POTTERY PRODUCTION AND TRADE IN THE BANDA ZONE, INDONESIA

The Kei tradition in its spatial and historical context

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ABSTRACT

This article provides the first comprehensive description of pottery production in the Kei islands of eastern Indonesia, based on field data collected mainly in 1981 and on museum collections in the UK and the Netherlands. The account is situated in what we know of the dynamics of trading systems that existed in the Moluccan islands between 1500 and 2000. Kei pottery is widely thought to be the successor of a tradition established in the Banda islands that was extinguished with the 1621 Dutch massacre, but re-established at several sites in the Kei islands by Banda migrants after this date. These claims are critically examined using ethnographic and archaeological data, and an attempt made to compare the production and trading patterns of pottery in the 'Banda zone' before and after 1621.

KEYWORDS

Banda islands; history and prehistory; Kei islands; pottery production; trading zones

Introduction: the Banda zone as a trading system

Pre-colonial inter-island trading networks evolve to produce a division of labour based on the distribution of resources and the development of specialist production skills. The position of pottery making locations in such networks has been described for Melanesia, beginning with Malinowski's

(1922) classic study of the 'kula' system (see also: Allen 1977a, 1977b; Harding 1967; Irwin 1974, 1978a, 1978b, 1983; Kennedy 1981, Lauer 1970). Similar networks have existed in the Moluccas, but what makes these of additional interest is the way they have articulated with emerging systems of regional and world trade over a period of some thousands of years (Ellen 2003).

In *On the edge of the Banda zone* (2003) I developed a model (Figure 1) which attempted to make sense of some key features of Moluccan trading zones, identifying three systems: the most northerly focused on Ternate and Tidore, a central system focused on Ambon, and a southern system focused on Banda. The requirements of the growth of trading hubs producing cash crops at their centres led to dependency on a periphery for basic foodstuffs and other supplies (in this case mainly sago). This model has proved to be surprisingly robust, as more archaeological and other data have come to light over the last 40 years.

The most southerly of these systems (Figure 1), focusing on the Banda archipelago as a hub, is in many ways the most complex in terms of its spatial patterning, and with a history to match. The date for the first habitation of Banda is unknown, but although it could well have been a perfectly self-sustaining archipelagic system over the long term, the evidence we have suggests that it has had a role in long-distance trade for two to four millennia, serving as a staging post between the Melanesian world and the civilisations of the western archipelago. The northern network, focused on Ternate/Tidore, provided a similar conduit through to New Guinea from the West. In the case of the Banda zone there was an important secondary hub between Banda itself and the Papuan coast, focused on east Seram. In the earliest phase of these trade routes, the goods moving westwards included bird of paradise feathers in exchange for bronze artifacts. We might imagine that there was much else besides, but we cannot be sure about these items until the appearance of the first documentary records. However, from the second millennium CE onwards trade in nutmeg becomes increasingly important, such that it defines and dominates this route in a way similar to

that in which cloves dominated the northern route from Ternate and Tidore. To begin with, the trade appears to have been long nutmegs coming from the coast of Papua through the bottleneck of the Geser channel and westwards as far as mainland Asia via Banda. However, by the European middle ages Banda had domesticated the round nutmeg and began to grow it for export. The round nutmeg eventually replaced the long nutmeg in the global market.

This was the picture that the first Europeans to set foot on Banda were confronted with: a series of local independent polities mostly involved in growing nutmegs for export, fishing, and some gardening; forming an archipelagic trading system with some specialist production. But Banda was dependent on the import of resources – particularly sago – from east Seram, and also from the Kei archipelago and probably other islands constituting an arc from Seram in the northeast – through Aru – to Timor in the south. However, the arrival of Europeans had a major impact on patterns of local trade in all three Moluccan zones. The Dutch sought to control and intensify clove production in the central – Ambon – zone, and as a result extirpated many plantations. The consequence for islanders was greater dependency on the local sago trade with Seram to subsidise clove production. In the Banda zone the impact was even more traumatic. The story is well known. The massacre of Banda people in 1621 led to the flight of most of the surviving native population of Banda to east Seram and Kei (e.g.Loth 1998). The Dutch introduced labour from other parts of the East Indies and developed a plantation economy that intensified nutmeg production further. This in turn meant greater dependency on the periphery for sago and basic foodstuffs, and 'involuted' the Banda system, making it if anything more inter-dependent. The geography of the area, the currents, winds and reliance on sailing boats reified the features of the system.

The two main objectives of this article are to provide an account of a distinctive tradition of pottery making found in the Kei islands that is now more or less extinct, and – using ethnographic, linguistic and archaeo-historical inference – to test the claim that this is a continuation of a tradition

of pottery making found in the Banda islands before the Dutch massacre of 1621. I examine the production and trade of Banda pottery before this date and Kei pottery after this date, and in the context of the wider trading system of which Banda has been part for over 2000 years. I primarily use data on Kei production collected in 1981, and on Kei island pottery in two major Dutch museums: the Museum voor Volkenkunde in Leiden and the Tropen Museum in Amsterdam. The collection made in 1981 is now mostly in the British Museum, with some in the Ethnobiology Laboratory at the University of Kent (UKC). There are five other Kei pots in the British Museum, purchased from Lemaire de Vries in 1929, and I have included these in my analysis. I have additionally relied on incidental data collected in the context of fieldwork on inter-island trade in the Banda zone conducted in 1981 and 1986, plus a scattered published literature. Having established the context in which to place it, I begin with a description of pottery production in Kei as it existed in 1981, particularly in the old Banda enclave of Elat. I cover the preparation of clay, forming and shaping, painting and decoration, firing and the range of forms and ornamentation.

