[1] *People in the Humid Tropics*

Benign Climate, Dangerous Environment

Both the diversity and the coherence of the Southeast Asian story begin with its geology. Its scatter of islands and rivers emerged from the collision of continental plates. The northward-moving Australian and Indian plates, and the westward-moving Pacific plate, pushed up the chain of volcanic mountains that almost surround the region. Within these mountains lies the relatively stable Sunda shelf, which united Sumatra, Java, Borneo, and the Philippines with the Mainland during periods of global cold temperatures and low water levels. During the latest of these, in the ice age that preceded the global warming that made possible humanity's ascent in the last 10,000 years, Southeast Asia's equatorial environment must have been one of the world's most habitable, and the land bridges then carried the larger Eurasian mammals such as elephant, tiger, rhinoceros, monkey, deer, pig, and buffalo, as well as man, into all of the vast area now divided by the Java Sea and southernmost South China Sea. As the world's largest area of monsoonal humid tropics, Southeast Asia shared a pattern of rainforest and water that provided a background for human economic and social activity.

The region lies almost wholly within the tropics, and enjoys relatively even daytime temperatures around or a little below 30 degrees centigrade throughout the year. The exceptions are the northernmost parts of the region that do experience a mild winter in December/January when temperatures can fall below 20 degrees. Except in the dry zone of the upper Irrawaddy valley, rainfall is everywhere generous, between 100 and 400 cm a year, though with a variability that caused difficulties for settled agriculture. Although Southeast Asia's climate has been benign for humans, it is unusually prone to natural disasters in the long term, which may be a factor reversing population growth at certain periods. The great arc of mountains formed by the subduction of the northward-moving Australian plate beneath Sumatra, Java and the Lesser Sunda Islands curves northward to Sulawesi, Maluku, and the Philippines where the tectonic pattern is more complex. Farmers were attracted by the rich volcanic soils, giving most volcanically active Java and Bali the densest

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population in the region and non-seismic Borneo the sparsest. Yet periodic mega-eruptions darkened the skies, poisoned the water, and covered the land with ash, causing crops to fail and populations to plummet.

Earthquakes wrought havoc on stone temples, but caused relatively little damage to houses built overwhelmingly of wood and thatch until modern times. The tsunamis that followed the worst events were a different matter, capable of wiping out coastal settlements and ports, and small-island populations. The destructiveness of the 2004 tsunami that claimed over 200,000 lives in Sumatra (chiefly), the Peninsula, and beyond, has been shown to have regular precedents every few centuries. Typhoons wreak havoc on coastal settlements in the Philippines and modern-day Viet Nam. El Niños having severe effects on Island Southeast Asia have been documented as far back as those of 1618, 1652, and 1660, and appear to have recurred with varying severity and periodicity at least once in a decade. They caused rainfall as low as a third of normal levels, and prolonged dry seasons that drove people out of settled areas in search of water and food. Despite the severity of these El Niños for the region (as demonstrated by the modern ones of 1982/3 and 1997), the smaller proportion of the Southeast Asian population dependent on settled rice agriculture rendered it somewhat less exposed to the severest El Niño famines than China and India. As discussed below in this chapter, the periodic volcanic eruptions of the island arc between Sumatra and Luzon devastated the populations dependent on a seasonal crop cycle, and thereby prolonged a balance with hunter-gathering and shifting agriculture that had disappeared elsewhere.

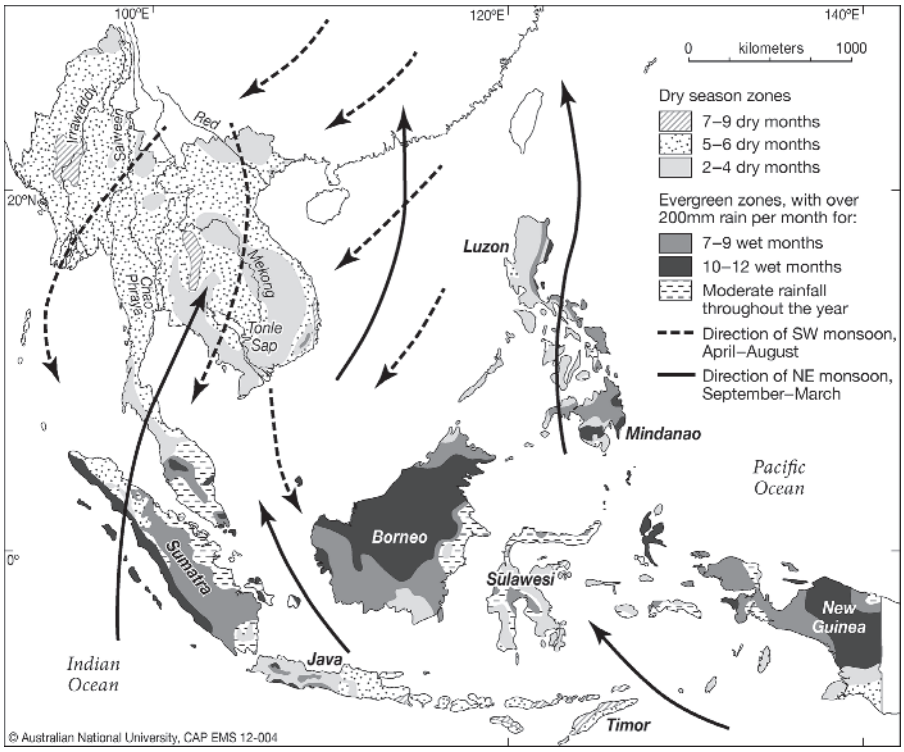
Seasonality in these humid tropics is marked above all by the monsoon winds. The warming and cooling of the great landmass to the north creates dependable winds from the northeast across the South China Sea in November–March, but in the opposite direction in the middle of the year. In the Bay of Bengal the winds are easterlies in November–March, and westerlies in the middle of the year. This dependable pattern of alternating wind-flows was highly favorable for sailing within Southeast Asia and the whole of the equatorial Indian Ocean, making this area the world's major cradle of commercial navigation. The same monsoonal alternation governs the variable patterns of rainfall.

The center of the region – its long central peninsula, southern and eastern Sumatra, Borneo, and western Java – as well as the eastern Philippines, has predictable high rainfall all year round (Map 1.1). This non-seasonal climate supported a lush growth of evergreen forest, through which the sun seldom penetrated. For human settlement it was in general discouraging, especially in the coastal marshes. The soils in this region are clays of poor fertility except where improved by recent volcanic activity – as in Java and west Sumatra. The nutrients falling as leaves are more quickly broken down in tropical conditions, and recycled through the forest biomass rather than building up topsoil suitable for agriculture. The equilibrium of these forests is therefore precarious, and removal of the canopy can quickly lead to leaching of the remaining nutrients and subsequent erosion by the combined effect of sun and torrential rain. Such forests also contain relatively few

edible wild plants and suitable game. Without a dry season, clearing and burning the forest presented a major obstacle, and many crops could not ripen satisfactorily. Until the late eighteenth-century era of immigration and commercial agriculture, therefore, most of this central equatorial zone remained very thinly peopled.

In most of the Mainland, on the other hand, there is a marked dry season around January–April. In the mountainous parts of this region the streams continue to run through the dry season, because the mountains attract more rain and groundwater returns to the streams as their level drops. The dry season and the cooler temperatures provide a more open forest pattern with lower bushes, ferns, and grasses suitable for a variety of larger mammals. The higher land of these Mainland dry-season zones supported a large population of deer, pigs, elephants, tigers, and rhinoceros, as well as smaller animals. To a much greater extent than in the equatorial forests of perennial rain or the smaller islands, these Mainland regions provided both meat for hunters and deerskins, ivory, and rhinoceros horn for the export trade.

In the deltas of the great rivers of this zone, the land dries out completely during the dry season except in immediate proximity to the great rivers themselves. These deltas provide excellent conditions for rice-growing, as the alluvial soil is annually enriched by flooding and the wet season provides abundant water for one or even two crops. At least since the sixteenth century, large



Map 1.1 Climate and rainfall.

surpluses were garnered from varieties of rice which grew two or three meters tall as the flood waters rose each year in the flood plains of the Mekong, Chao Phraya, Salween, and Irrawaddy Rivers.

Unfortunately these deltas are not so suitable for human settlement. In the wet season vast regions disappear completely under water. A million hectares are annually flooded in the Chao Phraya delta alone. In the dry season there is no fresh water at all. Only along the natural banks of the rivers was settlement convenient before the era of modern drainage and irrigation methods. What population there was in these deltas before 1800 was concentrated almost wholly along the riverbanks.

Only the Vietnamese mastered the difficult task of intensive delta agriculture before the nineteenth century. Applying similar techniques to those used in many Chinese deltas, Vietnamese began already to tame the Red River delta at least a thousand years ago, building dykes along the river to prevent flooding, and a complex pattern of irrigation that enabled them to grow rice during the dry season.

The eastern part of Java and the Lesser Sunda Island chain to its east experience an even more marked dry season from May to September, in places extending to more than six months. The volcanic soil of some of these islands is highly suitable for agriculture, and in Bali and Lombok in particular there are streams and springs flowing throughout the year which have for many centuries been directed into bunded rice fields on the sloping foothills of the mountains. Further east, rice is more difficult to sustain in the progressively drier terrain, and the eastern Indonesian islands subsisted chiefly on tubers, sago, or millet until the advent of American maize. For commercial crops such as cotton, however, the prolonged dry season was a distinct advantage.

