THE PAST AND PRESENT POTTERY IN SEMPORNA, SABAH

SURESH A/L NARAYANEN

UNIVERSITI SAINS MALAYSIA

2011

THE PAST AND PRESENT POTTERY IN SEMPORNA, SABAH

by

SURESH A/L NARAYANEN

Thesis submitted in fulfilment of the requirements for degree of Master of Arts

July 2011

ACKNOWLEDGEMENTS

This study was made possible with the assistance and support of a number of people and organisations. First of all, I would like to thank my supervisor, Associate Professor Dr. Stephen Chia Ming Soon, the Deputy Director of the Centre for Global Archaeological Research (CGAR), Universiti Sains Malaysia (USM), Penang, for his tremendous support and guidance during the fieldwork and writing of this research. Many thanks to his patience and willingness in sharing his knowledge about the prehistoric pottery of Bukit Tengkorak and present pottery-making in Semporna, Sabah. I would also like to express my gratitude to the Director of CGAR, Associate Professor Dr. Mokhtar Saidin for giving me the opportunity to undertake the graduate study program at CGAR. I am deeply indebted to his constant support and encouragement. I also wish to thank USM for providing the environment and the financial assistance for this research under the USM Research University Grant. My thanks also go to the Institute of Graduate Studies, USM for providing the USM Graduate Fellowship until the completion of my graduate study.

The fieldwork in Semporna consists of three seasons of survey in which each season was done for about two weeks. For that, I am grateful to the staff of the Sandakan Museum, Mr. Tan Chin Hock and Mr. Madsah Ismula, who were my counterpart for the entire season of the research. Special thanks are also extended to the local informants, Mr. Junahal and Mr. Abdul Muluk, for providing information on the locations of remaining potting islands and villages in Semporna. I also wish to thank Mr. Velat Bujeng from the CGAR, USM, Penang and Mr. Jamain Musi from the Sabah Museum who had participated in the second season of survey in April 2009. I

owe much to the people of Semporna especially to the ex- and present pottery makers who were never hesitant in sharing their knowledge and experience on pottery-making and family background. Although it is impossible to mention their names individually, I would like to thank all of them.

I owe an intellectual debt to various people of the CGAR especially Mr. Hamid Isa and Mr. Jeffrey Abdullah for sharing their knowledge with regard to ethnoarchaeological research. In addition, I would also like to acknowledge the help given by the graduate students at CGAR such as Nor Khairunnisa Talib and Nor Asikin Rashid during the preparation of pottery samples as well as the mineral identifications and interpretations of the results of the compositional analyses of pottery. I would also like to offer my sincere gratitude to the staff of the CGAR, in particular Mrs. Normah, Mr. Sairul and Mr. Ikhwan for their endless support and assistance.

Last but not least, I cannot sufficiently express my thanks to my parents, Mr. Narayanen Raman and Mrs. Devi Pothuval, for their loving support and encouragement in every effort that I have taken in my life. Their confidence and continuous support have given me the courage and the much needed encouragement to complete this research successfully.

TABLE OF CONTENTS

CHAPTER 4 – MORPHOLOGICAL STUDY ON THE PAST AND PRESENT POTTERY OF SEMPORNA

CHAPTER 5 – COMPOSITIONAL STUDIES ON THE PAST AND PRESENT POTTERY OF SEMPORNA

LIST OF TABLES

LIST OF FIGURES

LIST OF PLATES

TEMBIKAR DULU DAN KINI DI SEMPORNA, SABAH

ABSTRAK

Kajian etnoarkeologi tentang pembuatan tembikar Bajau di Semporna, Sabah telah dijalankan pada tahun 2009 oleh penulis dari Pusat Penyelidikan Arkeologi Global (PPAG), Universiti Sains Malaysia, Pulau Pinang dengan kerjasama Muzium Sandakan, Sabah. Kajian ini merangkumi survei selama tiga musim ke atas beberapa buah perkampungan dan pulau-pulau yang masih lagi terlibat dengan pembuatan tembikar tradisional. Tujuan survei ini adalah untuk mendapatkan data tentang teknologi, jenis, fungsi dan nilai ekonomi tembikar yang dihasilkan oleh masyarakat Bajau. Data-data ini seterusnya dibandingkan dengan data tembikar prasejarah Bukit Tengkorak yang diekskavasi pada tahun 1998. Tujuan kajian perbandingan ini adalah untuk melihat persamaan dan perbezaan antara tembikar Bajau dan tembikar yang dihasilkan 3,000 tahun yang dahulu di Bukit Tengkorak. Di samping itu, data susur galur salasilah pembuat tembikar Bajau juga diperoleh ketika aktiviti survei.