Production of pottery in the Kei islands

The Kei earthenware pottery tradition is known from its occasional appearance in volumes on the arts and crafts of island southeast Asia, due to its characteristic bold and attractive patterns. For example, Figure 2 illustrates a 'cooling jar' dated to 1889, first reported in Planten and Wertheim (1893: 192) and Pleyte (1893: pl. VI, nr. 7.), exhibited at the 'Exposition d'Art Indonésien ancient et Moderne' 1952–53 held at the Palais des Beaux-Arts in Brussels, and which also appears in Wagner (1959: 49, 61). However, until now, there have been no detailed published reports of the production, circulation and use of Kei pottery in the context of southeast Asian pottery traditions as a whole (see e.g. Miksic 2003, Rooney 1988).

There are a number of short references to Kei island pottery in the literature (van Hoevell 1890; Merton 1910; Geurtjens 1921; Nutz 1959). Ian Crawford of the Western Australian Museum in Perth, and Matthew Spriggs (Australian National University) and Daniel Miller (University College London) have also undertaken brief investigations of Kei island pottery, principally in Tual (1971 and 1975 respectively); none of their findings are published. The description of manufacture that follows is based on fieldwork conducted by myself and Nicola Goward between 13 and 22 March 1981 in Elat, and the nearby settlements of Wakol and Raroreng, when the collection was also made, and also in Tual. The 1981 fieldwork also involved visits to villages between Warus-warus and Kilmuri on the southeast coast of Seram, and in 1986 visits to other pottery-making villages, such as Keligah, between April–May 1986. In Elat, pottery is made using a paddle and anvil technique, and in many respects is similar to that described for the central Moluccas (Ellen and Glover 1974, Spriggs and Miller 1979).

The Kei islands (Figure 3) are located in the southeast of the present-day Indonesian province of the Moluccas. Pottery is reported as being manufactured in four localities: the Elat-Wakol area on the west coast of Kei Besar, at Banda Eli on the east coat of the same island, on the island of Taam, (south of Tayando and west of Kei Kecil), and among immigrants from these places resident in the local administrative centre of Tual on Kei Dulah. Migrants on Larat (Tanimbar) and Baulai and Dobo (Aru) are also said to produce pots in the same tradition. Pots also used to be made on Kur (Lengur, between Kei Kecil and East Seram), which Bik (1928 [1824]: 115) regarded as the best in the archipelago, though it is unclear whether these are in the Kei style.

Pottery making is an exclusively female task. All women in pottery producing localities were formerly involved extensively in its manufacture, their menfolk bartering pots for foodstuffs in other non-pottery producing villages, and for gold, antique plates, gongs and other valuables in Dobo, Aru, and so on, trading in Kei Kecil as well as in non-pottery producing villages on

Kei Besar. Until the 1970s, traders from Banda and other island groups came to collect cargoes of pots to trade elsewhere. By the 1980s only older women were familiar with the techniques, younger women showing no interest in learning. Kaartinen (2011: 40) says that local trading ended in Banda Eli in 1974, though pots were being made and used in Banda Eli during his fieldwork. The trade was extant in Elat in 1981, and evident in Tual mainly for the tourist trade.

Preparation of clay

Elat pots are made from a yellowish clay which turns reddish-brown on firing. Taam pots, however, are made from red clay and for this reason are said to be of inferior quality. In Elat, men help women collect raw clay (*raro nyano)* from two sites, Holat and Holnur, situated in coconut groves about two kilometres from the village, west of Raroreng. Clay is taken from pits on a potter's own land, and may not be taken from that of others without permission. The clay is placed in soft, coarsely woven, spherical coconut leaf baskets (*kambuti*), measuring 30 cm or so in diameter, made especially for the purpose by women. In this way the clay is carried to the seashore where it is lodged among rocks, totally immersed in seawater, held secure by a large rock, well below the tide line. Here it is left to soak, for at least one week, or until it is required (Figure 4a).[1] This plasticises the clay in the same way as 'souring' does in some European potteries (Hodges 1964: 20). Seawater also sometimes results in a white surface layer on fired pottery other than what can be attributable to slip (Orton and Hughes 2013: 124). Salinisation also markedly reduces the incidence of cracking due to the chemical consequences of inclusion of pieces of calcium carbonate, especially in low-fire pottery (Rye, pers. comm.; see also Rye 1981), but may also be significant (Rye 1976: 121–

[1] All field photographs were taken in March 1981, in either Elat or Wakol. Registration codes prefixed by 'As' indicate a specimen now in the British Museum, RMV Rijksmuseum voor Volkenkunde and TM Museum voor den Tropen. MM indicates terms in Moluccan dialects of Malay.

122) in adding salts that help to vitrify the clay during firing and so improve water resistance.

Clay is prepared for use on the seashore, on the same large smooth flat rocks on which women wash clothing. Here the potter removes as much clay as she needs from the basket and replaces the remainder back amid the rocks, in seawater. With one foot securely on the rock, she places the other in the clay and firmly pushes it away from her. She spreads the clay out across the rock using her feet, at the same time feeling for any small stones in the clay. All stones are removed to prevent breakages on firing. Using the same foot, the clay is then drawn back into a heap and spreading and drawing together continues until the clay is quite free of stones, and the clay is kneaded with both feet until it is of the correct consistency. Fine sand (*núi*), from the uninhabited nearby island of Pulau Kelapa, is then gradually added to the clay with an ordinary domestic sieve (Figure 4b), while kneading with the feet continues. The sieve is usually an old shallow rattan and bamboo basket (*takanasi*) strengthened around the base, principally used for sieving and drying cassava (BM As1982, 13.4). The ratio of sand to clay is approximately 1:1, although the exact ratio depends on the articles to be made and is determined more by texture than exact quantities with more sand being added to clay that will be used for making heavy-duty pots.

Forming and shaping

Prepared clay may either be stored in a coconut leaf basket in the sea until required or taken to the village for immediate use. Pots are made in the shade of a potter's house – like the seashore – a quintessential female domain. Forming begins by breaking off a lump of clay large enough for the vessel that it is intended to make. This is rolled into a ball and beaten flat with the fist to form a well in the centre. The end product is known as a *lungur* (Figure 5a). All pots are made from a single piece of clay, although spouts and handles are attached after the basic shape has been formed.

