

# Research on Sepik Pottery Traditions and its Implications for Melanesian Prehistory

**Christian Kaufmann**  
Anthropologist

## Introduction

This paper serves two objectives:

- To give a brief report on the diversity of local styles of pottery manufacture and pottery decoration in the East Sepik Province of Papua New Guinea, with a side look to the West Sepik Province as well as to the Madang Province, all on the northern mainland of New Guinea. The main emphasis is on results of ethnographic field research activities in the years 1965 to 1967 and, to a lesser degree, in 1972<sup>1</sup>.
- To situate the conclusions drawn so far, partly published already in 1972, partly written up in an unpublished German study in 1981 to 1983<sup>2</sup> within a historical perspective of Sepik cultures as well as in the context of actual archaeological knowledge and theory (especially with reference to Swadling's most recent publication: *Plumes from Paradise*, 1995 and to Gorecki's findings).

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<sup>1</sup> cf. Schuster, (M.), "Vorläufiger Bericht über die Sepik-Expedition 1965-1967 des Museums für Völkerkunde zu Basel", *Verhandl. Naturforsch. Gesellsch. Basel* 78, 1967: 268-281.

<sup>2</sup> Kaufmann, (C.) *Töpferei-Traditionen im Sepik-Gebiet von Neuguinea als historische Quellen*, manuscript [1983], cf. same author, "Von den mündlich überlieferten Geschichten zu den Umrissen einer Geschichte des Sepik-Gebietes (Papua-Neuguinea)", in Kamber, (P.) und von Buettner, (R.) (eds.), *Diachronica*, *Ethnologica Helvetica* 8, 1984:137-152. I wish to thank Pamela Swadling for discussing my view prior to the Sepik Conference 1984 in Basel as well as Jean-Christophe Galipaud who took a close look in 1995 and encouraged me to write the present paper.

## ■ Sepik Pottery Research

Pottery making was observed by myself in eight different villages of the East Sepik Province, i.e. at Ngala wiye (or Swagup, Ngala, Upper Sepik area, language of Ndu Family - Middle Sepik Stock, Sepik-Ramu Phylum), Saserman and Tanggwinsham (both Kwoma, Washkuk Hills, non-Ndu language of Middle Sepik Stock), Seragum (Wosera Hills, Abelam-Wosera language of Ndu Family), Slai (Central Western Sawos, Ndu Family), Kwaiwut (Eastern Sawos, Ndu F.), Aibom (Central Iatmul of Sepik, Ndu Family but historically with non-Iatmul links to Chambri of Lower Sepik Sub-Phylum Stock as well as to Sepik Hills), and Marwat-Dimeri (Yaul and Mongol-Lagon of Yuat Super Stock in Ramu Sub-Phylum). Reports about pottery making in other villages were also collected, especially for the Keram and Porapora area (Keram Stock, Ramu Sub-Phylum), for the Yassean-Mayo area (Tama Family, Upper Sepik), and for the Lumi area (Olo and Wapei languages, Torricelli Phylum in the Western Torricelli Mountains, West Sepik Province, through Gisela and Meinhard Schuster). Gisela and Meinhard Schuster provided also valuable in-depth data for situating the pottery making complex in the context of Aibom society and religion<sup>3</sup>. This was all pre-May and Tuckson, sometimes co-Tuckson - in fact, Margaret and I started swapping results in 1966, and kept doing so when Patricia May and Margaret Tuckson set out writing the marvellous book. In 1972 we did one short field trip together in the Prince Alexander and Torricelli Mountains.

Research consisted in documenting at least all the stages from gathering the clay to firing as per taking notes and photographs, sometimes shooting 16 mm films, doing some tests on firing temperatures with the equipment available. This demanded stays of at least 10 consecutive days in each village, in half of the cases even more; the total time for research was nine months. Evenings were spent collecting anthropological information regarding to pottery collections already existing in overseas museums, notably in the Basel Museum für Völkerkunde as well as on other aspects of material culture. An independent more in-depth study was only possible for Saserman (Kwoma), in 1972/73

<sup>3</sup> Kaufmann (C.), *Das Töpferhandwerk der Kwoma in Nord-Neuguinea. Beiträge zur Systematik primärer Töpfer-Verfahren*. Basler Beiträge zur Ethnologie 12, 1972, "Kwaiwut" (Neuguinea, Mittlerer Sepik) - Aufbauen und Verzieren einer Sago-Essschale, Film catalogue n° E 1372, IWF Göttingen, text in: *Publ. Wiss. Film, Sekt. Ethn.* 1974 (also available in English); Schuster G. und M., "Aibom" (Neuguinea, Mittlerer Sepik) - Herstellen einer Backschale, einer Feuerschale und eines Sago-Vorratstopfes (3 different films, E 1368, 1369, 1370); IWF Göttingen, text in: *Publ. Wiss. Film, Sekt. Ethn.*; Schuster, Meinhard, "Die Töpfergottheit von Aibom", *Paideuma* 15, 1969:140-159.

to be complemented by a one year study of the other art traditions and their context<sup>4</sup>. In 1967 a comparative check documentation was done during a one day visit to Bilbil near Madang - which showed surprising parallels to an unpublished field record that Alfred Bühler had established 30 years earlier on Sumba (Eastern Indonesia).

Surface collections of potsherds were established at and near Aibom, to a lesser degree around Saserman, and in 1972/1973 also at other places, when we also received documentation about sherd findings at Siaklam Airstrip at the edge of Kwoma territory and in the Keram-Yuat-Maramba area. Only the Aibom material has been analyzed more systematically by Christin Kocher Schmid<sup>5</sup>

Recent and sub-recent pottery of almost all the styles encountered in the field was collected for the Basel Museum (as well as for the Port Moresby Museum - this latter collection mysteriously disappeared on its journey from the Sepik to POM), and earlier collections were studied, though not formally analyzed for comparison.