Kajian perbandingan tembikar Bukit Tengkorak dan Bajau telah dijalankan menggunakan dua pendekatan iaitu kaedah morfologi dan saintifik. Keputusan kajian perbandingan ini menunjukkan kedua-dua jenis tembikar walaupun dari zaman yang berbeza mempunyai persamaan yang ketara dari segi teknologi pembuatan, jenis, bentuk dan dekorasi. Perbezaannya pula boleh dilihat dari segi dekorasi permukaan di mana tembikar bersalut merah dan dekorasi tekanan tanda tali dan berpetak hanya dijumpai dalam kalangan tembikar Bukit Tengkorak. Tembikar bersalut merah dan

corak tekanan tanda tali dan berpetak didapati bukan sebahagian daripada tradisi pembuatan tembikar Bajau.

Analisis ke atas data salasilah pembuat tembikar Bajau menunjukkan bahawa mereka mempunyai hubungan budaya dan keluarga yang rapat dengan kumpulan pembuat tembikar Samal di Kepulauan Sulu, Filipina. Kajian perbandingan antara pembuat tembikar Bajau dan Samal mendapati kedua-dua kumpulan ini mewarisi tradisi pembuatan tembikar yang sama. Persamaannya jelas dari segi teknologi pembuatan, jenis, fungsi dan dekorasi. Di samping itu, peralatan yang digunakan dalam aktiviti pembuatan tembikar juga mempunyai persamaan yang erat. Kemunculan tradisi pembuatan tembikar yang sama di Semporna dan di Kepulauan Sulu menunjukkan bahawa pembuat tembikar Bajau dan Samal berasal dari komuniti yang mempunyai latar belakang budaya yang sama.

Kesimpulannya, tembikar etnografi Bajau merupakan kesinambungan daripada tradisi tembikar Bukit Tengkorak yang muncul 3,000 tahun yang dahulu. Pembuat tembikar Bajau di Semporna dikenalpasti mempunyai hubungan kebudayaan yang rapat dengan kumpulan pembuat tembikar Samal di Kepulauan Sulu, Filipina. Kemunculan tradisi pembuatan tembikar yang sama di kalangan masyarakat Bajau dan Samal menunjukkan komuniti pembuat tembikar dari latar belakang budaya yang sama telah menghuni kawasan kepulauan Semporna, Sabah dan Sulu di Filipina.

THE PAST AND PRESENT POTTERY IN SEMPORNA, SABAH

ABSTRACT

Ethnoarchaeological research on Bajau pottery-making in Semporna, Sabah was carried out in 2009 by the author under the Center for Global Archaeological Research, Universiti Sains Malaysia, Penang in collaboration with the Sandakan Museum, Sabah. The research consists of three seasons of survey and study of the remaining potting islands and villages in order to obtain data on the technologies, types, functions and economic value of Bajau pottery. These data was compared with the prehistoric pottery of Bukit Tengkorak excavated in 1998, mainly to determine the similarities and differences possessed by the two different periods of pottery in Semporna. In addition, the research was also aimed at studying the genealogy of the Bajau potters.

The comparative study between the Bukit Tengkorak and Bajau pottery was done using the morphological and compositional analyses. The results of the analyses revealed that both the past and present pottery in Semporna bear close similarities in terms of manufacturing technology, vessel types and forms, and decorations. The difference, on the other hand, was only observed in surface decoration. For instance, some of the decorations that were found among the Bukit Tengkorak pottery but was absent in Bajau pottery-making are pottery with red-slip coating, cord-marked and checked impression designs. None of the Bajau potters including the ex-potters have knowledge in making the red-slipped pottery and the other two types of impression decorations mentioned above.

The result of the genealogical study showed that the Bajau potters have strong cultural and family connections to the pottery-making communities in the Sulu Archipelago, Philippines. Comparative study between the Bajau and Samal pottery-making in the Sulu Archipelago revealed that both groups practise a similar pottery-making tradition. Similarities between the potters are evident in terms of manufacturing technology, vessel types, functions and decorations. In addition, the types of tools used by the potters in making pottery also bear close similarities. The presence of a similar pottery-making tradition between the islands of Semporna and Sulu Archipelago indicated that both the Bajau and Samal potters came from a potting community who share the same cultural background.

In conclusion, the Bajau pottery-making is found to be the continuation of the tradition of Bukit Tengkorak pottery which existed 3,000 years ago. The Semporna Bajau potters' origin and ancestry have strong cultural connections with the Samal potting groups in the Sulu Archipelago, Philippines. The existence of a similar pottery-making tradition between the Bajau and Samal potting groups indicates that a potting community with the same cultural background dwelled the islands of Semporna and Sulu Archipelago.

CHAPTER 1

INTRODUCTION

This chapter discusses previous archaeological research conducted on pottery in Semporna, Sabah. The discussions are focused on pottery findings from the Bukit Tengkorak archaeological site and ethnography studies on the Bajau pottery-making in Semporna. The issues and problems of these ethnography studies will be discussed followed by the aims and methodology of this research. A brief history of Semporna district, which includes its location, geology, climate, flora, fauna and community will also be described in this chapter.

