

Burial Patterns of Prehistoric Taiwan (Part I)

Chuan-Kun Ho

I. Introduction

Human burials are among the classes of cultural features most frequently encountered by cultural anthropologists in general, and archaeologists in particular. For the former, religious and ritual aspects of interment have been the main point of departure; for the latter, the starting point has been the analysis of formal patterns of archaeological remains. In other words, social and cultural anthropologists begin with people, inquiring about the society's sociocultural patterns and regularities. Contrarily, archaeologists must start with "things" belonging to the departed people. As its primary data base, this paper examines prehistoric burial patterns in Taiwan spatially and sequentially (see Figure 1; details concerning these sites are given in Appendix 1). These data are then analyzed to determine how they may shed light on sociocultural change during prehistoric periods in Taiwan.

Burial patterns are operationally inferred by archaeologists from comparing similarities and differences in patterned features, and by using ethnographic parallels as heuristic models for interpretation. Patterned features of different archaeological data are abstracted from two kinds of remains: the remains of the substances used by the former occupants of the sites, and the remains of the occupants themselves. The first may be termed "cultural remains" and the second "morphological remains" (Rouse 1972:35).

After imposing cultural meanings or implications on burial features, the archaeologist tends to make explanations in terms of historical contact or, in Binford's terms, the "normative school," and of evolutionary adaptation and structural differentiation in terms of the "processual school" (Binford 1972:114). As concerns mode of analysis, for problem-oriented students the testing of hypotheses and model building may be their goal. For the culture-historically oriented, burial patterns themselves may be regarded rather as spatial and temporal integrative devices.

This paper does not follow either of these orientations consistently. Rather, it attempts to make use of all obtainable data, however fragmentary; and, adopting a paradigmatic classification as a research strategy. It attempts to differentiate as minutely as possible all determinable types of burial patterns, and these in terms of spatial distribution and temporal continuity or discontinuity. Then, using ethnographic data as a baseline, an attempt is made to "upstream" by projecting ethnohistorical burial practices backward into prehistoric periods of varying and undetermined age.

After regarding burial forms in a space/time framework, then, questions of ethnic identity or precedence come to mind. Of course, exclusively qualitative studies of cultural features solely from archaeological and ethnohistorical records do not help us with these questions which might be our ultimate goal of study. Hopefully, some inferential assistance may be provided by qualitative evidence from linguistics, oral tradition, and physical anthropology.

Before proceeding further, it may be proper to briefly describe the data available. Ethnohistorical and ethnographic data are drawn generally from Japanese and Chinese literature from the ethnographic present (1775-1896), and from Dutch documents covering the period 1628-1664. Most archaeological data we owe to tedious spade-work by Japanese and Chinese scholars in the present century. The data obviously are incomplete, but nevertheless represent a broad spectrum of information pertaining to different periods (ca. 1400 B.C. to the present) and areas (the mainland and outlying islands of Taiwan).

In this study, the data are grouped according to time periods, cultural and regional divisions and local sites, local areas, and phases. References for these data are indicated in the last column of the Appendix 1.

II. Research Tactics

Tadao Kano, in his monumental *Outline of the Ethnology and Archaeology of Taiwan* (1955), suggested that prehistoric burial customs of Taiwan may be classified in terms of the position of the corpse: squatting (flexed) or extended. Each of these could then be subdivided according to deposition: supine or on side (Kano 1955). Additionally, he proposed that the length of the burial container may be functionally related to burial posture; specifically, the short types (ca. 100cm) go with flexed burial and the long types (ca. 150-200cm) with extended burial. Kano then traced the spatial distribution of each type and concluded that whereas the short type was clustered along the west coast, the long type was confined to the east coast.

Kano's classificatory criteria, as seen above, were twofold: position and container type. In other words, form and function were his initial points of departure, with spatial distribution forming his second. Since form and space were treated by Kano in a synchronic way, the historical significance of different burial customs has been left unexplained. Reasons for this treatment include the fact that modern dating methods were not then available on the one hand, and that Kano's approach was primarily ethnological on the other. It is undeniable that his pioneering work in Taiwan has stimulated many recent ethnologists and archaeologists toward further research along the lines he laid out. The present study makes use of Kano's classificatory scheme as a main reference framework for paradigmatic classification (cf. Dunnell 1971).

Burials may then be said to be the field of analysis, the underlying dimension of which may be the disposal container and position. For disposal containers, features included will be: unmodified pit, cist grave, stone sarcophagus, jar, and plank coffin. An unmodified pit functions as a "null feature, since the individual is not placed in any container *per se*" (redfrey 1973:104). Technically, a cist grave is a rectangular enclosure lined with slabs. A stone sarphagus is a rock-cut depression *in situ* or may be a free-standing vat or tank, sometimes carved with protrusions on the side and end walls. The plank coffin is by definition a rectangular container manufactured of wooden planks, with or without lid. In contrast to cist graves, jars, and plank coffins, stone sarcophagi are generally fashioned where the appropriate lithic formation occurs naturally and by their very size and weight are essentially fixed *in situ*, and are thus less "portable" than the other types of burial receptacles. The position dimension, following Sprague (1968:481):

[pertains] to the body and is concerned with the relationship of legs to the trunk; based on the degree of flexure, two features, extended and non-extended are defined. "Extended" describes the situation in which the lower limbs are in the same horizontal planes as the trunk. "Non-extended" denotes that position in which the legs (femora) are less than 90 degree to the trunk (vertebral column) (referred to as the flexed position) or at a right angle or greater to the trunk (usually termed the semiflexed position).

Eight permutations are made possible if each positional feature is combined with each of the disposal container features. Each possible resulting class is filled by at least one of the 1247 analyzable burials from Taiwan, and all 1247 burials can be classified by these criteria (see Table 1).

Before describing the formal classes in detail, it is necessary to carefully distinguish between objective and relative typological concepts. Chang defines an objective typology as "consisting of actual variations selected from archaeological assemblages, regardless of origin, and classified into a single category according to objective cross-cultural and cross-social criteria that are, to the best of our knowledge, universally valid and applicable" (1968b:4). In contrast, a relative typology "includes only those variations that cluster around a common modal standard, within a single cultural or social system" (ibid). To rephrase these distinctions in terms of our mortuary data, the actual forms and materials used in the construction of burial disposal containers would, according to Chang, fall into the objective category, whereas body position and orientation of the corpse (including directions in which the head points and the container lies) would fall into a relative typological scheme. In other words, a relative typology has to be expressed in terms of mode. In line with this, for analytical purposes we must first delineate an objective typology. Following this, a relative typology will constitute our conceptual tool for explanation and historical synthesis.

The distinctions established above were formulated for settlement oriented studies. After all, without the insights provided by community patterns, how are we going to delineate cultural or social systems solely from cultural and morphological remains unearthed within the context of human burials? To make the most of our limited data, we must draw insight from general cross-cultural comparisons and then from the direct historical approach in particular. From the former we may deduce subsistence economy-related community patterns and test them ethnographically within our sphere of research. Subsequently we may use descent and community related burial customs as an explanatory device to articulate archaeological data.

Our first task will be to determine relevant heuristic structural developmental models of settlement patterns and community patterns within somewhat parallel environmental and ecological areas. For this, Chang's 1958 article is suggestive and insightful. Since his model is a good starting point, let me quote it at length:

In Southeast Asia, we observe a developmental history of agricultural form slash-and burn, dibble-hoe-farming structurally correlated with extended family household, shifting settlement, folk-pattern village community as economic unit of production and residential unit of corporate lineages, communal land ownership, little importance of the aggregate) ... to an irrigated stock-plowing wet-farming (with the nuclear family household as economic unit of production, sedentary settlement, peasant pattern of community of self-insufficient nature, bilaterality in the principle of descent reckoning, individual ownership of land, importance of

the aggregate level of local grouping) ... this development takes the form of transmissions of networks of structural concomitants and may occur chronologically, as sequenced as economy-residence-land tenure-descent-kinship terminology by Driver (1956) and Murdock (1949)" (Chang 1958:75, 76).

In an archaeological situation, the aforementioned sequence may be regarded as representing hierarchial levels of abstraction. As a matter of economy it will pose little difficulty for archaeologists because things – tangible remains – all of these can be inferred from the analysis of horizontal micro-distribution patterns of ceramic design elements and their correlated and articulated cultural systems and subsystems (see for example successful case studies by Deetz (1965), Longacre (1970), and Hill (1970)).

If these can be worked out without too much difficulty, then it will not be imprudent to take another step forward and make the following assumption: lineality in descent reckoning should have a higher correlation with burial in cemeteries or common burial grounds. In other words, if a prehistoric community emphasized lineality and solidarity continuity by descent groups, then we may find that burial patterns could have a non-random distribution. Consistently with this, we may further predict that corpses will be oriented consistently toward on specific direction. Conversely, in a bilateral descent situation, burial patterns will be randomly distributed and burial orientation will be multidirectional.

These unverified working hypotheses must be tested ethnographically before they may be applied as models for explaining archaeological burial remains. Since the data which will be tested in this regard are included in our study of the ethnographic ('ethnographic present') period, the data will be described first. For this period, I have depended heavily upon Chiao's ethnographic survey, *Report on the Flexed Burials of Formosan Aborigines* (1960). Chiao's data include not only the results of his own survey conducted in 1957-1958, but also are supplemented from the extensive ethnographic literature produced by Japanese scholars during Taiwan's occupation by Japan (1895-1945).

Chiao categorizes burials among nine contemporary ethnic groups in terms of eight dimensions:

1. orientation of the head
2. orientation of face
3. angle of right hip joint
4. angle of left hip joint
5. angle of right elbow joint
6. angle of left elbow joint
7. angle of right knee joint
8. angle of left knee joint

According to his conclusions,

most of the Formosan aborigines, except the Puyuma and northern Amis tribes, practiced flexed burial up to recent years (1958). A part of the Paiwan, Rukai, and southern Amis tribes still use this method of burial at present. (Chiao 1960:124).

To counter-balance Chiao's one-sided interest in flexed burials and in order to explore further the social dimensions of burial customs, I have rearranged Chiao's (1960) data and checked these against his later research on Puyuma burials (1973), as well as the Paiwan data collected by Tang (1973; 1975), empirically testing Binford's assumptions on the one hand and establishing an explanatory framework on the other.

Binford delineates three dimensions with regard to burial data:

- (1) differential treatment of the physical remains;
- (2) differential preparation of the facility in which the body was placed for disposal;
and
- (3) differential contributions to the burial furniture placed in with the body (1972: 231-233).

