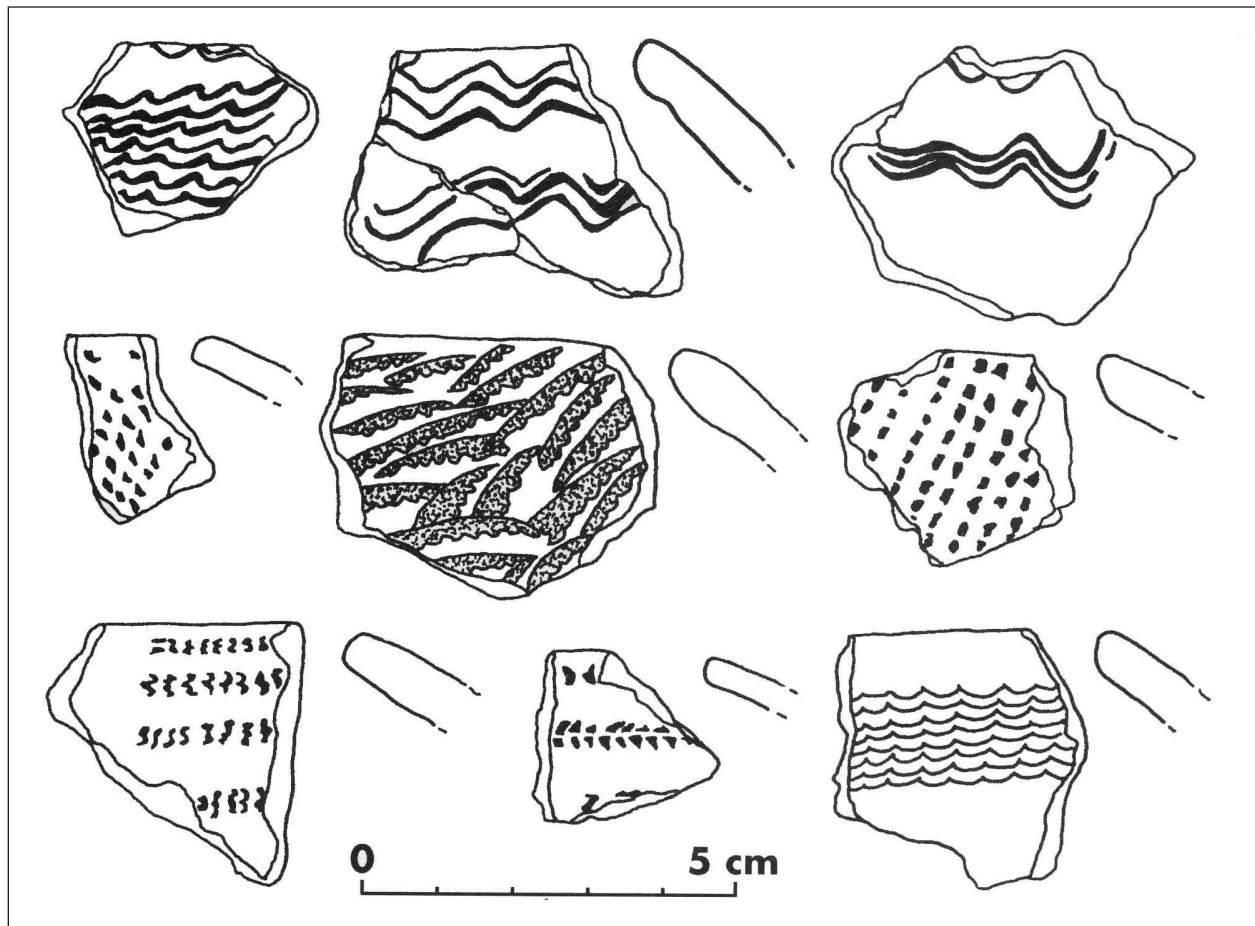


Figure 6. Decoration diversity of Pindai tradition pots.

an arrival. It was grouped by J.C. Galipaud into a single period, under the dual name 'Naïa-Oundjo' to illustrate differences between the northern and southern parts of Grande Terre, with the division roughly placed north of Bourail on the west coast and Canala on the east coast (Galipaud 1992a). New studies over the last two decades have progressively shown that this straightforward inclusion of over 1500 years of ceramic evolution in one period, based at the time on a handful of C^{14} dates, needs to be revised. Most importantly, it appears now that the differences between the ceramic traditions of the first and second millennia, already recognised by Galipaud and others, are so marked that the two sets of material cannot be directly associated. The length of the Naïa-Oundjo period also neglects significant differences in wider cultural dynamics and settlement patterns (Sand *et al.* 2003). We propose here to define two periods instead of one, separated by the change of millennium.

