IN A recent paper, Kwang-chih Chang advocated that archaeological studies be accomplished in cooperation with ethnological studies (Chang 1967). This idea is not new among students of archaeology in the United States, where scholars often belong to the “historical school.” However, the idea is quite neglected in some other parts of the world. Chang received his major theoretical training in the United States, but I believe this idea was nourished when he was still in China. In China, the developmental history of archaeology has been shown to be a result of combined efforts of archaeologists and ethnologists.

The importance of the Formosan prehistorical relics and sites was brought to light following the Japanese occupation of the island in 1895. In that year Japanese scholars began ethnological and archaeological studies in Taiwan and they continued until 1949, when the last Japanese scholar withdrew from the island. References were collected from the major journals and books published in Japan during this period of more than fifty years.

This period covering the first half of the twentieth century should be subdivided owing to the different subjects emphasized. Kanaseki and Kokubu (1950), in discussing archaeological studies in Taiwan, divided the studies during the Japanese occupation into three stages. The divisions they made are reasonable and useful; thus, I follow them in the discussion.

The first stage, from 1895 to 1928, started with the Japanese occupation of Taiwan and ended with the establishment of the Lecture Room of Folklore and Ethnology, Taipei Imperial University. This was the period when the Yuan-shan (Maruyama) shell mound was first noticed, and prehistoric relics and sites were discovered all over the island. Also, in this initial period of investigation, worthwhile ideas concerning Formosan prehistoric cultural
origins and genealogical relationships were discussed, although scientific excavations were still unknown. The second stage, from 1929 to 1938, witnessed the development of the Lecture Room of Folklore and Ethnology. During this time, material was collected for the exhibition room of the lecture room (the present exhibition room of the Department of Archaeology and Anthropology, College of Arts and Sciences, National Taiwan University). Collection and analysis of the prehistoric data was centered at the exhibition room. Meanwhile, several scientific excavations were conducted. The central and southern plains of Taiwan became the focus of interest in the third stage, from 1939 to 1949. Unlike the first two stages, archaeologists shifted their attention from stone implements and shells to pottery because stratified excavations were conducted.

Three kinds of work may be distinguished among the sources: (1) Simple field notes, which include travel reports, site reports, and the description of artifacts; (2) reports on excavations; and (3) interpretations, which include theoretical analyses of data, discussions on the relationship between artifacts and the peoples, and discussions on the connections between Taiwan and other areas.

THE FIRST STAGE

Studies within this stage include: field notes by Ino (1895a-i, 1896a-f, 1897a-e, 1898a-f, 1899a-c, and 1907b), Torii (1897a, b, 1898, 1900c), Tanaka (1896a, b, 1898), Narita (1897), Harada (1900), Fukushima (1901), Sato (1901), Akatsukasa (1925), Matsumura (1927a, b), Yaki (1903), Sayama (1923), and Sugiyama (1927); excavation reports by Ino (1907a), Miyahara (1919), and Torii (1911, 1926); and interpretations by Atachi (1906), Ino (1906, 1907, 1912), Miyahara (1926), Mori (1902), and Torii (1900b, 1901, 1907, 1925).

The person who first directed attention to stone implements in Formosa was Masataro Tanaka. He was stimulated by Ino's first field letter (1895a) and noticed that Ino did not appreciate the stone-age problem in Taiwan. Tanaka came to Formosa in April 1896. On 22 July of the same year, when Tanaka was taking a walk along the Tansui River bank in Taipei, he saw ship carpenters using an iron adze to insert sawdust into the apertures between two boards. The adze looked like a "bend" for playing the Japanese samisen. The hitting stone used by the ship carpenters was a kind of concave hitting stone often found among stone-age remains. Thus, Tanaka (1896a, b) suggested that since polished stone axes had been unearthed from Kyushu to the Ryukyu islands there was considerable likelihood of finding prehistoric stone implements in Formosa. In the same year, Formosan prehistoric stone tools actually were brought to Japan and collected by people interested in antiques, but they were overlooked by archaeologists.

