Settlement Patterns at Saqacengalj, a Slate House Settlement in Southern Taiwan

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INTRODUCTION

Settlement patterns, at both the regional and site level, are not only the result of the strategies a group uses to be able to adapt to the environment (e.g., topographic features and natural resources), but are also shaped by the human relationships of social interaction, economic structures, and even the nature of religion and cognitive systems. Archaeological spatial analysis, involving the mapping of human activities over the landscape over time, allows anthropologists to begin to comprehend the social and cultural dynamics of settlement, including not only the duration and season of occupation, but also the human interactions and relationships that gave a settlement its particular configuration, such as the nature of political and social organization, culturally defined spatial conceptions, and the ideology or cosmology of the inhabitants. Based on this methodological framework of spatial analysis, the archaeological work on settlement and architectural patterns reported here focuses on Saqacengalj, an abandoned settlement of the Southern Pai-wan Group dated to approximately 500–600 years that, combined with oral history and ethnography, gives historical time depth to the indigenous people presently inhabiting the region and allows us to materially document significant sociocultural changes over time.

SETTLEMENT AND SPATIAL ANALYSIS

Space is one of the basic elements of culture and social phenomena. It consists of both abstract and concrete properties of culture, and is embodied in the daily life and activities of people. Its construction not only involves both natural and man-made environments, but also varied social relations, political or economic conditions, cultural customs, concept of classification, cognitive structure, symbolic system, and ideology (Huang 1995:1–5). These shape conceptions of space and these ideological conceptions of landscape further structure human activities and the material patterns they produce. In other words, space incorporates in the daily cultural practice and processes with other social and cultural aspects of living.
which cannot be apart from human activities. It can, according to varied activities, be constructed differently. Spatial analysis includes different levels like activity areas, single architectural features for households, settlements, and regional settlement system. Meanwhile, studies from this approach on whatever levels lead the way for the exploration of the context of the cultural and social aspects behind them.

Settlement pattern and configuration are defined as the way by which humans dispose themselves over the landscape on which they live. These refer to dwellings, their arrangement, and the nature and disposition of other buildings pertaining to community life (Willey 1952: 1). They are always shaped by the natural environment, subsistence strategy, political organization, social structure, demographic characteristics, and even religion or ideological system. Therefore, settlement pattern and configuration have the function of revealing information about these aspects. Parsons, as well as Willey, stressed that settlement pattern study is an archaeological subject but is more of a methodology for approaching the subject of cultural and social process (Parsons 1972; Willey 1952). With its emphasis on regional scale “cultural systems,” cross-cultural processes of change, and the material correlates of diverse and concrete behaviors within human-occupied landscapes, the processual archaeologists like Parsons made settlement analysis a basic and essential tool of archaeological analysis in many areas of the world (e.g., Binford 1980; Blanton et al. 1981; Carr 1984; Green, Haselgrove, and Spriggs 1978; Lowell 1987; Oetelaar 1993; Parsons 1972; Stone 2000), not excluding Asia. More recently, post-processual or symbolic archaeologists, while not rejecting the importance of settlement archaeology, have emphasized the importance of considering how culturally constructed ideologies structure human landscapes as much as ecological factors and economic strategies (Bender 1993; Hodder and Cessford 2004; Hodder and Hudson 2003; Mobley-Tanaka 1996; Potter 2004; Van Dyke 2004). They have also emphasized that different individuals and social groups (for example, elites vs. non-elites) ideologically construct and use the landscape differently. Both theoretical approaches share the perspective that settlement analysis, focused on documenting human patterns and configurations of landscape use at multiple levels, is an essential methodology for reconstructing cultural and social aspects of human societies in the past.

In the early developmental stage of settlement studies in Asia, Kwang Chih Chang was one of the first scholars to attempt to relate community patterns to the social structure or kinship of inhabitant groups. He believed that human economic needs and strategies shape the pattern and type of a community or settlement, but that economic control is related to social structure, since social control of resources and socially constructed ideas of land ownership determine the way in which resources and land are allocated and the nature of village organization (Chang 1958). Therefore, it is through land ownership that the economic conditions shape the pattern of settlement, as well as functioning as the medium that connects people through kinship into larger social groups. Social groups are always rooted on lands, since the ownership of lands is often controlled by clans. Chang also stressed that the lives and activities of humans are spatial in nature, and that spatial distribution of activities is affected by their spatial needs and limitations, by the environment, and variation in social relationships. A detailed analysis of the configurations of communities or settlements—the spatial arrangement
of activities and the distribution of building structures—therefore is a powerful tool in the exploration of social structure and social relationships among people (Chang 1972).

For the Pai-wan indigenous group, a house is more than a domicile and economic unit: it is where they are born, where they live their daily social lives, and where they are buried. Therefore, the house reflects, and at the same time dynamically structures and shapes, cosmology and social cognition. In other words, the facilities and their arrangement in a house have a socially constructed order and relationship that reflect and imply cosmological ideas and cultural cognition that are being shaped and transformed through human interaction through time (Chiang and Li 1995: 168-180). Ethnographic and historic sources provide insights into some of these social factors: the Pai-wan are traditionally a ranked society that practices primogeniture in which the eldest child in a family, whether he is a male or a female, inherits the name and property of the family. Land ownership and economic development are tightly bonded to these social structures, and they shape the use, distribution, and extension of lands in and around settlements. Settlement patterns and configurations, therefore, are shaped by these cultural and social aspects. This study on the Kau-shi abandoned slate house settlement Saqacengalj of approximately 500-600 years ago, using the spatial approach outlined above, and examining settlement components at multiple levels, is intended to illuminate important cultural and social aspects of Saqacengalj and, hopefully, to provide a historicized baseline and comparative methodology for reconstructing social structure in Southern Pai-wan groups of even earlier periods. Therefore, this project is primarily focused on studying and reconstructing architectural structures, household settlement patterns, and the socially meaningful configuration of space at the site level.

