

Archaeological Survey and Excavation of Ban Chiang Culture Sites in Northeast Thailand

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Human bones, bleached white by the sun or stained black by the soil are scattered about. Large painted pots with strikingly well executed designs and heavy, fused masses of bronze bracelets encircling the wearer's arm bones are offered for sale. These are some of the unfortunate by-products of the archaeological research in Northeast Thailand that has revolutionized Southeast Asian prehistory and focused attention on the site of Ban Chiang. Many observers now regard Ban Chiang as the apotheosis of prehistoric occupation on the Korat Plateau of Northeast Thailand. Ban Chiang, however, is only one of many related sites in the region, and to view the site apart from its geographic, temporal, and cultural milieu, is to ignore the variety and complexity of the Ban Chiang cultural tradition.

In several respects, the recent archaeological investigations in Northeast Thailand parallel those of Johan Gunnar Andersson in northern China in the 1920's. In 1921 Andersson discovered the first prehistoric Chinese village site at Yang-shao-ts'un in Honan province. His work here and subsequent work locating and excavating related painted pottery sites marked the beginning of Chinese prehistoric studies.

Half a century later on the Korat Plateau, over 2,100 kilometers to the southwest of Yang-shao-ts'un, the discovery and excavation of Non Nok Tha and Ban Chiang led to the definition of a heretofore unknown prehistoric cultural tradition in Southeast Asia. While Chinese scholars have been excavating sites and deciphering Chinese prehistory for over 50 years, Southeast Asian archaeologists have only begun locating and excavating sites belonging to the Ban Chiang cultural tradition.

The excavations of Ban Chiang and Non Nok Tha raised many unanswered questions: How does Ban Chiang relate to other sites in regard to size, structure, and artifactual inventories? Are all sites habitation sites as well as burial mounds? How many sites were occupied contemporaneously and what is the duration of occupation? What kinds of inferences can we make about the economic,

political, and social interrelationships among the sites? And finally, what can we say about culture change in Northeast Thailand based on the evidence from other sites as well as from Ban Chiang and Non Nok Tha?

In order to answer these and other questions, we initiated a research program of areal surveys and controlled test excavations throughout Northeast Thailand as a major component of the joint Fine Arts Department of Thailand/University Museum Archaeological Project. The survey program, begun during the 1975 field season, will be completed in future years. Financial support came from the University Museum, the Fine Arts Department of Thailand, and a graduate training grant of the Ford Foundation.

Our fieldwork strategy had three major objectives. First, we wanted to determine the distribution and extent of prehistoric settlements in Northeast Thailand. In the past 15 years, sites in four northern provinces on the Korat Plateau, Khon Kaen, Udon Thani, Sakon Nakhon, and Nakhon Phanom, had been reported to the Fine Arts Department. In cooperation with the Fine Arts Department, the University of Hawaii and the University of Otago in New Zealand have also conducted surveys in this region. For example, Chester Gorman first recorded Non Nok Tha during the 1964 University of Hawaii survey of the Nam Pong Reservoir area. Nevertheless, considering the size of the Korat Plateau (approximately 155,000 square kilometers), it is clear that only a small proportion of the sites have been discovered—by looters as well as archaeologists.

A second consideration was the need to broaden our perspective on the Ban Chiang cultural tradition by the recovery of material from secure archaeological contexts in these other sites for comparison with that from Ban Chiang. To date, full scale excavations have been carried out only at Non Nok Tha and Ban Chiang. At least five other sites have been briefly tested but the material recovered from them has not been published in sufficient detail to allow us to date these sites precisely or to assess the reliability of the data. Available information, however, indicates



1 Ban Phok Top. The mound rises about 4 meters above the level of the surrounding padi fields.

2 Saengchan Traikasem (right) interviewing villagers at Ban Na Ngiu about archaeological finds in the area. This interview took place in a rice mill being built in the village.



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that these sites are related to Ban Chiang. Metal bracelets and implements; cord-marked, incised, and painted pottery; burial practices—all closely parallel Ban Chiang. The fact that many of the so-called Ban Chiang pots have not come from Ban Chiang makes it imperative that we recover well-provenanced material from these other sites. The study of unprovenanced artifacts in private collections, no matter how extensive, cannot generate the kind of data we now need.

