

# 10

## The Role of Potters in Establishing Identity at An Søn

### **Introduction: Theoretical approaches to the use of ceramics in the expression of identity**

This chapter returns to the original aims of the monograph (Chapter 1) and interprets the results of Chapters 5 to 9 with respect to relevant concepts of identity and craft production. In order to extrapolate social meaning from a ceramic artefact, the ceramic assemblage of An Søn must be considered with respect to the potters, their identity and role in An Søn society and with other communities. The behaviours and choices of potters play an integral part in identity. Conservative and innovative behaviours in ceramic manufacture at An Søn are indicative of factors that contributed to the position of potters within the An Søn community. The ceramic assemblage is also assessed for its contribution to the identity of the community, and how others may have perceived An Søn through its ceramics and other material culture.

The relationship between artefacts and identity has always been important in archaeological inquiries. Objects are the most reliable and resilient forms of evidence that characterise prehistoric cultural groups and can be 'read' for their meaning to a culture (Hides 1996: 25; Hodder 1982: 185; Mauss 1931: 6–7). It is the intention here to understand 'the social life of things', the history of the objects and those who created and used them, especially in the daily interactions between objects and people, known as *habitus* (Appadurai 1986; Bourdieu 1977). Identity is an elusive term, from which 'contradictory and heterogeneous definitions' arise out of multidimensional studies (Meskell and Preucel 2007: 122). There are psychological associations with familiar objects, which become part of a sense of identity. Objects do not offer identity to individuals, but the interactions via material culture that connect people and groups solidify relationships and associated identities of sameness or difference (Hodder 2012: 38, 89, 210; Meskell and Preucel 2007).

In order to assess the cultural identity for the An Søn group(s) and their associated material culture, for the potters, individuals and the community as a whole, Sian Jones' theoretical approach is applied. This approach considers the variable nature of cultural identity with respect to context, and the fluidity inherent in its definition (Jones 1996: 63, 67). The overlapping and blurring of different facets of social life are observable when considering the domestic, ritual and sexual spheres, and studies of identity and social life approach these various domains in a multidimensional analysis (Meskell 2007, 2001). The practice of identity involves repeated production and consumption of distinctive material culture, and material culture analysis can provide information about this identity (Jones 1996: 72).

Material culture can be distributed in various social and historical contexts that may result in different modes of production and use, and may be seen to exhibit 'a variety of expressions' (Jones

1996: 72). In order to reveal variations in the deposition and use of material culture in different social spaces, artefact assemblages must be considered with an understanding of their context and stratigraphy. This is aided by the application of classificatory methods in material culture analysis. It is these distributions of specific material culture in different contexts that can help archaeologists to infer expressions of identity (Jones 1996: 73). This approach has been applied in this monograph, with a priority placed upon ceramic forms, modes of decoration and fabrics in stratigraphic and spatial contexts.

It extends to understanding the ceramic material culture together with potter behaviours and cultural identity. By applying learning theory and multiple lines of evidence, archaeologists can address the complexity of identity from analyses. Cultural transmission can be studied by identifying patterns of repeated co-occurring attributes while also analysing the variability that occurs as a result of this transmission in learning (Eerkens and Lipo 2008: 66). Archaeological evidence of identity can be retrieved from analysing learning frameworks, the daily practices of a past group and patterns in material culture, because they are part of specific set of social circumstances for a particular group (Wills 2009: 287; see also Minar and Crown 2001).

It is within the daily routine of domestic activities that individuals enact their identity, and it is within the household where signatures of identity may be archaeologically visible (Wills 2009; see also Lightfoot, Martinez and Schiff 1998; Stark, Elson and Clark 1998). This includes learned technological behaviours, since they are tied to tradition and effectiveness. These behaviours withstand time and along with other forms of evidence encompass different levels of identity. Evidence of identity may be found in the built environment, ceramic manufacture, food preparation and cuisine, refuse disposal, and ritual. Ritual is one of the most conservative markers of identity and cross-cultural comparisons of identity are most convincing when comparing ritual alongside other evidence (Wills 2009: 287–289).

Cross-cultural comparisons often involve distribution maps of material culture to reveal the mobility of objects between static human groups. Such maps indicate processes of exchange and a single endpoint where the object comes to rest archaeologically. When considering the processes of distribution, variations in these patterns may be interpreted as involving people in simultaneous events of interaction. The transactions of objects between people involve meetings and material transfers, with artefacts tied to the identities of individuals or groups of people. A series of transactions is what differentiates each group depending on the context, place, groups or individuals involved, and several narratives of identity are then constructed. Transactions also form connections between people and groups, including the people involved in the exchanges and the absent manufacturers. Concepts of social meaning associated with the object may also be transferred with it (Thomas 1996: 159–162).

With the application of specific theoretical frameworks, the results of the analysis (Chapters 5 to 9) provide the basis for the following interpretations. In Chapter 5, the ceramic sequence and contexts of the ceramic deposits at An Sôn addressed the use of ceramics as temporal markers and in domestic and ritual life. The categorisation of the An Sôn ceramic vessels in Chapter 5, and the fabric analyses in Chapter 6, were applied to identify ceramic vessel manufacturing templates, that were part of a transmission for learning the craft. Variability and conservatism in following these templates is discussed in relation to standardisation in the most common vessel forms (Chapter 7). Regional understandings of the organisation of ceramic production and labour divisions in Southeast Asia are also discussed. The overall identity and role of potters in An Sôn society are interpreted in light of the findings reported in Chapters 5, 6 and 7. The nature of interaction via material culture between sites in southern Vietnam (Chapter 8), is then employed to discuss identity for the An Sôn community in relation to material culture shared

with other sites in southern Vietnam. The final section of this chapter contextualises An Sơn in terms of wider traditions and developments during the neolithic occupation of Southeast Asia, with reference to the results of the comparison presented in Chapter 9.

### **The temporal sequence and spatial distribution of ceramics at An Sơn**

An Sơn was a site with dense concentrations of ceramic sherds in layers 1 to 6, clay pellets in layers 1, 4 and 5, ceramic roundels in layers 3 to 5, unshouldered adzes in the upper layers and shouldered adzes in the lower layers of Trench 1. The distribution of material culture over the site indicates dense deposition of ceramic sherds in the C squares of Trench 1, and minimal deposition of ceramics in the northeast corner of Trench 2. *Cà ràng* stove cooking vessels and midden, as well as low-fired clay lumps, especially in Trench 2 squares C1 and E4 layers 1 to 5, support evidence for cooking. The distribution of clay pellets in Trench 2 is somewhat consistent with this cooking area, with most pellets distributed in the southernmost squares of the trench. There was a more even distribution of ceramic roundels on site. There were no indicators of reworking stone tools in Trench 2, with Trenches 1 and 3 exhibiting evidence of finishing and retouching with polished flakes, whetstones and sandstones. The distribution of shell, namely shell beads, was limited to the burials and the selected midden samples in Trench 2 that were wet sieved through a 2 mm screen. Shell beads may have been more evenly distributed if this excavation strategy was applied for the entire excavated site.

The burials revealed the highest number of mortuary ceramic vessels offered to adult male and female individuals. However, some adults were not associated with any ceramic vessels, or only one. Sub-adults were usually interred with only one or no vessels and very few infants were buried with ceramic vessels. Individuals who were interred with a greater number of ceramic vessels were more likely to also have other grave goods, such as bivalve shells, shell beads and lithic adzes.

The sequence of rim forms shows that the initial settlement of An Sơn was marked by utilitarian bowls (form B1b) and concave rimmed independent vessels (form A2a), which may have had symbolic and utilitarian functions. After this initial settlement, the range of apparently utilitarian vessels increased with, A1 forms, a modification of form B1b into form B1a, and specific ritual vessels for An Sơn burials: especially class D1 vessels. By mid-sequence at An Sơn, the range of vessel forms increased in classes A1, A2 and C (see rim form images in Figure 5.1). The later sequence was characterised by D2a vessel forms for ritualistic burial goods, and a continuation of these forms from mid-sequence. The decoration of ceramic vessels at An Sơn transitioned from initial coarse cordmarking and coarse punctate stamping to more elaborate and varied roulette stamped and incised motifs.

Characteristic forms often exhibited high frequency and longevity in the sequence. This is suggestive of a mental template for the overall ceramic assemblage, or for each specific vessel form. There was some resistance by potters to deviate from these traditions or templates for the more common and long-lasting forms at An Sơn. This is not to imply that variations do not appear in the assemblage, nor is the assemblage devoid of change. These modifications of tradition are discussed below in terms of the mental templates for specific ceramic forms, and the occurrences of intentional innovation, accidental modification and error in ceramic manufacture.

The initial settlement at An Sơn had evidence of a ceramic assemblage that may have been brought from another locale within southern Vietnam, or further afield, as part of neolithic developments in the region. Initial settlement incorporated vessel forms, some of which were modified, that ceased or continued to be produced in the subsequent occupation. This presented three possible scenarios for the incipient potters at An Sơn: (1) the earliest potters left An Sơn after an initial visitation and returned a short time later with a larger repertoire of ceramic forms and settled

permanently; (2) the earliest potters at An Sôn were later joined by other potters with different ceramic traditions, and these traditions combined to become the more varied assemblage evident in mid-sequence An Sôn; and (3) new ceramic forms developed out of the earliest forms at An Sôn in an evolutionary manner after initial settlement. The assemblage that appeared after the earliest occupation of An Sôn was largely continuous with expected developments within the tradition.

The spatial distribution of ceramics and other material culture shows how An Sôn can be divided into three activity areas: general refuse, cooking and food preparation, and burial. These areas do not overlap directly. While burials occur in the same squares as cooking and refuse localities, they were never interred directly with such cooking and refuse traces, but at different times during the occupation of the site. Trench 1 was associated with the waste disposal of ceramics, stone and faunal remains. The multiple layers of Trench 2 were associated with cooking, food deposition and food preparation. The number of actual cooking events in Trench 2 may have been few, but the area was nevertheless used multiple times for cooking. It may signify communal rather than household cooking, since the associated midden was dense and possibly deposited over a short period.

