I

Introduction

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Rather than summarize what is known about the prehistory of Taiwan, the articles in this special section of Asian Perspectives VII—devoted exclusively to the prehistory of Formosa—seek to elucidate the various aspects of the study of its prehistory, their outstanding problems, and the possible approaches. In the prehistory of the Far East, the island of Taiwan holds many keys if its importance is recognized and its potential clues are fully explored. The authors and the editor of this section hope to make prehistorians interested in the Far East well aware of this, and to suggest to them further means of exploration.

Prehistoric archaeology began on the island of Taiwan in 1896 (Kanaseki 1943: 1-16; Kano 1946), the second year of Japanese occupation, but professional and scientific work was marked by two events in the history of the National University at Taipei—the first was the establishment of a Chair of Ethnology at the Imperial Taihoku University in 1928, whose first and only occupant was Professor Utsurikawa Nenozo; the second event was the founding of the Department of Archaeology and Anthropology under the College of Arts at the National Taiwan University in 1949 by Professor Li Chi. Under this stimulus of concentrated efforts in prehistoric studies at the intellectual centre of the island, historians, geologists, and amateur archaeologists have been carrying out, at various places throughout the island, archaeological investigations on varying scales, either as interested individuals or under the auspices of colleges, schools, museums, or the provincial and local Commissions for Historic Research. During the nearly seventy years since 1896, considerable data have been accumulated, with research directed toward the following three aims: (a) the grouping of archaeological assemblages under a time-space framework; (b) the reconstruction of the culture and society of prehistoric peoples in various periods and regions of the island; and (c) the comparisons of the island’s prehistoric cultures and cultural elements with those in the adjacent areas of the Far East to determine their historic relationships.

Up to this date, several hundred prehistoric sites have been found on the island, but full-scale diggings of sites in toto or in appreciable part are few, and among them stratified sites are even fewer. For this reason and also because perishable elements of prehistoric cultural inventories are seldom preserved at the sites (owing to the damp, warm climate of the island), the cultural groupings are in most cases based exclusively upon the colours, pastes, shapes, and surface treatments of pottery or the shapes of stone axes; and chronological studies in the majority of cases have been made on typological and/or distributional grounds. Island-wide syntheses of the time-space framework of Taiwan prehistory have been attempted, however, by Tadao Kano (1952) and myself (Chang 1954, 1956), but we still have a long way to
go before the first aim of prehistoric research given above is satisfactorily achieved.

The Tap'enk'eng site excavated in 1962–63, a preliminary report of which by Liu Pin-hsiung appears in this issue, is thus of the utmost importance, for at this site no less than five different cultural phases are found in stratified relationship. Besides this site, a few others are also of stratigraphical significance, and have been excavated to varying extents (Chang 1956: 376–379). Based on the information obtained from them, a preliminary framework of the prehistoric cultures along the west coast can be reconstructed; but a chronological alignment of many known sites on the eastern coast and in the central mountainous regions of the island remains to be formulated. When we turn our attention to the problems of absolute chronology, the island's prehistory yields practically nothing. Estimates as to dates before the historic period beginning in the 15th-16th centuries can only be made by the horizon markers dated from other parts of China and Southeast Asia—needless to say, they are always suspect. Radiocarbon dating facilities should be available to the archaeologists on the island; for it is a pity that this relatively simple and highly reliable technique has been so far used for no more than two archaeological samples of whatever age from the entire area of China (Jelinek 1962: 475), and even these two samples were of questionable provenance.

The second line of research (to reconstruct prehistoric life on the island) has suffered from the small number of fully excavated sites and that natural scientists have been here of little assistance to their archaeological colleagues. However, abundant evidence of the prehistoric stone, bone, and ceramic technologies has been brought to light, and the hunting methods and the varieties of animals hunted and the mollusc-shellfish collected are known at a number of sites. Burial customs have been postulated wherever burials are found. But the generally small scale of excavations inevitably overlooked information on architecture, settlement patterns, and the social aspects of prehistoric life. Pollen analysis has never been applied and, except for one instance where an impression of millet reed on pottery was recognized (Liu 1955: 69–83), the agricultural aspects have not been determined significantly beyond the description of farming implements. The archaeologists by themselves cannot deal with most of these inadequacies; and in many instances only substantial assistance from natural scientists will lead to fruitful results. We in the archaeological camp are therefore grateful to Professor Lin Chao-chi of the Department of Geology, National Taiwan University, for his study of the prehistoric environment in this issue. As an active field geologist and palaeontologist, Professor Lin, in the course of the past decade or so, besides helping the archaeologists with geomorphological observations and zoological identifications at prehistoric sites, has discovered many such sites himself, among which is the important Shihsan-hang site described in Liu’s article.