Finally, we had to locate promising sites for future excavations. The plundering of the Yang Shao sites which confronted Andersson in the 1920's, foreshadowed the ruthlessly systematic looting of the Ban Chiang sites in the 1960's and 70's. The looting of archaeological sites is anathema to archaeologists but perfectly rational behavior to indigent villagers. Laws against looting and arguments about conserving sites to foster cultural and national pride prove irrelevant to these villagers, particularly when wealthy people drive up to the villages in air conditioned Mercedes and BMW's and offer relatively large sums of money for the pots. Therefore, we had to locate, as unobtrusively as possible, untouched archaeological sites before they came to the attention of looters and collectors.

The training of Thai students in rigorous excavation and survey techniques was a major goal of the entire joint archaeological project. Two graduates of Silapakorn University, Penpim Kaewsuriya and Saengchan Traikasem, worked diligently, frequently seven days a week, on the survey during the 1975 field season. Other students, including Ampham Kich-ngam, Surin Phookajorn, and Pathom Rasitanond, divided their time between the survey and the Ban Chiang excavation.

Initially, we had intended to spend most of our time looking for sites in specific areas of the Northeast and the remaining time testing some of the more promising sites. These areas had been selected for extensive survey on the basis of five environmental criteria: the amount of annual precipitation, permanent and seasonal water resources, soil types, geological resources and conditions, and topography. In this manner, we hoped to discover correlations between the locations of sites and particular environmental conditions. Data concerning the distribution of archaeological sites as a function of particular environmental phenomena should give us

useful insights into the prehistoric settlement patterns and subsistence practices of the Ban Chiang people.

These plans were thwarted, however, by several problems which arose in the spring of 1975 and which caused a shift in our research strategy, focusing more on excavation and less on survey. The relatively late start of the survey and impassible roads caused by the early onset of the rainy season created difficulties in reaching several targeted areas. Moreover, several areas had recently become politically sensitive despite the fact that most districts in Northeast Thailand were totally secure. At this time, we had not yet received the radiocarbon dates for the 1974 Ban Chiang excavations and the controversy over the dating of Non Nok Tha was intensifying rather than subsiding. Without secure dates for the different types of pottery, it would be impossible to date survey sites solely on the basis of surface material. It became obvious that because of endemic looting, excavating even a small test pit in an untouched site would invite systematic looting within a few days. Therefore, we continued with the survey but devoted more time to the careful excavation of sites already being looted.

BAN PHAK TOP

Early in the 1975 field season we learned about a site, Ban Phak Top, about 26 kilometers southwest of Ban Chiang where looting had recently begun. Reportedly, the pots being found were black and incised and resembled those found at the bottom of the 1974 excavation at Ban Chiang and dated to the mid-4th millennium B.C.

Ban Phak Top resembled Ban Chiang but on a smaller scale. The present day inhabitants had unknowingly constructed their village on top of the mound built up over the years by the activities of the site's prehistoric inhabitants. Since this was still the dry season and there was no work to do in the fields, the villagers were busy tunnelling into the mound searching for pots. The vast majority of pots we examined were black and incised; there were virtually no examples of the classic Ban Chiang red-on-buff painted ware. For this reason, we felt that Ban Phak Top might be an early site and worth a more thorough investigation.

We established a residence at the village wat (Buddhist temple) and searched for a suitable location for the test excavation. The highest area at the center of the mound was a maze of looters' pits and tunnels so we were forced to look nearer the edge of the mound. The area finally selected was the undisturbed back yard of a villager where there was enough room to screen and store all the backdirt. We laid out a 3 by 3-meter square and erected a shelter to shield the site from the rain and sun.

