CHAPTER ONE

INTRODUCTION

The patterns and processes involved in the cultural changes in southeast China during the Neolithic period (ca. 3500–6500 B.P) have broad implications for understanding many important issues in the prehistory of mainland China, Taiwan, Southeast Asia, as well as the Pacific. The formation process of southeast China’s Neolithic cultural traditions holds key evidence for examining the impacts of agricultural expansions, population dispersals, maritime adaptation, and seafaring upon human society in prehistoric China. Southeast China has also been increasingly recognized as critical for investigating the origins of the Austronesian Cultures as well as the Austronesian people (Bellwood, 2005, 2006a, 2006b; also see Chapter Four). Yet unfortunately our knowledge of the Neolithic of this strategic area is among the most limited ones in both Chinese and Pacific archaeology. Thus, the primary goal of this archaeological investigation is to put forward new evidence for a better understanding of the Neolithic of southeast China. By focusing on studies of chronology, subsistence pattern and regional interaction spheres, I establish a contextual framework to interpret the mechanism of cultural and social transformation. In accordance with the increasing international attention on the search for the homeland
of Austronesian speakers, the implications of the Neolithic cultural changes of southeast China for understanding the early expansion of the Proto-Austronesians are addressed.

The spatial definition of “Southeast China” in this monograph is the area including modern southern Zhejiang Province, Fujian Province, and northeastern Guangdong Province of China. It is generally between latitude $23^\circ \sim 28^\circ$ North, and between longitude $117^\circ \sim 121^\circ$ East. Some geographers classify this area generally as China’s “Southeast Coast” (Cressey, 1955; Tregear, 1980). However, a series of mountain chains clearly separate the coast from the inland in terms of environment within southeast China. From an archaeological perspective, the coast and inland have had different cultures during the Neolithic period (see Chapter Three). For reasons to be discussed in the following, this monograph will focus on the coastal area (Figure 1).

**Figure 1. The Area of Southeast China**
The period that this monograph concerns is the Neolithic period of southeast China. The definition of the Neolithic here should be the same as anywhere else, which relies on the appearance of an agricultural economy. However, so far the evidence for a Neolithic agriculture in southeast China is ambiguous. The direct traces of agricultural crops have been absent in many archaeological sites in this area. The discoveries of domesticated pig and dog at a number of sites indicate an economy with food production. Other Neolithic markers are artifacts that have been interpreted as associated with an agricultural lifestyle. These artifacts include pottery, polished stone tools, bone tools, and shell tools. The peculiarity of a maritime subsistence pattern on the coastal area further complicates the definition of Neolithic, since most coastal communities relied on foraging marine resources rather than cultivating agricultural plants. Therefore, the understanding of Neolithic in this book is both cultural and chronological. Culturally, it refers to an assemblage consisting of domestication of animals, making of pottery and polished stone tools, and possibly but not necessarily cultivating crops. Chronologically, the Neolithic cultural phenomenon is distinctive in comparison with the previous Paleolithic period and the later Bronze Age. Chipped stone tools represent the Paleolithic cultures in southeast China, and the Bronze Age cultures are characterized by the use of metals. As will be further elaborated in the following chapters, the earliest Neolithic culture on the coastal area so far known can be dated to ca. 6500 B.P. and the earliest appearance of bronzes was ca. 3500 B.P. Therefore, the time period that this monograph concerns is from ca. 6500 to 3500 B.P.

A HISTORIC PERSPECTIVE OF ARCHAEOLOGICAL RESEARCH IN SOUTHEAST CHINA

At this juncture, it is necessary to retrospect the history of archaeology in southeast China and highlight the achievements of previous archaeological investigations. As always, any progress we might be able to make is built upon what has been done in the past, and we may introduce new questions when attempting to solve old problems.
Archaeological investigations in southeast China started in the 1930s. The early archaeological activities were individual expeditions. A number of individuals, including university professors and missionary priests, collected artifacts from the locals and occasionally went out looking for archaeological sites, and their practices pioneered the accumulation of archaeological data in southeast China. Since 1950, the Chinese government has sponsored archaeological surveys and excavations. Until very recently, exclusively Chinese archaeologists from the local provinces and universities have conducted field archaeological projects in southeast China, and consequently their publications are in Chinese. The following summary is mostly based on the available published reports and papers in China, and on my personal communications with archaeologists in Fujian, Guangdong, and Zhejiang Provinces. On the basis of the research topics, the archaeology of the prehistory of southeast China can be divided into the following three periods.