My colleagues will probably agree with me that up to now the most fruitful area of research in the prehistory of Taiwan has been in comparing the archaeological materials from Formosa with those of adjacent regions to determine their historic connections or other relationships. This, of course, is not accidental. Since Taiwan is an island separated from the nearest land mass by over a hundred miles of water, it is a rather well-defined unit by itself and a convenient starting point
for comparison. Many persons with a professional interest in the island’s prehistory are, furthermore, scholars without narrowly confined perspectives. Kanaseki, Li Chi, and Shih Chang-ju, for example, bring in their intimate knowledge of Chinese archaeology, and Kano Tadao was a geographer widely informed on the ethnography of Southeast Asia. When such scholars focus their attention on Formosa as a well-delineated and geographically isolated unit, they find that the island had never been really isolated in cultural history.

A primary reason of the interest of Taiwan among the prehistorians of the Far East (enough to warrant a special section on Formosa in *Asian Perspectives*) is that Taiwan is archaeologically of great importance for data on the historic relationships between the mainland of East Asia and the islands of the Western Pacific. It is unique in that it is probably the only place where studies of such relationships can be undertaken both archaeologically and ethnologically. In other words, it is the only existent link of significant substance between the ethnology of the Pacific and the archaeology of the mainland mass. It is close enough to the mainland to have close historic ties with it, but isolated enough from it so that remnants of the ancient ties are still found ethnologically today, whereas the entire southeastern coastal area of South China has long since become totally sinicized. Finally, Taiwan is the only outpost of the Western Pacific cultures along the entire southeastern Asiatic island arc, that is close enough to the mainland, to have served as a most convenient stepping-stone of ethnic and cultural movements in both directions—as long as such movements are postulated.

Available archaeological evidence indicates that the external connections of the prehistoric cultures on Formosa lie mainly in two directions: mainland East Asia (South China and Indochina), and the islands to the south and the southeast (Malaysia in the ethnological sense, Melanesia, Micronesia, and Polynesia). Since connections with the Ryūkyūs and with Kyūshū have not been extensively studied, Kokubu’s paper in this issue is a pioneer effort which contains several interesting and instructive ideas.

Formosa and mainland East Asia similarities in prehistoric inventories of material culture have long been noted by archaeologists, and Kano (1952: 181), in his posthumously published synthesis of Taiwan prehistory, was confident that: ‘The substratum of prehistoric cultures on Taiwan was the prehistoric culture on the Chinese mainland, which radiated into Taiwan in several waves. Subsequent to this was the eneolithic culture from Indochina with both bronze and iron. The uppermost layer consists of iron cultures (without bronzes) introduced from the Philippines’.

This Mainland-Taiwan relationship today we know better than a decade ago and have a clearer idea about the west coastal cultural sequence on the island largely, I believe, because the prehistoric cultures on the southeastern coasts of China are better known today. My own paper in this issue on the ceramic horizons of Southeastern China sums up our current knowledge of the subject. It is now solidly established insofar as the western coast of the island is concerned, that (a) its prehistoric cultural phases have as many horizons as there are on the opposite coasts of mainland China, and (b) each ceramic horizon of Taiwan is a local facies of a corresponding and identical horizon of the South China coast.
In terms of the movement of people and cultures across the Formosa Strait, two alternative interpretations immediately present themselves. Either the mainland cultures penetrated the island and were diffused among the aborigines who, before the penetration took place, possessed cultures of their own; or the mainland cultures were brought in by immigrants. A combination of these two alternatives is also possible. In his *Inference of Migrations from Anthropological Evidence*, Irving Rouse (1958: 64) suggests that 'it is necessary to do five things in order to demonstrate adequately that a migration has taken place: (1) identify the migrating people as an intrusive unit in the region it has penetrated; (2) trace this unit back to its homeland; (3) determine that all occurrences of the unit are contemporaneous; (4) establish the existence of favorable conditions for migration; and (5) demonstrate that some other hypothesis, such as independent invention or diffusion of traits, does not better fit the facts of the situation'. When these criteria are applied to the archaeological facts of the west coast of Formosa, all five of these conditions are satisfactorily met for all three of the ceramic horizons. The Corded Ware Horizon was probably brought over from Southwest China and Indochina along the southern coast of South China by migrants, unless evidence unavailable at present was to show that the island was occupied by preceramic or even paleolithic inhabitants. The Lungshanoid Horizon sites on the island are few and far between, apparently intrusive units from the Lungshanoid Horizon that has been well established for the coastal areas of South China. The intensity of the Geometric Horizon sites markedly increased on the western coast, an increase that appears to correspond to the more intensive occupation of the South China coasts by the Geometric cultures.

