3
Settlement and Frontier Land Tenure

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A striking contrast between the nucleated settlement patterns of southern Taiwan and the dispersed patterns found in the northern half of the western coastal plain has been noted by geographers and others (Figure 3-1). This twofold typology has been repeated so often that it is sometimes forgotten that the complexity of the colonization process and accompanying agricultural development in fact produced a mosaic of rural settlement forms that is as noteworthy for the variety of representative components as it is for its seemingly regional sameness. Not only has no comprehensive island-wide study of existing settlement patterns been carried out but there has been only limited examination of the origins and alternations of any one particular pattern. It is unreasonable to assume that certain factors *compelled* a nucleated or a dispersed pattern which, once established, endured and replicated itself.

This chapter makes no pretense of systematically dealing with settlement throughout the island of Taiwan. Rather, it focuses on the settlement history of several areas found on the 900-square-kilometer T'ao-yuan alluvial fan of northern Taiwan. Chinese migrants came to this area in numbers only at the end of the seventeenth century. By 1841, as many as fifty thousand pioneers were transforming the grasslands through arduous and intensive effort. Over the past two and a half centuries this region has become not only a highly productive agricultural area with increasing rural densities but, more recently, an area of significant urban and suburban development. An early intent of my research was to treat the genesis of settlement and the intensification of settlement forms as population increased and agriculture developed. Intent, unfortunately, has been compromised by reality. The materials for such a sequential study are not abundant, and those that are available are uneven and se-

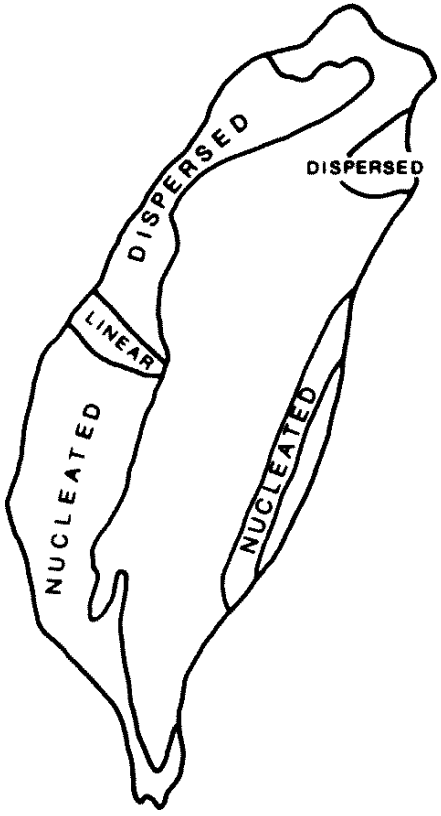

Figure 3–1. General patterns of rural settlement.

lective. Notwithstanding such shortcomings, I shall attempt to treat the origin and spread of selected rural settlement patterns and identify the factors which brought them about.

Like other areas north of the Cho-shui River, the T'ao-yuan alluvial fan has been described as having a dispersed or scattered rural settlement in contrast to the predominant compact or nucleated type found in the southern half of the island. Several authors have examined the physical and cultural factors that most likely operated to bring about such distinctively different patterns.[1] These factors may be summarized as:

1. The availability of water (measured usually in terms of rainfall but also including groundwater)
2. The nature of the vegetative cover

3. The degree to which there was a threat from the aboriginal inhabitants
4. Land tenure practices

In discussions concerning the earliest stages of settlement one gets the impression that natural factors played a compelling role. I contend, however, that the physical factors were less limiting than has been suggested and that land tenure practices carried from southeastern China proved crucial in initiating a dispersed pattern of settlement, especially on the T'ao-yuan plain.

