

Chapter 2

THE ENVIRONMENT AND HISTORICAL BACKGROUND OF THE DOI INTHANON RANGE

Environmental Factors

The seven study villages are found in the hills west of Chiang Mai, the massif known as the Doi Inthanon Range which runs generally north and south between the Ping River and the Thai-Burmese border. This range which consists of various series of limestone rocks has a spine of granite with its highest peak, Doi Inthanon, 2,590 meters in altitude. Commercially important minerals, including tin, scheelite, tungsten and garnets are found at several sites in this range. Bo Kaeo, in Samoeng District is a major tin mining center, iron ore is found near the Bo Luang plateau, and many small copper finds exist in the Inthanon Range as well.

Various streams, mostly flowing eastward or westward, cut into the range carving out narrow alluvial terraces in small basins, some of which are quite deep. One large waterway, the Mae Chaem River, flows southward. Virtually all of these streams enter the Ping River and the Chao Phraya watershed. A number of intermontane basins exist the largest of which are now the population centers of Omkoi, Mae Chaem, Samoeng, Muang Ngai, and Pai.

As with the rest of Thailand and Mainland Southeast Asia, this area is subject to a monsoon climate. At the beginning of the traditional Thai solar calendar year, in April, the sun

begins to move northward. This is the hottest part of the year, with temperatures often over 40 degrees. With this comes the southwest monsoon, that continues until October (when typhoons may also bring water to this region). These two supply almost all of the area's water supply. From December until April, the climate is dry since the northeast monsoon only rarely brings precipitation to the Chiang Mai area. Although there is no accurate data on rainfall in these hills, Chiang Mai Province (measured at the Chiang Mai airport) rainfall averages about 1,200 mm. annually but with considerable fluctuations from lows of around 900 mm. (as in 1906 (Garrett & Kerr 1952, p. 18) and highs of over 2,000 mm. In the hills, averages are somewhat higher. Robbins and Tem Smitinand estimated that at elevations over 1,000 meters on Doi Inthanon (and this would be true elsewhere), rainfall averages at least 2,000 mm. annually (1966, p. 209). Measurements taken at an elevation of somewhat less than 1,000 meters on Doi Pui, just to the west of Chiang Mai city, in 1965 and 1966, recorded 1,475 mm. per year (Binney 1968, pp. 80-81). Nonetheless, the highlands are also subject to fluctuations in the amount of rainfall so, since there are only few irrigation works in the Inthanon Range, this makes swidden cultivation here a risky and uncertain venture.

Human activity, though, has considerably influenced the climate of the Doi Inthanon Range. This is seen clearly in relation to the forests of the region. Uncleared (or unthinned) forest cover serves to accumulate humidity which does much to modify the most extreme effects of the dry months from November

to April. Several 19th and early-20th century Western travelers in this region remarked on the heavy dew that forced them to use tents at night to avoid being soaked (Credner, quoted in Donner 1982, p. 681). Considerable forest destruction has occurred in the Doi Inthanon Range during the past 50 years so that such dew is found only in the most remote areas even though up to 100 days are still foggy during the northeast monsoon each year. Thus, whereas soils in the forests formerly were likely to remain soft and damp throughout the year, much is now baked hard just like those of the exposed intermontane basins. This has almost surely accentuated temperature extremes at the height of the hot and cold seasons. During the winter, frost and ice has been reported at the higher elevations.

Valley soil is mostly alluvial, clayey, frequently red-yellow podzolic in type, and with poor drainage, but with moderate fertility. Soils in the foothills, sometimes red-yellow podzolics, lateritic and sandy, are often low in fertility. In moister areas, soils are colluvial, sandy loams, but sometimes lateritic as well. At elevations over 1,000 meters, is found red granitic or brown-black calcareous soils. Soils in forested areas generally have higher fertility. Opium cultivators have found that this crop grows better on limestone soils under forest cover. Binney, who studied the Pa Kluai community in the 1960s, soil tests in the Hmong's plots and found a positive correlation between high pH and successful opium cultivation as well as between their swiddening on red soils in valleys at the base of a hill. All highlanders try to grow rice below 1,000 meters since

yields drop above this height. These factors which have all influenced settlement patterns in this area.

Several forest types are found in the Doi Inthanon Range. In foothills, from 300-1,000 meters in elevation with low amounts of rainfall (under 1,000 mm.), is found the dry deciduous dipterocarp forest. Although few trees of commercial value are found here, trees in this kind of forest can coppice readily and a perpetual source of firewood exists. Elsewhere in the foothills where rainfall is greater is the moist mixed deciduous forest wherein is found teak and other varieties with considerable commercial value. Other crops include bamboos, rosewood, rattan, and various species used for making pharmaceutical preparations. In other places, usually on steep slopes or severely eroded areas there are coniferous forests. In a number of high flatland areas, though, such as in the headwaters of the Mae Chaem River (Wat Chan Tambon) and near Bo Luang, there is are extensive pine forests. Additional varieties include other evergreens, and oaks. Various orchids (dendrobium, bulbophyllum, etc.) are also found. Some pines are a source of oleo-resins, others are a source of pulp for papermaking; local residents use resinous pine for making fires. At the highest level, over 1,000 meters, in areas of heavy rainfall (1,500-2,000 meters) is the moist evergreen forest. Trees here include oak, false chestnuts, and laurels. Some lianes, bamboos, and palms are also found. In the moist mixed deciduous and in moist evergreen forests are found "Pa Miang", growths of supposedly wild tea, such as on the steep hill in the western portion of Pa Kia Nai village in Bo Kaeo.

However, given the longstanding relationship between Mon-Khmer peoples and tea cultivation and the long history of Lua (different Mon-Khmer groups) habitation in the Doi Inthanon Range, it is likely that these Pa Miang were originally planted but were somehow abandoned.

