

**Burial Patterns of Prehistoric Taiwan
(Part II)**

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Pattern V

This pattern, like pattern II, is widely distributed along the rolling Taitung hills of the east coast (Figure 1). The following descriptions are drawn mainly from Kano (1956), Pearson (1968), and Sung (1967). The main features of this cultural period are termed 'Megalithic Culture' by Kano and Sung; Tai-yuan Phase by Pearson (after the site); and Tai-yuan horizon by Ferrell (1969a:7). Before discussing cultural chronology, it is essential to examine the cultural characteristics of this period.

This has been described by Pearson as including "coarse, orange, gritty, pottery, jars with ringed feet, and round hoop handles, stone cist tombs and the use of slate for house construction ... and those features are spatially limited to a brief period of time" (1967: 27-28). Judging from my own field survey observations, these sites have been much disturbed by recent agricultural activities and natural erosion. Without doubt, under such circumstances burial assemblages must have been mixed up tremendously. This makes for disappointment in attempts to delineate assemblages. For component elimination, such a perplexing situation could be discarded. But for cultural sequential relationships among different stratigraphic units, clear-cut assemblages have to be divided in one way to another. For this it is necessary for us to have a checklist giving all pertinent available data.

From Table 14, at least two groups can be discerned in terms of grave offerings as well as cist orientations: east-to-west oriented ones, and north-to-south ones. The former are associated with utility wares (Figure 10) and woodworking adzes as well as harvesting tools (stone knives); the latter show ear, arm and neck ornaments (Figure 11), serving wares (cups), shell spoons (Figure 10), and utility vessels as well. Here we may recall the shell spoons associated with infant burial at the O-luan-pi site (table 13). In view of the quality and quantity of the second group, we may infer that social differentiations may be indicated.

Although only one site with skeletal remains has been reported by Egli (1972), unfortunately even these are secondary burials (Figure 9). In terms of site location (Figure 1) and local conditions for preservation, we would rather suggest that those skeletal remains which have been found may best be attributed to quite late interment rather than posthumously disarticulated treatment. If this reasoning is sound, and adding the fact that the east-west group is highly clustered within historic Amis territory and the north-south group in Paiwan culture area (Figure 2), we may then suggest tentatively that such a distribution pattern may shed light on the possibility of ethnic correlation on the one hand, and sequential relationship on the other. Before pursuing this, a timetable is needed.

From the floor level of a 'megalithic' feature at Chilin on the east coast, Sung (1963: 23) provides a single Carbon-14 date: 1100 ± 280 B.C. For explicating cultural processes, one date obviously will not suffice, since without context the form does not speak for itself. Additionally, for the student interested in the prehistory of Taiwan's east coast in general, and the 'megalithic' culture in particular, three site reports are crucially important: Chilin, Tan-man, and Li-yu-shan, all located north of Taitung city; unfortunately we have no recourse but to wait patiently for publication of these reports.

We must attempt to find another way around the impasse until these three site reports are available. In this regard, I have found 'ling-ling-o' type earrings from the Karoran site may be useful for relative dating device. Since ornaments of this style have been dated as connected with the 'Philippine metal age' when found in the Tabon caves, Palawa, at around 500 B.C. (Fox 1970:68), it seems reasonable to suggest a comparable date for our north-south group. The east-west group will then automatically correspond roughly to 1100 B.C. This working timetable fits with Ferrell's dissatisfaction with Pearson's Tai-yuan Phase-Yuanshan Culture correlation. In this words,

although stone cist graves are numerous throughout the zone of the Taiyuan Horizon, they are not limited to that region but are found as well across the northern and southern extremities of the island and sporadically even in the central west coast region [our Pattern III]. Fine, plain-surfaced pottery and other goods found in cist graves in the southern west coast region [Pattern IV] resemble some pottery of the modern Ami and Kuvalan; and the fact that the distribution of stone cists is approximately that of the Paiwanic II languages ... makes me suspect a possible connection. In that case, the spread of stone cists may belong to a later period than the "Megalithic Culture" (Ferrell 1969a:8,9).

Ferrell's "later period" parallels our north-south group; without question, then, the former period has to be the 'megalithic culture' (our Pattern II). It is interesting to note that two slate cists have been reported by Kano on Lü Tao (Green Island), one of them interred with a bronze knife (1952:420). Whether these are related to east coast cist burials must be determined by more spadework exploring the apparently associated prehistoric spheres of interaction. As mentioned by Ferrell, from linguistic evidences we may suggest that "the Yami may have kinfolk now submerged in the Formosan east coast tribes" (1966:105). In line with this, we should note that the Paiwanic II linguistic group, according to their oral traditions, came from the island of Sanasai (Ferrell 1969a: 53-54). This name has been identified with the present-day Lü Tao, and it is likely that such a connection may be proven in the near future.

Patterns VI and VII

Cultural characteristics of this period, the Fantzuyuan Horizon, are: black and gray, well-made pottery predominates, commonly incised and impressed with checks, chevrons and herringbone patterns. From animal bones and polished saddle-shaped knives, and chipped pebble implements as well as shell mounds, we may say that grain agriculture and shell collecting formed the main subsistence economic base (Chang 1969:207).

The deceased was placed in extended position, prone in posture, and the head pointed unidirectionally east-to-south (Pattern VI) for sites north of the Tachia River (Figures 12, 13); and west-to-south for sites south of the Tachia River (Figure 1, 14). For burial containers, evidence furnished by wood fragment (Figure 14) led Sung to suggest that perhaps a wooden coffin was utilized (1954:32). However, in another context he excluded such a possibility, and this conclusion was later verified by another excavation. West of the Tatu tableland, Sun Pao-kan unearthed an additional prone burial without container at the site of Lung-chun-tsun (first discovered by myself). Thus we may assume that the prone burials were interred in pit graves. Strangely, in one of the burials (or possibly two) from the Shuiwei River was found a black, overturned basin on the head (Figure 13).

Such cases have not been reported very often in the archaeological literature. Dimensional features of these burials are shown in Table 15.

From the above, we make the following generalizations:

- From composition of the age group, only two (M11 and M14) are indicated as subadults about six years old (judging from tooth eruption). The remainder are mature adults. We are not given the sex ratio of the corpses.
- Stratigraphically, the excavator suggests that M15 (our B15) from the Fantzuyuan site is earlier than M12. The former has the right and left first molars as well as the left second molar teeth removed.
- One head out of twenty is covered with an overturned black basin.
- All heads point in an east-to-south direction in the Tachia area; conversely, in the Tatu area they point to the southwest.

Since the individual from M12 is an earlier member of the shellmound community and has had teeth removed, in contrast to the other burials from the same site, we may postulate that such a custom might have been abandoned by later members of the community living near the foothills. Here we must recall that the Pazeh were reported to have practiced this custom. Judging from head orientation, we suggest that these burials are of members of the same social group. However, the sixty-year-old man buried north of the Tatu River perhaps belonged to another community. At any rate, they were affiliated in one way or another. As for the burial with the overturned basin on its head, we have no comparable examples in Taiwan which might serve to explain this, except to speculate that it might reflect special treatment for a prominent personage or for someone who died under unusual circumstances. As concerns prone posture, it might reflect a case similar to that suggested by de Beauclair for Yap Island and be for women who died in childbirth (1967:36); however, such a parallel may not hold true for our examples. In searching for external affinities for these prone burials, Chang draws our attention to the Machiapang site which "has thirty burials; most of them single but prone, a few are supine or flexed" (1968:158). The site is the mainstream manifestation of the Liang-chu phase of the Lungshan culture. The Yingpu site of the Tamalin phase may be regarded almost as a carbon copy of the Liang-chu culture of northern China.

The cultural chronology of this period has been Carbon-14 dated at A.D. 850 ± 80 , and has been newly dubbed "protohistoric" by Chang (1974:274). The same ceramic types are also reported by Triestman (1972:74-76) from the Tungpu village site in the

Chen-you-lan River valley. Firm dates for this site are A.D. 785 ± 110. Cultural features of the site are the predominance of check-stamped pottery, with triangular and herringbone patterns also occurring. Here we must draw attention to the report of Wang Hung-po, who found one extended burial with bracelet, and flexed (short-type) oriented in a south-to-north direction; he also found an urn burial. Reddish brown, gritty pottery was unearthed from the long cist (Liu 1956:43). As stated previously, black and gray pottery predominate in this horizon, whereas reddish pottery is the dominant ceramic type of the previous period (Tamalin phase). Ethnographically, Tungpu is and has been in the Bunun territory. Whether these evidences reflect the movement of Bunun from the coastal alluvial plains to a highland cultural adaptation voluntarily, or by being pushed upland by Paiwanic I linguistic groups or later Chinese settlers from the Asian mainland around A.D. 800, will definitely be relevant to the problem of ethnic identification. This topic will be treated later.

Pattern VIII

Again, it is not really accurate to call this single burial a 'pattern'. But for reasons similar to those stated before, we will leave this question for further discussion in future. This burial was semiflexed in a pit grave, with the head pointing in a northeast direction. This site, Shih-san-hang, is situated west of the Taipei basin, one kilometer south of the mouth of the Tam-shui River, 200 meters east of the sea. Similarly to Patterns VI and VII, this is a shellmound site. Culturally, orange check-impressed pottery, and incised black as well as gray check-impressed pottery are distributed mainly along the northern coast of Taiwan and has been identified with the Ketangalan people known from early historic accounts and from ethnographic studies. Following is a quick checklist of burial contents:

Burial No.	Position	Orientation	Grave Goods
I	Semi-flexed	NE 46	2 glass bracelets; 1 piece of cast iron
II	Semi-flexed	NE 46	orange pot with anthropomorphic designed lid; 10 colored glass beads; clay beads; 4 agate beads

This site was Carbon-14 dated at A.D. 800. From a comparison of the burial assemblages and associated cultural remains with the west central coast, the original excavator, Yang, states that

less than 5% of the pottery is from the black pottery group. From the design, colour, and fabric of the sherds it may be concluded that objects from this group are very similar to those of the black pottery culture of the Taichung area (1961: 68).

As already mentioned, a few of the Machiapang burials are supine or flexed (Chang 1968: 158). We may suggest then that the Shih-san-hang site could represent a local development from the earlier Botanical Garden Horizon with some kind of interaction

with the central black pottery culture. Again, is the orientation of the head toward the northeast another coincidence with Ferrell's (1969b:193) suggestion concerning the "late-coming (Paiwanic II) Ketagalan from the northeast"?

Pattern IX

We have already mentioned this pattern briefly. This pattern flourished after the Tamalin period in the Puli Basin, during the Modern period (A.D. 1500–present). Extended burial coexist with flexed burials in archaeological context. Since no human remains have been found, flexed posture is inferred from square cists. Interment is without grave goods.

Sites from this period are widespread on the terraces around the Basin. Brownish gray pottery predominates; and fishing implements (grooved net sinkers) are more abundant than agriculture-related artifacts. For the first time, in this region we witness two different types of burial customs existing side by side. We cannot refrain from asking whether this is due to internal developments or historical contacts.