During the stratigraphic excavation of

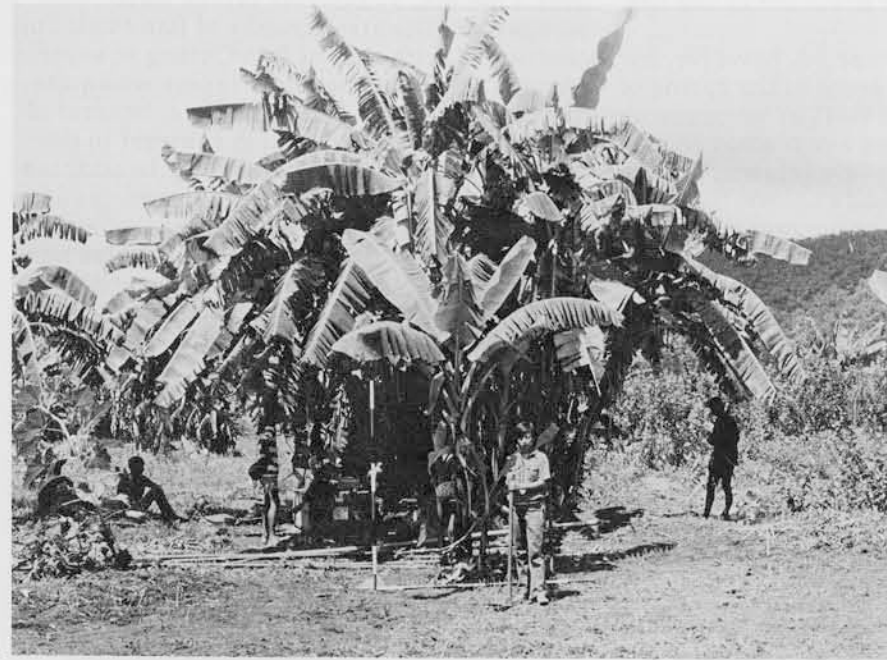
the test square, which reached a depth of just over 3 meters, 11 discrete layers were recognized. The stratigraphy of Ban Phak Top contrasted with that of Ban Chiang in several ways. The soil in the lower layers was quite hard and very difficult to remove. Several of the layers were very thin, in contrast to the rather thick layers at Ban Chiang. In addition, several layers contained large quantities of shells which were almost certainly refuse of the prehistoric inhabitants. Soil samples were brought back from all sites for chemical and particle size analyses, which may give us information about the build-up of the mounds.

Unfortunately, no burials were unearthed during the excavation. On the basis of our work and observations of the extensive tunnelling of the looters, we consider it likely that the density of burials at Ban Phak Top is considerably less than at Ban Chiang. Nevertheless, the villagers frequently brought us pots, small finds, and human bones which they allowed us to study and photograph, so we have some idea of the range of artifacts from the site. Our workmen emphatically stated that when they had dug for pots on their own, they often found bronze objects in burials containing the black incised pottery. We have no reason to doubt this assertion which tends to corroborate the association of black incised pottery and bronze at basal Ban Chiang.

In addition to large quantities of sherds and animal bones, the artifacts excavated at Ban Phak Top consisted of numerous clay pellets (probably used in hunting birds or small animals) and bangles made of clay or polished greenstone. Many baked clay objects were found, including a few small animal figurines. We also recovered polished stone adzes, worked bone objects, and many small pieces of bronze. The analysis and chronometric dating of this material, now underway, will establish the extent to which the occupation of Ban Phak Top was contemporaneous with that of Ban Chiang, and will enable us to evaluate hypotheses about the interrelationships between the two sites.

DON KLANG

Having excavated a site relatively near Ban Chiang, we attempted to locate a site farther away, approximately midway between Ban Chiang and Non Nok Tha, in order to obtain a geographically dispersed series of dated sites and associated material stretching across the northern half of the Korat Plateau. We soon heard reports, however, of a site about 88 kilometers southwest of Ban Chiang where the looting was only beginning. Since the pottery said to have come from there included orange pots with black paint which had not been encountered elsewhere in the region, we felt the site should be carefully investigated.



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The Don Klang site after clearing the ground for the test excavation. Phu Kao is visible in the background to the right of the clump of banana trees.

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In all three test excavations, the exact provenience of all important finds was recorded. Here, Penpim Kaesuriya maps a burial and its associated features at Don Klang.



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Accompanied by Chin You-di, Curator Emeritus of the National Museum, Bangkok, and Pisit Charoenwongsa, Co-director of the Ban Chiang Project, we visited the site which was located about one kilometer west of the small village of Ban Kut Kwang Soi. The site itself was a relatively low mound called Don Klang, lying in the shadow of a large sandstone monadnock (a residual mountain standing above an eroded plain), Phu Kao. In this respect, the location of Don Klang is remarkably similar to that of Non Nok Tha, 25 kilometers to the southwest, and 2½ kilometers from the foot of Phu Wiang, a larger sandstone monadnock.

Looters had already destroyed almost twenty percent of the site, particularly the central area. The ground was littered with sherds but what drew our immediate attention were the many chunks of slag on the surface. One of the important problems in understanding the evolution of the Ban Chiang cultural tradition is the role played by metallurgical technology. No evidence of smelting had been found at Ban Chiang although there was ample evidence for melting and casting. At Don Klang, on the other hand, metal, probably iron, was reduced from ores by smelting.