He further subdivides the second dimension with three more modes: form, orientation, and location of the facility. The third dimension is differentiated according to form, quantity, and form and quantity of included furniture. We shall see later the result of cross-tabulating these dimensions and their modes with six other dimensional distinctions: conditions and location of death, deceased's age, sex, social position, and social affiliations (O'Shea 1984). Data covering all these dimensions and modes are not always available. In this study, I will include such data in as much as possible; in some instances guesswork will be resorted to when absolutely necessary.

Cross-tabulation of the foregoing dimensional features of the burial customs of Taiwan aboriginal ethnic groups (see Figure 2; cf. also Tables 2-10) the following generalizations can be deduced:

- (1) Burial forms and manner of disposal are determined by different conditions and locations of death. Normal death is distinguished from accidental death as a criterion for burial within the settlement (indoors or near the house) rather than in some insignificant location in the general vicinity or simply abandoning the corpse outside the settlement.
- (2) Preparation and treatment of the body, as well as the type of grave goods, vary according to the sex, age, and role and status of the deceased.
- (3) Orientation of the head or face may be in terms of cardinal points (particularly east for sunrise, or west for sunset), deities (where the sun may be regarded as a life-giving or protecting spirit), or specific topographic features (such as mythological homeland, or river).

It will be noted that present-day ethnic groups who utilize stone cist grave are all located within zones characterized by the occurrence of Palaeozoic, Jurrassic and Tertiary shale, slate and sandstone, limestone. The distribution of these formations in Taiwan make two-dimensional comparisons somewhat unsuitable for the delineation of behavioral patterning.

In order to explore such behavioral factors, especially social groupings, the formal classes mentioned earlier must be rearranged in binary (contrastive) and hierachical (sequential) analytical models. In this way, ten burial patterns can be formulated (Figure 3). At this point,

Binford's paradigm, which has been tested ethnographically, is a useful heuristic model for explaining our mortuary data.

We do, however, have to ask whether ethnographic flexed burial models may legitimately be applied to prehistoric extended burials. To put it another way, is it valid to use data from the ethnographic present as a key to understanding burial customs in the past, especially when these are different in form? For purposes of this study the answer must be "yes," because the different burial customs of extant ethnic groups occupying their respective present ecological niches represent, diachronically, long-term acculturational as well as assimilational processes. Logically speaking, it might be surprising to find that short distance/direct-historical inferences concerning burial customs may no more approximate historical reality than do those inferred over longer distances.

III. Burial Patterns in Ethnohistoric Period and Ethnographic Present The Ethnohistoric Period

Our earliest known mortuary data from this or earlier periods come from the *Sui-Shu* (A.D. 636). Many scholars have argued convincingly that the "country of Liu Kiu" (*Liu-chiu Kuo*) mentioned there is Taiwan, although Liang (1965:107-159) argues that the name must refer to the Ryukyus of the present day. Most scholars accept the customs given in the *Sui-Shu* as representing those of some part of aboriginal Taiwan, and we shall tentatively accept this view. In this earliest historic record it is stated that:

On the northern border, before death the dying person moved out to the courtyard before the house. There, after death occurred, the corpse was shown to arriving mourners. The corpse was then washed and wrapped in a piece of cloth, secured with grass [cord], and interred in a pit grave without any superstructure. Finally, the closest kinsmen of the deceased could not eat meat for a whole month. Contrarily, those in the south ate and shared the corpse [sic!] with the entire community. [Does this represent cannibalism?]

In the early part of the seventeenth century, in his *Notes on Eastern Barbarians* Chen Ti tells us that when a man died, fire was lit with dry wood around the corpse for dessication, as mourners wept uncontrollably. The corpse was then taken back to the house and interred as soon as it was completely dried. Later the corpse had to be dried a full year. After several generations the deceased's relatives had to move from the house, and the house burial was deserted forever. In another version we are told that after the body was dried out the corpse was placed in the house, without any disposal container. When the house needed repairs, the body would be buried, unsealed, in a standing position beneath the house. The corpse would not be interred until the house needed to be remodeled or repaired.

From the seventeenth century on, we have Dutch (1624-1661) and Chinese historical documents (1736 to present). Descriptions of burials in these sources will be our focus point. The following depictions, based on Ferrell (1969a; 1969b), will be given from south to north (see Figure 3).

Candidius (1630) mentions that among the Siraya, "every group of sixteen families had their own 'chapel'". The north side of the building was reserved for sacrifices of 'living beings' while the south side served as a burial place and for sacrifices for the dead (cited from de

de Beauclair 1070:401).

The Hoanya were located between the southwest and west-central regions of Taiwan. Huang (1736:116) mentions that the Lloa subdivision practiced wooden plank burial; the other subdivision, the Arikun, wrapped the corpse and then interred it.

The Favorlang, northern neighbours of the Hoanya, buried the rich in wooden coffins along with things they had formerly used. When one's mother or father died, one wore black clothing and was in mourning for three months.

The Papora, northern neighbours of Favorlang, wrapped the corpse in a grass mat and then buried it along with the deceased's possessions (Huang 1736:120, 125-126).

The Taokas, located between the Ketangalan in the north and the Pazeh in the south, wrapped the corpse, naked, in a deerskin. The corpse was then carried by four kinsmen, using a deerskin as a stretcher, into the mountains. The body, covered with the deceased's own clothes, was buried in the earth. After burial, kinsmen were not permitted to leave their houses for three days. During the mourning period no singing was permitted, nor could any grinding with mortar and pestle be done. The food for members of the bereaved family was prepared by close relatives (Huang 1736:131).

North of the Taokas, the Liulang and Ketangalan interred the corpse in a timber coffin. After a three-day mourning period, all kinsmen had to take a bath and their clothes had to be washed (Huang 1736:136).

In addition to the customs described above, Chen Lo (1896) states that in ancient times the corpse was placed in a wooden coffin and then the possessions of the deceased were divided into 'ten portions' [among the household?]. One of these would be buried as grave goods, and the rest given to the bereaved family. Ten years later (ca 1898?), already highly acculturated with Chinese settlers, these people used Chinese earthenware as disposal containers (probably for secondary burial). The corpse was then buried outside the house, and the property of the deceased was not buried with the body, in accordance with Chinese custom. Such earthenware vessels or urns were mentioned by Kokubu (1956), who noted that jar burial flourished near the Keiron: (keelung) tribe (of the Ketangalan). We may here add that identical jars were unearthed at the site of Hualien Park, on the east coast (Pearson 1969).

From the above it can be seen that all available historic records describe the social life of lowland and littoral culture groups of Taiwan, and that no data are available concerning the upland groups. It is easy to understand such restricted or sporadic documentation: these were the first groups encountered by foreign observers. Before the arrival of the latter on this 'beautiful island - Ilha Formosa' Chinese immigrants, most of them pirates and outlaws, had already intermarried with the natives. Thus a direct approach to these highly Sinicized and 'Dutch-ized' lowland groups ethnographically is now an impossible mission.

The Ethnographic Present

Data from the ethnographic present are presented in chart form. Figure 2 shows the distribution of Taiwan aboriginal ethno-linguistic groups; Tables 2-11 present burial data for these groups where available.



IV. Prehistoric Burial Patterns

The ten burial patterns discernible in the archaeological record of Taiwan are discussed in detail in this section. Comparative data and tentative conclusions are included concerning relationships between the various prehistoric cultures in which these patterns are respectively found.

Pattern I

The main features of this patterns are: extended, supine, without container, and face of the deceased oriented toward an easterly direction (see Figure 4c). If 'patterning' means 'form repetitively occurring,' then 'class' might be a better term for this. But this particular burial was determined to belong to the Taiwan Lungshanoid horizon, and has been carbon-14 dated; furthermore, the typical site, Fengpitou, is representative of this horizon in Taiwan and yields clues as to settlement patterning. For this reason we retain this burial as a key for comparison involving other burial patterns which will be discussed later.

The burial itself was located in the central part of a northern slope in the lower shellmound settlement of the site. During this occupation (1400-900 B.C.) the settlement "witnessed the first indication of a well-defined community patterning – in addition to cultivation of plants, hunting, fishing, and shell-gathering activities became much more extensive, both the black and painted pottery increase in quantity – probably contributing to the population increase" (Chang 1969:131-132).

Judging from the painted design element, according to Chang two clusters are formed for northern and southern villages of the settlement, respectively. Furthermore, the burial faced toward the east as well as being deposited in the northern village. We may infer that this man of advanced age, Oceanic Mongoloid in physical traits, was a member of the northern village (Hsu, in Chang 1969:261). Although he was surrounded by "potsherds, animal bones, and other items of trash" (Chang 1969:132), no grave goods were interred with him; thus we are left in the dark with regard to social status of this man. We might perhaps suggest that the community plan was segmented (dual organization?)

As for external affinities of this burial, Chang mentions Chuang-Pien Shan and Tan-shih Shan, near Foochow in central Fukien province. This resemblance is not only in cultural inventory, but also in settlement patterning (ibid:230-231).

Pattern II

This pattern is clearly associated with the 'megalithic' culture. The main characteristics of this pattern are: stone sarcophagi (Figure 5), stone tanks, stone rings, stone ladders (Figure 19), and monoliths. Spatially, sites are roughly located sporadically between just south of Hualien and north of Taitung, on the east coast of Taiwan, east of the Taitung rift valley and coastal hills (Figure 1). Reasoning exclusively from the form of the stone containers we suggest that extended burial may have been predominant in this area. However, no human remains have been found within the containers.

Drawing insights from ethnographic parallels, we may suggest that the skeletal remains

were deposited in some other, undetermined location. For detailed comparison, dimensional descriptions will be given in Table 11; these data are drawn from spotty materials provided by Kano (1955), Sung (1967) and Egli (1972).

Simply from looking at the size and energy expended in the manufacture of such elaborate stone sarcophagi, one immediately thinks "stratified society." Kano (1956) has already suspected such a possibility, and further suggests that these stone containers were worked with metal tools (iron chisels). From ethnographic data on Aguni and Yonaguni islands, Ryukyus, we learn that "there is a definite correlation between wealth as demonstrated by domestic architecture ... and the number and quality of stone tanks" (Pearson 1969:101). With regard to the use of protrusions on some of the stone sarcophagi we read the following description from the same islands: "The Nakazato family of Aguni has five tanks at one house site, and the present head of the family said that in his childhood he saw a tank taken from the quarry to the village by a large group of people" (Pearson 1969:101). From these parallels, it is apparent that such stone sarcophagi and stone tanks could be regarded as prestige objects and for mortuary purposes on the one hand, and in association with a stratified society on the other.

