Conclusions

This chapter concludes the monograph with a summary of the results and discussion concerning ceramic production at An Sơn, the identity of potters at An Sơn, and the use of ceramics in establishing identity as a result of the introduction and development of neolithic occupation in southern Vietnam.

Summary of monograph

This monograph has introduced the site of An Sơn in light of recent excavations and within the context of neolithic Southeast Asia. The analytical components of this monograph involved a categorisation and characterisation of the ceramic assemblage. This was extended in Chapter 5 to a study of form and decoration, in order to uncover the temporal sequence and spatial distribution of the ceramics at An Sơn.

The initial settlement at An Sơn was marked by a dominance of class A2 and B ceramic forms. After this initial occupation, class A1 forms became more common than the A2 forms, and the B1b forms were replaced by B1a forms. The wavy rimmed class D1 forms were not present at initial occupation but appeared soon after, and a transition from D1a to the serrated rimmed D2a form occurred during the mid to late part of the sequence. Diversification in rim and vessel forms in all classes increased during in the middle of the occupation, as did the range of decorations on the A2a vessels. The earliest modes of decoration and surface treatment included coarse cordmarking and coarse punctate stamping. Red paint, roulette stamping and a greater variety of incised motifs appeared after the initial occupation at An Sơn.

The 2009 excavation exposed two distinct areas where ceramics were discarded. Trench 1 consisted of layers of deposits with both utilitarian and ritualistic vessels, as well as evidence of reworking stone tools. Trench 2 revealed ceramic forms that were associated with cooking activities, specifically class E cò ràng stove vessels. Vessels for mortuary ritual were identified within burials in both trenches.

The subsequent analysis in Chapter 6 involved characterising the An Sơn ceramic fabrics, both tempers and clays, over time and in relation to other sites in Southeast Asia. The fabric analysis revealed a close correlation between temper, clay and vessel form. The fibre-tempered sherds were frequently made with clay matrix compositional group CPCRU 1. The predominantly sand or mixed sand and fibre-tempered sherds were made with clay group CPCRU 2. Forms A2a, B1a, C1b and D were frequently manufactured with the same temper and clay for each form. The ceramics from An Sơn had a similar clay composition to many other sites in southern Vietnam, particularly Lộc Giang and Đình Ông along the Vàm Cô Đồng River, suggesting that the potters of these sites selected clays from similar environmental settings.

Closer examination of the manufacture of ceramic forms was investigated with the analysis of standardisation undertaken in Chapter 7. While this study did not produce unequivocal results,
some dimensional variables exhibited standardised results for forms A2a, B1a, C1b and D1a. There were no definitive examples of overall standardised production of any particular vessel form, but certain variables, specifically the angle of the rim, and temper and clay choice, exhibited some degree of standardisation in order to comply with required shapes and functions.

The results of the analytical procedures discussed in Chapters 5 to 7 were utilised for the comparative analyses in Chapters 8 and 9 between neolithic sites in southern Vietnam, and then between other neolithic sites in mainland Southeast Asia. Within southern Vietnam, two distinct ceramic manufacturing cultures were identified. An Sơn corresponded more closely with the other sites along the Vàm Cỏ Đông River, while the sites along the Đồng Nai River correlated more with each other than with the Vàm Cỏ Đông sites. Nevertheless, some communication was evident between the two regions during certain periods of the neolithic occupation. The comparative research indicated that An Sơn exhibited evidence of a long-lasting and widespread neolithic tradition, and that this extended to other sites in southern Vietnam. Further similarities were identified between An Sơn and neolithic sites of Cambodia, central and coastal Thailand and northeast Thailand. However, actual interaction across the whole region was clearly limited, and southern Vietnam was more likely exposed to the greatest degree of direct contact only to as far as southeastern Cambodia.

As discussed in Chapter 10, the ceramic assemblage at An Sơn exhibited both a continuity in the temporal sequence of forms and also an existence of temporal markers. The latter included the major changes in class D vessels, from wavy to serrated rimmed vessels, and minor modifications in the A2a and E forms. The multifunctional roles of some vessel forms, in particular form A2a, were in contrast to vessels that appear to have had singular roles, for instance class D vessels as mortuary offerings and the class E cà ràng for cooking. The high level of standardisation in class D vessels is suggestive of control in the teaching and manufacture of these vessels for mortuary ritual. All such vessels for contemporaneous burials may have been made at one time by a single potter. In keeping with past traditions and formulating a mode of transmission for learning, mental templates were in place for the manufacture of certain vessel forms. Recipes and steps, or a chaîne opératoire, were followed, either in instruction or from memory, to ensure consistency in manufacture, but not total organised standardisation, in order to retain traditions and to produce items that fulfilled the required functions.

The major themes of this monograph, the organisation of ceramic manufacture and the role of potters at An Sơn, and the comparison of An Sơn with other sites in the region and indicators of cultural identity, were also addressed in Chapter 10. These concepts are reviewed in the conclusions of the following sections of this chapter.