The *lungur* is placed on the inverted neck and shoulders of a large broken pot or discard (*rekén*) (BM As1982, 13.21), and the vessel roughly beaten into shape using the right fist on the inside and the left hand palm on the outside. The *rekén* is periodically turned using the left hand. Once the basic shape has been formed, the pot is transferred to a cloth placed over the potter's lap. A large pebble (*fatanak*), shaped like a squashed sphere, is held with the right hand on the inside of the vessel and acts as an anvil. From the outside the vessel is beaten over the pebble with a series of tools (Figure 5b; see also BM As1982, 13.10–19). The first tool to be used is a thin piece of bamboo, about 5 cm wide, spliced longitudinally from a thick piece of bamboo. Bamboo tools of this kind are called *tonotak*. Then a series of wooden tools (*fisik*) are used, beating the pot to make it progressively smoother and shinier. The neck is formed by holding the pebble inside the pot just where the neck will be, and beating against the pebble from the outside, pushing the rim over the pebble with a bamboo tool. From now on, whenever work is done on the outside of the pot, the pot is held with the pebble just below the neck. Wooden and bamboo paddles of various sizes are then used to alter the vessel to its desired shape and quality. The lip of the pot is obtained by pulling the rim outwards again from the neck using a specially hewn curved stone, a shaped tool known as an *èlelút*. The rim of the lip is perfected, and given a smooth straight edge, with a small bamboo scraper. Very small pots take longer to make than the larger ones, but are formed in the same way, except that fingers replace palms and the pebble anvil.

Painting and decoration

After pots have been formed they are left for a day to dry inside the house, or until the potter has accumulated sufficient to warrant painting them. Many unpainted vessels destined for use as cooking pots over a fire are simply decorated with a sculpted rim using a kind of *fisik*, a small bamboo paddle called a *rararáit*, a broadish flat piece of wood with rounded indentations at either end. Only pots not destined for use on the fire are painted. White clay

(*walyaru*; Ind. *tanah putih*), found on a local offshore island, is burned and mixed with water in a broken pot to make a loose slip (*leir*), which is applied to the exterior of the vessel using a brush made from a piece of coconut husk teased out at one end. When the slip is dry the vessel is burnished using the edge of a flat dome-shaped shell (*Turbo marmoratus*, MM *batu laga*), to polish the surface and remove excess slip. It takes about four minutes to burnish a large pot (e.g. *ana*), but only ten seconds for a toy pot. Red clay (Ind. *tanah merah*) is then ground and mixed with water to provide a red slip (*tingau*). This is used for patterns and is applied using three types of tool: (1) a short stub of sago palm leaf petiole (MM *gaba-gaba*: a fibrous material which is able to absorb and retain a sufficient load of red slip to permit the painting of the thicker lines); (2) a thin stick made from a coconut leaf petiole, a tough flexible material that permits the painting of thin lines; and (3) a nib-shaped instrument (*sol-solon*) made from the hard outside of a sago palm petiole. This is used for drawing the more complicated curved and patterned designs. Broader versions of this tool are used for inscribing parallel lines. It takes about five minutes to paint designs onto a child's pot (Figure 6a) and between 15 and 30 minutes to decorate a full-size vessel. The white slip remains white on firing, although the red slip dries orange and turns maroon-brown on firing.

Kei pots made in Taam have designs painted in black slip in addition to the white and red. If a pot is being made for export the village mark is scored on its underside. In Elat this comprises three sets of two parallel lines in the form of an elongated 'N'. After the pot has been fired a personal initial is also sometimes added in white slip. This is to identify the individual producer who will receive payment in the event of the pot being sold on credit by a middleman.

Painted pots are dried in full sunshine, taking care to protect them from rain. This may last several days or until sufficient pots have been accumulated to make firing worthwhile. They are dried resting at a 45 degree

angle on the inverted neck of an old broken pot, usually the same base used during the initial stages of beating and when they were painted (Figure 6b).

Firing

About 20 items were fired at the event that we recorded in Elat. It is usual for 20 to 30 pots to be fired at any one time. The pots are taken to the firing place (*toh-nun*) used by all the potters of the village. In Elat pots are fired on a common site specifically designated for the purpose, on a low cliff overlooking the sea and village, about 50 metres inland. It is believed that here the conjunction of winds is suitable for steady firing. On this occasion two women and a man cooperated in the firing, and the latter would presumably not have been there other than for our benefit. Elsewhere we saw women firing pots alone.

Pots are first warmed in a 'cool' fire of coconut leaves, seated on a bed of dried leaves with more leaves stuffed inside. A pyramid of coconut leaves is then built up over the pots. None of the pots must be touching, to prevent breakages, and buckling is avoided by placing pots upside-down, so that their weight is evenly distributed. Pots that have been made for some considerable time may be placed in any position. The 'cool' fire is then lit and allowed to burn through. It dies down after a few minutes.

When the 'cool' fire has burned through, a 'hot' fire is built up in its place. The pots are rearranged into a more compact heap using a long wooden stick. It is now considered safe for pots to be in contact with each other, presumably either because any pots that were going to crack in the heat will have already done so or because the heat of the 'cool' fire was sufficient to complete the necessary drying process of the pots. The 'hot' fire is built up using various dry materials such as driftwood, the woody and fibrous shells of coconuts and the petioles of both sago and coconut palms. Any damp or slightly green wood would cause the pots to crack. More dry coconut leaves are heaped on top as kindling and the whole lot is lit. It takes about three minutes for this fire to become hot throughout (eight minutes from the time of

lighting the 'cool' fire), more coconut leaves being added to encourage any part of the fire which is slow to burn. Once the fire is burning well, more wood and other dry materials are added, continually building it up until about 15 minutes after the lighting of the 'cool' fire. The materials, assisted by a steady current of air on the cliff top, generally burn well. The fire is then allowed to burn through and die down to a smouldering heat. Glowing embers may be rearranged using long sticks to ensure the even application of heat. The pots begin to reappear through the burning embers after about 25 minutes from the beginning of the 'cool' fire, and after 30 minutes – still using the long sticks – the women move the pots around in the fire which, by now, has burned right down.