A considerable amount of fauna was traditionally found in this range but most of the big animals are no longer present. Large animals included elephants, panthers, goats, a variety of monkeys, wild boar, langurs, and gibbons, various species of deer, gaur, rhinoceros, and a considerable variety of birdlife. Karens from Ban Hong District in Lamphun recall that their grandfathers went to capture wild elephants in the Khun Chaem area, at the headwaters of the Mae Chaem River near Wat Chan village. Similarly, Thai Lu residents of Mae Sap village, between Samoeng and Bo Kaeo, told Kraiseri Nimmanahaeminda that a former Chao Muang of Chiang Mai sent a group of Lu from the now abandoned Wat Chiang Rung in Chiang Mai city to live at Mae Sap and look after his elephants and, no doubt, hunt for more. In areas near human habitation most of the larger animal species have been severely reduced in numbers or eliminated completely.

Conversely, human habitation, can favor the existence of certain species. The Red Jungle Fowl, for example, has come to be related to fired areas (like old swiddens) and bamboo, itself a fire indicator. As shall be seen, there has been human habitation in the Doi Inthanon Range for centuries, mostly by swiddeners. Collins and Pairath (1967, pp. 189-192) note that fire clears ground litter and allows for quick regrowth of

grasses both of which favor Red Jungle Fowl, which may well have evolved in response to these conditions. There are very likely other animal species also favored by proximity to human habitation, particularly if this habitation is not too dense. Such relationships could easily be thousands of years old and form what would otherwise be assumed as the primeval natural environment.

Historical Background

There is evidence of people living in the Doi Inthanon Ranges for thousands of years. However, this data is so incomplete that little can be said about who these peoples were, from where they came, or what kind of lives they led. The humid climate, the lack of written scripts until about 1,000 years ago, extreme fluctuations of population, wars, termites and other insect enemies of artifacts, and other factors have combined to destroy much of the human record. Furthermore the lack of archaeological excavations in this region has also impeded learning about the evidence that does remain. About 100 kilometers to the east of the Doi Inthanon Range, for example, in Mae Tha District of Lampang Province, is a basalt flow that has been dated to about 690,000 years ago. Under that flow, and therefore older than it early pebble tools were found (McDonald & McDonald 1975-1978, pp. 1-10). Who the people were that built that hearth lived cannot be said nor is there much of any evidence about human settlements in this area for the next 680,000 years. Obviously someone was here and they were hunters and gatherers but beyond that there is no saying what kind of

life they led. Perhaps the next earliest evidence comes from Spirit Cave, in Mae Hong Son Province, on the very western fringe of this Range. Here anthropologists have found evidence of settlement 11,000 years ago. There is a very strong possibility that cultivation of other crops--vegetables and perhaps fruit--had begun by then.

From this, the transition to the historical period is equally murky. There are references of course to the mountain, Doi Suthep (as Doi Uchubaphot or Ussubaphot--Sugar Cane or Arrow Mountain, respectively) from the time of the earliest written records. However, there is very little if any reference to the people living there until about 800 A.D.. At that time, a Rishi (holy man) named Suthewa (namesake of Suthep) caused the city of Hariphunchai (today known as Lamphun) to be created miraculously and instantaneously. Since Suthewa could find no one suitable for ruling this city among the local non-Buddhist people, he arranged for the Mon Buddhist Queen Cham Thewi from Lawa Buri (considered to be present day Lopburi) to come and rule. On her arrival, the local Lua ruler, Vilangka, was strongly attracted to her. She resisted his advances and a battle between the two sides broke out. Cham Thewi magically defeated her adversary and succeeded in pushing Vilangka's Lua forces back into the Doi Inthanon Range where they remained the dominant component of the population for centuries. Mae Chaem valley residents tell that Vilangka ruled from Doi Suthep and four sub-chiefs, Khun Pa, Khun Puang, Khun Arachan, and Khun Arom ruled the rest of the hills.

Throughout the Doi Inthanon Range, both in valleys like Mae Chaem and in the hills like Inthanon itself, there are continual legendary references to the Lua. Similarly, there are a number of circular sites known of by local residents as "Lua tombs". One of these was studied in depth by the French anthropologist, Georges Condominas near Ban Mae Pon, at the foot of Doi Inthanon just west of Chom Thong city. He concluded that the existence of such a site indicated a high level of sophistication and that the Lua may well have ruled their own states (Condominas 1974, pp. 143-164). According to the Karens who live in the area, there are hundreds, of such old sites in and around Bo Kaeo and beyond to Mae Khapu and in another direction, towards Wat Chan, to the west of Samoeng in Ban Chan Tambon of Mae Chaem on an old trade route from Chiang Mai to Khun Yuam. One, in the Karen village of Li Su Ki, near this route, is a two meter tall temple. Quite a number of these sites were originally marked by stone slabs. Individuals like E.W. Hutchinson began identifying such stone markers in Lua areas in the Inthanon Range in the 1930s Hutchinson notes that the royal Lua tombs are reputed to be on a small knoll above the temple on Doi Suthep (Hutchinson 1935, pp. 180-182).

In the 1980s, a number of spectacular finds of Ming Dynasty Chinese and Mengrai Dynasty northern Thai pottery about 500 years old began to be found in such sites from Tak Province north well into Chiang Mai Province. The undeniable value of these artifacts indicates that the Lua played an important role in traditional society in northern Thailand. Although the finds in

the Doi Inthanon Range have not been so impressive and those to the south, they nonetheless indicate far-ranging trade and considerable economic status. Most probably the Lua supplied lowlanders, who in more recent times have been afraid of hill spirits and only rarely ventured into the highlands, with upland produce. These items ranged from hides and honey to animal skins and pharmaceutical materials that were of considerable value at that time. This trade survived the end of ceramics production at the time when the Burmese conquered Chiang Mai in the 1550s and took the potters to work in Burma. However, the Lua seem to have gone into a decline that was accentuated during many decades of fighting between the Burmese, the central Thai, and the northern Thai from the mid-1700s until about 1824. During this time almost all the population in northern Thailand was dislocated, Chiang Mai city itself was depopulated and virtually abandoned, and great demographic shifts occurred with many northern Thai ending up far away from their homeland in places near Luang Prabang or in Khorat, Saraburi, and Ratburi. Hoards of Buddhist manuscripts in upland caves in Mae Hong Son (Keyes 1970, p. 225) and at least two sites in Mae Chaem seem to have belonged to Lua who became Buddhist.