### *Temporal markers in the ceramic assemblage*

While a sequence for the ceramic vessel forms was outlined in Chapter 5, the clearest temporal markers in the ceramic assemblage were the class D vessels associated with mortuary contexts. The striking transition from wavy to serrated rim forms, where one form replaces another at a certain point in the occupation of An Sôn, is one example that may connect the ceramic sequence to the absolute chronology of the site (see Chapter 4).

The low quantity of D2a rim sherds and the very high quantity of D1a in Trench 1 has complicated the issue of applying the wavy and serrated rim forms to the chronology. However, the class D sequence in the 1997 excavation showed the relationship between D1a and D2a (Nishimura and Nguyễn 2002). The initial occupation at An Sôn did not include class D forms, but the first D1 forms were introduced soon after. Some had the D1a wavy rim but more had the D1b narrow wavy rim (Figure 5.1), as observed in layer 3–4 of the 1997 excavation. The appearance of D1 forms has been dated to before 1750 cal. BC, according to the dated occupational deposits (see Chapter 4). The D1a form became a very narrow wavy/wide serrated form from layer 2–13 in the 1997 excavation, and by layer 2–9 only the serrated D2a was present. This transitional rim form differs from the narrow wavy rim form D1b (see Chapter 5 and Figure 5.1, c.f. middle image of Figure 10.1). The transition from D1 to D2 was gradual and occurred around the middle of the sequence, at around 1500 cal. BC, according to the dated layers of the 1997 excavation (see Chapter 4, Figure 10.1).

Two burials from the 2009 Trench 1 excavation also assist in applying an absolute chronology to the sequence of class D vessels. Burial 4 was interred with a D2a vessel that intersected burial 3 which had two D1a vessels. The earlier burial 3 was dated from tooth enamel by AMS to 1431–1314 cal. BC, and so burial 4 and the appearance of the D2a rim form must post-date this. Serrated D2a vessels were identified in two burials (10 and 14) from the 2004 Trench 3, of which the teeth were AMS dated to 1534–1431 and 1518–1429 cal. BC, respectively (Anna Willis, pers. comm.) (see Chapter 4). The serrated D2a vessel of burial 14 was in fact a wide serrated form (Figure 10.1), and possibly an intermediate form between D1 and D2. Given the error margin of the dating method, it is possible the point of transition from wavy to serrated pottery forms was c. 1430 BC.

If the dates are correct, it is possible that continued use or reuse of D1a vessels occurred after their production diminished or ceased, because the burials after the transition to D2a vessels continue to have D1a vessels interred within them. The transition is difficult to interpret as being

clear-cut from one form to another, although it is plausible if the margin of error in the dating is considered alongside a period of crossover between D1a and D2a forms, and there was of experimentation in class D vessel manufacture within a short timeframe.

Relative temporal relationships were identified in the other ceramic vessel classes (see rim form images in Figure 5.1). The initial settlement of An Sơn was marked by A2a vessels that were fine sand tempered and sometimes decorated. These forms were made with respect to continuing ceramic traditions that were observed in the southern Vietnam and Cambodia region. Unlike the A1a fibre tempered vessels, that may have been used for cooking or storage and were in greater numbers after the initial settlement, the A2a form was not an obviously utilitarian vessel. The initial settlement assemblage consisted of B1 vessel forms, which were, most likely, utilitarian bowls. While utilitarian vessels, especially class A1, increased in proportion in the assemblage after initial settlement, a new ritual ceramic tradition appeared at the same time, in the form of the class D1 vessels. These vessels appear to have been innovated for mortuary offering. The class E *cà ràng* vessels peaked in Trench 1 layer 5, which may reflect the greater density of sherds mid-sequence. However, there does seem to be a preference for this stove vessel during mid-sequence, perhaps indicating an increase in cooking activities at this time.

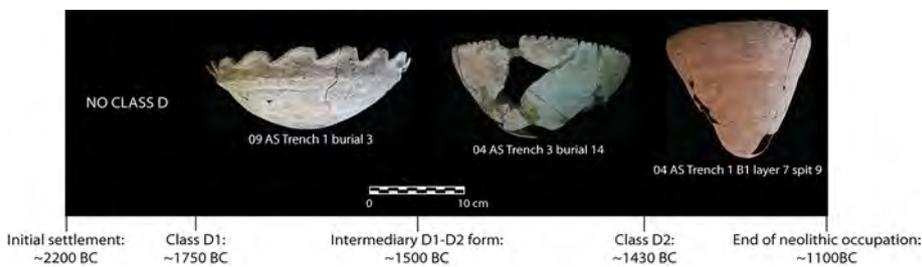


Figure 10.1. The sequence of class D vessels at An Sơn.

Source: C. Sarjeant.

### *The function of the An Sơn ceramics*

In very basic terms, some of the ceramic forms at An Sơn can be distinguished as either utilitarian or ritualistic in their functions. The areas of cooking in Trench 2 were associated with form A1a, possibly undecorated A2a and C1a vessel forms, as well as class E *cà ràng* sherds. A2a vessels were widespread at An Sơn and dispersed throughout the sequence. They were identified in a variety of contexts and were possibly multifunctional. It is also likely that some were decorated with a shoulder band and others were not, perhaps signifying the function of the vessel in ceremonial or ritualistic scenarios. The A2a vessels were frequently burnished at the interior and exterior of the rim and down to the shoulder of the exterior surface. Burnishing reduces the porosity of a ceramic vessel (Dales, Kenoyer and Alcock 1986: 42), but these vessels were only partially burnished in the upper portion, suggesting they may have not been used for liquids but for serving food. Alternatively, in Mississippian archaeology, burnishing is commonly interpreted as a feature of serving vessels (Wilson 2008: 96), which was observed on the interior of a large decorated dish with a pedestal (09AS Trench 1 A6 layer 5 spit 6–7 in Figure 5.16).

The A2a vessels exhibit a great deal of care in manufacture, with detailed surface treatment and decoration, selected sand temper, and a high temperature for firing. Unlike the utilitarian cooking vessels and *cà ràng* that were porous with fibre temper and discarded after only a few uses, the A2a vessels were probably re-used many times, perhaps for serving at particular occasions rather than for every meal. Some other unique vessel forms were burnished with ornate decoration, and were

unique forms probably used in feasts associated with ritual and ceremony (see Figure 5.16). Most of the class A1, B, C and E vessels were unburnished and fibre tempered, signifying a utilitarian function for storage and/or cooking.

Apart from class D vessels, there was little consistency between the mortuary offerings, although some included stone adzes and shell beads. The most common mortuary offerings were ceramic vessels, at least when mortuary goods were present in the burials. While class D ceramics were the most frequent vessel form in mortuary contexts, Trench 1 burial 2 in the 2009 excavation revealed a greater variety of ceramic forms. These included a highly decorated incised and impressed vessel that was unique in its form, as well as forms that were identified in the occupational layers and were presumably utilitarian vessels, such as forms C1a and C1b (see Figure 5.1 and Figure 5.14). The main difference between these vessels and those in occupational contexts was apparently greater care in manufacture, as evidenced by the shape, surface treatment and fabric, and the addition of a pedestal. This attention towards the ceramic vessels in burial contexts indicates that their primary function was for mortuary offering.

### **Organisation of ceramic production at An Sôn**

Understanding the organisation of craft production in the past can be difficult to ascertain, largely due to a lack of direct evidence for production areas. While there was a large supply of ceramics at An Sôn, the site offered no production areas or even tools for pottery manufacture such as baked clay anvils. It is presumed that the vessels were manufactured with wooden paddles and anvils using cord and other plant materials for decorative motifs. One burnishing stone was recovered in the 2009 Trench 1 burial 2, and this may have been used in ceramic production.

From the assemblage of ceramic vessels and sherds, it is possible to infer the behaviours of potters at An Sôn. The main focus of this section is to outline the ceramic templates that were followed; to assess the deviational and conformist behaviour associated with these mental templates; and to understand how these templates might have been taught and learned in order to pass on traditions to the next generation of potters. By understanding the behaviours and choices of potters, it is possible to interpret the structure of ceramic production and the identity and agency of the potters.

### **The potter, choices and the ceramic template**

The analysis of the morphology, decoration and fabrics of the An Sôn ceramics (Chapters 5 and 6) indicated that there was a basic structure for how certain vessel forms were manufactured by potters. Certain common forms were prescribed with a particular decoration, if present, and clay and temper selection. In order to create the desired vessel, a recipe was followed. The preciseness of this recipe was investigated in the study of standardisation in Chapter 7. There is a limited level of standardisation that is achievable in an early sedentary settlement setting, at which time it was likely there were a number of potters producing vessels without measurement or mechanised implements, thus increasing ceramic variability. This kind of manual production means that an intended 'ideal' form may vary by 5% when standardisation was intended (Eerkens 2000). This 5% is the effect of unavoidable copying errors, and the impact of these errors cannot be easily determined by researchers (Eerkens and Lipo 2008: 71). I interpret the standardised manufacture of certain forms as following a mental template rather than industrialisation and craft specialisation, which is more commonly linked to later iron age developments in mainland Southeast Asia.