Galipaud saw pottery in first millennium AD northern Grande Terre as being dominated by the production of a tradition he called 'Balabio'. Unfortunately, he never described this tradition precisely and only proposed parallels with small late-prehistoric pots from the Hienghene

region on the north-east coast (Galipaud 1992a). New excavations in the northern region, and re-examination of older excavations, have given us a much clearer idea of the type of pots that can be included in the 'Balabio tradition' during this millennium (Gifford and Shutler 1956; Sand 2001: 97–98; Sand *et al.* 2002: 184–185). These were mostly ovoid pots with simple incurved rims and rounded bottoms, clearly related to the older Pindai tradition. Maximum diameter size ranged from 25 cm to over 45 cm, with thin-walled profiles and mostly fine-tempered clays (fig. 7). Decoration was very scarce, comprising mostly simple shell-impression and incision. No sign of coiling has been observed in the collections, indicating that these pots were probably slab-built. Very few of these pots had handles, and the handles that are present varied greatly from site to site. During the second half of the period, some applied decorations appeared, formed by wavy clay-bands as well as raised nubbins. Contrary to Galipaud's description (1992a: 196), purposefully-made holes under the rim seem to be absent for most of the northern part of Grande Terre. Towards the end of the millennium, rims in some sites slowly get more straight-sided.

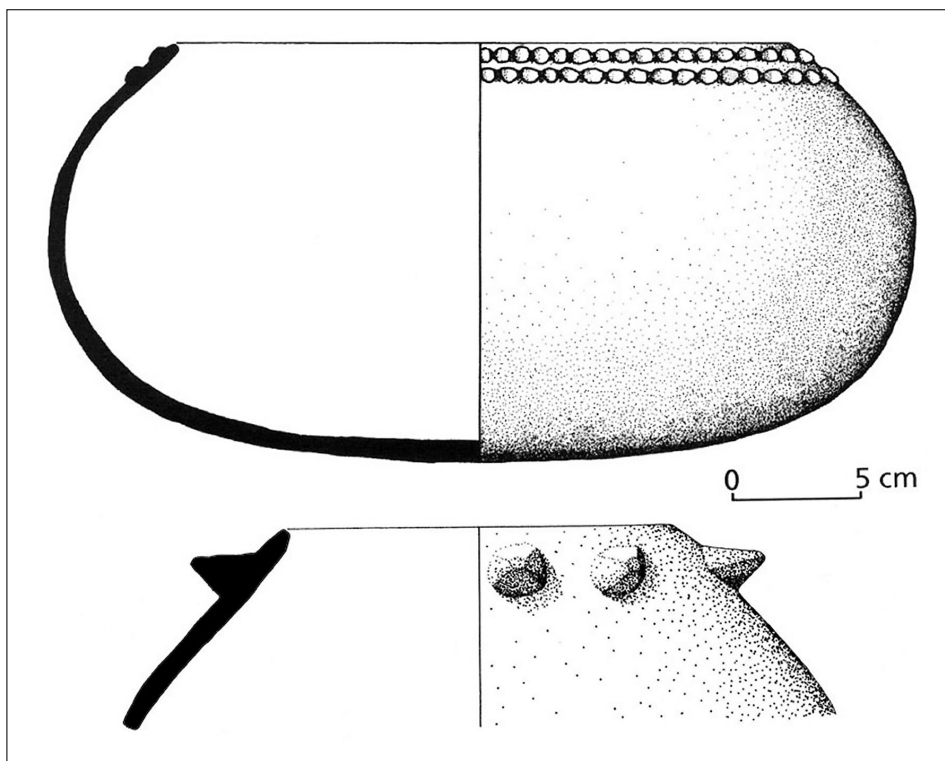


Figure 7. Examples of Balabio tradition pots from the east coast of Grande Terre.