While the eastern Philippines facing the Pacific experiences year-long rain comparable to Malaya and Sumatra, the western areas of that archipelago have a pattern similar to the Mainland with a marked dry period between December and March. The volcanic soils and the gently sloping terrain of the central valley of Luzon provided excellent conditions for rice-growing in river-fed bunded fields, and traces of rice husks have been found in the Cagayan Valley from the second millennium BCE. This has led Bellwood (2005) to hypothesize that it was the earliest Austronesian-speakers to migrate southward from Taiwan to Luzon and beyond more than 3,000 years ago who introduced rice cultivation to the islands.

FORESTS, WATER, AND PEOPLE

For most of the 60,000 or more years in which *Homo sapiens* inhabited these humid tropics, the dense forests and warm shallow seas and waterways provided the sole livelihood and context for life. While forest-dwelling and seaborne foragers have proved unusually able to retain some of these lifestyles even amidst modern changes, it is a mistake to equate the modern "tribal" peoples of the Peninsula and elsewhere with the original pre-agricultural populations of 8,000 years ago. Anthropologists have carefully

documented the intense interactions of survival strategies, languages, and cultures between agricultural and non-agricultural people. Since foraging was always more rewarding around the fecund coastlines and the forest fringes than in the dark primary forest, hunter-gatherers have never been isolated. Southeast Asia is uniquely penetrated by water among major world zones, most of its land surface being within 200 km of tidewater. Canoeing around rivers and coastal waters probably pre-dated agriculture as a necessary aid to foraging. The tropical forest had unique assets in terms of plant resources and refuge from attackers coming usually by water. But for ancient as for modern populations, dwelling wholly in the deep forest was not undertaken by choice.

Some things can be deduced about the past, however, from studies of contemporary forest-dwellers. Firstly, that the humid forests of year-round rainfall in Central Southeast Asia were difficult but not impossible for human populations, which probably first settled areas of less dense forest in the northern Mainland and the eastern islands. It was also in areas of a significant dry season and open forest that fire became useful as a tool in taming the forest, and that the earliest domestication of plants and animals took place. The primary forest did, however, provide one key tool for pre-metal hunter-gatherers in the blowpipe, and the dart dipped in vegetable poisons to stun the monkeys, mouse-deer, or other small prey of the forest. Many types of rattan and palm of the forest also provided the equipment for fish-traps and baskets for the abundant sea life of the coasts.

Secondly, hunter-gatherer and beach-foraging societies tended to remain small-scale as long as they did not make the shift to agriculture. Any large concentration of population could quickly impoverish the coastal or forest food stocks on which hunter-gatherers depended. Hence there was always high mobility, as particular kin-groups either moved as a whole in search of resources, or split up as the younger families sought their own territories to exploit elsewhere. Agriculturalists and hunter-gatherer societies have coexisted and interacted in Southeast Asia for at least 5,000 years, and the choice of means of livelihood was as much about the scale of social unit particular communities preferred to operate in, as about the technologies involved.

Prior to the Holocene warming of 10,000–12,000 years ago, the occupants of Southeast Asia were chiefly what Bellwood calls Australo-Melanesians, occupying a territory much less watery than it became with the glacial melting. There remained even in the glacial period the deep trench of the "Wallace line" to the east of Borneo and Bali, which they somehow crossed to populate also the easternmost islands including New Guinea and Australia. In New Guinea they independently developed tuber-based agriculture while in Australia they retained a hunter-gatherer lifestyle better adapted to the environment. These pre-Holocene settlers in Southeast Asia are presumed to be the ancestors of modern groups labeled *negritos* by earlier ethnographers on the basis of their dark skin, crinkly hair, and short stature. They had succeeded, in the Philippines and the Peninsula, in avoiding conquest or absorption by incoming agriculturalists by clinging to a stateless hunter-gatherer lifestyle, though their interaction with the agriculturalists was extensive enough that

they adopted Austronesian languages in the Philippines and Mon-Khmer ones in the Peninsula, followed by a recent Malay overlay.

In the Philippines, where they are estimated to have comprised as many as 10% of the population around 1600, a Spanish chronicler described them as:

> A barbarous race who live on fruits and roots of the forest. They go naked, covering only the privies with some articles … made from the bark of trees.… They have no laws or letters, or other government or community than that of kinsfolk.… The Spanish call them Negrillos because many of them are as much negroes as are the Ethiopians themselves, both in their black colour and in their kinky hair … In one of the large islands there are so many of them, that it is for that reason called the island of Negros. Those blacks were apparently the first inhabitants of these islands, and they have been deprived of them by the civilized nations who came later by way of Sumatra, the Javas, Borneo, Macassar (Colin 1663, cited Minter 2010, 37–8).

In 2000 there were still over 30,000 such people in Luzon, Palawan, Mindanao, Panay, and Negros, the best survivors being the Agtas of Northeast Luzon and Aetas of the Mount Pinatubo area of Western Luzon. There were about another 6,000 in the Peninsula, largely Semang or Sakai clustered on both sides of the current Malaysia-Thailand border.

From Sumbawa eastward to Timor and in the islands eastward of Sulawesi there is a gradation of mixings between the older settlers and Austronesians, though most now speak Austronesian languages. At least in Flores, the Australo-Melanesians appear to have interacted with the *Homo floresiensis*, of whom a group of skeletons were discovered in 2003 and quickly dubbed "hobbits" because they were little more than a meter tall. Although some have argued that they merely represent a pathological malformation of *H. sapiens*, they seem more likely to have been a distinct species. Perhaps they were related to the *Australopithecus* or *H. erectus*, the result of the first migration out of Africa over a million years ago, of which skeletal remains have been turning up in Java since they first caused a stir in 1891 as "Java-man", and more recently also in Flores. Whichever way the controversy is resolved, the survival of *H. floresiensis* alongside modern *H. sapiens* much later than had been experienced elsewhere on earth dramatically demonstrates the capacity of the humid tropics to retain a unique degree of biological diversity.

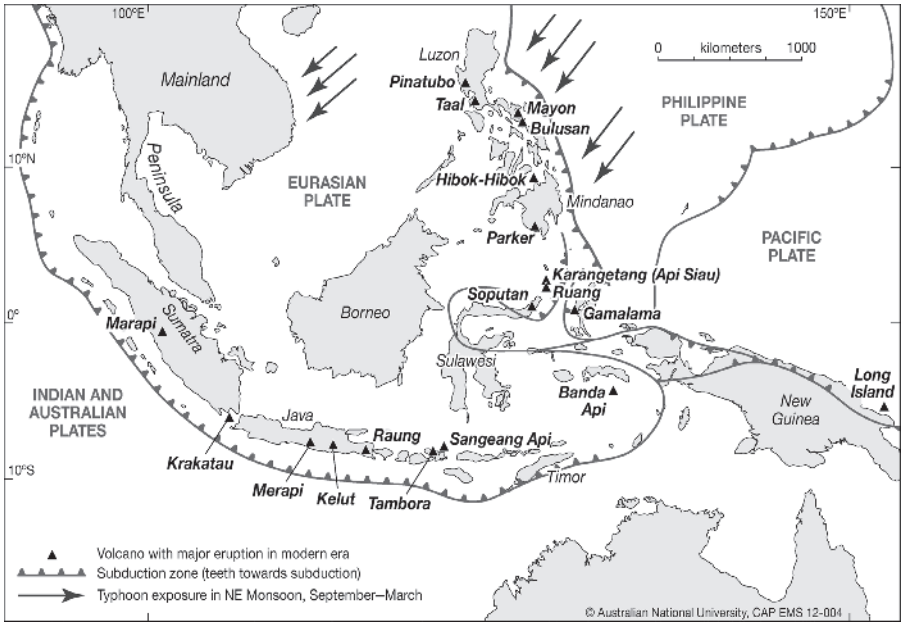
Why a Low but Diverse Population?

Only in the twentieth century did censuses provided comprehensive population data for Southeast Asia. To estimate earlier populations we must combine surviving reports from travelers (often relying on royal head-counts since lost), backward projection from the known figures, and the trends from those few limited areas for which long-term data are available (in particular areas relatively tightly controlled by the Dutch or Spanish). These methods suggest an overall Southeast Asian population of less than 25 million around 1600, with major concentrations already in Java, Bali, and the Red River delta, but densities in

most other places below five per square kilometer. Yet humans had been continuously present in the Asian tropics longer than in most parts of the planet, surviving the last ice age there, and developing agriculture some 5,000 years ago.

Why then did Southeast Asia's demographic catch-up with the denser populations of Europe, India, China, and Japan occur only in the last two centuries? Natural disasters may be a factor in the island chain from Sumatra to Luzon. It is fertile in volcanically enriched soils but also exposed to natural disasters from its location on the most active tectonic interface of the whole Pacific "ring of fire" (Map 1.2). Because geological research in this dangerous region lags behind that in the affluent world, the pre-twentieth-century record is largely guesswork except for the two mega-eruptions that grabbed the world's attention, Tambora (1815) and Krakatau (1883). Major tectonic traumas certainly punctuated Island Southeast Asia's history, but we still know more about them from ash deposits on the polar ice caps and human records in the northern hemisphere than about their poorly researched effects at their origin. Tsunamis may not have as great a demographic impact, but they destroyed coastal ports and fishing communities, deterring later settlement along these exposed coasts. The Philippine archipelago has also a tragic history of typhoons. More than most, therefore, agricultural population of Southeast Asia's Islands must be understood to have flourished during the benign intervals, such as the period 1840–2000, between major natural disasters.

