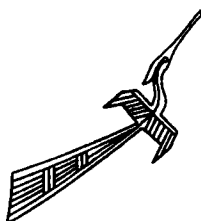

*The Archaeological Record of Early Agricultural
Communities in Peninsular Malaysia*



In this chapter we examine the spread of agricultural peoples down the Malay Peninsula from the north. This spread occurred approximately contemporaneously with (beginning perhaps slightly before) the major dispersal of the Austronesians in the second millennium BC, and involved the ancestors of the present Austroasiatic-speaking Senoi populations of southern Thailand and Malaysia. As discussed in Chapters 4 and 5, these populations are now surrounded and impinged upon by Austronesian and Thai speakers, but they still exist today in greatest numbers in the interior of Peninsular Malaysia.

In order to understand the Peninsular Neolithic it is necessary to commence with the rich agricultural settlements of southern Thailand, several of which are now firmly dated from about 2500 BC onward. Indeed, one could extend this section into a discussion of the whole topic of early agricultural population expansion through the mainland of Southeast Asia, a topic already broached by several authors (Bellwood 1992; Higham and Thosarat 1994; Higham 1996a). I do not have space here to follow this temptation, but will only note, with Higham, that an early agricultural expansion from a homeland region in the northern part of Mainland Southeast Asia and southern China can perhaps be recognized in the dispersal of a distinctive type of ceramic decoration—found in the oldest regional assemblages—focused on incised zones infilled with stamped (shell-edge, dentate, punctate) impression. This kind of decoration is dated between the mid-third and mid-second millennia BC in many sites in southern China, Vietnam, and Thailand (Rispoli 1992).¹ We are about to meet it again in central Thailand and the Malay Peninsula, where the Neolithic phase can be considered to have continued after 2500 BC until the local spread of copper metallurgy during the first millennium BC.

The huge habitation and burial mound of Khok Phanom Di, which now lies on the inland edge of an extensive alluvial plain about 50 kilometers east of Bangkok, is one of the richest and most impressive pre-Bronze sites ever excavated in Southeast Asia (Higham and Bannanurag 1990, 1991; Higham et al. 1992; Higham and Thosarat 1994). The site is 200 meters in diameter and has almost 7 meters of archaeological deposit dating between 2000 and 1400 BC. When first occupied it lay close to a mangrove shore—perhaps with freshwater ponds that could be modified for rice growing—but today the site is far inland as a result of a slight fall in sea level combined with alluviation resulting from inland forest clearance for agriculture. The basal of the three major excavated phases yielded 104 burials (mostly extended) in clusters, some wrapped in bark cloth and dusted with red ochre. One of the most striking features of this early phase is the tragically high fetal and infant death rate, comprising 42 percent of all burials (Higham et al. 1992:47), possibly caused by the ravages of malaria (cf. the high infant death rate for the contemporary burial ground of Peinan in Taiwan: Chapter 7, Section IIA).

Grave goods of this early phase at Khok Phanom Di include shell beads and bracelets, stone adzes, and well-crafted pottery; the finest vessels have cord-marked or burnished surfaces and horizontal zones of incised and infilled decoration of the type referred to above (Fig. 8.1). The people of Khok Phanom Di grew rice in large quantities (Thompson 1992)—it occurs as husk temper and impressions in pottery—used harpoons and fishhooks of bone, and ate large quantities of marine foods such as fish, shellfish, crabs, and turtles. Domestic dogs were present. Pig bones are fairly rare and it is not clear if pigs were domesticated, but bones of a species of jungle fowl that would not have been native to this region suggest that domesticated poultry might have been present.

In the middle level of the site, dating presumably to early in the second millennium BC, a number of richly provided burials made an appearance. Two women were buried under an apparent mortuary hut with a floor that was replastered with clay forty-three times. Another woman was buried under a large pile of the unfired clay cylinders from which pots are made, together with strings of beads—120,787 shell disc beads in total—over her chest, and lots of fine pottery vessels. Evidently she was a potter of high status. A child, perhaps a member of the same family, was buried near her with similar high-status goods. These wealthy burial assemblages indicate that the society was perhaps becoming ranked on a genealogical basis, and females in particular seem to have enjoyed high positions. Individual burial zones seem also to have been used by members of the same family through several generations, according to skeletal analyses.