The excavation of the test square took over five weeks and reached a depth of almost three meters. Because the rainy season had arrived before excavations began, the ground was already quite wet. Even though a shelter was erected over the site, it was difficult to discern changes in soil color and texture during the excavation. Five different layers were recognized but it is possible that other discrete layers were obscured by the wet soil conditions.

In contrast to the Ban Phak Top excavation, 16 burials were unearthed at Don Klang. Because the site was a mound in the middle of rice fields, it was intensively used as a garden. Over the years, the gardening activity had badly disturbed the uppermost burials, most of which were fragmentary. Nevertheless, the material associated with the burials will enable us to date them by typological as well as absolute chronological methods.



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These small spherical-shaped orange pots and lids were recovered in association with human bones and water buffalo skulls.

4
One of the pots seen in the preceding photograph. Height 21 cm.

The first burials encountered were characterized by the presence of small, orange, spherical-shaped vessels with flat bases. The surface treatment consisted of cord-rolling and straight lines painted with a black pigment. Perhaps the most unusual aspects were the lids that were placed over most of them and the single, large, deliberately made holes in the bases of some of the pots. Excluding the flowerpot-like holes in the bottom, the lidded pots resemble cooking pots used by the villagers as recently as 20 years ago. These burials, however, should predate the arrival of Buddhist influence in the area since there is no evidence of cremation at the site. On the other hand, the presence of glass beads in association with the burials argues for a date no earlier than about 500 B.C. if one accepts the traditional dating for the appearance of glass beads in the Northeast.



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1 Some of the water buffalo skulls unearthed at Don Klang. They were contained within a pit cut from an upper layer.

2 Large ellipsoid vessel from an upper layer at Don Klang. Height, 54 cm.

3 The lowest burial in the Don Klang excavation was that of a young child. The articulated rear leg bone of an animal is above the child's head.

4 One flexed burial (in poor condition) was encountered in a lower layer at Don Klang. The remains of the skull are in the vessel on the right.

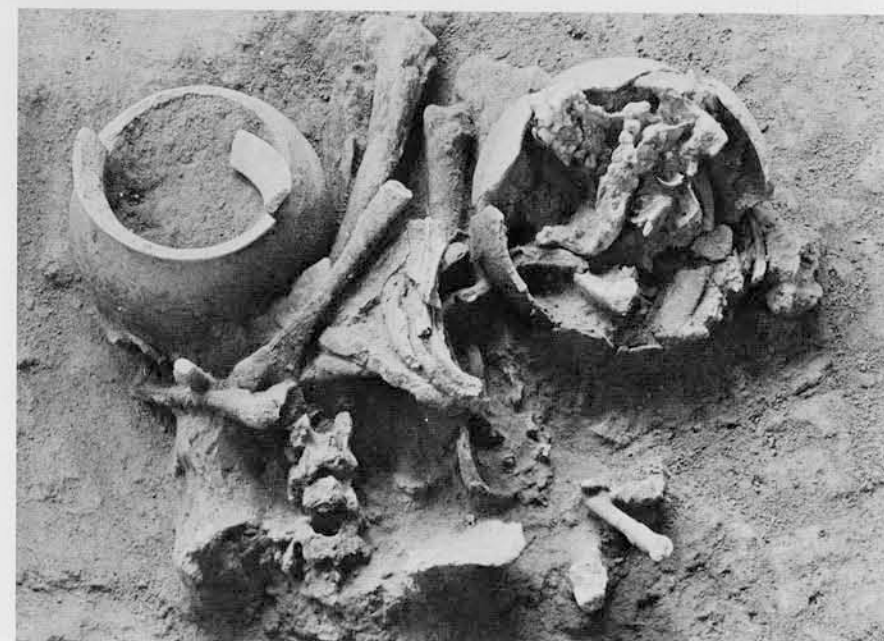
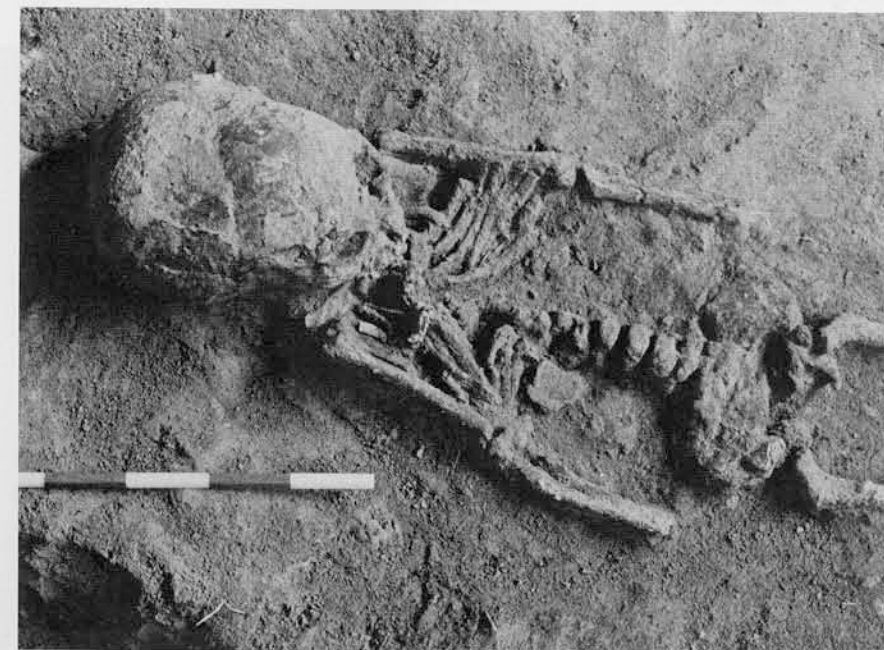