The same factor helps explain Southeast Asia's remarkable human and biological diversity, particularly evident in the most exposed arc of tectonic subduction around the region's southern and eastern rim. It was in highly volcanic Flores that the "hobbit" was discovered to have survived the advent of



Map 1.2 Hazards of the "ring of fire."

modern humans. The principal areas of Negrito survival are also in areas exposed to mega-disasters, notably Pinatubo and Kanlaon volcanoes in Luzon and Negros, respectively, and the east coast of Luzon most exposed to terrible typhoons. Disasters may have checked the expansion of their agriculturalist rivals. The Austro-Melanesian Aeta people reacted to Pinatubo's 1991 eruption, which destroyed a quarter of a million homes and livelihoods in Luzon, with a flexibility and mobility in locating food sources that settled populations could not. After typhoons, it had been noted, poor agriculturalists sought to marry into Aeta families for survival. It seems likely, therefore, that just as rapid expansion of agriculture and population has threatened the extinction of hunter-gatherers in the last two hundred years, similar expansions threatened them in the past only to be checked by natural disaster.

Southeast Asia's biological, as well as human, diversity was also protected by these periodic setbacks to agriculture from natural crises. The transition to agriculture itself appears to have been unusually complex and gradual in the Asian tropics. Modern studies have shown that a greater range of plants is domesticated in Southeast Asia than in any other world region. This makes it almost certain that some of them were independently domesticated there, not introduced as part of a migrant "package." Likely candidates are yams, taro, Job's tears, betelnut (areca), banana, sago, and even sugar cane.

Even non-seismic Mainland Southeast Asia was much less densely settled than China and India, however, so broader causes must also be at play. One may have been changes in sea level, some 50 meters below its present level during the last ice age 10,000 years ago, but between 2.5 and 6 meters *higher* than at present only 4,000 years ago. At that latter date the major river deltas that today support much of Southeast Asia's population were under water. Another factor may paradoxically have been the benign warmth and high rainfall itself, which produced dense forest and facilitated modes of production that did not require population concentration. The systems of forest and seashore foraging, nomadic shifting cultivation, and low-level warfare and raiding without strong states all made relatively light labor demands but required mobility and the capacity to survive frequent crop failures. Especially when combined, as it usually was, with the need for constant vigilance against raids from neighboring communities in a stateless environment, this system encouraged small family size. Many Southeast Asian societies practiced infanticide or abortion to space and limit childbirth.

Apart from the exceptional Viet development of the Red River delta, the earliest centers of intensive rice-growing appear to have been in upland valleys of the dry-season zone, and in the sloping foothills of the island massifs. In the first category are Irrawaddy tributaries of the dry zone of Burma, the northern tributaries of the Chao Phraya around Chiang Mai, Nan, and Sukhothai, and the upper Mekong valley basins centered on Vientiane and Luang Prabang. By the thirteenth century all these valleys were practicing a form of wet-rice agriculture in bunded fields watered by upland streams and rivers. The early development of such centers of irrigated rice fields supports the view that the bulk of the Tai (the language family embracing modern Thai, Lao, and Shan) population up until the fifteenth century was far up these rivers,

not in the lower Chao Phraya as it is today. The ruler of Luang Prabang enumerated 300,000 male Lao subject to corvée as well as 400,000 non-Tai under his authority in 1376, while another successful Lao ruler around 1640 enumerated 500,000 male subjects capable of bearing arms. Such figures suggest a Tai population well over a million in the northern valleys at a time when the lower Chao Phraya was an unmanageable swamp.

Whenever strong rulers maintained internal peace and encouraged sedentary agriculture, population appears to have grown rapidly, as in fifteenth-century Dai Viet, Siam, and Lan Na (Chiang Mai). Dai Viet, adopting some bureaucratic, military, and agricultural innovations encountered in the brief Chinese occupation of 1405–27, acquired the demographic base in Red River delta agriculture to put armies in excess of 200,000 in the field against Champa in the south, Tai-Lao kingdoms in the west, and even Yunnan. The Siamese kingdom took shape around Ayutthaya, which used the hitherto malarial lower Chao Phraya River as a base for both rice agriculture in the flood plain, and a vigorous external trade. Lan Na (literally, "million rice fields"), and in the following century Lan Sang (Vientiane), profited from strong rulers and advanced rice agriculture to become important population centers in the upper Chao Phraya and Mekong, respectively.

Population increase of this type did not usually long outlast the ruler who provided stable conditions. Wars and periods of disorder caused death rates to rise and birth rates to fall, not so much through battle casualties as displacement, destruction of food stocks, inability to get in the vital harvests, and disease. A ferocious civil war between 1545 and 1592 appears to have reduced the Vietnamese population by about a fifth. The Burmese conquest of Siam in 1567 is thought to have caused population losses not made good for two centuries, while the sixteenth-century heartland of a flourishing Burmese kingdom around Pegu was in turn reduced to a wasteland by war and the resulting famine and disease in 1598–1600.

During the fifteenth and sixteenth centuries the vigor of international trade brought prosperity to coastal ports and power to their rulers. The population that had in most places (except Dai Viet) been concentrated in upland valleys congenial for both agriculture and human life began to shift toward the coast. People moved to the vicinity of the port-capitals to share in their prosperity, but many were also brought there involuntarily by the better-armed and organized states. In this period the demographic center of gravity which had previously been in upland Siam and Burma, and in the Angkor area of Cambodia, shifted downstream to the areas around the port-capitals of this period – Pegu, Ayutthaya, and Phnom Penh, respectively. Whereas there were several flourishing Tai-speaking states in the upper reaches of the Chao Phraya and Mekong Rivers in the sixteenth century, all were subordinated to the major lowland states by 1820, and experienced little further population gain until the nineteenth century. In Burma, the same southward shift occurred during the heyday of Pegu in the fifteenth and sixteenth centuries, but was reversed with the devastation of Pegu and the return of the capital inland around 1600. Only 26% of the population lived in Lower Burma (the southern third of the modern country) at the Burmese census in 1785, though 58% did so at the first British census in 1891.

In Java, the northern coast that boasted such new ports as Gresik, Surabaya, Demak, Japara, Cirebon, and Banten became the center of civilization and population for the first time. Elsewhere, other wealthy port-cities like Melaka, Aceh, Banten, Makassar, and Spanish Manila increased their population by attracting or coercing the nomads and shifting cultivators of their hinterlands to come and serve them. But these Early Modern cities were relatively unhealthy places (like pre-modern cities everywhere) and could only remain populous by a constant influx of migrants and captives. This gunpowder age, moreover, increased the scale of warfare, and the population loss it caused. Long-term political stability reached most rural areas only in the nineteenth century, and only then did serious population increase begin.

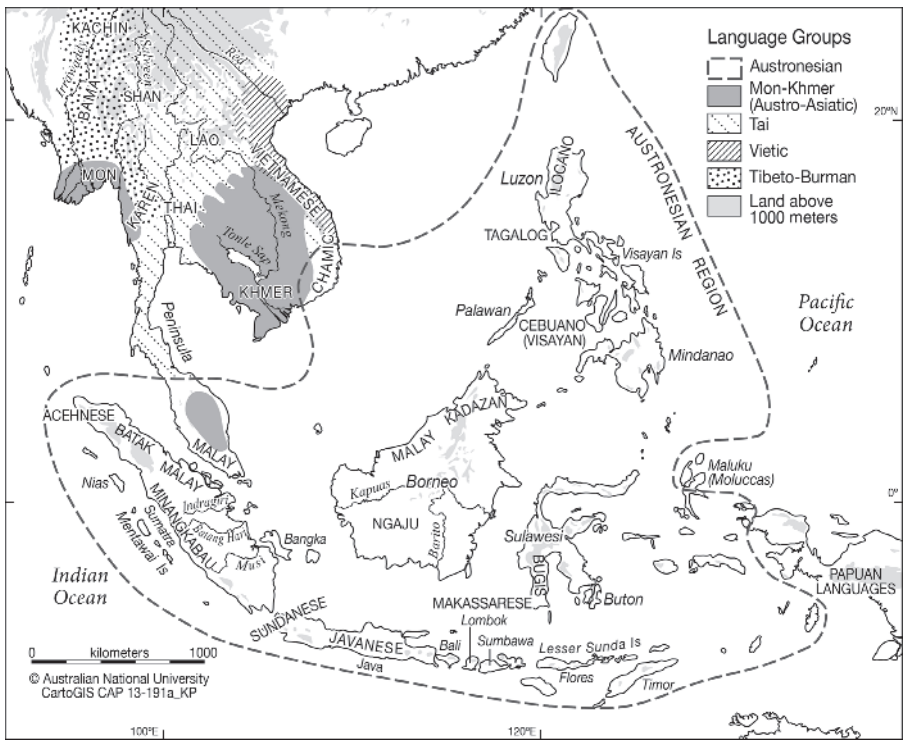
Southeast Asia began its modern demographic transition (a decrease in mortality followed several generations later by a decrease in fertility) as an alien model of bureaucratic state established internal order during a relatively benign period for natural disasters. This happened first in the Philippines (eighteenth century), then in Java and the major states of the Mainland (nineteenth), and finally in Laos and many areas of Indonesia outside Java, where colonial conquest around 1900 coincided with the onset of sustained population growth (see Chapter 13).