A CASE STUDY ON THE SAQACENGALJ, A SOUTHERN PAI-WAN SLATE HOUSE SETTLEMENT

Kau-shi and Saqacengalj

The Kau-shi village is located in Mu-dan County, Pin-dong District at the southern tip of Taiwan (see Fig. 1). The residents belong to the Pai-wan Group (in particular, the Southern Pai-wan Group), one of the indigenous groups in Taiwan. The current village was built in 1945 in a mountainous region covering an area of 2.573 acre, with 689 inhabitants. Their old village was the center of administration, education, economic activities, and transportation during the period of Japanese occupation (Chen 2000). The Kau-shi people were then called Kus-kus, and they belonged to the Parilarilao/Palilalgau of Southern Pai-wan (Chiang 2002; Kawa et al. 1988). The earliest document that mentioned the Kus-kus was written in 1647-1656 A.D. (Nakamura 1936) by the Dutch, providing historical evidence that the Kau-shi people existed in some form for at least 350 years.

According to their oral history, the Kau-shi people moved and established new settlements in the county six times before they settled in their current location. Oral tradition suggests that their oldest abandoned settlement, Saqacengalj, was the first place occupied by their ancestors when they immigrated into the region about 500 to 600 years ago. Since then, they abandoned their settlements and
Fig. 1. Location of Kau-shi and Saqacengalj.
migrated about five times to several different locations before finally moving to and building their current village 50 years ago. Recently, the Kau-shi people have developed a strong interest in this cultural heritage with the aim of illuminating their history and traditions, establishing a long-term cultural identity, and strengthening the solidarity of their village. The present project was carried out through the invitation of the village, and it aims to use settlement pattern analysis as a means of establishing patterns of cultural and social continuity and change among the Kau-shi people as the first step toward fulfilling the Kau-shi people’s own goals of material documentation of the past. Beyond this public service aim, however, the project demonstrates the importance of “settlement pattern” archaeology for reconstructing past dynamics of social organization, and for exploring the relationship between changing “social” landscapes, culturally constructed and historically contingent ideologies about space, and the transforming natural environment (land and resources).

Saqacengalj, literally, a tool for drilling slates, is located in the forested uplands at 120°51'25"E, 22°09'07"N and is seven to eight km from the current village (see Fig. 1). With an elevation of 250–300 m, the settlement is built on a flat slope (see Fig. 2), oriented along an east–west ridge, which includes more than 10 terraces with more than 83 slate architectural structures. The flat slope is adjacent to a dry creek in the south, a steep slope in the east, a dip in the west, and cliff lines in the north (see Fig. 3). This topography defines the main area of the
settlement, which is about 140 m from east to west and 100 m from north to south or 14,000 m² (1.4 ha). This size estimate only refers to the area of the slope where the 83 slate structures are distributed. It should be noted that there are some slate fragments that are spread south of the dry creek and, due to dense woods and underbrush, it is difficult to identify whether these are parts of completed structures or of bigger fragments that migrated outside the core site zone. Thick vegetation covering the mountain makes it difficult to discern the existence of a wall, other fortification-related standing structures, or remnants of thin bamboo barriers, which are typical of later Pai-wan settlements as means of simultaneously defending and defining their settlements. Therefore, the exact extent of the settlement and whether it was similarly fortified is still unknown. In addition, the Kau-shi villagers informed us that there is a small cluster of slate structures with about 20 discrete features located on the terrace just northwest of the west dip which the villagers called a “small settlement.” Due to financial limitations, however, this area could not be included in this study; therefore, the exact spatial relationship of this small area to Sagacengaij remains unknown at the present.

_Dating of Saqacengalj_

According to the oral history of the Kau-shi villagers, Saqacengalj is about 500 to 600 years old. Oral tradition states that conflict among the settlers eventually led to social divisions and suicides of significant community members. The settlement was culturally tainted as “bad land,” and it was finally abandoned. Since abandonment, the site became forbidden land for the Kau-shi people and other Pai-wan groups in the area. Large trees, with massive trunks requiring several people to encircle them, grew on many slate structures and the structures consequently col-
lapsed, with the size of the trees further supporting the significant age of the structures. Some ceramic sherds (see Fig. 4) were unearthed during the initial site clearing activity. A specialist (Prof. Chi-jen Chen, National Museum of History, Taiwan) identified these ceramics as having originated from South China and produced no earlier than the mid-Chin Dynasty period, though similar to ones that continued to be produced until very recently.

While ceramics are not conclusive as absolute dating evidence, they do indicate that the inhabitants of Saqacengalj interacted with and exchanged goods with the Han Chinese of the Chin Dynasty or with people who had access to Han Chinese pottery of this period. The ceramics suggest a date of about 280 to 300 years ago at the earliest for their entering the settlement. However, at this preliminary stage of analysis, we do not know if this is the earliest dating evidence of the settlement and the interaction of the inhabitants with Han Chinese or related groups (in contradiction to the oral history) or if the site may still yield datable items of earlier date. As mentioned above, the Kau-shi were called Kus-kus and existed, according to a Dutch document, around 350 years ago (fitting the ceramic dates). However, there is no historical reference that places the so-called Kus-kus ancestors at the site of Saqacengalj, again making it difficult to reconcile historical sources, oral tradition, and archaeological evidence for dating. In addition, the settlement is large and it is likely that it was not only built in stages over a long period but also was occupied for some time, going through stages of establishment, growth, expansion, collapse, and finally abandonment. In other words, every single architectural structure and household in the settlement has its own history, and the settlement as a whole has its own developmental trajectory. These factors (i.e., household histories and the larger social dynamics of the settlement over time) are likely responsible for the temporal disconformities at the site and the variation in structures.
Some of the questions for which we still have only preliminary or contradictory answers and which we can only begin to address here are: When did Saqacen-gaij inhabitants establish this settlement? What kind of life did the inhabitants live there? When did they start making contact with the Han Chinese or related groups? Did they make contact with groups other than the Han Chinese? What were the nature, characteristics, and content of the interactions? When did the inhabitants move out of the settlement? To be able to answer these questions, the site must be studied thoroughly through archaeological excavation in the near future.

