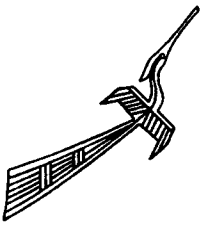
TEN

A Final Overview



I wish now to reiterate a number of outstanding questions and to review my conclusions on those aspects of the prehistory of the Indo-Malaysian Archipelago that I regard as having central significance for its overall human story. Few of the major problems will ever be elucidated and explained to the satisfaction of all scholars; hence perhaps the attraction and vitality of the multifaceted discipline of prehistory. Many pieces of the total jigsaw will doubtless be added in the future by devoted analyses of stone tools, words, and skulls, but the whole will probably always remain a sum of more than its individual archaeological, linguistic, and biological parts.

If we commence at the remote and misty beginning, there are obviously many questions concerning *Homo erectus* that have scarcely even begun to be answered. Did these hominids travel with the stegodons to Sulawesi and the Lesser Sundas? Did they with certainty make stone tools? Did they belong to one single chronospecies? Did they become extinct or do some of their genes still survive in the modern populations of the region? What were the effects of the long periods of isolation of Java on the culture and biology of these populations? Were these early hominids restricted to monsoon forest and parkland environments, or were they able to colonize the equatorial rain forests as well?

There are also major biological questions that concern more recent populations. For instance, if anatomically modern humans entered the archipelago from outside, what was their source? Did they mix genes with local *Homo erectus* populations and, if so, what chronology was involved? As will by now be realized, most of these questions—while clear enough to comprehend when stated baldly—in fact elude simple answers and perhaps always will do so. The disciplines that investigate the deep human past are very limited in scope and de-

pendent upon sparse and often unreliable sets of data. One could take the pessimistic approach and state that the more we learn, the less we know; how can we understand *Homo erectus* when we often do not understand the root causes of so many aspects of our own modern human behavior?

Such pessimism would not be entirely justified. We can see this by simply comparing the pattern of prehistory that we dimly grasp today with the virtual lack of any grasp whatsoever a century ago. Furthermore, *Homo erectus* might still be a dim figure in the fog, but the picture sharpens surprisingly as we enter radiocarbon-dateable time, and becomes ever sharper with leaps and bounds as we enter the past 5,000 years of agriculturalist dispersal, by which time the linguistic record can be brought to bear in full force.

For the period after 40,000 years ago there is much sharper evidence for human movement both out from and into the archipelago. Ancestral Australo-Melanesian populations were able to expand into western Melanesia and Australia, and many of the Wallacean islands were first settled at about this time. It also looks as if newcomers entered the archipelago from the Asian mainland on many occasions long before the period of Austronesian expansion. The evidence is sparse, but it includes a small amount of biological evidence (Chapter 3, Section IIID) and possibly certain archaeological assemblages such as the Tingkayu lanceolates and the later flake and blade industries. All these hints point to the east Asian mainland and Japan, rather than to the Indian subcontinent, as sources of such movements.

Environmentally related questions also arise. I have suggested that the equatorial and densely forested regions were always less important for human settlement than the more open intermediate tropical belts that have a long dry season. This contrast seems to hold for all periods—from early hunting and gathering through the Neolithic to the present day, when it is of course crystal clear. But were the interior equatorial rain forests really inhabited to any major extent only from the end of the last glaciation onward? The evidence from Malaysia, Sumatra, and Borneo lends support to such a view, but we still need to know what happened to these lowland Sundaland rain forests in the earlier glacial periods. Were they reduced in extent or broken up by "dry season corridors"? If so, was there periodic Pleistocene occupation of these drier zones? Furthermore, did the expansion of rain forest and the rise in sea level in the early Holocene cause the observed Sundaland cases of animal extinction, or—less likely, in my view—were human hunters partly to blame? The fauna of Sundaland would have been habituated to a human presence for a million years or more and would accordingly have been prone to human avoidance. The naive faunas of Wallacea and Australia/New Guinea, on the other hand, would have been completely unhabituated when first confronted by hungry humans. Hence one can cite the apparent—if elusive—evidence in Australia for a fairly

rapid human extermination of giant marsupials (Flannery 1994) and, in Wallacea, perhaps stegodons as well.