The mental template for a ceramic vessel is the psychological mechanism that involves the ideal vessel that a potter has in mind prior to manufacturing the pot. This 'ideal' may be in the imagination of the potter, in the memory of the potter in an attempt to replicate other vessels, or

in the copying of other vessels visible. The ideal or template may be taught by verbal instruction or demonstration. The variation that is evidenced in ceramic vessels in the teaching and learning process is discussed further in this chapter. The ideal product may have been formulated by the potter, other potters, and/or other individuals who control the standard of ceramic products. The ideal of a proper form for an object exists in the mind of the maker. Once the mental template has been translated by the craftsperson into a physical object, there has been a communication between the person's brain and motor skills. As a result, knowledge has been attained, and the detail of the object is no longer an abstract concept (Olausson 2008; Connerton 1989: 11).

Each technical operation is linked to others in a chain, a *chaîne opératoire*, involving materials, energy and gestures (Leroi-Gourhan 1964), which is then described with reference to techniques, methods and tools (Roux 2003b). These include production, exchange and consumption with material, economic, social and conceptual meanings (Hodder 2003: 162–163). The belief, idea or intention of a material item adheres to the object, and both utilitarian and conceptual meanings can be interpreted from material culture (Hodder 2003: 167). The mental template for manufacture dictates potter behaviours in the *chaîne opératoire*. Deetz (1967: 46) suggested that tradition is associated with how this ideal or mental template is perceived, due to the transfer of templates from generation to generation, although other factors are important. This includes whether the template exists for technology, function, innovation, or tradition (Deetz 1967: 46–47). These ideas or mental images can be compared within and between cultures (Gifford 1960: 346). The ceramic 'type', and thus the mental template of the form, is composed of features according to a set of attributes. These attributes are characteristic of the ceramic types that are constructed and analysed by archaeologists. The contrasting view is that pots take on a particular form due to motor habits rather than mental templates, and mental templates are visual categories that are consistent with produced vessel forms (Arnold 1985: 7–8).

The process from the template in mind to its physical manifestation encounters an exponential number of points where variability might be introduced (Figure 10.2). Some of these are within the control of an individual potter as a result of their choices, and some may be unavoidable. These variables centre around the potter, and the aptitude of the potter to navigate the mental template and manufacturing choices in order to produce the finished product. Even when controlled by experienced potters, certain variables may deviate from the template more than others. For example, vessel wall thickness may vary substantially in response to other choices and conditions, to specifically ensure a successful final product. Environmental and situational conditions, such as access to raw material resources, may also result in the need for modification in manufacturing methods, while wet weather can influence working, drying and firing times.

Potters follow the mental template and make decisions for the manufacture of a particular vessel in order to comply with a personal intention or invention, a social demand or tradition, an economic demand, or a combination of these factors. Intentional deviation from tradition or demand is an active innovative act. Complying with tradition may also be marked by variation in the features of the finished product, since the template is in the memory of many different potters, who are each equipped with differing adaptive skills and learnt procedures for constructing the template. Therefore, a number of individuals constructing the same vessel form from a mental template, at the same time, may manufacture different vessels that have the same fundamental features that define the form (archaeologists define these forms according to these features; see Figure 5.1). Whilst it might be assumed that potters manufacture vessels from a shared mental template, the reinterpretation of the template within the minds and actions of potters will result in slight differences between vessels.

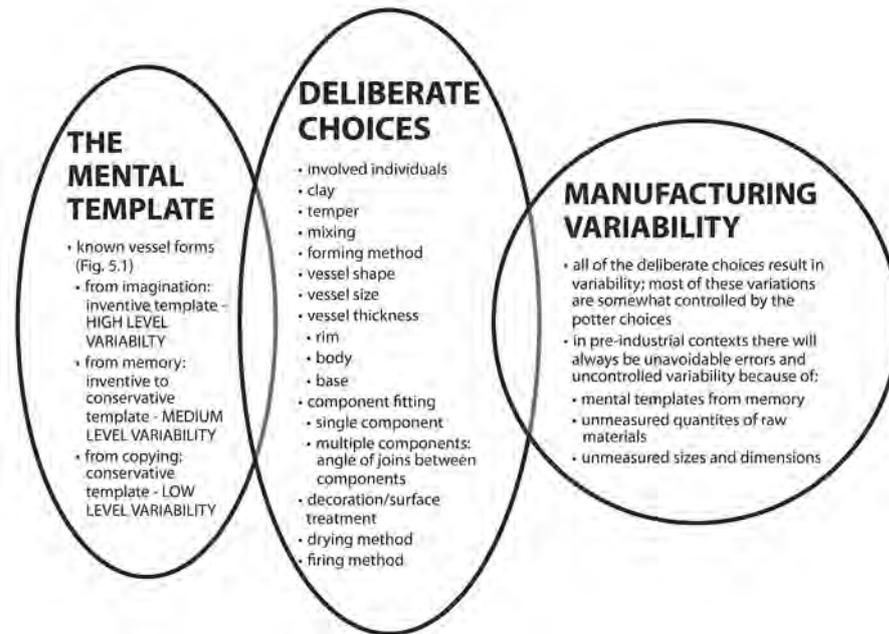


Figure 10.2. An overview of the variables involved in ceramic vessel manufacture from the mental template to the choices made by the potter and the incidences where variability occurs.

Source: C. Sarjeant.

### *Mental templates of An Sơn ceramic forms*

Based on the statistical analyses of morphology, decoration and fabrics in Chapter 7 and the summary of fabric groups in Chapter 6, the four components (morphology, surface treatment/decoration [for class A2 only], temper and clay) of the mental template are outlined for each of the forms considered. One vessel form from each major class is considered here: A1a, A2a, B1a, C1b and D1a (see Figure 5.1). While class E is omitted here, the rim form and temper similarities between forms E1a and C1b suggest similar templates were in place, except for the body shape. The consistency or variability of each component is presented in Figure 10.3. Forms A2a, B1a, C1b and D1a displayed relative morphological standardisation in the coefficient of variation analysis of dimensional measurements, while A1a was more variable. Therefore the structure of the mental template was followed more closely for the manufacture of forms A2a, B1a, C1b and D1a than for form A1a.

- **Form A1a:** A1a was not closely analysed in the study of standardisation of forms in Chapter 7, since the preliminary results for class A1 indicated that morphology was variable, and a mental template for the form was also variable. The dimensional variables with the lowest levels of standardisation were the diameter of the rim, the length of the rim and the thickness of the body wall. This variability was evident throughout the sequence. The analysis of the A1a fabrics presented in Chapter 6 indicated there was consistency in the selection of fibre temper and the clay compositional group CPCRU 1.
- **Form A2a:** When all of the A2a samples were considered together in a standardisation study of morphology a great deal of variation was also observed, but this form had lower coefficient of variation values than form A1a. The least standardised dimensional variable was the thickness of the body wall and the most standardised was the angle between the rim and neck of the vessel. The angle is a distinguishing feature of this restricted vessel form and it would be expected that this variable would be an accurately executed component of the

mental template. Morphologies were more similar in dimensional measurements when vessels were produced at a similar time in the sequence, especially those within layers 4, 5/6, 7 and 8 of Trench 1. Additionally, while the fundamental principal for the shoulder band design was similar in all of the form A2a decorated sherds, whereby roulette stamped impressions were commonly applied, the dimensions and details of these designs were highly variable, except for the band width of the square and zigzag roulette stamped. Conversely, the fabrics were standardised with the prevailing selection for sand temper and clay matrix compositional group CPCRU 2.

- **Form B1a:** The B1a vessels were morphologically similar to each other in terms of the dimensional variables, but were statistically standardised in the lower layers (7 and 8) of Trench 1. The tempers ranged from fibre to mixed sand with fibre but the clay selection was homogeneous for form B1a and most samples had the clay matrix composition of group CPCRU 2.
- **Form C1b:** The morphology of C1b vessels was similar throughout the sequence with standardisation increasing for two dimensional variables, the diameter and thickness of the body, in Trench 1 layer 5/6. The temper consistently included fibre and many vessels also incorporated phosphate sand grains (as discussed in Chapter 6, Part I). The clays were homogeneous with clay matrix compositional group CPCRU 1.
- **Form D1a:** The statistical analysis of the morphological dimensions of D1a vessels divided the D1a sample into two major groups, one represented the earliest layers and the other represented the mid-sequence layers. This was based on the rim diameter and angle of the rim to the internal ridge dimensional variables. Within the two groups, the morphology was similar, especially the diameter dimensional variable. When compared with the other vessel forms, morphologically, the D1a vessels produced some of the more standardised practices at An Sơn with low coefficient of variation values for many variables than for the other vessel forms. This was especially relevant for the vessels from contemporaneous and similar contexts, such as burials. The fabrics were consistently tempered with sand with clay matrix compositional group CPCRU 2.