PREHISTORIC POTTERY FROM BUKIT TENGKORAK ARCHAEOLOGICAL SITE

Bukit Tengkorak was briefly investigated for the first time by Peter Bellwood and the Sabah Museum team in January 1987. Excavation inside shelter 1 encompasses an area of 2.5 square metres, which yielded a variety of artefacts such as pottery sherds, stone tools and shell remains. Also found at Bukit Tengkorak were obsidian artefacts mostly in a form of tiny flakes. Based on radiocarbon dating of charcoal and shell samples, the site was dated to between 2,870 ± 80 BP and 1,050 ± 500 BP (Bellwood 1989:129).

Restricted and unrestricted were the two types of vessel forms recovered from Bukit Tengkorak. These vessels can be divided based on two different types of rim forms,

thickened everted rim and indirect rim with rounded lips. A number of decorated stove fragments have also been counted in the Late Phase (after 300 BC) whereas the same specimen that was found in the Early Phase (prior to 300 BC) was in an undecorated form. Among the various types of decoration noticed on the body of the potsherds are red-slip coatings on both the interior and exterior surfaces, incision designs, carination notching, circles and paddle impression. Plain and red-slip sherds were dominantly found in the Early Phase while the Late Phase comprises much striking decorations. Bellwood (1989:153) has stated that the Bukit Tengkorak pottery decorations, especially discovered in the Early Phase bear close similarities to those found in Sarawak, western Sulawesi, the Philippines and western Micronesia.

Excavation at Bukit Tengkorak in 1987 was the first attempt taken to unearth the antiquity of the site. However, the brief investigation over a period of about 1 week has left many questions unanswered. In terms of pottery, no scientific analysis was carried out to determine the types of raw materials used in the manufacturing of Bukit Tengkorak pottery. Although Bellwood (1989:136) has mentioned briefly on the continuity of pottery-making activity by the Sama-speaking group (Bajau) in Semporna, no attempt was taken to survey the local potting villages for comparative study with Bukit Tengkorak pottery. A brief comparative discussion on Bukit Tengkorak pottery, however, was made with those major sites that were found at Niah Caves and Lobang Angin in Sarawak (Solheim *et al.* 1959), Agop Atas Madai and Baturong in Sabah (Bellwood 1988), Manunggul Chamber A on Palawan (Fox 1970) and Leang Tuwo Mane'e in the Talaud Islands (Bellwood 1976), as all of these sites are quite comfortably within the Neolithic pottery tradition.

The second archaeological survey and excavation at Bukit Tengkorak was carried out for more than a month in 1994 and 1995. The research was headed by Stephen Chia from the Centre for Archaeological Research Malaysia (now known as Centre for Global Archaeological Research), Universiti Sains Malaysia (USM), Penang in cooperation with the Sabah Museum. New potential areas at the main rockshelter and the volcanic boulder located just below the main rockshelter were selected where a total of 6 one x one metre trenches, three in each outcrops, were excavated until the sterile basal layer of the site. The excavation revealed three distinct cultural phases for the site, Early Phase (4340-1285 BC), Middle Phase (1200-900 BC) and Late Phase (900 to 2000 BP).

A broad range of archaeological artefacts was discovered such as pottery, stone tools, animal bones, shells and a stone-bark cloth beater (in the Late Phase). Among these archaeological materials, pottery assemblage formed the main portion and was the dominant finding in frequencies, with a total of 20,236 pieces (Chia 2003a:87). Plain and red-slipped were the dominant types of pottery that appeared consistently throughout the stratigraphical levels. For instance, plain and red-slipped pottery in a variety of forms such as cooking pots, stoves and large storage jars were found in the Early Phase. The variety of new impressed and incised designs, some in the form of lidded and footed vessels, were discovered mainly in the Middle and Late Phase (Chia 2001, 2003a). Other types of pottery decoration include impressed, incised, perforated, and combination of impressed, incised and perforated design. Although potteries have been recovered in the Late Phase, the top layer of the site does not seem to be *in-situ* whereby it has been disturbed by treasure hunting activities. Therefore, no precise radiocarbon dates are available for this phase. The absence of

metal and trade ceramic suggested that the phase might date to at least 2,000 BP (Chia 2001, 2003a).

According to Chia (2003a:135-136), Bukit Tengkorak may have functioned as a pottery-making site. This idea was not made solely based on the discovery of a prolific quantity of pottery sherds but the existence of other significant archaeological evidences of pottery-making at the site. For instance, a large heap of clay was found in one of the excavated trenches at the depth of 25 centimetres. This clay heap is believed to be brought from elsewhere to the site to manufacture pottery. According to Chia (2003a:112), survey in and around Bukit Tengkorak revealed large clay deposits at the foothill of the site. The exposed clay at the foothill was similar in colour to those excavated at Bukit Tengkorak and this brings to the conclusion that these clay sources might have been used by the Bukit Tengkorak inhabitants to manufacture pottery.