Agriculture and Modern Language Families

The diverse language families that today dominate Southeast Asia moved southward out of what is today southern China and the eastern Himalayas. The fact that Asians first made the transition to rice agriculture in the lakes area just south of the middle Yangzi appears the main reason why Chinese or proto-Chinese people gradually pushed southward the peoples not willing to be absorbed into the Chinese Empire. Whereas cultural features largely link Southeast Asians to South Asia, therefore, genetic and linguistic ones make it closer to East Asia.

Peter Bellwood (2005), building on the linguistic hypothesis of Blust (1995), has been the most persistent synthesizer of archaeological, linguistic, and recently genetic data on the likely origins of the contemporary Southeast Asian population. His argument for Southeast Asia and the Pacific, like Colin Renfrew's (1987) for Europe, is that the population advantage enjoyed by the pioneers in the transition from hunter-gathering to agriculture is the best explanation for the very wide dispersal of some language families – notably the Indo-European and the Austronesian. Not only did agriculture provide higher and more reliable nutrient products for effort expended and encourage permanent settlement in sizable (and therefore militarily effective) communities, it encouraged higher fertility by reducing the mobility of women and by providing soft weaning foods (such as rice porridge) which reduced the need for several years of breast-feeding and thereby reduced the necessary intervals between births. In their expansion southward at the expense of older hunter-gatherer inhabitants of Southeast Asia, the Neolithic (agricultural) pioneers may often have used the force of their larger communities, including the incorporation of hunter-gatherer women. Fundamentally they simply out-populated their rivals.

Bellwood's scheme has rice agriculture originating in the Middle Yangzi valley about 7,000 BCE and gradually spreading southward to other headwater areas in Guangdong by 3,000–4,000 BCE and parts of Yunnan somewhat later. This diffusionism must be balanced, however, with recent genetic evidence that the two main strains of modern cultivated rice, Japonica and Indica, were separately domesticated, the first in south China and the second in India and/or Mainland Southeast Asia. At any event, peoples practicing "a widespread Mainland Southeast Asian Neolithic expression," including rice agriculture and common patterns of red-incised pottery, appear at sites dated between 2300 and 1500 BCE in the middle levels of Red, Mekong, and Chao Phraya river systems (Bellwood 2005, 131). These peoples appear also to have brought a related set of languages we now call the Austroasiatic family, including the ancestors of Mon and Khmer in one branch and Vietnamese and Muong in another. This family dominated these river systems until the arrivals of speakers of Tai and Tibeto-Burman languages several millennia later, and continues to dominate lowland modern Cambodia (Khmer). Vietnamese is controversial, many seeing it as somehow surviving a thousand years of Chinese overlay, though recent scholarship proposes it assumed its essential shape only in the tenth/eleventh centuries CE as a hybrid of proto-Viet-Muong with a southern dialect of middle Chinese previously dominant (Map 1.3).



Map 1.3 Southeast Asian language groups.

The older human settlers who had lived in the tropical areas for 40,000 years or more, since before the ice age, and shared characteristics of darker skin, round eyes, and frizzy hair with the peoples of Australia and New Guinea, appear to have been largely assimilated or wiped out in this process, though in complex ways involving long-term interaction between foraging and agricultural lifestyles. Only in the southerly island arc, as explained above, did some remarkably survive as hunter-gatherers.

The Austronesian language dispersion is one of the world's most remarkable, having apparently spread in less than a thousand years from Taiwan throughout Island Southeast Asia and into Melanesia and western Polynesia. The ancestor of this language family, including both aboriginal Taiwan and Malayo-Polynesian languages, may have arrived in Taiwan from the mainland as early as 3500 BCE, although the evidence of its having carried rice agriculture with it comes from only 2500 BCE. The evidence of similar pottery types to those of Taiwan, with rice grains indicating agriculture, is then found in the northern Philippines from about 2000 BCE, and spread very quickly to eastern Indonesia, Melanesia, and as far as Samoa by 1400 BCE. Sumatra, Java, and southern Borneo, by this reckoning, formed a different dispersion network, dominated by different types of ceramics, but which similarly spread rice agriculture very rapidly from its Taiwan source.

It was this south-western dispersion that was the most complete, almost obliterating the previous population in Borneo, Sumatra, Java, Bali, and Sulawesi. It would appear that the dense forest cover had sustained only a sparse hunter-gatherer population previous to the Austronesian dispersion, and they were readily absorbed. The only survivals as hunter-gatherers in these islands, the Kubu in central Sumatra and the Punan of eastern Sarawak (Borneo), appear to have once also been agriculturalists, but less successful or aggressive ones, who retreated into hunter-gathering activity in the forest fringe under pressure from other agriculturalists. In the Philippines, on the other hand, the Negrito Agtas of highland Luzon and the Batak of Palawan appear to have retained hunter-gatherer lifestyles consistently, but under increasingly desperate conditions. They long ago adopted variants of the Austronesian dialects of the newcomers. Yet although the Austronesian immigrants were highly successful in absorbing or obliterating their predecessors, they became diversified among themselves, with many distinct Austronesian languages surviving into modern Indonesia, the Philippines, and southern Viet Nam.

The dominant populations of the Irrawaddy valley today, Bama, Chin, and Kachin, are part of a very diverse family usually known as Tibeto-Burman, comprising also several hundred languages in the eastern Himalayas. Like the other language families discussed, this one may have originated with the pioneer rice-cultivators in the region of the middle Yangzi, and it shares a tonal system with Chinese, Tai languages, and Vietnamese (though not the older Mon-Khmer). It has also been linked to Chinese in a Sino-Tibetan umbrella group, but the distance is there much greater. Karens, now occupying the higher ground around the current Thai-Burma border, also speak a range of dialects problematically linked to this family. The spread southward of Bama

occurred probably only about a thousand years ago – before 1112 AD, when the Myazedi inscription was written in four languages (Pali, Mon, Pyu, and Bama). The diversity of this language family, however, suggests long occupation of the mountainous Himalayan borderlands on the borders of what are now China, India, and Southeast Asia.

Finally, the second most widespread language family of modern Southeast Asia, the Tai or Austro-Tai speakers, appear to have arrived, or at least made their presence known through the first evidence of an inscription (at Nakhon Sawon), only in 1167 AD. Tai-speaking groups, including those speaking today's Thai and Lao national languages and the Shan of Burma's northeast, are widespread also in southern China from Yunnan to Guangdong, and may have had their origin further north in the area of earliest rice agriculture in the middle Yangzi valley. Carrying their languages, an efficient form of upland rice agriculture involving some channeling of small rivers, and a pattern of numerous autonomous *muang* (small polities) centered on a fortified citadel and a charismatic leader, they must have moved southward in the eleventh to thirteenth centuries. A final impetus for military and political elites to move south may have been the expanding southward under aggressive Mongol rule (1279–1368) of the border of Chinese-style bureaucratization, but the process of settlement must have been taking place imperceptibly over a longer period. Many older Mon- and Khmer-speaking communities were absorbed, but others continued in their separate valleys, creating a mosaic of pluralities in the highlands of Mainland Southeast Asia. In the late thirteenth century, Tai-speaking rulers, in alliance with Theravada Buddhism, very quickly established a series of *muang* dominating the upper Chao Phraya and middle Mekong river valleys, and in the fourteenth even making their mark throughout the highly plural Peninsula.

The Rice Revolution and Population Concentration

For almost all Southeast Asians except the Viet, the relative lightness of population pressure on the land made swidden or shifting cultivation the favored method of producing food crops. As was reported of sixteenth-century Maluku (east Indonesia), the farmers "make clearings, which they burn off; and with pointed sticks they make holes in them, in which they put two or three grains, covering them with the foot or hands" (Galvão 1544/1971, 133). The ash left by the burn-off added enough nutrients to the soil to allow a harvest of dry rice, millet, or various root crops. Little weeding was done, and rice sheaves were cut individually as they ripened among the other new growth. This means of cultivation was profligate of land, since it required a fallow period of ten years or more before the forest had regrown enough to allow the farmer to return to repeat the process in the same area. But in upland soils it gave the highest return of any method for a family's input of labor. Moreover, root crops and vegetables could be grown alongside the main rice crop or after

it, which increased the self-sufficiency of a family and its security against the failure of any particular crop. Until the nineteenth century the majority of Southeast Asia's farm population was occupied with this swidden method, and until well into the twentieth it affected a larger area than did permanent irrigated agriculture.

By the thirteenth century we can, however, point confidently to some irrigated areas of intensive wet-rice agriculture, producing rice surpluses which in many cases supported complex urban life and culture. It seems likely that especially in northern Southeast Asia these developed as part of the process that Mark Elvin (1973, 113–45) has described as an "agricultural revolution" in southern China, whereby more intensive rice-growing techniques were developed and then generalized in roughly the ninth to thirteenth centuries. These changes were much better documented in China than in Southeast Asia, but it is clear that improvements were not limited to one written culture (though Chinese agricultural manuals may have helped generalize techniques between China and Viet Nam), but passed back and forth wherever they were found useful. Some techniques, including double-cropping, terracing, and some irrigation devices, were almost certainly older in parts of Southeast Asia than in China. The best-known new variety of rice in south China was said to be from Champa (in what is now south-central Viet Nam), introduced through Dai Viet and Fujian and popularized widely on imperial orders in the eleventh century because it ripened faster and could cope with poorer soils and dryer conditions than other types.

