CHAPTER 1

Population diversity and rice in Laos

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Modern humans evolved in Africa beginning around 200,000 years ago, from where they spread first to the Middle East and thence to Asia and Australia. They were hunter-gatherers who developed a profound knowledge of the natural environment and evolved a sophisticated material culture in the course of their search for food and shelter. A large number of their temporary and semipermanent settlement sites have been discovered and excavated in different parts of mainland Southeast Asia reaching back some 40,000 years.

Southeast Asian stone-age sites fall roughly into two groups: (1) coastal, especially estuarine, sites whose inhabitants exploited the bountiful resources of the sea as well as the coastal lowlands; and (2) inland sites situated in caves and rock shelters above river valleys. Many early coastal sites must have been progressively submerged as sea levels rose after the last ice age, around 20,000 years ago, forcing people to move to higher ground. Inland sites reveal that, though population was more thinly spread than along the coast, most of the interior of mainland Southeast Asia, including the area covered by present-day Laos, was already widely inhabited by these early hunter-gatherers. Who they were we do not know, though they may have been akin to the Orang Asli of peninsular Malaya or the negritos of the Andaman Islands.

By 15,000 years ago, a material culture known as the Hoabinhian, named after sites excavated in the 1920s in the Vietnamese province of Hoa Binh, began to spread throughout much of mainland Southeast Asia. Hoabinhian sites in Laos have yielded core choppers, usually worked on one face only, stone axes and flake knives and scrapers, and points and spatulae made of bone. These were used to make traps, snares, and containers of wood, bamboo, and rattan that were easier and lighter to carry than the stone tools left at sites to which bands would repeatedly return. These material remains were associated with a modern fauna, including frogs, turtles, monkeys, squirrels, civets, and small deer. Some larger species—pigs, cattle, and large deer—also appear. By 10,000 years ago, hand-made pottery was being produced.

The hunter-gatherer lifestyle represented by the Hoabinhian "techno-complex" (Gorman 1971) has persisted as a successful way of life for forest hunter-gatherers such as the Mlabri (Yumbri) right up to the present. It was not, however, a static culture, but one that creatively evolved with changing environmental conditions to form

regional variants. A number of cave sites in northern Thailand illustrate such developments. As sites became more permanent, the collection and grinding of wild seeds and grains appear to have provided an increasing proportion of the diet. Few excavations have been carried out in Laos, but there is little doubt that similar developments took place within the Mekong basin as were happening within that of the Chao Phraya. One significant development over this period was that we occasionally find deliberate inhumation of the dead, mostly in a flexed position. Another, judging by the human remains available, was that the population was becoming more characteristically Mongoloid in anatomy.

The transition to settled agriculture

It used to be thought that the domestication of rice might have taken place in mainland Southeast Asia. More accurate dating procedures now make this unlikely. Charles Higham argues that rice was probably first domesticated from wild strains in the Yangzi valley, which was, therefore, "one of the very few areas in Eurasia that witnessed a Neolithic Revolution, the transition from hunting and gathering to agriculture" (Higham 2002, p 84). This probably occurred between 8,000 and 6,000 BCE, after which the innovation diffused slowly into southern China and west into Yunnan. From there, settled agriculture based on rice production filtered southeast down the Red River valley and south down the Mekong valley by at least 4,000 BCE. Rice became widespread throughout mainland Southeast Asia by 2,000 BCE.

The key role of the upper and middle Mekong in the expansion of settled agriculture from Yunnan to the plains of northern and northeastern Thailand has been indicated by a site survey of the upper reaches of the river and its northern tributaries. This revealed numerous small settlement mounds, along with samples of the black incised pottery common to Yunnan and Vietnam (Higham 2002). None of these sites in Laos have yet been scientifically excavated, but what the pattern of settlement suggests is the intrusion of a new population, in all likelihood speakers of Austroasiatic (Mon-Khmer) languages, which by the last centuries BCE had spread south across the plains of the central Chao Phraya and down the Mekong into Cambodia. They were accompanied by the domestic dog, the first remains of which date from early agricultural sites. At the same time, Austronesian speakers (of the Chamic subgroup) had settled along the coast of Vietnam, perhaps around the lower Mekong Delta area later identified with the kingdom of Funan.