In the initial stages of firing the pots turn black. The disappearance of this blackness indicates to the potter that the firing has been sufficient. As the fire burns down women inspect the pots, and place the blackest pots and blackest parts of pots in the hottest part of the fire. Since at this stage none of the pots were yet ready to be removed from the fire, a new fire was built up in the same way as the last over the glowing embers. After 45 minutes from the beginning of the 'cool' fire, and sometimes after the burning through of additional fuel, pots are checked and removed from the fire, being left to cool down slowly at the fire's edge. Removed pots must not be placed upside down to cool since the difference in air temperature between the inside and the outside would cause cracking. The remaining pots in the fire were moved around again, blackest sides to the centre of the fire and the fire once again built up as before. This process of building up the fire, letting it die down, checking the pots, removing those which are ready, and building the fire up again is repeated until all pots are considered properly fired. Not all pots are removed at the same time, therefore, and the last pots may be removed up to 75 minutes from the beginning of the 'cool' fire.

While the pots are still warm they are carried down to the sea where they are dipped into the water for between 10 to 15 seconds, a process known as *jingár* (Ind. *seram*). Presumably some chemical action takes place with the

salts in the seawater. This is done to strengthen the pots. During the entire firing process few pots are broken. Some occasionally warp and buckle as a result of inadequate drying prior to firing.

The range of Kei Island pottery forms and ornamentation

The Elat pottery in 1981 was producing a range of items. Unpainted objects included: cooking pots, steamers, firebricks, sago oven bricks (Ellen and Latinis 2012: figure 8), wide-necked shallow lidded vessels for cooking fish, mortars and pestles, bowls for food preparation and washing, and incense burners. The painted items included large water pots, long-necked vessels with lids, long-necked vessels with spouts (both narrow-necked and wide-necked), double-spouted water vessels (with or without lids), flower pots, incense burners, and bowls (Figure 7). Of these the most salient – indeed signature – item, and possibly the most common in trade, was the large painted water pot (Figure 8). The better quality painted pots, used for carrying and storing water, mixing foodstuffs away from the direct heat of the fire, flower pots and watering cans, washing up bowls and toys are decorated with white and red slips before firing. The clay from which they are made is mixed with a smaller proportion of finer sand than pots destined for use on the fire. These latter 'heavy duty' pots contain a greater proportion of filler and are unpainted. The sago oven brick contains the greatest proportion of sand to clay, is very thick and heavy and must never come into contact with water once it is fired.

White slip is sometimes applied all over the outside of a pot other than on the base, and sometimes just on the top half and as an underlay in those other parts of the pot where red paint is to be applied. If we take one water pot as an example (Figure 8a) we can distinguish the following features:

(a) outside rim: geometric zig-zag

(b) neck: scrolling design

(c) upper half of body: alternating hatched circle and stylised floral motifs (or possibly a version of the 'sun' motif well known from Seram barkcloth), with connecting horizontal and vertical bars

(d) repeat of scroll design within parallel bars

(e) lower two-thirds of body: eight loops of parallel red lines with vertical parallel red lines descending under each loop to base.

Other designs are variations on these themes. Some rims have red blobs instead of the geometric zig-zig; in others the flowers are in white slip with red serving as infill; sometimes the loops begin lower down the pot, with some complex vegetal scrolling separating them from the upper band of flowers. BM As1982, 13.37 illustrates the flower theme but with thicker stems, while BM As1982, 13.38 alternates four or five large flower motifs with a different kind of botanical motif (possibly a millet or maize head) below which is large vegetal scrolling. Figure 9 shows a close-up of the design inside a shallow bowl (*ana*) that is consistent with other traditional designs from other parts of the Moluccas.

Kei pottery designs are distinctive, although no two pots are ever exactly alike. Individual potters have a wide repertoire of designs, many inherited through the female line from their mothers. However, families do not have monopolies on particular designs. Nor do the designs – at least in Elat – now have any ritual significance or special names. It has been suggested that some of the floral motifs are of European origin, but others are distinctively Moluccan. Grouping in terms of overall painting style is virtually impossible other than to note that in the British Museum series, As1982, 13.38 and As1982, 13.43 are clearly the work of the same person.

If we look at the sequence of water pots in both the British Museum and the Nationaal Museum van Wereldculturen sequence (RMV and TM numbers) we can group them historically. There are three painted water pots in the British Museum dated 1929 (As1929, 509.11, As1929, 509.10, and As1929, 509.12). Compared with the 1981 Elat examples, these have a denser application of motifs and a higher ratio of red to white slip, but are otherwise

similar. The RMV objects illustrated by Juynboll (1932: plate VIII) must all have been produced before 1932. A water pot and spouted water jar (RMV 1971-365 and RMV 1476-79) are similar in shape and painted design to those being produced in the 1980s, suggesting little change over a 50-year period. Another water pot (RMV 831-119) dated to 1889 resembles that in Figure 2, and I would place the undated pot in the same period (see also TM-A-1069, TM-A-1047; both before 1889).

