

Appendix D. Swidden Cultivation in Palokhi¹

The swidden cycle in Palokhi usually commences in late January, or early February, with the selection of various possible sites for swiddening. There is, of course, no clear-cut line of demarcation between agricultural cycles in terms of agricultural activities because even as they are bringing in their harvests from their swiddens and wet-rice fields, the Palokhi Karen are already considering where they will swidden next. In most cases, they do in fact have a general idea of where they intend to swidden next because they have considered the possibilities in the course of the previous year. The Palokhi Karen do not have a carefully worked out rotational fallow system for swiddens such as the Lua', for instance, have and their swiddening practices in this respect show rather more similarities with those of the Karen which have also been described by Kunstadter (1978: 81–2). Nor do the Palokhi Karen cultivate swiddens in contiguous blocks of land as do the Pwo Karen studied by Hinton (1975:106ff.).

The selection of swidden sites is very much a matter of individual household choice which is not unduly constrained by the need to make accommodations with other households, or with neighbouring communities. The reason for this is that they are virtually the sole occupants of the middle part of the Huai Thung Choa valley and, therefore, do not face competition for the forest resources of the valley with their Northern Thai neighbours who live downstream and who are engaged primarily in wet-rice agriculture. Neither do they face any competition from their closest Karen neighbours from the village of Pong Thong who are small in number and whose swiddening needs are sufficiently met by the forests of the smaller Pong Thong stream valley.

The evaluation of forest areas is guided by several factors, the most important of which is the state of vegetative regrowth of the forest. The Palokhi Karen have two terms which distinguish between two types of forest cover although this distinction is, in fact, not very clear. The first term, **pgha**, refers to the forest in general but it may also refer to old, or very old, secondary forest. The second term, **chghi**, refers to swiddens which have been left fallow for a period ranging from as short as one year to 20 or 30 years, or even more. The distinction, therefore, is ambiguous since long established **chghi** could be described as **pgha**. In my observation the term **chghi** is more consistently applied to secondary forest of which the Palokhi Karen have positive knowledge of previous cultivation obtained either at first hand or through an observation of the nature of the state of secondary regrowth, while the term **pgha** is used to refer to areas where the evidence of previous cultivation is all but absent, that is, forest which has reached, what Spencer calls (1977:39), a "fairly stable equilibrium of ecological succession".

The ambiguity in the application of these terms, nevertheless, requires some explanation and I think it is probably to be found in ecological changes in Northern Thailand and an older usage of the term made no longer relevant as a result of these changes.² It is likely that these two terms originally referred to primary forest and secondary, or previously cultivated, forest and that the distinction has been lost with the elimination of primary forests in the region. The difference between these two terms, as they are used in Palokhi, is thus nominal and does not feature in the way that the Palokhi Karen decide upon swidden sites. Indeed, when they talk of clearing the forest for a swidden, they almost always talk in terms of clearing **chghi**.

In actual practice, however, **chghi** which are used for swiddening are forests that have regenerated for over thirty years at least because households in Palokhi have yet to return to swiddens that they previously cultivated in the history of their settlement in the Huai Thung Choa valley. This is very unusual indeed for any Karen community so far described in contemporary accounts, and the reason has to do with the still very favourable ecological conditions in the valley. The Palokhi Karen also take into account other considerations in deciding where to cut their swiddens but these considerations are not given equal weight by all households. Some households say, for instance, that good swiddening areas are those which have dark or black soil (as opposed to red soil) and that the soil should not taste sour or salty. Another criterion which some households say they use is the presence of litter or humus on the ground. Still others claim that the presence of a certain small-stemmed, thick-walled species of bamboo called **wa su**, or "black bamboo" (**Bambusa tulda**), is a good indicator of suitable locations for swiddening. Considerations of slope are not very important, but areas with very steep slopes are avoided because their higher degree of erodibility results in loss of seed and crops along with the soil during the rainy season. Other physiographic characteristics such as a general even-ness of terrain and the absence of large rocks as well as the presence of a small gully or drainage line are regarded as desirable because work is made easier in such terrain, while the presence of a drainage line ensures access to water that is required for drinking and cooking in the course of working in the swidden throughout the year.