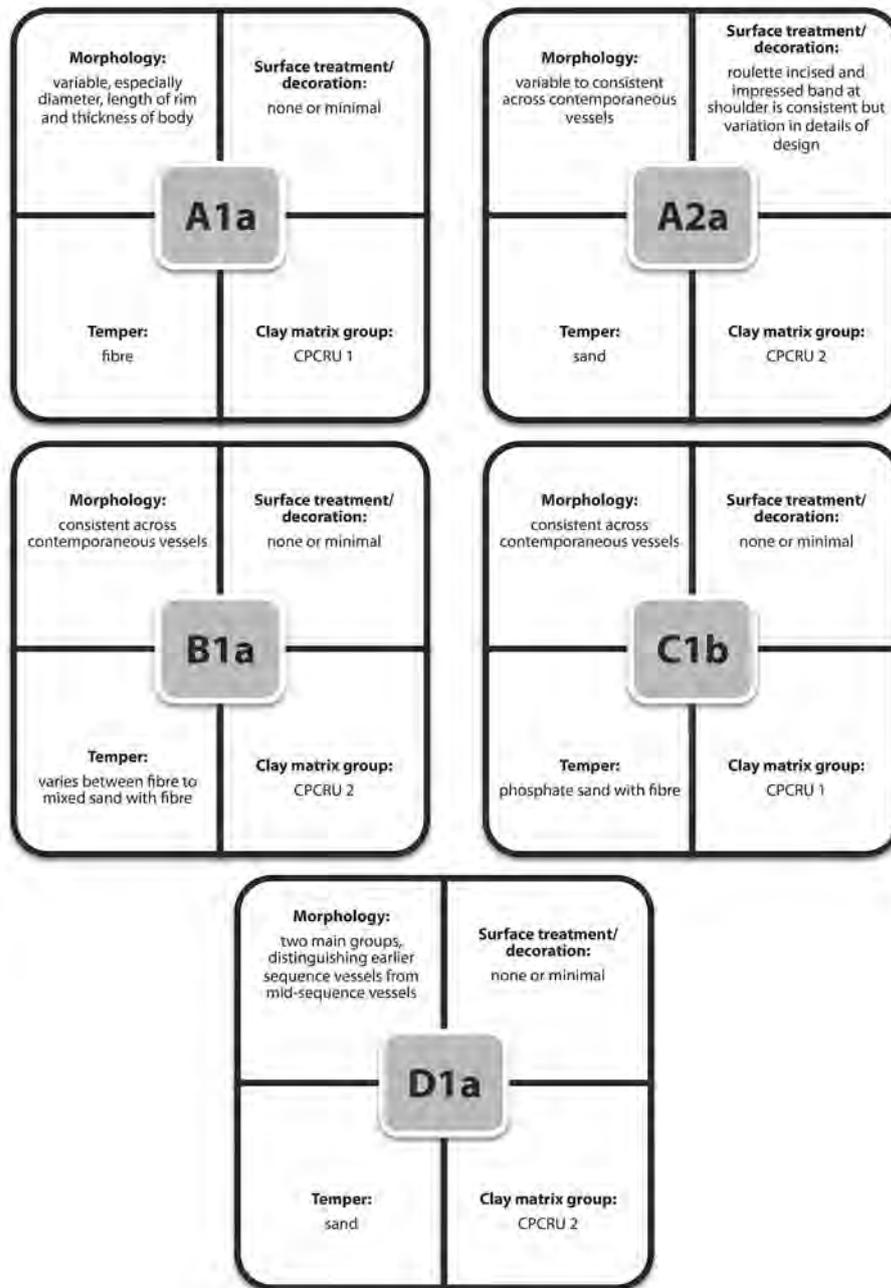


Figure 10.3. The reconstructed mental templates of An Sơn vessel forms A1a, A2a, B1a, C1b and D1a.

Source: C. Sarjeant.

#### *Variations of the mental template and innovative behaviours*

Each of the forms included in the mental template descriptions exhibited at least some variation in morphology, temper and clay selection, and decoration (Figure 10.3). However, form B1a was more standardised in form than the others, and form A1a was more variable than the others. The reasons for deviating from the mental template are likely to have been numerous. The first, as already mentioned, was possibly the result of errors that were incurred when translating the mental template from memory to a physical pottery vessel (Figure 10.2). The second could be the result of deliberate deviation, either slight or radical, such as invention or innovation. *Invention* occurs on an individual level, within the actions of the potter, and *innovation* occurs when there is

widespread acceptance of this invention to cause change in the technology (Roux 2003b; van der Leeuw and Torrence 1989a). The third reason for deviating from the mental template could be the result of unavoidable but deliberate deviations, in turn as a result of external, uncontrollable factors. These may be environmental (for example wet weather and resource depletion or access limitations) and/or cultural (for example social controls for access to raw materials and time allocation for craft production). The fourth reason could be the result of personal influences, which may also relate to the social controls of craft organisation. These include such as part-time versus full-time craft production, specialised or diversified manufacture, illness or injury, or the potter as an amateur or experienced producer.

The transmission of complex craft traditions relying upon human memory to pass on a mental template to many generations would be expected to be vulnerable to failings of memory, copying error, and differences in potter ability. Tehrani and Riede (2008: 318) state that social learning theory must be applied in order to understand how these variables are accounted for in the transmission of skills. Social learning theory encompasses the range of ways in which people copy one another, and the level of 'accuracy and fidelity' that occurs when either following actions or observing the result of these actions in creating a product. Active teaching is an important deterrent to introducing variability, which may be employed since there is often an attitude in societies to preserve objects and traditions from the past (Tehrani and Riede 2008: 318; Miller 1994). Experimentation may be avoided in complex technologies, since the production and economic risks and attribute covariation will be high (Eerkens and Lipo 2007; Bettinger and Eerkens 1999, 1997). Behavioural chain activities also affect design variability, and even the design may be compromised when an artisan makes choices that are dependent upon individual invention and/or external factors (Schiffer and Skibo 1997).

There are likely to be more complex social devices at work in terms of how variation and deviation from tradition and the mental template operate beyond that which may be read from archaeological material alone. A potter may be 'within' or 'outside' inventive behaviours, or innovations may be either within the scope of the traditional production system or outside the system (Senior 2000: 78–79). The aforementioned causes of variation have been elaborated on by Senior (2000: 80–81), who states that a change in 'style' can be linked to availability of natural resources, variation in work efficiency, dietary changes, ritual behaviour, transformations in value systems, migration, contact with other groups, shifts in potter status, organisation of production, alterations in market demand, and gender roles.

Transmission of a mental template for a vessel form is dependent on the system of learning and teaching for ceramic manufacture. Knowledge may be passed on to or withheld from certain individuals deliberately in order to maintain exclusivity and/or tradition (Hurcombe 2000: 101). Eerkens and Lipo (2008: 66–67) focus on the variation that transpires during instruction and learning the skills of craft production. This variation occurs as a result of the accumulation of errors in the transmission of information or actual execution of the instructions (when the potter has the correct information but has not executed it correctly), or flaws in raw materials. Archaeologists might perceive these circumstances as invention, interpretation (using an item for a different function than it was originally intended) or translation (making an item from a different raw material than usual), rather than as errors in learning, execution and materials respectively (Eerkens and Lipo 2008: 66, table 4.1).

Boyd and Richerson (1985) have stated that there are two groups of artisans in a system of craft production: those that produce variability, usually with experimentation, and those that reduce it by copying others. The manufacturer may not always be aware of the errors they are introducing

to the product and some copying errors are unavoidable, but how much change do copying errors cause? When less variation occurs than would be expected from copying errors, i.e. more than 5% variation, the change must be the result of other factors (Eerkens and Lipo 2008: 67–69, 73).

In coefficient of variation analyses or other modelling techniques, some material culture variables may reflect copying errors, while others may utilise variation-reducing mechanisms (less variability than for copying error) or variation-increasing factors (greater variability than for copying error), i.e. standardisation and specialised workshops, or experimentation and invention (Eerkens and Lipo 2005). As mentioned previously, not only do variation and change occur as a result of behavioural choices and errors, but also as a result of the ways in which potters learn technique. Ferguson (2008) states that when scaffolding is practiced, that is the integration of novices into craft production in which experts can teach, assist and intervene as much as necessary in order to ensure a successful outcome, then variability in the archaeological assemblage is limited.

The lack of manufacturing mistakes in the An Sôn assemblage, or evidence of vessels produced by novices may suggest that scaffolding was one of the learning structures present at the site. While certain ceramic forms exhibited both standardisation and variability in some of the analysed variables, none of the vessel forms in Chapter 7 were determined to have a standardised production overall. However, the standardised variables may have involved careful demonstration during scaffolding instruction to ensure that the complexities of manufacture for the particular form were learnt accurately. These more standardised variables included temper and clay selection and angle of the rim for most forms, with the exception of class D forms which exhibited greater standardisation in diameter. In contrast, body thickness was variable, and consequently less likely to have been taught by scaffolding.

While technological change may be considered in evolutionary terms, i.e. as technological development, the process is not always linear (Roux 2008: 82). Technological change may be considered a dynamic and complex process ‘emerging from interactions among properties of the task-environment-subject nexus, and is self-organising over time’ (Roux 2008: 83–84). It can result from many factors, including political, social, economic and religious reasons, and is characterised as either continuous or discontinuous. There is a limit to the evolution of technical aspects, up to the point at which technical change is introduced. Technical development is continuous and evolutionary, while technical change is discontinuous (Roux 2008: 84–87).

The ceramic assemblage at An Sôn exhibited continuous technological change, when change occurred, in all ceramic vessel forms. The most striking morphological change in vessel form class was from D1 wavy rimmed vessels to D2 serrated rimmed vessels, and suggests a slightly different mode of technological change. This included some evolutionary technical developments, after a period of experimentation, to develop the serrated rim form: the original large serrated portions decreased in size as the method for D2a vessels was refined. More dramatic discontinuous technical changes occurred in thinness of the body wall and in the conical shape of the body of the D2 form. The function of these vessels was continuous, in that they were made for mortuary practices.

Overall, there is a continuous evolutionary development of a somewhat conservative ceramic sequence at An Sôn. However, evidence of behaviour that could represent deliberate deviation from the mental template appears primarily in decorative motifs. This specifically occurs on the A2a vessel form, and the study of standardisation for decoration on this form (Chapter 7) indicates a high degree of variability within these motifs. The tools required for the roulette stamped motifs were probably applied with knotted cord or other perishable woven plant material that did not survive beyond application to more than a few vessels. While the form of the vessel tended to follow the template closely, possibly because of social and functional requirements for that vessel,

the stamp motifs did not. With the opportunity to develop new tools constantly for decoration, potters had the opportunity to experiment and innovate in order to individualise vessels either according to potter or function.

The role of innovation in establishing and re-establishing the identity of the An Sơn community via material culture, in response to ongoing interactions with other groups, is discussed below.