Furthermore, a large portion of pottery sherds were found in hearth contexts in which the sherds were adhered with fire ashes. These firing wastes and remnants indicate that the Bukit Tengkorak inhabitants most probably used the open-air firing method to bake pottery. This is further supported by the X-ray diffraction analysis on the excavated pottery sherds which indicate low temperature was used to bake the pottery which range between 600^0 C and 700^0 C (Vandiver and Chia 1997:272). According to Chia (2003a:135), the firing process might have been carried out within the Bukit Tengkorak complex as the volcanic boulders provide a natural wind tunnel and tends to be penetrated by adequate wind for pottery firing.

Chia (2003a:106) has stated few pottery-making techniques that might have been employed by the Bukit Tengkorak inhabitants. These techniques are hand-moulding, the paddle-and-anvil, coiling and the slow wheel. The frequent impressions of anvil and paddle marks on both the interior and exterior surfaces of the Bukit Tengkorak pottery suggested the use of paddle and anvil technique. The methods of coiling and joining were suggested based on the distinct breakage lines along parallel planes, in stove pieces as well as lid and knob fragments. The recovery of pottery with symmetrical designs indicates the use of slow wheel technique in the Bukit Tengkorak pottery manufacturing (Chia 2003a:106).

On the discovery of such archaeological evidences, as discussed above, Bukit Tengkorak has been identified as a major pottery-making site around 3,000 years ago. However, the production ceased when the site was abandoned at around 2,000 BP. A preliminary ethnography survey conducted by Chia in 1996 revealed that pottery is still being made in Semporna (Chia 2003a). The production is carried out by the Bajau community. The use of traditional methods by the Bajaus in making pottery indicated that the art may be derived from or inter-related with the Bukit Tengkorak pottery-making tradition. However, most of the Bajau potters ceased production at the end of the 1980s due to the decrease in demand of clay pots (Guntavid 2005:45). Ethnography data on the Bajau pottery-making in terms of technology, types, decorations and functions, therefore, is needed to unearth the possible affinities between the prehistoric pottery of Bukit Tengkorak and present Bajau pottery in Semporna.

PREVIOUS ETHNOGRAPHY RESEARCHES ON POTTERY-MAKING IN SEMPORNA

A few ethnography works have been carried out on Bajau pottery-making in Semporna, Sabah. Among these studies are those done by Evans (1955), Alman (1960), Pike (1970), Sather (1971), Spoehr (1973), Piper (1980), Chia (2003a) and Ono (2006). However, all these studies contain only a brief commentary on Bajau pottery-making. Evan's (1955) research on traditional pottery-making was concentrated at Tempasuk (Kota Belud). During the period, pottery was made by the Samal group. Subsequent research on traditional pottery-making in Kota Belud was conducted by Alman (1960:583). Sather's research on Danawan (known as Dinawan Island now) revealed the existence of Bajau pottery-making in Semporna District. According to Sather (1971:10), *Lapo'an* (cooking stove) was the main type of pottery produced and widely traded in to different islands. Barter system was practised in which potteries were exchanged with items such as sea products and metal utensils. Sather (1971:10) has reported that the Danawan and Kota Belud pottery stove have certain similarities in terms of characteristic. Spoehr (1973) has also described briefly on the Bajau pottery-making in Semporna. According to Spoehr (1973:134), the Semporna Bajau and Samal pottery-making in the Sulu Archipelago bear close similarities in terms of manufacturing technology, type and function. The differences, however, can be seen in the use of fuels and length of pottery-firing. Piper's (1980) ethnographic study on Bajau pottery-making has located a number of remaining potting villages and little information on the source of clay and technique used by the Bajaus to make pottery.

In 1996, a brief ethnography research was conducted by Chia (2003a) to identify potting villages in Semporna. Among the few previously active potting villages that were surveyed, Tampi Kapur was the only village in which pottery was still being made (Chia 2003a:42). Only one pottery-maker, Mrs. Mihalak, was identified in Tampi Kapur who makes pottery in large quantities for sale. She is an expert in producing various types of pottery such as cooking stove, incense burner, water jar and cooking pots. The source of raw materials for pottery-making such as clay, sea sand and salt water are obtained from a nearest distance within the village area. Mrs. Mihalak still uses traditional techniques and tools in making pottery. For instance, *Bogoh* (wooden trough), *Hallo* (wooden mortar), *Papan* (a piece of wooden plank), *Lumpang* (a circular wooden plank) and *Kuhut* (bamboo scaper) are some of the traditional tools used by Mrs. Mihalak to make pots. The pottery is hand-made using the paddle and anvil technique, and open-fired.