The fate of the Lua people who built these structures and apparently inhabited areas throughout the Doi Inthanon Range is uncertain but quite a number of them seem to have assimilated into Thai life. Karens living throughout the Doi Inthanon Range also tell of a plague that occurred about 1900 that, they, say decimated the Lua population. That this has not been widely

realized is a result of misunderstanding what the definition of Lua. Lua was not a strictly ethnic or racial term; rather, it referred to peoples living in hill areas or remote valleys in the north of present-day Thailand and nearby. Sometimes they were Tibeto-Burman and sometimes they were Mon-Khmer, or even members of other language groups. Karens were sometimes mistaken for as Lua and called "Lua" by the Thai.

Thais were not modern Western-style ethnographers, classifying people in terms of racial extraction. Rather the traditional Thai classified people in terms of lifestyle. Even though there is a language family today known as Lua, this does not mean that the Thai recognized this language, which was unfamiliar to them in any case. So, for the most part Lua were non-Buddhist hill dwellers and Thai were Buddhist valley dwellers. Exceptions occurred and some Buddhist Lua-speaking valley-dwelling uplanders (like, as shall be shown, residents of the Mae Chaem Valley) were Thai.

It is hardly surprising, thus, that many lowlanders in Mae Chaem, where there are quite a few legends about Lua and artifacts related to Lua culture, wear skirts (pha sin) in the Lua style (Songsak and Cheesman 1987, p. 67). These people almost surely were descended from Lua-speakers in the past. There are former Lua-speakers elsewhere, in Samoeng, in Hang Dong, San Pa Thong, and in Chom Thong as well as in Chiang Mai city who are Thai, but assimilated from Lua. At present a number of Lua villages remain in the Doi Inthanon Range, in and around Bo Luang, in Mae Chaem, and near Pong Yaeng, Mae Rim enroute to

Samoeng. At least two of these groups speak mutually unintelligible languages, showing the non-ethnic nature of the term, Lua. Lua-speakers who are Thai were found elsewhere in the Doi Inthanon Range, Quite likely, there were some in Samoeng, where according to Kraisri Nimmanahaeminda, villagers otherwise indistinguishable from one another whose ancestors were Lua, offer the spirits pork whereas villagers with Thai ancestors offer the spirits chicken. Dating all of this is difficult both because of the lack of archaeological research into peoples of this area but also because the non-Buddhist Lua were illiterate and left no written records.

Buddhist relics (which are sometimes dated) associated with Thai culture that had a written script from the 13th century on, begin to appear in the Doi Inthanon Range from the 15th century on. In Mae Chaem, for example, there are Sukhothai and Chiang Saen Buddha images in Chang Khoeng Tambon but these images (one with an inscription dating it at 1453) might have been brought to Mae Chaem long after its construction. More likely, however, is that these images indeed were in the hills for centuries; the old Buddha image is found at Wat Nyaung Luang which villagers say was formerly a Lua wat. The present villagers are almost surely Thai-ized Lua. Elsewhere in the vicinity are two ruined chedi in Chang Khoeng that resemble early Lan Na chedi elsewhere. There was also such a ruined Lan Na style chedi at the village of Wat Chan (at Wat Chan itself), also in Mae Chaem but days of walking away to the north. This however was remade in a more modern style within the last century. The epigraphist, Hans Pentz, has

identified and read two stone inscriptions from the Doi Inthanon Range. The first, found at Wat Nong Bua, in Pai District of Mae Hong Son Province, was written in 1489, telling of the construction there of a chedi and wihan at a temple called Wat Si Koet. Data in the inscription indicates political, and presumably other links with Chiang Mai and not centers to the west of Pai. The second inscription, dated 1551, was found at an abandoned temple in Muang Win, to the southwest of Chiang Mai city in an upland valley in San Pa Tong District. Such a small portion of this inscription remains that it is impossible to tell why it was written except that perhaps it perhaps was to commemorate the construction of a chedi (Penth 1977, pp. 179-188). A reference to the Lua village of Kong Loi (near Bo Luang in Hot District and still a Lua-speaking place) in 1607 by a Thai prisoner of war in the poem, Khlong Mangtra describes the place as "Bo Ban" (Mine Village), a likely reference to the iron tools that were produced there (1976, p. 34). These are but other indications of an early presence of Lua-speaking Thai in the Doi Inthanon Range. Another location of such people is on the upper reaches of the Mae Taeng River where there are traces of old fortifications and collections of centuries-old religious manuscripts in the temples there (Penth 1977, p. 188).

Other indications are the caves with hoards of manuscripts and at least one upland site identified by Karens living nearby as an abandoned "Lua village" on Doi Inthanon with thousands of old northern Thai ceramics and Ming Dynasty Chinese blue and white shards scattered on the ground (a similar site exists in

San Sai, see Kraisri 1960). Similarly, in some places in the valleys were linked by "Lua" roads, traces of which remained until recently. One of the most popular of these routes, which was made from rock chunks, led from Ban Thuang in Chang Khoeng Tambon, Mae Chaem District to the front of Wat Chang Khoeng, just across from the Mae Chaem District Offices.

These indications show that many of the Thai living in or near the Doi Inthanon Range almost surely had ancestors who were Lua speakers. The process of assimilation into Thai life seems, if anything, to have accelerated in the 19th century.

During the fighting occurring at the end of the 18th century and the beginning of the 19th century, Karens began to enter these hills, coming from westward from Burma. Although Karens may well have inhabited the Doi Inthanon Range before 1800, there are no records of them until that time. Discussions with old Karens about their village's past, although not conclusive, seems to point to migration from Burma, with some stops along the way, about two centuries ago.