*Continuity in the ceramic assemblage and conservative behaviours*

Continuity in material culture is not just an unconscious transmission of ideas from one generation to the next involving inherent conservatism. There are decisions to copy or vary previously adopted choices at different 'levels of consciousness' that may reference aspects of social identity (Bowser and Patton 2008: 106). Those who practice a shared tradition have a shared identity in connection with the craft. This identity may be shared between teacher and student. Studies have shown that women who manufacture ceramic vessels of a similar style share that style with their close matrilineal kinswomen (Bowser and Patton 2008: 108, 119).

There is a common perception that past societies were inherently 'conservative' because they retain traditions in craft technologies. Incidences of innovation are viewed as radical and rare, as *revolutions* (e.g. the chronological phases that are labelled after technological innovations, Stone Age, Bronze Age and Iron Age) (van der Leeuw 1990: 92). Arnold (1985: 220) declared that there is no economic value for innovation. Producing ceramic vessels that do not fit with tradition and market demand is an economic risk, recalling the work of Silver (1981), who investigated innovation amongst West African woodcarvers. Four inhibitors to innovation and cultural change have been proposed (Arnold 1985: 221–223):

1. The motor habits required for innovation may be incompatible with existing motor habits, which can also be resistant to change. This has been most commonly related to the resistance to utilising the wheel in pottery production (see Spier 1967; Foster 1965).
2. The organisation of ceramic manufacture may be inconsistent with innovation, owing to traditional methods and organisations, such as gendered divisions of labour, which in turn are tied to traditional economic values.
3. The economic status of potters limited innovation, since potters were often poor and may have had limited resources, while innovation required capital investment that may not have been available.
4. Rituals, beliefs and traditions required that potters practice traditional occupations and not innovate or deviate from tradition. This is related to symbolic or social values, rather than to the economic values identified in point 2.

Conservatism amongst potters has been linked to occupational isolation. Since ceramic manufacture is not always highly profitable, potters may be under-educated, and experimentation within ceramic technology can include a great deal of risk. The gender of potters has even been offered as an explanation for this conservatism, since most potters in pre-industrial societies were women, who were often isolated due to lack of education compared to males (Arnold 1985: 102). Creativity and artistic innovation are relatively modern, Western notions and the value of innovation may have been low in traditional societies, while conservatism and the retention of past techniques for ceramic production were of greater importance (Vincentelli 2000: 52–53; see also Rice 1984; Nicklin 1971; Foster 1965).

While variability was most certainly a feature of the ceramic vessel forms at An Sơn, there was a structure in place within production that enabled the identification of mental templates for forms A1a, A2a, B1a, C1b and D1a (Figure 10.3). The conservative behaviours and consistencies in the production of these vessel forms illustrate singular intent. In order for social or functional

demands to be fulfilled, the shapes and fabrics remained largely consistent within a particular form. There were strong social attachments to these vessels for perhaps two reasons. One was functional as these vessels performed roles in domestic, occupational and/or ritualistic life and there would be no need to change functional items that work well. The second was ideational, to uphold ceramic traditions as reminders of the past, ancestry and origin.

Conservative attitudes in ceramic manufacture may be explained further by economic and social systems that require specialised production of ceramic vessels. While Chapter 7 outlined how specialisation would have been an unlikely feature in neolithic communities, elements of standardisation appeared within some vessel form groups when dimensional, decorative and fabric variables were statistically analysed. However, standardisation is not a direct indicator of specialisation. More reliable evidence is derived from context, concentration, scale and intensity (Costin 1991). Unfortunately, no detailed analysis of specialisation at An Sôn was conducted, due to the lack of direct evidence for these features. The results of the analysis of the ceramic assemblage and the study of standardisation were applied in order to infer aspects of the organisation of ceramic manufacture at An Sôn in terms of context, concentration, scale and intensity (see the following section).

### *Craft specialisation at An Sôn*

When fewer people involved in craft production work in close proximity to each other, they are more likely to produce standardised vessels, which may indirectly suggest specialisation. Standardisation can be the result of many factors, such as consumer demand or efficient production. Variability may be measured in a relative way, as conducted in Chapter 7, in which analytical units (sites, regions, phases, or types) are compared. Variability may be attributed to reasons other than beyond the degree of standardisation, for example raw material compositions, environmental conditions, and cultural acceptance for non-conforming behaviours. Numerous variants in a region indicate a low level of specialisation, because many production groups would have provided vessels to the same region. In contrast, when a region contains a homogeneous product, production is likely to have been more concentrated (Costin 1991: 18–21, 32–36, 41–42).

*Context* is the link between the producers and the demand for their products, according to socio-political organisation. One way to assess demand is to analyse each vessel type, since each will have addressed different demands. Specialists will produce one type of vessel, and pre-industrial groups often include both attached (under the control of an authority) and independent specialists, primarily for the production of utilitarian vessels (Costin 1991: 11–13).

The study of spatial distribution of ceramic forms at An Sôn (Chapter 5) can provide further insight into the context of An Sôn ceramic production. This was most striking between Trenches 1 and 2. The majority of the layers of Trench 1 were composed of form A1 ceramic sherds, many of which were fibre tempered utilitarian wares. A significant portion of the assemblage also included form A2a vessels, and also C1a and D1a vessels. The class D vessels were the only form certain to be directly related to mortuary ritual. The majority of the other sherds probably came from utilitarian vessels. In comparison to the other 2009 excavated areas, Trench 1 also contained the most decorated sherds. Burial 2 in Trench 1 included one partially reconstructed incised and impressed vessel and sherds, as did the dumped layers of ceramics in Trench 1. Trench 1 has evidence of successive disposal of utilitarian and possibly broken ritualistic or feasting vessels.

Trench 2, on the contrary, contained quite a different assemblage, inclusive of a higher proportion of form A2a compared to A1a vessels. These A2a vessels often had a band of decoration at the shoulder and may have had a role in ritualistic or feasting events at An Sôn. Form B1a and C1a vessels were also a significant component in Trench 2. The main difference to Trench 1 was the

presence of forms D2a and E1a. The higher proportion of form D2 compared to D1 vessels in Trench 2 was not only a marker of the chronology of the Trench 2 layers, but also indicated a locus of disposal for these vessels. The quantity of form D2 sherds was minimal in Trench 1, but one D2a vessel was identified in burial 4. Only form D1 vessels were identified in one burial of Trench 2. The presence of class E *cà ràng* and other indicators of cooking in Trench 2 (burnt midden concretions and clay lumps) suggests that form D2 sherds broken in manufacture may have been disposed of in Trench 2. It is also possibly they were used for other non-mortuary tasks, such as in preparing, cooking or serving food. The thin vessels may have suited this function.

There was little evidence available on *concentration*, *scale* and *intensity* of ceramic production at An Sơn. *Concentration* is the geographic organisation of production and distribution. The cost of transportation of goods is diminished when craftspeople live in direct association with consumers (Costin 1991: 13–15). *Scale* is the size of the enterprise and the number of producers in a single production unit. This relates to how producers are recruited and integrated into production organisation, including teaching individuals the skills to manufacture ceramic vessels. Quality control is easily monitored when a large number of producers are working in the same locality, as opposed to smaller groups working in separate localities (Costin 1991: 15–16). *Intensity* is the time spent on craft production, whether it be part-time or full-time. Potters in pre-industrial societies might have divided their time between many tasks, such as agricultural work. Concentrated debris indicative of pottery manufacture may suggest full-time production (Costin 1991: 16–18, 30–32).

It has been postulated that community-based production dates to 2000–300 BC in Southeast Asia, with specialised production commencing by the early first millennium BC, and prior to any evidence of political centralisation (White and Pigott 1996). Associations have been made between the adoption of rice harvesting and the transition to increasing social complexity in Southeast Asian prehistory (Dega 2002: 13–14; Higham and Maloney 1988). The results of the ceramic analyses from An Sơn indicate a dominant local-level ceramic production during the neolithic. The export of ceramic vessels from An Sơn appears limited, since unique items, such as the wavy and serrated rimmed class D vessels, have been found only at An Sơn and nearby Lộc Giang. At this stage, there is no evidence to suggest any other occupational organisation beyond household-based, part-time production, in co-existence with agricultural and hunting-gathering subsistence.

### *Division of labour in ceramic production*

Pottery production is not always viewed in the highest economic esteem in subsistence agricultural communities, however, individuals involved in subsistence may shift into craft production if subsistence fails or is inefficient. In the case of pottery production, this may see the introduction of men into a predominantly female-oriented occupation (Arnold 1985: 220). In agricultural communities, there is flexibility in household-based ceramic production, and this occupation can be combined with other domestic and seasonal agricultural work (Vincentelli 2000: 45).

Links between certain individuals in society and specific occupations have been interpreted for past groups: women at Khok Phanom Di have been interpreted as potters, at Noen U-Loke high status individuals were identified with iron sickles, and at Shizhaishan in Yunnan women were linked to weaving crafts (Higham 2002b). It is common for women to be at the centre of ceramic production in pre-industrial societies or at the very least women spent much of their time potting. Women were often involved in many tasks in addition to ceramic manufacture, such as gathering plant foods, dairy production, spinning, laundering, water fetching, and cooking and preparation of vegetal food (Arnold 1985: 102).

If women were the most likely producers of pottery in the past, this study of ceramics not only informs about the identity and role of potters but also of women at An Sơn. Ceramic manufacture

was often household-based in pre-industrial communities and women were able to conduct the occupation alongside other duties, such as caring for children. They could also combine potting with other domestic and seasonal agricultural tasks. However, there are counterarguments to this suggestion since there may be many arrangements for child caring in order for individuals to fulfil occupational tasks, and gender roles in labour and society may not have been well-defined. Many small ethnographic groups organise society according to kinship, whereas state-level organisations alter kinship relationships in modes of labour organisation and may include gendered divisions of labour amongst other organisational efforts (Vincentelli 2000: 34–46; Wright 1991: 200–203; Arnold 1985).