What typifies Kei late 19th-century ware is flat bottomed water containers, plus a combination of painted and incised decoration (e.g. RMV-66-30, dated 1866) including 'rice pots' that have complex modelled decoration but are unpainted before 1889 (e.g. TM-A-1045). We have the same wide range of types, and some unpainted forms remain basically unchanged between the mid 19th century and 1981. In terms of painted wares, there are spouted water jars from before 1905 (e.g. RMV-1476-76), which contain the same design elements we find in 1981. There is plenty of evidence for designs influenced from Europe and China: handled jugs and ewers (TM-A-1049). Forms not represented in the 1981 collection, but found in the RMV and TM collections include painted items described as tobacco pots (TM-A-1975). There are also various types of oven brick (Dutch *bakvorm*) working on the same principle as the sago oven brick, used for sago, cassava, or possibly wheat flour, cakes. The designs on 1981 water pots are more attenuated versions of the elaborate vegetal leaf-like designs in the earlier pots.

Apart from evidence of painted motifs, various items indicate influence from outside Kei. Striking amongst these are *kendi*-type vessels (Rooney 2003), with and without spouts, and with handles. The incense burners have a specifically Muslim connection, though may have found a place in local Catholic practice. These appear to reflect forms historically common in Java, as well as forms introduced from mainland south Asia and China found as earthenware (glazed and unglazed) and porcelain, and known in western Indonesia from as early as the 13th century CE (Rooney 2003). These same influences can be seen in other Moluccan pottery, but are most prominent in

the Kei range. Other forms reflect European influence, first Dutch wares and more recently cosmopolitan objects, such as flower pots and watering cans, these latter being an adaptation of the two-spouted form in which one spout is modified to form the 'rose' of the watering can. Dutch museum collections (e.g. TM-A-10068) also contain teapots of European or Chinese influence.

Evidence for the trade in Banda Kei pottery after 1621

In 1621 the Dutch massacred the native population of Banda, and most of those who survived vacated the islands. Some sought sanctuary in Makassar, but most fled to Kei, and the Geser-Gorom archipelago southeast of Seram. In this latter area they were able to re-establish themselves as traders, compete with the Dutch, and smuggle nutmeg (Kaartinen 2011: 20–31). The evidence today for this link is in the claims of islanders themselves, including local documents, and the presence of *etar* (descent group) names (Ellen 1997; 2003: 83–85), some of which overlap with Banda Eli (Kaartinen 2011: 39).

Sometime after 1621 groups of Banda people who had moved to Kei began to develop a pottery industry of their own. We do not know whether it was specialist potters who took their skills with them or whether the industry was re-invented in the places where Banda settled. Certainly, Banda Eli has oral traditions that pottery making came from Banda and is an integral part of their cultural identity (Collins and Kaartinen 1998; Stejskal 1988). A story that I collected in March 1981 suggests that only men fled Banda, so had to intermarry from the beginning. This immediately raises the question as to whether, therefore, this is a Banda or native Kei pottery tradition, since modern potters are entirely female. Banda potters may have transferred their production to places other than where it is presently located, but we have no current knowledge of these. We do know, however, that the Bandanese settling in east Seram did not appear to re-invent pottery making, or if they did, there is no longer any trace. This may have been because the small coral

atolls and reefs that constitute this area had no suitable clays, or simply because they did not transmit the skills for other reasons. What is certain is that pottery making survived until at least the 1980s in three Kei locations, where there were speech communities of old Banda: Eli, Elat and Taam. Gasser (1969: 53–55) mentions Taam and Tayando but no other Kei localities.

The Kei-Banda potters were quick to exploit opportunities for trade along established routes dictated by existing physical constraints and social ties. Because Kei islanders had developed as specialised boat-builders and traders by the mid 19th century, there was a transport infrastructure through which pots moved around the archipelago. Bik (1824: 29) reports the import of Kei pottery to Kataloka in the early 19th century, while Kolff (1927: 303) was shown Banda Eli pots on Keffing in 1825. In February 1981 we found examples of Kei pottery being used on the east coast of Seram (in Warus-warus), especially large water storage jars. However, deposits of sherds on many eastern Indonesian islands provide evidence of the wider significance of Kei pottery in regional trade (Figure 10a).

Further afield, Banda-Kei pottery was being exported to Aru, the southern Moluccan fringe, and the Papuan coast.[2] In 1849, 16,000 items are reported (Bosscher 1855: 34-42) as having been imported to Aru. But perhaps more significantly it was being traded back to Banda itself. Because Banda was not self-sufficient in food and other resources it continued to rely on the import of produce. After 1621, the Dutch East India Company colony on Banda had to quickly re-establish its resource base and did so by bringing in labour from other parts of Indonesia, and food from Ambon and Java, but

[2] Crawford (pers. comm. 1971) has suggested the possibility of Kei pottery accompanying trepangers to the Kimberley area of Western Australia (see e.g. Morwood and Hobbs 1997). At Tamarinda Crawford reports two types of pottery: that made from clay derived from the Antedesitic zone, and some made from fine clay tempered with small pieces of calcium carbonate, mainly broken shell and small fragments of coral, very similar to the Kei ware in matrix, though none with any surface decoration remaining. According to Crawford, Aru ware is similar to the Kei material, but the matrix includes small pieces of rounded quartz and some black minerals to be identified. We now know much more about Aru pottery (O' Connor et al. 2007; Spriggs et al. 1998; Veth et al. 1998).

also from east Seram, Kei, Aru, and Tanimbar. This mainly involved edible sago, but also such basic materials as sago palm thatch. The constraints of the situation in Banda itself and the physical geography, currents, and wind patterns, effectively saw the re-creation of the pre-1621 Banda system. What is especially relevant here is that Banda had become additionally entirely dependent on imported pottery. Bik (1928[1824]: 97) reports re-import of pottery by 1650, less than 30 years after the conquest. He also notes (pp. 104–105) that the Kei islanders who were bringing pottery to Banda by the early 19th century were partly descended from the Bandanese living in 'kampong Bandang' on Great Kei (what we would now call [Banda] Elat).