Rintaro Ono's (2006) ethnoarchaeological study on Bajau pottery-making in Semporna is the latest research available thus far. The research in detail has described the making of pottery stove, its functions, use-life, economic value and the factors that had led to a decline in the demand of the Bajau pottery in Semporna lately. Ono (2006) has recorded a pottery-making demonstration in Salakan Island. The demonstration was performed by Mrs. Mihalak from Tampi Kapur. Therefore, the pottery-making sequence discussed by Ono (2006) is similar to that mentioned by Chia (2003a). However, the research has given valuable information on the use of pottery stove which correlates with the Bajau community's preferences in preparing their traditional foods and cooking methods.

STATEMENT OF PROBLEMS

Although a few ethnography works had been conducted on the Bajau pottery-making in Semporna, the acumen of present pottery-making is yet to be understood entirely. This mainly occurred due to the lack of continuous research in obtaining data on Bajau pottery-making. The lack of continuous research results in insufficient information on the development of Bajau pottery over time in terms of technology, type and the economic value of pottery.

Another issue and problem is the incomplete surveys in revealing reliable information on traditional pottery-making during previous researches. This leads to an unclear understanding of the Bajau pottery-making in Semporna. For instance, previous ethnography researches were not carried out at all the potting islands and villages in Semporna. Although Ono's (2006) surveys comprised a few islands but the investigation was not widespread. The research was conducted at selected islands and information on different types of pottery and its function was not discussed as the research solely focused on the production and use of pottery stove among the Bajau community. Moreover, research conducted by Chia (2003a) and Ono (2006) discuss the pottery-making sequence demonstrated by the same pottery-maker, Mrs. Mihalak from Tampi Kapur. Consequently, the lack of comprehensive survey and studies on similar pottery-making sequence resulted in incomplete information on the numbers of remaining or active potting islands and villages, identity of potter groups as well as the technologies, types and functions of the pottery produced at different islands and villages in Semporna.

Lastly, little attempts had been taken to connect the past and present pottery in Semporna. Even though studies had been carried out on the prehistoric Bukit Tengkorak pottery, comparative study between the prehistoric and present pottery in Semporna has yet to be done in detail. A detailed comparative study is therefore needed to address the continuity in pottery tradition from the prehistoric time to the ethnographic present in Semporna. In addition, the genealogy of potters in Semporna was also not addressed by the previous studies. Thus, the ancestry of the Semporna Bajau potters remains unanswered.

As there is no convincing data on the present Bajau pottery-making, it was therefore decided that a systematic ethnoarchaeological research should be carried out to explore the entire islands and villages in Semporna to locate the remaining and ex-potting islands and villages as well as the pottery makers in answering many questions that had been neglected in previous researches. A comparative study between the Bukit Tengkorak and Bajau pottery, on the other hand, is necessary to understand the cultural connections between the past and present pottery in Semporna.

OBJECTIVES OF PRESENT STUDY

The primary objective of this study is to solve the issues and problems of the previous researches through a comprehensive ethnoarchaeological research and comparative study on both prehistoric and present pottery in Semporna, Sabah. The objectives include:

(i) To locate the ex- and remaining Bajau potting islands and villages in order to obtain data on pottery technologies, types and its functions.

(ii) To conduct a comparative study between the prehistoric Bukit Tengkorak pottery and ethnographic Bajau pottery in Semporna. The comparisons were made based on two main approaches: (i) Morphological analyses - decorations, rim forms, vessel forms and functions, and (ii) Scientific analyses – technological characteristics (colour, paste, shaping, finishing, decoration and firing) and source of clay/ inclusions.

(iii) To determine the genealogy, social and economic background of the present Bajau potters in Semporna.

(iv) To determine the economic value, trade and exchange of Bajau pottery in Semporna.

METHODOLOGY

Since this research attempts to connect the past and present pottery, the methodology of the research involves the following:

(i) Ethnoarchaeological Fieldwork

Ethnoarchaeological fieldwork was done to locate the ex- and remaining potting islands and villages in Semporna. The fieldwork consists of systematic survey, interview and observation of pottery-making demonstration. Both ex- and present day potters were interviewed and data on

pottery technology, types, functions, economic value and the genealogy of the potters were collected. The discussion on the ethnoarchaeological fieldwork will be outlined in Chapter 3.

(ii) Morphological and Scientific Analyses

The analyses of prehistoric and ethnographic pottery involve both morphological and scientific analyses. A number of newly produced potteries from different active potting islands and villages were brought to the Centre for Global Archaeological Research (CGAR), Universiti Sains Malaysia, Penang, for analyses. These potteries were analysed using morphological and scientific analyses and compared with the prehistoric Bukit Tengkorak pottery which was obtained during the 1998's excavation. Morphological analyses are useful for pottery classification as well as for determining the functions and techniques used to produce the pottery. The analyses also included the study of size, weight, shape, use ware and decorations of the pottery. Scientific analyses, on the other hand, are useful for classification as well as for determining the technology and sources of the raw materials used to produce the pottery. Thin-section petrographic analysis and X-ray diffraction analysis (XRD) were the two main analyses carried out on the Bukit Tengkorak and Bajau pottery. Therefore, analyses and studies include (1) 3,000-year-old pottery from Bukit Tengkorak site and (2) Bajau pottery from the active potting islands and villages in Semporna. The result gained through the morphological and scientific analyses of the past and present pottery were compared to identify similarities and differences in the usage of

raw materials and technology over time in Semporna. This is summarised in Figure 1.1.