On the basis of these various considerations, a few sites are chosen by each swiddening household. The reason why more than one site is usually selected is because the final choice of a site is determined by divination which is an essential part of the process of site selection (see Chapter VI). This, then, saves the household the inconvenience of seeking out alternative sites again if divination indicates that a site is unsuitable for swiddening.

Clearing of Swiddens (Phae' Lau Hy')

Once swidden locations have been finally decided upon, the process of clearing may begin. This is done in the cool dry, and then hot dry months of February and March, sometimes extending into early April. The clearing of swiddens involves two main tasks — slashing away the bush, undergrowth and small trees, and felling large trees. Slashing is done by both men and women, while the chopping down of trees is a task that is performed only by men. The work is done by households on a co-operative labour exchange basis. As with other agricultural tasks of this nature, the work teams are formed on an *ad hoc* basis with households soliciting assistance a few days in advance. Work teams, in Palokhi, therefore are not fixed in composition or numbers throughout the year or, for that matter, throughout any particular phase in the agricultural cycle. The teams are usually largest in the early stages of any particular phase which requires co-operation, after which their numbers dwindle as the work gets done and household members turn to other tasks.

Slashing is done with bush knives (*xæ'*) which are either made by the blacksmith in the village, or purchased at the large Northern Thai settlement of Ban Pa Pae. The entire site is slashed first, after which the trees are felled with axes (*kha'*) which are bought in local stores. In Palokhi, as with other Karen swiddening communities elsewhere, swiddens are cleared below ridge tops which means that there is always a tree line above swiddens (see, for example, Grandstaff [1980:6], Uhlig [1978:39], but cf. Kunstadter [1978:83]). The Palokhi Karen say that by not clearing the vegetation in these places, the regeneration of the swidden when it is left fallow is facilitated by seed falling downslope from the vegetation on the ridge tops. Trees are chopped down at about waist height, or slightly above. If the trees are exceptionally large, however, simple scaffoldings are erected to enable the axemen to chop the tree higher up its length where the girth of the tree is smaller. The scaffolding consists of two sturdy saplings bound together to form a cross which is then leant against the tree allowing the axemen to stand on the lower arms of the crossed saplings from where they can then chop down the tree. As with many other swiddeners, the Palokhi Karen make attempts to bring down several trees at a time by partially cutting them and then bringing them down by felling a tree against the line of partially cut trees. In Palokhi, almost all trees are chopped down in swiddens, regardless of their size and species. This practice differs from that reported for other Karen communities and the reason for it is that the Palokhi Karen do not feel a need to preserve some trees in swiddens, as there are still areas with plentiful forests available to them and hence the lack of incentive to assist in the process of forest regeneration.³

When swiddens have been cleared, they are left to dry for a few weeks before they are burnt. In Palokhi, the swiddens which were cleared in 1980 were left to dry for about four weeks in the hot dry season before they were burnt.

Burning Swiddens (Chu Hy')

After the swiddens have dried in the hot season, they are burned before the onset of the rains. Prior to burning, however, fire-breaks are constructed in the swiddens in order to reduce the risk of setting the adjacent forests aflame. This consists of throwing the dried slashed vegetation at the perimeter of swiddens inside and, sometimes, by clearing a little of the undergrowth that abuts onto the cleared swiddens. Not much time is spent on this task, and it is undertaken by household members with, occasionally, some assistance from another household. The firing of swiddens is also carried out by small teams of two or three men on a labour exchange basis. This is done by men who start fires at different points at the perimeter of swiddens. These points are usually chosen downslope at the base of swiddens, near the little streams where swiddens are often cleared, as a line of retreat once the swiddens are ablaze. Slash is piled up to provide a good source of fuel for the starting fires which are lighted with torches of fresh pinewood, the resin in the wood being inflammable. The swiddens are burnt in the late morning and within a few hours the dried slash and trees are reduced to ashes. Although they are careful enough to make fire-breaks, the Palokhi Karen do not organise fire-fighting teams as a precaution against fires which may go out of control and burn the adjacent forests (see also Kunstadter 1978: 83).

After the swiddens have been burnt, they are left to cool and they are then inspected a few days later to see if the burning has been satisfactory. In 1980 and 1981 all swiddening households were successful with the first fires in their swiddens and, therefore, did not need to reburn them. The re-burning of swiddens entails the gathering of ill-burnt or unburnt slash into piles and a second firing. The purpose of this is, of course, to ensure a more even spread of ash which acts as a source of nutrients for the crops and, secondly, to remove more of the fallen timber from the area to be cultivated.