First Period: 1930–1950

The first period is from 1930 to 1950. Discoveries were mostly surface collections, and the research was conducted by individual scholars and missionary priests.

The most conspicuous figure is Fr. Rafael Maglioni, an Italian missionary priest, who not only collected a large number of artifacts from eastern Guangdong Province, but also visited many archaeological sites. During the period of his missionary service in eastern Guangdong from 1936 to 1946, he collected about “1800 pounds of pottery and 400 adzes from the Hoifeng (Haifeng) sites alone, which constitutes less than half of his total surveys” (Meacham, 1975, p. 9). Maglioni’s surveys, collections, and publications are pioneering works in this area. Most of his collections are the first archaeological discoveries in southeast China. His efforts to organize a chronological sequence for his discoveries merit further discussion. Based on pottery and stone tools, Maglioni named three Neolithic cultures: Sonian (SON), Sakian (SAK), and Patian (PAT). SON (Soa-khe or Shakeng North) was the earliest culture in Maglioni’s chronology, and he suggested a date of 3000 B.C. The artifacts of SON include painted pottery vessels with ring foot, corded and combed pottery, “rough implements of stone,” and
polished stone axes with lentoid shape. Sakian (SAK) was derived from the previous SON. The material inventory of SAK includes coarse corded pottery, combed pottery, stone axe with lentoid cross-section, and stone arrowheads. SAK was replaced by PAT (Patian), characterized by materials including stemmed leaf-shaped stone arrowheads, stepped stone adzes, and dark, coarse, and sand mixed pottery decorated with cord marks and net impression.

Lin Huixiang, a scholar at Xiamen University, was another pioneer in the archaeology of southeast China. Lin collected artifacts from four groups of Neolithic sites, and excavated twenty-one trenches at these sites during his seven-day trip to Wuping in May 1937 (Lin, 1956). The discovery includes 84 stone adzes and 949 pieces of pottery sherds. Lin compared the stepped stone adzes with those in Taiwan and Hong Kong, and speculated that there must have been some relationships between them. He also speculated that the Neolithic period in Wuping ended around 2500 years ago, and the Neolithic people in this area were not the Huaxia people; instead they were the Yue, a group of minorities who lived in southeast China before they were conquered by the Han Dynasty (Figure 2).

Maglioni visited Wuping after Lin’s expedition, and he was aware of Lin’s discoveries. Maglioni reported ten sites, all located on the hills surrounding the walled city of Wuping County. According to Maglioni, five of them (Wuping 1, 2, 7, 8, 9) were Neolithic SAK sites, and the rest of them were from the Bronze Age or even later (Maglioni, 1975).

One of the problems of these early works is that the materials were mostly collected from the surface without a secure archaeological context. Therefore, neither Maglioni nor Lin was able to distinguish the remains from different periods at one site. Maglioni noticed the artifact difference at some sites, but he still mixed materials from different periods into one culture. Judging from current archaeological information, his SON actually included remains from several different periods (Figure 3).

It has been proved that the establishment of a chronology of prehistoric cultures in southeast China is not an easy undertaking. As will be illustrated in the following paragraphs, it remains an unresolved problem to date.
Second Period: 1950 to the Early 1980s

The second period of Neolithic archaeology of southeast China spans from 1950 to the early 1980s. Archaeologists in Fujian and Guangdong Provinces carried out a number of archaeological surveys and excavations. Southern Zhejiang Province only produced isolated discoveries.
Fujian Province

During this period, most archaeological works concentrated on the lower reaches of the Min River. The first archaeological excavation of a prehistoric site was conducted at the Tanshishan site in 1954 (FPM, 1955). By 1974, seven seasons of archeological excavations were carried out at this site (FPM, 1961, 1964, 1976, 1983), making it one of the most extensively excavated sites in Fujian until today. The archaeological records of the Tanshishan site have been employed as a diagnostic reference to estimate the date of other Neolithic sites in Fujian. To a certain extent,
the research history of the Tanshishan site represents the most important part of the history of Fujian Neolithic archaeology.