As for the perforations or 'ditches' in the bottom of the sarcophagi, they might function as a drainage hole to allow the juices of the decaying corpse to escape (Ferrell, personal communication). If this were the case, the deceased must have been carefully prepared, and the bones may have been left *in situ* or subsequently buried elsewhere.

The orientation of this type of container is indicated only by Egli (1972). In his example it was pointed in a north-to-south direction. At this moment it is legitimate to ask what may be the relationship between Pattern II and Pattern V (to be discussed later). For the moment let us merely say that the cist burials of Pattern V are oriented in an east-to-west direction, and flourished south of Taitung around 500 B.C.; stone sarcophagi we will tentatively date at around 1100 B.C.. Since Sung (1967) lists a stone sarcophagus (his 'rock-cut coffin') at the Chilin site, it is safe to say that our proposed dual classifications for the 'megalithic' and the Taiyuan phase could be borne out. Further discussion will be given in the section dealing with Pattern V.

Pattern III

Typical of sites of this pattern is the Tamalin site on the Ailan terrace in the southern portion of the Puli Basin, west-central Taiwan (Figure 1). Once again, no human remains have been reported in association with this pattern. Extended position is inferred from the length of the cist containers — probably supine. Slate predominates as the material for constructing these containers. The containers are without exception oriented east-to-west (Figure 6).

This particular site was first reported in 1931 by Suzuki as having a short-type cist with 'squatting' human remains. Following him, in 1938 Asai and others jointly excavated the Hsieh garden site where they found five stone cists. Most of these were lined with eight pieces of slate, had lids, and lacked human remains but contained broken stone hoes; the orientation of these cists was clearly east-to-west. Burial V was only 50-60cm long, and due to its location near burial IV the excavators believed the two cists to represent a group burial of mother and child (Liu 1956). This burial is shown in Figure 6 at bottom. Liu Chih-Wan in 1947 unearthed another cist coffin (Figure 6. 1a, b, c). According to him, as the western end of the cist is wider

than the eastern one, he inferred that the head of the deceased probably pointed to the west, and the feet to the east (Liu 1956). The following year professor Sung Wen-hsun, leading Taiwan archaeologist, surveyed this site and collected a large amount of potsherds. It was only in 1949 that the site was first excavated on a large scale; the excavation was sponsored by the Academia Sinica and was under the guidance of Dr. Li Chi. In all five stone cists, eight trash pits, potsherds and stone artifacts have been reported from this site. Looting and destruction by insects were posited as the reasons for the lack of human remains first by Shih (Liu 1958). The most recent systematic excavation and area survey were undertaken by Richard Stamps, whom I joined in digging up several stone cists on the Ailan terrace. The following descriptions are based upon his final report, published in 1974.

Stamps tentatively proposes three cultural periods for the Puli Basin: the Shuiwaku period (1332-431 B.C.), Tamalin period (247 B.C.-A.D. 167), and Modern period (A.D. 1500-present). For purposes of the present discussion, the first two of these periods will be our main focal point.

During the Shuiwaku period, stone cists capable of accommodating extensive burials were observed. According to the generalized burial features, Stamps (1974:6) suggests that "no social or economic stratification could be differentiated." In view of settlement pattern and artifact inventory, he suggests that grain horticulture supplemented by hunting and fishing was the subsistence base of the people associated with this phase.

In the next period stone cists are abundant and varied in size. Content and energy expended in the preparation of the burial cist varies greatly. Ceramic types increase in quantity and quality. Settlement patterns have shifted from scattered hamlets to localized villages. In Stamp's opinion such a trend to clustering and differential burial customs may be explained as representing "cultural inputs from the Yin-pu horizon from the west central coast area (1974:7).

From the Tamalin period into the modern period we witness the appearance of widespread sites on the terraces around the Puli Basin. Brownish gray pottery predominates. Grooved stone net sinkers are more abundant than artifacts associated with agriculture. Smaller, square cists (for flexed burials) now appear along with the rectangular (extended burial) cists.

From the foregoing description of burial forms in chronological order we may generalize that extended burial customs remained relatively stable throughout the first and second period – about one and one-half millenia. In the latter period we have witnessed more varieties of burials, which have attributed to social differentiation. At the same time, such unusual change is extremely important since as Chang (1974) have mentioned, during the Tamalin phase (1500 B.C.-A.D. 700) including the Yingpu site "population expansion was not only inward and upward but also outward and downward ... the sites are densest in distribution, and located on the upper terrace." At this point we have to know about the stimulus for population expansion.

In answering this question, we must discuss the relationship between subsistence system and settlement system. As mentioned earlier, Stamps points out that grain cultivation supplemented with hunting and fishing was the main subsistence base of the people during the first period in this area. In conjunction with this, settlement tends to be dispersed in pattern. This raises the question as whether the cultivation involved is swidden or paddy farming.

Chang suggests paddy cultivation, from evidences of grain impressions on potsherds unearthed from the Yinpu site (1969). Stamp's inference is based upon rectangular and crescent-shaped reaping knives; this causes us to wonder what the presence of two types of reaping tools may mean — that single crops, or varied plants, were harvested? This problem must be posed, since different subsistence bases may reflect different ecological exploitation systems as well as social organizations.

Keeping this problem in mind, we presume that swidden cultivation may have been dominant during the first and second periods. Our evidences involve a pollen profile from a nearby site in this general microenvironment, and also its culture features. From this period we have “a change in frequencies of ceramics ... demonstrated by a loss of almost all of the Shiuwaku period ... the site was abandoned at the end of the level C-6, at which time it lay fallow, allowing the forest to regenerate itself. Then, in C-5 times it was reoccupied and never allowed to return to forest again” (Stamp 1974:6). If this reasoning is sound, then we will take a further step and presume that population growth might be one of the main factors for the fallow period having been shortened. In line with this, we may surmise that paddy cultivation could have been practiced by people in the Puli Basin around the beginning of the Christian era. The swidden sites may then be used exclusively as burial grounds (110 burials have been pointed out by local informants) for the Tamalin community or communities.

At this point Chang's model come into play. If swidden cultivation is related to dispersed settlements and descent is reckoned through the corporate lineage, then we probably could suggest that such lineality may possibly be reflected in burial patterning — the common burial ground, so to speak. Conversely paddy cultivation by definition is associated with condensed settlements and if bilaterality may be inferred to be the social preference, then burial patterning for such a social grouping might be randomly distributed.

With these two models as our conceptual framework, let us test them archaeologically (see Table 12). During the Shuiwaku period, sites are dispersely distributed and burials are extended in position and unidirectional in orientation; swidden cultivation was the base for the subsistence economy. It was in the next (Tamalin) period that paddy cultivation appeared; burials varied not only in size but also in quantity, and settlement tends to be highly localized. Now our models seem to be confirmed in general. Furthermore, we may suggest that during the Shuiwaku period, social groups might be lineally oriented, while in the Tamalin and Modern periods bilaterally prevailed. Such trends coincide quite well with Ferrell's suspicion that “the Paiwanic I tend to be ambilineal” (1969b:189).

Pattern IV

Representative sites of this pattern are O-luan-pi and Kenting, on the southern tip of Taiwan (Figure 1). The former was excavated by Sung in 1966, the latter by a party from the Taihoku Imperial University (Taipei) in 1934. Main characteristics of this mortuary pattern are: extended position, supine posture, with the body interred within coral and sandstone disposal containers (Fig. 7). Other related features are shown in Table 13.

After comparing the differential treatment of the deceased; specialized grave goods contrasting to utility vessels; tooth removal as “a new visible appearance [as] a mark of a new social status” (Leach 1976:61); and shell armlets on right and left arms as another status

symbol, we may conclude that such patterning was made possible by graded rather than stratified type social groups. If we add the dominant orientation of the cists as directed toward the north to northwest as a point of emphasis, we might take a further step in suggesting that such social groups may have been a lineal-type society. In a recent paper Li reaches the same conclusion, approaching from a quite different angle. Using horizontal micro-distribution patterning of ceramic style elements and stylistic variations of net-sinkers from the O-luan-pi site and drawing insight from ethnographic parallels, he affirms that the "prehistoric people of O-luan-pi was characterized by matrilineal residence and community exogamy" (Li 1974:61). These inferences will be elaborated upon below, but first we must settle our cultural chronology.

After comparing cultural traits and modes of burials in Hsiao-liu-chiu, Fengpitou upper shellmound components, and Kenting, Sung (1967a:46) states that these "probably not only belonged to the same cultural stage but also to the same general age." However, in another context, we are told that "the cist burials of Shao-liu-kiu are associated with Chinese porcelain" (Sung 1967:46). Besides this, Kano mentioned that "one of the stone cists [contained] a Kang-Hsi coin" (A.D. 1662-1723). Based on this evidence, Pearson argues that "if this is not an intrusive piece, then Keng-ting cist coffins are only about 250 years old" (1968:150). Here Sung feels uncomfortable about such a late date and explains that in view of "the thin and shallow nature of the cultural deposition at those sites, it seems more likely that the Chinese artifacts were intruded into the stone age deposits rather than associated with them." (Sung 1967a:46).

Let us compare cultural similarities between the Kenting and O-luan-pi sites:

- shell bracelets are on the left arm of the dead;
- Turbo cornutus shell-beads and scrapers are found;
- Shark vertebrae are used as neck ornaments;
- tooth extraction is practiced;
- the 'betel'-chewing habit is evidenced;
- ceramic vessels are similar (e.g., basins, ring-feet, and engraved potsherds [probably bark-cloth beaters] are found; see Fig. 8);
- two different ways are used to dispose of the dead: extended and flexed; some corpses occur with or without cists;
- orientations of the containers are south-to-west and south-to-west.

It appears to be unquestionable that these two sites are genetically affiliated. In particular, such shell-oriented cultural traits coincide quite well with the observation that "the variety of shell fish collected increased on a greater scale ... and the greater degree of cultural elaboration [which occurred during the upper shellmound settlement]" (Chang 1969:133). Based on the same time period as such settlement, it is my opinion that burials of the sites under consideration were interred contemporaneously around 900-400 B.C.

With the time and space framework, let us look for a moment at the morphological remains. After analyzing 10 male and female skeletons from the Kenting site, Kanaseki postulates that they are more akin to the Atayal than to the Paiwan and Amis (1956). Taking tooth extraction pattern (CI2 | I2C) into account, later we are told that these people are more

closely related to the Atayal, since the Paiwan and Amis are not groups which practice tooth removal (Lien 1987). In the same vein, we draw attention to bregma deformation, which was also found on a skull unearthed from the same site (Kanaseki 1939). This deformation resulted from "the custom of pulling the 'tumpline' (a belt) of a backburden basket over the bregma" (Chen 1968:258). This method of carrying may well be a cultural adaptation to carry heavy burdens while climbing mountainous slopes. Having examined 332 Atayal women in 1938, Kanaseki concludes that more than half of them had bregma deformation (1939). Now we have two concrete pieces of evidence to link the dead with the extant Atayal. But we must ask whether these bits of evidence are sufficient to establish ethnic identity – and the answer is surely not. Many more hard data must be critically examined before specific identifications can be made.