The date of appearance of rice cultivation in this part of Thailand is uncertain. Rice phytoliths from a core drilled near Khok Phanom Di have been dated



Fig. 8.1 Pottery with incised and stamped zones of decoration from Khok Phanom Di, central Thailand, 2000–1500 BC. *Top*, 19.5 centimeters high; *bottom*, 21 centimeters high. Courtesy: Charles Higham.

to about 2500 BC (Kealhofer and Piperno 1994), but these could be from wild rice growing naturally in the coastal swamps. The site of Nong Nor, which lies 20 kilometers south of Khok Phanom Di and overlaps in date with the beginning of occupation there, also shares a similar material culture (including pottery), but has no evidence for rice at all in its lowest layer (O'Reilly 1995). Neither does the site of Non Pa Wai Phase I, located near Lopburi in the Chao Phraya Basin, which has yielded a burial assemblage from the late third millen-

nium BC (V. Pigott: pers. comm.). This is puzzling, but the absence could be explained in the case of Nong Nor if it was a seasonal camp for specialized resource collection rather than an agricultural village. The whole issue regarding the point at which rice first appears in regional archaeological records is clearly a most important one, as discussed at length in Chapter 7.

The main significance of Khok Phanom Di for Malay Peninsula prehistory is that it supported a rich and populous society with an economy focused on rice cultivation and maritime resources, albeit living in an environment initially plagued by an apparently high incidence of malaria. The site was finally abandoned about 1400 BC after the sea had retreated far from its vicinity. It is worth noting that as the sea retreated, so too did the infant death rate, but the proportion of people dying in later childhood rather than infancy increased with time. This suggests that malaria itself was the major killer in the early phase, but later it decreased in intensity as the environment became less swampy and mosquitoes presumably decreased in numbers, so that more people survived early childhood only to die from anemia. This change appears to reflect the presence of abnormal hemoglobins in the blood of the Khok Phanom Di population, selected for because of the resistance they give to malaria for those people with heterozygous alleles at the relevant genetic loci (Tayles 1994).

Khok Phanom Di was therefore abandoned because of a declining locational advantage, rather than simply to escape disease. Throughout its history, however, it is clear that the birth rate there was quite high, presumably to compensate for the high infant and child death rate. Under such cultural circumstances, populations who were able to move away from malarial swamps into situations of lower infant mortality might have been able to support very high rates of demographic growth, similar perhaps to those revealed by studies of modern *Orang Asli* populations in Peninsular Malaysia (Fix 1977; Gomes 1982). It was thus presumably no coincidence that the period between 2000 and 1500 BC also saw the Neolithic colonization of the Malay Peninsula.

Elsewhere in central Thailand, the assemblages from Nong Nor and Khok Phanom Di are paralleled quite closely in the site of Ban Kao, in the valley of the Kwaie Noi River in Kanchanaburi Province, northwest of Bangkok (Sørensen and Hatting 1967; Sørensen 1972, 1985, 1988). The burial assemblage here dates from the late third or second millennium BC; it postdates Hoabinhian assemblages that have been dated in the nearby caves of Khao Talu and Heap to as recently as 2500 BC (Pookajorn 1990). It comprises extended burials with a range of grave goods including untanged stone adzes, barbed bone harpoon or spear points (Plate 42), shell beads and bracelets, and finely made cord-marked pottery with an unusual predilection for high pedestal or tripod supports (Plate 43). The skeletal remains from the Ban Kao burials are similar to those of modern Southeast Asian Mongoloid populations (Sangvichien et al. 1969). The