There is no evidence for pottery production on Banda after 1621, and the islands seem to have relied entirely on imports. Some of these came from the pottery-producing villages of Ambon-Lease, and some from Sulawesi, in addition to Chinese porcelain and European wares. In February and March 1981 we saw old *dandang* (large vessels, usually used for steaming rice) imported from Ouh on Gunung Api Selatan, pots of Buton origin on sailing *lambo* from Riau, while the foreshore of Lonthoir revealed large quantities of sherds, including Chinese porcelain (e.g. green celadon), English Staffordshire, and Maastricht blue printed china. This surface scatter also yielded sherds that displayed the characteristic features of modern Kei island pottery (Figure 10b).

In east Seram, Kei pottery was not moving in to an area where local traditions of pottery making were entirely absent. During 1981 (Ellen and Goward) and 1986 (Ellen) we visited all settlements between Warus-warus on the east coast of mainland Seram and Kilmuri on the south coast, all settlements in the Seram Laut archipelago, and many on Gorom and Manawoka (Figure 11). It is clear that there were once many small pottery-producing sites on mainland east Seram and in the Gorom archipelago, but not in the small islands of the Geser group (Ellen 2003: 206–207). Long before our own fieldwork these potteries had been effectively eclipsed by pottery coming from Kei, from both Banda Eli and Banda Elat, and latterly eroded

further by the replacement of ceramic containers with those made from metal and plastic. However, between 1981 and 1986 there were still residual traditions of female pottery making in at least the following places: Kilmuri (on the south coast of mainland Seram), Gah, Warus-warus, Sesar, Kilgah, Dinama, Kilbat, Kiandarat and Kwaos (moving south along the east coast of mainland Seram); Kataloka, Samborou and Suakil (on Gorom) and Rumeon (on Manawoka). There may be other sites, but these are those we can confirm. In these places almost the only items produced are the sago oven brick (MM *forna*). This specialism may have developed because while the people of east Seram could import superior pots of other kinds from elsewhere, items required for cooking sago were less available outside sago-growing areas and needed particular manufacturing skills. Thus, the items that resist the decline in pottery making are those closely associated with sago processing and consumption: the large high-walled MM *sempei pinggir*, and particularly the *forna* or ceramic oven brick, locally *watu suat*)[3]. In 1986 women in Kilgah were still making *sempei, sempei pinngir* (*fano*) and MM *kuali* (*kaling*: a kind of wok), and exporting to Air Kassa and Bati villages in the hills; while Kilmuri was supplying Kwaos. Warus-warus was in addition producing square firebricks, *dandang* and *belangan* (*tajela*).

<FIGURE 11>

Pottery from Eli, Elat and Taam was certainly being traded with all other locations within the Kei archipelago, and with the Geser-Gorom group and along the east and southeast coasts of Seram, and no doubt on to the Papuan coast. But, it does not appear to have been imported to Ambon or the other Lease islands on any regular basis, which was anyway well served by its specialist pottery villages of Ouh on Saparua, and Mamalla on Ambon (Ellen and Glover 1974; Spriggs and Miller 1979). However, the villages of mainland east Seram have historically obtained pottery, and in some villages (e.g. Keligah) pottery-making skills, from Ambon-Lease, mainly from the

[3] For an account of sago oven-brick manufacture in Kilgah during 1986, and for a survey of the ethnography and archaeology of sago oven bricks in the central Moluccas, see Ellen and Latinis (2012).

village of Ouh on Saparua. This trade had ceased by 1981. Ambon-Lease pottery is in a different style. It is generally unornamented and sealed with dammar resin, but including forms not found in the Kei range, including the large *belangan*, and especially the *sempei pinggir* so appropriate when making sago porridge. Thus, for a long time, and certainly since 1621, east Seram has been an area of overlap and competition between traders supplying pottery from Ambon-Lease and those supplying pottery from Kei, with Kei pottery dominating, and both contributing to the decline of the local industry.

There is extensive evidence to suggest that until recently (perhaps to within the last ten years) Kei island pottery was traded widely throughout the southeastern Moluccas, Banda, southeast Seram, Aru, the New Guinea coast, and as far west as Timor. Kei was still exporting to Kataloka in 1981, but not actively so since the late 1970s. In 1986 Kei pots were still in use in Guli-guli and Kwaos, and between Kilgah and Suru, with scatters of surface sherds indicating the distinctive features of Kei ware in village areas and along the shoreline (Figure 10b). By the 1980s, however, trade was largely restricted to within the Kei group. Pottery production and trade was fast declining as people switched to readily available plastic and aluminium alternatives, apparently first introduced to islanders by the Japanese during the World War II. An exception to this trend is the oven brick (*forna*: see Ellen and Latinis 2012: 21 n1, 33) used for cooking sago biscuits and for which there is no suitable alternative. There is still a market for large earthenware water storage pots, which keep water much cooler and fresher than industrially manufactured substitutes, though these are not produced locally.

Language

The Elat and Banda Eli producers (all female) are described locally as descendants of the original inhabitants of Banda who survived the Dutch massacre of 1621, and all speak a language (Old Banda, or *Turwandan*), which

differs from that spoken elsewhere in the Kei islands (*Evav*). Both Old Banda and Kei are Austronesian Central Malayo-Polynesian languages, but whereas Banda is placed in the Central Maluku grouping, Kei is placed in the Southeast Maluku grouping (Atlas Bahasa Tanah 1996: 83–90) (Figure 12). The lexicon relevant to pottery forms (rather than manufacture) is, however, mostly Kei rather than Banda. This makes sense given that terminology is most likely to have been driven by the consuming majority rather than the producing minority. The forms are additionally widely known by their local Moluccan Malay names, a usage also motivated by pragmatic considerations within a multi-lingual market. As far as we know, Banda is now spoken only in Banda-Eli and Banda-Elat, but not in Taam. There are dialectal differences between Kei Besar and Kei Kecil, and this may be reflected in the pottery lexicon. The total number of Old Banda speakers has been estimated at 4,000 spread between Elat and Eli. The present population of Banda Eli is 2,200 (Kaartinen 2007: 151), while Elat is a more cosmopolitan town, important as a trading centre, with lots on non-Banda speakers and ethnic mixing. Banda Eli has resisted both linguistic assimilation and incorporation into the system of marriage exchanges that define Kei society.