Planting (Tho Hy')

About a week to a fortnight after the swiddens have been burned, the first swidden crop is planted. This is maize (*Zea mays*) which is a minor crop that the Palokhi Karen cultivate as a supplement to rice and it is usually eaten when stocks of rice are low. This seems to be a widespread practice among Karen cultivators (see Hinton [1975:189]; Kunstadter [1978:85]) but in Palokhi the role of maize as a supplementary crop is minor compared with that for the Pwo Karen described by Hinton. This is because the availability of wage labour opportunities in Northern Thai villages has led the Palokhi Karen to supplement their harvests

of rice with rice purchased from the Northern Thai which, to them, is more preferable to eating a “starvation crop”. The maize is planted entirely on a household basis, that is, households providing the labour required for the task entirely from their own pool of labour. The work is carried out with the use of a digging stick, which is a short length of bamboo or wood tipped with an iron blade resembling a small hand-spade with a straight edge. The maize seeds are dropped into the holes made by the tool at various places in the swidden.

After the maize has been planted, rice is planted next. The planting of rice is the most labour intensive task in the cultivation of swiddens as the work needs to be done as quickly as possible, before the arrival of the rains, over a large area. Co-operation in this is, therefore, absolutely essential in Palokhi and it is during the planting phase of swiddening that the work groups are largest in the agricultural cycle with the possible exception of harvesting. Planting is done by dibbling, using long thin bamboo poles of about two to two and a half metres in length which are tipped with an iron blade similar to the blade of the digging stick. Indeed, often they are one and the same. Sometimes, if there are not enough of these blades, a short section of bamboo may be cut to tip the dibbles. Dibbling is invariably done by men while sowing is done by women, boys and girls. Most of the rice planted in Palokhi swiddens is ordinary, that is, non-glutinous rice, while small areas are given to glutinous rice. The Palokhi Karen recognise up to eight varieties or strains of ordinary rice and all are preferred to glutinous rice. The latter is usually used to make rice cakes on certain ritual occasions, for rice liquor and the remainder is eaten when stocks of ordinary rice have run out. The rice seed of these two kinds of rice are kept separate and are planted separately.⁴ The seed is brought to the swiddens in baskets or sacks and they are distributed to the sowers who fill their sling bags with the seed and follow the line of dibblers, filling the dibble holes with seed. The holes are not covered after seeding.

The work parties usually commence work in the early morning and continue planting until noon when they rest for about an hour or two. At this time, the first major agricultural ritual is performed by the headman (if present) and by other older men in the party, after which food is served to helpers by the household whose swidden is being planted. This is also the first time that food is offered to members of work gangs; in clearing and burning, helpers bring their own food to eat at mid-day.⁵ Planting continues in the afternoon until the swidden is fully planted or, if that is not possible, until the end of the working day which is normally at about 5 pm.

On the first day of rice planting, household members will also plant their other crops as well, but this task is less urgent than the planting of rice itself as they can return to complete the planting of these crops in following days. A list of the crops grown in Palokhi swiddens is given in Appendix D. All crops are

planted in one of two ways: either mixed with the rice seed, or planted separately by broadcasting seed between dibble holes, and around the field hut. Tubers, which are also planted on this first day of planting and on subsequent days, must be placed into the ground; this is often done by digging up the soil with a bush knife, after which the soil is tamped back with the foot. At the end of the day, a brief ritual (called “planting the ritual basket of the yam”, **chae’ lau nwae tasae’**) is conducted (see Chapter VI). Thereafter, catch crops continue to be planted in swiddens for several days on a household basis. If there still remains rice seed to be planted, this is done with small work teams made up of two or three co-operating households. During the two or three weeks that follow, a variety of other tasks are also carried out in swiddens, namely, fencing and the construction of various traps and alarms worked by wind or water.

Weeding (Khlau Nau)

Soon after planting, the rainy season begins — usually in the middle of April — and the Palokhi swiddens quickly become full with the shoots of growing crops, and weeds. This marks the time when the laborious task of weeding must begin. It is also the time when the Palokhi Karen must prepare their wet-rice terraces for planting. The beginning of the wet season thus introduces a period when labour has to be allocated among a number of tasks. For some households, the stocks of rice from their previous year’s harvest may, in fact, be depleted or exhausted so that they also have to look for wage work in order to obtain rice. In these circumstances, they are faced with even more difficult problems in allocating their domestic supply of labour among competing demands on their time.