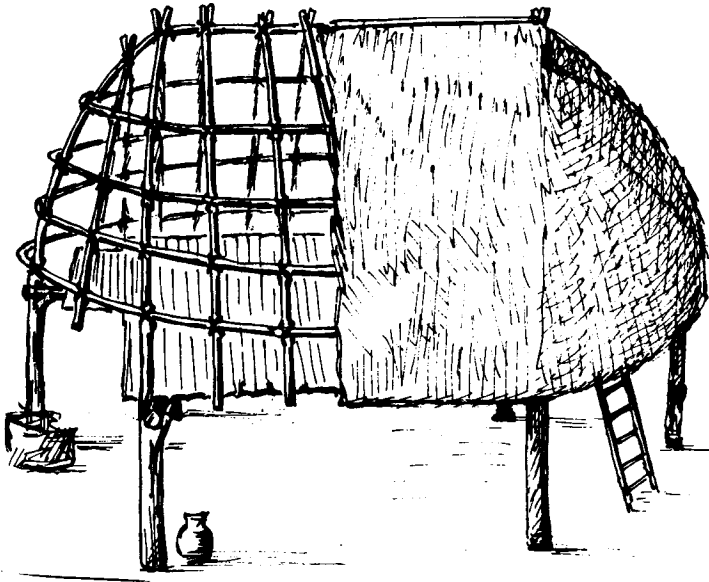


Fig. 8.2 One possible reconstruction for the postholes of a house excavated at Nong Chao Sao, western Thailand. Ban Kao culture. House length ca. 9.5 meters. From Henricksen 1982. Courtesy: Per Sørensen.

habitation layers of the site have also produced many other important categories of Neolithic technology, including shouldered adzes, stone bracelets, bone fishhooks and combs, and baked clay bark-cloth beaters and spindle whorls (the latter for spinning—possibly cotton thread?). One site called Nong Chae Sao, located south of Ban Kao, has yielded the postholes of a small raised-floor house (Henricksen 1982) (Fig. 8.2), and there is some evidence that these people may have had domesticated pigs and fowl. So far there is no direct evidence for rice at Ban Kao, but its presence must be assumed given its importance at Khok Phanom Di. Ban Kao has also yielded stone reaping knives that might have been used for rice.

By 2000 BC, assemblages related to those from Khok Phanom Di and Ban Kao begin to appear in sites all down the Malay Peninsula, southward for 1,500 kilometers, into central Peninsular Malaysia. Sørensen (1972) referred to this whole phenomenon as the “Ban Kao Culture,” and I used this term myself in the first edition of this book. Today, it is more apparent that a degree of regional variation must be recognized, although the homogeneity of the whole archaeological phenomenon is still very striking.

The pottery from the Ban Kao burials was divided by Sørensen into two chronological groups: an early one with many vessels with tripod feet, ring feet, or

high pedestals, and a later one with plainer round or flat-based forms. Fragments of the cord-marked tripod-footed vessels that characterize the early phase (ca. 2000–1500 BC) have now been found in about twenty sites right down the Malay Peninsula, in both southern Thailand and Malaysia (Bellwood 1993:47). At the site of Jenderam Hilir in Selangor, many such tripods—virtually identical to those from Ban Kao—have been found during tin mining operations and have been radiocarbon dated to ca. 2000 BC (Leong 1990, 1991). This date suggests that the spread of the Ban Kao type of assemblage was very rapid from north to south.

In Peninsular Malaysia there are no known open burial grounds like Khok Phanom Di and Ban Kao; most assemblages come from burials in caves, mostly located in limestone massifs in the central and northern parts of the country. The Malaysian Neolithic pottery as a whole is quite similar to that from the Thai sites; some was made on a slow wheel, the same Ban Kao tripod and footed forms and vessel shapes occur, and most surface decoration is cord marked or burnished (Peacock 1959). The distinctive tripods, with round holes to allow air to escape during firing, have been found (as well as at Jenderam Hilir) unstratified in the caves of Gua Berhala in Kedah (Fig. 8.3), Gua Bintong in Perlis (Peacock 1964a), and in the open site of Kampung Dusun Raja in the interior of Kelantan (Adi 1993). The Jenderam Hilir unstratified finds also include untanged quadrangular and shouldered adzes, a Tembeling knife (see below), and two wooden oars carbon dated to within the first millennium BC (Batchelor 1977; wherein the site is referred to as Dengkil).