Thai rulers in Chiang Mai, seeking to rebuild their depopulated kingdom, surely encouraged the Karens to come, since the greater the population, the stronger Chiang Mai would be. As the Karens entered the Doi Inthanon Range, they settled in areas away from transportation routes that also had been formerly inhabited by Lua.

Introducing the Karen

Two Karen groups entered the Doi Inthanon Range: the Sgaw and the Pwo. The Sgaw are more numerous than the Pwo both in

total numbers and in the study area: all of the villages being examined as well as almost all the Karens in the Doi Inthanon Range are Sgaw. Some Pwo live south of Hot and in the hills thereabouts as well as just west of the Doi Inthanon Range in the province of Mae Hong Son. Besides language differences (the two languages can be mutually intelligible but a speaker of Pwo will not easily be able to speak with Sgaws), there are different styles of dress and various matters related to spirit worship. The most important is the particular attachment that animist Pwos place on worshipping an important matrilineal spirit. Karens were widely feared by their neighbors as magicians who could cast mortal spells on their enemies.

Many of these Karens were pioneer swiddeners in which they occupied individual sites for only a couple of years before moving to farm elsewhere. Although the Lua quite likely planted some paddy rice, the Karens probably did not since the investment of time and energy needed to construct dikes and, perhaps, terraces, was too great given the time they spent in one location. Oral traditions tells that Karen longhouses were used at this time, a residential style more suitable for highly mobile people and a more dangerous forest environment than at present. These Karens also engaged in the same sort of trade that the Lua had, supplying lowlanders with forest produce as well as cotton cloth and silver jewelry. Although many Lua now deny that they had anything to do with Karens, there was some intermarriage between the two groups and some former Lua became Karen, perhaps without their present-day Karen descendants having any idea of

this branch of their family tree. Karens often preferred living in remote areas, out of trouble's way.

Traditionally, animist Karens believed in numerous spirits ranging from ancestral spirits to spirits of places and objects. Many taboos were observed in appeasing or trying to avoid offending these spirits. Quite a number of these taboos were locally specific, such as Sgaw Karens in Ban Den, just south of Doi Inthanon, believing that every time a Karen kills a monkey, a child in the village dies. Karens in Musikee (the area near Wat Chan, this Karen term being a translation of Khun Chaem, or the headwaters of the [Mae] Chaem River), however, claim never to have heard of this, saying that the Ban Den Karen were wrong. Regardless of what particular practice is carried out by what particular village, however, animist Karens had definite ideas of what could and could not be done and were quite conservative in accepting innovations.

Another factor impeding innovation was the village nature of traditional Karen society. Customarily, before new courses of action were accepted, the consent of the entire village (or at least that of the adult males) was sought. Even in small villages, this was not always forthcoming particularly in non-hierarchical societies like that of the Karen.

Such a worldview coincides with Berger's conception of traditional society in which there is essentially one authority. Although different beliefs and practices between villages indicate that there have been changes at some time in the past, such modifications of traditional belief systems are not readily

made. When outside practices are adopted, like eating corn or chili peppers or utilizing certain Buddhist practices, decades might have passed before acceptance was complete.

Conflicts that arose in Karen society (sometimes over the adoption of new activities) or with the outside were usually resolved by one group of Karens breaking off from the point of conflict and settling elsewhere. Causes for such movement could be pressure from the outside, such as threats of taxation by the Thai government, internal village quarrels, or epidemics of smallpox and other dangerous diseases. The practice of pioneer swiddening and longhouse residence facilitated such moves. Once a breakaway group settled in a new site, though, it would maintain a conservative stance; regardless of whether innovative changes had occurred as a part of the move, the migrant Karens were almost assuredly as resistant to change as their former neighbors left behind. Such practices are well within the range Berger specified for traditional societies.

In the Doi Inthanon Range, this conservatism manifested itself also in the form of subsistence agriculture. Very little cash was exchanged in the Doi Inthanon Range, except perhaps in the buying and selling of elephants. Karen society was also apparently essentially class-free, although there are memories of and references to rich Karens who owned many elephants and bronze drums which were both status symbols for Karens in the 19th century. In terms of land, housing, clothing, and however, status markers in many societies throughout the world, land was more than ample, housing was usually in temporary structures, and

clothing was satisfied by one or two sets to last an entire year. Still, just as the Lua before them, since Karens had access to forest products desired by lowlanders, they could obtain just about all the material goods from the outside: salt, miang, and silver jewelry, they desired.

Because of the direct access Karens had to a sufficient number of resources (except salt which was available in trade) to lead a satisfactory life, the Karens in the Doi Inthanon Range controlled many of the factors in their lives, except for political factors and questions of health. As far as can be told, their nutrition was satisfactory, more complete in many ways than today. Having ample space and access to the forests surrounding their villages, Karens raised enough livestock so that protein intake was quite likely greater than today. When shortages arose, there were quite a number of forest products (less of course in the dry season) that could be foraged to help.

Karens in the 19th century had a receptivity to Buddhism which probably was a factor of the Karens living among Buddhists for centuries and of various Buddhists assimilating into Karen society and maintaining certain beliefs and practices. This ostracized from their villages as Pi Ka (supposedly possessed by a malevolent spirit and dangerous to one's neighbors) occasionally settled in Karen areas (including Bo Kaeo) well into the 20th century. Nonetheless, there were virtually no "fully" Karen Buddhists in the Doi Inthanon Range at the start of the 19th century, however.