The early Holocene climatic amelioration leads on to further questions, since this was apparently more marked and rapid on a worldwide scale than any climatic and environmental change that had occurred in the previous 100,000 years. I regard this change as having been crucial for the radiation of annual cereals in certain key regions of the northern hemisphere, and of course for their ultimate domestication. One offshoot of this economic transition in the southern Chinese region was the phenomenon of Austronesian expansion after 4000 BC. As I have tried to make clear, I do not regard the Indo-Malaysian region itself as a zone of pristine agricultural origins, although it is obvious that many useful trees and tubers were brought under systematic cultivation there. The situation for New Guinea appears to be different because agriculture apparently evolved independently there in unique highland environments, thus sowing at least some of the seeds of Papuan demographic resistance to Austronesian expansion, seeds which kept New Guinea as a Papuan-speaking heartland through all of its prehistory.

There is also the question of the significance of the postglacial rise in sea level, which I—together with other scholars—once regarded as a stimulus for demographic crowding in Sundaland and for ultimate and local developments there toward agriculture (Bellwood 1978:422). I have long since changed my mind about this, although the idea has been revived by Thiel (1987). Basically, I doubt that the mangrove coasts of late glacial Sundaland ever supported large populations; and even if they did, the sea level rise would have increased rather than reduced the extent of coastline (Chapter 1, Section IVD). The drowning of Sundaland might have been a major environmental event on a geomorphological scale, but there is really no good evidence that human populations were particularly affected by it on a short-term basis. One result of the sea level rise might have been the increased visibility of human occupation in the interior of the Malay Peninsula after 12,000 years ago, but this is more likely to be a result of decreased distance from the sea than population crowding.

It will by now be clear that I regard the main period of Austronesian expansion between 3000 and 1000 BC as the foundation for major biological, linguistic, and cultural changes in the prehistory of the archipelago. I have reviewed the agricultural background to this expansion, and also the economic changes that early Austronesian groups underwent as they expanded southward toward and across the equator. I choose the term *expansion* with some care, as I do not think there is good evidence for long-distance migration of the Polynesian type until the Oceanic islands were being settled after 1500 BC. The expansion surely approximated the "wave of advance" model postulated by Ammerman and Cavalli-Sforza (1984) for Europe, but with a coastal emphasis and with the pro-

viso that early Austronesian populations might have followed a coastal "hopping" strategy rather than settling all of island A in nice neat order before moving on to settle island B.

The Austronesian dispersal was also quite a slow affair in overall terms; after all, it required almost 4,000 years for Austronesians to reach New Zealand and Madagascar if 3000 BC is to be taken as a reasonable date for the first movements southward from Taiwan. But within this overall time span there seems to have been a phase of very rapid and continuous colonizing activity between 2000 and 1000 BC, when we find the first archaeological traces of Neolithic colonists all the way from the Philippines through eastern Indonesia and into Melanesia, western Polynesia, and western Micronesia. This is an impressive colonization, perhaps the most rapid, successful, and widespread in the history of humanity prior to the recent dispersals from Europe. Why did it occur over this geographical segment so quickly? I no longer think agriculture alone drove it, although agriculture might have been the ultimate driver whose foot coaxed the Austronesian "ark" into first gear. But by the time Austronesians moved beyond the Philippines they were undoubtedly getting into high gear, colonizing purposefully and extremely skillfully, searching in the case of the remote Pacific Islands for colonizing opportunities in order to establish new founder-focused lineages of high status (Bellwood 1996c).