All this fact-finding resulted in establishing the following points:

(1) At the outset of the field study the question had been whether or not the model developed by German speaking ethnologists, and most convincingly put forward by Margarete Schurig in her thesis<sup>6</sup> under Fritz Krause in Leipzig (an early structuralist), i.e. the model of opposing “Austronesian Paddle and Anvil Modelling” to “Papuan Coiling” had any value if tested against field evidence. It soon became clear, that it had not. Even worse, the profuse use of the model encouraged researchers not to observe too closely the facts of the processes observed in the field<sup>7</sup>. Indeed, once we separate

<sup>4</sup> Kaufmann, (C.) “Über Kunst und Kult bei den Kwoma und Nukuma”, *Verhandl.Naturforsch.Ges.Basel* 1968; same author “Arts and artists in the context of Kwoma society” in Mead, (S.M.) (ed.), *Visual Arts of Oceania*, 1979: Exploring the visual art of Oceania. Honolulu, Uni. Of Hawaii press, 1979; same author, “Kwoma, New Guinea - Making and decorating a ceremonial vessel”, Film E 2231, IWF Göttingen, text in: *Publ.Wiss.Film, ser..Ethnol*, 1980, same “Planter and Artist, two roles of leading men among the Kwoma of North New Guinea”, Film D 1469, IWF Göttingen, text in: *Publ.Wiss.Film, ser.Ethnol.*;

<sup>5</sup> Schmid-Kocher [now Kocher Schmid], Christin, “Preliminary report on the analysis of pottery sherds collected in the Aibom-Chambri region, Middle Sepik, Papua New Guinea”, *Verhandl. Naturforsch. Gesellsch. Basel* 91,1981:35-49.

<sup>6</sup> Schurig, Margarete, *Südsee-Töpferei*, Leipzig 1930.

<sup>7</sup> An experience the reader might share in a neighbouring field when looking at travel account footage showing PNG women making bilums - always the rolling of the thread, never in detail the rapidly performed actual process of knotless netting - honni soit qui mal y pense -, or, for yet another example, one might consult the film documents about the so-called mat-weaving, indeed plaiting because in Melanesia only exceptionally done with a strap loom: Rarely you see and understand how the basic pattern is established and how additional patterns are obtained; the fingers are working so regularly but fast that the mind of the cameraman cannot follow.

the pot building process into phases, like preparing clay elements, building the body, shaping the body, 2nd building phase, 2nd shaping phase up to rim building and rim shaping, surface finishing and decorating, you shall immediately see that you may get quite a mixture of technical processes that, looked at superficially only, could *seem* to be structurally opposed to each other, where in fact they are complementing each other (cf. fig.):

- spiral coiling, done with fine clay elements, for the building-up phases, and shaping through hand-modelling and/or through reduce-cutting reduce-cutting with a sort of knife (e.g. a shell ring-knife) or else with paddle-modelling;
- ring coiling for the building-up, and hand-modelling for the shaping both done with thick elements of coarser clay, also combined with reduce-cutting by a knife;
- slab building and hand-modelling can be seen as a further basic combination, in the Aibom tradition generally used at the start, before the ring coiling building-up.
- bulding-up from a lump of clay by hand-modelling or by paddle-and-anvil-modelling.

As a matter of fact, the variants of the building-up process may be combined amongst each other for different phases of the pottery making, i.e. slab building and ring coiling, and they can also be combined with either the shaping of the pot's body by hand-modelling, or by reduce-cutting/scraping, or by paddle and anvil-modelling, or even again with a combination of these methods. Paddle and anvil-modelling has two variants, one where the fingertips are used as an anvil on the inside of the pot against which the paddle is beaten, and one where a stone, held by the potter's hand is used.

Outside the Sepik area even more extravagant combinations may be found, e.g. as reported by Cresswell 1968 for the Near East, or by Speiser (1991: 232) for Pespia, West Coast Santo where spiral coiling on a bamboo support and hand-modelling are combined as opposed to Wusi, equally West Coast Santo, where potters started by hand-modelling from a lump of clay and the passed over to scraping the clay body.

(2) An important degree of local variation in traditional techniques of manufacture (figs. to ) as well as of decoration (figs. to ), mainly synchronically by several individuals working at the same village (figs. - ), but also - where information became available, i.e. in the Central Sepik area between Sawos and Aibom/Chambri-Yerakei/Garamambu - diachronically (cf. fig.).

Clays are often specifically selected for the type of pot to be made; they are always specifically prepared at least by picking out remains of roots or stones and by pounding, sometimes two different clays are being mixed or else the clay's quality is being adjusted by adding sand temper.

Sepik traditions show a wide range of techniques of decoration; only internal punctuation and comb-stroke incisions are absent from the recent material; else we have unsmoothed coils, simple incised, punctate/dentate, thumb-nail incised, finger notched-applied, several other forms of applied as well as incised, carved-incised and true chip-carved decorations, topped, of course, by modelled decorations like handles, bird-heads etc.

No true red-slip ware has been recorded, although a sort of "sago-slip" is applied by Aibom as well as by Marwat-Dimeri (and other) women, and the inner surface finish of Kwaiwut sago-dishes (from south of Serapa) with a coconut shell is so fine, as is the clay, that the result looks almost like a slip-cover.

(3) A higher degree of interaction between male and female potters than one would expect. Only in Ngala wiye would all stages of pottery making be performed by potters of one sex only, in that specific case by women. In all other samples of pottery making, and even where one sex was predominant, e.g. in the case of the female potters of Aibom there were always some steps where the opposite sex had to be or should have been involved in some shared work, like is the case especially in Sasernan.