In answering this question we must first know who lived in this area during the protohistoric period (Chang's terminology). Fortunately, Liu (1958:19–27) sheds some light on this question:

Prior to the move there in the 19th century of the Pazeh and other western plains groups, the Puli basin was the home of two unrelated groups. The *Murauts*, who occupied the northern portion of the basin, were apparently an Atayalic group, and most of their descendants subsequently moved into the mountains among the *Sediq* and *Ciuli* Atayal of the Wushe-Wanta area. The *Taqaviθan* appear to have been connected with the Bunun, and remnants of them fled to the latter in the central mountains during the 19th century. (Ferrell 1969b:187).

Besides this the Pazeh, recent occupants of the Ailan terrace, have been described by Huang as practising interment in "a square burial pit ... lined with four stone slabs, the corpse was interred bound in a sitting position, a stone slab was placed over it as a lid, and the grave was covered with earth" (1736:125–126, 120; quoted from Ferrell 1969b:180). As mentioned earlier, the Tungpu site also yields a square cist. With these data in hand, I concur wholeheartedly with Ferrell (1969b:187) that "the cultural links between the Bunun and these west-central Taiwan Paiwanic I groups are more direct and basic." If we add the house styles and tooth extraction, and similarly the fact that the Pazeh as well as the Bunun are known to have continued making pottery and using stone tools (hoes) of the same type as those found in "black pottery" sites (particularly Tamalin) into the ethnographic present, then we can state more forcefully that there was a close relationship in evidence here.

Pattern X

Since data are so sporadic on the jar burial, a full description will be necessary. From Hualien Park on the east coast, Pearson (1969:98) mentions a jar burial with perforated bottom and ring-footed pottery as grave goods. Two jar burials were found by Kano at the Nanliao site on Lü Tao, one of which contained human remains; and another was

found on Lan Yü (Botel Tobago). In the southwestern region of Taiwan, the site of Taotzuyuan, near Kaosiung City, a fine, reddish jar with cordmarked design on the lower half of the vessel was found containing the remains of an infant (Kokubu 1956:314; see also Figure 15). From north of this site, at Hutzunui, another fine polished, reddish jar was unearthed in a non-burial context, containing human bones. Judging from the size of the jars and disarticulated bones, secondary burial may be the rule.

The cultural chronology of jar burials is guesswork. Reddish, cordmarked wares and plain ones, comparable to the Lungshanoid Horizon on the one hand and the Philippine Late Neolithic period (early pottery phase) of Tabon Caves, Palawan, on the other, permit us to tentatively pinpoint jar burial customs as flourishing at least 1500–1000 B.C. (Fox 1970:162). From the sporadic distribution of jar burials, we may find that they are correlated with Paiwanic II linguistic groups. As for detailed comparison, more spadework must be done. Additionally, connections between Botel Tobago and northern Luzon as well as the southeastern coast of mainland China will have to be explored in future.

IX. Discussion and Conclusions

From the outset we have categorized all of our analyzable burials in terms of paradigmatic classifications into ten patterns, then traced their spatial distribution and temporal duration. Meanwhile, we have employed two different conceptual types: an objective type for analytic purposes, and a relative one for purpose of making social groupings. Finally, for cultural historic integration, a structural developmental model has been adopted from Chang on the one hand, and a sociocultural explanatory paradigm for mortuary data from Binford. Now we have form, space, and time as three key dimensions of archaeological structure; let us proceed to draw a whole picture of aboriginal burial customs of Taiwan in terms of archaeological, linguistic and ethnological points of view.

For linking an archaeology-ethnology interrelationship, two different continuities have to be distinguished for different purposes, as suggested by Chang: general and specific continuities. By general continuity "we mean we can show that modern aboriginal cultures, or some of them, can be classified with the same general cultural type or grouping as the prehistoric cultures, or some of them." Conversely, by the latter "we mean that continuity can be demonstrated from a prehistoric cultural phase all the way down to a modern ethnic group ...If this can be demonstrated in terms of group identity, such specific continuity can be referred to as ethnic; if the continuity is specific only in the occurrence of a cluster of cultural items, then we can talk about no more than culturally specific continuities" (Chang 1969:241–242). In other words, for macroscopic analysis, the former is enough; but for microscopic continuity, we have to make inferences from the former (cultural) one. Since we have already discussed cultural continuity at some length, we will now examine ethnic continuity.

Using cultural and linguistic (lexical) criteria, Ferrell has divided Formosan aboriginal languages into three main groupings. Of these, the Atayalic and Tsouic groups are distinctive from "each other and from the other Formosan groups". These "other" (Paiwanics) form a group only in that, so far as we know at present, "they are

linguistically more closely related to each other than to other groups outside Taiwan” (Ferrell 1969a:23). Furthermore:

Within the Paiwanic division one group of languages (Paiwanic II) appear to form a subgroup. The distribution of these Paiwanic II languages, the principal of which are Ketagalan-Kuvalan, Amis and Siraya, spread around the eastern coastal strip and the northern and southern ends of Taiwan, suggests the possibility of a relatively later dispersal for this group than for the other Paiwanics. (Ferrell 1969b:188).

Almost at the same time Chang, drawing his insight from Ferrell and from glottochronological evidences analyzed by Dyen (1964), proposes the possibility of a Lungshanoid-Paiwanic as well as Yuanshan-Atayalic correlation. Basically, his reasoning relies upon coincidence between archaeological differentiation and linguistic diversification around 2500 B.C. Unfortunately, burial data for this early date are so sporadic that we must let them rest in peace at present.

Stone Cist Burials (Pattern I, III, IV)

Our first extensive data are from around 1400 B.C., from Lungshanoid-type sites in the southwestern region (Figure 16). Extended, supine cist burials (Patterns I, III) predominate, probably side-by-side with flexed burials. If this is the case, we have argued that two different types of burials might have been related to differential social groupings in accordance with community segmentation. Based on this, we also pointed out that these prehistoric people must have been the southern offshoots of lower and upper shellmound settlements of the Fengpitou site during their period of expansion.

At roughly the same time (1332 B.C.), differential cist burials (Pattern III) are witnessed in the Puli Basin of west-central Taiwan. Settlement patterns tend to shift from dispersed to condensed types. Such unusual sociocultural change has been attributed to historical input from coastal Yingpu rice cultivators. Here it is reasonable to add that the Changhwa transgression of the sea line (1500–1200 B.P.) may perhaps have forced the coastal dwellers to the interior. In the Puli Basin, it seems to me that rice cultivation did not last long enough to make us believe that it had to be “reintroduced by Han Chinese” (Chang 1969:251). At any rate, this problem will have to be attacked in the future along two lines: re-examination of specific functions of stone knives, and determination of prehistoric procurement systems of the Puli Basin, supported by studies of ancient geomorphological conditions.

Due to time overlap between Pattern III in the southwest and Pattern IV in the west-central region, our immediate problem is to determine the nature of their mutual relationships (historic or adaptive?). For connecting these two somewhat related culture regions, we need a key to unlock the problem of the archaeological counterpart of the Tsouics. Once again Ferrell sheds light on the issue; according to him, if I understand him correctly, the Tsouics may be somewhat later arrivals than the Atayalics. If “future study shows that Tsouic’s somewhat closer correspondences with Paiwanic I languages may be genetic rather than only a result of more recent contact, then there is a possibility that

Tsouic and Paiwanic diverged after arrival in Taiwan” (1969a:74). Here we have a piece of extremely important information which will be helpful in tracing the imprints of their prehistoric communication.

In 1946 Kokubu and Kanaseki excavated Pu-shin-tzu, a site east of Chushan, where they unearthed an extended burial (inferred from rectangular sand-stone cist) associated with a quartz bracelet; cordmarked pottery; reddish, gritty *tou* ('fruit stand'); black clay bracelet; and olivine basalt chipped stone artifacts (Liu 1956:36). Comparing these ceramic types with the southwest, the excavators indicated that they are similar to those from O-luan-pi and Kenting (our Pattern III). In view of the net sinkers, black pottery and bracelets, they are closely related to the Tamalin site (our Pattern IV). However, among these cultural inventories we must exclude olivine basalt, because this lithic material is available only in the Pescadores Islands (Figure 17). In order to learn about the networks for such long-distance interaction between these areas, we must posit the following tentative factors: an exchange system between some Paiwanic I (Bunun) and Tsouics; and the correlation of Common Paiwanic linguistic differentiation with Lungshanoid archaeological divergence.

Judging from our 'cultural blending' phenomenon at the above-mentioned site, if (and only if) the lithic materials have not been mis-identified, we would rather choose the first rather than the second factor. This is because the Bunun and the Tsou are well-known western Taiwan ethnic groups who still make pottery and stone tools. Both the Bunun and Tsou have claimed that "the Thao of Sun-Moon Lake represent the descendants of people from their respective ethnic groups who wandered off and settled the region" (Liu 1958:16–18; this is quoted from Ferrell 1969b:188, who also notes that Thao is clearly an independent Paiwanic I language with no close relationship to Bunun – and certainly not to Tsou). Despite the conflicting linguistic evidence, on the basis of this shared myth I conclude that the Paiwanic I and the Tsouics are linked in some way, whether or not the genetic linguistic relationship is particularly close.

After confirming the relationship between our Patterns III and IV, we shall stretch our arms to cover a series of questions brought up by Chang in his 1969 monograph; that is:

Why and how did pottery, a most conspicuous and dominant item of material culture throughout the island and throughout prehistory all but disappear from the native cultural inventory? What was the role played in prehistoric cultural change by the introduction of iron technology?

These questions are without a doubt pertinent to cultural historical as well as sociocultural changes in Taiwan prehistory in particular, and to western Pacific prehistory in general. Without the help of our burial data, satisfactory answers will not be found easily. Let us start from the first and then interconnect with others. As mentioned earlier, Bunun (Paiwanic I); Amis, Kuvalan and Ketangalan (Paiwanic II); and the Tsouics are ethnographically and ethnohistorically known pottery-making groups on the mainland of Taiwan. To these may be added the Yami on Botel Tobago Island. Right off we find the Bunun and Tsou to be highlanders; while the Amis and Kuvalan-Ketangalan are lowlanders (littoral culture groups in Ferrell's classification). Among upland groups,

the Paiwan and Rukai are the groups who use sacred pots as heirlooms for intervillage marriage, and they are famed woodcarvers as well. The Atayal, a well-known upland group, lack the knowledge of pottery making. In general, pottery making is most common among littoral groups. Such geographic correlations must have some kind of special meanings which require explanation. Let us pursue these explanations first in the realm of groups in which pottery making is prevalent.