Tooth removal was practiced, besides by the Atayal, by the Amis, Bunun, Thao, and Tsou during the ethnohistoric period as well as to groups which are now sinicized, Huang (1736:101) mentions that among the Hoanya "after marriage man and wife each remove two upper teeth ... [and this practice was found] probably among the Pazeh and other peoples of this [Paiwanic I] group as well" (Ferrell 1969a:49). In the ethnographic present, Bunun and Tsou boys and girls "from ten to fourteen years old had their upper lateral incisors, or both upper lateral incisors and upper canines pulled out ... for Atayal, the Sasiat, and the Thao, the upper lateral incisors, or sometimes the upper canines or the first molars" (Chen 1968:254).

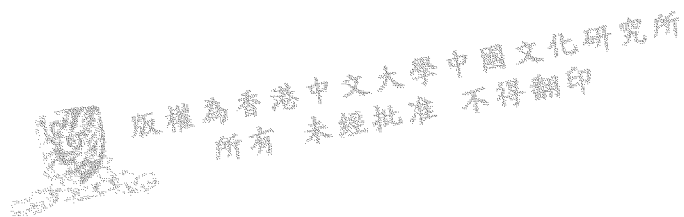
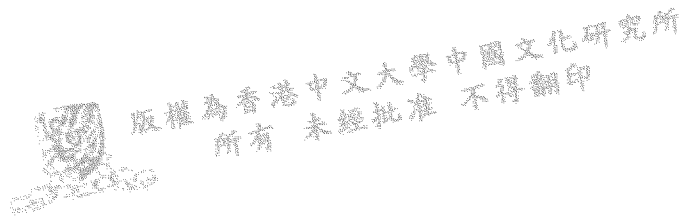
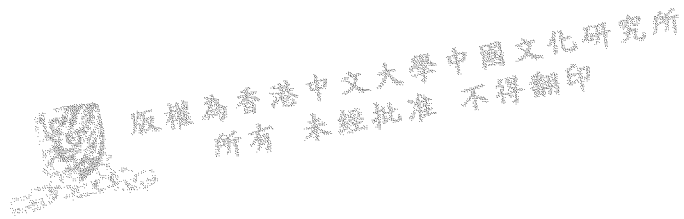
Now let us compare these data with our archaeological examples. Among seven burials from O-luan-pi, only in burials V and VII have the second incisors and canine been removed; bracelets were on the left arms of these burials. Burial IV is an infant with shell bracelet on its right arm. Conversely, at the Kenting site, shell bracelets are found on the left arm of the dead, with *Turbo cornutus* scraper (spoon?). As concerns the sex ratio of the burials we are left in the dark, but we are told that 30 human skeletons were found in total, 25 out of the 30 with stone containers. In other words, only five of them were interred without containers. From Locality A the cists were made of slate and oriented southwest to northeast and the head toward the northeast. From Locality B containers were made of coral stone (as at O-luan-pi) and oriented south-to-north, with the corpse facing south.

From the evidence in hand, we may make the following generalizations:

- In terms of quantity and quality of grave goods, mature adults were interred with storage and serving wares as well as personal ornaments (shell bracelets) on their left arms; contrarily, infants placed with serving wares and ornaments had bracelets on the right arm. Additionally we may add that tooth extraction must have been a status symbol.
- In view of the orientation of disposal containers, we may infer that those interred in extended position in coral stone containers facing northwest probably belonged to one social group, while flexed burials without disposal containers (five at Kenting, one at O-luan-pi) and facing southwest may represent another group or rather late intrusions. Here we must pay special attention to the community pattern of the upper shellmound settlement at the Fengpitou site. During this latter period "the north to south division within the village shown in the painted decorative patterns on pottery, first distinguished in the previous segment (lower shellmound settlement), continued into

this stage” (Chang 1969:133). In line with this, it tends to make me suggest that the prehistoric people represented in the burials on the southwestern tip of Taiwan may highly likely be one or several offshoots or segments of the Lungshanoid horizon during its expansive phase. This may possibly furnish another supporting clue to Chang’s “Paiwanic linguistic internal differentiation hypothesis” (1969:246).

- From burial content and associated stone inventory we could say that fishing and shell collecting could have been the main subsistence economy of both the ‘extended burial people’ and the ‘flexed burial people.’ As regards type of agriculture, in terms of site location, geological and pedological features (Figure 18), we must suggest that the settlements might have been located in the mountainous areas (from the evidence of bregma deformation); swidden cultivation may be inferred if my reasoning is sound. Then, shellfishing and fishing could have been seasonal microenvironmental exploration activities. Finally, we can infer nothing more except to conclude that Kenting and O-luan-pi were used as common burial areas for the Lungshanoid people – probably including their modern descendants as well.



版權為香港中文大學中國文化研究所
所有 未經批准 不得翻印

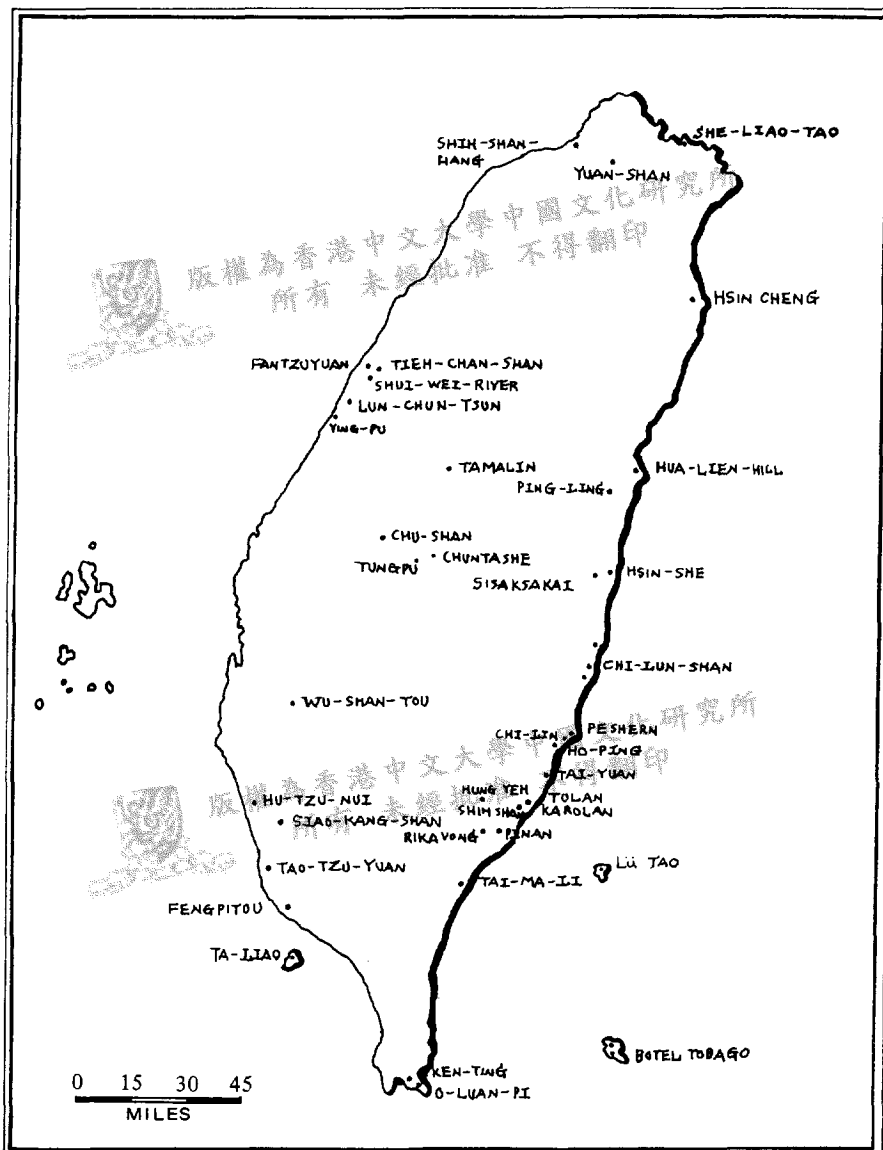


Fig.1 Prehistoric burial sites in Taiwan (After Kano 1955; Shih and Sung 1953; and Sung 1967b)