At Gua Cha in Kelantan (see Chapter 6, Section IA for the Hoabinhian Phase in this site) the Neolithic deposits began, according to Sieveking (1954), with a discrete working floor for quadrangular adzes found in his Cutting 1. Human

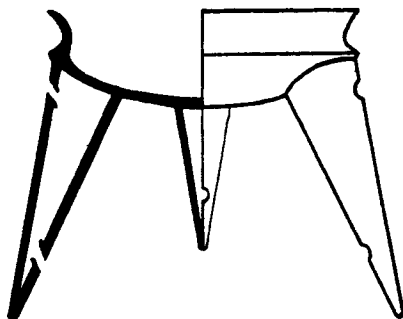


Fig. 8.3 Reconstructed tripod vessel about 28 centimeters high from Gua Berhala, Kedah. From Peacock 1959. Courtesy: University of Hawai'i Press.

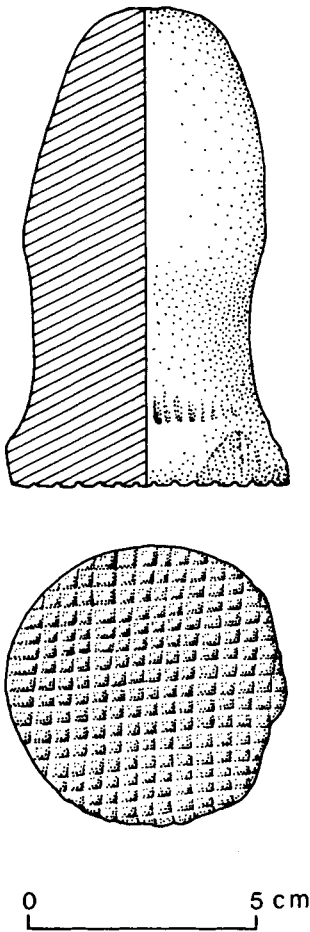


Fig. 8.4 Cylindrical stone bark-cloth beater from Gua Cha. After Sieveking 1956c.

burials were then placed in the shelter. Sieveking believed in 1954 that the burials belonged to two separate periods: an earlier one with fairly crude cord-marked vessels, and a later one with the more elaborate pottery of Ban Kao type. In a more recent paper (Sieveking 1987), he has revised his opinion to favor a single Neolithic phase, during which time the shelter was used almost exclusively for burial rather than habitation. This exclusive burial use characterizes most of the Neolithic cave assemblages in Malaysia and reinforces the view that a shift to a village-based lifestyle had already occurred in riverine locations adjacent to the caves.

Most of the Gua Cha burials were in extended positions. They were buried with grave goods (Plate 44) that included D- or T-sectioned stone bracelets, quadrangular-sectioned adzes and a single beaked adze (see Chapter 7, Fig. 7.15,

7D), a cylindrical stone bark-cloth beater (Fig. 8.4), shell bead necklaces, and shell spoons. The T-sectioned bracelets in particular are distinctive artifact types paralleled in many Neolithic and Bronze–Iron Age sites across the mainland of Southeast Asia, from Khok Phanom Di through the Bronze–Iron Age graves of Yunnan. The Gua Cha pottery presents the most complete Neolithic assemblage known from Peninsular Malaysia; it includes footed, round, and flat-based forms (no tripods) with a predominance of cord-marked decoration (Fig. 8.5). Many vessels have burnished upper surfaces and definite slow-wheel striations, and some are red slipped. Another cave in Kelantan called Gua Musang has vessel forms similar to Gua Cha (Tweedie 1940), and the collections of the National Museum in Kuala Lumpur have sherds with an almost identical red slip from sites as widespread as Gua Cha and Gua Musang in Kelantan, Gua Bintong in Perlis (Collings 1937a), Gua Kajang in Perak (Evans 1918), Gua Kelawar in Kedah (Collings 1936), and Gua Kechil in Pahang.