The characteristics of the major ceramic type produced during the first millennium AD in the southern Grande Terre are better known (Sand 1995: 118–127). The main type was a round-bottom ware with two horizontal handles under the rim. Decoration was restricted to deep and often crude incising under the rim, with simple palm-like motifs sometimes expanded in triangular patterns. This pottery form, called the ‘Plum tradition’ after the discovery of a complete pot in this locality just south of Nouméa (Chevalier 1967), has no clear equivalent beyond New Caledonia (but see one example inferred from the Solomon Islands in MacLachlan 1938: 70, fig. 21). From rim form as well as the sets of incised decoration motifs, this tradition appears to have stemmed from the Puen tradition at the very beginning of the first millennium AD. Recent excavations (Sand *et al.* ms) suggest that in some sites Puen and Plum tradition pots were produced together for some time during the first few centuries of this millennium. Although the most common form appears to have been spherical, reconstructions show the existence of numerous other profiles, including, for example, long bullet-shaped pots (fig. 8). Rim calculation and handle diameter point to a wide diversity of sizes, with some pots over 60cm in maximum diameter. The handles show a whole variety of sizes and forms, with rounded, flattened or double-coiled sections, ranking from 1cm to over 6cm in diameter, some supporting three-dimensional clay protuberances. A few examples of clay cylinders of different forms



Figure 8. Example of bullet-shaped Plum tradition pot found on the south-west coast of Grande Terre.

have also been identified. Apart from new decorative motifs and the addition of handles, the most important change characterizing Plum pots appears to have been in construction technique and clay origin. Multiple examples show that the handled-pots were mostly coil constructed, a technique not identified earlier in the New Caledonian sequence (Sand 1995: 121). Clay analyses show a change in clay and temper types, with the abandonment of clays collected in marshes in favour of sedimentary clays from river-beds (Galipaud 1988, 1996). Coarser tempers, probably partly natural, led to the production of generally far-thicker pots that can be readily recognisable in any local ceramic collection. At the end of the sequence, previously prevalent rounded out-curved rims slowly became more straight-sided or incurved (Sand 1994: 68).

When compared with what went before and came after, the foregoing characteristics of ceramic production during roughly the first millennium AD justify, to our minds, a specific name for this part of New Caledonia's ceramic sequence. To maintain a degree of terminological continuity, we propose to retain for this intermediate stage, characterised in the north by the incurved Balabio tradition and in the south by the handled Plum tradition, the name 'Naia period' that Galipaud previously gave to the entire second half of the sequence for the south of the Grande Terre.

CERAMIC TRADITIONS OF THE 'TRADITIONAL KANAK CULTURAL COMPLEX'

At the end of the first millennium AD, New Caledonia's chronology entered a period of dramatic change (Sand 1995). The development of landscape intensification, with the appearance of large taro-pondfields and raised yam-fields, and the settling of groups in permanent villages, led to the slow advent of a distinctive 'traditional Kanak cultural complex' (Sand *et al.* 2008). This complex was characterised in the ceramic chronology by the development of new forms of pottery, easily differentiated from the preceding wares in both the north and south. As would be expected, these most recent prehistoric wares are the best known and most widely-collected pots in ethnographic and museum collections dealing with New Caledonia.

As just intimated, the divide between the northern and southern parts of Grande Terre remained clear during the last millennium before European contact. In the south, thick-walled and handled Plum wares were progressively replaced by thinner-walled, ovoid pots in the 'Nera tradition' (Sand 1995). Nera pots were characterised by incurved rims and rounded bottoms, with sometimes a small shoulder (fig. 9). Clays from marshes appear to have been the main type used, with fine temper (Galipaud 1996). Good firing processes allowed hard pots to be produced. Interestingly, construction of the pots appears to have been by slab-building, unlike the immediately-preceding Plum tradition. Major differences can also be