(4) None of the pottery making in the communities studied in the Sepik Provinces were speakers of an Austronesian language; of course Bilbil is Austronesian. This was so, because of my concentration upon fieldwork in the interior, excluding the coast and the coastal islands, for which some earlier reports were available (cf. Erdweg 1909 for Tumleo near Aitape). May and Tuckson<sup>8</sup> have in the meantime filled this gap.

On a more general level, two sorts of linguistic links can be established:

- Pottery making is not generally traditional with local societies belonging to the Upper Sepik and Sepik Hill language families of the Sepik-Ramu Phylum nor with the Min- and Ok- (or Mek-) Languages of the Trans New Guinea Phylum, though a few individual pots might be in use with some of these groups as a result of trade or other exchange links. Pottery products do in fact travel, locally sometimes even across the well established "cultural fences"<sup>9</sup>.

- Pottery making shows a closer link with members of the Ndu family and other members of the Middle Sepik-Stock such as Kwoma, Nukuma and Kwanga as well as with some languages of the Ramu-Sub-Phylum. These links concern different local or regional styles of pottery making; groups outside the Ndu language family, or even outside the Sepik-Ramu-Phylum, and their styles, could have played a more important role in the past, according to local oral tradition.

Additional field tests in 1972 proved this to be so, pointing especially to numerous members of the Torricelli Phylum as well as to some of the Adelbert Range Superstock

<sup>8</sup> May, Patricia and Tuckson, Margaret, *The Traditional Pottery of Papua New Guinea*, Sydney, Bay Books, 1982.

<sup>9</sup> Gorecki, Paul, "A Lapita smoke screen?", in Galipaud, Jean-Christophe (ed.), *Poterie lapita et le peuplement. Actes du colloque lapita, Nouméa, Janvier 1992*. Nouméa 1992:27-47 p.30; cf. Haberland (1966) for Alfendio area next to Upper Karawari, coll. Museum Basel for Bahinemo-Mt.Hunstein/April River area and for Ewa-Inyai of Enga Family, Trans NG Phylum, etc.

of the Trans NG Phylum<sup>10</sup>. In both areas, the techniques of building up and shaping the pot's body (spiral coiling and hand-modelling), the general pot shapes (pointed base, often relatively high in reference to the maximum circumference at the pot's belly, a slightly retreated mouth) and even the elements of its decoration on cooking and storage pots (unsmoothed parts of top coils with very often the last coil hanging down over the edge like a pig's tail) are rather consistent over a wide area (from Lumi Sub Province, West Sepik right into the Middle Ramu/Adalbert Range area and into the Madang Hinterland at Gogol River) (fig. ....) with one notable exception however (see below for Pila); more often than not men are the potters. Are the descendants of the linguistically archaic Torricelli Phylum, one of the intriguing enigma of Papuan linguistics, descendants of the first potters in the Sepik area - and for that matter in Melanesia? Could we hypothetically link them to Early East Asian/Early Jomon traditions at all?

(5) Before we let us get carried away by speculation, I should remind the reader that the first analysis of the surface finds from Aibom (Schmid-Kocher 1981) has revealed the existence of different ceramic styles that can be linked to recent traditions through old museum specimens of whole pots showing sometimes even finer traits or combinations absent from the 1965-1972 samples (e.g. old Chambri pots in Basel and in the PNG National Museum<sup>11</sup>). Some pottery sherds from the old Aibom village site, however, are of a different texture and decoration which cannot be linked directly to one of the still existing pottery traditions. Their clay and surface finishing is finer, though comparatively thick and they show patterns of curvilinear comb incision. Could they be linked to comb-incised pottery from Eastern New Guinea, there tentatively dated to the 13th Century AD? (for another possible link see 2nd part).

(6) Drawing up a more general picture of the conclusions to be inferred for Sepik History I landed in 1983 a diagram<sup>12</sup>, of which the following is an updated version. It is based on linguistic interpretations of peoples' history<sup>13</sup>, on Kwoma, Sawos (notably Gaikorobi) and Iatmul orally transmitted knowledge about their past<sup>14</sup>, on Patricia May's and Margaret Tuckson's additional evidence on pottery making processes for North and East New Guinea as well as on Pamela Swadling's archaeological findings

<sup>10</sup> The latter information was provided by Dr. John Z'graggen in addition to pottery samples he collected for the Basel Museum.

<sup>11</sup> Cf. Susan Bulmer n.d., 1975 and Brian Egloff, PNG Pottery, Museum catalogue POM as well as PNG National Museum records 1975 respectively.

<sup>12</sup> Kaufmann, 1984, p., see also Kaufmann, 1974.

<sup>13</sup> Laycock 1965, p. 187.

<sup>14</sup> Schindlbeck 1984, Wassmann 1984, 1990, Schuster 1973, Bragge 1990.

and her interpretation thereof<sup>15</sup>. Once new archaeological findings shall become available one would have to reconsider the Chambri's view of their past as related by Deborah Gewertz<sup>16</sup> and to combine it with what we might be able to grasp of peoples' past in the respective areas of southern tributary rivers like Porapora, the Keram-Yuat region as well as along the former course of the Yuat River and the Blackwater, all with additional extinct pottery traditions. A comparison with Brigitta Hauser-Schäublin's findings on the history of the architecture of Sepik ceremonial houses could perhaps help to elucidate the relationship between coastal and inland traditions. Her basic conclusion from a detailed analysis, i.e. that the inland traditions in building have pre-Austronesian common roots confirms the view proposed here in its basic assumption while offering in a number of points opposing views<sup>17</sup>.