Another important but unstratified Neolithic collection comes from a cave in the limestone massif of Bukit Tengku Lembu in Perlis (Sieveking 1962) (Fig. 8.6). The pottery here is of the same fabric and manufacture as that from Gua Cha, but forms apparently localized to this region include beakers on high splayed feet and flat-based, bell-mouthed jars. Sherds of a vessel of Indian manufacture, of a south Indian form of the period ca. 200 BC to AD 200 (Bronson 1979:330; see also Wheeler et al. 1946:58 for parallel form 18C from Arikamedu in Tamil Nadu), have been found in the site, but its precise association with the rest of the assemblage remains uncertain. However, it seems likely that the Bukit Tengku Lembu assemblage is later in time than that from Gua Cha. Bukit Tengku Lembu has also yielded a bone gouge, a stone bracelet, and some very fine beaked adzes and untanged quadrangular adzes with splayed cutting edges.

As well as the dates from Jenderam Hilir, the Gua Cha Neolithic assemblage is probably dated by a single radiocarbon determination to about 1500–1000 BC (Adi 1985). There is also a carbon date of about 1800 BC for cord-marked pottery from a cave called Gua Harimau in Perak (Dunn 1966), and results of recent excavations in this site by Zuraina Majid (1991) are awaited. The site of Gua Kechil in Pahang, which has lower levels with a few Hoabinhian tools and cord-marked pottery associated together (Dunn 1964), has a non-Hoabinhian upper level with pottery in the same tradition as that from Gua Cha, dated to sometime in the fourth millennium BC by a single radiocarbon date with an 800-year error range (Dunn 1966). However, this date seems to be too old for the upper Gua Kechil assemblage. The site has also produced two bone projectile points (one sharply tanged, see Plate 42) and untanged adzes with quadrangular and lenticular cross-sections, but none of this material demands a date on typological grounds older than the other Malaysian Neolithic sites. Given these