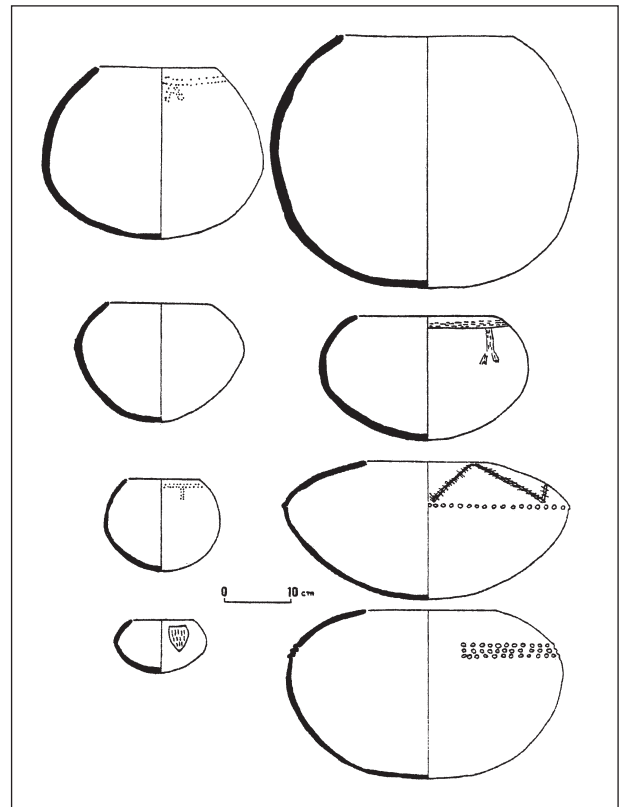


Figure 9. Diversity of pot forms for the Nera tradition.

observed in the decoration, with the development during the second millennium AD of a whole series of incised motifs, often stylised, as well as bands of raised nubbins pushed out from the inner part of the wall (Sand 1994). Although the overall characteristics of the Nera tradition appear similar between sites, typological studies show that minor differences in form and decoration can be identified from one sub-region to the other. At the southern tip of the Grande Terre, for example, a set of locality-specific incised motifs has been listed (Sand and Ouetcho 1992).

Pots produced in the north of the island during the second millennium AD had a completely different shape. These 'Oundjo tradition' ceramics were mostly oval in form, with a straight or slightly out-curved rim (Sand 1995) (fig. 10). Analyses of multiple pots, as well as ethnographic information, indicate that Oundjo pots were coil-made, a new process in this part of the island. Made with sedimentary clays often mixed with slightly-coarse natural or intentionally-added gravel sand for tempering, the walls were statistically thicker than those of the preceding 'Balabio tradition'. Although most pots were around 30–40 cm in diameter, some could reach sizes over 70cm wide and nearly 100cm high, indicating a good knowledge of pottery making. Varied incised, brushed, and printed patterns were created on the upper part of pots. In some sub-regions, three-dimensional representations of human faces were added for decoration (Sand 1996b: 29). Probably



Figure 10. Pottery cache containing two Oundjo tradition pots.

the most unique characteristic of this ceramic tradition, however, was the common presence of intentional holes drilled under the rim, mostly in pairs of 4, 6 or 8, intended for carrying and cooking purposes, especially to evacuate the steam (Leenhardt 1909).

A rich literature exists on the traditional use of Oundjo pots by the Kanaks and it appears useful to highlight briefly the main points here. Ethnographic accounts inform us about the traditional use of these Oundjo pots (Leenhardt 1937), and indicate that pottery-making was mainly women's work. Most pots were used for everyday cooking on fire. Some, particularly small-sized pots, were used for first-fruit rituals related to yam harvesting, and then only periodically for central social events (Leblic 1999). No clear difference in typology has been observed between pots involved in these two types of use. The last type of pottery that needs to be mentioned is a coarse, small form, made by men for preparation of medicines and magic (Galipaud 1984).

Ceramic studies conducted on the border regions between the Nera and Oundjo areas, to the south of Poya on the west coast and in Canala on the east coast, show a transitional typological process, with mixed characteristics between the two traditions (fig. 11). This indicates that there was no abrupt division, but a progressive trend from north to south. Contrary to the preceding millennium, this period was characterised by a fluorescence of trade and exchange between regions, with a major shift in directionality compared with the first millennium BC period (Sand *et al.* 2008:167–168). Nera pots were mainly

traded to Maré and Lifou in the southern and central part of the Loyalty Islands, while Ouvéa, the northernmost island in the group, served as an exchange node with Oundjo-tradition regions (Sand 1998; Carson 2001). All data obtained during the last two decades, as well as mid-19th century accounts, indicate that there was no late prehistoric abandonment of Nera tradition pottery production in the south, contrary to what has been published in the past (Galipaud 1992a:192). Depending on the sub-region, pottery-making stopped on Grande Terre during the post-contact or later colonial era because of population collapse due to introduced diseases, displacement of Kanak groups from their lands and the introduction of more durable iron pots. The last traditional Kanak pots were produced at the beginning of the 20th century by potter clans of northern and possibly central Grande Terre (Leenhardt 1909; Avias 1950:113).