The first excavation of the Tanshishan site in 1954 was a salvage project. The site was found when building a flood-control dike along the Min River. Two trenches, $10 \times 1.5 \, \text{m}^2$ each, were excavated within seven days (FPM, 1955, pp. 55–56). Four layers of deposits were identified in Trench 101, and three layers of deposits were found in Trench 102. In total 2643 artifacts were found, and they were compared with other Neolithic sites in Southern China known until then. The report recognized that an absolute date of the Tanshishan site was difficult to estimate and only generally suggested that it was earlier than the Qin Dynasty (221 B.C.–206 B.C.). As to the subsistence patterns, the report noted that the large number of shells retrieved demonstrated that the main food of the Tanshishan people was procured from rivers. The presence of stone adzes and stone axes was interpreted as an indicator of agriculture. Animal bones and deer antler reflected hunting activities (Figure 4) (Ibid).

Figure 4. The Excavation of Tanshishan in the 1950s
This understanding of the Tanshishan site remained almost unchanged until the sixth excavation in 1964–1965 when an area of 513 m\(^2\) was excavated. With the discoveries of 32 burials, 59 pits, 2 hearths, and a large number of artifacts, this excavation significantly expanded the cultural inventory of the Tanshishan site. On the basis of the stratigraphy and pottery styles, Zeng Fan, director of the sixth excavation, divided the Tanshishan site into three periods: the Lower, the Middle, and the Upper Tanshishan (FPM, 1976). Zeng contended that the Tanshishan archaeological materials should be named as “Tanshishan Culture,” an archaeological entity that includes all remains of the three layers of the Tanshishan site. Moreover, Zeng also pointed out that most of the shells at Tanshishan were marine shells, indicating that the coastal line was probably not as far as it is today, which is 65 km to the east. This is the first attempt to use archaeological evidence to reconstruct the ancient coastal line. Zeng reported four species of shells, *Corbicula* sp., *Arca* sp., *Ostrea* sp., and *Auricula* sp., among which three were marine shellfishes. He also reported two C-14 dates of *Ostrea* sp. from the middle layer (3090 ± 90 B.P, 3005 ± 90 B.P.). The discovery of 29 human skeletons from the cemetery also provided a chance to study the physical characteristics of the Tanshishan people. These skeletons were examined by physical anthropologists Han Kangxin and Zhang Zhenbiao, who observed that the cranial features of the Tanshishan people resemble both the Southern Mongoloids and the East Asiatic Mongoloids, but they are closer to the Southern Asian branch of the Mongoloid race (Han, Zhang, & Zeng, 1976).

During the 1960s and 1970s, Fujian archaeologists also excavated the Zhuangbianshan site (FW, 1961), the Xitou site (FPM, 1980, 1984), and the Dongzhang site (FW, 1965). These three sites all yielded remains similar to those of the Tanshishan site, and they were included as part of the Tanshishan Culture. The two excavations at the Xitou site exposed 1548 m\(^2\), making it the second most extensively excavated site in this period in Fujian. The discoveries include 53 burials, 33 shell pits, and a large number of artifacts. The pottery assemblage shares similarities with the Tanshishan site, but also displays difference. Unlike the Upper Layer of the Tanshishan site, there is no yellowish red and painted pottery at the Xitou site, demonstrating that the Xitou Neolithic remains were only contemporary
with the Lower and Middle Tanshishan. The second excavation at Xitou produced two TL date on potsherds (4240 ± 190 B.P., 4310 ± 190 B.P.), providing more data for an estimate of the absolute chronology of the Tanshishan Culture.

The excavations of these sites established the basis for the understanding of the Tanshishan Culture. By the end of the 1970s, archaeologists in China reached a consensus that the Tanshishan Culture was a Neolithic culture distributed in the lower reaches of the Min River, and its date was possibly from 5500–4000 B.P. However, the definition of this culture remained one of the most actively debated problems until the 1990s in Fujian Neolithic archaeology.