The chief elements of this agricultural revolution were the plough, capable when pulled behind a buffalo of turning over the soil, not simply scratching it; transplanting seeds from a carefully prepared and protected seed-bed; quick-ripening strains of rice making double-cropping easier; and improved techniques of irrigation through damming streams, partitioning and flooding fields as seedlings grew, and moving water through a variety of bucket devices or pumps. The effect of these improvements in rice cultivation in China was to shift the balance of population from the wheat-growing north, which contained three-quarters of China's population in the third to fifth centuries, to the rice-growing south, which contained more than three-quarters by the thirteenth century. Mainland Southeast Asia experienced the same transformation.

Upriver Mainland Southeast Asia underwent a particularly rapid expansion in population and in wet-rice agriculture in the period of benign climate between about 1400 and 1550, following the expansion of Tai-speaking populations and the disruptive intervention of Ming Chinese troops. Chinese observers in the sixteenth century noted that the rice fields of the upper Mainland rivers were more productive than any they knew in China. The use of the plough was widespread, as were two wet-rice crops per year. The golden age of fifteenth century expansion enjoyed by the northernmost Tai-speaking *muang* such as Lan Na and Ahom in Assam, as well as by Dai Viet, owed much to superior rice technology making possible a rapid rise in Tai and Viet populations, respectively, though also to the introduction of more advanced firearms from China.

Analysis of the rice husks left at archaeological sites has revealed a shift by the ninth and tenth centuries from a round-grain type of rice resembling modern *Japonica* types to the long-grain *Indica* rice strains that have dominated modern Southeast Asia. This seems to coincide with the effective use of dry zones for irrigated agriculture in Upper Burma, the Khorat plateau, and the Angkor plain. It may also indicate a shift from reliance on broadcasting seed prior to the annual floods of the larger rivers, to a more labor-intensive system of creating bunded fields away from the disaster-prone flood plains.

In the Archipelago, the earliest evidence of wet-rice agriculture in irrigated fields comes from inscriptions in upland parts of Java and Bali, where small rivers, especially the higher tributaries of the Brantas River in east Java, point to the cooperative digging of irrigation canals as early as the ninth and tenth centuries. As in the Mainland, these are intramontaine valleys in an upland area with a substantial dry season. In the Java uplands there is the additional factor of nearby active volcanoes (Mounts Kelud, Kawi, Arjuno, Penanggungan), which added to the fertility of the soil but caused periodic traumas that included changes to the river courses. In Bali there is evidence for the existence of the self-regulating irrigation associations or guilds (*subak*) as early as 1022.

In southern and central Sumatra, as in the Malay Peninsula and Borneo, the relative constancy of rainfall, with no substantial dry season, created a thick forest less favorable to early elaborations of irrigation systems for rice. The exceptions were in the mountain valleys of the Batak, Minangkabau, Korinci, Rejang, and Besemah, where there is only half the rainfall of the west coast and a dry season of three months or more, and along the north coast of what is now Aceh, the most conducive coastal area of Sumatra for wet-rice. Pollen evidence suggests that rice was being cultivated in the highlands around Lake Toba and Lake Korinci more than 2,000 years ago. The principal concentrations of population in the central "wet" zone of Southeast Asia (Sumatra, Malaya, Borneo) before colonial intrusion were in fact in these high valleys (above 500 m) of the western mountain spine of Sumatra, and in the Hulu Sungei area over 100 km up the Nagara River in south Borneo, not in the coastal areas known to travelers and therefore to historians. When the first European observers penetrated into these valleys in the early nineteenth century they were astonished at the sophistication and intensity of irrigated rice fields. The earliest physical remains of civilization have been found not in the coastal ports which sustained the well-known states (Palembang/Sriwijaya, Jambi, Siak), but nearer the headwaters of the east Sumatran rivers. The megaliths of the Besemah plateau, and Dongson-like bronzes near the highland lakes of Kerinci and Ranau, go back to the first five centuries of our era. And even in the period after the seventh century, when there were maritime states near river-mouths known to the world outside, some of the most important Buddhist temple sites were in highlands very far up the Barumun (Bila), Inderagiri, and Batang Hari Rivers, where there is little historic evidence for states.

THE AGRICULTURAL BASIS OF STATE AND SOCIETY

The state-resisting tendency we noted above was rooted in the environment and demography of the region. It was most marked in the Archipelago minus Java, the coastal forests of which were thinly populated, inhospitable, and impenetrable. Access to the more populous upland areas was only through the numerous rivers, each of which had a larger or smaller port-state near its mouth. This port-state could to some extent dominate the interior economically by channeling imports and exports, but with its small population of maritime traders it had no capacity to dominate militarily, and its agents seldom even penetrated into the stateless highlands. Moreover, the pattern of shifting cultivation described above was antithetic to the development of states. The availability of a storable and taxable rice surplus required a settled and concentrated population cultivating irrigated fields.

Earlier scholars examining the evidence of Chinese Imperial reports, Sanskrit inscriptions, and temple remains were inclined to assume substantial kingdoms ruling over subject populations. Since this interpretation was at odds with the diffuse power structures Europeans encountered in the nineteenth century, they resorted to presumptions of decline and decadence. Today's historians, informed both by archaeological evidence for relatively dispersed settlements, and by better understandings of pre-colonial polities, have read more critically both Chinese reports of barbarian *kuo* (countries, polities, or cities) sending tribute, and the grandiloquent Indic titles of many inscriptions. In reality such polities as took shape in the first millennium CE featured a multiplicity of autonomous centers with shifting loyalties, as one focus of trade could readily give way to another.

The earliest Chinese reports of *kuo* in Southeast Asia appear to be entrepôts along the main trade routes, though often linked with areas where a simple flood recession form of rice growing could be practiced along rivers. Thus Chinese records give us Funan (c.250–540 CE), which modern archaeology has associated with settlement sites and canal formations between Oc Eo, the point on the Gulf of Thailand most accessible to the lower Mekong, and Angkor Borei. They also record Linyi (and later Champa) at a similar period in what is today central Viet Nam, probably to be associated with sites excavated at Tra Kieu; and Langkasuka covering portage routes across the Peninsula, now associated with temple remains and settlements near Chaiya on the east coast and Takuapa on the west.

Despite the greater trade of most of these centers with China than with India, and the much greater knowledge shown by Chinese than Indian sources about them, when they began to speak for themselves it was in Sanskrit, for reasons explained in Chapter 2. Indian traders carried religious images, texts, and ritual specialists with them, so important were their gods to them as the basis for commercial trust. There is later evidence from the tenth and eleventh centuries of how Tamil merchant guilds used particular temples, images, and rituals to bind a network spanning the Indian Ocean. Traders and power-holders at Southeast Asian ports sought to command the same access to cosmic power and retribution, borrowing the new writing as a language for the gods.

The favorable position of Champa for trade and piracy on the sea route to China was matched by that of Sriwijaya in the Straits of Malacca area, through which traders and pilgrims between China and India had to pass. During the Song Dynasty (960–1279), when China-Southeast Asia commercial links began to flourish through the medium of the "tribute" trade, the three chief beneficiaries were Dai Viet (76 tribute missions in the period), Champa (62), and Sriwijaya (26). The remaining Southeast Asian states barely managed twenty missions between them, accurately reflecting the value of the China trade for these three polities.

Sriwijaya is again a term imposed by historians on what is now seen as a loose polity of rival river-ports. When it first sent embassies to China in the mid-seventh century it was probably centered in Melayu, near Jambi on the Batang Hari River, but later near modern Palembang. At times during a long career that endured until the thirteenth century this maritime civilization brought lesser ports throughout the Peninsula, Sumatra, and parts of Java into its orbit by funneling their exports to China.

These maritime centers, however, left relatively modest temple remains, and probably had shifting populations of traders who could be fed without major supplies of rice from irrigated fields. The most impressive temples requiring thousands of laborers are invariably located in the interior, at points where a large rice surplus could be conveniently concentrated. The earliest of these were in the Mataram area on the southern slopes of Mount Merapi near modern Yogyakarta, between the eighth and tenth centuries. A vast Buddhist stupa such as the Borobudur temple, along with nearby temples such as Sewu and Kalasan, must have required the coordinated labor of thousands over a substantial period. The Sailendra kings conventionally understood to have ruled this area were not conquerors like the Egyptian pharaohs, however, and are not mentioned as patrons of Borobudur. Piety and ritual obligations, rather than force, appear to have mobilized the necessary labor for building these monuments much as they provide the manpower for Balinese temple festivals today.

Nevertheless, Mataram does foreshadow the kingdoms that are more characteristic of Southeast Asia after the tenth century, when the exalted ideas of kingship associated with the foreign-influenced port-cities combined with a large population fed by some interior center of irrigated rice agriculture.