Not all the pots from this level were small. We recovered a very large ellipsoid-shaped vessel, 54 centimeters high, together with a large flat dish. Both the shape and surface treatment of the large pot are unknown at Ban Chiang and may be related to material found farther south on the Korat Plateau. Moreover, one corner of the test square intersected a deep pit filled with many large water buffalo skulls. We removed over 10 skulls from the test square but many more remain in the unexcavated area. No similar phenomenon was encountered at Ban Chiang.

We recovered many bronze and iron objects from layers in the upper half of the site, including iron axes and knives in direct association with several burials. Small finds recovered at Don Klang as well as Ban Phak Top and Ban Chiang include worked bone, polished stone adzes, and clay pellets. Spindle whorls and beads (variously made of glass, stone, and bone or shell) are common to Don Klang and Ban Chiang. None of the intriguing clay rollers frequently encountered in the upper layers of Ban Chiang were found at either Ban Phak Top or Don Klang. The large quantity of slag at Don Klang was also unique. We found a mound of slag located just off the edge of the main mound as well as *in situ* concentrations of slag on the periphery of the main mound itself. Unfortunately, the onset of the rainy season and the flooding of the adjacent rice fields prevented us from sinking any test pits in these areas.

Despite the apparent dissimilarity of the upper level Ban Chiang and Don Klang pottery, one has the definite impression that further analyses will reveal a certain degree of cultural affinity between the two sites. In the lower levels, the relationship between them seems more definite. In the lowest Don Klang burial, for example, we recovered sherds with incised curvilinear designs which should crossdate to both basal Non Nok Tha and Phase III at Ban Chiang. Moreover, a flexed burial was found in a lower layer at Don Klang. This and the flexed burials in the lowest layers at Ban Chiang constitute the first flexed burials discovered in sites belonging to the Ban Chiang cultural tradition.

In evaluating the flexed burials from the basal layers at Ban Chiang, Gorman has suggested a potential affinity with a pattern of flexed burials characteristic of the Hoabinhian phase at Gua Cha, Kelantan, Malaysia. Future fieldwork will define the nature of the relationship between the earlier upland Hoabinhian sites in mainland Southeast Asia and the later lowland mound sites in Northeast Thailand. At the same time it should be noted that the extended burials and painted pottery which are found in both northern China and Southeast Asia are insufficient evidence for suggesting prehistoric interrelationships between these ecologically and culturally disparate regions. Despite a gap of at least a millennium, one researcher, Van Esterik, has noted certain parallels between the Ban Chiang painted pottery (c 1000-500 B.C.) and the Yang Shao painted pottery of eastern Kansu (c 2100 B.C.) including that from Pien Chia Kou. It is premature, at best, to suggest far-reaching historical relationships on the basis of current Southeast Asian archaeological data, regardless of whether one argues for a priority in northern China or in Southeast Asia.