After the Geometric Horizon was replaced on the mainland by the Eastern Chou and the Han Horizons successively, the island of Formosa became, for reasons that are yet to be accounted for, increasingly isolated from South China until the historic period, and any post-Geometric Horizon markers that are found at scattered spots on Formosa, such as the Dongson-like bronze artifacts (Kano 1946: 198–214), must then be regarded as intrusive single traits of culture. The Geometric Culture appears to have persisted on this island, with varying changes in the various aspects of culture, until the historical period. Both Kano (ibid. 161–167) and Miyamoto (1956: 329–334) are strongly for the view that the descendants of prehistoric inhabitants on Formosa account for a substantial percentage of the aboriginal peoples of today—approximately one hundred and fifty thousand souls inhabiting the central mountainous regions and the eastern plains. The Atayal, the Tsou, and the Bunun groups recall the use in former days (during the youth of their elders, about a generation or two ago) of stone axes, hoes, and spearheads. Stone implements and pottery identical with prehistoric finds have been picked up in abandoned settlements of the Tsou, Bunun, and Ami groups. Among several modern groups, menhirs, stone pillars, stone walls, and cist graves are still built in the ethnographic present, identical with or similar to prehistoric discoveries (Kano 1952: 161–167). Though many modern groups have ceased to manufacture pottery, wherever information is available on their pottery making in the ethnographic present, continuities of the prehistoric Geometric Horizon are strongly represented in techniques of manufacture, shape of the vessels, and the surface treatment (Chen 1959, Jen 1960, Shih 1960, Sung 1957).
The relationship of modern aboriginal groups on Taiwan with its prehistoric inhabitants, as pointed out by Kano (1952: 164), is a problem both interesting and complicated. No simplistic generalizations should be attempted before making concentrated efforts on research in this direction. An undertaking of great urgency would be to trace the routes of inland migrations of the various modern ethnic groups on the island, with all the historical methods at our disposal, and to identify the former settlement sites of each group along the general areas of such routes (e.g. Mabuchi 1953–4). Specific connections may eventually be pinned down between individual ethnic groups of today and the prehistoric cultural phases of various periods. Before this is done we must be satisfied with the broad observations of Kano and Miyamoto that there are continuities from the prehistoric to the ethnographic. If we accept this as valid—and I see no reason for questioning it—we have to conclude that at least a substantial part of the modern aborigines on the island of Taiwan descended from prehistoric ancestors who entered the island from mainland China. Since the modern aborigines all speak the same language (Malayo-Polynesian) and have the same culture (Malaysian), any continuity in part poses the same problems as continuity in toto. We therefore face the problem of the ethnic identities of the ancient peoples on the mainland.

In this respect both Kano Tadao and Ling Shun-sheng in the early 1950’s independently came to the conclusion that in South China there was an ancient Malaysian cultural substratum before the arrival of the historical Chinese civilization, and that the modern Malaysian culture on the island of Taiwan originated in that direction. Kano has compared 73 items in the material culture of the modern aborigines, ranging from agricultural crops to musical instruments, with analogous items on the mainland and in the South Seas, and concludes that ‘the aboriginal Formosan culture is largely connected with the mainland, a fact that is somewhat unexpected’ (Kano 1952: 243). He further states,

It has been mentioned above that most of the material culture traits among the Formosan aborigines are related to the mainland. There are some among those traits that have been considered that are affiliated with the South Seas, but their distributions are mostly confined to the Botel Tobago Island and the eastern coast. These facts present undeniable parallels to the conclusions reached by prehistoric studies. In other words, the prehistoric cultures of Taiwan, on the whole, are related to the mainland cultures, but closer examinations reveal that the West Coast exhibits heavy Southern Chinese colours, whereas the eastern coast is connected with southern Indochina with reference to the megalithic cultures. In addition, the Iron Age cultures of the Philippines also intruded into the east coast. As to the Botel Tobago Island, its prehistoric cultures belonged to the Philippine sphere (Ibid. 246–247).