The two most northerly states of the region, in the Red (Hong) River delta and the upper Irrawaddy, were economically distinct from the pattern elsewhere and few generalizations can apply to them. The delta of Tongking was ruled by the Chinese Empire for most of the first millennium, and developed a type of deltaic agriculture common in southern China but virtually absent elsewhere in Southeast Asia. The extensive dykes built to control the annual flooding of the river required a relatively high degree of social control, but in return provided stable conditions for dependable annual yields supporting the most dense populations in pre-modern Southeast Asia. The most stable of the region's capitals had become established on the site of modern Hanoi by the seventh century. After the collapse of the Tang Dynasty in China, an independent Viet dynasty gradually took shape, occupying Hanoi in 1007 and

withstanding subsequent Chinese invasions. From the thirteenth century it emulated Imperial methods of competitive examinations in the Chinese classics to build a state-serving bureaucracy. After a Ming occupation in 1406–28, a dynamic new Le Dynasty sought to remake Viet Nam as a centralized bureaucratic polity on Confucian lines, though the difficulty of the task is indicated by its repetition by other new dynasties, in the seventeenth and nineteenth centuries.

Irrigated, settled agriculture also developed early in the dry zone of Upper Burma, the exceptional area of below 60 cm rainfall through which the Irrawaddy flows between Mandalay and Pagan. It was the manageable Irrawaddy tributaries that flowed into this zone, the Mu River from the north, and the complex of four rivers of the Kyaukse area from the south, which proved ideal and dependable for the development of early irrigation systems from the time the first pre-Bama capitals arose in the seventh century CE. Their water came from areas of high rainfall outside the dry zone, but the gradient through the northern plains was gradual enough for most of the nutrients to be retained there. A complex series of canals and weirs was developed in the Kyaukse region in the eleventh to thirteenth centuries, making possible the civilization associated with Pagan (see Chapter 2). Modern estimates suggest that the Kyaukse irrigated area alone may have produced about 80,000 metric tons a year in this period, enough to feed half a million Burmese.

The agricultural basis of the Angkor complex in Cambodia, which was a major power center in the lower Mekong from the eighth century to the thirteenth, remains a matter of controversy. The older argument of Groslier and others was that the great artificial reservoirs (*baray*) of Angkor supplied a constant flow of water to multiple-cropped bunded fields capable of sustaining a concentrated population of up to a million people. More recent studies have ruled out irrigation of this type as the purpose of the reservoirs, suggesting that they were primarily for ritual purposes, as in India, and for water security through the dry season. There *were* permanently irrigated fields in Cambodia during Angkor's heyday, but they were probably not concentrated in one place as once thought. Like Pagan, in an unpromising area of the dry zone, the Angkor temple complex may have been primarily a ritual center, whose fluctuating population could be fed by transporting by boat and bullock-cart the abundant fish of Tonle Sap lake and the rice of a number of small-scale irrigated areas (see Chapter 2).

FOOD AND CLOTHES

The chief items of consumption and trade in pre-modern Southeast Asia were foodstuffs and wearing apparel. Diet was relatively plain, focused on rice and fish, differing only in opulence and variety for the rich and powerful.

Southeast Asia contributed its share of edible staples to the world's food supply. Three key sources of starch – bananas, yams (*Dioscoria alata*), and sago trees (*Metroxylon sagu*) – were native to Southeast Asia and were domesticated there as part of the Neolithic revolution. Taro (primarily *Colocasia esculenta*)

was one of the earliest domesticated crops, perhaps first in India and Burma, and has been useful in swampier areas of the region for thousands of years. These four items were carried to the rest of tropical Asia, Africa, and the Pacific, at least in part by early Austronesian navigators, to form a large proportion of starch needs everywhere. Their widespread availability meant that most Southeast Asian villagers had direct and year-round access to at least one of these, as well as to forest foods in the wild. These remained important default foods when the preferred rice supply failed, so that "failures of crops or grains are never attended with those dreadful consequences which more improved countries … experience" (Marsden 1811/1966, 64). Their cultivation could also be a preference for stateless hill peoples, since these dispersed crops could not be expropriated by a state as could a rice harvest on the valley floor. The prominent place occupied by taro in the highland areas of Java, especially Sundanese west Java up to 1800, may indeed have been motivated as much by the desire to be free of state levies as by soil types. In the Visayan Islands also taro remained important into the seventeenth century.

Poorer areas too dry, arid, or brackish to sustain rice made do with sago or yams as a starch, often adjusting to maize when that hardy crop spread through the region from the Americas around 1600. By that time, however, rice had become everywhere the preferred food for taste, for nutrition (as an almost complete food), and for ritual purposes. The wealthiest areas which could not grow their own rice, such as cities, spice-exporting areas, and some productive fishing grounds, could still eat imported rice produced in the most abundant of the rice bowls in central and east Java, and the flood plains of the Chao Phraya, Irrawaddy, and Salween.

The principal daily garnish of rice was not meat but fish. Fishing was undoubtedly the second industry after agriculture at all times before the twentieth century. Those close to fishing grounds along the coasts and in fish-rich lakes and rivers could eat their seafood fresh. Sources of meat, on the other hand, were relatively limited. There was as little of a pastoral or herding tradition as was possible in the great grasslands of Eurasia, and Europeans found in many areas that their demands for regular meat supplies quickly exhausted the supply. Feasting was the time for meat-eating, with a sacrificial slaughter preceding immediate distribution and consumption. Before the norms of Islam and Theravada Buddhism made a major impact (in accessible lowlands generally around the long sixteenth century), pigs were widely preferred for this purpose, whether domestic or hunted in adjacent forests.

At least by the seventeenth century, there were significant grasslands in areas where there was a marked dry season (the northwest and southeast margins of the region in particular), and where shifting cultivation had been practiced so intensively that grasslands had become permanent. As Islam came to rule out hunting wild pig in the forest, there is evidence that such grasslands were made permanent by deliberate human intervention, burning off in each dry season to ensure that either domestic cattle or wild deer for hunting had enough pasture to flourish. There were for example "savannahs" in the hills near seventeenth-century Aceh where herds of buffaloes were maintained for sale in the city market. From as early as the fourteenth century there was a

trade in livestock from the dryer islands in the east – Bali, Madura, Sumbawa, and Sumba – to the population centers in Java, profiting from the grasslands in the former. In south Sulawesi and parts of southern Borneo deer were hunted on horseback for their meat and for the excitement of the chase, while in the more open forests of Laos, Cambodia, and northern Siam they were vigorously hunted for their hides, to provide an export trade to Japan in the sixteenth and seventeenth centuries.

Nevertheless, meat remained a less important item of diet in Southeast Asia than in most of Eurasia. As Islam spread in the fifteenth and sixteenth centuries, meat-eating was probably further reduced, goats and chickens not being able to substitute for the once-popular pig, and for the dogs, snakes, and frogs also eaten by pre-Muslim Indonesians. All Southeast Asians considered that meat was to be eaten only on ritual occasions when large numbers of people gathered for a feast. The slaughter of animals had a sacrificial character long after such rituals were officially discouraged by Islam, Christianity, and Theravada Buddhism, and solemn rituals continued to be performed to offer the blood of an animal to the ancestral spirits. For marriages, puberty rituals, village purifications, and even the holy days of the new religions, but above all

Figure 1.1 Dress of a Thai woman, as sketched in the 1680s. Source: Simon de la Loubère 1693/1969.

for death-feasts where the spirits were especially dangerous, animals would be ritually slaughtered and the meat distributed. Hence it was always eaten fresh, not dried or salted as Europeans and Chinese did. Chicken and pork were the most popular meat sources in non-Muslim areas; chicken and goat for Muslims; with buffaloes slaughtered for the great feasts.

While rice, salt, pickled fish, livestock, palm wine and betelnut (areca) were traded up and down rivers and along coasts, the biggest item of long-distance import from very early times must have been cloth. Southeast Asian texts seldom discuss housing, tools, or utensils, but they seem preoccupied with beautiful cloth. One missionary noted that "in the food, beds and houses of the Burmese, they are as parsimonious as they are splendid and extravagant in their dress" (Sangermano 1833/1966, 159), and the same could be said of most Southeast Asians. Personal wealth was most readily used and demonstrated in cloth and other items of personal adornment such as gold ornaments. As the next chapter makes clear, these were the keys that unlocked the region to the wider world.

Southeast Asians were much slower than their neighbors to adopt sewn garments that required the production or acquisition of needles. Only in the Red River delta that nurtured Sino-Vietnamese culture were sewn silk tunics, blouses, or trousers common before the sixteenth century. Throughout most of Southeast Asia the essential items of dress until the great upheaval of the "age of commerce" were simple woven cotton cloths. They were used first and fundamentally as a wrap-around lower garment fastened through folding, known in modern times as Malay *sarung*, Thai *panung*, or Bama *longyi*. Another cloth would often drape the upper body, either for warmth or a modicum of modesty over the breasts (Figure 1.1).

Sewn upper garments and trousers of course made their entry quite early from China, north India, and the Muslim world. We are particularly well informed when European accounts become available after 1500 of their attempts to sell tunics and jackets of various sorts. These items were to some extent taken up by those who could afford them, initially as a curiosity or status symbol. Yet even with the pressure of Islam and Christianity after 1500 to cover it, the carefully oiled and perfumed skin of the upper body remained in many areas the ultimate sign of cultivation. Even in the nineteenth century John Crawfurd could say of long-Islamized male Javanese that "when in full dress, they are almost naked" (Crawfurd 1820, I, 29). Even at a time of great cultural borrowing among the elite, the contrast between this cultivation of the body as ornament with the head-to-toe costumes of Muslim Indian, Christian European, and Chinese traders in their midst was evident to outside observers (Figure 1.2).