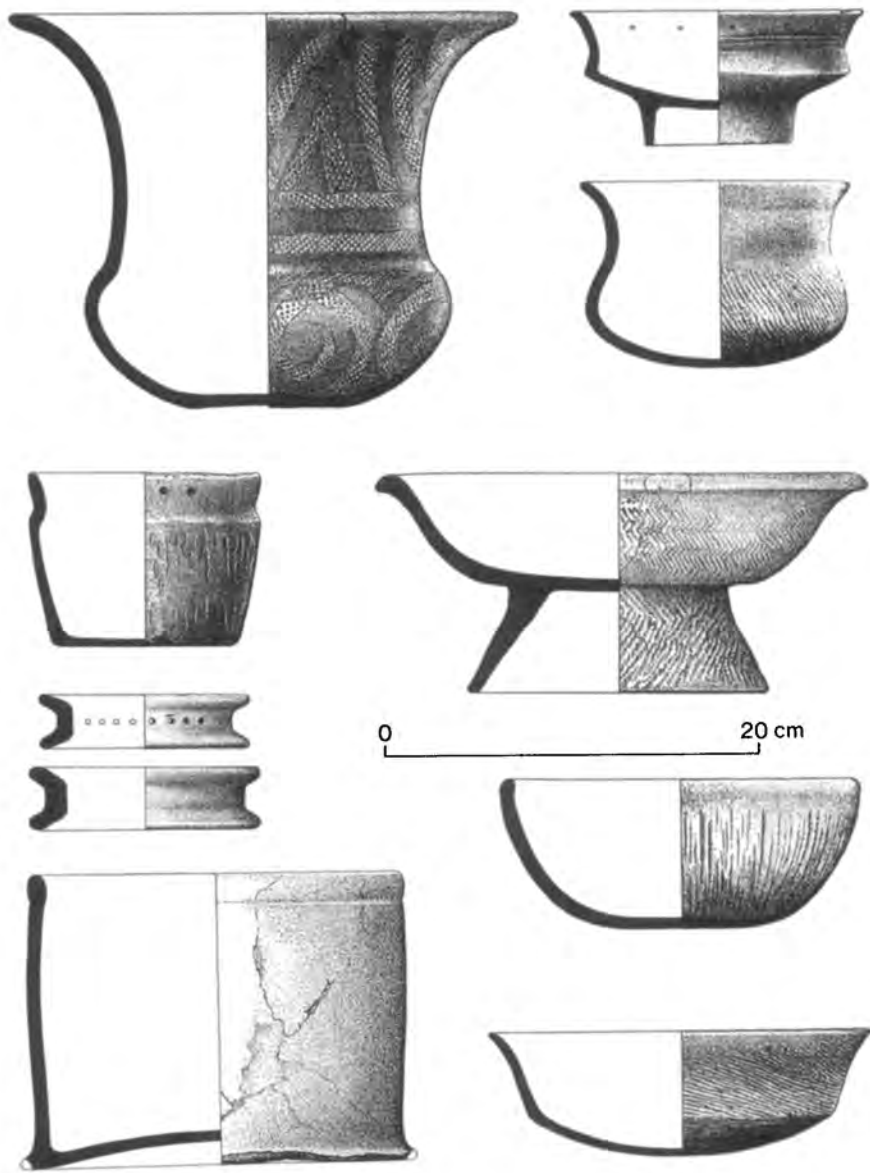


Fig. 8.5 Cord-marked, incised, and punctate pottery (*top left*), and red-slipped pottery (*bottom left*) from Gua Cha, Kelantan. There are also two pot stands at center left. From Sieveking 1954. Courtesy: National Museum of Malaysia.

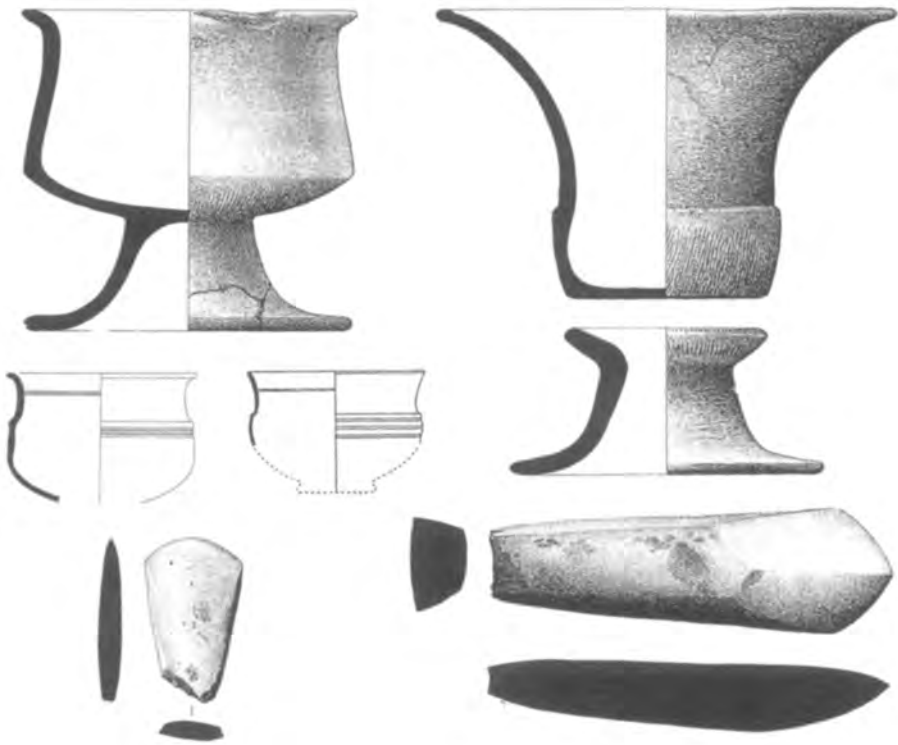


Fig. 8.6 Pottery and stone adzes from Bukit Tengku Lembu, Perlis. To same scale; top left vessel is 17.7 centimeters high. Beaked adze at bottom right. *Center left*: vessels of Arikamedu type 18C from Bukit Tengku Lembu (*left*) and Arikamedu (after Wheeler et al. 1946); these two items not to scale. From Sieveking 1962. Courtesy: National Museum of Malaysia.

pointers, one can perhaps place the whole Peninsular Malaysian Neolithic within the last two millennia BC.