In addition to the above excavation projects in the lower reaches of the Min River, Fujian archaeologists also conducted two large reconnaissance projects in the whole province in the 1950s and the 1970s, and a large number of Neolithic sites were found in Eastern, Southern, and Northern Fujian Province (FW, 1961b, 1961c, 1961d; Zeng, 1955, 1959; Zeng & Huang, 1961). Unfortunately, most of these sites have never been excavated; therefore, their date and cultural characteristics are not clear. Nevertheless, these archaeological reconnaissances provided clues for further archaeological investigations.

Eastern Guangdong Province

Archaeological investigations in eastern Guangdong were limited to surveys and very few small-scale test excavations during this period. From 1956 to 1960, Guangdong Provincial Museum organized a number of survey projects in 18 counties of eastern Guangdong, and discovered 241 Neolithic sites (GPM, 1961). Guangdong Administrative Committee for Cultural Heritage (Guangdong sheng wenguanhui) also conducted several surveys in Chao’an and Chaoyang Counties (GWGW, 1956, 1961). A number of sites were reported in detail, and these data served as the basis for the understanding of the Neolithic cultures in this area until the late 1980s. The Chenqiao site, the Shiweishan site, and the Meilinhu site in Chao’an County all yielded interesting materials. According to the brief description in the report, all three sites were shell midden, and most of the shells were marine shells such as oyster and clam (GWGW, 1961). The pottery collected at Chenqiao
site consisted of coarse sand-tempered pottery, decorated with incised patterns in the neck and shoulder area. Some of them have red slips or are painted. As will be elaborated in the following chapters, the Chengqiao site has drawn much attention from scholars who are interested in the origin of the Austronesians. Unfortunately, it has never been excavated, and there has been no attempt to date this site either. Based on the characteristics of pottery, Mo Zhi, the writer of the survey report, contended that it was an early Neolithic site in Guangdong. Mo also argued that the Shiweishan site was slightly earlier than the Chenqiao site (GWGW, 1961).

It is also interesting to note that the Chinese archaeologists never mentioned Maglioni’s investigations during this period. The sites in Haifeng (Hiofeng in Maglioni’s report) that Maglioni visited in the 1930s were re-investigated by archaeologists in Guangdong in the 1950s (GPM, 1961), but they were never evaluated against the information Maglioni reported. The survey report published in 1961 only briefly mentioned these sites in Haifeng were sand dune sites, which “contained rich remains, and there are plenty of stone tools, but the variety and form are simple. The associated pottery is mostly coarse sand-tempered …” (Ibid, p. 651).

Southern Zhejiang Province
This area was the mostly poorly understood region in Southeast China. From 1950 to 1983, only two brief reports of the discovered Neolithic sites were published (Fang, 1956; Yu, 1983). In 1978, four burials were exposed in a construction project at Longshan, Rui’an County, the Southernmost county in Zhejiang Province. The pottery has dark slips on the surface, similar to those found in northern Fujian (Yu, 1983). In this brief report, Yu also mentioned the collection of painted pottery at the Heyushan site and the Shanqianshan site in Rui’an. These isolated discoveries provided clues for future investigations.

Third Period: The Middle 1980s to Present
The last two decades of the 20th century witnessed an expansion of archaeological field works in Fujian, southern Zhejiang, and eastern Guangdong Provinces. In comparison to the first and second periods, both the number of excavated sites and the research topics have significantly increased. Just
like the second period, these archaeological projects were conducted by archaeologists affiliated to each of the three provinces.

Fujian Province

During the 1980s and the 1990s, the horizon of Fujian Neolithic archaeology was significantly expanded. The new materials and sites discovered by excavations and reconnaissance not only filled spatial gaps in many areas of Fujian, they also expanded the chronological sequence of the Fujian prehistory.