Four archaeological sites in northeast Thailand, of which the two best known are Ban Chian and Non Nok Tha, provide important evidence of new Neolithic settlements in the Mekong valley in the early second millennium BCE. The picture we have is of quite large agricultural communities practicing horticulture and rainfed wet-rice production, probably in natural wetlands and seasonal shallow ponds. Most remarkable is the extensive use of pottery and burial of the dead in defined cemeteries, in the graves of which much of the pottery was found. From the excavations it is evident that hunting and fishing still supplied a good percentage of the diet, including large animals such as wild buffalo, pigs, and large deer. Turtles, fish, and shellfish

provided important additions to the diet. Shell ornaments and copper and bronze items have also been excavated, though claims of very early dates for metallurgy are now discounted.

By the mid-second millennium BCE, the large Neolithic settlements were in trading contact with each other. Marine shells, ornaments, and stone tools were extensively traded, and along these routes passed knowledge of techniques such as copper smelting, bronze alloying, and pottery production. Bronze metallurgy is known from western China in the third millennium BCE. From there, knowledge of early techniques probably diffused east to give rise to the wonderful Chinese Shang bronzes, and could well have also percolated south to the northern part of the Khorat Plateau. There, several important excavations have revealed a flourishing bronze-age civilization dating from between 1,500 and 500 BCE, when bronze began to give way to iron.

This bronze-age culture undoubtedly extended across the Mekong to Laos, where the tin essential to form bronze (which is stronger than copper) alloys was being mined in the Nam Pa Taen valley. In the foothills east of the Mekong, it seems that a parallel culture was developing, based on horticulture and cultivation of taro and other root crops and dry-field rice. By the mid-first millennium BCE, farmers on the Khorat Plateau in northeast Thailand were using iron-tipped ploughs pulled by domesticated water buffaloes.

The early iron age lasted roughly a millennium until the rise of the first large-scale kingdoms (mandalas) in mainland Southeast Asia. This coincided with a remarkable culture located in the region of Xieng Khouang in Laos. This was the megalithic culture associated in its early (Hua Phan) phase with standing menhirs (preiron age) and in its later (Xieng Khouang) phase with the remarkable stone jars that give the Plain of Jars its name. These jars measure on average around 1.5 m in height and diameter, with some much larger, weighing as much as 15 tons. That these were part of a funerary cult is indicated by what appears to be a central crematorium at Ban Ang. Higham (1989) dates the jars to between the third century BCE and the third century CE.

Archaeological investigations have thrown no light on the ethnic or linguistic affinities of the "people of the jars," but it seems more likely that they spoke an Austroasiatic rather than an Austronesian language. This would accord with a strong oral tradition among the Khmu, the largest Austroasiatic-speaking minority in northern Laos, that the jars were sculpted by their ancestors. Lao tradition concurs in ascribing the jars to the Khom, early Mon-Khmer speakers (Stuart-Fox 1998).

Ethnic diversity in mainland Southeast Asia

By the mid-first millennium CE, small, local principalities ruled by powerful families were beginning to coalesce into larger kingdoms. This process is often referred to as "state formation," but these expanding "circles of power" are better described by the Indian term mandala (Wolters 1982). At the time of Funan, in the first known mandala in mainland Southeast Asia, located in southeastern Cambodia and southern Vietnam, Austroasiatic-speaking peoples were spread thinly across all of what is now

southern Vietnam, Cambodia, Laos, Thailand, and southern Myanmar. An Austrone-sian-speaking people, the Cham, were creating their own polity along the coast of central Vietnam, while, in the Red River Delta, Vietnamese and Muong speakers had been incorporated into the southernmost province of China.