Taiwan straddles the Tropic of Cancer and although there are differences in the temperature regimes of the northern and southern halves of the island, a very long—if not year-round—growing season based on temperature was available to migrants anywhere on the coastal plain. The seasonality of rainfall, however, did present distinct north-south differences, and it is this factor that some see as contributing significantly to the adoption of one settlement form or another. Ch'en Cheng-hsiang, for example, states that "in the northern part of Formosa where there is a fair amount of rain in every month throughout the year people are free to select their abodes. But in the south where the dry season lasts as long as half a year through the winter season when often there will be not a drop of rain for several months, water supply is a serious problem for the inhabitants." Ch'en goes on to suggest that natural vegetation, a correlate of available water, was "chiefly responsible" for the regionally dissimilar settlement patterns. Citing an easily debatable "general rule of human geography," he states that the forested areas of the north brought forth scattered settlement while the prairie of the south spawned compact rural settlements.[2] This relationship between forests and dispersed settlement on the one hand, and grasslands and compact villages on the other, has been reiterated in the English-language literature by Chiao-min Hsieh and Yu-chin Kang, among others.[3]

That these natural factors were major influences, let alone determinants of a given pattern, is doubtful in spite of the fact that contrasting precipitation patterns in northern and southern Taiwan do exist. On the T'ao-yuan alluvial plain, rainfall is fairly abundant, with at least 1,500 millimeters per year. A summer maximum is common, yet moderate amounts fall as well during the winter months. Settlers there certainly did have more site options than did pioneers in southern Taiwan and, consequently,

could have chosen to live in nucleated settlements on the T'ao-yuan plain if they had wanted to. They were hardly compelled to live apart in isolated households because of the ubiquity of water. The natural vegetation argument, likewise, seems to lose value under further examination. Casting aside any attempt to justify a causal connection between wooded areas and dispersed settlement, there is no real evidence that the T'ao-yuan area was wooded when first settled by Chinese. A Chinese traveler who traversed the plain in 1697 on the eve of Chinese settlement records that he encountered not even a tree on the lower T'ao-yuan plain.[4] Eighteenth-century Chinese gazetteer maps give no indication of any obstructing natural vegetation. Only in the eastern foothills were woodlands found. The 1717 Chu-lo *hsien* gazetteer, in fact, compared the T'ao-yuan plain to the richer areas of Chang-chou and Ch'uan-chou in Fukien, stating that Chinese pioneers "could easily transform it into several thousand parcels of rich and fertile fields."[5]

The early eighteenth-century migrants to the T'ao-yuan plain were not confronted with hostility from aborigines as other pioneers had experienced in southwestern Taiwan. Only four distinct and separate aboriginal villages *(she),* each a compact settlement encircled by a bamboo thicket, were found on the plain. Land was abundant for the game the natives hunted. Moreover, interaction between the new arrivals and the indigenous groups occurred as a result of small-scale trade, cooperation in agriculture, and even limited intermarriage. Chinese migrants built a nucleated settlement immediately adjacent to Nan-k'an *she*. In time, the aborigines were displaced and the site was occupied by Chinese. Chinese settlement near the K'eng-tzu *she* was dispersed and has remained that way to the present. In 1741, as a result of cooperative effort, the Hsiao-li canal system was begun in what is today the southern portion of Pa-te *hsiang* to bring water to six dispersed villages occupied by Chinese and aboriginal settlers. There was, in short, no immediate threat to the Chinese presence. Chinese settlers, as a result, formed nucleated as well as dispersed rural settlements. Just as insecurity does not always lead to agglomeration, the absence of an aboriginal threat need not lead to dispersion.

The settlers who reached the T'ao-yuan area came directly from the coastal areas of southeastern China or by way of southern Taiwan where nucleated settlements had been the norm.[6] It does not seem unreasonable to assume that they would have chosen, if that is the appropriate word, to reconstitute a familiar settlement form: the nucleated type. That this

did not usually occur on the T'ao-yuan plain, even when allowed because of the availability of water and the lack of an aboriginal threat, is intriguing. In southeastern China, nucleated settlements were frequently distinguishable on the basis of lineage characteristics. Migration to the T'ao-yuan plain and settlement there, on the other hand, was seldom accomplished by kinsmen. There were exceptions, however, as in the case of the migration of members of the Sung family who built a compact settlement in 1745 in what is today a part of P'ing-chen *hsiang.* It is not surprising that these arrivals were K'o-chia (Hakka) and originated from Chia-ying district of northeastern Kwangtung. Known for their clannishness, K'o-chia migrants formed other compact settlements in the rugged uplands of T'ao-yuan and adjacent areas of Hsin-chu and Miao-li *hsien*.[7]