Fieldwork Procedures

The primary goal for studying a site with architectural structures is not only to define the extent of the site and its cultural sequences and contents, but also to identify the spatial distribution of the structures, features, and artifacts within the settlement. Therefore, it is a priority to map the distribution of the structures within the settlement, which will be used as a guide for further planning of excavation strategy. In Saqacen-gaij, most of the architectural structures have collapsed but some are still partially standing. Mapping the layout of the structures and the configuration of the settlement, therefore, was the first step in the analysis. Wood, dense underbrush, and vegetation cover all of the structures and the entire area, since the settlement lies in the subtropical mountain forest, making the clearing process difficult. Due to financial limitations, we had to concentrate on a limited area within the settlement to reveal the layout of the structures. The mapping project primarily focused on the layout of the structures, but this was complemented with a profile drawing of certain special structures. Not a single structure was completely preserved; they were either partially or totally collapsed. All structures and slates that were still mostly intact and in their original places were mapped according to their size and position. In the case of structures that had a large number of missing components that were moved away from their original locations, or had collapsed into a pile of slates, only the extent of the piles was mapped.

THE RESULTS—THE SPATIAL PATTERN OF ARCHITECTURAL STRUCTURES

The Larger Settlement Configuration

There are 83 slate structures in the main area of the settlement arranged along the topography facing the east and the ocean, and which run parallel with the terraces. The slate structures are in parallel rows constituting 12 terraces, with the number of structures per terrace varying from 2 to 12 and the units on the same terrace adjacent and sharing sidewalls (the number of units adjacent to each other also varies from 2 to 6; see Fig. 5). While the slate structures are similar in form, they are extremely diverse in size, ranging from 3.89 m$^2$ to 72.44 m$^2$.

Besides the house structures, there are other kinds of slate structures, such as front yard, ditch, platform, and platform-attached structures. In front of most structural units (64 out of 83 units or 76%), there is a rectangle platform, varying in size, which is formed by stone slats. While some structural units have individual platforms (see Fig. 6), some adjacent structures share a platform that
Fig. 5. Configuration of Sagacengalj with its 83 structures.
stretches from one end (north wall) of a unit to the other end (south wall) of the other unit without any clear dividing feature (see Fig. 7). It is believed that the house structures without platforms originally had them, but they were destroyed, since most of these units have some slate fragments spread across the space where a platform would normally be located. According to some ethnographies and previous studies (Huang 1982; Li 1994; Li and Wun 1982; Tseng 1991) focused on some slate house settlements of the Pai-wan Group, there are similarities in the platform structures associated with the chief and the elites' houses; they have a diagnostic pole and skull shelves attached, which functioned as a meeting or ritual space. Some studies also reported that the platforms associated with the chief or with the elites' houses are larger than that of commoners (Kau 2003; Li 1994). However, whether some Pai-wan settlements only have platforms associated with the chief or the elites' houses and other settlements have platforms associated with both the elites and the commoners is unclear from these ethnographic sources. There are 64 (76%) structural units in Saqacengaij that have platform structures, but none of them have diagnostic poles and skull shelves attached as mentioned in other settlements that have been studied ethnographically, so it is not certain whether the function of the platforms at the archaeological site are similar.

Between the structural units and platforms are front yards that may be tiled by stone slates. In addition, ditches that can still be identified stretch out from the walls shared by adjacent structures, passing through the sides of the platforms.
before running down the terrace slopes (see Fig. 8). The two sides of linked individual structural units do not have ditches, but rather the outer edges of the adjacent linked units. Two units sharing a large platform especially, have a ditch. There are small structures attached to some platforms, but their specific form and function within the complex of features are unknown due to their fragmented states or their complete collapse.

**Inner Layout of Structural Units**

Since none of the 83 architectural structures is completely preserved, their form and inner layout are reconstructed through extrapolation and comparison with other structural units at the site.

**Size and Shape** — As mentioned earlier, the sizes of the structural units vary from 3.89 m² for the smallest to 72.44 m² for the largest, with a mean or average size of 18.27 m². The width of the units ranges from 1.82 m to 10.91 m with an average of 3.89 m, and their lengths range from 3.18 m to 7.55 m with an average of 4.52 m. Comparing the figures for length and width, it was discovered that there
were only three units (3.6%) having widths equal to their lengths (essentially square in shape); seven units (8.4%) have widths longer than their lengths (horizontal rectangular in shape); while the rest of the 73 units (88%) have lengths longer than their widths (vertical rectangular in shape).

**Direction** — Every structural unit is facing the east except for one (S1W3) that has no terrace slope on its western (rear) edge, but instead has flat topography to the west. This unusual unit has a structure with two short poles and some slates constructed like an entry on the left end of what should be the rear side, and thus the orientation of the structure in terms of “front” vs. “rear” is not clear (see Fig. 9).