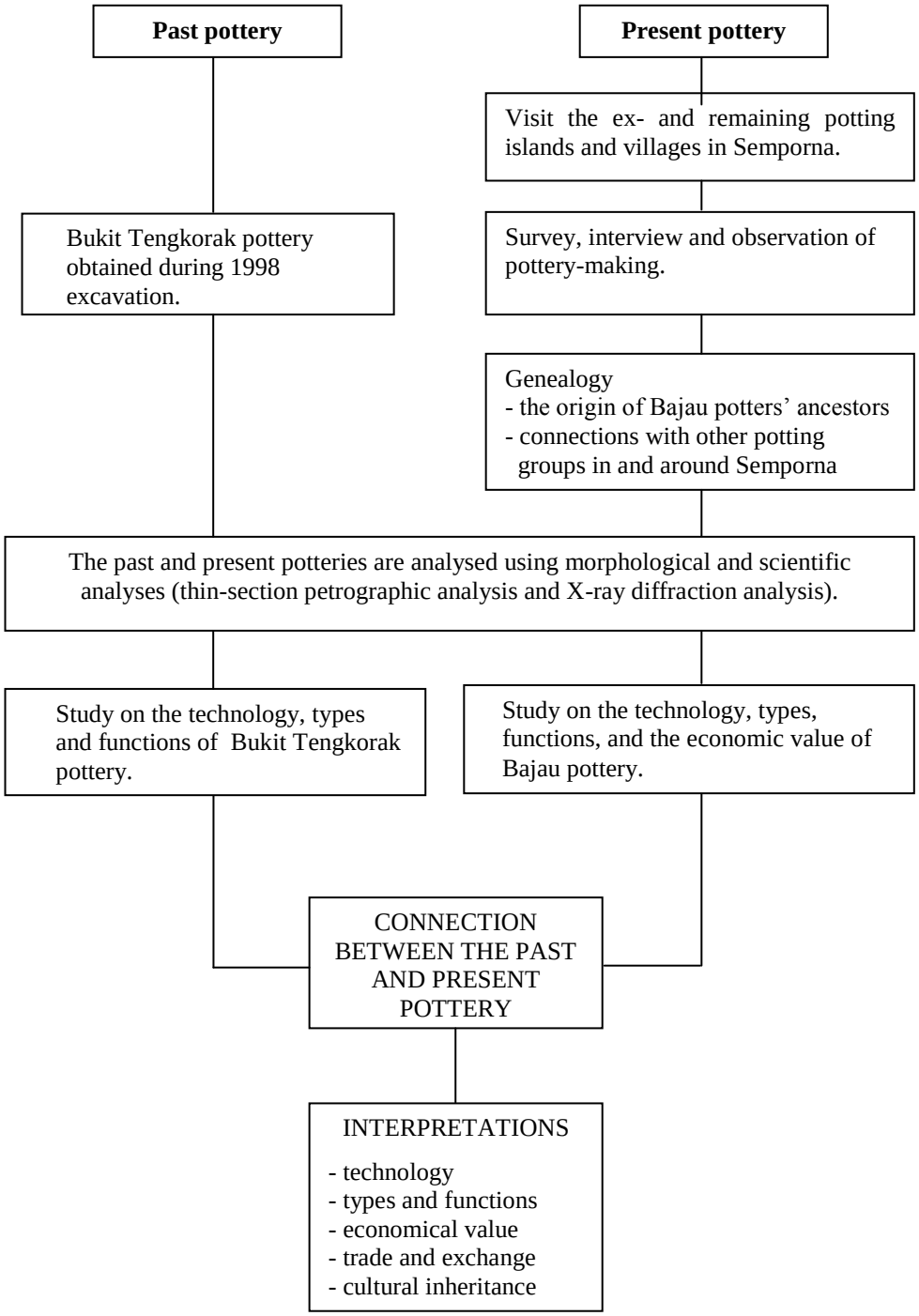

Figure 1.1: Sequence of analysis and interpretation of past and present pottery in Semporna

(iii) Interpretation and Comparative Studies

Interpretations were made based on the results obtained from the morphological and scientific studies of the past and present pottery. Additionally, ethnography data gathered on the Bajau pottery-making was used to interpret the technology as well as the types, decorations, functions and sources of clays used in the manufacturing of Bukit Tengkorak pottery. Furthermore, the interpretations also cover the economic value, trade and exchange of pottery, and cultural inheritance of pottery-making art by the Bajau community in Semporna.