Customary land tenure patterns associated with frontier reclamation, it seems, were more crucial than any of the factors cited above in bringing about a dispersed pattern of settlement in the T'ao-yuan area. That these specific land tenure practices did not operate early in southern Taiwan reflects the unusual circumstances of early Chinese settlement there under the aegis of the Dutch and the Cheng family. During the period of Dutch rule, as discussed by Wen-hsiung Hsu in Chapter 1, all land was vested in the name of the monarch. This *wang-t'ien* ("crown fields") system arranged Chinese settlers into compact villages. Deep wells were dug under Dutch supervision to mitigate water shortages. Agriculture in Taiwan during the Dutch occupation improved through the importation of 1,200 to 1,300 head of draft cattle and the industry of Chinese peasant pioneers. Development during the Dutch interlude demonstrated the productive potential of Taiwan. When the Dutch were expelled in February 1662, by the forces of the anti-Ch'ing Ming loyalist Cheng Ch'eng-kung (Koxinga), southwestern Taiwan had numerous nucleated settlements along the coastal plain around Fort Zeelandia. Cheng Ch'eng-kung's occupation of the island brought an interlude of Chinese military colonization that denied private ownership of land. Recalcitrant aborigines and the hardships of frontier life took a heavy toll on the settlers, comprised not only of soldiers but of Chinese peasants. The peasants migrated to Taiwan in violation of imperial decrees against maritime activities between 1656–1684 and evaded the policy of forced removal during 1660–1681 whose purpose it was to remove the coastal population of the mainland to areas 10 miles or so from the coast. Military discipline and the dictates of unsettled conditions nurtured the formation of clus-

tered reclamation and farming camps in southern Taiwan. In 1683 Ch'ing forces finally subjugated the remnants of the Cheng family's army and navy, and in the process brought Taiwan under direct Chinese suzerainty for the first time. Because early imperial control was in fact illusory, being more cartographic than real, clandestine peasant migration brought unknown numbers of Chinese to the virgin areas of central and northern Taiwan where customary rather than officially sanctioned practices often guided reclamation and settlement.

Authority pursued the Chinese pioneers into the frontier. In 1684 when Taiwan was formally incorporated into the empire as a *fu* (prefecture) of Fukien province, the island was divided into three *hsien* (districts or counties). The accoutrements of administration for all three lay close to the densely populated southwestern coastal area which had been held by the Dutch. The virgin land of Chu-lo *hsien* stretched northward across half of the coastal plain. In response to clandestine settlement, the use of a small port at the mouth of the Tan-shui River, which itself gave entrance to the yet-to-be developed Taipei basin, and especially because of a violent insurrection in 1721 which demonstrated the ineffectiveness of Ch'ing authority, an administrative reorganization took place.[8] Chu-lo *hsien* was subdivided into Chang-hua *hsien* and Tan-shui *t'ing.* This administrative subdivision was accompanied not only by systematic reclamation of the Taipei basin but also by efforts to open up the T'ao-yuan plain.

THE PATENT SYSTEM

Settlement on the T'ao-yuan plain occurred principally as a result of imperial consent.[9] Organizationally, reclamation and settlement differed significantly from that carried out earlier in southwestern Taiwan. Reclamation of land was not only regarded as a criterion of merit for local officials; it was also an easy way for prominent individuals to acquire wealth. Inasmuch as all land on Taiwan belonged in principle to the emperor, the land could be legitimately acquired only by complying with defined procedures set down by the Board of Revenue, whose ultimate responsibility was the collection of land tax. Peasant pioneers, in some cases, negotiated with the aborigines for the right to cultivate a parcel of land. Either the parcel was obtained for a single payment or periodic rent was to be paid *(fan-tsu).* Where there was no aboriginal presence to contend

with, settlers sometimes assumed squatter's rights to virgin territory.[10] More likely, however, an expanse of land would be acquired by petitioning the provincial authorities. Approval would be accompanied by a patent or estate certificate *(k'en chao* or *chih-chao)* which granted the recipient perpetual "ownership" of an ill-defined tract if he could bring the land under cultivation. Such a reclamation effort could not be accomplished in a short period of time because of the nature of wet-rice agriculture. Recognizing that a regulated and interconnected water supply necessitated an arduous and labor-intensive resculpting of the land, a ten-year reclamation period was allowed until 1723 when the period was reduced to six years for paddy fields.[11] An added inducement to quick reclamation was a three-year reprieve from the land tax. Whenever the reclamation effort did not proceed according to schedule, the patentee's rights to unreclaimed land could be assigned to another petitioner.