**Rear and Side Wall** — Typically, slates of varied sizes piled up against the slope of an upper terrace form the rear (west) wall of a unit (see Fig. 10). The top of the wall is almost equal in height to the upper terrace. Some units, like unit 00 and 0N1, have a cave-like structure made up of four slates embedded in the right or left lower part of the rear wall. The four slates consist of two side walls, one top and one front half cover (see Fig. 11), encompassing an area of about 1.7 m × 1.7 m. The inner part of the cave is shallow and has some slates piled up from the bottom. The location of the cave is similar to the *tavi*, literally altar in *Pai-wan*, in Old *Lai-yi* that was used as an altar (Li 1994:3, 4–23), but the shape is not identical. Whether these features were used as a *tavi* or for some other purpose in *Saqacengalj* is unknown. Some units contain no slates along the rear wall, but instead bare terrace slopes, and there are no remnant slates to suggest that the rear wall was once marked with slates. Whether these houses originally lacked slates on their rear walls or such architectural details were completely destroyed is hard
to determine at this stage. The two sidewalls also generally have slates of varied sizes. The difference between rear and side walls is that some of the side walls have flat but extremely large slates attached or embedded on their inner side, which are either used to strengthen the wall or to construct an inner structure combined with other slates (see Fig. 12). Since no wall was completely preserved, the original heights of specific walls, roofs, and specific houses are unknown.

**Front Wall and Entry** — The form and structure of the front wall is different from the rear and side walls. It is comprised of several upright flat slates connected with each other, 50–130 cm in width, about 100 cm in height, and 8–10 cm in thickness. Besides the flat slates, there are 3 or 4 pole-like rectangular stones (see Fig. 13) placed between the flat slates, which complete the front wall (see Figs. 14
Fig. 11. Small cave-like structure embodied on the rear wall of unit 00.

and 15). The stones are 10–20 cm in thickness, 20–30 cm in width, about 100 cm in height, with an L-shaped top. The L-shaped top of the stone pole is assumed to hold a square-shaped wooden crossbeam. Two of them are erected individually next to both sidewalls, and one or two are placed at various intervals in the front wall. There are some rectangular stones about 20–30 cm by 5–8 cm by 8–10 cm in size, connected to each other, set on the ground outside of the front wall to function as a platform base for the wall (see Fig. 14). Every structural unit or “household” is independent, and although some share sidewalls, there is no opening or door that leads directly from one unit to another. Almost all of the front walls of the units were completely collapsed, making it difficult to reconstruct the

Fig. 12. Slates embodied on the sidewalls.
form of entryways and even their location. However, from the partially remain­ing front walls of some units (such as S2E1), it can be inferred that the entry might be located near the right or left end of the front wall. The structures of all walls are illustrated in Figure 16.

The Interior Structural Layout — Some slates appear to have been assembled into various features inside the units. However, these interior features are almost com-

Fig. 13. Stone pole that might support wooden crossbeam.

Fig. 14. Reconstructed front wall (outer view).

Fig. 15. Reconstructed front wall (inner view).
Fig. 16. Forms and structures of the four walls of unit 002.
pletely disturbed, the remaining slate fragments moved from their original positions. This makes the reconstruction of the original form and function of features, and interior structural layout, very difficult. However, synthesizing evidence from all of the 83 units, it appears that there are some small rectangular features formed by purposefully erected slates placed in various locations within the units (including the left, right, front, and rear part in the inner portion of units). Two units sharing a sidewall and platform have small rectangular features located in the left part of the left unit and in the right part of the right unit (see Fig. 17). Nine out of 13 groups (69%) that share a platform have small inner features displaying a left/right corresponding pattern, while one group shows left/left arrangement. One unit of each of the rest of the three groups has no clear track of the existence of the small feature, but the other unit has a small feature displayed in the expected left/right location. Meanwhile, in 69 percent of the 83 units the spatial arrangement of small features inside the units is a left/right or right/left corresponding pattern. This kind of highly patterned spatial arrangement is caused either by error in sampling incomplete structures or it is indicative of certain cultural practices that reflect specific social meanings, the nature of which we can only speculate at the moment.

**Inner House Burial** — Besides the small rectangular features, there are possible underground grave pits located inside some units. The pits are typically about 50 cm by 50 cm, constructed with slates on four walls, and located near the central or frontal third of a unit (see Fig. 18). No excavation has been yet carried out to attempt to ascertain the function of the pits, but according to oral history collected
specifically in *Kau-shi*, and more generally *Pai-uan* ethnographical studies (Chiang and Li 1995; Hsu 1992; Li 1994; Tseng 1991), these features might have been used to bury the dead inside the house. There are only four units that have this kind of pit structure in *Saqacengalj*. However, since slates and stone construction material were spread over the interior of most of the collapsed units and not all of these materials were movable at the mapping stage to expose the entire floor surface, we cannot rule out that these pit structures exist within other units.

**Poles** — There are varied forms of poles that were identified in different positions inside the units, in addition to those mentioned above (see Fig. 19). Given their forms and locations, they could have been used for supporting timber construction material (i.e., as crossbeams). For instance, in Figure 19 is a huge flat slate with an inclined top, on the rear end of which is a one-quarter concave piece. The pole is erected on the left/right front quarter. It could have been used as a partition wall and as a pole for holding a big round crossbeam of at least one of three kinds: a big square timber placed against the top of the front wall; a big round timber placed at the first third of the unit; or a small round timber placed in the rear part of the unit. Since none of the units were completely preserved, the total number and kinds of crossbeam used in constructing a unit are still unknown. No timber remains have been preserved to confirm the existence of crossbeams, their form, and the kind of wood they were produced from.

**Floor and Roof** — Some of the deposits were shallow and the floor of the front yard of unit 00 was exposed. The floor is shown to be neatly tiled by small slates (see Fig. 20). Therefore, it is expected that slates tiled the floors of other units and front yards. However, whether there is any variation in house flooring is unknown, since no wholly intact floors have been excavated. Similarly, no intact
building roofs remained that would allow us to identify original forms and material composition. However, the great amount of slate fragments spread all over the floors of units suggests that the roofs, as well as the floors, could have been manufactured of slate. According to the height and locations of the poles inside various units, the roofs could have been of an east–west, inverted-V shape. However, the position of the roof axis cannot be identified, since the heights of the poles are not completely known.