In the 19th century, though, challenges to traditional Karen belief systems came to the Doi Inthanon Range in the form of Christianity. Starting in 1828 in Burma, Karens, mostly Sgaws, converted to Christianity in sizable numbers (presently estimated at 25 percent). Karens who made this change often became receptive to other innovations, particularly when they entered the formal educational system in Burma in which the missionaries played a role, too. Christianity and modern secular education have been two "packages" facilitating social change among the Karens. By the beginning of the 20th century, Burma had Karen lawyers, doctors, teachers, and military officers. Soon after World War II was over, there were Karen cabinet ministers in Burma and the first commander in chief of the Burmese army was a Karen. There were also Karen evangelists, some of whom had been coming to Thailand since the middle of the 19th century.

In many ways, educated Karens had made the transition from Berger's traditional society to his technological society and were able to make decisions for themselves in many areas their ancestors would or could not have. Most of these Karens were Christian and subject, of course, to the precepts of that faith which in the 19th century appeared quite paternalistic. In secular affairs, though, these Karens had considerable say in choosing what they wanted to do. These educated Karens have sometimes looked upon their backwoods cousins (like those in the Doi Inthanon Range) as uneducated and unprogressive ("You just can't teach them", a well-educated Burmese emigrant to Thailand once told the principal investigator of this study).

Nonetheless, from the middle of the 19th century on, educated Karens began evangelizing among other Karens in Burma, among Kachins in the north of that country, and among Karens in Thailand. Karens became Christians during this time for several reasons but primarily because of a widespread, popular Karen legend saying that the Karen's white younger brother would return with the Golden Book of learning given by God (called Ywa in Karen languages). When Caucasian American missionaries appeared in Burma with the Bible (Yaweh's book) many Karens felt their Golden Book had returned and took up the Christian faith. Another important reason was that becoming Christian enabled them to gain social status in Burma where the Burmans often ruled the Karens with a harsh hand. Karens in Burma and elsewhere always had the option of assimilating into Burmese life but by becoming Christian, converts could gain many of the advantages of being Burman (being literate, having access to outside world, having contacts with powerful patrons) while maintaining a Karen lifestyle. Another factor was the widespread belief among Karens that if they did not believe in spirits, the spirits could not harm them. Belief in Christianity allowed them to place their faith in a stronger power which then permitted them to look upon spirits as non-threatening. Because the Thais were more gentle in their ruling style and because many Karens in the Doi Inthanon Range (such as at Mae Khapu) and elsewhere were quite isolated from contacts with Thais, and because there were fewer evangelists in Thailand, relatively fewer Karens took up Christianity here than in Burma.

Thai Political Control of the Doi Inthanon Range

The Thai hold over the Doi Inthanon Range became more stabilized in 1831 when the city of Mae Hong Son was founded. Within a decade, Chiang Mai rulers were rebuilding two wihan in Chang Khoeng on the Mae Chaem River. Chiang Mai rulers also signed treaties, recorded on silver bands, with the Lua, the best well-known of which was that with the Lua of Bo Luang in 1856 (Kraisri 1965) that exempted the Lua from corvee and other sorts of taxation if they continued making iron tools there and paid some tribute in kind. Other such treaties were made with the Lua in the Omphai village cluster and at Bon Ho in Ban Thap Tambon of Mae Chaem District, and with Ban Kuan in Hang Dong District, generally exempting the Lua from corvee and other exactions in return for staying in one place, being loyal citizens, and paying a nominal tax in kind. Later, perhaps in the 1890s, a similar treaty was made with the Karen village of Nong Lom (Na Lo Hta in Karen) near Pha Mon on the eastern slope of Doi Inthanon (Renard 1980, p. 149). All of these treaties sought to have the Lua and Karens stay in one place, not as a means of forest preservation but as a way to increase the population and security of Chiang Mai. Both Lua and Karens were loyal citizens of the kingdom of Chiang Mai with strong personal ties to the Chao Muang, the traditional rulers of the kingdom. Also towards the end of the 19th century, it seems almost sure that the Chao Muang of Chiang Mai sent the group of Thai Lu from Wat Chiang Rung to tend his elephants at Mae Sap.

Chao Mahawong, or his successor as Chao Muang Chiang Mai, Kawilorot, appointed a villager from Ban Ko in the Mae Chaem Valley named Pinya Khuan Kaeo as the governor (Nai Khwaen of Mae Chaem Khuan Kaeo. Although he ruled the valley itself and the surrounding hills, it is doubtful if his control stretched north as far as Wat Chan. Pinya Choi was succeeded by his son-in-law Pinya Choi, perhaps around 1890 and he lived until about 1920, although for the last 19 years of his life, after Bangkok had assumed control of Chiang Mai, he enjoyed no official power. Probably such administrative changes occurred in the Bo Kaeo area as well and the Karens there would have been subject to some control from Chiang Mai.

Occasionally, northern Thai chao were given the responsibility of looking after affairs in specific hill areas. Two members of Chiang Mai royalty, Chao Mahaphrom and Chao Nan La both seem, according to old settlers in the Wat Chan area, to play a role in local affairs. Similarly the Lamphun's Chao Koson lived for many years in a Karen village in Ban Hong District and had teak concessions in the Mae Chaem area.

The Karens and Lua who signed these treaties were considered subjects (citizens) of the principality of Chiang Mai but under the supervision of lower-ranking chao like Chao Mahaphrom. Karens that paid tribute were categorized as phrai suai, a step higher than kha, which was a status reserved for prisoners of war, debt slaves, and others of less than freeman status. The Karens and Lua (and other hill peoples) in northern Thailand were never considered as aliens but members of the local system under

the care of Thai royalty, with whom often very strong links were forged.

Up until the end of the 19th century, the northern Thai chac placed almost no restrictions on the use of forests by the people. Because of the low population, if someone cleared land, that person had rights to live on it, a situation similar to homesteading in the United States. Except perhaps for teak, which belonged to the chao, all forest produce was available for anyone that chose to take it. Similarly, there were no distinctions placed between swiddening and paddy agriculture; both were considered thoroughly acceptable ways to produce food crops. This way of thinking, different from Western forestry conceptions introduced into Thailand at the end of the 19th century was to cause problems later.