WOMEN AND MEN

A relatively low population density before the nineteenth-century expansion was one of the key features which determined Southeast Asian social structure. The forests were perceived as limitless. What created wealth was not possession

Figure 1.2 Notables of Banten, as sketched by a Danish trader in the 1670s. Indian Muslim (l) and Chinese (r) traders engage a Javanese aristocrat. Source: A.J.P. Cortemünde, Dagbog fra en Ostindiefart, 1672–5, ed. H. Henningsen, Kronborg: Handels-og sjøfartsmuseet, 1953.

of land but control of people. Only the labor of men and women could "open" the forest to productive cultivation; only the military power of men and the reproductive power of women could increase the number of one's followers. A Chinese report on the Malay states around 1500 remarked that "they say that it is better to have slaves than to have land, because slaves are a protection to their masters" (cited Reid 1988, 129). In comparison with either of its neighbors, India and China, Southeast Asia was a region where bureaucratic states had limited purchase over the lives of individuals, and both wealth and security were obtained by direct control over people.

A vertical bond between leader and follower, or master and slave, was the key to social integration in this world. States as they grew stronger sought to homogenize their subjects in this region as in others, but only in Dai Viet did the bureaucratic state succeed before the nineteenth century in replacing the essentially dyadic bonds between individuals as the principal social cement. Relations between equals were charged with competitive danger. The abundant personal pronouns of Southeast Asian languages demonstrate that relationships that acknowledged patronage on one side and obligation on

the other were perceived as the most comfortable. There was no "free" labor until the late nineteenth century, except among immigrant Chinese, because laboring for another was inherently part of one's obligation, whether through kinship, debt, inherited status, or forced enslavement. Slaves, in the sense of a clearly servile labor category identified as property to the extent of being saleable, were most clearly a feature of expanding urban centers incorporating captive labor. Elsewhere it is wiser to use terms such as clients or bondsmen.

Warfare was a constant feature of pre-colonial Southeast Asia, and lack of security for property the major inhibition against its development in a capital-rich or capitalist direction. Headhunting and raiding for slaves or women was a feature of most of the stateless societies of the highlands, while raiding and piracy by sea was a standard tactic for ship-owners not directly tied into the tribute system of the major ports. The object of most of the warfare, of both large and small scale, was to capture people, not to kill them. "In all the countries of Below the Winds [Southeast Asia] … when the natives … wage war, they are extremely careful and the struggle is wholly confined to trickery and deception. They have no intention of killing each other or inflicting any great slaughter because if a general gained a real conquest, he would be shedding his own blood" (Ibrahim 1688/1972, 90). The defenders of cities tended to draw off into the surrounding forest and wait for attackers to loot and move on, so that there were few bitter sieges by European or Chinese standards. Deaths on the battlefield had much less severe an impact in restricting population and capital accumulation than the disruptions, plunder, diseases, and crop failures caused by the constant movement of captives or refugees.

The environment favored light, airy houses of wood and thatch, elevated on poles for safety, coolness, and cleanliness – the refuse falling through the floor cracks to the animals below. Only as wood supplies became scarce in the areas of highest population and state control – northern Viet Nam and Java by the sixteenth century, Maluku by the nineteenth – were houses built on the ground and sometimes with stone or brick bases. Elsewhere it was the pattern of insecurity and mobility that particularly discouraged investment in bricks and mortar. Most houses could be rebuilt by a family in a week from materials available in the forest, so that flight, fire, or pillage was not an overwhelming disaster. Capital was conserved rather in gold, jewelry, and cloth that could be buried or carried away.

Although the temple-studded ancient cities of Angkor, Pagan, and early Mataram must at their peak have incorporated the labor of tens of thousands of men and women, this form of social organization supporting Hindu-Buddhist royal cults has to be seen as exceptional. For most Southeast Asians in most periods before the nineteenth century, security was sought on the one hand from the armed strength of the household, its kin, or its patron, and on the other by the supernatural order. Evil or inappropriate actions would be punished by the retribution of the spirits, sometimes assisted by human agents. Similarly, one could protect one's family, crops, and property by correct ritual manipulations of the spirits, often including the sacrifice of some animal at a major feast. The power of kings and warriors, the validity of contracts, the

credibility of evidence in a trial (usually by ordeal), were all understood to be underwritten by supernatural powers. More modern forms of both secular and religious authority, relying on written codes, bureaucratic hierarchies, and more predictable and egalitarian moral universes, certainly made major advances within the cities of the region at various periods. These advances should be seen, however, against a background neither of savagery nor of anarchy, but rather of unstable vertical alliances in both the human and the spiritual worlds.

The respective roles of men and women must also be understood before describing the effects of growing commercial interaction from the fifteenth century. As in many other respects, Southeast Asia differed, and still differs, sharply from both China and India in its gender relations. We can speak of a "Southeast Asian" pattern of relatively balanced roles and economic autonomy for women and men, even if Confucianism, Islam, Buddhism, and Christianity carried external models of male dominance into the region. Southeast Asian ritual and belief systems (except where altered by those scriptural religions) typically emphasize the complementarity of male and female principles, part of the dualism that imbues much ritual life. The ancestral figures representing the creation myth of many a pre-modern village are a primal pair, male and female, representing respectively the upper world and the watery lower world whose union created mankind.

Houses were often divided into male and female spheres, while the spirits of plants, animals, metals, and fields insisted that either men or women conduct particular tasks. The male sphere included all that pertained to metals and large animals, including hunting, ploughing, metalwork, felling trees, and opening new land. Women were believed essential for transplanting and harvesting rice, growing vegetables, weaving, and in most cases pottery-making. As spirit mediums they were as active as men in religious spheres. Women and men each had their own economic autonomy, and marriage by no means rendered women dependent on men. Marital property was held jointly, marital residence was more often with the bride's than the groom's parents, descent and inheritance was bilateral, and women's claim on property was sufficiently secure to allow them to be the initiators of divorce as often as men. Attractive as this pattern seems in modern terms, it could be argued that the absence of male primogeniture, which cruelly concentrated wealth in particular dynastic lines in Early Modern Europe and China, was one of the reasons that Southeast Asians did not accumulate capital as those centers did.

Of particular relevance for commercial patterns was the expectation that women should control the money income of the household and do its marketing. The local view would have been rather that men were concerned with other things, notably status. Gambling, especially on cockfights, was a particular male passion, partly designed to show his indifference to winning or losing money. Haggling over a price was appropriate behavior only for women and foreigners, who thereby dominated commercial transactions.

This pattern proved advantageous for the Indian, Arab, Chinese, and European traders who knew how to profit from it. Temporary wives were an accepted part of the trading system for these foreigners. They were the

ideal cultural brokers, they created (at least in Southeast Asian eyes) bonds of kinship and reciprocity with the host community, and they brought knowledge of the market and marketing which a foreign male could not hope to have. As a Chinese visitor remarked of the central Vietnamese port of Hoi An, "The women were very good at trade, so the traders who came here all tended to marry a local woman to help them with their trading" (Da Shan 1699/1993, 58). Some local women, including those of the ruling circle and wives of particularly powerful foreign traders, became major commercial figures and ship owners. But like the foreign traders, they flourished in commerce because they were outside the male world of power and status. Their ability to transform that world in a capitalist direction was inherently limited.

It is remarkably fitting that one of the earliest and finest bronze artefacts known to have been produced in Southeast Asia depicts not an Indic god but a familiar female figure (Figure 1.3). She takes a break from her everyday task of weaving on a backstrap loom, such as is still found in many corners of the region, to suckle her child. She wears a simple wrap-around cloth garment such as she may have woven herself, though only by sewing two or three widths of her narrow product together. Though her upper body is bare in terms of clothing, one is struck by the intense care with which it is adorned. The hair is elegantly braided, and rich jewelry hangs from her neck and ears. The 26-cm statue was found in eastern Flores and dated to the sixth century CE. From similarities with other bronzes of the period it is thought it may have been

Figure 1.3 Bronze statue of a female weaver and child, sixth–seventh century CE, found in Flores but possibly of Borneo manufacture. 25.8 × 22.8 × 15.2 cm. Source: Reproduced by permission of the Australian National Gallery.

produced in eastern Borneo. The woman is distinctively Southeast Asian, but her appearance in an area not known otherwise for the early availability of copper, tin, or bronze technology makes one wonder whether she had become the wife or muse of some hybridized foreign trader familiar with bronze-casting techniques for religious purposes.

NOT CHINA, NOT INDIA

Southeast Asia is often seen as the awkward residue after the great civilizations of India and China have been studied, or at best as the sphere of interaction between the two. It must be repeated that the region has its own distinct environment that produced many common features of material culture and social structure, and preserved political and cultural diversity by limiting the extent to which foreign models could assimilate what had gone before. Fundamentally, Southeast Asia appears to have derived most of its modern gene pool and language stocks from the north, in the Asian mainland now occupied by China, and its religions and written cultures (except the Viet) from the west. The limits to these two crucial interactions, however, should be made clear.