_Slate Material_ — The slates are all sandstone in composition,\(^3\) that could have been procured from local sand rock deposits evident in the region. A stream with a waterfall about 2.5 hours walking distance from the site has been located, which has a compositionally similar and abundant layered sandstone deposit at its base (see Fig. 21). However, more detailed studies of this raw material source (i.e., the possible location of extraction or workshop sites, the tools used for processing the slate, the waste products from extraction) are necessary to confirm the use of this locale as a source for the slate materials.

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**Fig. 19. Varied forms of stone poles.**

**Fig. 20. Slate-tiled floor of unit 00's front yard.**
As mentioned earlier, the Kau-shi belong to the Southern Pai-wan Group. According to Japanese documents, their cultural and social traditions were different from those of Northern, Western, and even closely related Eastern Groups during the Japanese occupation period. Most scholars believe that all the recent Pai-wan subgroups originated from the Northern Pai-wan Group due to the disintegration of groups and migration of the people into different regions. The Southern Pai-wan Group was believed to have branched off and immigrated into the Mu-dan County from the Western Pai-wan Group in a later period. Ethnographers and historians also suggest that, after making contact with the Japanese and the Han Chinese, their cultural traditions were heavily influenced and significantly changed. Because of these assumptions about their origins and the degree of external influence, most researchers have focused on the Northern Pai-wan Group, and studies on the Southern Pai-wan Group have been rare and fragmentary.

Saqacengaij has been popularly regarded in Kau-shi oral traditions as the Kau-shi's ancient land where they settled after immigrating to the region. The Kau-shi oral history narrates how their ancestors migrated from the ocean to the Mu-dan region, how they selected Saqacengaij to be their first settlement, and how internal conflict and resulting suicides made the place a socially and cosmologically defined "forbidden land" that they were forced to abandon. According to this narrative, they then moved and built several settlements in different places before settling on the current village. The route of the migration and related oral history were mapped and recorded by the villagers. All other Pai-wan groups in the Mu-dan County recognize Saqacengaij as the Kau-shi's ancient land based on acceptance of this oral tradition.

Japanese scholars were the first to study the settlements and architectures of the indigenous groups in Taiwan. Their early works, especially Chijilwa's (1937), contain very detailed descriptions, drawings, and photographs of the traditional ethnic architecture at various locales, forming a solid foundation for later academic research. Since then, most of the research on Pai-wan settlements and architectures was conducted by architects, and in few cases, anthropologists (Chijilwa...
1937; Chiang 2002; Chiang and Li 1995; Chien 1995; Huang 1982; Hsu 1992; Hsu 1996; Li 1994; Li and Wu 1982; Lin 1994; Tseng 1991). Most of the researchers focused on the Northern Pai-wan Group, because the architectural structures of the Northern Pai-wan Group have been regarded as more closely related to the origin of the Pai-wan. These studies focused on settlement patterns, architectural structures and their changes, architectural styles, or spatial arrangement in households and their cultural and social meanings. All of these studies, especially those concerning the Northern Pai-wan Group, are rich references for the study and reconstruction of Saqacengaij.

These studies summarize the characteristics of Pai-wan settlements as follows: 1) located in the mild-sloped area in the mountain woodlands; 2) characterized by stone slate house structures (floor, walls, roof, poles, and even interior structures) arranged in parallel lines, with numeral slope terraces usually set against the slope and facing the valley; 3) possessed an L-shaped cross-sectional foundation, which was formed by cutting the terrace and building the rear and sidewalls against the excavated portion; and 4) the size of the house and the front yard, and the presence or absence of the front platform, attached structures, symbolic pole, engraved decorative structural items, and the Ficus microcarpa tree determine the social status and wealth of the inhabitants of the house.

Synthetically, the initial results indicate that Saqacengaij shares some common characteristics with other Pai-wan settlements, but it also exhibits certain differences. In Saqacengaij, although a lot of structural units adjacent to each other share sidewalls, each unit is a single, individual unit with no pathway connecting it with other units. This is different from some Pai-wan settlements, especially in Old Lai-yi, which consist of both types: a single unit and compound unit that normally have two structures with a pathway connecting one unit to the other.

An analysis of the size of Saqacengaij's structural units indicates that the size is varied. There are 3 units that are almost square, 73 out of the 83 (88%) units have depths longer than their widths, and 7 units have widths longer than their depths with sizes larger than average, especially for two which are the biggest among all. Therefore, this indicates that the normal, general, and ideal shape of an architectural structure is vertical rectangular. Studies on other Pai-wan settlements show that the form of the architectural structure is either vertical or horizontal rectangular, but is less often square. Clearly, architectural forms vary among groups and settlements, and the social meaning of these differences needs to be explored. This variability in architecture is different from what Japanese documents recorded concerning the house structures of the South Pai-wan Group in the area during the Japanese occupation, which primarily emphasized the differences between elite and non-elite households; therefore, the larger architectural variation within a settlement is unclear from these sources.

If the topography of a settlement, typically a mild slope with several terraces, is the primary determining factor in architectural design, it is more rational for residential units to be designed as horizontal rectangular forms in order to gain more household space (as Old Lai-yi shows), since the length of the terrace is limited. However, conversely, the primary form of structural units in Saqacengaij is vertical rectangular, defying what would be predicted from topography considerations alone. Does this indicate that the inhabitants of Saqacengaij have certain consistent concepts about how their houses should be laid out and oriented? These spatial
concepts are clearly related to cultural, social, and ideological systems in the Saqa­
cenganj community of the period and need to be explored further through ethno­
graphic and archaeological analysis.