The Pien Chia Kou burial site was discovered by Andersson in 1924, after a frustrating search for unlooted graves in the Pan Shan Hills of Kansu. On the second day of excavation, he was greeted by some 200 disgruntled villagers who told him to stop digging and leave. Faced with this overwhelming opposition, he agreed, provided that he was allowed to complete the excavation of the grave he had begun the day before.

In our work at Don Klang, we did not anticipate any trouble similar to Andersson's, since we had explained to the villagers why we were excavating and emphasized that all artifacts would eventually be placed in Thai museums. In turn, the villagers who visited our site almost daily willingly told us about finds they had made in digging at the site. Late one night, however, two of our workmen who had been guarding the site, came running back to the village to tell us that someone had started a fire in the thatch roof over the excavation pit. With a foreboding sense of *déjà vu*, we immediately went out to the site but could learn nothing about who had set the fire or why. While the roof was not completely destroyed, thanks to the quick efforts of the workmen in putting out the fire, we had to stop work and make repairs before the rains made further excavation impossible. We soon received a clue as to why the roof was burned when we found an anonymous note at our house. According to the note, the fields had become arid as a result of our excavations (ironically, it had rained the night before) and we were told to leave before something worse happened to us.

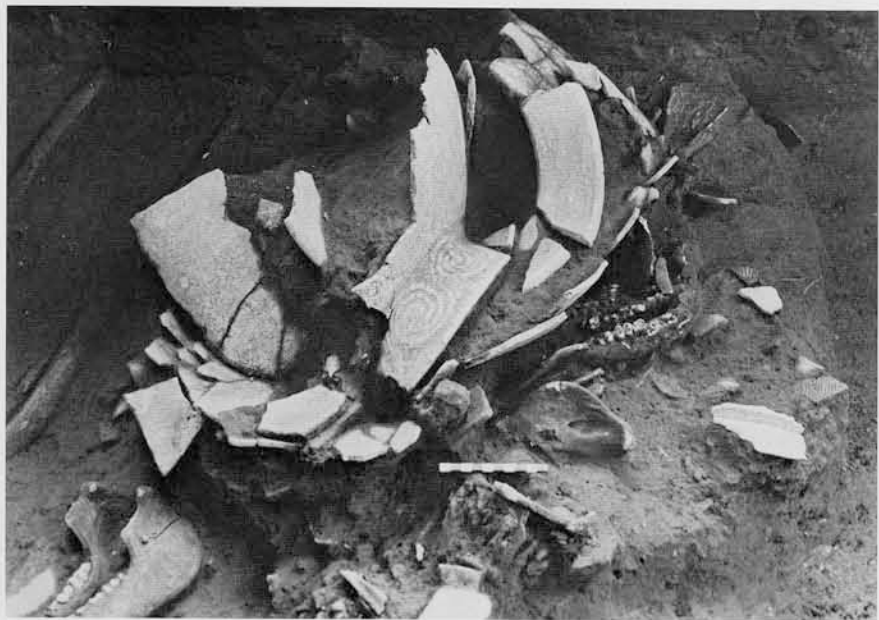
Despite outward appearances, it cannot be denied that greed was the real impetus behind the hostility toward Andersson and ourselves. Our excavations had interrupted what had been up to that time a synergistic relationship between people systematically looting the site and collectors in Bangkok purchasing the plundered artifacts. We were concerned, of course, about the extent to which both sides would go to insure that this marketing system was not permanently disrupted. We decided to continue the excavation since our discussions with local officials and police convinced us that we should not have any further problems. We also felt that abandoning the excavation would set a dangerous precedent for future archaeologists working in the area. Nevertheless, increased security at Don Klang was only a temporary expedient. There was no way we could stop the looting of the site after we left.

BAN TONG

The extent of this problem became more obvious as we continued the survey. Only the more remote sites appeared to be relatively untouched. Those sites on or near the major roads were virtually destroyed. One major factor behind the thoroughness of the looting



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1 The uppermost burial at Ban Tong was accompanied by many pigs' mandibles as well as a very large pot with an incised and painted spiral design around the neck.