Galipaud's adoption of the term 'Oundjo' for the second half of the ceramic sequence in northern Grande Terre, as well as the most recent northern ceramic tradition, is confusing. All data show that this last period, although diversified from one region to the other, shared extensive cultural ties archipelago-wide, revealing a strong pan-Kanak cultural homogeneity (Sand *et al.* 2003). While conserving the names of Oundjo and Néra for the northern and southern ceramic traditions developed during the second millennium AD on the Grande Terre, we thus propose to incorporate this last ceramic period simply as part of the now well-defined 'traditional Kanak cultural complex' (Sand *et al.* 2008).

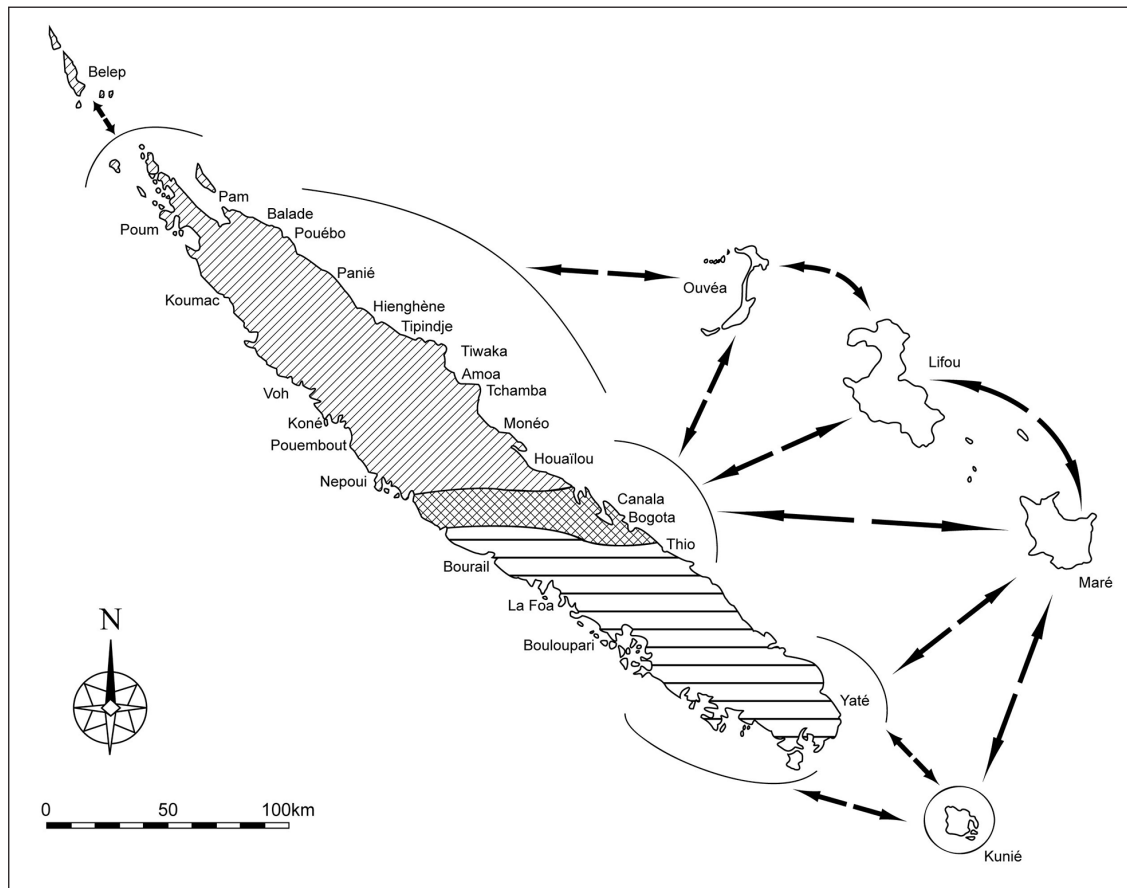


Figure 11. Map of New Caledonia showing the staged divide between the Oundjo and Néra regions as well as the main exchange routes between the different islands of the archipelago.