Ling Shun-sheng (1950–1956), in a series of articles, has sought to demonstrate by historic documents and comparative ethnology that the aboriginal cultures in South China before the introduction of northern Chinese civilizations were ‘Malaysian’ in affiliation. With the advance of Sino-Tibetans in South China, he thinks, the Malaysian cultures gradually disappeared from the mainland of China, although fragmentary documents of their aboriginal cultures appeared in historic records of various ages; and remnants of this archaic cultural substratum still survive in outposts such as Assam in the west and Formosa in the east. The majority of the Malaysian cultures are found today in the ethnological Malaysia.
The hypotheses of Ling and Kano deserve serious study on the strength of the evidence they have marshalled, and our growing knowledge of the archaeology of South China appears to give support to them in their broad outlines. I am convinced that recent advances on all fronts in the cultural history of Southeast Asia, particularly South China, agree in rendering very likely the view that the cultivation of cereals; the making and use of polished stone implements; and the making and use of pottery in the Western Pacific came from South China; and that the Formosan natives of today are representative of this archaic cultural substratum preserved in Taiwan in the course of the culture's movements into the South Seas (Chang 1959, 1962). Solheim in this issue has made use of the available evidence to assess the Taiwan-Southeast Asia relationships, and his conclusions are essentially in agreement with the above view. Migrations and diffusions in the reverse direction are obvious, as is shown by some of the prehistoric and ethnographic evidence from the eastern coast and from the southern end of the island. But the general direction of ethnic movements has been, as has been postulated for many decades, from the west to the east, from the mainland to the islands. There are many ethnological similarities between the Formosan aboriginal cultures and the native cultures of Southeast Asia. These similarities should no longer be interpreted to support the sometime-held theory that the aboriginal population of Taiwan came, as a body, from the south.

There are complications, however, and these must be resolved, if my thesis here is to be accepted as historically valid. Paramount among these complications lies in the realm of linguistics. First of all, if the neolithic cultures in Southeast China, including those on the island of Taiwan, were ancestral to the modern aboriginal cultures of Taiwan, does this mean that the neolithic peoples in Southeast China were 'Malayo-Polynesians', as suggested by a number of the older linguists? Archaeological studies of China have begun to demonstrate that the Southeastern neolithic cultures were extensions of the neolithic cultures of North China, and the mechanisms for their expansion into Southeast China have been satisfactorily accounted for. There is, furthermore, no question whatsoever that the historical Shang civilization was an immediate continuation of the Northern Chinese neolithic cultures (Chang 1963). Does this mean that the Northern Chinese neolithic peoples were ancestral to both the modern Sino-Tibetans and the modern Malayo-Polynesians? I have posed these questions before (Chang 1959), and would like to ask them again. I should like to ask my linguistic colleagues whether it is at all possible that such divergent languages as Sino-Tibetan and Malayo-Polynesian could have become differentiated from a common ancestral stock within seven, eight, or nine thousand years? It is beyond question that the Lungshanoid is a key horizon that establishes archaeologically without serious problem the connection among North China, Southeast China, and the island of Taiwan. If linguists give a negative answer to the question above, then we must re-examine our evidence very carefully and make very clear distinctions among such concepts as 'peoples', 'cultures', 'ethnic groups', and the like. An affirmative answer would facilitate our interpretations materially, of course.

In this connection, Professor Isidore Dyen's contribution to this issue is of importance, not merely in terms of the cultural history of the Far East but also in
the strategy and tactics of cultural historic studies in general. Recent studies of the Malayo-Polynesian languages by several linguists practically agree in showing that this linguistic family originated and began to disperse somewhere in the Pacific, (e.g. Grace 1961: 359–368); and Dyen’s article here forcefully argues against the traditional theory that the homeland of the Malayo-Polynesian family was in mainland Asia, Formosa included. The opinion of such a respected linguist as Dyen commands our close attention and forces us to examine our own premises in every detail, premises that have led to historic inferences very much at odds with the linguistic findings. The problem of Malayo-Polynesian migrations demands careful thinking in the realms of culture, race, and language. Any sweeping conclusions reached by archaeology alone, no matter how satisfactory they may appear, cannot be accepted with complacency. The same remark applies to physical anthropological, ethnological, and linguistic studies.

But it is clear that in further investigations of these various problems the archaeology of Taiwan will play a vital role. The internal framework of time-space relationships of prehistoric cultures on Formosa is of interest and great significance in its own right. To the readers of Asian Perspectives, Formosa offers potential resources with a bearing upon the entire cultural history of the Western Pacific. The exploration of such resources demands vigorous efforts with an interdisciplinary orientation.

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