From 1985 to 1986, the Fujian Provincial Museum excavated the Keqiutou site in Pingtan County (FPM, 1991). This was the first time that a Neolithic site was excavated beyond the Lower Reaches of the Min River. The discovery was a major contribution to the research of the Neolithic in southeast China. As will be elaborated in Chapter Three, the pottery and stone tools of the Keqiutou were different from those of the Tanshishan Culture, and more importantly, the C-14 date of marine shells of the Keqiutou site demonstrate that it was probably from 6000–5000 B.P., much earlier than the Tanshishan site. This discovery subsequently invoked discussions on the relationship between the Keqiutou and the Tanshishan Culture. Most people argued that the Tanshishan Culture was developed from the Keqiutou Culture (Lin, 1993), but others maintained that the origins of the Tanshishan site were not in Fujian (Chang, 1989). I will return to these issues in Chapter Three.

The excavation of the Huangguashan site in 1989 was another major contribution to the understanding of Fujian Neolithic (FPM, 1994). This excavation was not only the first archaeological dig in northeastern Fujian but also gives a better understanding of the Neolithic cultures than the later Tanshishan Culture in eastern Fujian. As mentioned above, since the 1970s, archaeologists have been debating whether the Tanshishan Culture should incorporate all three layers of the Tanshishan site or should only refer to the Lower and Middle Tanshishan. The Huangguashan site yielded pottery and stone tools similar to the Upper Tanshishan, particularly the painted pottery, but it did not have remains similar to the Lower and Middle Tanshishan. This indicates that it represents a different cultural entity later than the Tanshishan Culture (Figure 5).
Excavations were also conducted in northwestern Fujian, an inland mountainous area where no Neolithic site was excavated until the late 1980s. The Niubishan site (FPM, 1996) and the Doumishan site (FPM, 2001) are the two major Neolithic sites that were extensively excavated by the Fujian Provincial Museum during this period. The information retrieved from these two sites not only filled the gap of our knowledge of the inland Neolithic cultures, they also provided materials for studying the connections between inland areas and the coast (see Chapter Three).

A number of Neolithic sites were also reported from southern Fujian. Surveys of the Damaoshan site in Dongshan County, the Lazhoushan site in Zhao’an County, and the Fuchuanshan site in Zhangzhou City were conducted (Fan, 1991). However, no effort was made to excavate these Neolithic sites. As will be elaborated in the following section, these early investigations provided clues for and inspired my excavation at the Damaoshan site in 2002.

The Neolithic sites in the Lower Reaches of the Min River continued receiving attention from Fujian archaeologists. From 1982 to 1984, the Fujian Provincial Museum conducted two extensive excavations at the Zhuangbianshan site, exposing 2804 m² (DPM, 1998). Major discoveries
include 63 burials, 72 pits, and a large number of pottery, stone, bone, and shell tools. These materials further enhanced the understanding of the Tanshishan Culture (see Chapter Three).

Eastern Guangdong Province

In comparison to the previous period, the research of Neolithic archaeology in eastern Guangdong Province made little progress since the 1980s. Our understanding of the Neolithic cultures is still based on a few Late Neolithic sites. Archaeological surveys were conducted in several counties, and hundreds of Neolithic sites were found (Qiu, Zeng, & Zhang, 1998). However, only two sites were excavated. The Hutoupu site (GPM; SW, & PM, 1984) and the Houshan site (GWK & PM, 1998), both located in Puning County, were excavated in the early 1980s, and the assemblage of the material cultures probably represents two stages of the late Neolithic in this area. Fifteen kilns were found at the Hutoupu site, and ten burials were found at the Houshan site. Unfortunately, no dating samples were produced at these two sites. The date of the Houshan site was estimated as 3500–3000 B.P. based on pottery typology in comparison to the later Fubin Culture, a Bronze Age culture that has been dated to 3000–2500 B.P. The date of the Hutoupu site was speculated to be earlier than the Houshan site.

Southern Zhejiang Province

During the 1980s and the 1990s, archaeological surveys were conducted at a number of counties in southern Zhejiang Province, and many Neolithic sites were found (Haiming Wang, 1999). However, only three inland sites have been excavated. We still do not have excavated materials from the coastal area.