Dunn (1972:1048) has pointed out that the decline of pottery traditions in southeast Asia could be related to the adaptive value of its usefulness; "with the passage of time, the forest people of [the highlands] abandoned pottery while continuing to use other kinds of containers easily manufactured of light, portable, unbreakable materials, readily collected in the forest ..." Such easily manufactured containers, without question, are easily workable by iron technology. In line with this, we could argue that social preference for such efficient containers and acceptance of iron technology not only have hastened the selection rate of pottery art, but also the 'sophistication' and popularity of the woodcarving art as well. Rarity of pottery tends to increase the social value of it as a 'sacred element', as well as the 'treasured antiqueness' of the pot itself. Thus, decline of pottery could be used as a sign of change in the native cultural inventory due to outside technological invasion, but may also signal native people utilizing such sacred material items as ethnic symbols by passing intervillage as well as interethnic boundaries for purposes of social reciprocity and ecological symbiotic relationships too (Barth 1969:18).

The lack of knowledge of pottery-making among the Atayal apparently can be explained in terms of their remoteness from other linguistic groups, and the fact that they could obtain pottery by way of established trading routes with lowland groups such as the (Paiwanic II) Kuvalan (cf. Mabuchi 1966). Note that the Kuvalan are renowned ornamental woodcarvers (Wang 1970:83-93); the Atayal are not. It is in view of this that we may surmise that iron and salt might have been controlled by the Kuvalan (perhaps as middlemen) as a medium of exchange for game and gold resources during late prehistoric and protohistoric times (Kokubu 1965:26). Therefore the impossibility and lack of necessity for the Atayal to develop pottery-making and woodcarving arts can be easily understood.

Stone Sarcophagi (Pattern II)

We now turn to burial Pattern II, which occurred only north of Taitung and was limited in frequency of occurrence as well. We have already pointed out that these stone sarcophagi were made possible only by iron tools. In addition, a stratified social type for this group can be inferred from cultural features (e.g., stone rings, stone ladders, stone tanks and monoliths). Here we may ask why this 'megalithic' culture disappeared. And why is their spatial distribution only about sixty kilometers in area? Were they conquered by Paiwanic II people from the south, or was their disappearance due to the decline of iron technology? Let us examine the last question first.

Explaining Austronesian culture history, Blust (1976:37) suggests that "iron and rice were carried by Austronesian settlers of the Pacific, but rice did not succeed under Oceanic conditions and the iron led to eventual loss due to the absence of 'replenishment'." It is

my assumption that our stone sarcophagus people may have encountered the same fortune as their Austronesian forebears elsewhere. But even if this were the case, it would not necessarily rule out the possibility of their having been conquered by other peoples.

Strangely enough, the Geometric Impressed Pottery horizon seems not to have extended south of the Takidi River on the east coast, although its imprints are widespread throughout the northeast and the west central coastal region. Linguistically speaking, this area was in protohistoric times the interaction sphere of the Paiwanic II languages (Fig.2). According to Chang, the Geometric Horizon “was apparently a development of the local Lungshan substratum” (1968:382). This unusual period was suggested by Ferrell to relate to the introduction of iron technology, and furthermore he states that “the major components of the ancestors of the modern aborigines were probably represented by the large population influx of the Middle period [Lungshanoid Horizon in the southwest and central west coast region; and Taiyuan Horizon on the east coast]” (1969a:11).

As previously mentioned, the coastal Paiwanic II speakers (Kuvalan/- Ketagalan, Amis, Siraya) coincide with the geographic distribution of the Littoral Culture. Chronologically speaking, Ferrell tends to suggest that Paiwanic I might be earlier in Taiwan than Paiwanic II, and that the latter group may have come from the “south to Taiwan’s east coast, and then spread around the northern and southern ends of the island, absorbing (or being absorbed by) people already established there (1969a:27). If his reasoning is sound, it is safe to assume that these “people already established there” might have been the ‘Megalithic people’, and the Taiyuan Horizon-related people would represent the Paiwanic II group. In the event that future archaeological evidence may support this two-period classification, we shall proceed one step further in considering social organizational aspects.

In light of the fact that most of the Paiwanic II are littoral dwellers and have men’s houses, age-grade systems, and matrilineal kinship systems, let us examine what this may mean in the present instance. Matrilineal society, as has been pointed out by various scholars, has certain structural and ecological constraints. Firstly, such societies are predominantly agricultural. Secondly, agricultural productivity is sufficiently high to permit the sedentary residence of substantial populations. Lastly, they are characterized by a division of labour in which women perform many of the key agricultural tasks (Keesing 1975:65). Ember (1971:571) suggests that matrilineal residence appears to be favoured by purely external warfare patterns if such warfare compels the woman to do at least as much subsistence work as the men. Since we have argued that the Megalithic (Burial Pattern II) may represent a class-type society, it is my assumption that these people may have been patrilineal since this type of kinship system is generally characterized by “deep segmentary hierarchies, centralized political system, [and] ranked lineages” (Keesing 1975:65).

Following the same line of reasoning, it is my supposition that the social type represented by the Taiyuan Horizon could have been matrilineal. Let us check the previously mentioned constraints with characteristics of the Taiyuan Horizon:

1. The Taiyuan Horizon features swidden agriculture (rice and millet).



2. The prehistoric house uncovered at the Peinan site is rectangular (15 m long by 4.3 m wide). Whiting has argued that in predicting social organization from floor plan, "given a rectilinear house of any size or type, one can be reasonably certain that the society is sedentary" (1968:126). In another suggestive article, Ember suggests a rule of thumb to the effect that if the living floor of the house is greater than 500–600 square feet (14–15 m²), residence is likely to have been matrilineal (1973:180).
3. House floors without burials have been pointed out by the original excavators (Kanaseki and Kokubu 1957:48). Ethnographically, in-house burials prevail in Paiwan territory (Chiao 1960:105).

If the functional correlation of the stone knife with millet or rice is valid, then perhaps rice and iron have played an important role in population growth as well as settlement patterning. Although settlement data are meager due to preservation problems, we may infer from ethnographic examples furnished by the modern Amis "compact, permanent villages, averaging 600–700 inhabitants" (Mabuchi 1960:133). Here we may note that the median size of egalitarian societies' settlements is 150 (including 35 adult men); if the size of the basic unit is well over 350–400 (80–90 adult males), social segmentation (or cell division) is inevitable (Forge 1973:373). Rather than living in peace, intervillage feuding as well as interethnic warfare will be the rule; thus it is apparent that men's houses and age-grade systems might be optimally desirable social mechanisms in matrilineal societies.

Looking from a different angle, processes of social segmentation may reflect not only cultural predatory expansion but also ecological adaptational mechanism as well (Sahlins 1961:322–345). It is my assumption that sociocultural change (i.e., segmentary ramiages of the Paiwan and Rukai as well as the Puyuma matrilineal-oriented stratified social system) might have been engendered during this period. Furthermore, migration of ethnic groups and interethnic fusions as well as fissions such as are found among the modern aborigines could have happened during this period.

At any rate, it is interesting to note the enforced abortion and duolocal residence of the Siraya (Ferrell 1969a:57). Were these the result of the need to enhance the role of women in subsistence and men in hunting or as commercial middlemen during culture contact periods, or planned social mechanisms arising during periods of crisis engendered by explosive population density, or ecological pressure? In the same vein, we must ask why the so-called Littoral cultures only adapted ecologically within specific lowland environments, and not upland ones. Why do the highland peoples (except Paiwan and Rukai) tend to be partilineally-oriented, whereas the lowland peoples are characterized by matrilineal or ambilineally-oriented social groupings? Why do potters among lowland groups tend to be females, whereas among upland groups they are males? All of these questions are pertinent to students interested in cultural history in general, and processual (or 'new') archaeology in particular. To these important questions at the present time there are no satisfactory answers.

For our purposes, keeping in mind the Taiyuan Horizon-littoral-swidden-matrilineal/ ambilineal structural and ecological correlations, let us assume that the present central coastal Amis might be the direct descendents of the Taiyuan Horizon

peoples who made 'Ami' ware (plain, red pottery) and traded with ethnically related villages as well as with unrelated neighbours (perhaps Paiwan). The northern Amis, with more heterogeneous elements, traded pottery for cereals with the Atayal and people of other symbiotically related groups up into the present century.

Jar Burial (Pattern X)

Before leaving the Paiwanic II linguistic group, oral traditions of jar burials will be discussed briefly. Jar burials appear to be tightly clustered in the east coast in general, particularly in the Kivalan area. I have suggested that Burial Pattern X flourished around 1500–1100 B.C.

Such an early date fits quite well with the movement of the Geometric Impressed Horizon in the west-central and northeast regions, making me suspect a connection. Where jar burials have been found in the southwest, these have been found out of context and more spadework must be done to determine their affinity with the fine-red pottery 'horizon'.

Here we are interested in the oral traditions of the Paiwanic II groups of the northeast, i.e., Kivalan and Ketagalan. According to Mabuchi (1956:321), three drastically different burial customs were told about by his informants: jar burial, platform burial, and simple interment. Among the southern Kivalan villages, it is said that platform burial was practised, with the head of the corpse oriented toward the south. Conversely, among the northern Kivalan the corpse was placed in a large jar, in a squatting posture, and faced toward the north. As for preburial treatment, we are told that among the northern Kivalan the corpse was first placed in a hammock then hung from a tree; afterwards the corpse was interred near the house, in an extended position and within a plank coffin.

From the above it can be seen that differential treatment of the dead might be associated with different roles and statuses of the deceased, and probably varied with conditions of death as well. In view of the different stories told by native informants, we may surmise that burial customs may have changed in situational context. It seems evident, however, that the jar burials among the northern Kivalan, with orientation toward the north, may link them with social groupings coming from that direction. Here we must recall the jar burial unearthed by Kano from the old Bunun village mentioned previously (Table 15); a semi-flexed burial with head pointed northeastward, uncovered at the Shih-san-hang site by Yang; and a jar burial found at the Keelung site by Kokubu. All the archaeological and oral traditional data appear to fit together, again indicating that the Geometric Impressed Horizon could only represent the forefathers of modern ethnic groups living in the Paiwanic I and II linguistic spheres.

One additional comment is called for here. The "Fantzuyuan horizon" in Ferrell's opinion "could conceivably reflect contact with the expanding Paiwanic II groups such as Ketagalan in the north or Siraya in the south" (1969b: 192). We may additionally note that the burials at the Fantzuyuan site during later periods do not represent groups practising tooth removal.

Platform burial may be indicated in the Book of Sui (A.D. 636), although scholars

are not unanimous in agreeing that this represents a factual account of Chinese contact with Taiwan. Of course, it is unlikely that archaeological evidence of platform burial can ever be recovered.

Flexed Burials

There remains one final and difficult question to be approached, that of the flexed burials. When did flexed burial become popular, and why were the dead disposed of in this way? We shall start with the 'when' question.