Besides comparative study between the past and present pottery in Semporna, comparative studies were also made with selected prehistoric sites and remaining traditional potting communities in Malaysia as well as in Southeast Asia. It is hoped that this study will provide some insights on the possible connection between the prehistoric and traditional pottery in terms of technologies, types, decorations, functions as well as trade and exchange of pottery in the context of Southeast Asian region.

THE STUDY AREA

This section describes the location of the research area which includes its geology, geomorphology, climate, flora and fauna. In addition, the major ethnic groups living in the area will also be briefly discussed.

Location

Semporna is located in the east coast of Sabah, Malaysia. It is a small town situated in Tawau Division, about 90 kilometres from Tawau by road. Its location based on GPS readings is latitude N. 4º 28' 52", longitude E. 118º 36' 57". Semporna district comprises 442 square miles (711.330 kilometres) whereby this area is located near the international waters bordering Indonesia and the Philippines. There are more than 119 villages located in 49 dispersed islands around Semporna Peninsula. Most of the potting villages that were discovered during the present ethnoarchaeological research are located in remote islands.

From historical contexts, Semporna literally means 'perfect' among the local people of Semporna. A few archaeological sites can been found in Semporna, for instance, Bukit Tengkorak, Melanta Tutup and Bukit Kamiri. These archaeological sites dated back to Neolithic Period except for Melanta Tutup which represents cultural sequence from late Palaeolithic to the Neolithic, Metal and early historical periods (Chia and Matsumura 2005; Chia 2008). Besides archaeological sites, Semporna has a few well-known tourist destinations such as Sipadan and Mabul Island, for diving activities.

Geology and Geomorphology

Studies on Semporna geology can be seen in the works done by Kirk (1962) and Lee (1970, 1971). T.R. Paton had conducted survey from 1953 till 1959 in Semporna Peninsula to determine the physical appearance of the soil and the geomorphological background of the area. The geology formation of Semporna Peninsula consists of numerous isolated hills and mountains rising to over 1,000 feet (Paton 1963:1). For

instance, Timbun Mata Island, one of the biggest islands in Semporna has 2,000 feet-high hills. According to Paton (1963:3), the topography feature of Semporna is a raised coral platform which extends to the west of the peninsula.

Past volcanic activities have also been identified around the area which occurred probably during the Pliocene age to perhaps the Quaternary age (Lee 1970). According to Chia (2003a:3-6), survey in and around Bukit Tengkorak revealed the discovery of volcanic breccias which strongly indicates the occurrence of past volcanic activities in Semporna. The Bukit Tengkorak site is believed to be a ridge sitting on a raised coral limestone terrace rather than an island as claimed by the Geological Department of Kota Kinabalu prior to the 1994 and 1995 excavations (Figure 1.2). Islands in Semporna, on the other hand, mainly consist of acidic and basic volcanic breccias. Based on the evidence of volcanic activities in the area, it was suggested that the geology of Semporna is a continuous volcanic belt of the Sulu Archipelago in the Philippines (Chia 2003a:3).

Climate, Flora and Fauna

Generally, the climate in Semporna Peninsula is very hot and humid throughout the year. The weather is cloudy and downpours sometimes occurred in the middle of April until the early of May. Based on the Sabah Forestry Department report from 2002 till 2005, a narrow coastal stripped from Tawau to Semporna received mean annual rainfall ranging from 1,500 to 1,999 mm. However, the annual rainfall varies from 2,000 to 2,500 mm and rainy season can be expected between November and February.