For reading this diagram, the following comments might be useful. Working back from the present traditions into the recent and more distant past, we can differentiate at least seven different *strands* for the wider Sepik area:

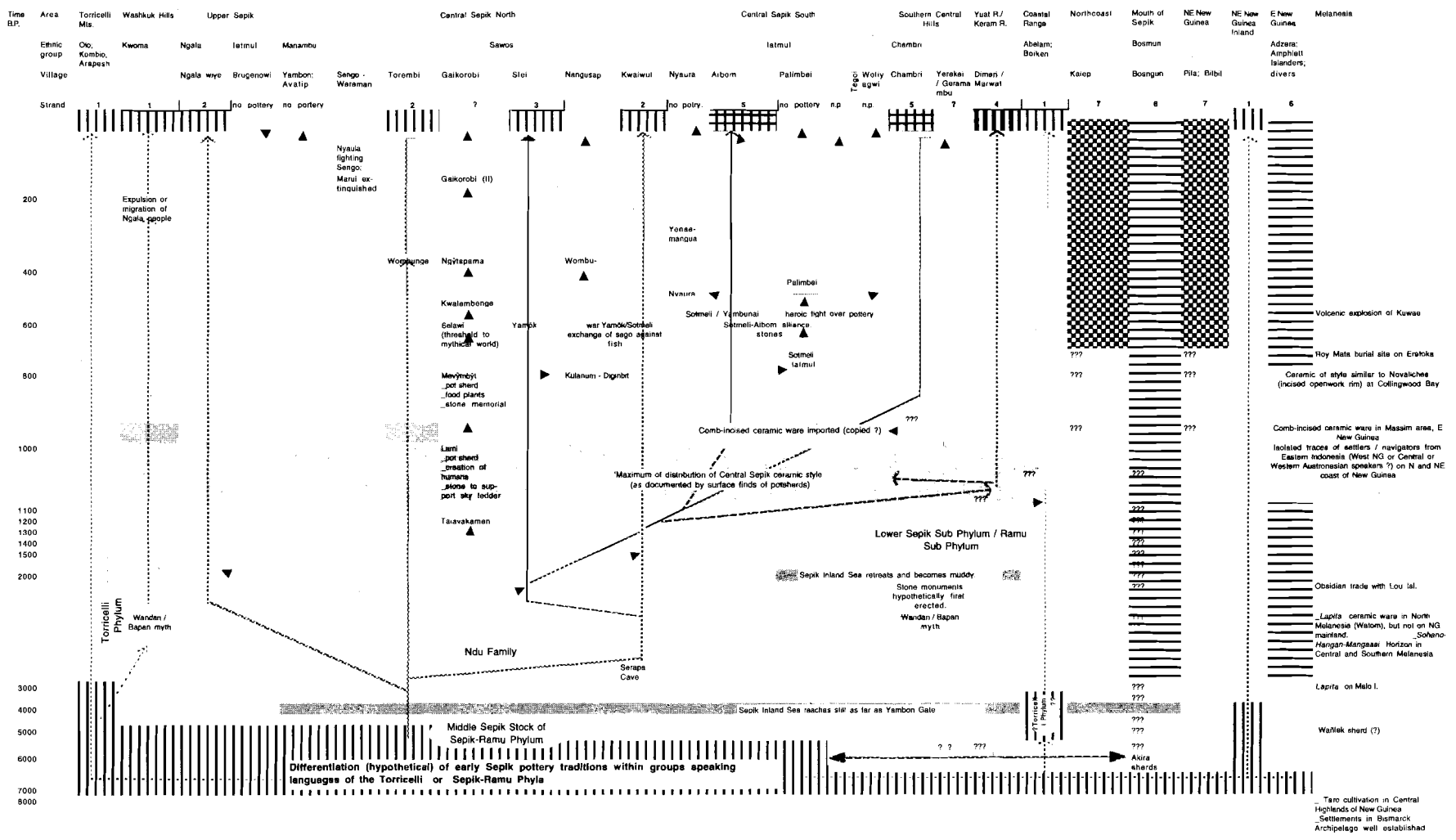
- Spiral coiling for building-up plus hand-modelling (no tools) for shaping, decorations made basically of unsmoothed parts of coils, with some simple incised as well as simple applied patterns, but also including regionally based evolutions of decoration to curvilinear deeply incised as well as true chip-carved patterns covering the entire surface; pointed bases to elongated or bellied and restricted clay bodies prevalent.
- Spiral coiling for building-up plus hand-modelling (occasionally with tools for smoothing) for shaping, combined with at least simple applied decoration, but in many instances developed into a variety of forms including applied, dentate, incised, applied-incised and carved patterns organised in bands or spread over the surface; pointed bases and rounded, often unrestricted bodies prevalent.
- Spiral coiling (thin coils) for building-up plus hand-modelling combined with reduce-cutting or scraping for shaping, often accompanied by a high diversity of decoration as described above, but also including chip-carving; rounded bases prevalent.
- Spiral coiling (thick coils) for building-up plus hand-modelling combined with drastic reduce-cutting or scraping for shaping, decoration with applied, applied-incised and incised elements; rounded bases to semispherical or restricted, spherical forms prevalent.
- Slab building/ring coiling combined with hand-modelling for building-up plus reduce-cutting or scraping and smoothing for shaping, combined with dominantly applied/modelled, also applied-notched as well as applied-incised decoration, historically also combined with chip-carved bands; rounded bases with bellied forms, many of which restricted with elaborate rims prevalent.