Another new impact from the outside world on the Doi Inthanon Range was medicines and health care technologies. Since about the latter part of the 19th century, certain Western painkillers, cough medicines, and other medicines had been available in Chiang Mai, most often through American Presbyterian missionaries. When they began reaching the Doi Inthanon Range is impossible to say but certain medicines were becoming popular by the early-20th century.

In spite of the existence of northern Thais in highland valleys, they only rarely entered the hills to live. Fear of spirits (aided by the observation that northern Thais died there more quickly than local residents--not understanding that the lowlanders had lower resistance to various diseases like malaria

more common to the hills). Only occasionally did northern Thais, and then in large groups, venture into the hills. One common practice was to pick tea leaves to use in making fermented tea (miang) at Miang villages like Pong Yaeng, on the Mae Sa River between Mae Rim and Samoeng.

This reluctance to enter the hills began to change during the latter part of the 19th century, when teak logging companies began working in the Doi Inthanon Range. Prior to this, teak which had belonged to northern royalty, was mostly used in temple and palace construction. Because of transportation difficulties, almost none was exported.

This all changed with the coming of the British to Burma where they recognized teak as a termite- and rust-resistant wood excellent for ship construction. By the end of the 1800s they had extended their search for logs into Thailand. Concerns such as The Borneo Company and Bombay-Burmah as well as smaller enterprises run by Red Karens (Kayah) opened up the Doi Inthanon Range to many new influences. Teak stands throughout the area from around Wat Chan to Bo Kaep to the lower Mae Chaem were exploited. This no doubt proved a boon for the traditional ox caravan trade and individual peddlers (often Pa-O, known in Thai as Thongsu) that brought luxury goods and salt in exchange for miang (fermented tea). Salt was the one necessity not available in the Doi Inthanon Range and was, thus, highly prized. During the dry season when ox caravans brought salt to the hills, in remote areas like Wat Chan, it was worth five times the price in Chiang Mai; during the rainy season the price might be ten times

as high as the Chiang Mai dry season price (Dickerson 1967, p. 43).

Another change that also seems to have occurred around the end of the 19th century and the beginning of the 20th century was in rice agriculture. For reasons not clear, but related in any case to increasing political stability in the north of Thailand, Thais, Karens, and Lua all began to construct weirs, dams, and terraced rice fields (or repair ones left long idle). As a more settled residential pattern took hold, swiddening changed from pioneer to established, wherein plots around individual village sites were farmed in a rotational system. The village stayed in one place.

The results of this continued cultivation by Lua and Karen over many generations cannot be stated conclusively but there has surely been a reduction in the amount of climax forest in the Inthanon Range. Furthermore, because of the swiddening a large amount of the fertility elements in the soil have been removed and is present in the vegetation that has grown up after cultivation. The swidden system used by Karen and Lua returns these elements to the soil when the fields are burned before growing rice. However, were the forest to be completely cleared, the soil would suffer serious damage. According to a study of traditional Lua swiddening in Mae Hong Son, by two noted foresters, Paul Zinke and Sanga Sabhasri (Zinke, et al. 1978, p. 159), "The Lua system represents a solution appropriate to the area where it is practiced. The historical record, showing Lua and Karen swiddening with little apparent soil degradation very

close to the study area over centuries in some cases confirms this. The British traveler, D. Richardson traveled through Mae Sariang to Chiang Mai in the 1830s, observing that only (swiddening) highlanders had surplus rice to sell (Richardson 1834, pp. 114-118).

Given the low population density in much of the Doi Inthanon Range and the ample land suitable for cultivation as well as the availability of much wild game and forest produce, there is no reason to believe that the residents had significant nutritional deficiencies. There were problems of health, however. Malaria existed throughout the hills at lower altitudes, hookworm and other parasites shortened life, and the lack of antibiotics and other modern medicines created a situation with a high rate of mortality and low child survival throughout the area. Later studies have shown that child survival among the Hmong was higher than among the Karen; this apparently reflects longstanding conditions (Kunstadter 1987).

Introducing the Hmong

At about this time, in the last decades of the 19th century, an ethnic group that would ultimately reverse the decline in importance of highlanders in the northern Thai hills was beginning to be noticed in northern Thailand: the Hmong. Two groups of Hmong had been entering Thailand since about 1850: the White Hmong (Hmong Der) and the Green Hmong (Hmong Njua), the colors referring to dress (the White Hmong women wear pants and at the New Year the women's pants are customarily white; the Green Hmong women wear skirts with some green in them).

Intermarriage between the two groups occurs frequently but there are a number of differences in worship, housing style, and other customs. It should be noted that the term Hmong Njua denotes a color that ranges from some dark greens to blue. Although some authors have called them the Blue Hmong, they are indeed the same group. Both belong to the Miao branch Miao-Yao language family.

As with the Karens, the Hmong were a conservative, essentially traditional society. They too believed in the existence of many spirits requiring numerous taboos on various activities from courting to house plans. Although the nature of the spirits and means of appeasing them differed between Hmong and Karen, the Hmong still fit (and continue to fit) well within Berger's definition of traditional society with only a number of options for action and only a small number of authorities in each village or village cluster. The highly mobile lifestyle of Hmong pioneer swiddeners, as with their Karen counterparts, served as a safety valve when inter-group relationships deteriorated. However, as with Karens, when the Hmong reassembled in their individual groups they were as conservative as before.

Most often, these individual groups were made up of one clan, descent groups into which the Hmong are grouped. Often these clans have the same name as Chinese descent groups, like Yang or Lee, but it is uncertain whether Hmong Lee are related to Chinese Lee or not. Nonetheless, Hmong seem to have traditionally lived in single-clan settlements, this apparently only changing during upheavals surrounding the migrations to Thailand when, perhaps, single-clan settlements were not

economically sustainable. Living in single-clan units may well have fostered the conservative nature of the village; the shift to multi-clan units in the last century, may well have encouraged the receptivity to change in the last few decades.