In the early stages of the wet season, in swidden cultivation, weeding is however a pressing necessity because the growth of weeds takes place faster than that of the rice crop and threatens to choke out and overshadow the growing rice shoots. Weed growth, moreover, occurs continuously throughout the rainy season and so there is a great need to keep it in check. Weeding is, as Kunstadter observes, “the most time consuming, most labour consuming, most uncomfortable, and most disliked portion of swidden agriculture” (1978: 90). Because of the many competing demands for their labour, the Palokhi Karen are unable to organise the weeding of swiddens on a regular, concerted, co-operative labour exchange basis. All Palokhi households are busy attending to their various subsistence tasks during the wet-season and this makes the co-ordination of weeding among households difficult. Instead, weeding is usually done on a household basis and it is spread out over the rainy season. It is most intensive in the early to middle stages of the wet season when the weeds are rapidly growing. Once the weeds are removed (or as much of them as may be managed by each household), this offers a respite during which time the rice and other crops have a chance to grow and, to some extent, contain the growth of weeds

by shading them out. The sporadic weeding that takes place in the later stages of the wet season then suffices to keep weed growth in check which allows the rice crop to mature.

Reaping (Ku' Lau By)

In late September or October the rains usually end and the rice crop in Palokhi swiddens begins to mature. Because there are several varieties of rice, the crop ripens at different stages. The early ripening varieties of rice, for instance, are ready for harvesting in late September or early October; the later ripening varieties are only ready for harvest in November. Harvesting of the rice crop, therefore, is spread out over several weeks in Palokhi. The harvesting of rice entails three different tasks — reaping, threshing and transporting the crop for storing in household granaries in the village. Like planting, harvesting is marked by co-operative labour exchange because all three tasks require a considerable amount of labour inputs within relatively short spaces of time (though to a lesser degree than that in planting) which individual households, with their limited internal supplies of labour, cannot provide.

As with planting, the first day of reaping is marked by the attendance of a large number of workers drawn from other households to assist in the work in the swidden of one household. The first day of reaping is one which is ritually significant for the household and it begins with a ritual wrist-tying ceremony in the house before the household members set out to their swidden accompanied by the helpers from other households. Reaping is done with sickles, and these are either made in Palokhi or purchased in Ban Mae Lao or Ban Pa Pae. The rice is reaped close to the ground, a handful at a time (that is, as they have grown from the dibble holes) and each bunch is tied up or bound with some straw into a sheaf which is then placed on the stubble. The rationale for this practice is that it prevents the accumulation of moisture on the sheaves or rice which would otherwise cause it to deteriorate, as the rice is often left in the fields for a few days before being collected and made into stooks. There is also a good reason for reaping the rice close to the ground: when the rice is stoked, the sheaves are placed on the ground in a circle with the uppermost part of the stalks (that is, which bear the grains) lying towards the centre of the circle, and the stook is built up in this manner by laying down more and more stalks of rice onto the first lot on the ground. The lower half of the rice stalks are, thus, on the outside and they form a thatch-like structure over one another and over the rice grains. Keeping the stalks long at reaping is, therefore, essential for well-constructed stooks in order to prevent moisture from reaching the rice grains. The purpose of binding the stalks of rice into sheaves is to make the task of collecting the harvest easier.

It is worth noting here that as with planting, a mid-day meal is prepared for the helpers who come to assist a household in the reaping of its swidden.

However, unlike planting, no rituals are performed to propitiate the “Lord of the Water, Lord of the Land”. The only ritual that is performed is a household ritual which is addressed to the souls of members of the household and to the rice soul (see Chapter VI).

After the swidden of a particular household has been reaped on the first day, the work teams dissolve and are reconstituted to work in the swiddens of other households — regardless of whether the first swidden was completely reaped or not. The work teams move on in this way until debts in labour services are more or less discharged. Smaller groups then get together to carry out the remaining work of reaping the rice left in swiddens. This method of co-operative labour exchange fits in well with the fact that the rice crop ripens at different stages. These smaller teams also perform other tasks besides reaping the rice that remains on the stalk in Palokhi swiddens, namely, carrying the sheaves of rice for stooking, clearing an area of ground on which to build the rice stooks, and constructing the stooks.