版權為香港中文大學中國文化研究所
所有 未經批准 不得翻印

版權為香港中文大學中國文化研究所
所有 未經授權 不得翻印
Chuan-Kun Ho

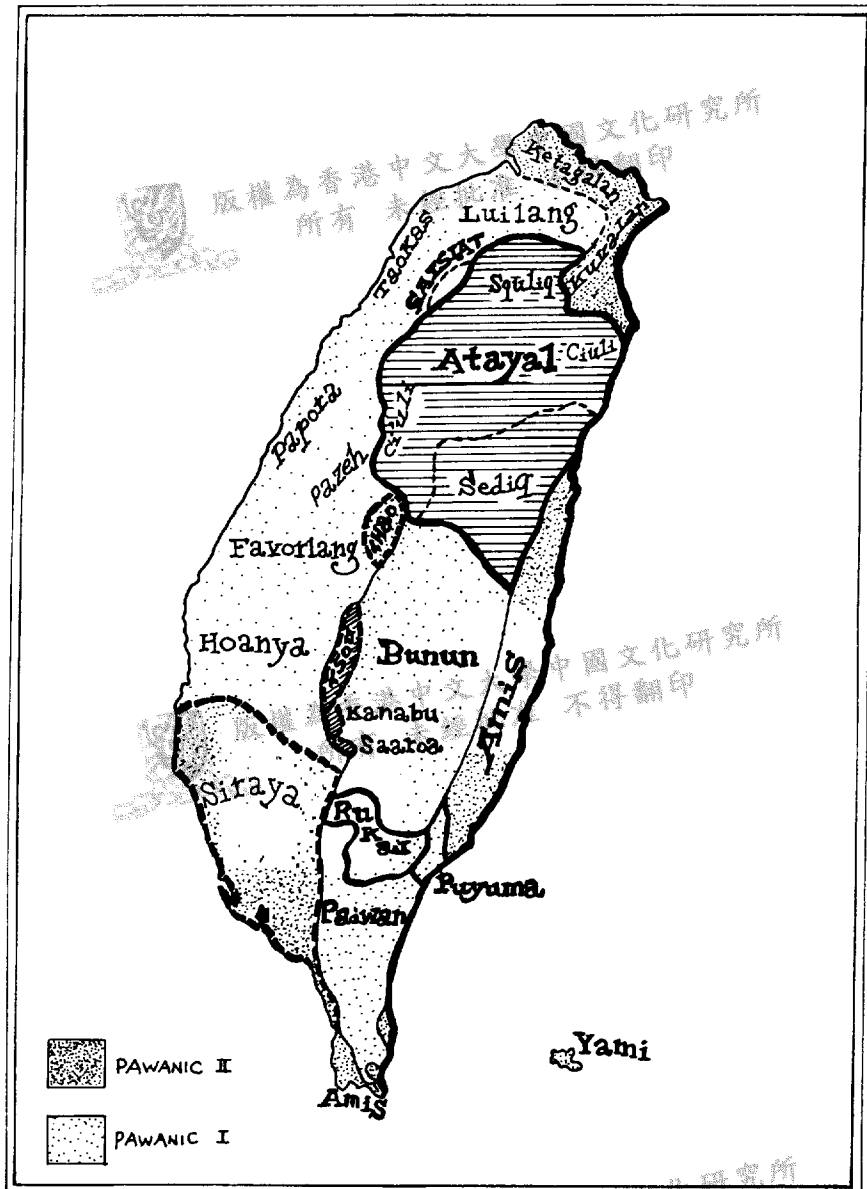


Fig.2 Ethnolinguistic Classification and Distribution of the Aborigines of Taiwan
(After Ferrell 1969a)

版權為香港中文大學中國文化研究所
所有 未經授權 不得翻印

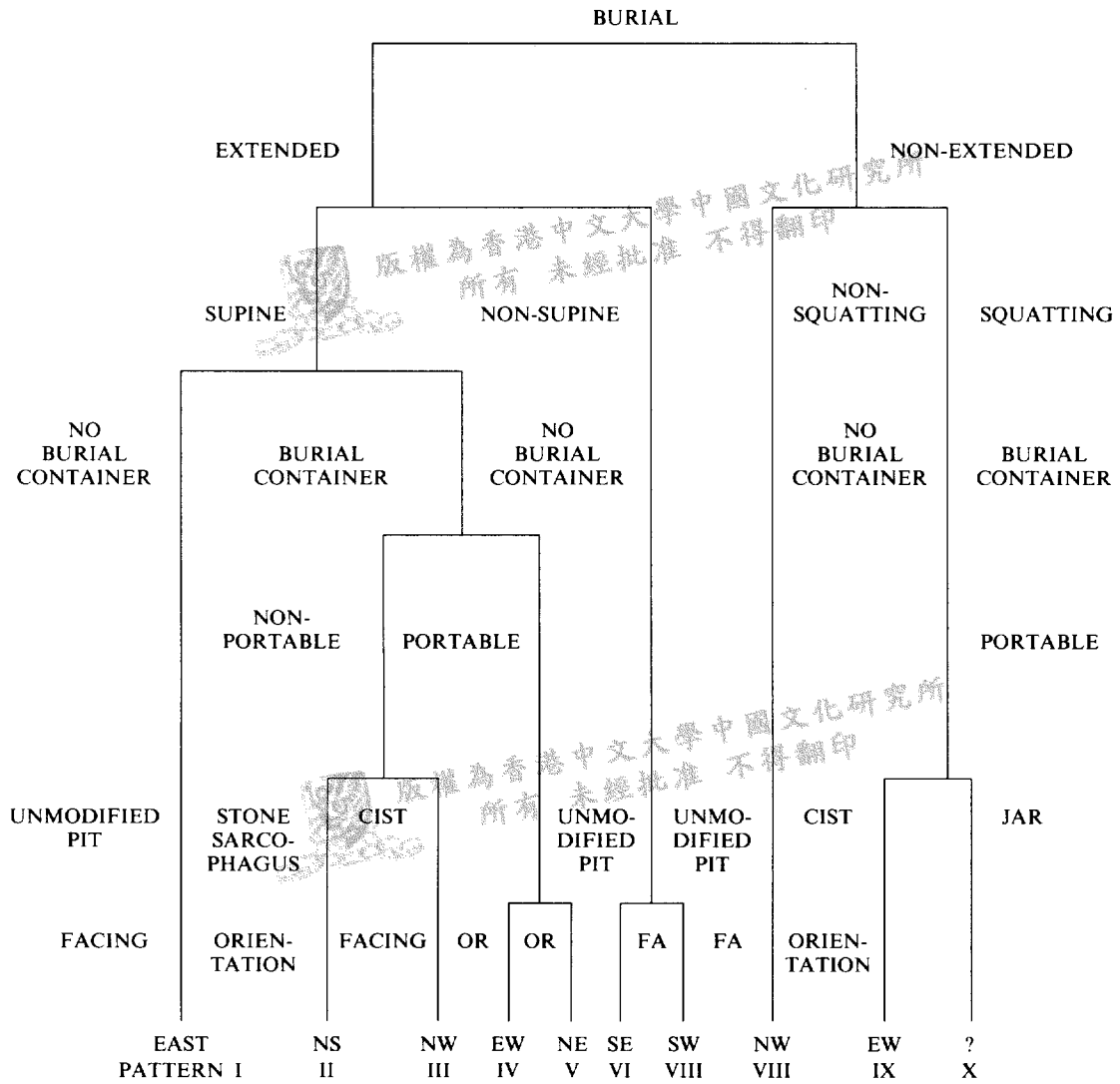


Fig.3 Burial Patterns after Paradigmatic Classification

版權為香港中文大學中國文化研究所
所有 未經批准 不得翻印
Chuan-Kun Ho

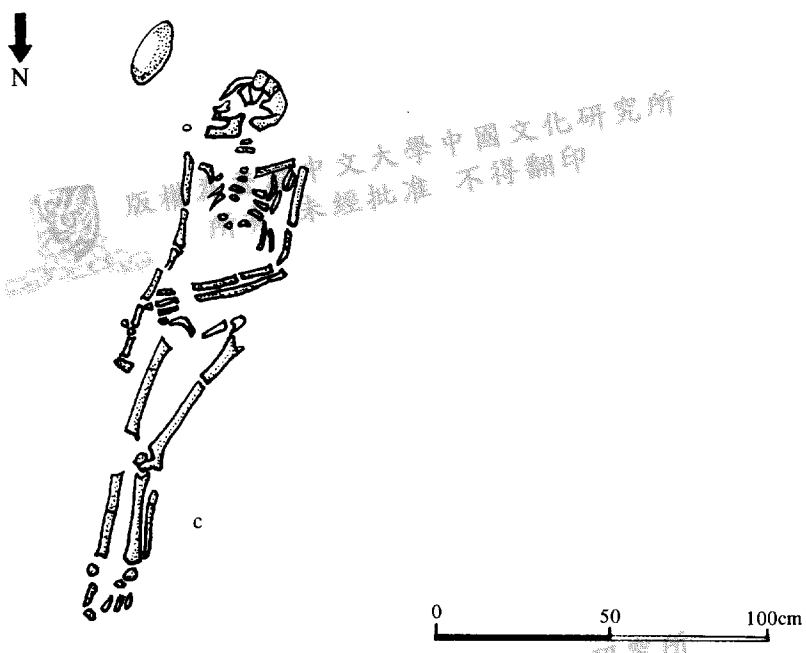
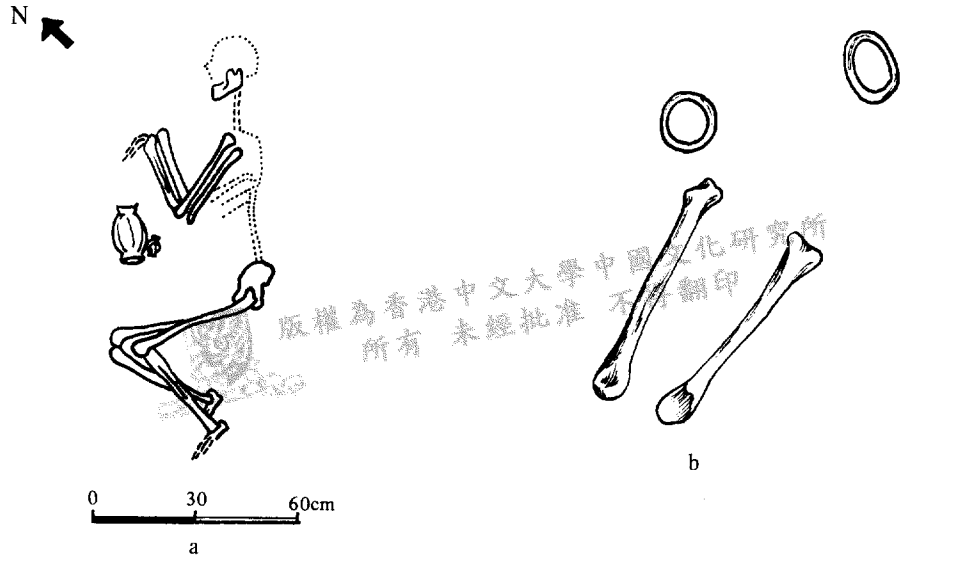


Fig.4 Human Burials
 a-b. Pattern VIII from Shih-San-Hang site (After Yang 1960)
 c. Pattern I from Fengpitou site (After Chang 1969)