It was this patent system which guided the distribution of the immigrant peasant population and brought about a general pattern of dispersed rural settlement on the T'ao-yuan plain that has continued down to the present. Scattered among the isolated farmsteads that are characteristic of dispersed settlement were a number of nucleated settlements whose existence curiously owes much to the same range of factors which brought about dispersed patterns. This simultaneous, yet necessarily complementary, evolution of disparate settlement patterns has been ignored by those who suggest a twofold and mutually exclusive typology of rural settlement for Taiwan. There is no denying that dispersed settlements were most common on the T'ao-yuan plain, but it is being argued here that nucleated settlements emerged under the same conditions which prompted dispersed settlement.

Before tracing the settlement and reclamation of several areas of the T'ao-yuan plain that will give evidence of the dual formation of both types of settlement, it should be useful to sketch the general outlines of the complex land tenure practices which brought about this development. In the first place, the patent holder *(k'en-shou* or *yeh-hu)* normally did not carry out the reclamation of the tract obtained from the government. A regulated and interconnected water supply demanded a resculpting of the land, an effort of sufficient magnitude that the labor and capital requirements could not be shouldered easily by a single patent holder. Moreover, the time limitations imposed by the patent certificate forced prompt reclamation. To

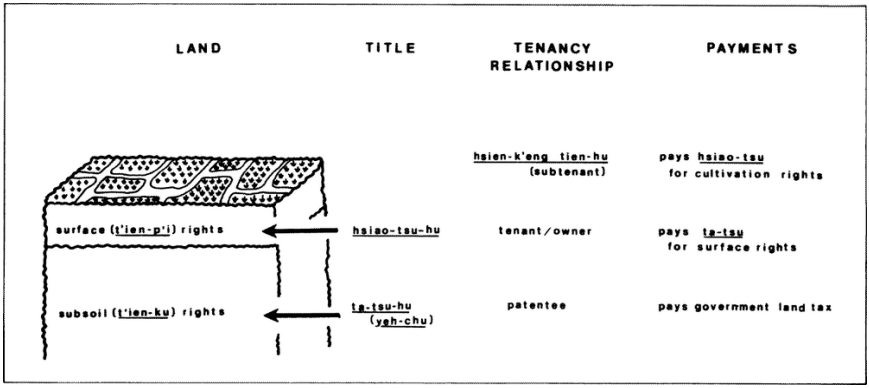

Figure 3–2. The i-t'ien liang-chu land tenure system.

accomplish this, peasants were recruited from the already congested areas of southern Taiwan or directly from the coastal areas of Fukien and Kwangtung. This mobilization of landless peasants introduced land tenure practices that had been common in Fukien province and proved especially suitable in facilitating frontier reclamation.[12]

Known as the *i-t'ien liang-chu* ("one field, two owners") system, this land tenure practice was at least a two-tiered and usually a three-tiered arrangement in which the so-called recruited tenant was granted certain rights of ownership not normally associated with tenancy (Figure 3-2).[13] In exchange for an annual rent payment, the pat entee transferred land surface *(t'ien-pi)* rights to the tenant while retaining proprietary title to the subsoil *(t'ien-ku).*[14] The tenant's rights were extraordinary to the extent that he had the prerogative of leasing or even selling his surface rights. Surface and subsurface rights were independent of one another and one could be alienated without affecting the other.

Annual rent paid by the tenant was either a fixed amount or a percentage of the grain crop. Fixed rent was more desirable for the peasant tenant, as it provided him with a concrete incentive to invest labor in capital improvements and exercise careful tillage. The fruits of increased productivity accrued to him alone and not to the patentee. Usually the patentee was absent and even unaware of the exact location and size of reclaimed parcels. In this way, the individual peasant could manipulate the patentee and maximize his opportunity for gain. The

annual rent payment was called *ta-tsu* ("the big rent") and the patent holder became known as *ta-tsu-hu* ("big rent keeper"). Out of this payment the patentee was obligated to pay the government land tax on the basis of reported cultivable acreage within his patent. The remoteness of the imperial bureaucracy allowed him also the opportunity to evade his revenue obligations.