It should be noted that by this time, towards the end of reaping swidden rice, the competing demands for labour that each household faces intensifies. In this period, the rice in wet-rice fields are ready to be harvested as well and, thus, the households which are engaged in agricultural production have to allocate their labour among several different tasks and to meeting their various obligations arising from receiving the labour services of others. The smaller teams which are found working at this stage of the agricultural cycle are thus the outcome of decisions made which attempt to balance the commitments of households to ensuring that their own harvests are managed and brought in, the need to obtain assistance to do this, and the countervailing obligation to repay the labour debts thus incurred which reduces the labour time put into attending to their own needs.

Threshing (Phau’ Lau By)

The first day of threshing is again a ritually significant day for the household and another wrist-tying ceremony is conducted in the house before the household members go to their swidden. Threshing is also marked by an injunction that all those who thresh on the first day must continue with the work on subsequent days until all the rice is threshed. The effect of this injunction is that only household members end up threshing their harvest. Although I discuss the significance of this injunction and other rituals associated with the harvest season in Chapter VI, it may be noted here that this season has the largest number of rituals of all the phases in the agricultural cycle of Palokhi. The overall importance of the rituals at harvest time, however, lies in the way the association between households and their rice crops are symbolically expressed.

Threshing is done on a clearing along the slope of the swidden near the stacks of rice, carved out of the hill-side with a hoe. The threshing ground is made firm by placing retaining logs along the contour of the slope and packing the earth tight against the logs until a flat surface is obtained. On this clearing, a large threshing mat (**khlaumy**) is placed with its ends made to curve upwards by means of supporting posts, or merely by resting them on the side of the hill and the top-most retaining log. Sheaves of rice are taken from the stooks and thrown, beaten and shaken on the mat. Then a man or woman steps onto the mat and kneads the rice stalks with the feet while fanning the rice with a large winnowing fan in broad, sweeping arcs. The fanning creates a draught of air which blows away the chaff and broken stalks while the heavier grains of rice remain in the mat. When all the grains have been separated from the stalks in this way, the stalks are removed by hand and the mat is rolled up to bring the rice together after which it is scooped up by hand or by means of a bamboo cup (or any small container that is available) and poured into a 22 litre kerosene tin in order to measure the amount of rice. Each time the tin is filled, a tally is kept by making a bend in a long, flat sliver of bamboo, and the rice is then poured into sacks or baskets to be stored either in temporary granaries in the swidden but or taken back to the household granary in the village. When all the rice has been harvested, the amount of rice obtained can then be determined in **pip**, the Northern Thai term for the volume of the kerosene tin which the Palokhi Karen have adopted, by counting the number of bends in the bamboo splint.

Threshing may also be done in a different way, although it is not common in Palokhi swiddens. This is actually a practice adopted from the Northern Thai and which is more commonly used in threshing the wet-rice harvest. It entails building a small threshing rack consisting of two long saplings which rest on the forked ends of wooden supports implanted into the ground at the threshing area. The rice stalks are then beaten on the rack thus dislodging the grains which fall onto the threshing mat which is placed under the rack.

Transporting and Storing the Harvest (Gwi By, Pha' By)

This last stage in the agricultural cycle in swiddens is carried out entirely by household members. It may be done during the threshing phase in stages, as the rice is threshed or it may be done right at the end of the season in a few days continuously. Whether it is done one way or the other depends on whether or not the household has built a temporary granary in the swidden hut. Most households in Palokhi prefer to transport their rice harvests back to the village as soon as they are threshed because they are afraid that the rice may be stolen or eaten by field rats, birds and so on, if left in the swiddens. This last stage of the agricultural season in swiddens is marked by a ritual which is performed when the last batch of rice is borne back to the village and, as with all the rituals performed at this time, it is wholly a household affair.