**Potters at An Sơn: The relationship between craft and food production**

The initial settlement of An Sơn c. 2500–2000 cal. BC, was marked by an arrival potters with a repertoire of ceramic vessel shapes and methods for manufacture that was closely related to contemporary traditions in Cambodia and central and northeast Thailand. The connections were fewer with regions to the north, such as northern Vietnam and southeastern China. This repertoire included sand-tempered ceramics, with the forms A2a and B1b. The initial assemblage was expanded soon after settlement with the introduction of fibre-tempered wares and an increase in the variety of forms. The appearance of rice chaff temper after the initial settlement can probably be attributed to a delay between initial settlement in a resource-rich riverine environment and an eventual focus on rice as the major subsistence cereal. It is likely that the inhabitants of An Sơn arrived with a knowledge of rice cultivation and rice chaff tempering, and fibre tempering was employed as soon as the chaff resource was locally available, certainly
according to the phytolith record obtained from the site by Tetsuro Udatsu. The wavy rimmed class D1 vessels also appeared soon after the initial settlement at the same time as fibre tempering appeared, and were invented as a ritualistic mortuary offering that was unique to the An Sơn settlement. The ceramic templates for the most frequently manufactured forms at An Sơn were established in order to recall widespread traditions for manufacture prior to settlement, and also to develop local innovations.

Environmental studies in Southeast Asia have indicated that the neolithic inhabitants were involved in a varied subsistence economy, not just one that relied upon rice agriculture. Rice cultivation is now acknowledged to have been just one activity in a shifting agricultural economy, accompanied by horticulture, hunting, arboriculture and animal husbandry (Dega 2002: 37). The economy at An Sơn prioritised the production of plants, inclusive of rice (and possibly millet, which has been preliminarily been identified at Rạch Núi but not at An Sơn) for subsistence. The by-products of the cultivation activities were utilised as temper in ceramic production, and were probably also used as a catalyst in the firing of ceramics and in heating ceramics during cooking.

An Sơn individuals were most likely involved in multiple occupations, inclusive of subsistence procurement, which included cultivation, keeping animals, and hunting and gathering, and ceramic manufacture. Like ceramic production itself, subsistence tasks also would have required additional assistance from those who were not occupied full-time in other activities, such as children and spouses, and even household-based potters.

**Initial interactions at An Sơn: The neolithic spread in mainland Southeast Asia**

Discussions about the timing and mechanisms of the introduction of cultivation and neolithic events in Southeast Asian research have been referred to many times in this monograph. Regardless of the actual date and route for the initial neolithic occupation of southern Vietnam, there is evidence that the sites of this region belonged to a major tradition that appears to have followed the Mekong River and its major tributaries. This is suggestive of interactions and movements of neolithic peoples from Cambodia and northeast Thailand into southern Vietnam, and also across land and/or coastlines from central Thailand, through Cambodia, to southern Vietnam. Conversely, distinct traditions were exhibited by the sites of northern Vietnam and southern Vietnam. However, remnants of the ceramic traditions in northern Vietnam were evident in central and northeast Thailand, and it appears that some of these never reached southern Vietnam.

This ceramic evidence is consistent with hypotheses that propose riverine as opposed to coastal origins for Austroasiatic speakers, who travelled up and down the Mekong (Sidwell and Blench 2011). This led to the appearance of a similar neolithic expression, inclusive of the incised and impressed decoration on ceramics, alongside rivers in mainland Southeast Asia (Rispoli 2007; Bellwood 2005: 131–134; Higham 2004c). While there is archaeobotanical evidence for the dispersal of rice cultivation along coastal lowlands and coastlines in Southeast Asia (Fuller et al. 2011; Fuller et al. 2010), there is currently a lack of ceramic evidence to support this. However, the multiple waves of cultigens that have been hypothesised to have come into Southeast Asia (Fuller 2011) may affect an interpretation of any direct correspondence between rice and ceramic origins.

The complexity of the neolithic landscape in mainland Southeast Asia, as seen from the analysis of material culture, highlights the likelihood of multiple pathways that enabled the transfer of cultural attributes, with only some leading to southern Vietnam. At the conclusion of this monograph, it is only possible to summarise the major ones that incorporated An Sơn:

- rice (and possibly other plant cultigens), and domesticated pig and dog;
- unshouldered and shouldered ground and polished stone adze production;
• bone and ivory artefact production;
• sand and fibre tempering for ceramic production;
• a few specific ceramic forms like carinated and concave rimmed vessels, but vessel forms in general varied significantly between sites and regions;
• roulette stamping, geometric and curvilinear incision as modes of ceramic decoration.

At An Sơn, the introductions of cultigens, domestic animals and neolithic assemblages of lithics and ceramics occurred together at the initiation of the settlement.