Many tenant entrepreneurs, in fact, recruited still other peasant migrants to carry out reclamation work. Such subtenant cultivators *(hsien-keng tien-hu)* were bound in an especially unfavorable way to the original tenant, for whom they labored to resculpt the plain and to whom they paid as much as 60 percent of their grain crop once reclamation was completed. The subtenant's "landlord," called the *hsiao-tsu-hu* ("little rent keeper"), enjoyed the highly satisfactory middle position in this three-tiered pyramid.

Available land documents define patents and subdivided tracts only as to the general point-to-point dimensions without specifying the bounds. No cadastral survey was carried out. Size, it seems, only took on significance after land was reclaimed and taxes could be assessed. When subtenants, usually single males, were recruited and mobilized to bring about reclamation, each would be provided with a simple thatched hut on a parcel of land. The multiplication of tenants and subtenants led to the proliferation of isolated farm cottages—the prototypical image of the dispersed village. Patent organization and social norms as well brought about a number of nucleated settlements, in some ways anchors in a sea of isolated farmsteads. Moreover, a small number of nucleated settlements developed independently of the patent system.

Reclamation contracts usually stated that it was the responsibility of the tenant to irrigate his own tract. Gazetteers give prominence to the cooperative water conservancy facilities *(shui-li)* built through the efforts or sponsorship of peasants, tenants, officials, or wealthy individuals. For the most part, piecemeal and minor acts of landscape modification characterized the earliest efforts. On the T'ao-yuan plain "the fields depended upon the heavens" *(k'au t'ien t'ien)* and few wells were sunk for irrigation purposes. This practice was allowed because of the relative abundance of annual rainfall and the lack of a pronounced dry season. On the other hand, year-to-year variability militated against a sole reliance on nature. The construction of ponds *(p'i)* was an important means of water control here. Although uncommon in southern Taiwan or on the south-

eastern mainland, they served well on the alluvial plain to catch and retain rainwater or stream overflow. Ponds could be constructed with a modicum of labor. An area would be excavated and the removed materials used to bank the rim. In many cases, excavated materials were piled on an adjacent site and, when thoroughly packed, served as the foundation for permanent dwellings. The contemporary spatial association of ponds and dwellings and their ubiquity reflects a further stimulus to the development of a dispersed rural settlement pattern. Canal networks articulated some of these ponds but generally the shallow ponds serviced only nearby areas. By the twentieth century some eight thousand ponds of various sizes covered 9 percent of the alluvial plain.[15]

SPECIFIC SETTLEMENT HISTORY

From a practical point of view it is usually easier to trace the history of a nucleated village than a dispersed one. In the case of a named nucleated village, a few dwellings are contiguous and occupy a common site that expands in size as the number of dwellings increases. The peasants' fields surround the joint settlement. This was the common form which emerged in southern Taiwan, where today upward of twenty-five clustered farmhouses make up a settlement.[16] When documents refer to such a settlement by name, there is no difficulty in applying the information to a specific site and even locating it on an extant historical map. Moreover, although early records often deal with the origin and development of a corporate village they seldom tell the location of individual dwellings which constitute the village. Only since a land survey was conducted between 1898 and 1905 has it been possible to deal with individual dwelling sites on maps.[17]

Earlier sections of this chapter have introduced several circumstances that led to nucleated villages on the T'ao-yuan plain. It is now time to turn to the origin of the dispersed villages. Patent settlement on the plain began with the granting of a *k'en-chao* to Kuo Kuang-t'ien in 1729. Kuo recruited 106 former soldiers, each of whom obtained a parcel of land for reclamation. They were joined by other soldiers who had served in the campaigns to pacify the Taipei basin. An additional extensive tract was obtained by Kuo from the Pa-li-fen aborigines to satisfy the needs of new migrants. The area which they developed covered much of today's Ta-yuan and Lu-chu *hsiang* as