Centuries of contact with pragmatic society seems, however, to have left its mark though. The Hmong who came to Thailand, for example, were indeed open to making changes, such as the adoption of opium cultivation or the consumption of rice as a staple food instead of corn would indicate. This served to familiarize Hmong with the use of cash at a much earlier stage than Karens who remained subsistence agriculturalists for decades longer, some essentially until the present. There is little evidence, however, of similar changes in Karen history at the same time.

This was but one difference. Peter Kunstadter has found differences in terms of child survival with Hmong children facing a much better chance of becoming adults than Karens. Roland Mischung, studying Karens and Hmong on Doi Inthanon, found that in essentially the same ecosystem, on similar soils, and apparently with the same seed varieties, Hmong were consistently able to obtain higher yields than Karens in cultivating rice. The reasons for such discrepancies are difficult to determine but surely there must be a relationship between them and what appears to have been efficient Hmong social systems. In these and other areas, Hmong seem to have been consistently able to out compete their Karen neighbors.

In another difference between Hmong and Karens, however, and

in spite of Catholic and Protestant missionaries working in China for decades, virtually none of the Hmong who migrated to China went as Christians. The missionaries' message to the Hmong and the possibility of social gain for converts did not appeal to the Hmong as much as it did to many Karens.

For centuries, Hmong have lived in China with a few groups extending into what is now Laos and in upper Burma. For almost all of this history, they were agriculturalists living in the hills of Yunnan, Kwangsi, Kweichow and other provinces in the south of China. By the early 19th century, the Ching Dynasty was in decline, unable to defend itself against Western advances. The English were the most powerful of the Western countries in the Far East at that time, coming in force to Kwangtung where they defeated the Chinese in the Opium War from 1840-1842 and opened China to the sale of opium.

Although opium was not an important crop for the Hmong at this time, the developing market for it in the major centers of China and the possibility of the Hmong growing it in their swiddens, favored the Hmong becoming major opium growers. Developing a symbiotic relationship with Chinese Muslims (known as Chin Haw in Thailand) who marketed the upland produce for the Hmong in the mid-19th century, the Hmong changed their behavior rapidly to where opium was their major crop. Unrest in southern China including a major uprising of Miao in Kweichow from 1855-1872, prompted the Hmong to move southward to the Lao states from where many of them entered northern Thailand (Grandstaff 1979, pp. 70-79). The Hmong in China frequently used corn as their

staple. As they migrated to Thailand, this gradually changed so that they are now primarily rice-eaters with corn used only as animal feed. As Tapp notes (1985, pp. 90-91), when the Hmong moved to Thailand they found that the best land for cultivating opium was at an altitude also suitable for dry rice farming, something not the case in China or Laos (or Burma or Vietnam). Now, almost every Hmong village in Thailand grows at least some rice.

Most often the entire village made moves together but this was not always so and almost every Hmong village has residents from a number of different locations. Geddes (1976), following extensive work in the opium center of Meto (Mae Tho) suggested that the Hmong in Thailand are principally opium cultivators, a situation which necessitates frequent moves to new locations. Cooper, who studied four Hmong villages (including Pa Kluai), concluded however, that Hmong mobility is not greater than swiddeners of crops besides opium and that when the Hmong changed to an opium-based economy, instability was actually reduced (Cooper 1984, p. 217). Cooper suggested that Meto might well have been exceptional in its economy being almost totally based on opium and thus distorting the picture of the Hmong economy.

Certainly, though, dealing in opium brought the Hmong into a cash economy well before of other highland groups in northern Thailand. Although many grew rice and other subsistence crops, the Hmong economy has depended on cash ever since the large-scale adoption of opium in the last century.

Technological Change in the Lowlands; Isolation in the Hills

By the end of the 19th century, though, non-agricultural changes were also to affect all of the peoples in the Doi Inthanon Range. After gradually extending control over the north, the central government of Thailand, under King Chulalongkorn, brought the northern provinces fully under its political sway. One of the most significant steps in this process, was the The Forestry Protection Law of 1897. This law was enacted just after the establishment of the Royal Forest Department which had been set up in 1896. According to this act, all forests belonged to the central government. Although there is no evidence of any overt efforts by foresters to restrict tribal peoples from swiddening in the first years of the 20th century, eventually there would be such efforts and trouble would arise because of it.

The political takeover came soon afterwards, in 1901. Central Thai Nai Amphoe took control of the north displacing local royalty in many areas of local administration. One change was that villages and multi-village clusters (Tambon) were to elect their own headmen, under the supervision of district officials. Taxation changed from the old method of suai taxation (payment in kind of local produce), to all northern Thais, Karens, and Lua (and other native peoples) being compelled to pay a tax of four silver baht, a very high rate for people that had previously been paying such amounts as 40-60 liters of rice, homespun cotton cloth, fragrant orchids (*Dendrobium scabralinguae*), rattan, and wild meat. In Wat Chan, this 4 baht

rate was reduced to 2 baht. A number of longtime Karen residents in the Bo Kaeo area still have receipts of such payments; they have kept them in bamboo tubes hidden away in their houses for decades. Nonetheless this was still a substantial sum for those in a subsistence economy. Those that could not pay were required to work off the debt, toiling for up to 2-3 months in some cases, depending on local officials.

Local resistance developed in some places; in Chang Khoeng for example in the first decades of this century, resident Karens and Thais seized the local Nai Amphoe and killed him. According to accounts that are also told by old residents in Hot, Omkoi, and San Kamphaeng Districts, similar uprisings occurred. In Mae Chaem, the District seat was moved from near where the killing occurred to its present location in Chang Khoeng village and the name of the District was changed from Chaem to Mae Chaem in 1917, perhaps according to local informants in just after the killing of the Nai Amphoe.