The terms collected in 1981 for pottery types, tools and techniques in Elat are listed in the Appendix. There are some obvious Moluccan Malay terms, and if we compare the names in column 1 with comparable names provided by Travis (2011 in his unpublished dictionary of contemporary Kei it can be seen that there is no correspondence with the terms collected in Elat. However, comparing the Travis list with the few terms provided by Juynboll (1932), there are some clear correspondences. Most striking is *ub* (= 'oeb' in Juynboll's entries for RMV 831-119, 66-29, 925-14 and 925-15), which he describes as spouted *kendi* (see RMV-925-14), un-spouted *kendi*, water jars and *waterkans*, and which Travis translates as clay water jug); *uran* (= *oeran* in Juynboll's entries for RMV 831-87, 925-33, 925-73, 925-33), which he describes as an open cooking pot (unpainted) or pot, and Travis as cooking pot or 'wok'); *lewak* (= *levak*: jar, pot, covered clay pot e.g. RMV 66-30), and *ngutun* (=

ngoetoen), a term for lid or cover. Interestingly, Travis reports the term *ub* as also meaning patrilineage, descent line from common male ancestor and grandchild; and *uran* as cross-sibling. One term in Juynboll's catalogue, *venba* (bowl; Dutch *kom*, or small dish *schotel* e.g. RMV 850-61, 850-62), does not appear in the Travis list, while *sarab* and *urus* appear in the Travis list (for pot, rice kettle; and cooking pot or wok respectively). We can therefore conclude that the terms used in Elat are largely local and likely to be Old Banda. Some of the items in Juynboll's catalogue described as coming from Elat, are accompanied by Kei rather than local Banda terms. We cannot be sure that other centres of pottery production in Kei (e.g. Banda Eli and Taam) use the same terminology.

Evidence for pottery production and trade in the Banda zone before 1621

The earliest pottery reported archaeologically from the Moluccas is for 5000-3200 BP (Spriggs and Dickinson 2010: 273–274), though in many areas until the fourth quarter of the 20th century – particularly inland on larger islands – pottery vessels were little used, with bamboo as the main substitute (Ellen and Glover 1974). Dates have been pushed back further since the early work of Ellen and Glover. For example, Lape (2000a) has radiocarbon dates for Banda pottery that calibrate to 3827–2870 and 3200–2828 BP. This suggests that the earliest pottery in the Moluccas must have appeared around 3500 BP (Spriggs 2003). There was a major change around 2300–2100 BP with the arrival of metal, while other shifts in pottery design occur around 12th century CE, with the beginning of obvious influences from the western archipelago, particularly Java.

We now have archaeologically contextualised material from, in addition to Banda: Ambon-Lease, parts of west Seram, and Gorom (Figure 13a). Spriggs and Dickinson (2010: 278) have compared material from sherds recovered at seven sites in Ambon-Lease resulting from the earlier fieldwork

of Spriggs and Miller (1979) and Latinis (2005). Gorom sherds provided by Latinis were associated with Ming Chinese and colonial porcelains and were probably 16th century or later. These could have been brought directly by traders from outside the Moluccas, or indirectly via Banda or east Seram. Other Gorom pots were associated with Thai, Vietnamese and Chinese porcelain of 13th to 15th century CE. Sherds collected by Latinis in Ondor, also on Gorom, contained Banda volcanic sand temper (Spriggs and Dickinson 2010: 280).

By the early modern era (16th century CE) the Ambon-Lease islands were evidently self-sufficient in pottery, and exporting to west Seram (Spriggs and Dickinson 2010: 280–283). They have remained dominant in production and trade during recent times as other sites have declined. We also know from early historical reports (Ellen 2003: 206) that during early European contact up to 1621, pots were being produced in Banda and exported to Seram. Roxo de Brito (1590) does not mention pottery, but this is not surprising as he is mainly concerned with high-value commodities (Boxer and Manguin 1979: 180–181). Compared with other peoples of the Moluccas at this time, 16th-century Banda people constructed large boats and navigated extensively throughout Indonesia, especially to Makassar, and as far west as Malacca; they were not dependent on boats from Sulawesi, Java or the Malay peninsula, and had strong links with Kei and Aru (Villiers 1981: 733, 736). Given its specialist focus on nutmeg and role as an entrepot, Banda was dependent on imports from Seram, Kei and Aru, with significant connections to Seram Laut and Gorom (Villiers 1981: 740, 742). Valentijn (1862: 29), writing between 1724 and 1726 on the basis of a compilation of evidence for the period before 1621, refers to the trade in Banda pottery with reference to the island of Rosengain. Apart from this reference, we do not know where pottery was produced in Banda before 1621. Lape (2000b: 141–143) reports decorated earthenware pottery ceramics on Ai from as early as 3150 BP, Chinese pottery in layers dated to AD 500–770 on Bandaneira, and more regularly in Banda assemblages in post-10th century contexts, reflecting growth in trade between

the 12th and 15th centuries; red slip and incised linear decoration, and sculpted fragments in the shape of abstract animals. From 1600 imported ceramics seem to outnumber locally made earthenware (Lape 2000b: 149).

Dickinson (2005: 121–124) says that Banda pottery of this date is indistinguishable from that known from Gorom and Aru sherds, all containing embedded vitrioclastic volcanic ash, and providing 'a conclusive match' (Spriggs and Dickinson 2010: 283). Given high levels of volcanic activity in Banda and no reports from Gorom and Aru, this is strong evidence for a movement of ceramics from Banda northeast and southeast (Spriggs and Dickinson 2010: 284). The earliest Aru dates are 1190–1396, 1164–1394 CE. We can certainly attest the movement of Banda pottery to Aru by 500–800 BP (Veth et al. 2005: 108). All the evidence, both archaeological and historical, tend to support the claim by Lape (2000b: 139) that rather than being static in the precolonial period, Banda was a 'dynamic society in a zone of culture contact'.