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<sup>15</sup> Swadling

<sup>16</sup> Gewertz

<sup>17</sup> Hauser-Schäublin, notably)



**Pottery Traditions in the Sepik as part of Sepik History**

- Pottery traditions personally observed.
- 1 and 2: Coiling for building up and shaping without tools (strand 1) or with tools (strand 2)
- 5: Ring building and hand modelling, scraping of clay body



- Relationship of pottery traditions 1-5 as well as those of uncertain origins and extent
- Linguistic relationship: Ndu F, Middle Sepik Stock, Lower Sepik and Ramu Sub Ph, Torricelli Phylum
- Historical relationship

- Pottery strands continued (not personally observed)
- 6: Coiling with hand-modelling or slab building for building up vessel, paddle without stone anvil for shaping;
- 7: Building up from lump of clay with paddle and stone-anvil

C Kaufmann, 397, based on Laycock 1965, Wurm and Hatten 1981, Schindbeck 1984, Wassmann 1984, 1990, Kaufmann 1984 and n.d., Swadling 1985.



- Spiral coiling or slab-building and hand-modelling for building-up plus paddle and finger-anvil modelling for shaping; rounded bases prevalent.
- Modelling from a lump of clay or a thick coil for building-up plus full paddle-and-stone anvil-modelling for shaping combined with incised decoration; spherical or oval forms, often restricted, prevalent .

We might here recapitulate some affiliations between strands and linguistic groupings:

Strand 1	Torricelli Phylum, Middle Sepik Stock of Sepik Sub Phylum (Sepik-Ramu Phylum) and Adelbert Range Super Stock of Trans NG Phylum
Strands 2,3	Ndu Family of Middle Sepik Stock
Strand 4	Ramu Sub Phylum
Strand 5	Pondo Family (for Chambri) of Lower Sepik Sub Phylum Level Stock
Strand 6	Otilien (Nubia-Awar) Family, Ramu Sub Phylum and other non-Austronesian families, except for Adzera and Amphlett Islands
Strand 7	Austronesian (Western ?? and Central Oceanic).

(7) On an even more general anthropological level we can retain some more facts that continue to puzzle me: Although all dominant groups and nearly all not so dominant groups in the Sepik Basin plus surroundings hills and mountains speak NAN languages, some elements that could well be of an origin amongst Austronesian speakers like the Two Brother-myth linked to an outgoing canoe voyage and sacred stone settings, myths turning around an eagle or hawk and a turtle and showing in some cases links to a name like Tagaroar (which surely reminds us of Tangaroa - cf. Scheffrahn's lining up 1967), the tusker pig, even ranks (in an initiatory system though) and other elements are found to be present quite across the Sepik area.

## █ Where does this lead us today?

To sum up the map of the Sepik area at large shows some 80 languages (cf. Laycock in Wurm and Hattori 1981, map 6, Lutkehaus et al. 1990, p.<sup>18</sup>) of which approx. 65 are Papuan (or rather NAN of three different phyla: Torricelli, Sepik-Ramu, Trans New Guinea plus phylum level isolates, like Sko in the Vanimo area, some of which show

<sup>18</sup> Wurm Stephen and Hattori Shiro (eds.), *Language Atlas of the Pacific Area*. Canberra 1981; Lutkehaus, N. et al. (eds.), *Sepik Heritage. Tradition and Change in Papua New Guinea*, Durham N.C., Academic Press and Bathurst NSW, Crawford 1990.

possible old links in the vocabulary with South Asia and even Western Asia<sup>19</sup>). The remaining languages are Austronesian, generally speaking sub-families of Siassi, which extends from Sera(i) and Sissano on the Sepik North Coast to the Huon Gulf (Western Oceanic Austronesian), though some of the affiliations might need a closer look for influences from Central Malayo-Polynesian or Halmahera-West New Guinea languages. It is in this context worth mentioning that already Felix Speiser in his general analysis of material culture across Melanesia (Speiser 1946<sup>20</sup>) has concluded that there were in Northern New Guinea, apart from recent influences out of Indonesia, two distinct levels of Austronesian occupation or « migrations » (which was the word of the day).

This surely is a far cry from the evidence we can master today, not to the least thanks to Pamela Swadling's long-term endeavour to show the consistency of sometimes very disparate facts. The oldest pottery found so far in Melanesia, associated with a date of 5'580 +/- B.P. comes from Akira, a former island, now a hill between the lower Ramu and Bogia on the North Coast to the East of the mouth of the Sepik. According to the evidence presented recently by Pamela Swadling the introduction of pottery can be seen as the result of early trade, taking mainly Bird of Paradise feathers, cloves and possibly the tamed sugarcane as far West as the Middle East while allowing in the direction towards East New Guinea and the Pacific the expansion of goods, technical skills and people.

Whether pottery making arrived thus as a cultural outfit of the first Austronesian speakers (a probable link for Swadling 1995 as it was for Sue Bulmer in 1972 in her analysis of ceramic shapes in Sepik traditions), who would also have introduced the raising of pigs, the betel (*Areca catechu*) nut and shell bracelets or pendants remains yet to be seen. If it was an Austronesian introduction, Sepik residents would have absorbed at least the arriving skills, if not the people bringing them, turning the latter into speaking a non-Austronesian language. Basically then, these assets arrived at a time when the Sepik inland basin was just being settled for the first time in history, having been an inland sea before which became rapidly filled in with sediments from the Coastal as well as the Central cordilleras, thus allowing the development of new life styles and technology by people arriving there. According to linguistic evidence people would have arrived in the Central Lowland Sepik area mainly from the Central Highlands. Pottery is certainly an important asset in a lowland economy based on fish and expanding sago exploitation (*Metroxylon sago* needs at least fondling to be widely available) where people live in swamp/river dam villages built on stilts and communicate by the way of canoes. Sepik pottery is often also associated on the hills and mountains to the

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<sup>19</sup> Cf. Philsooph 1990 in Lutkehaus *et al.*

<sup>20</sup> Speiser, Felix *Versuch einer Siedlungsgeschichte der Südsee*, Denkschriften Schweiz.Naturforsch Gesell., Zürich 1946.

north of the main river with yam and taro, as well as with a mythology linking it to the moon (the moon is being kept by a mythical woman in her pot until it escapes to Heaven one night).