Around the fifth century CE, a center of Khmer power developed in the region of Champassak, in what is now southern Laos. This kingdom extended its power south of the Falls of Khon marking the present-day boundary between Laos and Cambodia. It subsequently divided into two mandalas—"land Zhenla" on the middle Mekong and "water Zhenla" in Cambodia. Land Zhenla succeeded in defeating Funan to establish the basis for the growth of Cambodian power in the ninth century that came with the establishment of the mandala of Angkor. Meanwhile, a center of Mon power developed in southern Thailand, with smaller mandalas on the Khorat Plateau.

The economic basis for this process of mandala formation lay in the tribute extracted from villages (in the form of rice, other staples, resources, and products) by a powerful central ruler. Faced with demands for tribute, established villages could do little but pay. The only alternative was to move. Land was plentiful and people could reconstruct their villages relatively easily. This was more difficult if they grew wet rice, but was easy for villages growing dry-field rice, supplemented by vegetables and root crops. The dispersion of Austroasiatic (Mon-Khmer)-speaking peoples into the uplands of Laos, Cambodia, and Thailand and of Austronesian-speaking minorities into the highlands of southern Vietnam was probably partly a response to mandala formation by peoples determined to avoid being drawn into these early circles of power. This was a process that occurred frequently in the history of the region, right through to French colonial times.

By the beginning of the second millennium CE, centers of power, principally Khmer or Mon, were scattered across mainland Southeast Asia from southern Cambodia to northern Thailand, including in Laos—Champassak, the Thakhek region, the Vientiane plain, and probably also Luang Prabang (all four straddling the Mekong). Mon mandalas existed in northern as well as southern Thailand, and Mon influence probably extended throughout much of the middle Mekong. As the power of Angkor grew in the eleventh century, Khmer power extended up the Mekong and across the Khorat Plateau to reach its greatest extent in the twelfth century. Thereafter, it waned, leaving something of a vacuum that was quickly filled by new peoples who had been filtering for at least two or three centuries into northern and central Thailand and Laos.

These peoples spoke Tai (Daic) languages. They included peoples who came to be known as the Tai-Lao of the Mekong valley, the Tai-Phuan of Xieng Khouang, the Tai-Shan of the northeast Burma highlands, the Tai-Nyuan of northern Thailand, and the Tai-Sayam of central Thailand. All share certain cultural characteristics, including wet-field rice cultivation (of one variety or another), worship of nature spirits (*phi*), and political organization in the form of *meuang*. This was not a territorial unit, but a socio-political structure in which a hereditary aristocratic elite claimed the loyalty of a free peasantry based on reciprocal obligations. The peasantry helped cultivate the lands of the ruling family and could be conscripted to fight under its command. In

return, the ruling elite was responsible for the protection and well-being of the meuang through propitiation of the phi meuang and organization of military defense.

Little is kown about the slow migration, probably from before the eighth century, of Tai peoples from southern China into northern Vietnam, Laos, and Burma (now Myanmar). It may have been, however, partly in response to Chinese attempts to tighten their administrative control over minority peoples in southern China (Wyatt 1984). Their movement would have been slow, from one river valley to the next as population expanded and land could be wrested from whoever was already there. Partly the process would have been peaceful: Tai farmers taking up vacant land along valley floors, laboriously constructing their rice fields and irrigation channels, intermingling with people already there, speaking Austroasiatic languages, and farming rain-dependent rice supplemented by hunting and gathering of forest products. At first, the Tai speakers were probably partly dependent on these neighbors (Khmu, Lamet) for food and assistance. But, as their numbers grew, conflict must have at times occurred. Eventually, their superior political organization would have enabled the Tai to take control of the valley and force the earlier inhabitants to move to higher ground.

For the Tai-Lao, this slow migration eventually brought them down the southwest-flowing tributaries of the Mekong from the Tai highlands of Vietnam (and the region of Dien Bien Phu, known to the Tai as Meuang Thaeng). One of these tributaries was the Nam U and another was the Nam Khan, which brought them to Luang Prabang, then known as Meuang Sua, a river junction probably ruled over by a local Khmu prince. This became the first center of Lao power in northern Laos, and the first capital of the Lao kingdom of Lan Xang (founded in the mid-fourteenth century).