In addition, we do not have enough archaeological evidence and ethnohistoric
analysis at this point to unequivocally determine whether the social groups that
constituted economically and socially functioning corporate household units at
Saqacengalj were single archaeological structures or several such slate structures, al­
though we can make some significant observations on this issue using spatial ana­
lysis at the household and site level. Out of the 83 units, 64 have platform struc­
tures, and among these are 13 pairs of units adjacent to each other that share one
platform, while 9 of 13 pairs have inner features with the left/right corresponding
pattern. Even excluding the characteristics of platform sharing, the inner features
of the units, adjacency to each other, and sidewall sharing, a corresponding pat­
tern emphasizing left/right or right/left arrangements is also evident (see Fig. 22).

While it is conceivable that what we see as patterns of connectedness between
houses are due to disturbance at the site and distorted sampling caused by the
post-occupation collapse of the structures, this seems unlikely given the multiple
lines of evidence for this coherent spatial pattern in household layout at Saqacen­
galj. If the archaeologically constructed picture of socially interconnected house­
holds is an accurate one, then we can begin to explore how households were
conceived of in early southern Pai-wan groups. What was the typical size and
composition of residential groups? What was the nature of kin relations of house­
hold members in single structures and the residential groups to which they were
connected by these shared platforms and other features? How did marriage affect
household composition, and were there proscribed or ideal postmarital residence
rules? Detailed future excavations of individual structural units, mapping smaller
scale features and examining the spatial distribution of ceramics, metal and stone
tools, and other household goods, is likely to provide more insight into these
questions about the social use of space.

Turning to another dimension of social variability, social status and ranking,
previous ethnographic studies of Pai-wan settlements suggest that differences in
social status and wealth are not expressed in the materials, form, and spatial pat­
tern of houses but in the variation in size of the house and front yard, and the
presence or absence of the front platform, attached structures, rare materials, sym­
bolic poles, engraved decorative structural items, and the Ficus microcarpa tree
(Chiang 2002; Chiang and Li 1995, Chien 1995; Chijilwa 1937; Huang 1982;
ever, the preliminary archaeological work at Saqacengalj suggests that there may
be significant variation between sites and that household status distinctions may
not be wholly qualitative (i.e., presence or absence of features such as platforms,
certain attached structures, or decorative features), but may involve more subtle
quantitative features (i.e., platform size, house dimensions, internal complexity of
houses, and gradations of household goods).

S. Chijilwa, Y. Y. Li and C. Y. Wu, C. M. Huang, T. S. Kau, C. Y. Li, and
C. M. Tseng all mention that a primary characteristic of Pai-wan settlement is the
use of a platform attached to houses to signify the status of occupants as a chief or
an elite of some type. However, some sources make it clear that there are plat­
forms on non-elite houses and hint that differences might involve quantitative
Fig. 22. Left/right or right/left corresponding pattern of inner structures.
variations in size. Kau's and Li's reports state that the platforms of chiefs' or elites' houses were larger than that of commoners in the Old Lai-yi and Old Chi-chai, and that they functioned as places for meeting or ritual (Kau 2003; Li 1994). This indicates that in the Old Lai-yi and Old Chi-chai, not only the chiefs' or the elites' houses had platforms, but also commoners'. However, Kau's and Li's reports lack information on the percentage of commoners' houses having platforms in the settlements (i.e., whether all houses had such platforms or only a subset). In terms of platform function, Li's report did not include discussion about the function of platforms in commoners' houses, but Kau's work identified its use as a wind block or for defense. Is the more widespread use of platforms on houses a special characteristic of the Old Lai-yi and Old Chi-chai settlements that differentiates them from other Pai-wan settlements, or have other scholars been too selective in their orientation, paying more attention to the households of chiefs and elites without considering socially meaningful architectural variation over the settlement as a whole?

While in these earlier ethnographic studies the presence of an attached platform in the front yard of a house was viewed as significant for identifying households occupied by chiefs or other elites, at Saqacengaij, there are at least 64 units (76% of the structures) with platforms attached and, since it is unlikely that the majority of Saqacengaij occupants were elites, the presence of a platform clearly does not distinguish elites from commoners. Other status-related features associated with platforms in ethnohistoric work, such as a skull shelf, a symbolic pole, and a Ficus microcarpa tree, no longer remain at Saqacengaij and hence cannot be assessed archaeologically.

However, if we examine more details of the spatial layout of houses, several subtle patterns of variation that may be status-related emerge. As noted earlier, to adapt to the characteristic topography of these settlements on terraces, a house would ideally take a horizontal rectangular shape to gain maximum space. However, 84.4 percent of structural units in Saqacengaij are vertical rectangular in layout. Extending both sides of a unit at its width but not its length is the only way to enlarge it for purposes of representing differences in status, position, and wealth. Previous studies of Pai-wan settlements indicate that the houses of the chief or elites are always bigger than those of others and are arranged in a compound such as at the Old Lai-yi site, although some of the commoners' houses are also reported to be organized into compounds at this site (but the percentage of the total and the specific form of these commoner compounds is unreported; Li 1985). Turning to the evidence at Saqacengaij, seven structures at the site have widths longer than their lengths and are horizontal rectangular in shape, standing out as unique from others. Did the layout of these structures have a special social meaning, such as signifying a higher social status and social relation to the chief or the elites in Saqacengaij, and is this a pattern that we should reconsider at other Pai-wan settlements?