版權為香港中文大學中國文化研究所
所有 未經批准 不得翻印

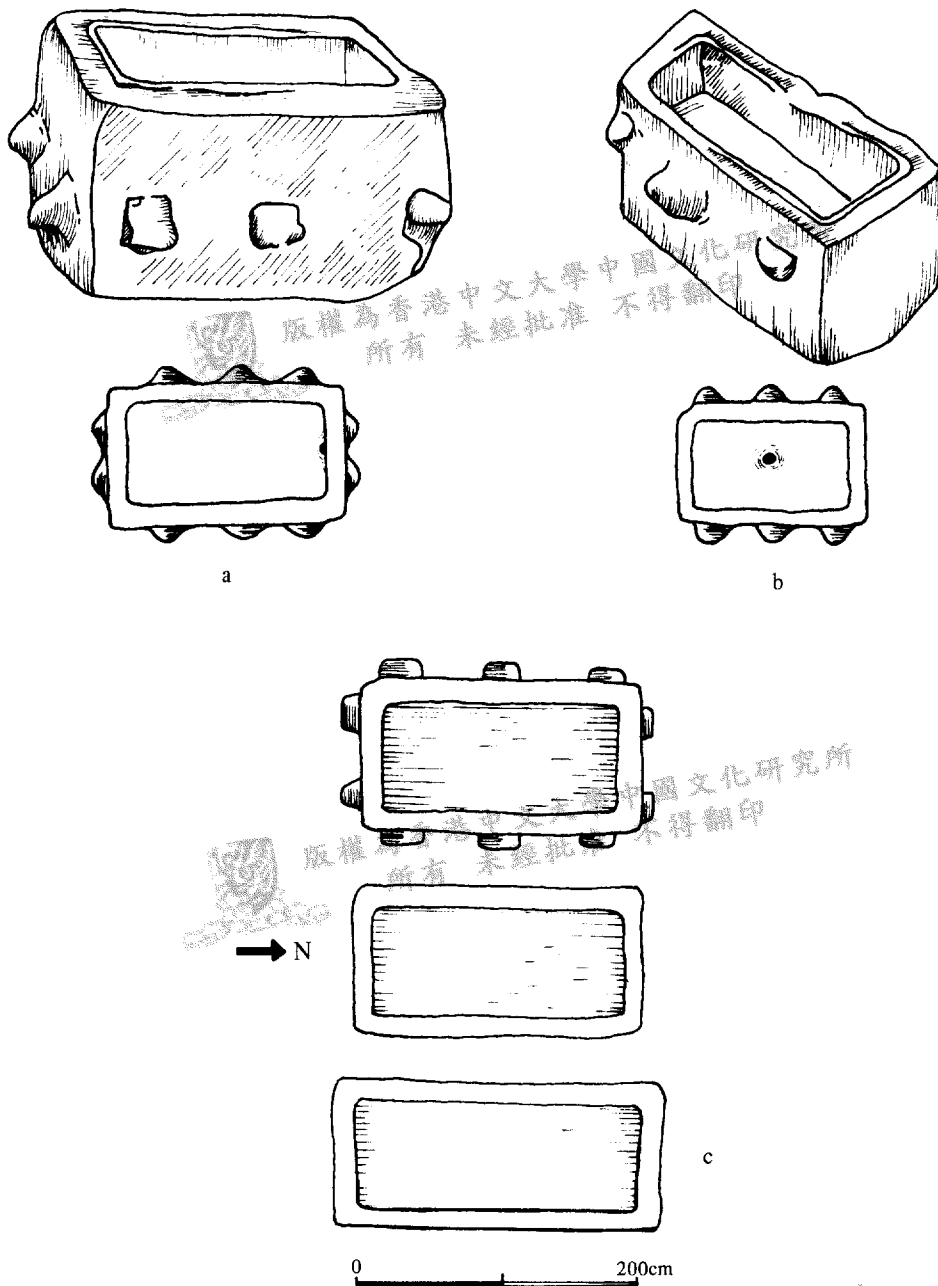


Fig.5 Stone Sarcophagi on East Coast of Taiwan
a. Peshern Site (After Kano 1955)
b. Hsin-She Site (After Kano 1955)
c. Peshern Site (After Egli 1972)

版權為香港中文大學中國文化研究所
 所有 未經批准 不得翻印
 Chuan-Kun Ho

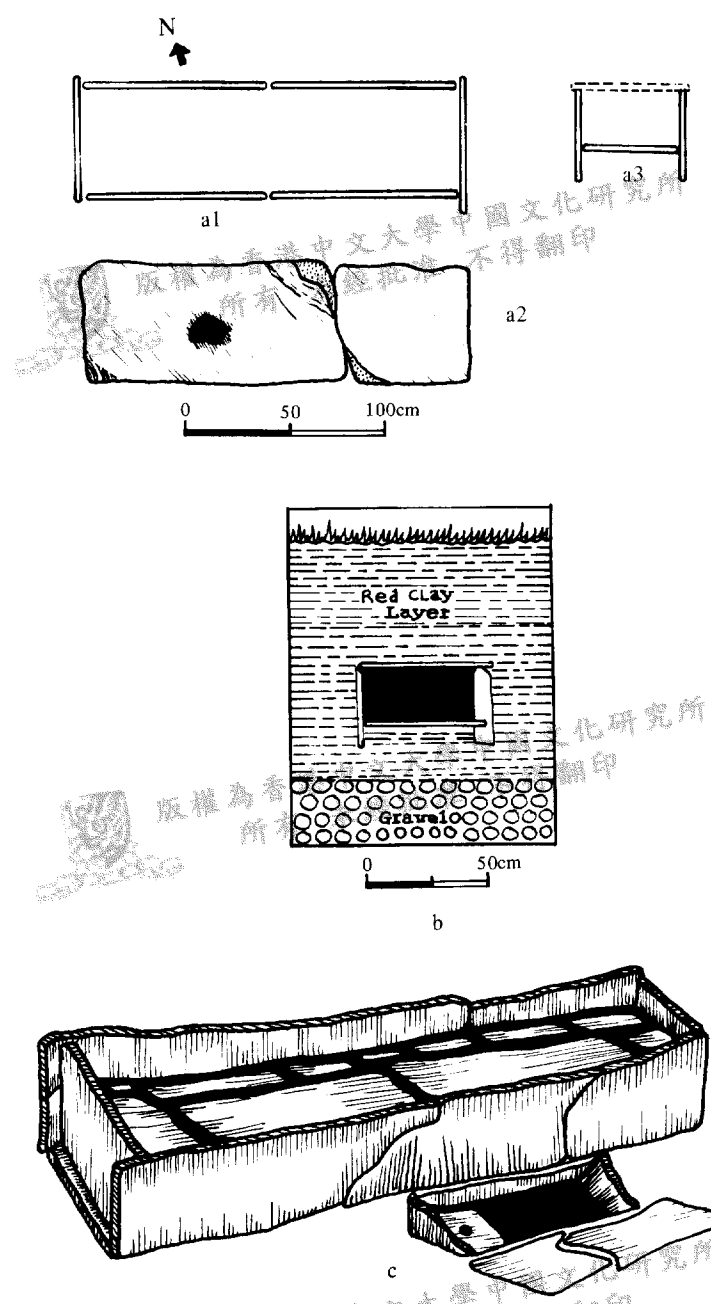


Fig.6 Cist Burials (Pattern III) at Tamalin Site of Puli Basin. a1. Birdview; a2. Bottom Piece; b. Cist in Stratigraphic Context. c. Combined Burial (?) (After Liu 1956)

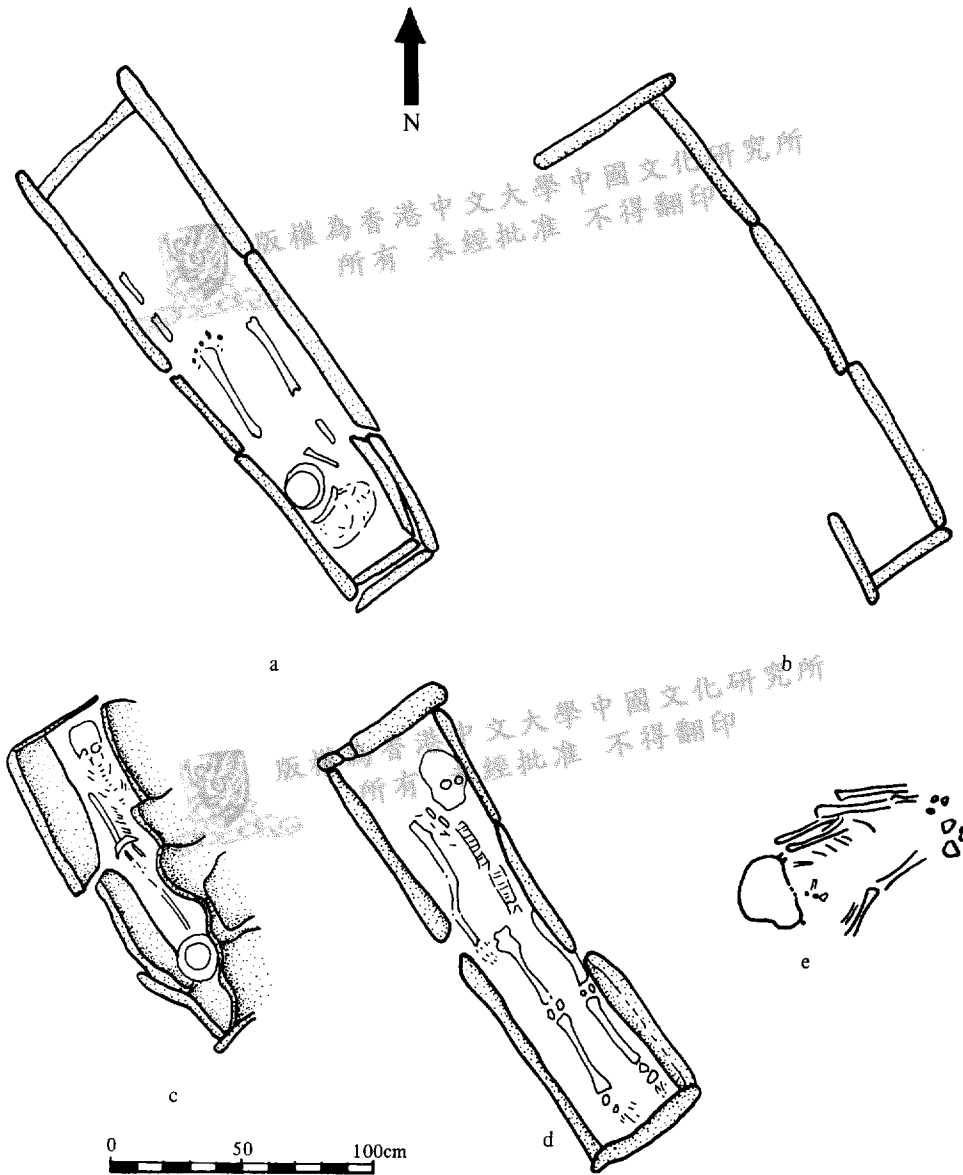


Fig.7 Cist Burials at O-Luan-Pi Site, Southwestern Tip of Taiwan.
a-d. Extended Position; e. Flexed Position
(After Sung et al. 1967)