The following year (1897) a teacher at the Japanese Language School collected the stone tools for the first time (Ino 1897a). On 7 March of that year, Ino and others discovered the shell mound at Yuan-shan. Ino's major concern was ethnology, but he was always interested in aboriginal artifacts and associated them with prehistoric problems. Before he discovered the Yuan-shan shell mound, he brought to light the geometric designs shown on the pottery steamers (vokkao) used by the Ping-pu aborigines (Ino 1896e). Ino contributed much to the preservation of ethnological data for the reconstruction of Formosan prehistory. He was the first person to carry out excavations in Peng-hu Island, and found that prehistoric communication existed between Taiwan and the Ryukyus and between Taiwan and Micronesia (Ino 1907a, b).
Although more shell mounds were discovered later, the Yuan-shan shell mound, rich in data, is still the most valuable one in Taiwan. The first-stage studies, in effect, developed around the Yuan-shan shell mound. Ryuzo Torii arrived at Formosa in 1897, the year that the Yuan-shan shell mound was discovered. He raised the question that Yuan-shan culture might be associated with a culture outside the island (Torii 1897b). Torii is also the first scholar who reported the prehistoric Pei-nan site on the eastern coast (Torii 1897a: 351). Torii's theory of dividing the "northern aboriginal" history into three stages—the Stone Age, introduction of iron, and the age of Chinese immigrants—received much attention at that time (1897b).

In a subsequent publication Torii (1900b) pointed out that prehistoric sites were also distributed among the aboriginal mountain areas. Relics of the Stone Age were believed to be distributed around the New-High Mountain (Jade Mountain), and the latitude of distribution was believed to be in the same geographical position with the A-li mountain inhabitants and the residential area of the Bunun tribe. This article is more of an ethnological survey than an archaeological report. Torii suggested that the stone tools were left by the predecessors of the Bunun people.

In the latter half of the first stage, the most noticeable reports were by Torii (1911) and Jun Miyahara (1919). A discussion on prehistoric Taiwan, resulting from a comparison of the early investigations and reports and the excavation at Yuan-shan, was presented in Torii's Japan Before History (1925) in the chapter "Formosa before history." Miyahara published an important paper on the Yuan-shan shell mound (1919). Other than a new case of the discovery of grinding stones, the report showed the formational chronology of the Yuan-shan shell mound, based on geography and distribution of the shells from the point of prehistory and geology. The method is premature and unscientific but, nevertheless, the attempt is good. The paper is very important for later archaeological work because Miyahara indicated that pottery in the Yuan-shan mound could be the very primitive cord-marked and basketry-marked pottery.

Torii's last paper, "Ancient stone artifacts in Taiwan" (1926), is the first article concerning the megalithic culture in Taiwan. The culture circle problem (kulturkreis) of the megaliths was discussed. It was reported that the megaliths on the eastern coast resembled both the Caroline (Mariana) type and the Indonesian type that come from the Philippine and Malay islands (Kanaseki and Kokubu 1950).

Torii also contributed to the field by studying the "negrito" problem (Torii 1901, 1907). The study was pursued by Atachi (1906) and much later by Kano (1932).

At the end of the first stage, A. Matsumura arrived in Taiwan and contributed to the field the discovery of the Ken-ting site in southern Taiwan (Matsumura 1927b).

The Second Stage

Studies within this stage include: field notes by Kono (1929a-d, 1937), Kano (1929a, b), and Kaneko (1935); a report on excavation by Seito (1934); and interpretations by Utsushikawa (1934) and Kono (1937).

A new trend, conducting organized excavations, had developed for the study of Formosan prehistory after the establishment of the Lecture Room of Folklore and Ethnology, Taihoku Imperial University. The second stage started with the discovery of more stone coffins at Ken-ting (Kanaseki and Kokubu 1950) in 1930. Three excavations by Nenozo Utsushikawa,
Jun Miyahara, and Nobuto Miyamoto yielded 25 stone coffins. No formal or detailed report was made other than a few simple introductory papers by Miyamoto, Miyahara, and Utsushikawa.

In 1934, Utsushikawa and Miyamoto investigated the stone coffins at Shincheng, Su-Ao. Erin Asai, Nobuto Miyamoto, and Takeo Kanaseki excavated the stone coffins of Ta-Malin at Wu-Niu-Lan of Pu-Li (Kanaseki and Kokubu 1950). All these suggest that it is necessary to undertake exhaustive investigations and excavations.

Kano listed 151 prehistoric sites before 1929 in his papers (1929a, b). More sites were discovered among the plain areas at the following places: Takkili (Hua-lian County), Tu-Luan (Taitung County), Shi-Yun-Yan (eastern foot of Kuan-in mountain, Taipei), She-Tzu (Shi-Lin, Taipei), Kung-Shia (Yuan-shan, Taipei), Yuan-li (Shien Chu), Pa-Kua-Shan (Chang-Hua), Wu-Shan-Tou (Tainan), Che-Lu-Chian, Niu-Chuen-Su (Hsou-shan, Kaushung city), and Tai-Hu (Kaushung City) (Kanaseki and Kokubu 1950).