Archaeologically, our first concrete evidence shows up at the O-Luan-Pi site in the southwestern region (Pattern IX). I have explained this unusual one, accompanying extended burials, as representing two social groupings. Ferrell has suggested that this might reflect the southern intrusion of Paiwan into Amis territory. The Amis, particularly the northern group, practised extended burial until the ethnographic present. It is interesting to note that among the Palilalilaw ("Parizarizao" in Davidson 1903), a southern subdivision of the Paiwan, the dead were buried in the thick wood; the body was de-positied in a grave lined with stones. Comparing Davidson's description with our archaeological examples, we may be astonished by the apparent continuity of burial customs in this southeastern corner of Taiwan on one hand, and suspicious of the validity of the Paiwanic I/Paiwanic II division on the other. To phrase it another way, what is the relationship between Han and non-Han people – war, peace, or war and peace? (By 'Han' here I mean Paiwanic I, remembering that Burial Pattern I is an old Oceanic Mongoloid trait.) These questions are related to mutual interrelationships between and among prehistoric spheres of interaction and communication (i.e., competition, cooperation, and situational decision-making processes). At present we simply do not have enough data, especially from environmental and settlement archaeology, to probe the cultural processes of these prehistoric peoples, although spatial and temporal frameworks have been revised by Sung et al. (1975:85) for the west-central region and Chang (1975:29) has proposed Carbon-14 calibration dates for Chinese archaeology in general and Taiwan prehistory in particular.

Flexed burials may possibly have appeared in Bunun territory around A.D. 800, side-by-side with extended and jar burials (Table 16). But concrete data come from the P'uli Basin only after A.D. 1600 (Figure 16). Once again, two different burial customs co-occur within (presumably) the 'same' special burial ground. Other cultural contacts or invasions must have occurred, and the situation typified by cultural blending became intensified right up into the ethnographic present.

Keeping this complicated picture in mind, let us seek possible explanations for the disposal of the dead in flexed position. Binford has pointed out some propositions concerning different explanations of flexed burials (1972:218):

- (1) Flexing the body was a copy of the position of the *foetus in utero* which was taken as a symbol of rebirth; and
- (2) Flexing of the body was the result of binding the legs to the body to prevent the spirit from walking and thus returning to the living.

Chiao, in his survey, asked his informants about the motivations for such customs. Satisfactory explanations were not given, although "saving space" was pointed out by some informants. Let us survey our data and seek generalizations.

Except under accidental death conditions, most flexed burials are found under the house floor (Figure 19: a-c) or within the village community, among highland ethnic groups. Locations of flexed burials within the house are distinguished along sex and status-role lines (for the Paiwan see Table 6). Numerically, they are more frequent among patrilineal societies than among matrilineal ones (see Tables 2-12). Highland vs. lowland contrast, as well as that between patrilineal and matrilineal or ambilineal, may suggest intergroup competition and land pressure. In addition, foreign cultural and technological invasion between and among all groups must have had a significant impact upon social organizational change as well as behavioral patterns.

Variables of Sociocultural Change

We have isolated a number of variables of sociocultural change. Which are more important? The answer to this intriguing question in anthropological theory and methodology depends upon which sphere of change we are talking about. Another consideration is the rate of change. To put it another way, it depends whether we are dealing with quantitative or qualitative change.

For cultural and social anthropologists, behavioral and interaction patterns will be the main points of departure, and time has been regarded as contemporaneous. Conversely, we as archaeologists draw and squeeze such patterned behavior from tangible remains from under the ground, and thus the time factor has to be particularly stressed.

At this point we would like to know whether burial patterning is a conservative element in the social system or is easily subject to change. From the burial data we have in hand (Figure 16), it can be seen that although the cultures have apparently changed drastically, disposal of the dead remains stable pending social structural change (macro-structural change), because the latter is such that "a structural schema becomes invalidated and a new stationary state must be construed, [and] the situation must be characterized in terms of macro-time" (Chang 1967:32). For our purposes, burial paterings can be called 'macro-time' change only under the circumstances in which the orientations (including container and head of corpse) underwent multidirectional changes, since orientations are varied around a "common modal standard of behavior within a single cultural or social system" (Chang 1968:4).

Although we have adopted structural-functional as well as developmental models for analyzing the prehistoric burial patterns of Taiwan, the underlying ideological sphere of these neolithic peoples is left in the dark. Perhaps Willey was right in pointing out that:

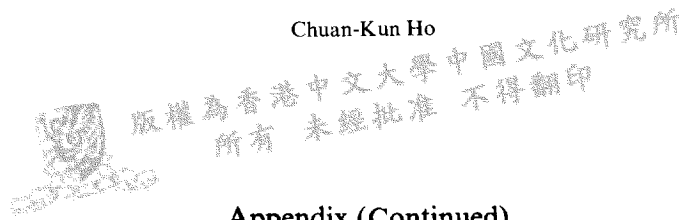
It is, in many ways, frustrating to contemplate all of this and to know that ancient idea systems elude us, and perhaps always will elude us; yet I can not be satisfied to believe that we have all of the worthwhile answers about human cultural behavior in the data of subsistence, demography, war, trade, or the processes of social class differentiation. To be sure, all of these are importantly

and mightily involved, but they were linked with ideas. And sometimes driving in the opposite direction to all of the expectable cultural trends and trajectories (Willey 1976: 205).

Appendix

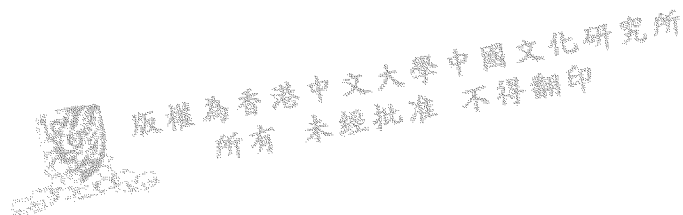
Burial Sites of Taiwan (See also Fig.1)

Site	No. of Burials	Date Excavated or Surveyed	References
Shih Shan-Hang	2	1959 (excavated)	Yang, C.S. Kanaseki and Kokubu
Sheh-Laio-Tao	1	1946(ex.)	
Hsin-Cheng	80(?)	1933 (ex.)	Utsurikawa and Miyamoto
Hua-Kan-Hill	2	1930, 1947	Miyamoto (1930) Kanaseki and Kokubu (1947)
Lien-Tien	1	1930(survey)	Miyamoto (1930)
Ping-Ling I	1	1947	Kanaseki and Kokubu
Ping-Ling II	several	1935	Kano (1946)
Cavoali	1	1930	Kano (1930)
Rikavong	1	1930	Kano (1930)
Pinan	numerous	1930,1945	Kano (1930) Kanaseki and Kokubu (1945)
Chipon River	1	1930	Kano



Appendix (Continued)

Site	No. of Burials	Date Excavated or Surveyed	References
Mei-Huo Village	1	1930(S)	Kano
Chi-Tien	1	1930(S)	Miyamoto(1930)
Hung-Yeh	1	1953(S)	Shih and Sung(1953)
Karolan	4	1930(S)	Miyamoto(1930)
Karolan	4	1972(S)	Father Egli(1972)
Ho-Tzu-Lan	1	1930(S)	Miyamoto(1930)
Atogolan	3	1934(S)	Saito(1934)
Vavokul	numerous	1935	Kano(1946)
Tai-Yuan	3	1965(E)	Pearson(1968)
Shih-Shan	2	1963(S)	Pearson(1968)
Tai-Ma-Li	3	1963(S)	Wu(1963)
Peshern	1	1930(S)	Kano(1946)
Peshern	1	1967(S)	Sung(1967)
Hsin-She	1	1930(S)	Kano(1955)
Hsin-She	1	1967(S)	Sung(1967)
Chang-Ping	1	1965(S)	Pearson(1968)
Chi-Lun-Shan	1	1967(S)	Sung(1967)
Chi-Lin	1	1967(E)	Sung(1967)
Ho-Ping	1	1967(S)	Sung(1967)
Tolan	2	1967(S)	Sung(1967)
Huo-Shao-Tao	2	1946(S)	Pearson(1968)
O-Luan-Pi	7	1967(E)	Kokubu(1956)
Ken-Ting	25(Kokubu) 20(Pearson)	1934(E)	Sung et al.(1967)
Ta-Liao(Shiao-Liu-Chiu)	not given	1948(S)	Utsurikawa and Miyamoto(1956)
Botel Tobago	2	1935(E)	Kanaseki and Kokubu(1956)
	2	1947(S)	



Appendix (Continued)

Site	No. of Burials	Date Excavated or Surveyed	References
Fengpitou	1	1965(E)	Chang et al. (1969)
Tao-Tzu-Yuan	1	1942(E)	Kokubu(1956)
Shou-Shan	not given	1942(E)	Kokubu(1956)
Hu-Tzu-Nui	1	1942(S)	Kaneko(1956)
Wu-Shan-Tou	1	1949(S)	Kokubu(1956)
Chu-Shan	1	1946(E)	Kanaseki and Kokubu (1956)
Tung-Pu	3	1940(S)	Liu(1956)
Old Bunun site	1	1955(E)	Kano(1955)
Old Tsou Site	1	1955(E)	Kano(1955)
Lun-Chun-Tsun	1	1974(E)	Sun(1974)
Fan-Tzu-Yuan	16	1955-61 (E)	Shih and Sung(1956) Sung and Chang(1945) Sung(1962)
Ma-tou-Lu	2	1954(E)	Chang and Sung(1945)
Tieh-Chan-Shan	2	1956(E)	Shih and Sung(1956)
Tamalin	1	1931(S)	Suzuki(Liu 1956)
	1	1938(E)	Asai (Liu 1956)
	5	1938(E)	Kanaseki and Asai (Liu 1956)
	6	1947(E)	Liu(1956)
	5	1949(E)	Li Chi and Shih (Liu 1956)
	26 (110 informed)	1974(E,S)	Stamps(1974,1975)
Shou Kang	4	1984(E)	Tsang (1986)
Peinan	1025	1980-86	Lien (1987)
Yuanshan	1	1979(S)	Sung and Lien (1984)

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Table 15 Dimensional Features of Burial VI and VII

Site	Burial No.	Age	Position	Posture	Heading	Grave Goods	Other Features
Tieh-chan-shan	B1	Adult	Ex.	Pr.	ES 10		arms crossed on the pelvis
	B2	Ad.	Ex.	Pr.	ES 37		ACOTP
Shui-wei-hsi	B1	Ad.	Ex.	Pr.	ES 8	Black over-tuned pot	ACOTP
	B2	Ad.	Ex.	Pr.	ES 32		
Fan-tzu-yuan	B3	Ad.	Ex.	Pr.	ES 32		Body stature 153 cm. flexed right arm; a piece of potsherd near belly; trunk oriented from ES toward NW
	B4	Ad.	Ex.	Pr.	ES 30-35		ACOTP; cobbles around the body
	B5	Ad.	Ex.	Pr.	ES 25	Over-tuned pot?	ACOTP
	B6	Ad.	Ex.	Pr.	ES 43		ACOTP; B6 later than B8
	B7	Ad.	Ex.	Pr.	ES 17		Cobbles around the body
	B8	Ad.	Ex.	Pr.	ES 37		potsherds around the rib pit in quadrangular shape
	B9	Ad.	Ex.	Pr.	ES 43		
	B10	Ad.	Ex.	Pr.	ES		
	B11	Infant					arms straight along the sides