There are other Neolithic sites in central and northern Peninsular Malaysia that do not fit so well within the general bounds of the Ban Kao culture (the southern half of the country remains fairly blank). I have already referred to the unusual necked axes and pottery from the shell mounds at Guar Kepah in the state of Pulau Pinang (see Chapter 6, Section IA), and I should also refer to an open site of uncertain character partly excavated by Evans (1928a, 1931a) in the alluvium of the Tembeling River at Nyong in Pahang. Artifacts were found here scattered through a 4-meter thickness of alluvium; they included several of the distinctive stone “Tembeling knives” (see Chapter 7, Fig. 7.215, 5D)—an unusual tool that may best be regarded as a side-hafted axe or adze, but that in some cases may have served as a reaping knife. There is also another possible stone

reaping knife with two perforations. Other items include adzes of quadrangular and beaked forms, a cylindrical bark-cloth beater, and fragments of stone bracelets and a discarded center ring. The stone assemblage is in fact well paralleled at Gua Cha, and there are also similar sherds of cord-marked and red-slipped pottery, some made on a slow wheel. However, a few spouts and lugs (both absent in Ban Kao pottery) suggest that the assemblage may not all belong to one period.

I. THE SIGNIFICANCE OF THE BAN KAO CULTURE AND THE MALAY PENINSULAR NEOLITHIC

Explanations for the Ban Kao culture and its southward extension in anthropological and historical terms will necessarily be rather complex, given the high degree of anthropological and biological variation still found in the peninsula. Prior to 2000 BC the region was occupied by Hoabinhian foragers who may be considered ancestral to the Semang Negritos, and perhaps to a lesser degree to the Senoi, who have a greater degree of Southern Mongoloid biological affinity than the Semang (Saha et al. 1995). The southward expansion of Neolithic assemblages was most probably by movement of people rather than by trade or superficial diffusion, and in virtually all sites apart from Gua Kechil the transition from Hoabinhian to Neolithic is a relatively sharp one (see Chapter 6). This major change seems to have been associated with the introductions of agriculture and Austroasiatic languages to southern Thailand and Malaysia. The Semang have clearly at some time in their past adopted Austroasiatic languages, and the languages of both the Semang and the Senoi populations are today classified in a subgroup termed Aslian, which retains distant relationships with Mon and Khmer.

The ancestry of the Senoi, if this historical reconstruction is accepted, may thus be quite closely correlated with the expansion of Neolithic cultures down the Malay Peninsula at around 2000 BC. Continuity from local populations cannot be ignored, however, and skeletons from both Hoabinhian and Neolithic contexts at Gua Cha show no marked signs of any phenotypic population change across the cultural boundary. Presumably, therefore, the skeletons from both periods in this site can be considered ancestral Senoi to some degree, assuming that the Senoi really are the descendants of the Neolithic populations of the Peninsula—an assumption that seems logical enough, even if impossible to demonstrate clearly. However, Gua Cha is a remote interior site; one might expect the evidence for biological change to be a little sharper in more accessible and densely populated coastal regions, should large skeletal series ever be found there.

Whatever the exact situation, it is clear that prior to the first arrival of Aus-