Gendered division of labour is intrinsic to most crafts and affects the way in which production is organised and practiced. There is a long-standing tradition of women manufacturing earthenware vessels. This has been noted in ethnographic research by Lefferts and Cort (2003, 1999) in Southeast Asia, in which women were identified as being at the centre of earthenware production, while also assisted by men and children in certain tasks. Men, however, were more closely associated with the manufacture of stoneware and wheel throwing. In rare cases, men who produced stoneware may have also made earthenware (Lefferts and Cort 2003: 308; 1999). The organisation of craft production according to gender roles is reinforced by the ways in which it is acted out, and the identity of the potter within the organisation (Vincentelli 2000: 34).

Past analyses of gender in relation to mortuary offerings in prehistoric Southeast Asia have revealed that there were few gender differentiations in terms of material culture offerings at Non Nok Tha. By comparison Khok Phanom Di indicated that mortuary offerings were differentiated according to occupation and gender. The female potters were revered in life and death as valuable contributors to the economy (Bacus 2006; Higham 2002b). Wu (2004) interpreted the social status of males in the late neolithic society at Dadianzi, Inner Mongolia, as being based on inherited status and wealth or individual achievements during life. The status of females was more complex and based on both inherited status and status acquired through marriage. Gender-specific burial goods were only identified with males at Dadianzi. At Mán Bạc, children the age of two years old were interred with goods, like those of adult male and female burials. It has been suggested that the mortuary goods may not have had any meaning in terms of age and gender, but perhaps reflected some other economic value or symbolism that was appropriate for both children and adults of all genders (Oxenham *et al.* 2008).

There is little evidence to suggest that potters at An Sơn were a single age, gender or other social group. There is some evidence to suggest that males were interred with a greater number of ceramic vessels compared to females, although one female was interred with just as many ceramic vessels and possibly a burnishing stone, which may signify her role as a potter (2009 Trench 1 burial 2) (see Table 4.5). It is a reasonably safe assumption that the women of An Sơn were at the centre of ceramic manufacture, given the evidence from ethnographic studies and from contemporary sites like Khok Phanom Di. However, it is likely that the female potters relied on assistance from males and children for various tasks related to potting at some points in the ceramic manufacturing process.

### *The identity of potters at An Sơn*

The discussion has revealed several behavioural, occupational and contextual factors that contribute to understanding the identity of the potters at An Sơn:

1. Potters existed in an economic sphere that co-existed with agricultural activities, as well as hunting and gathering practices. The time spent on ceramic production had to be managed in accordance with these other occupations. Many potters may have been simultaneously involved in these subsistence tasks, as well as child caring and other crafts.
2. Potters followed mental templates for the most frequently produced ceramic vessels at An Sơn. Both utilitarian and ritualistic vessels followed these templates.
3. Conservative attitudes towards these templates were critical for the temper and clay choices needed to create functional and successful vessels.
4. Known templates were passed on from one generation of potters to the next with little variation in the most conservative variables, these being choices in vessel shape, temper and clay. This transmission included passing on knowledge of where to acquire the raw materials, the proportions of those materials, and methods of forming, shaping and finishing, decoration and surface treatment, and drying and firing. The longevity and conservatism of the vessel forms at An Sơn indicates instruction, demonstration and interactive learning from an expert to an amateur, probably within the occupation zone, such as from mother to daughter within the household.
5. The conservative attitudes in ceramic manufacture upheld traditions of the past, recalling ancestry and origin of the An Sơn community, and ensured a supply of known and reliable utilitarian vessels.
6. Innovation and experimentation co-existed with conservative behaviours in surface decoration. Potters could individualise their vessels according to ownership, artistry or function with varied roulette stamped motifs, some of which were more complex than others.

The following section discusses the ancestral ceramic traditions that connected An Sơn to other neolithic sites in southern Vietnam and Southeast Asia, particularly in relation to the use of innovation in order to differentiate An Sơn from other groups.

### **The identity of the An Sơn community**

The concept of identity, or the self-identification of an individual or group, is more than a simple reflection of the spatial distribution and variation of material culture in a region (Lucy 2005: 109; Shennan 1989: 5–14; Mann 1986). Whilst it might be convenient to analyse the distributions of material culture and define cultures according to these groupings, the intricacies of material culture and social group relationships require consideration beyond geographical boundaries, since diverse identities and groups may have simply shared a relatively homogeneous material culture. Spatial boundaries can change even when social boundaries, such as age and gender groupings, remain stable. When material culture appears opposed, it may represent a physical portrayal of differentiation in identities. This kind of social interaction can be interpreted from material culture, but only when the context of use and production of the artefact is considered (Lucy 2005).

The spatial distinctions presented in Chapters 8 and 9 offer a starting point for discussion regarding interaction spheres in which identity may be constructed in response to communication. Groups are differentiated from each other based on the inclusion or exclusion of certain material culture. In a functionalist perspective, utilitarian items spread from one group to another rapidly, while burial, ritualistic and decorative ornaments and household pottery tend to be localised, and less likely to change over time (Hodos 2010). These local features are more likely to represent identity

according to this view. The concept of a local tradition implies a boundary once again, and such distinctions may not be clear for the past. Shared habitual practices have been shown to be part of a sense of identity within a group (Hodos 2010).

The patterns by which material culture is dispersed in the landscape have been commonly discussed in terms of diffusion and evolutionary developments that create variation in artefacts as they are passed on. Culture transmission is a term used 'to *explain* variability, similarity and relatedness' (Eerkens and Lipo 2007: 240). Evolutionary perspectives and the concept of common descent in cultural transmission, such as those by Franz Boas, have been used to explain that the number of similarities between groups is proportional to the distance between them. This patterning has been described as diffusion of cultural traits from a point of common descent. This refers only to cultural descent, not genetic descent, which may evolve and diffuse in different and independent ways (Eerkens and Lipo 2007).

Modern cultural transmission theory is not dependent upon early concepts of diffusion, whereby bounded entities and 'cultures' were finite labels. Recent theories have employed a more Darwinian approach in order to explore changes that occurred, including the rate of change, rates of error in transmission, and modes of transmission. Cultural transmission theory allows for evolutionary processes that include individual learning, in which acts of experimentation and innovation occur alongside social learning and copying behaviours. Additionally, not all similarities can be perceived as indicative of cultural transmission between groups, since convergence of cultural traits can occur between groups with no spatial or temporal relationship (Eerkens and Lipo 2007).

In some situations, change in material culture can be the result of the diffusion of stylistic ideas through interaction between groups. Diffusion is never the sole explanation in the choice to adopt or not adopt a cultural trait. Theories of social interaction or information exchange need not be considered in isolation and various forms of contact can result in variation and change in culture, while evolutionary perspectives in a natural progression of cultural development may also contribute to cultural change. The process of selecting the features for change and variation is an important consideration since there must be a reason for making these choices (Hill 1985: 382–383).

Those cultural traits that illustrate cultural transmission must consider the social and physical setting in which the cultural trait is transmitted. Determinants include the individuals who transmit and acquire the information, the number of individuals involved, the direction the information is transferred, and how the information is packaged in order to understand whether all elements are acquired in a single event or in pieces, or if the information has been transmitted by 'hitchhiking' with other information (Eerkens and Lipo 2007: 249–252). These aspects offer further variables in the assessment of cultural transmission that also affect the way in which cultural elements are transferred, adopted and executed. Neiman (1995) concluded that measures of diversity within and between ceramic assemblages were affected by rates of innovation, horizontal transmission and population size. The expected rate of novelty proposed by Neiman (1995) has been applied in many studies to determine whether cultures were pro-novelty (innovative) or anti-novelty (conservative) (Eerkens and Lipo 2007: 256).

There is a prevailing opinion throughout Southeast Asian archaeology that neolithic developments spread throughout the mainland rapidly, and were associated with ground stone tools, cultivation of rice and millet, sometimes husbandry of pig and dog, a higher quality of ceramic production often associated with incised and impressed decoration, shell technologies, partial or completely sedentary lifestyles, and an increasing presence in landscapes that were most likely previously uninhabited (Rispoli 2007: 238; Bellwood 2005: 131–134; Higham and Thosarat 1998d: 74–

75). While there is no lack of an appreciation for the complex nature of this dispersal (see Chapter 1), detailed study of the actual mechanisms and modes of transmission for these diffusions is still in its infancy.

The analyses presented in Chapters 8 and 9 have synthesised some noted commonalities and differences between sites and regions exhibiting neolithic occupation, and integrated new research to contextualise An Sơn in this landscape of multi-lineal diffusion and local developments. The correspondence analysis in Chapter 8 revealed a close link in material culture between An Sơn and Lộc Giang of the Vàm Cỏ Đông River region. This was expected since they are very close geographically. The late occupation at An Sơn exhibited different material culture to the other sites of southern Vietnam. The parallels between the Vàm Cỏ Đông River region and the more eastern Đồng Nai River region were demonstrated within the material culture of Bình Đa. From Bình Đa, a greater network of sites along the Đồng Nai River appeared to be connected with sand tempered rim forms with ridge/appliqué and incised motifs at the vessel shoulder. The Đồng Nai rim forms differed from those at An Sơn, which were characterised by concave and wavy rimmed vessels, and roulette and punctate stamping.

The multiple and fragmentary paths of neolithic culture arriving at An Sơn were demonstrated in Chapter 9. Shouldered rectangular-sectioned adzes were primarily a feature of Cambodian sites and An Sơn, and may have been a local development. Shouldered adzes were present at other sites in mainland Southeast Asia, but were generally rare. Carinated and concave rimmed form vessels were restricted to southern Vietnam, Cambodia and central Thailand, within the studied area. While shell artefacts, namely beads, were present in southern Vietnam, shell artefacts were significantly more varied in central and northeast Thailand, where marble artefacts were also identified. The restricted distribution of these shell and marble ornaments may indicate their prestige status, which is signified by their scarcity (Thomas 1996: 150). Shell temper in pottery was rare at An Sơn, but common at Rạch Núi and Mán Bạc. Shell temper was probably a local innovation based on resource availability, such as a lack of organic or sand materials and a ready supply of shells. Certain features of the neolithic repertoire developed out of local resource availability, and others were independently developed such as variations in vessel forms.