Table 15 (Contd) Dimensional Features of Burial VI and VII

Site	Burial No.	Age	Position	Posture	Heading	Grave Goods	Other Features
Fantzu-yuan	B12	Ad.	Ex.	Pr.	ES 26		shell fragments around the back of the corpse
	B13	Ad.	Ex.	Pr.	ES 33		ACOTP; shells and animal remains around the corpse
	B14	Infa	Ex.	Prone	ES 40		no grave pit
	B15	Ad.	Ex.	Pr.	ES 40		right 1st and 2nd left molars removed B15 earlier than B12
	B16	Ad.	Ex.	Pr.	ES 38		ACOTP; no grave pit
Lunchun-tsun	B1	Ad.	Ex.	Pr.	SW 65		body stature: 164 cm
Chushan	1		Ex.			armlet	
Old Bunun site	1		Ex. ?			Hoe; adz	gray and black impressed and incised pottery Jar burial interred with infant
Tsou (Vuvio village site)	1		Ex.			stone hoes and adz; stone knives; arrow-head quartz-tempered pottery; spindle whorl	container: L. 121 W. 36 H. 45

ACOTP = Arms crossed over the pelvis

Ad. = Adult

Ex. = Extended

Pr. = Prone

Table 16 Dimensional Features of Burial IX and Miscellaneous Categories

Site name	No. of Burials	Position	Orientation		Grave Goods	Other Features
			Cist	Head		
Rikavong	1	Flexed			bronze armlets	container: L.50cm H.30cm
Chu-shan	1	Flexed	SN	S		material of container: sandstone
Branao of Taroko (Atayal)	1	Extended			Iron armlet	Cave burial
Wu-shan-tou (Tainan)	1	Extended				wood coffin
Yayu (Botel Tobago) Igan(Botel Tobago)		Extended ?				Wood coffin Platform Exposure

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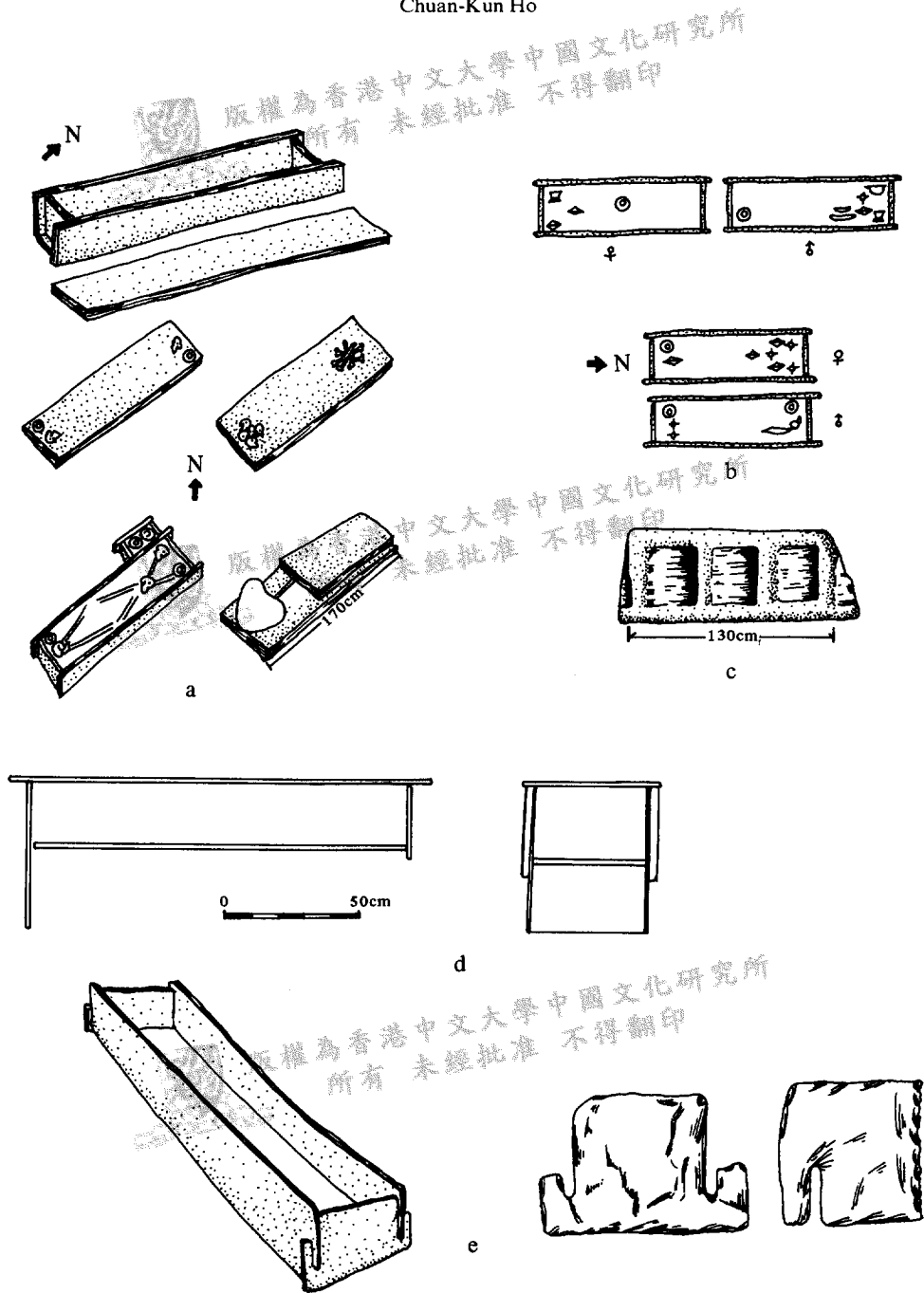


Fig. 9 Burial Pattern V of East Coastal Sites.
 a. Karolan Site (After Egli 1972). b-c. Taiping Site (after Egli 1972).
 d. Tamalin Site (After Liu 1956). e. Taimali Site (After Wu 1963).



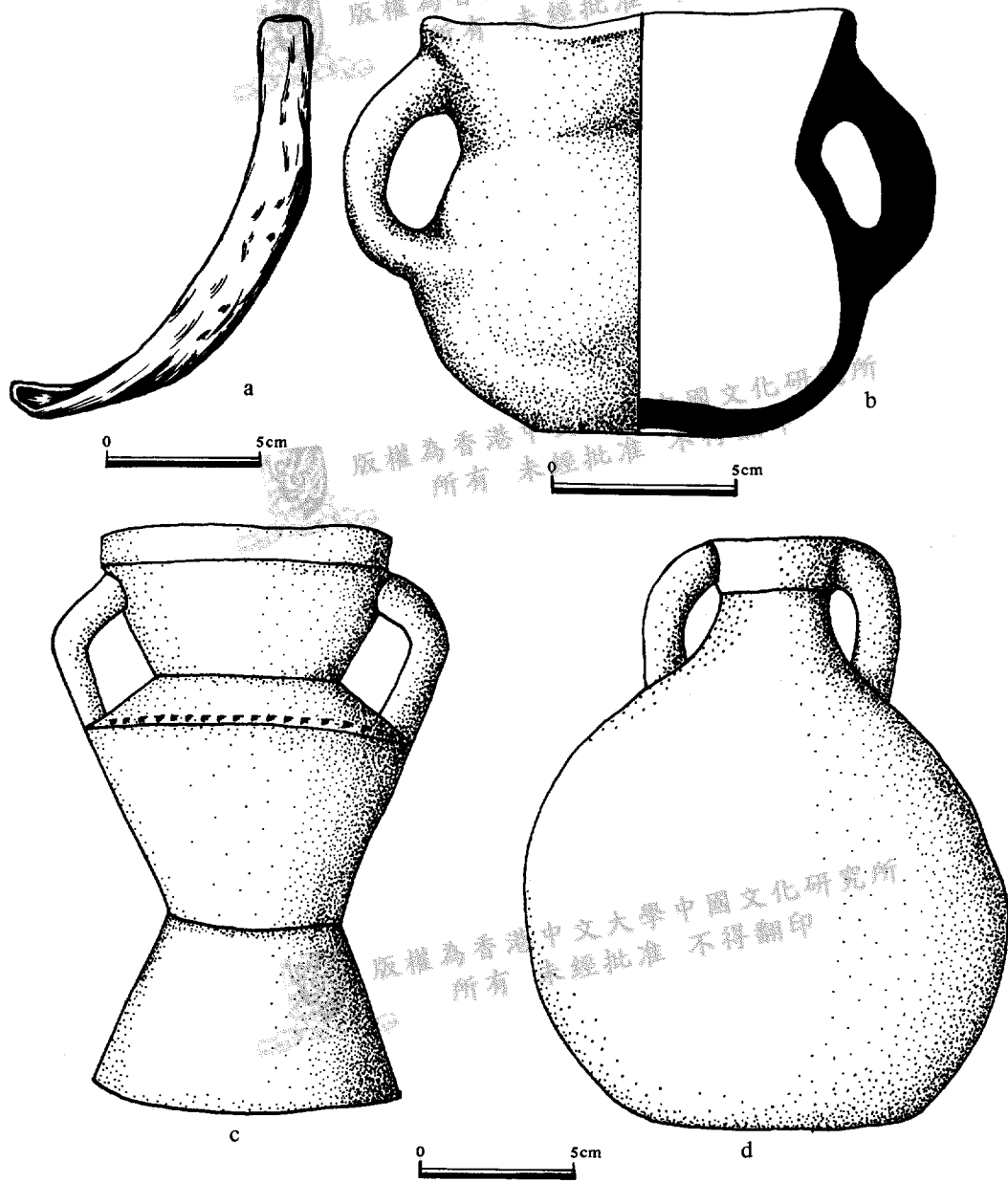


Fig. 10 Grave Goods Associated with Cist Burials.
a. Shell Spoon from Taiping Site (After Egli 1972).
b. Plain, Reddish Pot from Hun-Yeh Site (After Sung 1953).
c-d. Plain, Reddish Pots from Fukang (Karolan) (After Pearson 1970).