As far as the archaeological evidence and the analysis of sub-recent pottery styles go, the development of Sepik pottery tradition is independent of any direct Lapita influence. Therefore we should look into other possibilities.

The “Fichin” pottery in the Vanimo area with paddle and fingertop anvil finish, thin, incised decoration, and well fired, dated to appr. 5400/5500 B.P. to 1200 B.P. (Gorecki 1992: 35-37) or the “Akira” pottery referred to above<sup>21</sup> could well have arrived from the West without being linked to “early Austronesian speakers” as their trade asset. From the point of view of technique the “Fichin” tradition could be seen to fit with the recent Bosmun tradition, next to Bogia on the Northeast Coast (not very far from Akira). All these aspects seem to fit Swadling’s basic view of an arrival from the West.

The present day linguistic links in the areas concerned are rather unusual: The Vanimo area is mainly inhabited by people speaking languages of the Sko Phylum level Isolate (with possible links to Mainland Asia) and next to Akira live so to speak isolated members of the Torricelli Phylum (Monumbo and Lilau), while at Bosngun nowadays a Nubia-Awar language of the Ramu Sub Phylum is being spoken. The linguistic situation seems to be rather complex; one reason could be that “Austronesian expansion” into New Guinea took place at least during four different periods, i.e. at the time of the first arrivals, 6’000 to 5’000 B.P., perhaps already linked to early trade (plumes, obsidian), then between 2300 and 1700 B.P. when forms linked to the Dong-s’on tradition arrived thanks to a well established system of exchanges as well as of trade in birds of Paradise plumes and cloves, and again around 1200 to 600 B.P. during the extension of the spheres of influence of Javanese kingdoms, and finally during the Islamic Expansion to and in Eastern Indonesia in the 16th to 18th century<sup>22</sup>.

As for the dates for the first documented pottery, the Wall as of trade in birds of Paradise plumes and cloves, and again around 1200 to 600 B.P. during the extension of the spheres of influence of Javanese kingdoms, and finally during the Islamic Expansion westward links, so we have to bear in mind that pottery traditions, even when judged on outer appearances they may seem closely linked, may still be associated to one or the other of these different levels. If we look at the strand 6 and strand 7 traditions in the wider Sepik area we find telling differences: whereas in Kaiep, Pila and Bilbil we have the modelling from a lump of clay combined with the elaborate technique of modelling and shaping with a stone anvil, allowing the production of thin walled, spherical vessels, the paddle and finger-anvil shaping of Bosmun is of a different type. Strand 7 tra-

<sup>21</sup> Swadling *et al.* 1990, Swadling 1995.

<sup>22</sup> cf. Swadling 1995: 51-62 and figs. 57 on p. 271, 58 on p. 272.

ditions are evidently representing the latest arrival of pottery technology in the wider Sepik area; more likely than not this would correspond to a time depth of approximately 700 to 1200 B.P.; the linguistic affiliations seem not to contradict this, with an evident switch-over at Pila. Strand 6 would thus carry the heritage of an earlier arrival. The basic picture of diversity of strands 1 to 5 and their spatial distribution in the Sepik area implies that the introduction of pottery may have predated the arrival of strand 6 and 7 traditions which are closest to the seaboard. As only strand 7 shows a close Austronesian link, that is to seafaring Austronesians - though we cannot exclude a language switch for strand 6 -, the diversity of strands 1 to 5 could be seen as having resulted from more than six thousand years of development within the region, amalgamating whatever influences may have arrived or inventions that were made in due course, i.e. comb-incised decorations, true-chip carved decorations.

I have the definite suspicion that the early dates for paddle-finished, well-fired pots are not the earliest dates possible. All of strand 1 to 5 pottery is generally rather low fired though the surface sherds abundant in the Sepik show that at least the earlier forms of strands 2, 3 and 4, certainly also 5 did better in that respect. Low fired pottery would basically only be dried at temperatures up to about 580°C and would therefore quite easily desintegrate while lying in wet ground. From personal observations I would say that higher firing temperatures are more easily reached by using heaps of dried sago palm leaf bases (petioles) instead of wood only. This could mean that we can get archaeological dates for these traditions only at places where their makers had achieved a higher technical standard. Gorecki reports a date of 2700 B.P. for "pottery, well established" at the Serapa cave, north of the Middle Sepik (Swadling, excavated 1987, unpublished, see Gorecki 1992: 42), which lies actually on the territory of the Kwaiwut-Kamanggau tradition (Kaufmann 1974). This confirms my 1984 schematic projection onto a time grid and is also in line with Laycock's view about the approximative time depth of the linguistic processes of differentiation. The question now is, how much older could that tradition be in the Sepik?

If, on the other hand, these earlier dates could not definitely be ascertained we would alternatively have to look at a "primitivist" adaptation of the technically more developed first arrivals of "Fichin"- and "Akira"- like pottery making techniques by the local population, speaking Papuan languages. Such a view cannot be entirely discarded, although it seems not a very plausible development to me. It would also be in conflict with oral traditions on pottery making from New Guinea to New Caledonia. Inventing pottery is described in several instances as hand-modelling over the knee or as imitating the image of a coiled-up snake. A creation story from New Caledonia links even the image of the earthly world to a coiled-up pot, where the coil held the moon, who deposes a tooth on the rock left to dry after emerging from the primeval water. Out of the tooth worms (coils?) are emerging; those falling down and hitting the foundation stone being transformed into lizards, some lizard-children taking up human faces, those

falling into the water turning into eels, from one of which later emerged the transformation into human beings<sup>23</sup>.