I have also mentioned viewpoints that are in opposition to mine and that postulate foundation developments of the Southern Mongoloid phenotype and the Austronesian languages in the Indo-Malaysian Archipelago itself, or even (in the case of the languages) in western Melanesia. I look forward to future debate on these matters and have expressed my own views forcefully on several occasions. Such hypotheses convince me less as time goes by and as stronger evidence accumulates in support of a major phenomenon of Austronesian population dispersal out of the southern China/Taiwan regions.

My opinion on the overall "shape" of Indo-Malaysian prehistory should by now be apparent (Fig. 10.1). Basically, I see few indications of major cultural change in the region prior to the period of Austronesian expansion, apart from those kinds of regional variation in stone toolmaking techniques that are perhaps no more than one would expect given the time span involved and the inherent capacity of modern humans to communicate and occasionally to innovate. With the exception of periodic trickles of new peoples and occasional items of cultural baggage, I doubt whether the archipelago witnessed any major replacements of population or dramatic spurts of local development from the period of first appearance of anatomically modern humans into the early Holocene. Early voyaging across the narrow waterways of Wallacea and western Melanesia does not seem to have led to any particularly marked spurt in the rate of cultural development.

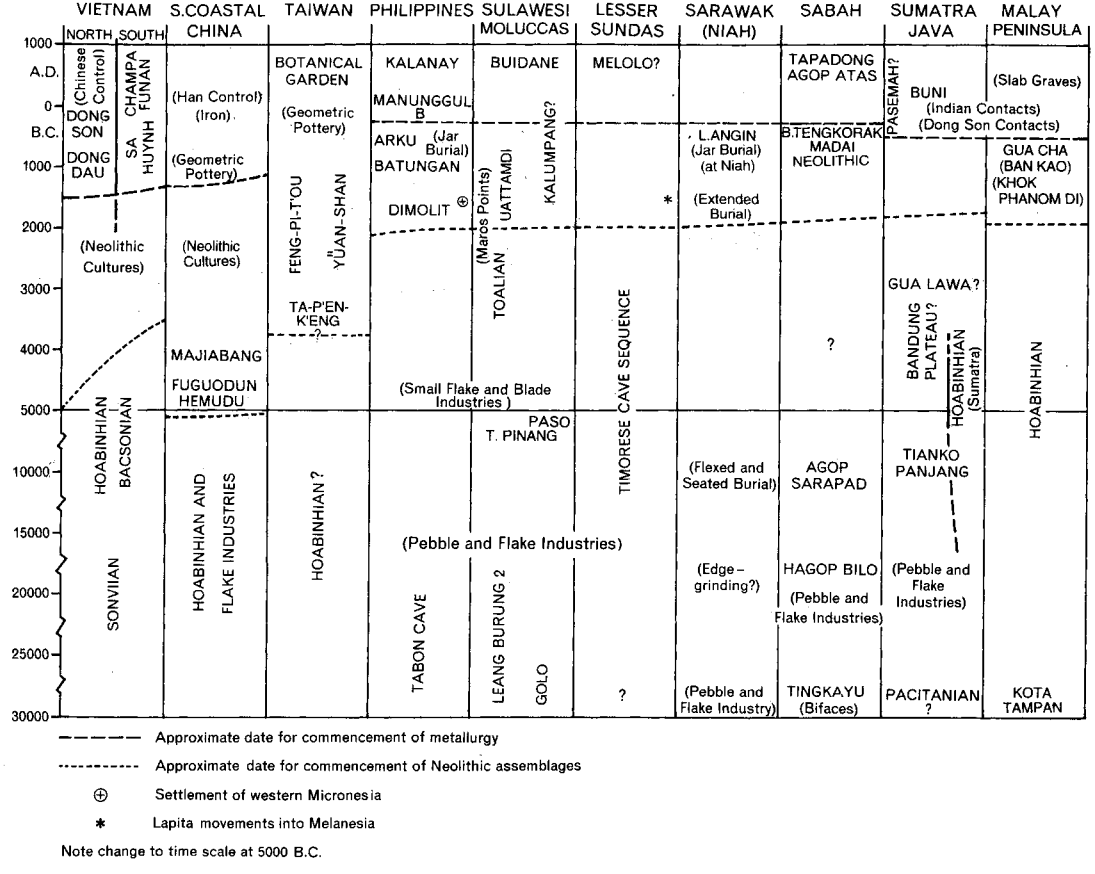


Fig. 10.1 Chart of selected archaeological developments during the past 30,000 years in China, Vietnam, and Island Southeast Asia.