ENDNOTES

¹ The agricultural practices of the Karen, described by various researchers, show broad similarities although variations do exist. These variations are, however, relatively minor. Kunstadter's account (1978) of Karen swidden and wet-rice agricultural practices is the most detailed and comprehensive available and much of what he has to say about the Laykawkey Karen, in Mae Sariang, is equally applicable to the Palokhi Karen. In this appendix on swidden agriculture in Palokhi, I therefore present a brief account of the various swiddening activities in Palokhi sufficient to show what takes place in the agricultural cycle and to indicate points of similarity and difference, where relevant, between what takes place in Palokhi and that in other Karen communities as found in existing descriptions on Karen agricultural practices.

² The Karen are widely reported to be secondary forest swidders and they have probably been so for a very long time (but see Grandstaff [1976:152]). Whatever the reasons for the shift from primary to secondary forest swiddening (which Grandstaff examines in considerable detail), the cultivation of secondary forests has meant that the Karen now occupy those parts of the highlands of Northern Thailand characterised by the presence of Dry Dipterocarp and Mixed Deciduous Forests. Karen terminology, however, does not make distinctions of this sort. The distinction — which may be inferred from the way that **pgha** and **chghi** are used — is one between forest that has been previously cultivated and forest that has not. Given the major ecological changes that have taken place in Northern Thailand, I think it is not unreasonable to make the further inference that this distinction is indeed an old one which had real meaning before such changes took place. The oral tradition of the Karen (which appears to possess a fair degree of continuity over time and space) suggests that **chghi** is more important in their perception of their environment than **pgha** as far as swiddening is concerned. In many of the prayers said in rites that are performed in association with swidden cultivation, **chghi** is invariably paired with **hy'** ("cultivated field" or swidden).

³ In the village of Dong Luang (Mae Sariang), the Pwo Karen leave some trees standing in swiddens to assist in the regeneration of forest in fallow swiddens, as well as to retard soil losses because the roots of the trees hold the soil together (Hinton 1975: 84). The trees are, however, pollarded to prevent them from shading the rice crop. In Mae Tho, the Sgaw Karen do not fell trees which have a diameter of more than 15 centimetres at waist height but they are pollarded as in Dong Luang (Nakano 1978: 419). Though the Palokhi Karen are aware of the importance of having a tree line above their swiddens to seed fallow swiddens (and, thus, facilitate the process of regeneration), the fact that they do not leave standing trees in their swiddens is, nevertheless, a good indication that they feel no need to make additional efforts to propagate natural processes because of the ample forests around them.

⁴ Other Karen cultivators are also reported to grow several varieties or strains of rice (Kunstadter [1978:87]; Hinton [1975:93]). Unlike the Karen studied by Kunstadter, the Palokhi Karen do not make special efforts to cultivate certain strains of rice, particularly early ripening ones to reduce the waiting period for harvests, during which time their stocks of rice have been consumed. In this regard, they are therefore more similar to the Pwo Karen studied by Hinton. As far as their own rice crop is concerned, the Palokhi Karen prefer ordinary rice to glutinous rice although when they purchase rice from the Northern Thai, it is glutinous rice that they obtain because it is cheaper and it is usually the only rice available as the Northern Thai only grow and consume this sort of rice. Iwata and Matsuoka (1967:309) say that most hill communities in Northern Thailand (with the exception of the Hmong and Yao) cultivate principally glutinous rice, while Watabe (1976:87) says that in one Lua' village he found both varieties of rice grown, presumably in equal amounts (but cf. Kunstadter [1978:87]). Most Karen, however, cultivate ordinary rice as the principal grain and glutinous rice in small quantities. On the basis of archaeological evidence, Watabe postulates that there is a high probability that hill or upland rice in early times was glutinous and that if deliberate selection of glutinous rice is not assumed, then this rice was progressively replaced by ordinary rice. The reason being that the genes responsible for the characteristics of ordinary rice are dominant and that hybridisation frequently recurs which would lead eventually to the predominance of this rice if selection was not practised by cultivators. If this is the case, then it is not impossible on the other hand that the Karen — given their preference for ordinary rice — have in fact enhanced the process by favouring ordinary rice in swidden cultivation.

⁵ The manner in which food is shared in conjunction with the performance of agricultural rituals is significant because it appears to symbolically express certain sociological arrangements in Palokhi in relation to agricultural production. I have discussed the symbolic and ideological aspects of two modes of commensalism, that is routine domestic commensalism and feasting in the rites of the New Year, in Chapter IV; but in Chapter VI, I discuss other aspects of ritual commensalism in the particular context of agricultural rites in Palokhi.