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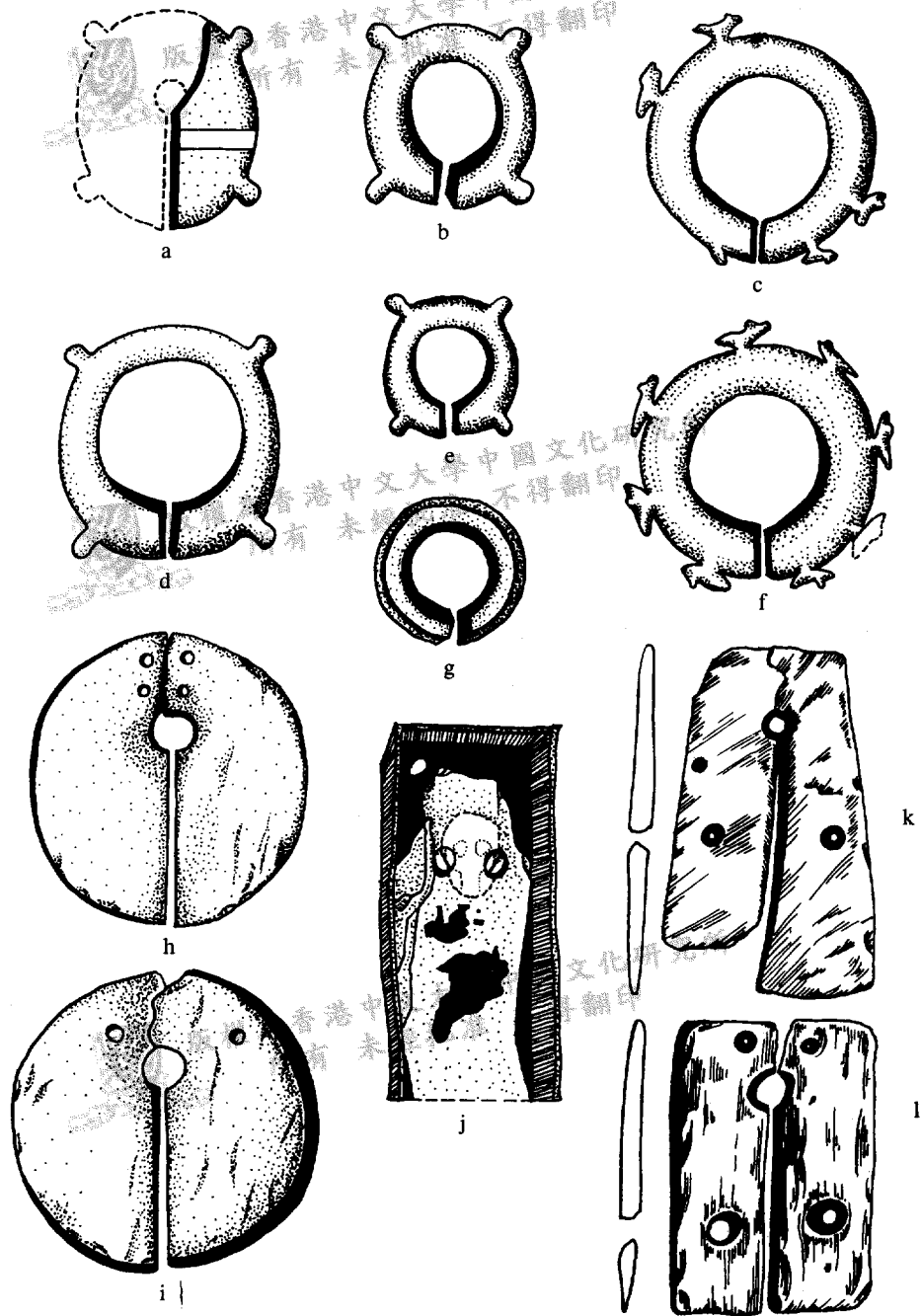


Fig. 11 Split Rings Associated with Cist Burials.
 a-f. Karolan Site; g. Botel Tobago; h-j. Mawuyao; k-l. Lijusan (After Huang, 1975).

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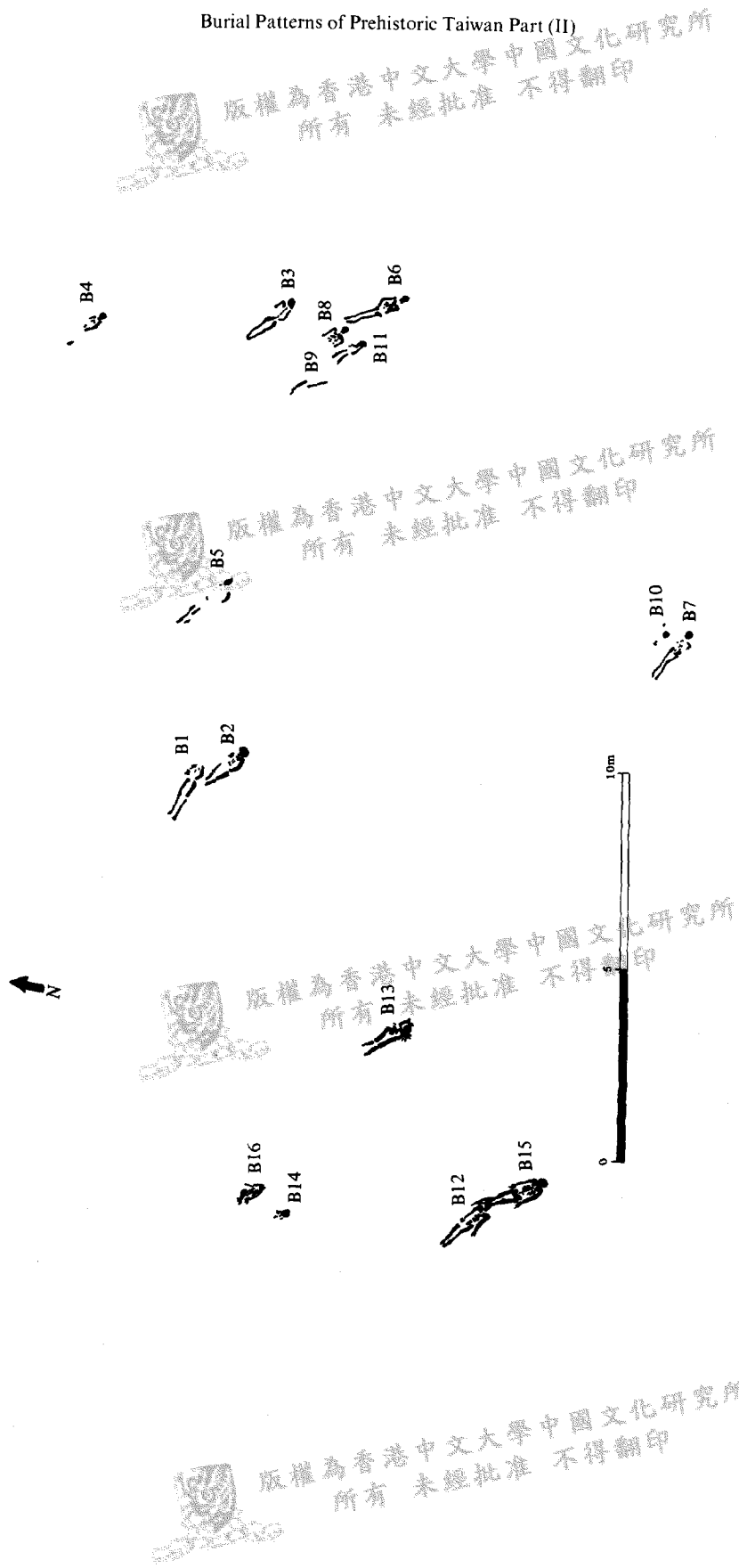


Fig. 12 Spatial Distributional Patterning of Burials at Fan-Tzu-Yuan Site, Tachia, Taichung (After Sung 1962).

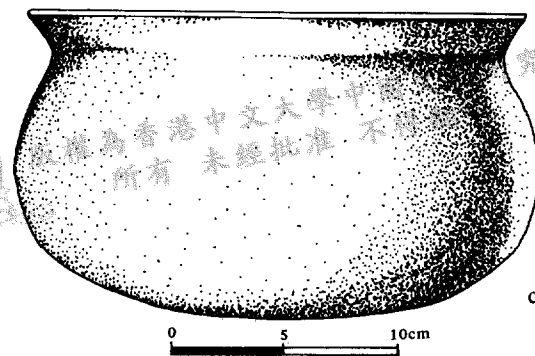
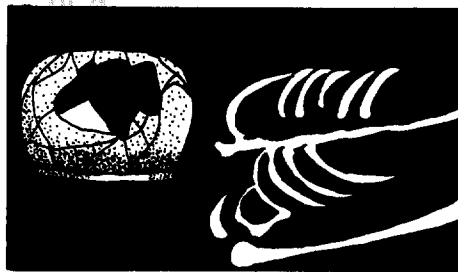
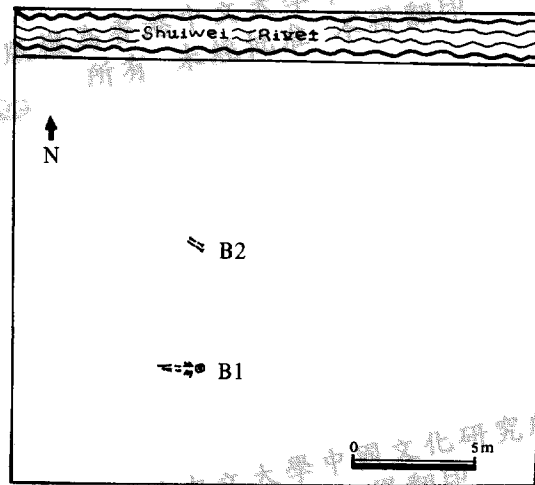


Fig. 13 a. Human Burials at Shui-Wei-Chi Site.
b-c. Burial 1 Was Covered with an Overtuned Black Basin on His Head (After Sung and Chang 1954).

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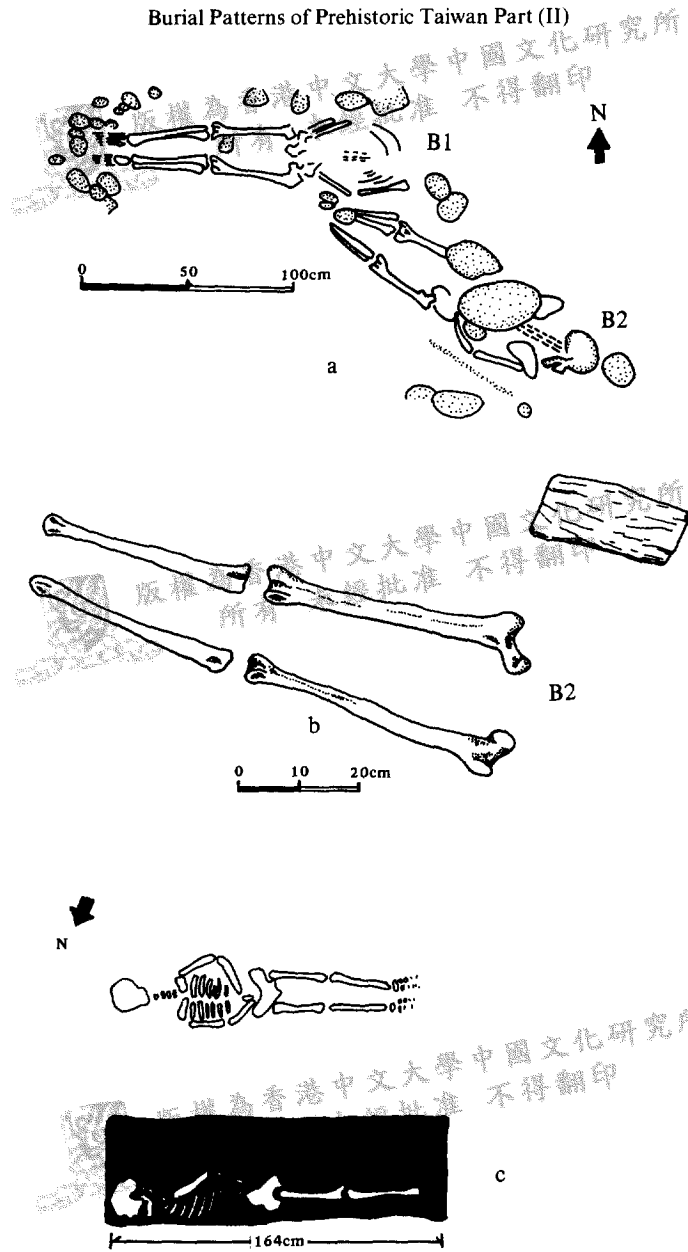


Fig. 14 Extended Prone Burials on West Coastal Sites.
a. Fan-Tzu-Yuan Site; b. Ma-Tou-Lu Site; c. Lun-Chun-Tsun
(a-b. After Sung 1954, 1962; c. After Sun 1974).