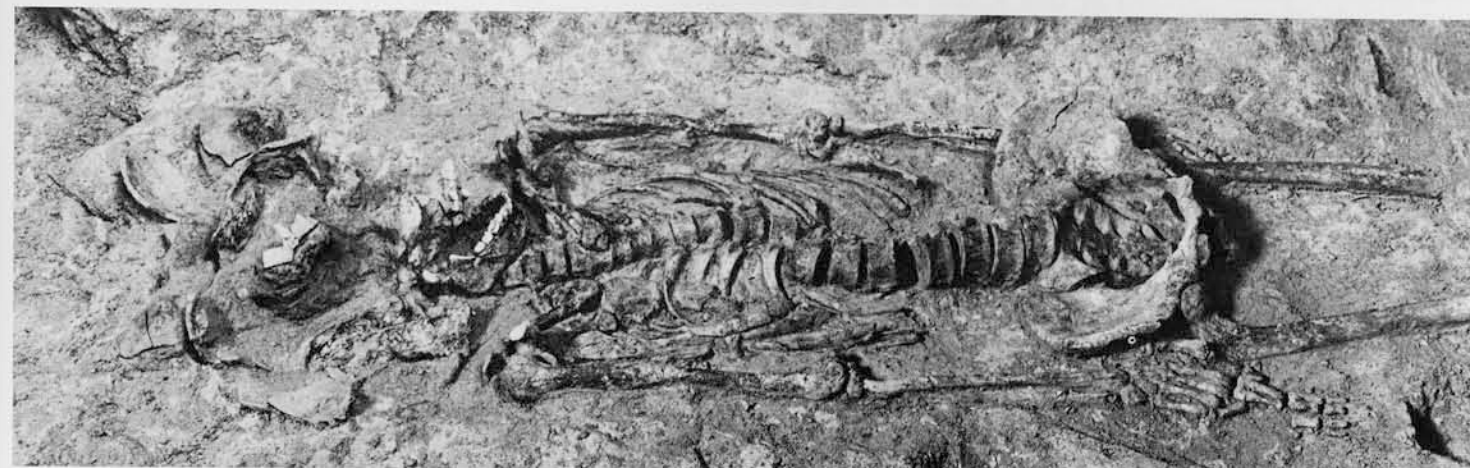
2 The broken pot seen in the preceding photograph.

3 The Ban Tong excavation was conducted on a road. At Ban Tong, as at the other sites, a shelter was erected to protect the test square from the sun and rain.

4 The lowermost burial at Ban Tong was cut into the sterile yellow soil. Only one broken cord-marked pot was recovered in association with this burial. Except for the skull, the skeleton was in good condition.



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is the efficient marketing system for the illicit antiquities. Having sold most of the pots buried under their houses, the Ban Chiang entrepreneurs expanded their operations to include artifacts unearthed at other sites and brought to Ban Chiang for resale as genuine Ban Chiang relics.

The success of this venture can be measured by the many times informants on our survey told us to go to Ban Chiang if we were interested in finding painted pots. In fact, we were interested in finding and excavating a promising site east of Ban Chiang. After much searching, we finally found a suitable one which had been severely looted several years ago except for the wat and an adjacent area. The villagers consented to the excavation of a test square and we made arrangements to compensate them for the use of their land during the excavation. When we returned the next day, the unanimity in favor of our excavation had evaporated and we were warned about the grave potential for disturbing the spirits in the wat. We attempted to allay these fears by seeking permission from the abbot of the wat as well as from his immediate superiors in the district. These efforts were futile, for when we returned, we were told that only the payment of 10,000 baht (\$500), could assuage the spirits. We refused to be blackmailed by the avaricious villagers and their malevolent spirits. The implications of our negotiations were ominous, nevertheless.

We resumed searching for a suitable site until we came to the small village of Ban Tong, 5 kilometers southeast of Ban Chiang. Several years ago the villagers had dug up many painted pots but the site had received no attention since then. There was a road in the middle of the village which had not been excavated. But the most interesting feature of the site was the absence of a clearly defined mound. The site appeared to be located on the side of a natural hill and did not form a discernible mound. Having excavated several rich mounds, we felt that an excavation here might yield useful information about the nature of the smaller, less spectacular sites.

As at Don Klang, it was exceedingly difficult to perceive stratigraphic differences in the wet soil. Nine layers were recorded, the deepest being over 3 meters below the surface. Two burials were found. The upper contained a very large pot with an incised and painted spiral design around the neck. On typological grounds, this burial should be related to Phase IV at Ban Chiang. The lower burial was cut into the sterile soil and contained only a cord-marked pot.