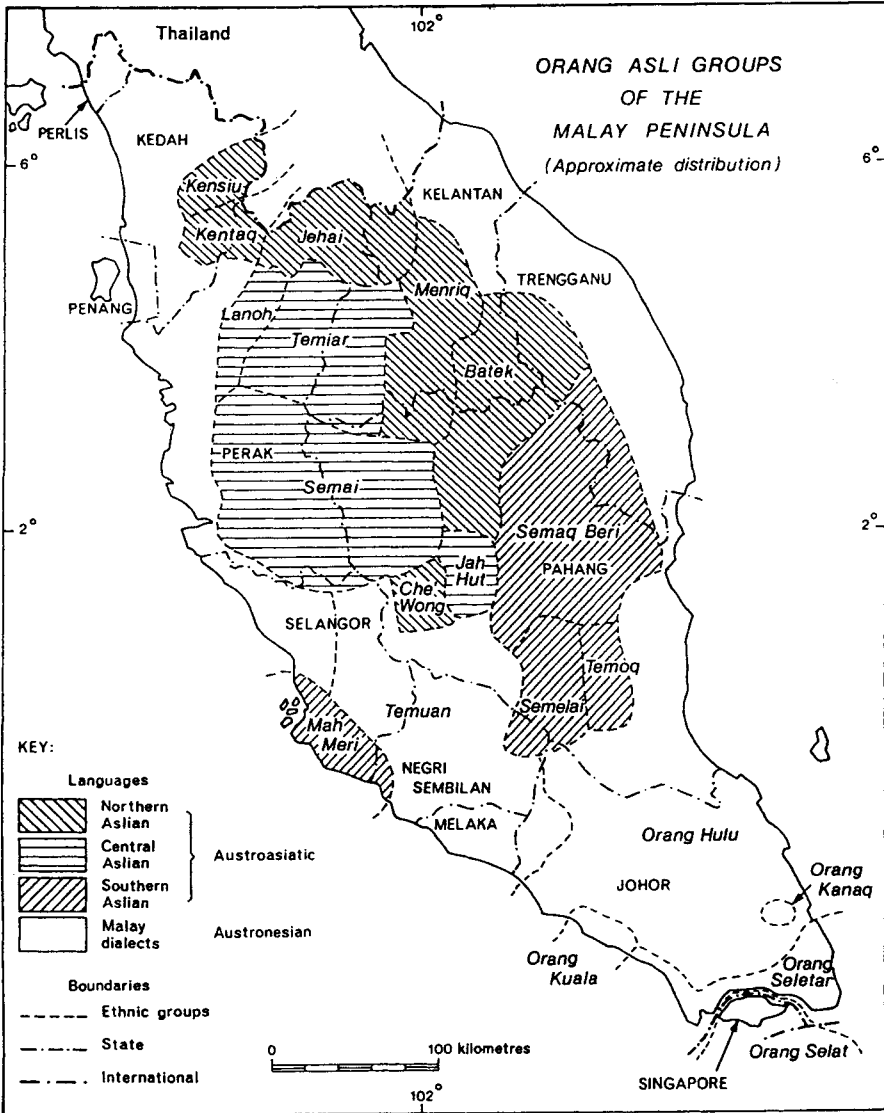


Fig. 8.7 The distribution of Aslian languages and Malay dialects (excluding Malay proper, which is now spoken over most of the peninsula except for the interior Temiar, Semai, and Jahai regions). Courtesy: Geoffrey Benjamin, drawn by Joan Goodrum.

tronesian-speaking peoples in Peninsular Malaysia, perhaps during the first millennium BC, the Austroasiatic populations of the lowlands would have been firmly established in an agricultural mode of production for at least a millennium—perhaps longer.

A linguistic reconstruction of the course of prehistory in Peninsular Malaysia has been proposed by Benjamin (1976), who suggests that the Negritos (Northern Aslian speakers in the Mon-Khmer subgroup, Austroasiatic family; Fig. 8.7) have always retained their mobile hunting and gathering lifestyle. This suggests that they have presumably not been associated with Malaysian Neolithic developments, and from this viewpoint can be regarded as the most direct descendants of the Hoabinhians. The Central and Southern Aslian-speaking Senoi appear to have undergone more rapid linguistic diversification than the Negritos; the Central Aslians owing to their sedentary endogamous social pattern based on agriculture and the development of corporate cognatic descent groups; and the Southern Aslians owing to a growing involvement in trade with and influence from the more recent Austronesian settlers of the coastal parts of the Peninsula (see also Benjamin 1986). The later emphasis on trade in the southern part of the peninsula gave rise to a different and more assimilatory trend, mostly from Austroasiatic into Austronesian in language terms, epitomized by such "Malayized" groups as the Austronesian-speaking ("Aboriginal Malay") Temuan. Prior to the nineteenth century, the interior parts of Peninsular Malaysia were probably occupied entirely by Aslian speakers (Benjamin 1976; Dunn 1975).