However, the long preagricultural millennia of relative stability came to a dramatic close in the period of Austronesian expansion. As agriculturalists by virtue of prior cultural developments outside the Indo-Malaysian region, the Austronesians had a culturally inbuilt and demographically founded drive for expansion that eventually took them to Easter Island and New Zealand. Agriculture on the whole allows for much higher population densities than hunting and gathering, and it is clearly an economic system that can utilize and even encourage the breeding of an increasing labor force in the form of children and adolescents. Although populations of agriculturalists that inhabit constrained geographical ranges have been forced either to control population growth or to intensify production in the past, it is clear that the early Austronesians, like the nineteenth-century Iban of Sarawak, did not face such constraints. Confronted by fertile environments with good agricultural potentials occupied only by hunters and gatherers—except in certain locations such as western Melanesia and parts of mainland Asia—they "chose" expansion. Many of their descendants are still expanding their geographical ranges at the ultimate expense of forest hunters and gatherers in some regions to this day.

There are also two observations of Oceanic significance that arise from my review of earlier Austronesian prehistory in the Indo-Malaysian Archipelago. The first is that the Austronesian societies of eastern Indonesia and Melanesia were heavily affected (more so than those in the west and north of Indonesia) by two-way contact with preexisting non-Austronesian societies. It is not yet clear whether agriculture had spread from the independent New Guinea source region into eastern Indonesia prior to Austronesian settlement. If it had, it would go far toward explaining the biological and cultural variation observed in this region. A second observation must be that the spread of the ancestral Polynesian Lapita culture through Melanesia after about 1600 BC correlates in linguistic terms with the period of Proto-Oceanic. Hence the problems that arose through acceptance of an erroneous date of 3000 BC for Proto-Oceanic (Bellwood 1978:423)—thereby having the ancestral Polynesians somehow "lost" in a millennium and a half of archaeological void in Melanesia—can now be forgotten. The original problem lay in an unwillingness to recognize the rapidity of change in the Austronesian languages of this region.

As far as the later phases of Austronesian prehistory are concerned, I have little to add to my opinions as presented in Chapter 9. Clearly, it is important to find out more about the development and spread of metallurgy in the Archipelago. There is still little coherent information about the archaeology and the societies of western Indonesia just prior to the period of intensive Indian influence in the first millennium AD. Questions concerning the evolution of complex societies provide just as much stimulus and excitement for prehistorians as do questions concerning the origins of agriculture, and I believe that the former

represent perhaps the largest untapped field of research facing Indonesian—and especially Javanese—prehistorians at the present time.

Finally, what of the future for prehistoric research in the Indo-Malaysian Archipelago? First, it is becoming obvious that high-quality archaeological excavations with full publication of data are absolutely essential. It is also essential for archaeologists from the various countries of the region to have access to the results of each other's research. Language and political barriers sometimes intervene in hindering such access, but international associations such as SPAFA[1] and the Indo-Pacific Prehistory Association[2] help to overcome such problems. Secondly, new data must be assessed against well-formulated models of Indo-Malaysian prehistory that are based on the whole Southeast Asian and Oceanic scene, and that draw (when applicable) on information from archaeology, historical sources, linguistics, biological anthropology, cultural anthropology, and the natural sciences. I hope that I have presented such a model in this book, and that it will encourage, guide, and also be modified by future research.