Data from elsewhere in the Moluccas suggests a more complex picture. Thus, Gorom sherds also contain non-volcanic temper, indicating indigenous origin or import from Seram (Spriggs and Dickinson 2010: 263), while the Buru temper is quite distinct (Spriggs and Dickinson 2010: 281). Similar pottery to that found in Banda is known from Mare in the north Moluccas (Schmitt 1947; also Mahirta, cited in Lape 2000b: 143:), and Latinis (2005) notes similar material from Ambon and Seram for the period 600–1600 CE, after which it abruptly disappears. Pottery recovered in Banda archaeological contexts does not seem to have any decorative similarity to contemporary pottery produced in Kei (Lape 2000b: 144), and is also different from that known from Mare and Ouh.

The history of Moluccan trading systems in relation to pottery production

On the basis of the account provided we can draw some modest conclusions. The first are technical and are highlighted by comparing the Elat process with that described for Ouh by Miller, Spriggs, Glover and myself. The pottery discussed in this article is very different from that described for Ouh. One general feature of Elat pottery of some typological significance is how the combination of filler and clay varies according to the objects being made. In the Appendix, specimens 26, 27, 35-40 are made from a clay containing only small amounts of fine sand; while specimens 22-25, 28-34 and 44 are made from a clay containing larger amounts of coarse sand. Specimen 30 (the sago oven brick) is made from a particularly coarse mix. The distinction is basically one between heavy duty unpainted vessels, which come into contact with heat, and finer painted vessels, which do not. In addition, whereas pots from Ouh are sealed using dammar resin (although salt water can be used in manufacture), the use of salt water is more important in Elat, and pots seem to acquire their water-proofing properties from sintering or possible partial vitrification catalysed by the addition of chemical fluxes through salinisation, which reduce the melting point of the clay (Hodges 1964: 23). Adding salt water to clay with temper is also known from Aru (Veth et al. 2005: 99). Moreover, the 'cool fire'/'hot fire' technique is more routinised in Elat, while use of slip and colour decoration is common in Kei (and Aru), but virtually unknown in recent pottery made in Ouh.

Beyond these technical observations I have been able to show that ethnographic, historical, linguistic and archaeological evidence for the period after 1621 supports claims for the re-siting and continuation of Banda pottery traditions in the Kei islands, and for the incorporation of Banda-Kei centres of pottery production and export in a reconstituted Banda trading zone (Figure 13b). The data help clarify the changing shape of trading patterns before and after 1621 using pottery as an indicator, and are consistent with the model of trading systems that I first proposed in 1979 (Ellen 1979), and have developed in subsequent publications (Ellen 1984, 1987, 2003).

Moreover, I offer further support for the notion that local trading systems of the Moluccas provide us with a bridge between several worlds, in which Banda has long been – to use Lape's (2000b: 139) phrase – 'a dynamic society in a zone of culture contact'. An examination of local pottery traditions is of special interest when we look at the zone of transition between Melanesia and island southeast Asia, with its focus on cross-cultural interaction. The local trading systems of the Moluccas were the context in which exotic goods from wider Asia moved into the fringes of Melanesia, and provided infrastructure for the production of exotic products moving westwards into mainland Asia as part of a global trading system. The way in which pottery moves, and the location of specialist production centres, reflect the overall shape and geographic division of labour of the system, while the influence of pottery shapes from Java and the western archipelago (Ellen and Glover 1974, Spriggs and Dickinson 2010: 273) signals a hegemonic cultural movement from Asia into the western Pacific.

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Figure captions

Figure 1. Model of concentric Moluccan trading zones (Ellen 2003).

Figure 2. Cooling jar dated 1889 from Kei, in the Tropenmuseum, Amsterdam (TM-A-1048), 19.5 cm.

Figure 3. Kei islands, showing pottery production sites 1981–86, and distribution of Banda speakers.

Figure 4. (a) Woman removing fresh clay placed in coconut leaf basket after salinating in seawater; (b) Sieving sand filler over clay.

Figure 5. (a) A woman preparing clay *lungur*, several being made at a time and then put aside. The *lungur* is then shaped into a proto-form before commencement of paddling; (b) Shaping vessel using paddle-and-anvil technique.

Figure 6. (a) Applying paint to child's pot. (b) Pots after first firing and painting, stored inside house.

Figure 7. Painted wares produced in Elat, 1981: (a) flower pot (As1982-13.27); (b) spouted water jar (As1982-13.31); (c) double-spouted water jar (As1982-13.42a,b); (d) bowl (UKC 1981.47).

Figure 8. Painted water pots showing indicative design elements: (a) UKC 1981-46, (b) As1982-13.39, (c) As1982-13.37, (d) As1982-13.43, and (e) As1982-13.38.

Figure 9. Close-up of design inside decorated shallow dish (*ana*) consistent with traditional Moluccan designs (UKC 1981.47).

Figure 10. (a) Sherd from a lugged cooking pot found as surface debris in Kwaos on the east coast of Seram, showing distinctive features of Kei pottery, including red painted design on white slip: UKC 1986.27. (b) Surface sherd found at Lonthoir, Banda Besar, 1981: earthenware with hole, water eroded; max W = 95 mm; large bowl or similar container.

Figure 11. Pottery production sites in east Seram, 1981-6.

Figure 12. Genetic relationship between languages spoken in the Kei archipelago (*Atlas Bahasa Tanah* 1996: 83-90).

Figure 13. Pottery production and export: (a) pre-1621 Banda; (b) post-1621 Kei.