Regarding size, six out of seven units are horizontal and rectangular in shape bigger than the average (18.2 m²), and the respective sizes of unit 00 and S2W2 are 40.63 m² and 72.44 m², twice and quadruple the size of the average house. Unit 00 has a symbolic pole-like slate erected on the left front yard attached to the platform, and the Kau-shi villagers regard the unit as the chief's house. Unit 00 is not the biggest unit in Saqacengaij, and whether the slate pole is in situ or has
been moved is unknown. Although unit S2W2 is the largest house structure at the site, its structure and attached platform are not as elaborate as that of unit 00. Only further excavations at the site can help us to reconstruct possible social meanings associated with these architectural differences and their spatial distribution over the landscape. In addition, abundant portable material remains have been recorded at Saqacengalj, including the ubiquitous slate fragments, ceramics, stone tools, and metal pieces that can be analyzed in future stages of this project to determine whether there are household differences in goods and construction materials, as well as house features, layout, and size. Whether further analysis will uncover ethnographically reported features, such as the engraved decorative items like wooden poles, attached structures like a skull shelf and grain storage area, and symbolic poles to signify the social ranking, status, and wealth of the occupants, is still unknown.

The spatial distribution of these horizontal rectangular units over the larger settlement, and their relationship with adjacent structural units, are important in exploring certain cultural and social issues in Saqacengalj, if variation in these seven units are really related to social concepts of status (Fig. 23). As K. C. Chang emphasizes in his work on settlement archaeology (1972), culturally constructed ideas about land ownership shape socially-meaningful divisions of the landscape and affect the patterning of settlement in communities. In other words, land ownership or cultural conceptions of how land is to be controlled and managed is the medium through which kinship and community are defined and shaped. If the society of Saqacengalj was ranked and organized into socially stratified subgroups like other Paiwan groups (Chiang 2002), then we should be able to see these relationships between social organization, economic structure, and settlement development in the archaeological record at Saqacengalj. However, it is important to recognize that social strategies are historically contingent and change over time. Our inability to reconcile certain social patterns extracted from the archaeology at Saqacengalj, with the ethnographic and historic literature regarding Paiwan covering different periods over the last half millennium, might reflect this. The idea that their social organization and cultural practices have been enduring and unchanging and that descriptions of the Paiwan in ethnographic and historic sources can be directly applied to Saqacengalj should not be assumed, but instead needs to be verified through further archaeological research with a strong settlement system and spatial analysis orientation.

CONCLUSION

Saqacengalj shares a lot of characteristics with other Paiwan groups known historically and archaeologically in terms of settlement and architectural structures, such as using slate for building, placing settlements linearly along low slopes or terraces in mountain woodlands overlooking valleys, constructing L-shaped house foundation cross sections cutting into terraces, and designing houses with clearly designated front yards and associated platforms. Saqacengalj can be regarded as a Paiwan settlement if it has these characteristics, and the oral history of the Kuishi claiming Paiwan affiliation can be verified. However, we must recognize the influence of time, movement, and interaction of people in the development of a culture and society, and the relationship of Saqacengalj to other Paiwan settle-
Fig. 23. Distribution of the units in a horizontal rectangular shape.
ments of the same time period and to settlements more remote in time is likely to be complex and requires more study.

Chijilwa classified the forms of Pai-wan houses into six types (North, Na-wun, Mu-dan, Shau-chai, Tai-mai, and Bi-lu) and stated that the north and west types are the more traditional and original in form, because the Northern and Western Pai-wan groups are regarded as originators of the Pai-wan ethnic group. Most scholars agree with this assessment (Chiang and Li 1995; Huang 1982; Li 1994; Li and Wu 1982). Chijilwa also assessed that the Mu-dan type distributed in the Mu-dan area during the Japanese occupation was primarily influenced by the Han Chinese and was significantly changed from its original form. Not only were the materials of the house changed from slate to mud brick and grass, but the form and the inner structure of the house were also transformed by the incorporation of Han styles and perhaps adopted social meanings.

After comparing the Old Lai-yi and Na-jen sites (another slate house settlement in the Kenting area), S. F. Hsu stated that similarities at the two sites result from a shared origin, while differences are the result of special historic events and their adaptive strategies to different natural environments. He further inferred that the northern type was the general and popular form of Pai-wan house style that can be found in the mountainous area of South Taiwan. Later, due to migration, adaptation to different environments, and interaction with other ethnic groups, variation and changes in the southern locality ensued (1996:23–24). This interpretation has been upheld by scholars that believe that the Southern Pai-wan Group spread to the south from the Western Pai-wan Group, especially in the Mu-dan area, although scholars do not agree on the timeframe for this migration. Although Chijilwa’s writings left rich and detailed drawings, images, and descriptions for succeeding researchers, his work on the Pai-wan is more focused on the houses of elites, an emphasis that has continued in the reports on Old Lai-yi, such as C. Y. Li’s and C. M. Huang’s work, which also give more attention to higher status houses. The “representativeness” of these structures in depicting the larger Pai-wan society needs to be further examined, and archaeologists need to focus their attention on larger settlement configurations using an approach grounded in settlement systems studies and spatial analysis.

According to their oral history, the Kau-shi moved and established new settlements five times after they moved out from Saqacengalj and before settling in the current village; this process is said to have covered a period of 500 to 600 years. While ceramics unearthed from Saqacengalj can be dated from only about 300 years ago (up to the near present), they document a significant antiquity for the site. Further, in their oral history, the Kau-shi migrated two or three times before the Japanese occupied Taiwan. So far, most of the Pai-wan settlements previously studied by scholars, except those examined by Tseng that are 120 to 150 years old, were abandoned either during or after the Japanese occupation of Taiwan. In other words, these settlements are relatively recent, still inhabited shortly before or after the Japanese occupation. However, the date when these settlements were first established and inhabited, has not been determined archaeologically and is little discussed by the researchers. Even the Old Lai-yi site, which has been regarded as the representative of north and traditional types of Pai-wan settlement houses, was inhabited during the Japanese occupation and was not abandoned
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until the Chinese government took over Taiwan (Li 1994). In comparison, Saqa­
cengalj has been abandoned for several hundred years, and the date of its establish­
ment is not significantly later, and might be much earlier, than that of Old Lai-yi.
If this is the case, then Saqacengalj might be one of the oldest Pai-wan settlements
documented by archaeological and historic scholars. Thus, we cannot assume that
the scenario of original migration of Southern Pai-wan from the Western Pai-wan
region and Old Lai-yi as the most traditional of Pai-wan settlements and architec­tural styles, as the only possible scenario for Pai-wan history.