Chinese civilization has been unique in human history for the longevity, scale, and bureaucratic strength of its state system, reconstituting itself on a similar organizational base after each traumatic foreign conquest or internal collapse. While China was the first large area to ban the private carriage of arms in favor of a state monopoly of force, Southeast Asia was among the last. The definition of Chinese-ness before the twentieth century was that of civilization itself, whereby the civilized insiders defined themselves as people of Ming, or Tang, or in more modern times of the "middle kingdom" (*zhongguo*), making their subjecthood inseparable from their civilization. Its boundaries were therefore uniquely clearly demarcated, as the point where the authority stopped of officials appointed from the imperial center on the basis of their knowledge of the Chinese classics. China's boundaries with Viet Nam in the south and Korea in the north have been stable for a thousand years, in sharp contrast to the Southeast Asian world of charismatic, personal, and relatively ephemeral power.

China's greatest contribution to Southeast Asian population was not the imperial subjects who migrated south from the thirteenth century and were identified by southerners as "Chinese". Rather, it was the diverse populations who moved south to escape absorption into that bureaucratic empire who brought agriculture and Southeast Asia's modern set of languages into the region. "Greater Southeast Asia" is a term that has been used for the vast regions of "not yet China" south of the Yangzi River, before the border of Chinese-ness moved south. These diverse peoples were indeed not "China" until absorbed by the empire, and their languages, cultures, and social relations were within the spectrum of diversity found in Southeast Asia. Yet since I am defining Southeast Asia largely in terms of a humid tropical environment, I accept migrating peoples as "Southeast Asia" only as they enter that environment on their movement southward.

Four major factors defended the state-light domain of Southeast Asia from the long-term expansion southward of successive Chinese empires. The first may be called the low exportability of Chinese civilization, tied as it was both to a difficult writing system (in contrast with alphabetic Indic scripts) and to the control of imperially appointed officials versed in the classic literature expressed in those ideograms. The second is the sea, which the Chinese state (as opposed to many enterprising merchants of its south-eastern coasts) showed no taste for subjugating. Even an island as close and strategic as Taiwan was not securely brought under imperial control until the Manchu conquest in 1683, contrasting strikingly with the achievements of the stateless Austronesians, maritime peoples who expanded from Taiwan eventually to the vast oceanic zone from Madagascar to Easter Island. It was only the world-conquering Mongol expansion that carried China into maritime adventures to Japan (1274, 1281) and to Java (1292–3). The Chinese regime that succeeded the Mongols, the Ming, briefly emulated its predecessor's world-encompassing vision, in its first, energetic phase (1368–1424). The awesome but still-mysterious maritime initiatives under the eunuch admiral Zheng He (1405–24) were not sustained or sustainable, however, since they appear to have been concerned with ideology rather than exploiting the benefits of trade.

The third factor protecting the Southeast Asian world of low population and relative statelessness was the environment of James Scott's "Zomia," the mountainous region where modern China meets Southeast Asia. The mountain barrier was itself a major obstacle for Chinese civilization, dependent on its southward expansion for finding fertile river valleys that could be irrigated for wet-rice agriculture. The transport and supply of armies also became much more difficult the further they sought to march from their supply bases in the rice-growing valleys. In their critical battles with Tai and Bama opponents in the eighteenth century, Chinese military advantages of numbers and firearms technology tended to be negated by the terrain. The most crucial factor, however, was the balance of the microbes. Chinese expansion southward had the usual advantages of compact agricultural populations that smallpox and other diseases had become endemic to them, but wrought havoc on their opponents who were too dispersed to have gained the same immunity. But in the tropics, diseases unfamiliar to the Chinese, notably malaria and cholera, balanced this advantage with a greater obstacle.

Ever since the initial Han expansion to the southern areas (including today's Viet Nam), Chinese sources routinely attribute their setbacks to the basket of tropical diseases they labeled *zhang*, often translated as "miasma." It is presumed to include malaria, but perhaps also water-borne diseases such as cholera. This mysterious disorder routinely killed more troops than did the enemy, and terror of it became a further factor deterring troops even from setting out. When the Ming Hongzhi Emperor (1488–1505) sent millions of troops to settle the southern frontier in Guangxi, most reportedly died of *zhang* and the rest fled. But while Guangxi and Yunnan were eventually subdued, Burma and Tongking were not. The mighty Qianlong Emperor (1736–95), who took the Manchu Empire to its greatest extent even at the expense of Tibet, lost his crucial campaign to subdue Burma in the 1760s for similar reasons. After the

debacle the Emperor swore off such adventures with the words: "The land of Burma is awful. Human beings cannot compete with seasons of heaven and water and soil. It is very pitiful to see that our crack soldiers and elite generals died of *zhang* for nothing" (translated in Yang, 2010).

The fourth barrier to Chinese expansion southward were the ancestors of the Vietnamese, who controlled the most natural avenue for such expansion across the Red River delta (Tongking). The Tongking Gulf was a major maritime trading zone, and the Red River one of the trade arteries into Guangxi. The first documented kingdom in the region, which Chinese sources labeled Nanyue, embraced both Tongking and what is today Guangdong in south China, in the second century BCE. This came under the control of the expanding Han Empire that laid the basis of Chinese power in 111 BCE. Direct Chinese rule came in 43 CE, putting down resistance led by the first of Viet Nam's long list of nationalist heroes, the Trung sisters. Tongking therefore became "Chinese" in administration and written culture earlier and more thoroughly than much of modern China. In 679, at the peak of the success of the Tang Dynasty, this civilized status was recognized by the creation of a "Protectorate of Annan" in the delta.

During the thousand-year Chinese rule of the Tongking area, a literate ruling class, schooled in Chinese methods of reporting and accountability, acquired the essential tools for its remarkable ability to turn back Chinese expansion. In 939, during China's troubles between Tang and Song dynasties, this elite took charge of its own affairs and formed an independent polity, labeled Jiaozhi by the Chinese. While other such polities were eventually reabsorbed into the next successful Chinese dynasty, Jiaozhi twice turned back invasions by the Song (981 and 1077), and thrice more by the Mongols ruling China as the Yuan Dynasty (1257, 1285, 1287). Although the Mongols succeeded each time in occupying the Dai Viet capital (modern Hanoi), they eventually withdrew under pressure from the *zhang* diseases mentioned above, guerrilla resistance from the Viet, and a skillful Viet policy of agreeing to send tribute to China in return for effective independence.

The fifteenth century was decisive in transforming Dai Viet into a military power that could henceforth hold China at bay. The Ming Dynasty, in the same exceptional world-conquering moment that had sent Zheng He on his massive foreign adventures, occupied Dai Viet for two decades (1406–27). This occupation was achieved by one of the first systematic uses of gunpowder technology in Asia, but a consequence was that Vietnamese turned the same technology against the Chinese to drive them out. After this military success of 1427, the Le Dynasty of Dai Viet set the pace of firearms technology in Southeast Asia, able to expand at the expense of previous rivals in Champa and Laos, as well as holding out China. Underlying these military successes was the social transformation of Vietnamese society. Chinese techniques of dyke-building helped Tongking become the rice bowl that it has remained, and the population more than doubled during the century. In this way Dai Viet prevented further Chinese expansion along the coastal plain. Instead it was the Viet who carried the Chinese model of intensive delta agriculture,

Confucian-style administration, and a reverence for the Chinese classics ever further southward in the ensuing four centuries (Chapter 9).

India might seem more difficult to disentangle from Southeast Asia, since the European imaginary before the nineteenth century saw all the littoral of the Indian Ocean as "India." For mediaeval Europeans this exotic place was the source of the spices they badly needed, and these turned out to be as much in Southeast as in South Asia. The Dutch and Spanish believed that their major bases in Asia were in India, and called the people of the island world "Indians" (Dutch *Indiër*; Spanish *Indio*) until the twentieth century. Unlike China this was clearly not a state but a region of many states and non-states large and small.

Asians never suffered this confusion. Despite much shared culture the geography seemed distinct, with a serious sea voyage the only practical means of communication across the Bay of Bengal and the jumble of mountains between the Bhramaputra and Irrawaddy deltas. The Vedic texts labeled Southeast Asia *Suvarnabhumi*, "gold-land," while early Southeast Asian texts were aware of the source of Buddhism in *Bharat* or *Gurjaradesa*. Islamic traders around the Indian Ocean were clear about the geographic distinction between "Below the Winds" (Southeast Asia) and "Above the Winds" (South and West Asia). Southern India, like southernmost China, was "Southeast Asian" in its pluralities and resistance to imperial absorption. Most of Southeast Asia's maritime exchanges that created the "Sanskrit cosmopolis" were with the southern regions outside the control of the successive powers in the Ganges valley. In the political sense we used for "not-China," it was only with the late eighteenth-century British unification of the sub-continent that Southeast Asia was clearly also "not-India."

Even before the advent of British rule in India, religion had created a further dichotomy between it and Southeast Asia. The *dwidharma* of Buddhism and Saivism had united Southeast Asia and India in the first millennium CE, so that Indian culture was vastly more influential than Chinese everywhere except Dai Viet (Chapter 2). But by the fifteenth century Buddhism had virtually died in India, while the Burmese, Tai, and Khmer worlds had adopted the strict Theravada Buddhism of Sri Lanka. Islam, a minority almost everywhere in India, became in the island world the religion of states at about the same time, and ultimately a kind of orthodoxy that excluded the Hindu gods from every domain except literature, dance, and mythology.