One of the important papers, “Chronology of the Culture Contact in the Patu-Surrounded Pacific and Similar Type of Stone Implements Found in Formosa” (1934), is by Utsushikawa. Utsushikawa elaborated on culture contact within the Pacific culture circle and also indicated the similarities between stone tools of Taiwan and the Lamma Islands near Hong Kong.

**The Third Stage**

In 1939, Utsushikawa, Miyamoto, and Kokubu began excavating the Tai-Hu shell mound at the southern bank of Er-Tseng-Heng river; they discovered more influential prehistoric relics in the western plains of Taiwan.

The relics were found at the following places: Niau-sung shell mound at the northern Taian terrace; spots surrounding the Taian terrace; Hu-Nei shell mound west of Tai-Hu shell mound; Wu-Hsu-Lin, foot of Luo-Ti-Shan (mountain); the shell mound at the south bank of the Hou-Chin river, southeast of Luo-Ta; Tau-Tzu-Yuan of Tsuo-Ying, Kaushung; Fuo-Kang, south of Kaushung harbor; Er-Chiao; west of the Fung-Shang terrace; Tan-Tou; east of Fung-shan; Tien-Ian-Tung, Chung-Kang-Men; Liang-Wen harbor of the Pescadores islands; Ta-Tu and Ching-Sui of the western Ta-Tu terrace; Ying-Pu of the northern bank of Ta-Tu river; the stone coffins at Pu-Shin-Tzu and the old Shen-She (God’s temple) of Chu-Shan at the terrace between Chu-Shui-Shi and Ching-Shui-Shi river; the Hou-Lung-Ti shell mound of Chu-Nan, Shing-Chu; Tsau-Lo at the coast of Chung-Li; Chang-Tou-Chu near Tan-Shui river, west of Taipei basin; western foot of Chen-Shan (mountain) that crosses Shau-Ching-Tsun, north of Taipei city; stone coffin at She-Liau-Tau, Keelung (Kanaseki and Kokubu 1950).

The most significant find of this period was black pottery. It was first observed at Tai-Hu shell mound and later found to be dominant along the median and southern area of the west coast. The early discoveries of black pottery at Wu-Shan-Tou and Yuan-Li were the result of excavation by Kokubu (1941). Painted pottery was associated with the black pottery found at Liang-Wen-Kang, Tau-Tzu-Yuan, Ying-Pu, Chang-Tou, and Yuan-Shan. Pottery painted with red paint was found at Yuan-Shan, Chung-Tou, Hua-Kang-Shang, and Hua-Lian city of the east coast.

Because those excavations were undertaken mainly during the middle and the end of World War II, almost no publications about those finds appeared. Publications within this stage include excavation reports by Kono (1939), Kokubu (1942), and Kano (1942a); and inter-
pretations by Kanaseki and Kokubu (1943, 1949), Kano (1930a, b, 1932, 1941a–c, 1942b, 1943), Kokubu (1941), and Miyamoto (1939). Kano stayed in Japan to be able to contribute reports.

Kano's studies on the interpretation of prehistoric cultural strata provided the first class theories for the later reconstruction of the cultural history of Southeast Asia.

CONCLUSION

In the included bibliography of works from 1895 to 1949, one finds that three scholars have dominated the field of archaeology in Taiwan during its fifty-four-year span. Torii and Ino were especially active in the first half of the period, while Kano was the major figure in the last half. While Torii and Ino started with adventurous travels and the collected artifacts that represented the initial stage of development, Kano developed the field with data syntheses and interpretations. Among the 88 references discussed, 56 are classified as field notes, 8 are descriptions of excavations, and 24 are works in interpretation.

As a conclusion, I would like to suggest three characteristics of Japanese archaeological work in Taiwan: (1) archaeology was not separated from ethnology; (2) archaeological studies were developed with modern ideas and methods, although some ideas were premature at the initial stage; and (3) archaeologists were always interested in the prehistoric relationships between Taiwan and the Chinese mainland, Southeast Asia in general, and even the Pacific islands. Thus, Japanese archaeologists developed the modern treatment of archaeological data on Taiwan.

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