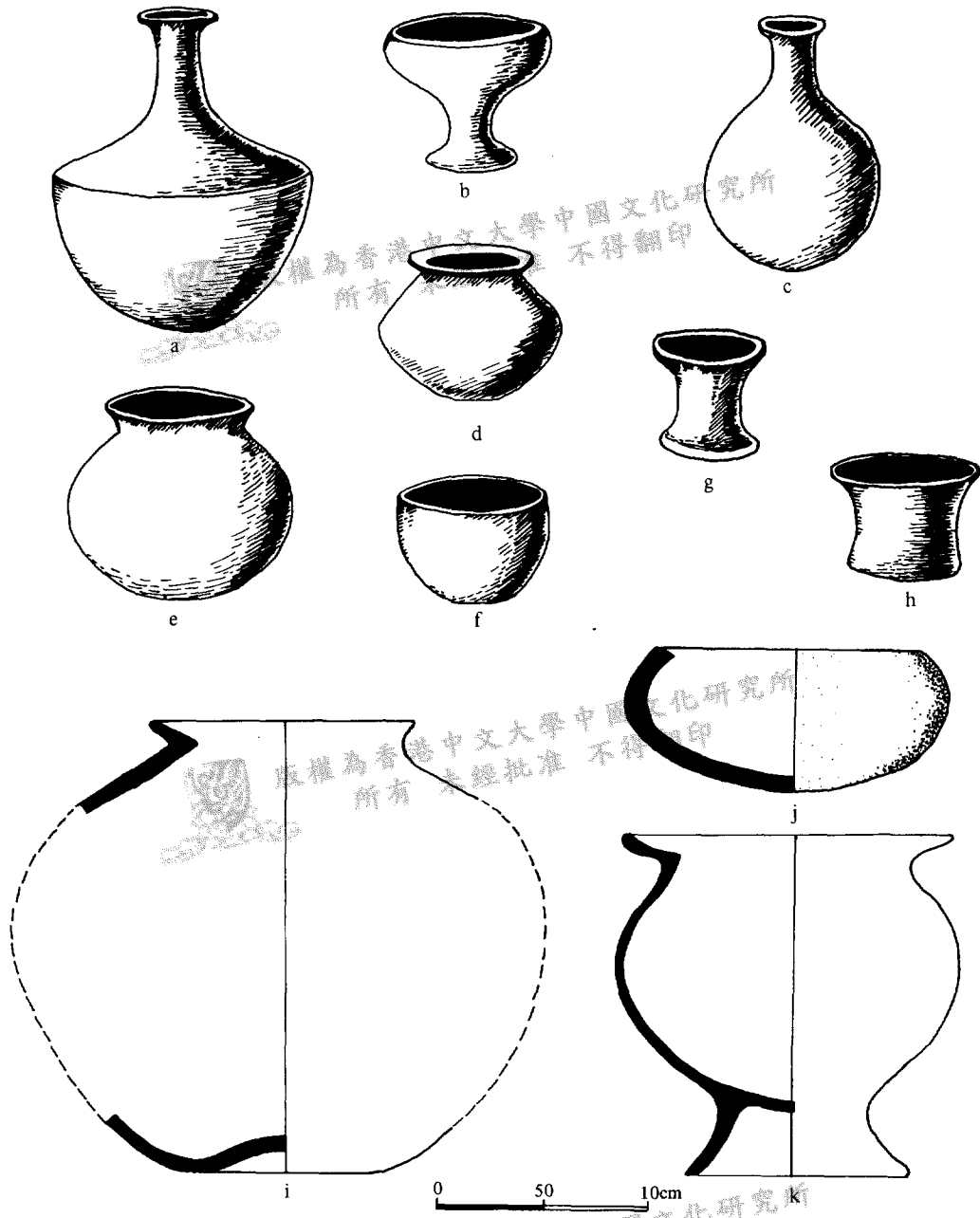


Fig.8 Ceramics associated with Cist Burials. a-b, d-f from Ken-Ting Site;
 c. Takkiri Site; g. Karolan Site; h. Hsin-Cheng Site. (After Kano 1955)
 i-k. O-Luan-Pi Site (After Sung et al. 1967)

Position	Container					
	Unspecified Pit Grave	Stone Cist	Stone Sarcophagus	Jar	Plank Coffin	Others
Extended	24 Class I	187 Class II	9 Class III		3 Class IV	Class VIII
Non-Extended	2 Class V	6 Class VI		7 Class VII		

Table 1 Formal Classes of Burials in Taiwan
(See Fig.2 for Burial Pattern Types; Number refer to documented examples of each class)

subsistence system	swidden cultivation, supplemented with hunting and fishing	
settlement pattern	dispersed type	
kinship system	patrilineal or ambilineal	
condition of death	<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>Normal death</p> <p>↓</p> <p>within settlement</p> <p>↓</p> <p>washing</p> <p>↓</p> <p>inhumation</p> <p>↓</p> <p>house floor or granary</p> </div> <div style="text-align: center;"> <p>accidental death</p> <p>↓</p> <p>beyond settlement</p> <p>↓</p> <p>feuding</p> <p>↓</p> <p>series of accidental death</p> <p>↓</p> <p>indoor burial</p> </div> <div style="text-align: center;"> <p>warefare</p> <p>↓</p> <p>right on the spot</p> <p>↓</p> <p>deserted into forest</p> </div> </div>	
location of death		
body preparation		
treatment of the body		
location of the grave		
grave form	square or circular	
disposition of the body	squatting	
age, sex, social position and social affiliation	♂ mature adult	♀ mature adult or subadult
form and quantity of grave goods	clothes pistol pot money food	loom finished textile
orientation of the grave or facing	west or upper stream	east or downstream
specific meanings or special taboos	west symbolizes sunset	east means following the Sun God to his abode

Table 2 The Atayal (highland culture group)

subsistence system	swidden cultivation, and hunting
settlement pattern	dispersed type
kinship system	patrilineal and community exogamy
condition of death	<div style="display: flex; justify-content: space-around;"> <div style="border: 1px solid black; padding: 2px;">warefare and beheaded</div> <div style="border: 1px solid black; padding: 2px;">accidental death</div> </div>
location of death	<div style="display: flex; justify-content: space-around;"> <div style="border: 1px solid black; padding: 2px;">beyond settlement</div> <div style="border: 1px solid black; padding: 2px;">deserted in wild forest</div> </div>
body preparation	
treatment of the body	
location of the grave	<div style="display: flex; justify-content: space-around;"> <div style="border: 1px solid black; padding: 2px;">outside community</div> <div style="border: 1px solid black; padding: 2px;">deserted in wild forest</div> </div>
grave form	<div style="border: 1px solid black; padding: 2px; text-align: center;">circular</div>
disposition of the body	<div style="border: 1px solid black; padding: 2px; text-align: center;">squatting</div>
age, sex, social position and social affiliation	<div style="border: 1px solid black; padding: 2px; text-align: center;">male</div>
form and quantity of grave goods	<div style="border: 1px solid black; padding: 2px; text-align: center;"> clothes spearhead knife backbasket couldron stone lighter </div>
orientation of the grave or facing	<div style="border: 1px solid black; padding: 2px; text-align: center;">south or north</div>
specific meanings or special taboos	south = lucky north = lucky west = unlucky

Table 3 The Saisiat (lowland culture)

subsistence system	swidden cultivation, millet and sweet potatoes
settlement pattern	dispersed type
kinship system	patrilineal descent, patrilineal clans are owners of the land
condition of death	<pre> graph TD C["cists or plank coffins"] --> HB["house burial (center, beside the kitchen beneath the bed)"] C --> OH["outside house"] C --> US["under the slab of front yard"] C --> IN["indoor (four corners)"] J["jar container"] --> EN["entrance"] HB --> F["flexed"] IN --> F HB --> E["extended"] IN --> E US --> SP["sophisticated person"] EN --> SP F --> SA["sub-adult"] F --> FEM["♀"] E --> M["♂"] E --> AD["adult"] F --> L["loom"] L --> FW["facing west"] E --> CS["clothes sickle hunting gears"] CS --> HW["heading west"] </pre>
location of death	
body preparation	
treatment of the body	
location of the grave	
grave form	
disposition of the body	
age, sex, social position and social affiliation	
form and quantity of grave goods	
orientation of the grave or facing	
special meanings or special taboos	west means dark no hide permitted to be interred

Table 4 The Bunun (highland culture group)

subsistence system	swidden cultivation, and dry-farming with hunting of wild games
settlement pattern	condensed type
kinship system	patrilineal descent
condition of death	<pre> graph TD ND[normal death] --> WS[within settlement] ND --> BS[beyond settlement] WS --> IB[indoor backcourt] WS --> IC[indoor central pole] BS --> D[deserted] IB --> S[square] IC --> E[extended] S --> SQ[squatting] E --> W[widow, unmarried female and subadult] SQ --> CG1[clothes, money, gourd with rice in it] W --> CG2[facing west] CG1 --> H[heading west, facing northeast] CG2 --> F[facing west] </pre>
location of death	
location of the grave	
grave form	
disposition of the body	
age, sex, social position and social affiliation	
form and quantity of grave goods	
orientation of the grave or facing	
special meanings or special taboos	west = sunset northeast = hotsuvu Taboos: no knife, mirror and weapons

Table 5 The Tsou (highland culture)

subsistence system	swidden cultivation with sweet potatoes and taro
settlement pattern	consensed type
kinship system	patrilineal or cognatic ramage descent
condition of death	<pre> graph TD ND[normal death] --> IB[indoor beneath the bed] ND --> RWG[decided by rolling water gourd] ND --> BC[backcourt] ND --> FC[front court] IB --> S[square] RWG --> S BC --> S FC --> S S --> SQ[squatting] SQ --> MFS[male and female shaman] SQ --> F[female] MFS --> FG[food, clothes, utilities, botel nuts and tobago] F --> FG FG --> FN[facing north] FG --> FE[facing east] </pre>
location of death	
body preparation	
treatment of the body	
location of the grave	
grave form	
disposition of the body	
age, sex, social position and social affiliation	
form and quantity of grave goods	
orientation of the grave or facing	
special meanings or special taboos	east = Mt. Tawu

Table 6 The Paiwan (highland culture group)

subsistence system	swidden cultivation with sweet potatoes and taro
settlement pattern	condensed type
kinship system	patrilineal or cognatic descent
condition of death	<pre> graph TD AD[accidental death] --> B[beheaded] AD --> S[suicide] AD --> IF[inter-village feuding] AD --> DOB[died of birth] B --> BS[beyond settlement] S --> WS1[within settlement] IF --> WS2[within settlement] DOB --> WS3[within settlement] BS --> CJ[cist or jar] WS1 --> C1[cist] WS2 --> C2[cist] WS3 --> C3[cist] CJ --> EH[entrance of the house] C1 --> IAF[indoor and family has to move] C2 --> SH[specific hut] C3 --> CH[corner of the house] EH --> SQ[square] IAF --> SQ SH --> SQ CH --> SQ SQ --> FI[flexed interment] FI --> W[west] </pre>
location of death	
treatment of the body	
location of the grave	
grave form	
disposition of the body	
orientation of the grave or facing	
other features	west means Sun God *sometimes 5 corpse interred in a single grave