Migration of Tai peoples continued elsewhere—into the headwaters and central basin of the Chao Phraya River, onto the plateau of Xieng Khouang and the plateaus of central Laos, and south to the riverine plains along the Mekong. There they encountered what remained of earlier organized principalities of Austroasiaticspeaking peoples—Khmer, Mon, and others—with higher levels of material culture (based on Buddhism and Indian-derived writing systems and artistic canons). In the long process of mutual assimilation that followed, Tai princes adopted much of the superior Mon-Khmer culture of the Chao Phraya and Mekong basins, but imposed both their political control and their language on the existing population. Lao meuang thus came to incorporate a mixed population, in which intermarriage would have been increasingly common. As these expanded in power, they probably drew within their orbit upland villages of people determined to preserve their own ways of life. Other peoples moved deeper into the mountains to escape any form of political control.

Much later, in the late eighteenth and early nineteenth centuries, yet other ethnic groups began migrating into Laos mainly from southern China, once again to escape tightening administrative controls that threatened their cultural independence and freedom. These were the Hmong-Mien- and Tibeto-Burman-speaking peoples. Of these two broad groups, the Hmong spread most deeply into Laos, settling at high altitudes in the mountains of northern Laos, the mountainous areas surrounding the Plain of Jars in Xieng Kouang Province, to the provinces of Borikhamxay, and across to Sayabouly Province. The Mien and Tibeto-Burman tribes such as the Akha, Phunoi,

and Lolo confined themselves to the far north. Thus was finally created the patchwork pattern of ethnic and linguistic diversity characteristic of Laos today.

Ethno-linguistic diversity in Laos

In its 1995 census, the government of the Lao People's Democratic Republic recognized 47 official ethno-linguistic groups (National Statistical Centre 1997). Other counts have identified as many as 130 different groups, based on self-definition (Chazée 1999). These can be divided into four major groups on the basis of language: Lao-Tai (66.2%), Austroasiatic (Mon-Khmer) (22.7%), Hmong-Yao (or Miao-Yao) (7.4%), and Tibeto-Burman (2.9%). To these may be added a fifth group comprising small numbers of Chinese from Yunnan, known as the Ho, who have been resident in northern Phongsaly Province for some two centuries. Some scholars include the Ho in the Tibeto-Burman family and distinguish them from immigrant Chinese from other parts of China, who together with resident Cambodians, Burmese (mainly Shan), Thai, and Vietnamese constitute the fifth population group. None in this fifth group are rice-growers, however.

Ethnic Lao (including the Phuan of Xieng Khouang) constitute 52.5% of the total Lao population and are concentrated in the Mekong lowlands, along river valleys and on plateaus. In the northern provinces of Phongsaly, Luang Namtha, and Bokeo, their place is taken by the Tai-Leu, accounting for 2.6%. A further 10.3% are upland Tai (Phutai), including Black, Red, and White Tai, named for the colors of their traditional dress, and the Phou Tai of Khammouane and Savannakhet in central Laos (Goudineau 2003, p 14). Several other small Tai groups speak different dialects and define themselves as different from the Lao. Chazée (1999, p 2) lists 27 different ethno-linguistic groups within the Lao-Tai family, though officially only six are recognized (Lao, Leu, Nyuan, Sek, Yang, and Phutai).

All groups in the Lao-Tai family cultivate wet-field rice, most commonly glutinous varieties. They live in sedentary villages, often quite large, of houses built off the ground on stilts or poles. Social distinctions persist, separating aristocrats from commoners. Most are Buddhists, and all propitiate local spirits (*phi*). The Lao-Tai family forms the general category of Lao Loum, or lowland Lao (UNDP 2002).