In 1997, the Zhejiang Provincial Institute of Archaeology and Antiquity carried out excavations at three sites: the Shizigang site and the Niutougang site in Taishun County (ZWKY et al., 1999), and the Haochuan site in Suichang County (ZWKY & SW, 2001). These are the first well-controlled archaeological excavations of Neolithic sites in southern Zhejiang, and the discovered materials are significant for studying the connections between the inland and the coastal areas during the late Neolithic period (see Chapter Three).
SUMMARY

In summary, the seven decades of archaeological investigations in Southeast China have produced a significant amount of data for understanding the Neolithic cultures in this area. Chinese archaeologists conducted most of the research, and the issues they explored or debated can be summarized as follows:

1. Regional variations of the material cultures and the definition of archaeological cultures: Chinese archaeologists are preoccupied with the identification of archaeological “culture”, defined as an entity consisting of an assemblage of material remains and features known to be contemporary, associated with one another, and occupying a continuous geographical area. This is V. G. Childe’s concept introduced to China by Xia Nai in 1959 (Xia, 1959). It has been the primary goal of many Chinese archaeologists to define their discoveries as “X” culture, and the practice of archaeology in Southeast China is part of this academic tradition. Due to different understandings of material cultures, Chinese archaeologists constantly engage in debate over the spatial and temporal definition of a particular culture. In Southeast China, the debate on the definition of the Tanshishan Culture has been a major issue. Zeng Fan argued that the Tanshishan Culture included all the remains of the Upper, Middle and the Lower layers of the Tanshishan site (Zeng, 1993), a view that has been criticized by his colleagues (Lin, 1993; Wu, 1981). Wu Mianji argued that the Upper Tanshishan was a mix of Neolithic and Bronze Age remains, and therefore it was not appropriate to incorporate it into the Tanshishan Culture. He instead suggested that, as a meaningful archaeological entity, the Tanshishan Culture should only refer to the Lower and Middle Tanshishan (Wu, 1981). Wu’s theory has been accepted by most archaeologists (FPM, 2004a; Lin, 1993).

2. The subsistence pattern: This issue was only occasionally touched upon in the summary sections of archaeological reports. The presence of domesticated pig and dog bones has been noted by researchers, but the report of the faunal identification was so brief that there was no quantitative information provided. In fact, there has been no effort during the excavation
to systematically collect animal bones and other faunal remains. There has been some effort to analyze the marine shells collected from coastal sites such as the Damaoshan site, the Lazhoushan site, and the Keqiutou site. Most reports are limited to the nominal recognition of shell species without further analysis of the collection strategy and their roles in the economy.

Plant remains have not been noted until my own excavation at the Huangguashan site. Although many people have argued that there was an agricultural economy in the Neolithic Southeast China, their contentions are essentially assumptions without direct evidence.

3. Social organization: The discovery of the three cemeteries at the Tanshishan site, the Zhuangbianshan site, and the Xitou site has provided data for analyzing the organization of their societies. The arguments made by Chinese archaeologists are confined to paradigms such as patrilineal or matrilineal societies, a Marxist framework that has become the dominant theory in China since 1950.

4. The causes of the cultural change in Southeast China’s Neolithic: Despite the weakness of available archaeological data to substantiate any rigorous theories on the causes of cultural change, a number of hypotheses have been espoused. Based on the factors identified as the change mechanism, we can distinguish the theories into two schools. I shall term them as “exogenous school” and “endogenous school.” The exogenous school views changes as operations that first happened outside the area, and later were brought or diffused into the societies in Southeast China through either direct population movement or regional interaction. The representative proponent of this theory is K. C. Chang who used the term “Lungshanoid” (Longshannoid) to explain the cultural similarities during the period from the fourth to third millennium B.C. which occurred on east coast of China and across the Taiwan Strait (Chang, 1969). This theory was based on the homology of pottery styles, particularly the tripod and the pedestal cup. Chang argued that it was population migration from northern China that led to this pottery assemblage change in southeast China. Later, K. C. Chang substantially modified this population migration theory. He observed that it was an increasingly intensified “interaction sphere” that brought all the changes in the late Neolithic of Southeast China (Chang, 1986, 1989). Chang maintained that this network significantly influenced the development of the
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Tanshishan Culture in Fujian, and he further associated the beginning of Tanshishan Culture with the replacement of the Proto-Austronesian by the Sino-Tibetan speakers (Chang, 1989).