Strand 6 (coil as well as slab building, perhaps scraping, paddle and finger anvil modelling) could then be seen as a type process for a large area, covering a number of localities from Bosmun, Adzera (in The Markham Valley), the Amphlett Islands, Mailu and Buka to Fidji. In the Sepik area one would assume that skills of that tradition could have influenced both the Keram-Dimeri and the old Aibom tradition, both in techniques and shapes produced - if the influences did not come from farther afield. The most intriguing question that remains is whether any links could be established between strands 4 to 6 in the Sepik area and the Adzera tradition in the Upper Markham Valley (Northeast New Guinea), Adzera being a group of Austronesian speaking villages. In this case, who converted whom? Did Papuan speaking potters adopt the language of their neighbours? Or did Austronesians immigrants develop a new style of pottery making and decoration?<sup>24</sup> Seen in a wider context, Adzera, a quite original style, falls quite into line with the Mangaasi horizon rather than with the Sepik horizon. Does it represent a sort of missing link?

We may note that seen in the wider context of Eastern New Guinea the linguistic affiliation of Adzera with the Austronesian language family could be atypical; the highest diversity of pottery making, showing a preference for paddle modelling without a stone anvil, i.e. with a finger-anvil, is again in areas affiliated with Papuan languages (see maps 3 and 4 in May and Tuckson 1982, pp. 25 and 27). The combination of slab or coil building with hand and shell-modelling and a sort of paddle finishing (no anvil tool) is most developed on the Amphlett Islands (Austronesian speakers) and at Mailu (or Magi, Non-Austronesian speakers), however (May and Tuckson, 1982, pp.79-84 and 56-59). At the two opposite ends of distribution we have the combination of hand-modelling from coils or from slabs with paddle and stone-anvil shaping among the Roro who have learned the technique from their Motu predecessors (Austronesian speakers) in South New Guinea and at Leitre near Vanimo, there with a Sko language (a phylum level stock) affiliation (May and Tuckson 1982, pp.69-71 and 316-317, 321-322).

The relatively younger Austronesian association is between the paddle and stone-anvil modelling from a single lump of clay, with premodelling the rim, which is set aside, to be at the end joined to the body built up and basically already shaped (as strand 7 above). Here parallels with sub-recent Hus (Manus Province) tradition, sub-recent Sumba traditions as well as with archaeological Moluccan/Island SE Asian as well as

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<sup>23</sup> Guiart, Jean, *Structure de la chefferie en Mélanésie du sud*, 2<sup>e</sup> éd., Paris 1992:91, d'après Kowi Pouillart de Poyes (Paici).

<sup>24</sup> Holzknecht, K. *Töpferei der Azera*, *Zeitschrift für Ethnologie* 1958; Schmitz, C.A., *Historische Probleme Huon-Halbinsel*, Wiesbaden 1960.

Micronesian red-slip ware traditions are evident<sup>25</sup>; the Easternmost sample known in Melanesia would be from Bilbil (and Sio?) which could be seen as falling in line with the more recent trade expansion from Eastern Indonesia to New Guinea (Swadling 1995 passim). On this axis a number of Central Malayo-Polynesian Austronesian and Western Oceanic Austronesian elements, both in linguistic as well as in cultural terms (apart from pottery technology and trade-goods - like woven textiles and glass beads - also elements of technology, e.g. strap loom weaving), could have been transmitted eastwards.

To sum up: The wider Sepik area seems to be, on New Guinea, the area of highest diversity for pottery technology. We lack representative archaeological data for saying when, where and how developments started. All we can say: Some of the traditions seem to go back a long way in time, probably longer than those which arrived along the coast. From the point of view of linguistic affiliations we can show that there seems to be a positive link in the wider Sepik area between men making pottery (or being at least substantially involved in doing so) at places inland - like the Torricelli Range or the coastal ranges of Madang Province -, using a technique of building up by coiling and shaping with no other tools than their fingers with Papuan languages. On the other hand is pottery making by women only positively linked to sea-oriented Austronesian speaking communities, with notable exceptions at Ngala wiyy- in the Upper Sepik and in NAN speaking communities neighbouring such Austronesian places, e.g. at the Dyke Ackland Bay. It is noteworthy that south of a line Adzera-Sio, and with exception of Wanigela, the Amphlett Islands, the East Cape and the Motu and Roro, the link between Austronesian speakers and pottery making is rather weak; this is quite the contrary of what one would expect.

Any group of people moving from the Sepik eastwards along northeastern New Guinea and out into the Pacific would have the potential to carry pottery and pottery making skills along, at any given moment going back to at least 5'500 years B.P.. The later in time such a movement occurred the more likely it would have carried the whole range of diversified technical processes of building, shaping and decorating clay vessels along. A definite terminus ante quem seems to be the arrival of <Central Malayo-Polynesian> and/or <Western Oceanic Austronesian> influences in Western and Northern New Guinea from Indonesia, while, in turn, speakers of Central Oceanic Austronesian languages or their skills may have reached the Sepik area *from* the East, and therefore could not be considered the only possible carriers of Sepik traditions *to* the East.

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<sup>25</sup> Bellwood, Peter, New Discoveries in Southeast Asia relevant for Melanesian (especially) Lapita Prehistory, in Galipaud (J.-C.) ed., *Poterie lapita et peuplement. Orstom Actes du colloque lapita*, Nouméa Janvier 1992: 49-66; Intoh, Michiko, Pottery Traditions in Micronesia, in Galipaud (J.-C.) ed. 1992: 67-80.

On their way eastwards they may or may not have encountered people linked to the so called Lapita tradition. Curiously enough, the one recent tradition most reminiscent of Lapita in the Western Pacific is the one on the rather small Amphlett Islands (Lauer 1976, May and Tuckson 1982), next to the Trobriand Islands. Under technical aspects the closest links would be with strand 6, but with intense use of shell tools for decorating, while the linguistic affiliation, on present day evidence would be Austronesian rather than Non-Austronesian.