Table 7 The Paiwan (highland culture group)

subsistence system	swidden cultivation with sweet potatoes and taro	
settlement pattern	consented type	
kinship system	ambilineal with cognatic ramage descent	
condition of death	<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>normal death</p> </div> <div style="text-align: center;"> <p>accidental death</p> </div> </div>	
location of the grave	<div style="display: flex; justify-content: space-around;"> <div style="border: 1px solid black; padding: 2px;">window of the house</div> <div style="border: 1px solid black; padding: 2px;">wall of back-court</div> <div style="border: 1px solid black; padding: 2px;">left side of the house</div> <div style="border: 1px solid black; padding: 2px;">exit</div> <div style="border: 1px solid black; padding: 2px;">indoor and abandoned the house</div> <div style="border: 1px solid black; padding: 2px;">indoor</div> </div>	
grave form	square	
disposition of the body	flexed posture	
age, sex, social position and social affiliation		
form and quantity of the grave goods	clothes pork match ornaments money bowl tobago rice botel nut	
orientation of the face	east	west
special meaning	sunrise	sunset

Table 8 The Rukai (highland culture group)

subsistence system	swidden cultivation supported with hunting and fresh-water fishing
settlement pattern	condensed type
kinship system	matrilineal kinship reckoning with duolocal residence pattern
condition of death	<pre> graph TD A[normal death] --> B[washing face with wine or dressed exquisite clothes] B --> C[inhumation] B --> D[exit] C --> E1[triangular] C --> E2[squared] C --> E3[rectangular] C --> E4[squared] D --> E5[squared] E1 --> F1[flexed] E2 --> F2[flexed] E3 --> F3[extended] E4 --> F4[flexed] E5 --> F5[flexed] F1 --> G1[commoner] F2 --> G2[old man] F3 --> G3[commoner] F4 --> G4[chief] F5 --> G5[chief or priest] G1 --> H[clothes, money, ornaments, knife, betel nut, rice, pork] G2 --> H G3 --> H G4 --> H G5 --> H D --> H H --> I1[west or east] H --> I2[east west] H --> I3[south] </pre>
body preparation	
treatment of the body	
location of the grave	
grave form	
disposition of the body	
age, sex, and social position	
form and quantity of grave goods	
orientation of the face	
special meanings or other features	

Table 9 The Amis (lowland or littoral group)

	The Puyuma (littoral group)	The Yami (littoral group)
subsistence system	swidden type	swidden type, fishing is more important than hunting
settlement pattern	condensed type	condensed type
kinship system	matrilineal or bilateral	patrilineage
location of the grave	indoor burial	coast beach cemetery
grave form	rectangular	jar, platform exposure, stone cairn
disposal of the body	extended	flexed slanting, flexed slanting, squatting
other features		urn burial was used 16 generations ago for Imourud; 11 for Irarinu; 33 for Iratai.

Table 10 The Puyuma and The Yami (Littoral Group)

Site	No.	L	W	T	H	other features
Peshern	1	210	120	18-21		10 protrusions (4 on end walls; 6 on side walls) a central perforation
Hsin-she	1	212	100	15-18	107	6 protrusions (3 on each side walls)
Sisaksakai	1	230	79		60:6	6 protrusions (3 on each side walls)
Chi-Lun-Shan	1					
Chi-Lin	1					
Ho-ping	1					
Turan(Rarukan)	2					
Katsawan	1					
Chang	1					Conglomerate in human shape

Length = L; Width = W; Thickness = T; Height = H (measurement in cm.)

Table 11 Dimensional Features of Pattern II

Site No.	No. of Burials	Position	Orientation of the container	Time Period	Function of the site	Others
38	5	Ex.	NEE to SW	Shiuwaku	Hamlet, Field	?
30	8	Ex.	EW	Shiuwaku	Hamlet?	
2	1	?	EW	Shiuwaku	Small Hamlet? Field?	
21	110	Ex.	EW	Shiuwaku and Tamalin	Village site	80 burials indicated by Mr. Hsieh 30 by another local collector
23	1	Ex.	?	Tamalin?	?	Grave goods Semilunar knife; polished adze; bracelet cores; one piece of worked stone
22	2	Ex.	?	Shiuwaku or Tamalin	Field? small hamlet	
37	1	Fx.	NE to SW	Modern	Small hamlet	
19	2	Ex. and Fx.	?	Modern	Small hamlet and fields	flexed one with traded metal pipe
43	1	EX	EW	Modern?	Burial, field	Interred with two oval-shaped hoes
34	1	EX	EW	Modern	Burial? field?	
45	1	Fx.	?	Modern	Burial	
32	1	?	?	?	Burial	Disturbed
42	1	?	EW	?	Hamlet? burial	
31	1	?	EW	?	Small hamlet? field	

Adapted from: Stamps (1975: 164-78)

Table 12 Dimensional Features of Burial Patterns III and IX

Site	No.	Sex	Position	Orientation		Grave goods	Other features
				Cist	Head		
O-Luan-Pi	B1	MA	E		NW 35	1 CBP 1 B	BC: L.205-210; W.50-65
	B2	MA	E		NW 35	1 FRP 1 PRFP	BC: L.210
	B3	MA	E		NW 34		
	B4	I	E		NW 25	1 SB on right arm 1 TS 2 OSV 1 RRFP	
	B5		E		NW 34	2 SB on left arm	BC: L.95 W.46 T. 9 TE
	B6		E		NW	LNB (?)	TE
Ken-Ting	LA		E	SW-NE	NE	NJB POP CSB SSP CB PV	MC: Slate
	LB		E	S-N SW-NE	SW	?	Coral reef
Shiao-Liu-Chiu (Ta-Liao)				SW-NE	NE		Coral reef

CBP = Coral-based pot
 B = bowl
 FRP = Fine-red pottery
 PRFP = Perforated ring feet pot
 SB = shell bracelet
 TS = Turbo shell spoon
 OSV = ornaments of shark vertebrates
 RRFP = Red ring feet pot
 LNB = long necked bottle

NJB = necklace of jade bead
 POP = perforated oblong piece
 CSB = cone shell bracelet
 SSP = semilunar shell pendant
 CB = clay bracelet
 PV = pottery vessel
 BC = burial container
 TE = tooth extraction
 MC = material of container

Table 13 Dimensional features of burial pattern IV

Site	Burial No.	Sex	Position	Orientation cist	Grave & other features goods
Tai-yuan	B2		Ex.		stoneneedles orange pottery with horizontal handle; slate knife
	B1		Ex.		
	B3		Ex.	EW	Knife; serpentine adzes; rectangular serpentine bar; orange grittysherds
Karolan	B1		Ex.	NS	Red pottery cup with high ring feet; shell spoons
	B2			NS	2 disarticulated skeletons (secondary burial?)
	B3 B4		Ex.	NS	
Tai-ping village	B1	♂		NS	Earring; beaker; shell spoons; spindle whorls; ringfeet cup
	B2	♀		NS	Beaker; spindle whorl; ring feet cup
	B3	♂		NS	2 earrings; 2 cups; 1 shell spoon; 1 long necked pot (?)
	B4	♀		NS	3 earrings; 4 spindle whorls
Shih-shan	B1				stone ornaments; knives; pottery; serpentine adzes
	B2				2 long serpentine adzes
Tai-ma-li	B1		Ex.	NS	2 stone bracelet; 98 serpentine beads; and white marblebeads; Red brownish pottery with handle
	B2		Ex.	NS 20	Sandstone with lid
	B3		Ex.	NS	Shale

Table 14 Dimensional features of Burial pattern V

Site	No. of Burial	Position	Orientation		Grave goods	Other features
			Cist	Head		
Sheh-Liao-Tao	1	Ex			RGP; IT KIP	Container Slate
Hsin-Cheng	0	Ex	SE-NW		Ami-type pottery net sinker	
Hua-Lien-Kang		Ex				
Lien-Tien		Ex				
Ping-ling I	1	Ex			Tubular beads; Iron slag	cist with perforation
Ping-Ling II	1	Ex (?)			RGP	Slate container associated with house
Turan (Atogoran of Paripon)	3	Ex				
Vavokul	nume- rous	Ex		S	2 Dewas pot serpentine beads; copper bracelet	
Cavoali	1	Ex (?)				
Rikavong	1	Ex				L: 144
Pinan	nume- rous	Ex				foothill near Pinan site L: 152
Chipon River	1	Ex			Potsherd (Ami-type?)	Slate container
Mei-Huo	1	Ex			Potsherds (Ami-type?)	Slate container
Hung-Yeh	1	Ex	NEoor E		PRP; RGP; SV	L: 200 W: 50 H: 45-55
Chi-Tien (Ma-wu)	1	Ex	NS	S	2 PRP; stone ring; 3 bronze armlet	
Karolan	2	Ex.			Serpentine beads; De- was pot; copper brace- let; serpentine tools	human skeletons
Ho-Tzu-Lan	1	Ex.				
Nan-Liao (Lu-Tao)	2	Ex.			Bronze knife	Slate container
Kakunaman	1			NE 45	RPP	L: 170 W: 40 H: 43

RGP = red gritty pottery
 KIP = Ketagalan Impressed pottery
 PRP = Plain red pottery
 SV = stone vault
 RPP = Red plain pottery

Ex. = Extended burial
 L = length
 W = width
 H = Height

Table 14 (Cont.) Dimensional features of Burial pattern V

台灣史前的埋葬模式(上篇)

(中文摘要)

本文主要是初步地對台灣史前及民族史時期埋葬模式所做的綜合研究。為了便於分析，埋葬資料按體系及二分分類法分成十個模式。每一個模式除了描述有關的文化特徵外也涉及該模式的時空分佈。本文的另一個目的在綜合分析社會文化，因此特別採用張氏的結構發展模型及賓氏的解說。經綜合分析之後，本文對龍山形成期及幾何印紋陶時期的考古學結構變遷問題提出來詳加討論。作者認為前一時期與一般排灣或排灣語言群的變異有關；而後一時期則與排灣第一語言群的分支及鐵器的導進有密切關係。本文並指出排灣第一及第二語言群與高地——父系及低地——母系社會結構及民族史時期的生態適應模式相關而且具有歷史及演化的意義。這種意義特別是反映在埋葬模式中棺具之方向及死者之頭向。因此，埋葬方向的變異可視為台灣史前時期社會文化變遷及社會分化的重要指標。