Archaeologists who favor an endogenous model to explain the origin of the Tanshishan Culture have disputed Chang’s population migration theory. After the excavation of the Keqiutou site in 1986, most archaeologists working with the materials of Fujian argued that the Tanshishan Culture was developed from the Keqiutou Culture, and the external influence was insignificant or only played a minimum role (An, 1990; Lin, 1993; Wu, 1995). An Zhimin argued that the ceramic tripod, one important indicator of Chang’s “Longshanoid Sphere,” was not a major type of vessel in the Tanshishan Culture. Therefore, it could not serve as a marker of cultural influence (An, 1990). Wu maintains that the integration of Fujian into the Chinese civilization sphere was a complicated process, and it did not happen until the end of the second century B.C. when Han Dynasty annexed Fujian as part of its territory (Wu, 1995). Lin Gongwu proposed that the Taishishan Culture developed indigenously from the previous Keqiutou Culture and no significant external influences were observed in the Tanshishan material assemblage (Lin, 1993).

5. The relationship between the Neolithic cultures of mainland southeast China and Taiwan: This has been an interesting issue for archaeologists both in Taiwan and mainland China. The discussion has been focused on the origins of the Neolithic cultures in Taiwan and the later influences from the mainland to Taiwan. Most archaeologists recognize that Taiwan’s Neolithic cultures originated in the mainland. Chang argued that the Dapenkeng Culture, the earliest Neolithic culture so far known in Taiwan (see Chapter Four), was also distributed on the Mainland coast, and he listed the Keqiutou site, the Fuguodun site, and the Chenqiao site as parts of the Dapenkeng Culture (Chang, 1995). Tsang Cheng-Hwa further elaborated on this issue (Tsang, 1995, 2002).

However, An Zhimin disagreed with this model, arguing that the Dapenkeng and the Keqiutou belonged to two different cultural traditions (An, 1990). The influence of the Tanshishan Culture on the Taiwan Neolithic cultures is another debated issue. Chang, and Tsang, among others, argue that the
mainland influences were the main mechanism for the changes in Taiwan (Chang, 1989; Tsang, 1996). Liu Yi-Ch’ang disagrees with this interpretation, and he sees the changes in Neolithic Taiwan as indigenous happenings (Liu, 2000). An Zhiming also had a similar interpretation, but he also argued that Taiwan and mainland China maintained a strong contact network (An, 1990). As will be further discussed in the following section (also see Chapter Four), this issue has direct implications for the study of the origins of the Austronesian-speakers, giving the Neolithic archaeology of Southeast China a much broader significance than the local level.

DEFINING THE STUDY THEMES: CHRONOLOGY, SUBSISTENCE PATTERN, EXCHANGE NETWORK, AND THE AUSTRONESIAN EXPANSION

This strategic significance of the Neolithic cultures in southeast China has increasingly received attention from archaeologists who work in China, Southeast Asia, and the Pacific in the past two decades. As will be further discussed in Chapter Four, Southeast China has been one of the focal points in the debate over the origins of the Austronesians. Most archaeologists believe that the ultimate origin of the Proto-Austronesians was on the coast of Southeastern China (Bellwood, 1995, 2000, 2005, 2006; Chang, 1995; Chang & Goodenough, 1996). This theory has been supported by the linguistic model advocated by Robert Blust (1995, 1999) and many genetic studies (Cox, 2005; Hagelberg, 2001; Trejaut et al., 2005). Although a small number of archaeologists and geneticists contend that a possible homeland of the Austronesian ancestors is on the islands of Southeast Asia, this alternative model also recognizes that Southeast China’s Neolithic is important for the study of early Austronesian dispersals (Meacham, 1988; Soheilm, 1975, 1988; Oppenheimer & Richards, 2001).