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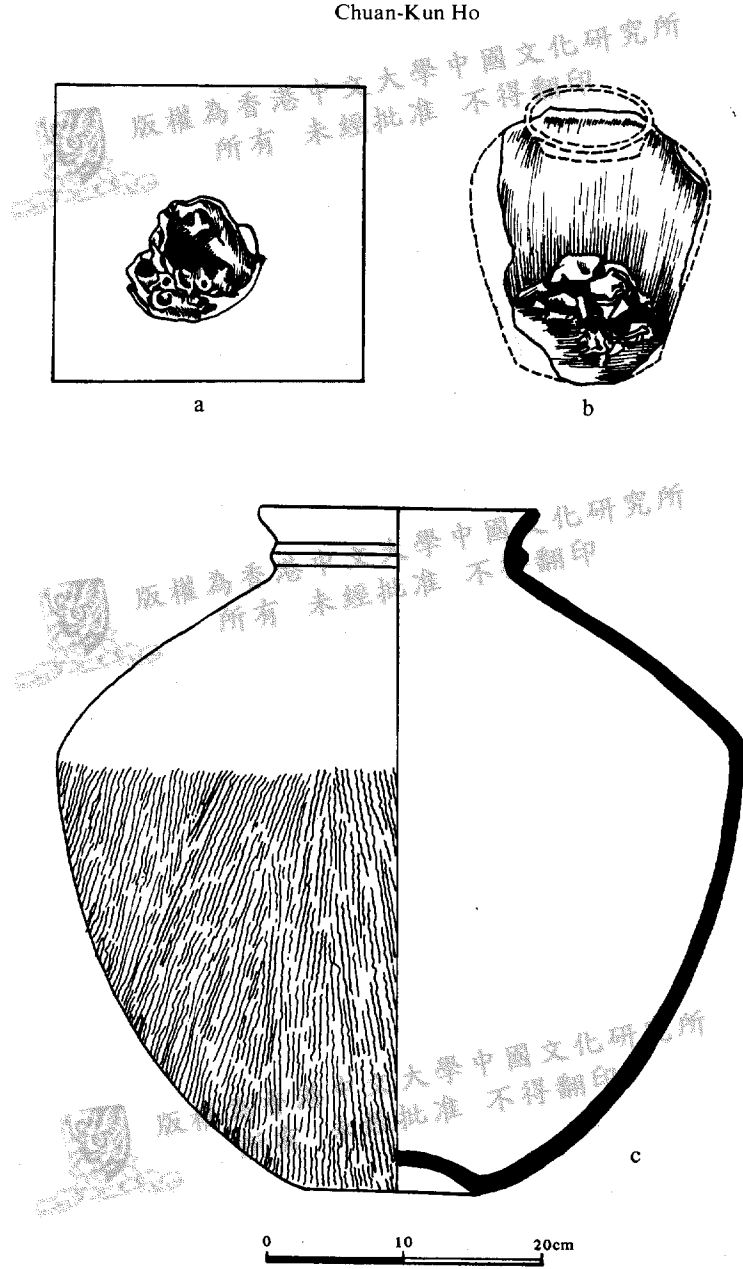


Fig.15 Human Skull and Burial Jar of Tao-Tzu-Yuan, Southwest Region of Taiwan (After Kokubu 1964).
a. Human Skull Found in Nonburial Context.
b-c. Burial Jar with Cordmarked Pattern.

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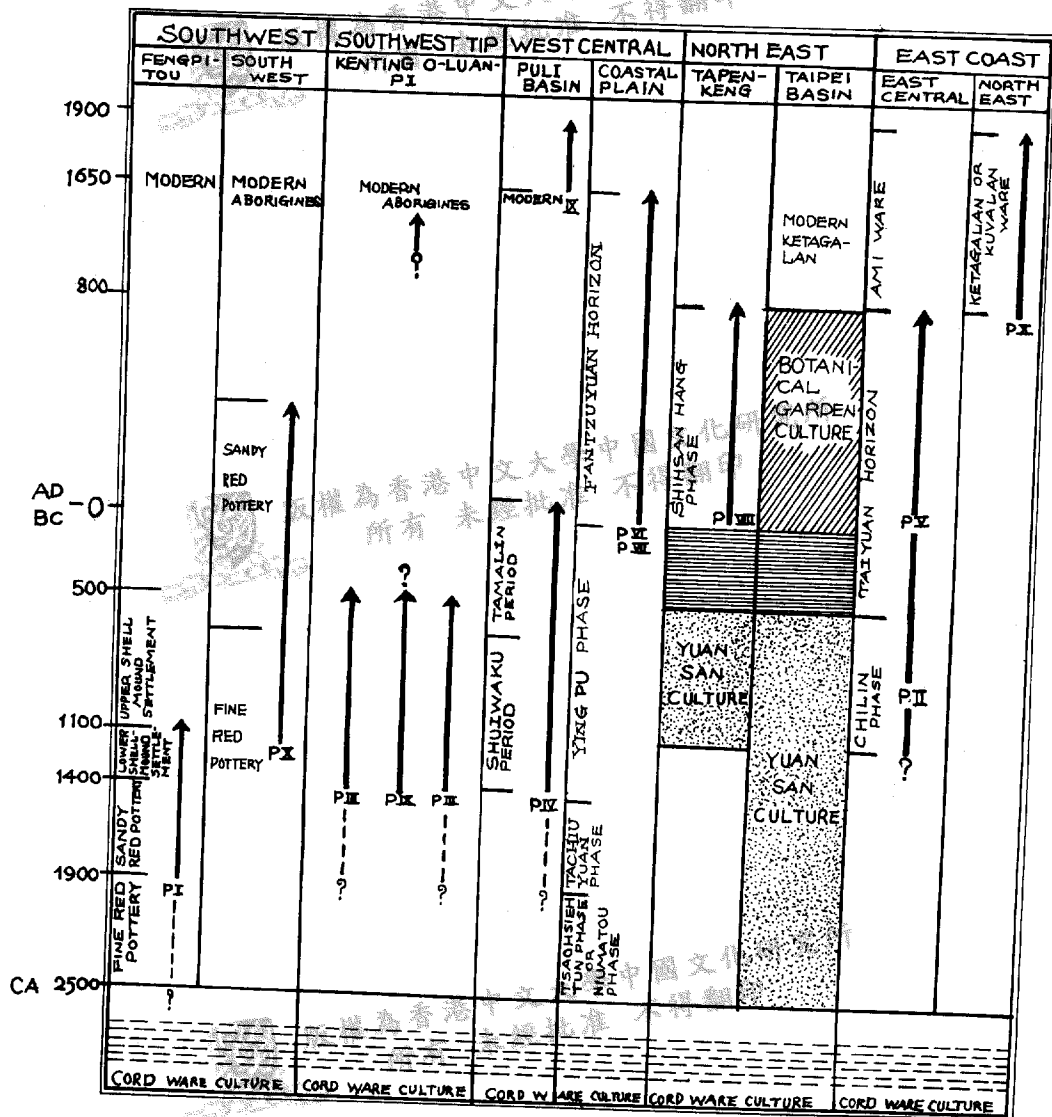


Fig. 16 Prehistoric Cultures of Taiwan and Their Chronological Relationship with Burials (After Chang 1969; 1974; 1975; Sung 1975).

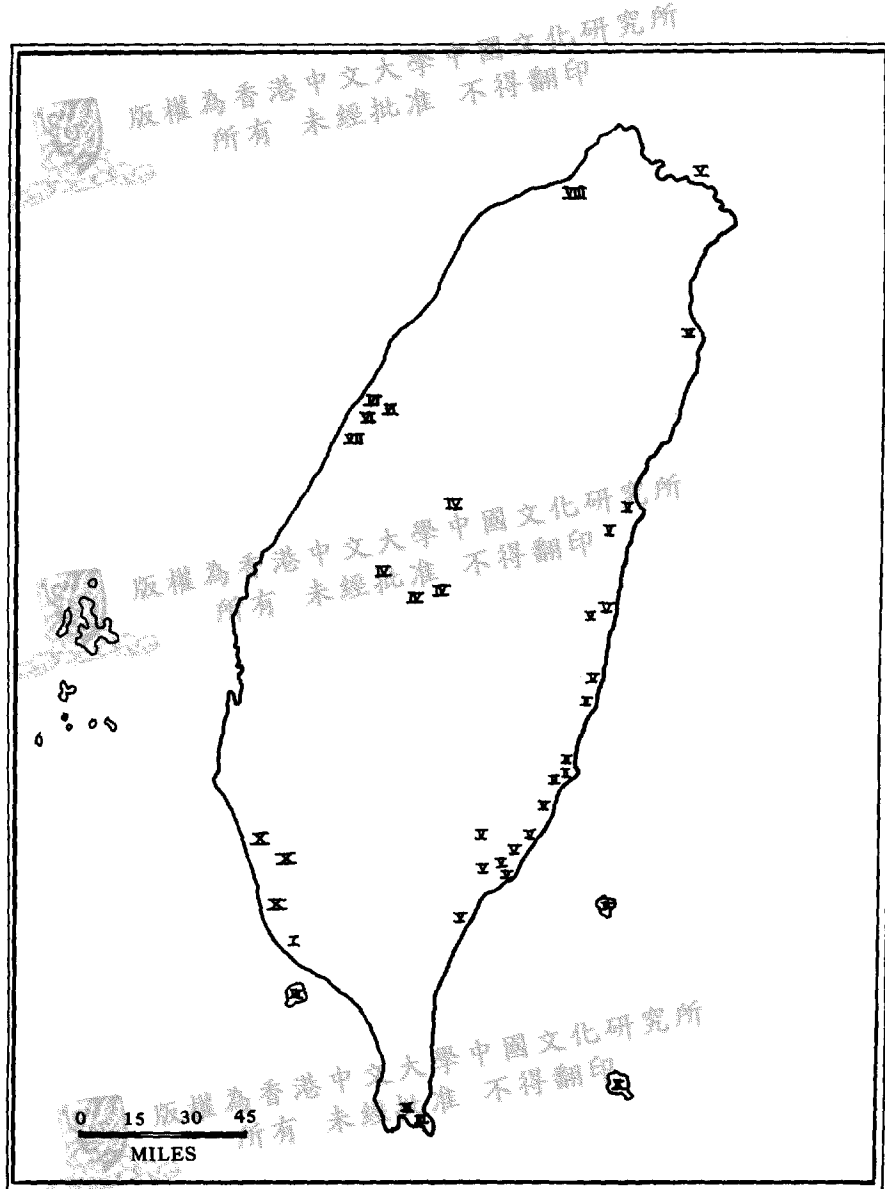


Fig. 17 Spatial Distributions of Burial Patterning.