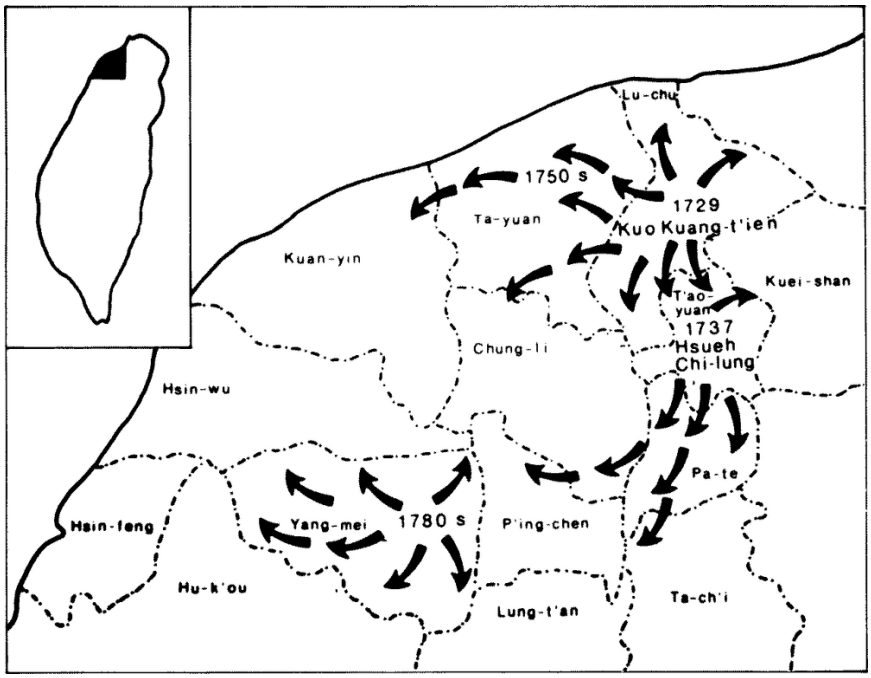

Figure 3–3. The spread of selected patent settlements.

well as portions of Kuan-yin and Kuei-shan *hsiang* and Chung-li *chen* (Figure 3-3). Altogether twenty-four *chuang* or corporate villages were established.[18] Each of these corporate villages comprised an unspecified number of isolated farmsteads, many of them named. Most of these *chuang* have survived to the present as *ts'un* (administrative villages). Among several nucleated village centers were Hsu-ts'o *chuang* and Ta-chiu-yuan *chuang.* Virtually all the early settlers under Kuo's patent were, like him, from Chang-chou prefecture in Fukien province. Kuo Kuang-t'ien and his descendants retained the *ta-tsu* rights in recognition of the original patent, but the names of the *hsiao-tsu* holders are now obscure.

It may be appropriate here to elaborate on the fact that settlement on the T'ao-yuan plain was distinguished clearly on the basis of the native place of the migrants. In a later chapter on frontier social organization, Wen-hsiung Hsu underscores the significance of *t'ung-hsiang* (common ancestral home on the mainland) and *t'ung-hsing* (common surname) as elements

which fostered cohesion and at the same time exacerbated tension. At this point, it is only necessary to clarify some of the spatial manifestations of these bonds and the degree to which settlement was guided by them. The territorial exclusivity of early settlement endured over the years and is made vivid in the results of a 1926 Japanese survey.[19] Ten of the fifteen townships on the plain had more than 90 percent of their population of either Fukien or Kwangtung origin; several had 100 percent. As mapped elsewhere, the alluvial plain was split apex to base by a line separating Fukien-originating settlement from Kwangtung-originating settlement.[20] Exclusivity takes on added meaning when one reviews districts *(fu* or *chou)* of origin and discovers that every township on the plain had in 1926 a clear majority of its population from a specific mainland *fu* or *chou;* several exceeded 90 percent. These townships ranged in size from 33 to 105 square kilometers and consisted of eleven to twenty-three villages. Although the 1926 survey did not present the patterns of origin on a village by village or compound by compound basis, information gathered by the author in 1966 indicates that many dispersed villages in four of the townships contained a high percentage of residents whose ancestors came from the same mainland *hsiang* (rural township).[21] Indeed, the *t'ung-hsiang* or "common locality" bond was an important guiding force in early reclamation and settlement.