Alternative scenarios for Pai-wan population movements and regional diversifi­
cation should be verified through additional archaeological and historical analysis.
While Saqacengalj shares similar characteristics with others in terms of settlement
and architectural patterns, it exhibits certain differences as well. Previous scholars
believed that the northern type of Pai-wan settlement and architectural patterns
preserves a more traditional form and reflects less interaction with other ethnic
groups compared with that in the Mu-dai area. This needs to be addressed
through more firm chronologies for Pai-wan-affiliated sites in both the north and
the south. Meanwhile, there is no reason not to consider the settlement and ar­chitectural patterns Saqacengalj represents as “traditional” and “original” in style. Scholars that adhere to the scenario that all Pai-wan subgroups spread originally
from North Pai-wan to other areas, with the groups in Mu-dai immigrating into
the area in the latest period, should still find it helpful to compare Saqacengalj
with others to illustrate the trajectory change of Pai-wan settlement and architec­tural patterns. Moreover, the study of Saqacengalj and other abandoned settle­ments of the Kau-shi should reveal the cultural and social practices of the Pai-wan
Group in an historical context, including the range of cultural and social vari­
ations and the trajectory of change due to the influence of other ethnic groups,
especially contacts with Japanese and Han people who significantly influenced
the Kau-shi people’s original traditions. Comparing North with South Pai-wan,
both in contemporaneous periods and across time, should reveal both changes
and continuity, and through this illuminate important aspects of social and cul­
tural adaptability in Pai-wan culture.

C. Y. Li (1994), C. M. Huang (1982), and K. M. Hsu (1992) studied the spatial
construction and patterned arrangement of Pai-wan settlements, and how social
stratification is reflected in the diversity of architectural patterns and functions
(particularly the house size and the degree of complexity of interior spatial
arrangements to distinguish between elites and commoners). However, their sam­
pling of settlement sites failed to consider a representative cross section of house­
holds in the community, missing much of the subtle variation in settlement orga­
nization. The emphasis on elite households rather than more comprehensive
settlement patterns makes it difficult to understand larger patterns of social rank­
ing and status symboling in the community, and their material reflections in
household architecture and settlement organization.

In contrast, this study embraces a spatial analysis approach and emphasizes
larger settlement patterns at the site level. The preliminary stage of research in­
volved a detailed mapping of the distribution of architectural structures at the site
in order to analyze the larger settlement configuration as well as variation in the
layout of individual house structures. Some interesting patterns of variation in
house layout across the settlement that may have significant social meaning in terms of household composition and social ranking were revealed. Out of the 83 structural units, 73 (88%) were vertical rectangular in shape, but 7 were horizontal rectangular in shape with sizes larger than the average that were distributed in different locations within the settlement. The interior structures of the conjoined units (sharing platforms and walls) had a left/right corresponding pattern that might relate to household unit, kinship, or other social relations within conjoined households. These variations in house construction may indicate socially and economically meaningful ideologies of house form among the Saqacengalj inhabitants.

Additional work with ethnographic and historical literature may further illuminate this archaeologically encoded variation, especially work on the Pai-awan regarding the nature of social stratification, the composition of corporate households, and the control of land ownership by chief and elites before and since the Japanese occupation. For instance, are the seven house units that are horizontal rectangular in shape and larger in size related to signification of rank among chiefs and the elites? If these seven households are related to neighboring units that are further combined into different subgroups, would they represent different land ownership groups, and can an analysis of other material culture patterns reveal more about social and economic structures at Saqacengalj? These are questions that need to be addressed in future archaeological and historical (including oral history) studies at Saqacengalj and at other Pai-awan-associated sites.

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NOTES

1. An abandoned North Pai-awan settlement with slate house structures that is famous and was earlier studied by scholars.
2. Drawn by Chein-shu Tseng and Maa-ling Chen.
3. Slate samples were examined and identified by Pro. Wen-shan Chen of the department of Geology, National Taiwan University.
4. Photograph taken by Min-lain Chin.

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移川子之識、宮本延人、馬澤東一等著，黃麗雲譯 (KAWA, UTSUSHI, NENZO, NOBUTO MIYAMOTO, AND TOICHI MABUCHI; HUANG, LI-YU, TRANS.)
ABSTRACT

The present work combines archaeology, historical analysis, and ethnography to examine historical continuities in village social organization and settlement patterns in southern Taiwan in the mid- to late second millennium A.D. The focus of the work is Kau-shi village, located in Mu-dan County, Pin-dong District, at the southern tip of Taiwan. Its residents belong to the Southern Pai-wan Group, one of Taiwan’s indigenous populations. Kau-shi people moved and established new settlements six
times before they settled on the current village. Their oldest abandoned settlement, Saqacengalj, is located about 7 to 8 km from the current village, an archaeological site covering about 1.4 acres with more than 83 stone structures dated to 500–600 years B.P. (before present), known previously through mystical folktale and oral tradition, and only recently through archaeology. Archaeological mapping of site layout and structural features found that the Saqacengalj settlement shares certain characteristics with later Pai-wan settlements extending into the twentieth century. However, there are certain features distinctly Saqacengalj from these settlements. In addition, a significant percentage of the 83 structures at Saqacengalj have a unique arrangement of small structures within the larger structure not found in later villages. These initial archaeological analyses suggest significant historical changes in the cultural and social meaning of village settlement patterns of the Southern Pai-wan Group over this half-millennium. Keywords: Pai-wan Group, Taiwan, oral history, historical archaeology, slate houses, settlement pattern, social organization, status symbolization.