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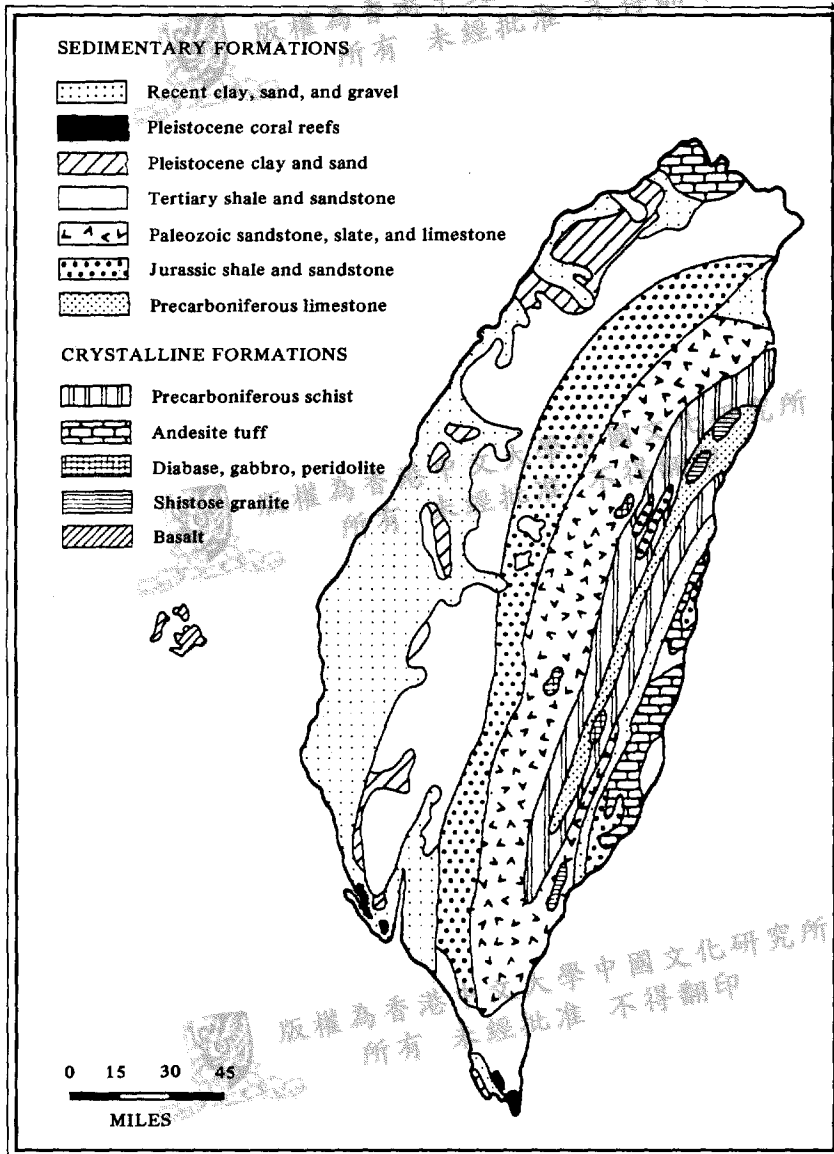


Fig. 18 Geology of Taiwan (After Chang 1969).

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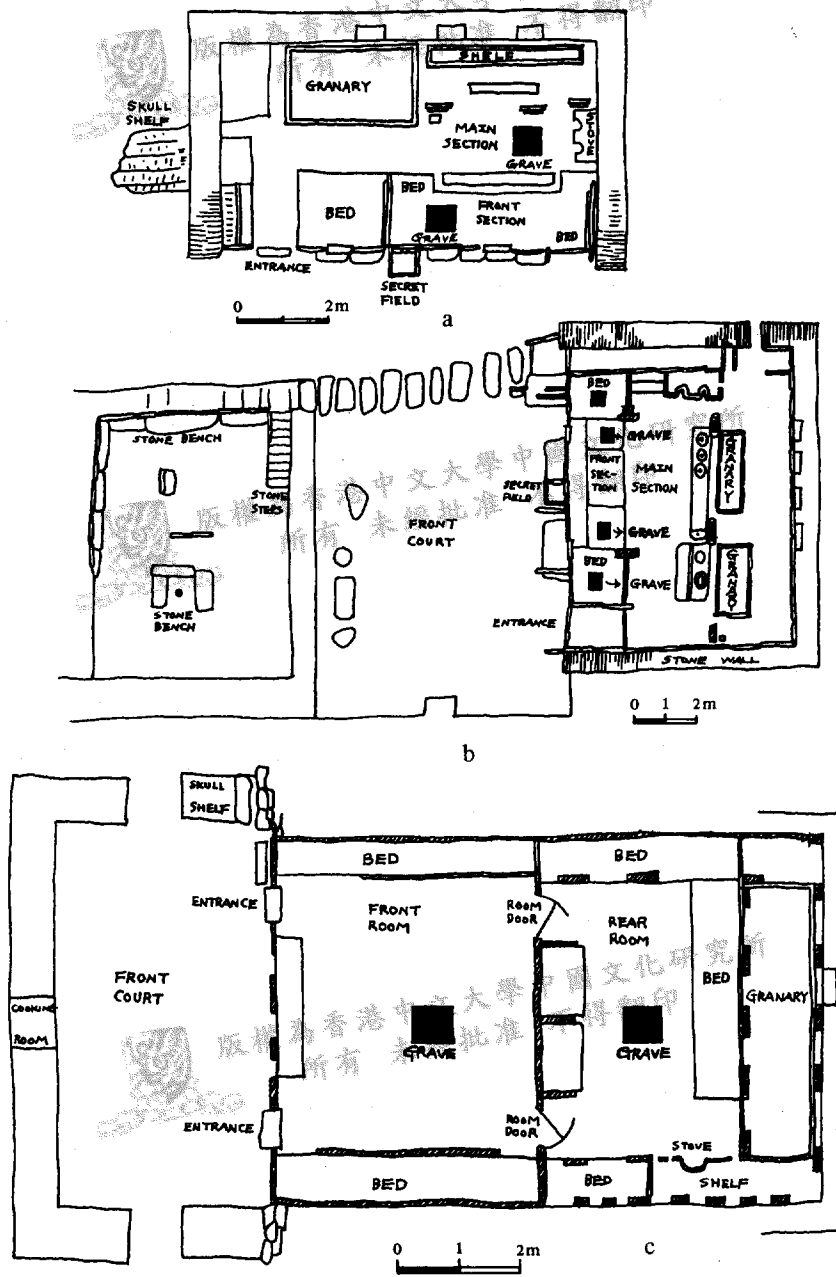


Fig. 19 Indoor Burials of the Paiwan (After Ling 1958).
 a. The Ancestor Temple and Earth Altar of Big-chief Sadilapan.
 b. The House of the Big-chief Jingurul, Kabiyan.
 c. The House of Chief Robanjau, Chaoboobol.

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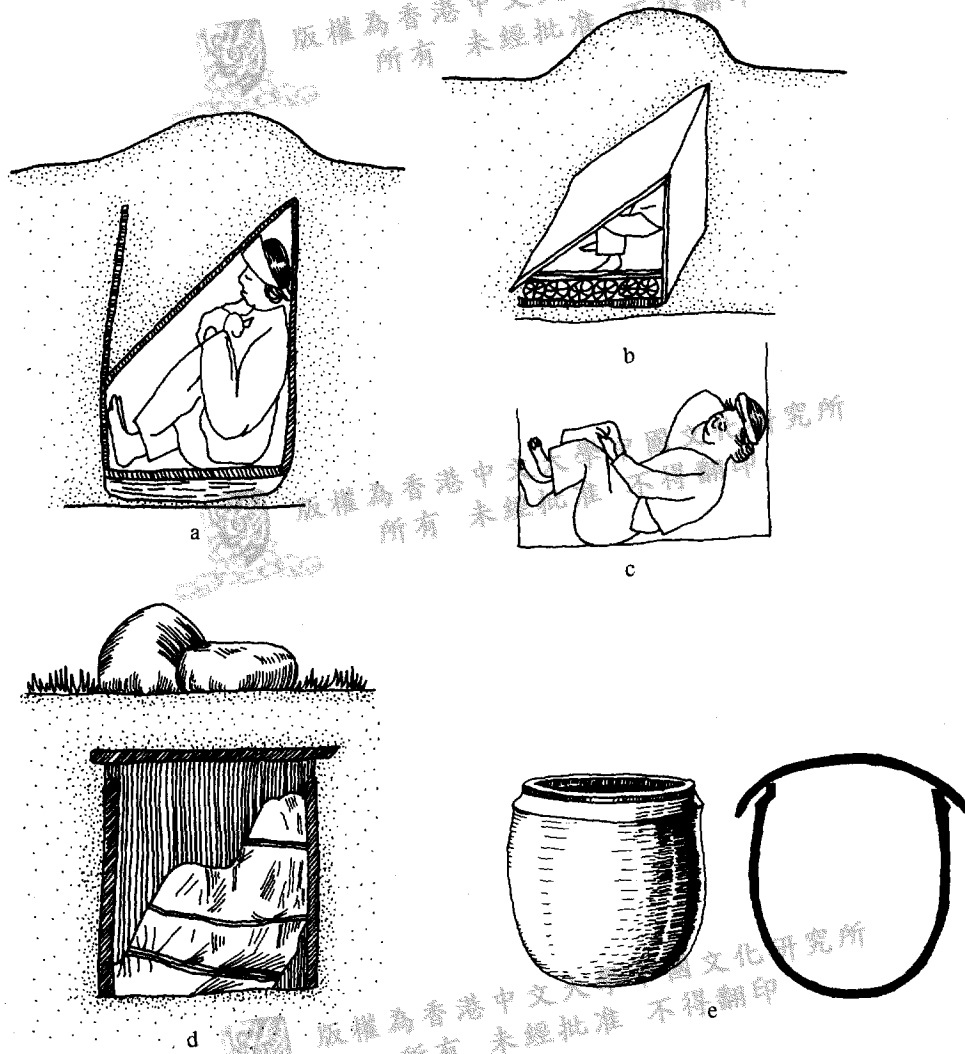


Fig. 20 Flexed Burials of the Ami and the Yami
(After Chiao 1960).
a-c. The Ami. d. The Yami. e. The Burial Jar (After Kano 1955).

台灣史前的埋葬模式(下篇)

(中文摘要)

何傳坤

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。