A second stimulus to settlement came about as a result of a patent granted Hsueh Ch'i-lung in 1737. His was to the east of that granted Kuo Kuang-t'ien. Hsueh, himself of Kwangtung origin, journeyed overland from the An-p'ing area of southern Taiwan with several hundred ex-soldiers; some of them had their native place in Kwangtung but the majority came from Chang-chou and Ch'uan-chou in Fukien. In carrying out reclamation these groups did not cooperate. Instead, those of Fukien origin stayed in the eastern part of the patent adjacent to the Fukien settlers in Kuo Kuang-t'ien's patent. Those of Kwangtung origin spread to the south and west. In 1744, Sung Lai-kao, a *hsiao-tsu* holder and a Hakka of Kwangtung origin, opened up portions of Pa-te *hsiang* and then moved to establish Sung-wu-chuang (the Sung family village) in what is now P'ing-chen *hsiang.* Today at least 25 percent of the households in this area have the Sung surname. Almost all these settlements were of the dispersed type. A notable exception was the settlement at Hu-yu-chuang, which in addition to being a nucleated village

had a small market as well. Later it was renamed T'ao-tzu-yuan, reportedly because of the presence of a grove of peach trees. Today it is the site of the important city of T'ao-yuan.

To the south and west of these two large patents similar reclamation went on, although almost exclusively by migrants of Hakka origin. In the 1780s, a patent was granted to three individuals for the opening of the rugged area in what is known today as Yang-mei township. Up to that time the area had been occupied only by a military encampment directed at the aborigines. Many nucleated rural settlements were founded here. One of these had nearly fifty households, most of whom were engaged in agriculture although several were reported to have managed small businesses. Today it is the site of the town of Yang-mei. Most of the other settlements were dispersed, even those in the hills.

SUMMARY

The *i-t'ien liang-chu* land tenure system spurred the clearing and reclamation of land. Not only was it a positive factor in inducing poor peasants to migrate from the mainland, but it also guided the distribution of the immigrant population and played a major role in defining the patterns of dispersed rural settlement. Each subtenant was provided with a simple farm hut on a parcel of land. His initial efforts were probably solitary as he burned the grass and began tilling with only the simplest of tools. The first crops were most likely dry crops such as millet and vegetables. In resculpting the fields for wet-rice farming, greater and certainly more coordinated efforts were required.[22] Where necessary, land was leveled so that the flooded field would have uniform depth. Ponds were excavated and supporting drainage and irrigation methods were employed. Undoubtedly, yields were influenced greatly by these efforts.

One clear result of this complex land tenure arrangement was a high degree of tenancy. Tenants may have made up more than 75 percent of the households.[23] Ownership, moreover, was masked by the manifold interrelationships linking the *ta-tsu-hu* ("big rent keeper"), *hsiao-tsu-hu* ("little rent keeper"), and *keng-ting* ("subtenant cultivator"). Contracts were usually oral and thus open to controversy, especially upon the death of one of the principals. Except where tea fields were opened, the average cultivable area for a household was about 1 hectare, an amount approximating the minimum for subsistence. The orig-

inally contiguous parcels granted to subtenants in time were subdivided so that fragmentation of parcels and a greater degree of dispersed settlement occurred.[24]

Settlement and agricultural development are indeed complex phenomena not easily explained on the basis of one or two factors. Furthermore, once identified, a set of factors should not be viewed, as so often is done, as compelling settlement patterns that are exclusively nucleated or dispersed. Certainly neither limited supplies of water nor an aboriginal threat led to nucleated settlement on the T'ao-yuan plain as had been the case earlier in southwestern Taiwan. A broader range of choices was available. Reclamation organization, as represented by the *i-t'ien liang-chu* system, did promote dispersed rural settlement with individual farmsteads acting as focal points for intensive and articulated wet-rice agriculture; but it brought nucleated settlements to the plain as well. An aggregate of settlements, whether dispersed or nucleated, came to be identified as communities through the presence of a web of social and economic relations that were derivative of the land tenure system. Through the penetration and extension of Chinese agricultural practices and social norms, and without the force of imperial arms, T'ao-yuan and other areas of frontier Taiwan were brought within the Chinese pale.