These new Thai laws brought them into contact with the Hmong who had generally been staying by themselves in the highest areas of the north of the country where opium grew well. With the takeover of northern Thailand during the reign of King Chulalongkorn, however, this was no longer so simple since with this takeover came laws of universal taxation and conscription. It was not long before Thai officials began attempting to enforce these regulations and trying to collect from or draft the Hmong. Not surprisingly, they resisted, and there is a record of at least one such encounter. Hmong and some Yao, angry over

attempts to conscript them in Mae Hong Son, revolted in 1921, and several skirmishes broke out. A leading central Thai official recommended chasing the non-Thai groups out of the country by burning their villages, but higher authorities suggested that a policy of benign neglect would be more productive. In lowland Karen areas, though, governmental services and new programs like the headman elections often did reach the people. In Umphang District of Tak Province, for example, a primary school was started in a Hmong village as long ago as 1932 (Tribal Research Institute et al. 1985, p. 76). Unwittingly, this was the beginning of a policy that would endure until just after World War II when new forces again directed Thai interest to the northern Thai hills. Thus, while many innovations, both technological and political were entering and precipitating change in the lowlands in Thailand, little of this change was reaching the peoples in the hills creating a gap in world view and technical expertise where one had not existed before.

Karen and Hmong fortunes differed during these decades. The Karen, cut off from old links with northern Thai royalty, their access to forest products no longer of as much utility to lowlanders as before, and rather more required to pay taxes than the remote Hmong, saw a decline in their lifestyle from the start of the 20th century. The Hmong, however, beyond the reach of Thai law and dealing in the lucrative opium trade survived this period without experiencing an erosion of their own lifestyle.

As the Thais solidified their political control of the north and the hills there, except for the resistance described above,

there was little outright fighting by northerners against the central Thais. Occasionally, however, indirect displeasure was demonstrated. The most celebrated such case was that of the monk from Ban Pang, in Ban Hong District of Lamphun, Khuba Si Wichai. This monk, who grew up in a Karen area spoke a fair amount of Pwo Karen, and became abbot of Wat Ban Pang, was perhaps the last gasp of northern Thai nationalism. After being detained by provincial officials for allegedly breaking central Thai ecclesiastical rules, he was sent to Bangkok to meet the Supreme Patriarch, King Rama VI's brother, in 1920 who reprimanded him but allowed to stay in the monkhood. Khuba Si Wichai was so popular, though, that he inspired thousands of villagers, including Thai and Karens, to help him carry out a widespread building program in which temple structures were constructed throughout northern Thailand. At least one of these projects brought him to Wat Chan while he apparently was enroute to Khun Yuam. One old Karen in Wat Chan recalled that in 1930 he had become a novice at Wat Suan Dok in Chiang Mai. During this time, he remembers that Khuba Si Wichai visited Wat Chan during this time where he found the old chedi covered by jungle growth. He helped establish a temple there, assisted in finding the first abbot, who seems to have been a Burmese Karen, and inspired the villagers to rebuild the chedi in the semi-Shan/Burmese style it remains in today.

Khuba Si Wichai's last, and most famous project, was inspiring the construction of the road up Doi Suthep in 1937. Thousands of Thais and Karens from all over Chiang Mai, including

from the Doi Inthanon Range, participated in this venture. When it was completed and Khuba Si Wichai died soon thereafter, the basic relationship between the highlanders in the hills west of Chiang Mai had not changed towards the central government. Furthermore, for the Karens, their economic importance was also declining. The produce they had traditionally supplied the rulers with were declining importance; traditional pharmaceuticals were for example losing value in the face of new Western medicines. As this occurred, the Karens tended to slip away further into the hills, maintaining very few contacts with the lowlanders. From even before the time Khuba Si Wichai had been promoting the development of Buddhism in the hills, the first proponents of Christianity to preach among Karens there were making an impact near Wat Chan. Although Karen Christians from Burma (where American Baptists had been winning converts from 1827) had evangelized successfully in the hills north of Lampang from 1884 on, there were apparently no Christians in the Doi Inthanon Range until the 20th century. In 1933, when the young Sgaw Karen Christian evangelist from Chiang Rai, Thra Bonny (then known by his non-Anglicized name, Paw Neh), a second young Christian, Saw Khaw Pen, came with the Karen Christian leader from Burma, Thra Po Htoo, to Musikee not too long after Khuba Si Wichai, they found two Karen Christian families who had come from Burma.

When the first Christian evangelists came to the Doi Inthanon Range is uncertain. The famous Presbyterian pioneer in northern Thailand, Daniel McGilvary, visited some Karens in the

1860s but official discouragement from Chiang Mai rulers and success among northern Thais diverted his attention. Probably, though, proselytizing began in the late 19th century because in 1922 when Thra Pah Wah Hai evangelized Karens in Bo Kaeo, Dong Sam Mun (west of Bo Kaeo), and Musikee, he learned that others had preceded him "long before" (U Zan n.d., p. 14).

Thra Po Htoo returned to Burma after two years, but Thra Bonny continued to work in this area. For the next three decades he evangelized and helped build the Musikee Karen church, attracting Karen Christian converts from many nearby villages. There were, thus, no Karens Christians living in Wat Chan village itself. By about 1940, Thra Bonny had set up a school between Teamegala and Wat Chan which encouraged a number of Buddhist and animist Karen children from throughout Musikee to attend this school as well.

From 1920 through the Depression in the 1930s and World War II after that, there was little interaction between the residents of the Doi Intanon Range and lowlanders, except for the opium trade, petty trade, and rare official contacts. The advocates of Christianity and Buddhism reaching Musikee were the first to really challenge traditional hill societies. Evangelists aimed at reorienting traditional belief systems in the hills and began meeting with success among the Karens who, as discussed above, were if anything more conservative than the Hmong. And as some Karens changed their behavior without being punished by the spirits, Karen living nearby gradually becoming more daring themselves.

As the attitudes of people changed, they became more receptive to the lack of danger of change. This was to be a precursor of events to come. Following the 2nd World War, many far-reaching changes were to come to the Doi Inthanon Range and the peoples living there. Never would they be the same again.

PAYAP UNIVERSITY