Perhaps the most striking aspect of the Ban Tong excavation was the tremendous quantity of sherds recovered from the upper layers, both above and beneath the uppermost burial. This quantity, which is much greater than that recovered at Ban Chiang from any

corresponding volume of earth, could only result from some kind of prehistoric habitation activity. Better evidence for habitation at the site came from the lower layers where many post-holes were discovered.

The small finds from Ban Tong resembled those from the other sites except that much greater quantities of clay pellets and bangles were recovered. Clay rollers and many bronze fragments were unearthed in the upper layers. Complete bronze objects, not found at the other sites, included a fishhook and a probable tanged arrowpoint.

EMERGING PERSPECTIVES ON THE BAN CHIANG CULTURAL TRADITION

Since the analysis of the data has been underway for only a short while, it is not yet possible to give definitive answers to the questions posed at the outset of this article. Of the sites examined to date, Ban Chiang is the largest and deepest. Certainly, there is strong evidence for habitation at all the sites investigated. The distribution of the Ban Chiang culture sites appears to be restricted to a broad arc approximately 300 kilometers long extending to both the west and south-west of Ban Chiang as well as to the east. Only future fieldwork will enable us to judge the accuracy of these initial generalizations.

With the permission of the Thai government, all the material collected and excavated in the past two years was shipped to the University Museum on loan for study and analysis. We did not adopt systematic sampling procedures (in which only a portion of the excavated materials are saved for analysis) despite the logistical difficulties in transporting, storing and working with 18 tons of material contained in approximately 6,000 bags. Without recourse to the entire corpus of artifactual material from the excavations at Ban Chiang and the other sites, we could not hope to describe the range and variation of the material remains of the Ban Chiang people, nor would we have any means of assessing the reliability of various sampling procedures and the validity of the conclusions based on their use.

Our initial examination of this material has made us aware of the less obvious ways in which private collections of Ban Chiang pottery are unrepresentative. For example, it seems that during certain phases of occupation, the burial rituals at Ban Chiang involved the deliberate destruction of pots, while at other times intact vessels were placed in the graves. The looters and collectors have usually sought only these intact vessels, particularly the red-on-buff painted pots.

If the depredation of the Ban Chiang sites cannot be stopped, can it be attenuated? Efforts could be made on the international level to implement the tenets of the UNESCO Convention to control the illegal import and export of antiquities but the problems here are



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Suggested Reading

The publications listed for the Gorman-Charoenwongsa article will also be of interest for readers of this article.



1 Three looters' pits at Ban Phak Top. Once the pits are deep enough, the looters tunnel out in all directions, making future archaeological excavations here virtually impossible.

enormously difficult. On the national level, the Thai government is well aware that the Ban Chiang sites are a non-renewable national resource but, by itself, the government cannot solve the problem. Well informed public opinion, for example, could seek more vigorous enforcement of laws against those who, by virtue of their wealth and position, feel they can buy and sell looted artifacts with impunity. On the local level, it is ironic that the Ban Chiang villagers are being rewarded for their looting of Ban Chiang by the increasing numbers of tourists coming to visit the site. Perhaps one response to this situation might be to encourage other villagers in the Northeast to produce high quality imitations to meet the insatiable demand of collectors.

We can look back with satisfaction over what has been accomplished in the past two years and look forward with anticipation to what laboratory analyses and further fieldwork will reveal about the Ban Chiang culture. Perhaps the most significant contribution of the recent archaeological fieldwork in Southeast Asia is that it has enabled us to transcend earlier points of view in which origins, parallels, and affinities for Southeast Asian cultural and technological developments were frequently sought in such distant regions as Europe, the Near East, or China. The Ban Chiang Project is an initial step toward the acquisition of archaeological data documenting indigenous cultural and technological developments in Northeast Thailand. At this stage of the research, we cannot let arguments about the priority of these developments in Southeast Asia *vis-a-vis* other regions of the world, or speculations about the possibility of historical relationships between these regions obscure the early, complex, and autochthonous cultural tradition flourishing at Ban Chiang and other sites in Northeast Thailand over five millennia ago.

In conclusion, I would like to thank Chet Gorman and Pisit Charoenwongsa for inviting me to participate in the Ban Chiang Project and for all their assistance while in the field. I can only add my warm appreciation for the help generously offered by the many individuals acknowledged by Gorman and Pisit. Finally, I would like to say that I am especially grateful for the support and encouragement I have received over the years from Dr. Froelich Rainey, as a teacher, adviser and friend.