Variables that apparently dispersed to An Sơn via diffusion include the use of rice chaff and sand tempers for ceramic production, and roulette stamping, geometric incision and curvilinear incision decorations on ceramic vessels. Decorations such as red painting in curvilinear motifs and scroll or 'S'-shaped incisions were more common in central and northeast Thailand and northern Vietnam, but never reached coastal central Thailand, Cambodia and An Sơn. In terms of ceramics, the most striking distinctions between the sites of southern Vietnam, Cambodia and coastal central Thailand and the sites of inland central and northeast Thailand and northern Vietnam were the predominance of stamped and incised motifs and concave rimmed vessels in the south and red painted motifs and scroll or 'S'-shaped incisions in the north.

It is clear that An Sơn and southern Vietnam fit with the overall neolithic dispersal in mainland Southeast Asia, but there were developments within southern Vietnam that could be attributed to interactions with coastal central Thailand and Cambodia. The local development and refinement of ceramic forms and stamped motifs was evident at both An Sơn and Khok Phanom Di, where the ceramic assemblages were, in turn, distinct from each other. Despite cultural changes and local developments at An Sơn, there is often reference to the past in order to retain a connection with earlier traditions and identities, as frequently observed in prehistoric societies (Wills 2009: 287).

*Material markers of identity for the An Sơn community*

Social divisions and boundaries are represented by both material and behavioural markers. Style in material culture is often a marker of social identity, but both style and identity have multiple meanings (Bowser and Patton 2008: 105–106). Recordings of material cultural traditions are often arbitrary with little consideration for the inherent material or psychological constraints during material culture manufacture. Neolithic ceramic artefacts sometimes incorporated a ‘revolution of symbols’, in that there was a relationship between symbols in material culture and social codes and ideologies (Cauvin 2000: 237; Orrelle and Gopher 2000: 303; see also Miller 1985).

It is commonplace in archaeology to characterise cultural groups according to pottery styles, which often displays some of the greatest variation. However similarities and differences in other material culture may also reveal different cultural group associations. For example, in British archaeology, Stuart Piggott (1954: 277) identified a primary Neolithic culture according to lithic types and secondary Neolithic cultures according to pottery types, in which distinct ceramic traditions overlaid a fundamental cultural unity that was observed in lithic homogeneity (Thomas 1996: 142–144). Therefore, while it may be possible to identify groups according to ceramics alone, other material culture should also be considered to clarify these groups, and the complexities that exist within them.

This monograph has explored material culture evidence, closely examining the ceramics, but has also included other technological evidence, as well as aspects of environmental, landscape, mortuary, economic and subsistence evidence to investigate the ways in which cultural features developed and diffused within neolithic Southeast Asia. The analysed variables discussed in Chapters 8 and 9 revealed complex relationships between sites via the distribution of certain material culture (see Figure 8.20, 9.16, 9.17 and 9.18).

There is a wide repertoire of features that link An Sơn to the rest of the neolithic landscape in mainland Southeast Asia. This includes cultivated rice and domestic dog and pig, ground stone adzes, the use of fibre and sand tempers in ceramic manufacture, and certain incised and impressed modes of decoration. The shape of vessels appears to have diversified significantly at a local level, apart from basic dish or bowl and restricted everted rim forms. While there was a preference for geometric impressed and eyelet-shaped incised motifs in northern Vietnam and into the southeastern provinces of China, the sites of the Khorat Plateau and Lopburi regions in northeast and central Thailand were concerned with curvilinear motifs that were incised or painted. This includes those that may have represented humans, whales or sickles (see Wiriyaromp 2007). These traditions appear to be regionally restricted and do not extend to the coastal areas of central Thailand, Cambodia and southern Vietnam.

The similarities between An Sơn and the sites of Cambodia and coastal central Thailand may represent the rapid dispersal of neolithic attributes within the zone along the Gulf of Thailand and Mekong Delta, some of which was suitable for cultivation activities. Once settled, local developments were quickly in place, resulting in a distinctive variant of neolithic culture within southern Vietnam. This is characterised by shouldered and unshouldered stone adzes, concave rimmed vessels, pedestalled vessels, and a preference for roulette and punctate stamped motifs, typically as a band at the shoulder of globular vessels.

Local innovations evident at An Sơn distinguished its ceramics from other sites in southern Vietnam, including the precise application of roulette stamping on the shoulder concave rimmed vessels. Stamped motifs were present at the other sites in the region, but were rare because there was a preference for impressed or combed surfaces with incised lines overtop (either horizontal or wavy) at sites like Bình Đa. Other examples of roulette stamping in a band at the shoulder were

observed at Ban Non Wat, however the motifs were rough and less ornate in comparison to those at An Sơn. I have proposed that these motifs were a mechanism for potters to exercise artistry, innovation and individualism on certain vessels and therefore the detail was presented carefully.

The innovation of wavy rimmed vessels was also part of establishing a locally restrictive tradition, primarily for ritual as a mortuary offering. This vessel may have been applied to distinguish the An Sơn community. With the evolution of the wavy to serrated rimmed form there was a continuing re-evaluation of the tradition, technology and any associated identities in place at An Sơn. Other ceremonial vessels at An Sơn included ornate incised and roulette stamped decorations that are largely unparalleled in southern Vietnam, but recall the local innovations for mortuary ceramics at Khok Phanom Di. There is little in common between the vessel forms of An Sơn and Khok Phanom Di, but the incised and stamped decorative tradition at both sites was adopted in opposition to the use of curvilinear incised, especially scrolls or 'S'-shaped, and curvilinear red painted motifs that were common at inland sites in central and northeast Thailand and northern Vietnam.

The early occupation at An Sơn is marked by a limited range of ceramic vessels, which expanded soon after settlement in terms of the range of forms, decorations and fabric technologies, including those that represent local and widespread traditions. Most of the southern Vietnam sites studied in this monograph correspond with this early to middle occupation at An Sơn. The later occupation at An Sơn was marked by increased diversification in the range of ceramic forms, which was also evident at Cù Lao Rùa, and it is likely there was a trend for increased localisation of ceramic traditions in southern Vietnam in the late neolithic occupation.

The geographical distance of An Sơn from the other studied sites of Southeast Asia suggests there was likely a trickle-down effect, whereby a repertoire of neolithic ceramic traditions were brought initially to southern Vietnam, but then developed locally and independently from the other traditions exhibited further afield. The result was a unique material culture identity at An Sơn, where potters manufactured particular vessels with local, regional and inter-regional affinities in mind. Local innovations increased and less regard for those neolithic traditions occurred in the late neolithic occupation at An Sơn. This trickle-down effect was most likely in place for most of the sites in southern Vietnam, with varying impacts from inter-site communications.

#### *Other indicators of identity at An Sơn*

It has been proposed that daily practices reveal evidence of identity in the past (Lightfoot, Martinez and Schiff 1998). This includes understanding the maintenance of residential space, organisation of trash disposal, menu and food preparation, material culture from domestic contexts, and the settlement layout. There is no direct evidence of residential spaces at An Sơn, such as of housing structures, but there is evidence of domestic life with areas of refuse, cooking, and craft occupations. The separation of the refuse of ceramics and cooking activities with related discarded food and ceramic items indicates spatial organisation at An Sơn. The multiple layers of discarded ceramics intermixed with stone reworking debitage and faunal remains in Trench 1 suggests that it was an ongoing practice to dump refuse to the side of the mound at this locale.

Lightfoot, Martinez and Schiff (1998) identified native Alaskan groups with households that combined the living room, kitchen and workshop in a large central space. These spaces were not cleaned but were covered with fresh grass from time to time. The archaeological evidence of this were 20–30 cm deposits of dense vegetable matter, bones, shellfish, matted grasses, hair, artefacts, wood, ash, charcoal, fire-altered rocks, and fur. Other communities revealed clear segregation of

residential and midden spaces. The households were clean except for some lithic artefacts, while the midden was deposited downslope where dense layers of bone and shellfish were revealed (Lightfoot, Martinez and Schiff 1998).

At An Sôn, three different disposal methods are evident. The first, located at the top of the mound and excavated in 1997, indicates cultural deposits were covered by alluvial soil, on which a cultural layer was then deposited. This process was repeated many times and is similar to the aforementioned household arrangement of waste in the first example of native Alaskan groups (see Figure 4.1). The second involved disposing of ceramics, lithics and faunal remains off the side of the mound, away from potential household localities (as observed in Trench 1). The third method was evident in Trench 2, whereby a few cooking events occurred and the midden of food remains were deposited adjacent to the cooking and eating site. This may have been a house site, but unlike in the 1997 excavation, was not covered up and the cooking activities may have been moved to another location on site. It is also possible that Trench 2 was the site of a one-off event, such as ceremonial feasting, although the midden would be expected to be larger if this was the case. I propose the midden of Trench 2 is representative of a household or a communal cooking event, while the deposits of Trench 1 represent waste for the majority of the community. The 1997 excavation represents the repeated use of one site as either a kin house or communal site.

The diet of the individuals who ate in the area of Trench 2 primarily subsisted on fish remains and shellfish, with some mammal and possibly reptile bones (Piper *et al.* 2012). The deposition of *cà rang*, cooking and serving vessels in association with the midden is also apparent in Trench 2. This may have been an anomaly, but *cà ràng* left at the site of cooking suggests that there was a high frequency of breakage during cooking or that there was no need to reuse the vessels. The pressure to reuse these vessels, even broken ones, occurs when ceramics are limited or prestigious. The disposable attitude towards ceramics at An Sôn is indicative of a society with continuous ceramic production and a community of local potters.