The 30 officially recognized ethno-linguistic groups of the Austroasiatic family can be divided into five subcategories, of which two—Palaungic and Khmuic—are located only in northern Laos, one (Vietic) is confined to a strip along the Lao-Vietnamese frontier, and the remaining two—Katuic and Bahnaric—are found only in the plateaus and mountains of southern Laos. Chazée (1999, p 51) reports having identified 59 distinct ethnic and "subethnic" minorities in this family. Many of the largest group are the Khamu, accounting for 11% of the Lao population. The two largest groups in the south are the Katang (2.1%) and the Makong (2%). No other group numbers more than 1%.

The minorities composing the Austroasiatic family all live at higher altitudes than the Lao, in smaller villages containing houses on shorter stilts or poles. Some produce rice in rainfed paddies; others grow dry-field rice using slash-and-burn meth-

ods. Communities are not hierarchically stratified, but kin groups may be identified with totemic animals. Most are animist, worshipping a variety of spirits identified with the locality, house, or family. Some have converted to Buddhism or Christianity through contact with Lao neighbors or foreign missionaries. Together these minorities in the Austroasiatic family constitute the general category of Lao Theung, Lao of the (mid-altitude) slopes.

The Hmong-Yao group contains the Hmong (6.9%) (divided by Chazée into two subgroups) and two smaller Yao minorities together amounting to 0.5%. Eight Tibeto-Burman minorities are officially recognized, of which only the Akha (1.9%) account for more than 1% of the total population. In contrast, Chazée recognizes 33 ethnic and subethnic groups. Both Hmong and Yao are further divided into exogamous patrilineal clans, 15 for the Hmong and 12 for the Yao, who are further divided into subclans. Most reside at higher altitudes than the Austroasiatic minorities, and differ from them by building their houses on the ground. They grow nonglutinous rice using slash-and-burn methods. Both have been influenced by centuries of contact with the Chinese before migrating to Laos, the Yao more than the Hmong. For example, the Yao use Chinese characters to write their religious and customary texts, and for both the worship of ancestral spirits is important.

The Tibeto-Burman minorities are mostly confined to the far north of Laos in the province of Phongsaly. They generally live at slightly lower altitudes than the Hmong and Yao, but like them build their houses on the ground. They are also swidden farmers who prefer nonglutinous rice to the glutinous varieties. Each group worships its own pantheon of animist spirits, except the Phounoi, who have converted to Buddhism. Minorities of the Hmong-Yao and Tibeto-Burman families are together referred to as Lao Soung, Lao of the mountain tops.

The persistence of the extraordinary ethno-linguistic diversity in Laos reflects, in part, past difficulties in communication throughout the country. The diversity and history of the individual ethnic groups are also reflected in the diversity of, and within, the rice-growing environments within the country that have also persisted until relatively recently, and which are reported elsewhere in this book. Changes, both governmentinitiated and as a direct result of improvements in communication, are resulting in increased interaction among the ethnic groups, with minority groups having increased contact with the ethnic Lao majority, particularly as a result of education initiatives and increased commercialization of agriculture. Traditional upland cultivation practices based on slash-and-burn systems will be replaced by more sustainable forms of agriculture. In the lowland environment, modern improved rice varieties have already largely replaced traditional varieties. Fortunately, extensive germplasm collections undertaken during 1995 to 2000 will enable the conservation and preservation of much of the traditional rice germplasm of Laos (see Chapter 9). However, much of the indigenous knowledge associated with past traditional agricultural practices has a high probability of being lost.

Government policies are not the only basis of the changes that are taking place in Laos. As in other parts of Southeast Asia, people of Laos are moving from villages into towns to seek employment and a better life. Although this is a movement that is

now primarily affecting ethnic Lao, it is also likely to affect ethnic minority families in the future as differences in standards of living increase between the provincial cities along the Mekong and rural areas. Considerable internal migration is already taking place within provinces as families move to district and provincial capitals (Bounthavy and Taillard 2000, p 50-57).

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Notes

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