CONCLUSION

This paper has, as a contribution to a never-ending study, summarised the present state of knowledge of the ceramic chronology of prehistoric New Caledonia. This chronology spans nearly 3000 years, and shows marked differences from one period to the other. In relation to ongoing work on the wider cultural phases of New Caledonia's prehistory, it has appeared to us for quite some time now that the two-stage nomenclature used since the late 1980s, at a time when far less was known and dating procedures had not yet taken advantage of AMS dating, cannot account anymore in a satisfactory way for the complexity of the human dynamics apparent in our data. In order to incorporate the new information, we have expanded the number of periods to four, keeping known terms but reorganizing them. Also, we have decided to refer to each period by a single name encompassing different ceramic traditions from north to south, as regional differentiation now appears to have started very early in the chronology (fig. 12). The several hundred new C^{14} dates generated over the last twenty years have strengthened the chronological divisions between the traditions, leading to a more robust chronology.

Over the past 60 years, much work has been done to refine our understanding of prehistoric ceramics in New Caledonia, but there is a great deal more to do. The central question, we think, remains the following: how much do changes in pottery technology, forms and decorations in Island Melanesia reflect local evolution rather than different forms of outside influence? Or, to say it differently, is the succession of ceramic periods in places like New Caledonia, Vanuatu or Fiji due only to internal dynamics (cf. Bedford and Clark 2001), or can we trace in some of these changes the input of new arriving groups, bringing in new concepts, techniques and ideas (cf. Bellwood 1978; Spriggs 1997; Burley 2003)?

Research is still expanding on ceramic collections from different Lapita sites of New Caledonia (Chiu 2005; Sand 2010), but studies also need to be expanded for other periods of the chronology. New opportunities appear to be offered for the Koné and Naïa period traditions by a series of large-scale rescue excavations that have recently led to the recovery of rich collections on the west coast of Grande Terre (Sand *et al.* ms). The second half of the first millennium BC and the first millennium AD are today the chronological period that needs urgently to be bet-

	LAPITA PERIOD	KONE PERIOD	NAIA PERIOD	TRADITIONAL KANAK CULTURAL COMPLEX			
NORTHERN GRANDE TERRE		PODTANEAN PINDAI 	BALABIO 	OUNDJO 			
SOUTHERN GRANDE TERRE		PODTANEAN PUEN 	PLUM 	NERA 			
LOYALTY ISLANDS		POST-LAPITA 		IMPORT OF POTS FROM GRANDE TERRE			
	-1000	-500	0	500	1000	1500	1900

Figure 12. Summary table of the ceramic chronology of New Caledonia, identifying the divisions proposed in the paper.

ter understood, in terms of local ceramic chronologies as well as in broad overall cultural evolution. Amongst other topics, identifying in detail the differences between the Puen and the Pindai traditions would shed light on the progressive diversification of cultural traditions in the archipelago. Understanding of the operation of pottery-production centres during the late 'traditional Kanak cultural complex', as well as the rise of related decoration patterns, is another of the central questions to solve. In-depth studies of ethnographic collections stored in museums world-wide could certainly provide a great deal of valuable new information on the Oundjo tradition. Finally, it must be stressed that temper and clay analysis studies on post-Lapita ceramic collections remain to this day at a very preliminary stage compared to other regions of Melanesia, although this is a field where the complex geology of Grande Terre should offer great potential (Dickinson 2002).

Pottery production continued in some parts of New Caledonia until the beginning of the 20th century, with some women elders trying to pass over to the younger generation – affected by colonial pressure – their cultural tradition. A few of these late pots are known and identified in public collections, especially one produced on the north-east coast in 1906, by an old woman photographed by ethnographer M. Leenhardt (1909). This pot (fig. 13), of classic Oundjo tradition form, bears specific tri-dimensional Kanak symbols: the turtle, the bird and the lizard. But it also bears a newcomer: the European-introduced horse and his rider. This pot is the perfect symbol of what pottery has been about in the Western Pacific over the millennia: a local product symbolizing tradition, but able to

incorporate characteristics of new times. Past and future, roots and prospects, these are the themes developed in recent years by a spontaneous generation of Kanak potters trying to revive this Oceanic tradition, and bringing some of the archaeologist's work out of the books, reports and papers, into the real world (Gony *et al.* 2010).



Figure 13. Early 20th century Oundjo tradition pot, bearing a tri-dimensional representation of a horse. Photo © New Caledonia Museum.

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