### *Material culture, identity and social contact in southern Vietnam: The contrast between An Sôn and Rạch Núi*

Considering that identity is represented by multiple factors, including language, ancestry and ethnicity, appearance and costume, environment and landscapes, and material culture, an approach that aptly applies all variables for past groups is unlikely to be possible. If we accept that expressions of identity almost always incorporate material culture as a tangible medium for social meaning, the data for analysing identity were most extensively found in the current archaeological record at An Sôn. Compared to the other aforementioned variables for the representation of identity, the premise that identities develop in response to increased contact with other groups, rather than as a result of isolation, requires validation by considering variability and innovation in the material culture and ways in which artefacts were used to display the social life of individuals and groups. Spatial distributions of material culture differ from concepts of self-identification, which may be explained by modes of transference of material culture, different applications of material culture in various cultures, and innovation and conservatism in material culture production. Overlapping of some material culture items in space, and at the same time not of others, calls for the use of spatial distribution data, and an interpretation that regards the nature of cultural interaction in response to identity. This accounts for the fluidity and re-evaluation of social boundaries, and the identity, use and symbolism of material culture (Jones 2008, 1996; Rowlands 2007; Lucy 2005; Shennan 1989).

The premise that cultural boundaries are established through interaction between groups rather than social or geographic isolation has been outlined by Jones (2008) and Rowlands (2007). Cultural boundaries cannot always be identified on the basis of language, culture, polity and

territory (Jones 2008: 326). Rowlands' (2007) research has shown that in the transition from the early to the middle Bronze Age in the northern German plain, the similarities in regional traditions, dress and appearance found in the earlier period were replaced by local differentiations in the middle period. There is evidence of contact, trade, movement and influence between groups in the middle Bronze Age when these local divergences occurred, perhaps as a result of a decreasing socio-economic space and increasing competition between groups. Visible differences appear in material culture and traditions and 'ethnic identities are always a product of contact rather than isolation' (Rowlands 2007: 57).

With this concept in mind, broader concepts of cultural identity expressed in material culture relative to spatial distribution data, regional diffusion of neolithic cultural elements and cultural transmission theory, the social role of material culture at An Sơn have been discussed in relation to the interaction with other groups in southern Vietnam and Southeast Asia. Further discussion based on the preliminary observations reveal the contrasting material culture and the identities between the seemingly interactive An Sơn and the relatively isolated Rạch Núi (see Chapter 8) in southern Vietnam.

Rạch Núi was one of the sites deemed roughly contemporaneous for at least part of the sequence at An Sơn, although the Rạch Núi sequence was probably not as long. At times of contact with other groups, markers of interaction apparently appeared at the same time as markers of local innovations at An Sơn, such as in decorated ceramics and common vessel forms. This interaction could have occurred via spheres of shared technologies in an initial diffusion and/or ongoing trade communications. While class D ritual ceramics and some decorations were locally distinctive at An Sơn, Rạch Núi exhibited an overwhelmingly high proportion of apparently utilitarian vessels with a local technology of shell tempered bowls (96%). Sand tempered sherds were minimal at Rạch Núi (4%). There was a lack of evidence for ritualistic or symbolic ceramics, especially due to the lack of burials exposed thus far in the excavations. There was evidence of possible repair of some sherds; those that were only decorated or rim sherds from sand tempered wares with perforated holes that could be used to string sherds together. Many of the sand tempered sherds were also small, and some were modified into roundels as 'special' items with a secondary function, perhaps as a token from the past, an heirloom.

At An Sơn, almost equal proportions of sand and fibre tempered wares were found within the assemblage of utilitarian and ritualistic wares. The Rạch Núi community may have been exposed to these ceramics via infrequent communication and trading with other groups throughout the occupation. Alternatively, the original inhabitants of Rạch Núi may have arrived with some ceramics from another locality and did not reproduce them once established on site, but retained the original ceramics as heirlooms and special items. The absence of trading with Rạch Núi is also supported by a shortage of stone materials and the need to develop a local turtle-shell adze technology. These shell adzes were likely to have been used for a very different function to stone adzes since the relative hardness between the two materials was so marked.

The analyses presented in Chapter 8 indicates there was a relationship between the ceramic material culture of Rạch Núi and sites along the Đồng Nai River (group 2 in the CA, see Fig 8.20). This is based upon the presence of some possibly exotic ceramic sherds from this region, although the minimal presence of these sherds is suggestive of infrequent contact. This interaction sphere does not extend to An Sơn or other sites along the Vàm Cỏ Đông River. The arrival of neolithic occupation in southern Vietnam resulted in diversification after the initial settlement in response to ongoing interactions and resource availability. Sites, such as An Sơn, that were exposed to continued contact with other groups appeared to have retained the wider neolithic tradition whilst also establishing new local ceramics. The ceramic variety at isolated sites like Rạch Núi

diminished in response to decreased contact, and there was a loss of investment in manufacturing those ceramics that represented the wider neolithic expression or local material markers. The level and nature of contact between Rạch Núi and other sites of southern Vietnam will be investigated further. Future research on the ceramic assemblage will examine local production and the origins of the possibly exotic sand-tempered sherds.

### **Conclusion: Neolithic developments in southern Vietnam**

The connection between the neolithic sites of Southeast Asia may be evaluated by interpreting the relationship of either distinct or cohesive cultures within the region. Nevertheless, the identification of archaeological ‘Cultures’, as practiced in past Vietnamese archaeology, comes into question when considering the interactions between groups during the neolithic (see Jones and Graves-Brown 1996: 4). While material culture that could be interpreted as associated with a cultural group suggests group identity, this research showed that a single identity of a group could not be isolated because group identity is multi-dimensional. This expression of identity affects the archaeological evidence, since identity is transient, repeated and varies in different contexts and in different scales and manifests in ‘multiple, overlapping distributions of material culture assemblages,’ involving complex interactions (Jones and Graves-Brown 1996: 7).

The boundaries that material culture analysis can reveal are likely to be discontinuous in space and time since fluctuating concepts of identity can disrupt such groupings (Jones 1996: 73). Material culture traditions are rarely spatially bounded by separate language and gene pools. A coherent unit of a culture with corresponding language, material culture and identity is a simplistic view and has no real basis according to ethnographic and historic observations (Zvelebil 1996: 159–160). The transition to neolithic occupation as it has been described in the Southeast Asian context includes social and subsistence changes that are not separate, but interconnected, involving complex interactions (Orrelle and Gopher 2000: 295–296; Whittle 1988: 108, figure 4.1). When considering the range of variation shown in Chapter 9, an inability to assign groups to maps according to material culture suggests there are issues in establishing ‘Cultures’ for the past. This monograph has considered the ‘composite distributions of the many different kinds of polythetic cultural assemblages’ (Clarke 1968: 248).

While there is general acceptance for a neolithic transference from southern China to mainland Southeast Asia, with an ultimate origin potentially along the Yangtze River, the timing of these events and the routes via river courses or coastal lowlands continue to be discussed (Bellwood 2011; Castillo 2011; Higham, Guangmao and Qiang 2011; Lu 2011; Fuller *et al.* 2010; Nakamura 2010; Zhang and Hung 2010; Zhao 2010; Rispoli 2007; Higham 2002a). There are increasing interpretations that posit multiple movements over a period of time that suggest selective traits were adopted in a transition to agriculture (Zhang and Hung 2010). Rispoli (2007) indicates that single traits were selected or rejected as material culture moved from the Yangtze into southern and southeastern China, and then into mainland Southeast Asia. Fuller (2011) hypothesises that distinct waves with taro and rice-millet cultigens occurred at different times and may have overlaid former routes.

By the time cultivation and the domestic animal reached southern Vietnam, however, there is evidence of a collective package that was associated with neolithic occupation. This rapid adoption of a developed neolithic culture was probably well established in mainland Southeast Asia (Zhang and Hung 2010). An Sôn was previously unoccupied before the neolithic and the initial occupation was marked by ceramics and polished, ground stone tools. Evidence for rice and domestic pig and dog appears soon after. The onset of this widespread neolithic culture in southern Vietnam led to regionalisation and innovation at a local level almost immediately after

settlement. In addition, previous links evidenced by ceramic forms and decoration were retained. Long-lasting traditions for ceramic manufacture, observed all over mainland Southeast Asia, were maintained as new ones were established at a local and regional level.

The research of neolithic Southeast Asia presented in this monograph illustrates incidences of consistency and discontinuity in human interaction across the neolithic landscape:

1. Local innovations at An Sơn separate the identity of the community from other groups within southern Vietnam.
2. The sites in southern Vietnam exhibit a lineage that connects them to the sites of coastal central Thailand and Cambodia.
3. A more distant, perhaps ancestral, relationship is evident between southern Vietnam and the sites of northeast Thailand. However, there are also a number of traditions that never reached southern Vietnam.
4. There is no clear relationship between the sites of southern Vietnam and northern Vietnam, whereby each region displays distinct ceramic traditions.
5. Components of both of these northern and southern traditions were only evident in northeast and inland central Thailand and northern Cambodia.

The distributions of material culture and elements of ceramic traditions indicate events of diffusion and lineages based on geographical proximity. Within each geographic area, material culture was utilised as a tool for displaying differentiations between social groups and identities, as shown in the comparisons between An Sơn and other sites in southern Vietnam. The potters at An Sơn actively maintained ceramic traditions that connected southern Vietnam with the wider neolithic expression, whilst also investing in new traditions that exhibited a local material identity. The diversification that followed in the later occupation indicates that increased regionalisation occurred within southern Vietnam. At that time there were developments in local ceramic manufacture as potters expanded their repertoire, incurring differentiation from other groups in the region.

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