## What are the conclusions from the Sepik scene that could be of value in a wider Melanesian context?

Seen from up south, i.e. from Vanuatu, the Sepik picture rings, quite to the contrary of what one would expect, some familiar bells - this by itself is an old hat in Melanesian cultural anthropology<sup>26</sup>. In fact, still speaking as an ethnologist-cultural anthropologist, not as an archaeologist, I would like to define the Sepik area of New Guinea and the Central-northern parts of Vanuatu (i.e. the Northern New Hebrides and the Banks Islands) as the two areas of Melanesia showing probably the highest degree of cultural diversity, primarily in terms of languages spoken and recorded, then on a second level also in terms of cultural and artistic ways and models of expression, and thirdly in the ways of finding differentiated cultural solutions to seemingly identical problems of ecology and economy.

Shifting the focal point to Northern Vanuatu we might start with an *if*:

If the non-Lapita Austronesians (or their Non-Lapita Non-Austronesian precursors) were the first to arrive here, they were most likely to arrive with what they had learned about the latest technology including clays and pottery making while in or near the Sepik area and Northeast New Guinea. This would explain that the *Mangaasi* horizon<sup>27</sup> covers almost the full range of possible combinations known in the Sepik area (where we could merge the strands 1 to 5, perhaps including even strand 6 into the “Sepik Horizon” ). But not only that, being specialists for sea communication they might have made forth and back trips, feeding back to their places of origin in New Guinea new

<sup>26</sup> Speiser 1936/1941 *Kunststile*, reprinted 1972, Guiart, Jean, *Océanie*, 1963.

<sup>27</sup> including the chip carved Deacon sherd from Malakula, Deacon, Bernard (Wegdwood C. ed.), *Malekula - a vanishing culture*, London 1934.

achievements arrived at en route to the island chain, e.g. specifically raising pigs of desired tusker potential. As far as pottery goes, a logical step would have been to re-export new inventions, e.g. mixing of clays, adding of specific tempers) to their home area. Elements of graded society but also of initiation groups and their rites or of artistic configurations like slit-gongs, carved stones, “hook” figures (cf. Karawari *aripa* figures as models for grade monuments in tree fern etc.) could have travelled in either one direction.

Anyhow the Sepik anthropologist is struck by a number of features in Central/Northern Vanuatu that are already familiar to him, even when and where the specialists for this area claim uniqueness of specific features for Vanuatu. E.g. in the series of myths related to the Melmes site, SW Bay, Malakula a number of structuring events and motifs are paralleled by similar elements in the Wandan/ Bapan brother myths in the Central Sepik area between the Saserman Hill and the areas around Garambu Hill, the Chambri Hills and the hills of the Blackwater River areas respectively.

Looking at the pottery only: Are we able to link the Central Sepik horizon to the Mangaasi horizon as José Garanger had proposed to do already in 1972?

The picture established so far should be looked upon from a more general *Melanesian perspective*. Seen in the wider context, linking the Sepik—Mangaasi Horizons seems a real possibility for any period between 800 BC and 1500 AD according to the actually available dates, though considerable earlier dates seem not improbable, but we have no archaeological proof, yet. Just imagine some daring Austronesian chiefly group convincing local women and their brothers to come along to help establish a new settlement on the isles of Plenty, thus beating their Lapita competitors. To the difference of Vanuatu, the highly varied recent shapes of pots, of forms of pottery decorations as well as techniques of manufacture are not paralleled yet by any sequence of dated pottery and associated cultural remains from the Sepik area or from other New Guinea Mainland sites. Despite my recurrent urging, and except for Swadling and Gorecki's important attempts, no inventory of potential Sepik sites has been produced so far. It seems about time to explore the potential of some of the hilltop (or rather down from the top slope and ridge sites) more closely. Between the Telefomin hilltops, well inland, beyond the pottery “fence” , and the Bosman Plateau near the seaboard, there are a number of very prominent old settlement places, from Mt.Hunstein, the Washkuk Hills, along the Torricelli and Prince Alexander Mountains to the hills of Garamambu, Chambri, Aibom and Tambanum, the Gaikorobi village site circle<sup>28</sup>, the settlement sites on hills near the Blackwater and Karawari area as well as the caves of that latter area.

On the other hand, taken from the recent and sub-recent evidence of West Coast Santo and SW Malakula or New Caledonia not all Melanesian pottery was always associated

<sup>28</sup> Schindlbeck, Markus in “Kamber, P. und von Buettner, R. (ed.), *Diachronica*”, *Ethnologica Helvetica* 8, 1984: cf. diagram Kaufmann 1984 above for Gaikorobi.



with paddle-impressed shaping, let alone paddle-and-anvil-modelling. I don't see how to explain a "going primitive" in pottery making, i.e. from paddle shaping/paddle and anvil modelling to hand-modelling of coiled pot bodies, neither in Vanuatu nor in the Sepik, and least of all independently and parallel in both areas.

Perhaps the conjectural evidence I have dealt with here, is all wrong. It cannot be excluded however that some of it is pertinent, which should lead us to look for more corroborating evidence.

What strikes me most, in the end, is that, again, the Melanesian model of a complex, multilevel diversity defies all Western attempts at structuring cultural things and human beings clearly and neatly into pre-fabricated boxes. Differentiated, yet related pottery styles seem, as much as words, sentences or grammatical structures, to be part of the identity of people linked to each other by many strong, yet different bonds. This at least is what the seemingly long-term side-by-side existence of different pottery traditions in the Sepik area as well as in Central-Northern Vanuatu suggests to us. Seen as such, regional or local differentiation is an end in itself, not the product of linear technical evolution or linear geographical expansion nor of a single-track historical evolution. Lapita, then, is the big exception, at least in Melanesia.

#### **Note of thanks**

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