**Ongoing interactions at An Sơn: Establishing identity within southern Vietnam**

The level of contact with regions further afield in Southeast Asia lessened after the initial neolithic settlement at An Sơn. However, there is evidence of continuing communication between An Sơn and other sites in southeastern Cambodia and southern Vietnam, both in terms of shared material culture and items that could be used to distinguish groups from each other for identity purposes. For instance, southern Vietnam and southeastern Cambodia (e.g. Krek) shared a presence of both shouldered and unshouldered rectangular-sectioned lithic adzes and concave rimmed independent restricted vessels, in contrast to other regions of Southeast Asia, where shouldered adzes and concave rimmed vessels were rare. An Sơn also revealed a lack of the curvilinear red painting and ‘S’-shaped incision more typical of sites in northeast and central Thailand, and conversely a preference for roulette stamping in a band, or curvilinear and geometric incision, as decorative modes on ceramic vessels.

Within southern Vietnam, the sites examined in this monograph exhibited two major ceramic cultures during the neolithic occupation. Each consisted of characteristic vessel forms, decorative modes and technological elements, while also sharing other ceramic and material cultural variables. The two areas were distributed around the Vàm Cỏ Đỏng River and the Đồng Nai River. The sites associated with An Sơn along the Vàm Cỏ Đỏng River shared numerous vessel forms, parallels in ceramic decorations and manufacturing technologies. The sites along the Đồng Nai River shared other ceramic vessels forms that have been treated as variants of specific forms at An Sơn, as well as a regional tendency to add a ridge/appliqué at the shoulder of vessels, and to use calcareous tempers and clay anvils in ceramic manufacture.

Exchange of ceramic vessels appears to have occurred during the neolithic, but was not constant, and some sites may have been culturally isolated due to a lack of geographic proximity or other social and cultural inhibitors. Rạch Núi is one site with some fairly rare and perhaps imported sand-tempered ceramics from the Đồng Nai River region, but little evidence for any actual production of these vessels on site. Local production at Rạch Núi primarily focused on shell tempered utilitarian vessels. This can be seen as indicative of intermittent cultural isolation. The lack of a ceramic local signature at Rạch Núi, as expressed for instance in the class D vessels at An Sơn, also suggests a relative isolation. There was no need to establish identity at Rạch Núi through ceramic material culture since frequent contact with other groups probably did not occur. The turtle shell adzes at Rạch Núi probably reflected isolation and limited access to stone resources and/or lithic tools. While not a functional replacement for stone, the turtle shell adzes were alternative tools that were probably used in a different way to stone adzes such as for scraping.

The evidence for sharing of cultural material and interaction at An Sơn was primarily along the Vàm Cỏ Đỏng River. However, interaction certainly existed at times beyond this region, especially to the Đồng Nai River for hard stone resources. Local innovations appeared soon after the initial occupation at An Sơn, suggesting that there was a growing need to distinguish cultural identity there, as groups emerged within the landscape of southern Vietnam. The An Sơn inhabitants invented the unique vessel form, class D, which persisted as a material marker of
identity throughout the occupation. The transition from a wavy to serrated rim on these vessels is just one of the factors that indicate increasing regional diversification in the later period of the neolithic within southern Vietnam.

**Future directions and concluding remarks**

The methods introduced in this monograph have illustrated one way in which to approach comparative studies in Southeast Asia. Future research at sites in this region that employ comprehensive analysis of ceramics, inclusive of form, decoration and fabrics, and provide illustrations of the data, will offer usable information with which to expand on the comparative research presented here. This applies to all of Southeast Asia, but it is vital within southern Vietnam that excavations continue with thorough post-excavation analysis and reporting. The results from An Sôn and Rạch Núi offer examples of the differences that can develop between sites in terms of cultural interaction and isolation, highlighting the complex nature of neolithic occupation within southern Vietnam.

This monograph has expanded research on the neolithic occupation of Southeast Asia by analysing the ceramic assemblage excavated in 2009 from An Sôn. The excavated ceramics were analysed according to form, decoration and fabric over time and space to reveal evidence of the sequence and function of vessel forms. A separate analysis of standardisation of specific rim forms revealed the existence of mental templates, which were most likely evidence of a mode of cultural transmission for teaching ceramic manufacture, rather than of any specialised or standardised organisation of production.

The ceramic assemblage demonstrated ancestral links to the neolithic ceramic expression in Southeast Asia that spread along major river tributaries. After the initial occupation at An Sôn, evidence of an expanded ceramic vessel repertoire suggests that the development of local ceramic traditions and inter-site communication within wider southern Vietnam both influenced innovation. Within each geographical area of Southeast Asia, the excavated material culture displayed differentiations between interacting social groups and identities. Local innovations at An Sôn separated the identity of this community from other groups within southern Vietnam. Analyses from the ceramic assemblage of the final occupation at An Sôn suggest that emerging identities associated with ceramic material culture during the neolithic occupation appeared to diversify as potters reworked vessel forms in order to accommodate regionalisation. The potters were active participants in the settlement of An Sôn. By retaining certain associations with neolithic groups elsewhere in mainland Southeast Asia, the potters had a continuing role in the development of ceramic material culture that distinguished An Sôn from other groups within southern Vietnam.