In light of these studies, the Neolithic archaeology of coastal Southeast China has great potential to contribute to the investigation of the earliest Austronesian expansions. The patterns and processes involved in the cultural changes in Southeast China during the Neolithic period may shed light on many important issues in the early history of the Austronesian speakers.
However, as discussed above, the extant archaeological materials in southeast China only offer a vague picture of the Neolithic of this area. Our understanding of the Neolithic cultures of southeast China has been confined to a small number of archaeological sites excavated with a narrow strategy. The current chronology of Neolithic southeast China is poorly established on a few C-14 dates without a secure archaeological context. The date of many sites is assumed based on the stylistic comparison of pottery and stone tools. Little is known about subsistence patterns, human interactions with the environment, and inter-community exchange. Owing to the small number of excavated sites, the Neolithic cultures in many areas are still not clear. Southern and northeastern coastal Fujian are two such areas.

It is with the above understanding of the significance and problems of the Neolithic archaeology of southeast China that I outline my own research in this area, with the explicit aim of outlining the processes of cultural change and their implications for the Proto-Austronesian dispersals. The major issues explored in this monograph include:

1. The chronological sequences of the archaeological sites on the coast of southeast China: This basic archaeological issue, though important for any archaeological inquiry anywhere in the world, remains poorly answered in southeast China. An effort to systematically evaluate the previous archaeological record and to find new dating materials is essential for any further interpretations. Thus, the field work undergirding this book involves new archaeological excavations as well as an analysis of museum collections. As will be elaborated in the following chapters, one of my primary concerns during the excavations was to find more dating samples in order to construct a better chronology.

2. The subsistence economy in the Neolithic of southeast China: Previous archaeological records are particularly ineffective to study the subsistence economy, because the focus of the archaeological excavations in this area has been to find artifacts such as pottery and stone tools. Information related to subsistence were either discarded or only collected on contingency. Therefore, I have systematically collected and analyzed faunal and floral information in my own work. Despite my work being limited to two sites,
the information retrieved has significantly enhanced our understanding of the Neolithic economy in this area.

3. The exchange networks in southeast China during the Neolithic period: The development of exchange networks along the coastal area is not only the key issue in investigating the cultural changes on the southeast China coast, it is also essential for interpreting the expansion of the Proto-Austronesians across the Taiwan Strait (Chapter Four). So far, most studies on this issue have been built on indirect evidence such as a typological comparison of pottery and stone tools. However, archaeologists today have a much broader scope of contemporary techniques at their disposal to find more direct evidences for prehistoric interactions. My study combines the traditional typological analysis of stone adzes with the geochemical approach to investigate the Neolithic exchange networks in southeast China (Chapters Five and Seven).

THE DAMAOshAN AND HUAngGuASHAN INVESTIGATIONS

The Damaoshan site and the Huangguashan site are ideal to address the above themes. The Damaoshan site is located in Dongshan County, southern Fujian (Fan, 1991; Xu, 1988). Previous surveys have reported that it was a settlement with dense deposits of marine shells and fish bones. The collected potsherds and stone tools indicate that people had developed a Neolithic culture. During my visit to this site in December 2001, I found that although part of the site was destroyed, there is still about 300 m² left intact. Located in southern Fujian, this site had great potential to provide the necessary evidence for the study of cultural development and exchange networks along the coastal area.

As mentioned above, the Huangguashan site is located in Xiapu County, northeastern Fujian Province. The rich deposit of marine shells, as thick as 3 m, indicates that the inhabitants of the Huangguashan site developed a strong maritime adaptation. The first excavation in 1989 found a large number of artifacts but did not systematically collect fauna samples and dating materials (FPM, 1994). Since 2000, I have been involved in a research project to study Neolithic seafaring along the Fujian coast (Rolett, Jiao, & Lin, 2002). The sourcing of the stone adzes excavated
from the Huangguashan site is one of the focuses of this project. After a visit to the Huangguashan site in December 2001, it was determined that it was necessary to conduct further excavation at this site in order to have a better understanding of the chronology and other background information of this site.

With the permission from the Chinese National Bureau of Cultural Relics and the Fujian Provincial Bureau of Cultural Relics, I joined the excavation of the Huangguashan site in May and June 2002. In November and December 2002, I went back to Fujian and excavated the Damaoshan site. As will be illustrated in the following chapters, the information retrieved from these two excavations, which is the basis of this monograph, has contributed on many aspects to the understanding of the Neolithic of southeast China and the dispersal of the Proto-Austronesians.