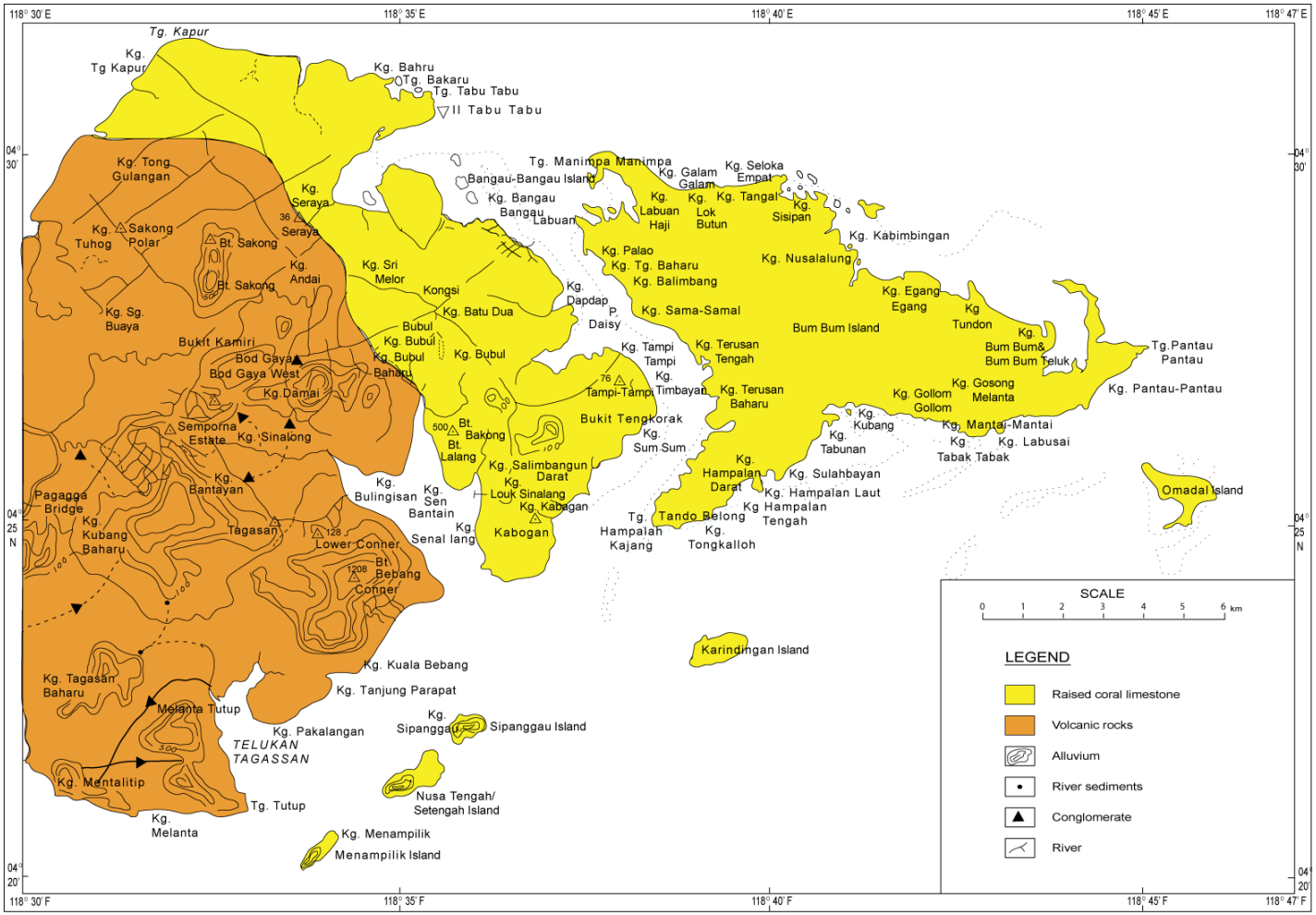

Figure 1.2: Map of Semporna Peninsula with the main geological formations (reproduced from Chia 2003a:5)

The natural flora of Semporna Peninsula is rainforest (Paton 1963:17; Chia 2003a:6). Survey by the Sabah Museum in 1998 identified a total of 127 "useful" species of plants which are important as medicinal, edible, ritual plants as well as materials for boat-building, basket and mat weaving, and other miscellaneous items (Guntavid and Galaip 1998). The most common species that can be found usually in the hinterland area are "urat mata" or white seraya (*Parashorea melaanonan*), red seraya (*Shorea spp.*) and "keruing" (*Dipterocarpus spp.*).

The coastal platform is covered by a few types of forest such as mangrove swamps, nipah palms and casuarinas. The primary species of mangrove swamps and nipah palms respectively belong to the family *Rhizophoraceae* and *Nipa fructicans*. *Rhizophora mucronata, Rhizophora apiculata* and *Ceriops tagal* are the common types of *Rhizophoraceae* genus that can be seen at most of the coastal areas of Semporna.

Cultivation of crops, fruit trees and coconuts remains an important activity in Semporna. However, the main cultivated plantation in Semporna today is oil palm. Oil palm has replaced cocoa and coconut plantation where a large scale of oil palm farm can be seen along the roadside from Tawau to Semporna. However, local people of hinterland areas prefer small-scale vegetable farming such as *panggi kayu* (*Manihot esculenta*), *keladi* (*Colocasia esculenta*), *kangkong* (*Ipomoea aquatica*), *labu kundur* (*Benincasa hispida*) and *labu merah (Cucurbita pepo*) (Guntavid and Galaip 1998). At present, seaweed (*Kappaphycus alvarezii spp.* and *Caulerpa*) cultivation has become one of the popular and profitable subsistence economies among the locals of Semporna.

The common types of mammal in Semporna today include deer, pigs and monkeys (Chia 2003a:6). According to the local people of Bodgaya, long-tailed macaque *Macacafascicularis* and Sambar deer are commonly found in the area. However, Baptist *et al.* (1998) has reported that the deer population in Semporna has already become extinct possibly due to hunting. However, the waters of Semporna is still rich in marine life. For instance, groups of damsel fish, wrasse, snapper, jack, surgeon fish, angel fish and grouper *Epinephelus undulosus* existed in the deeper fore zone of Semporna (Wood 1981). The types of fish that are commonly sold at Semporna market are groupers (*Serranidae*), emperors (*Lethrinidae*), red snappers (*Lutjanidae*), wrasse (*Labridae*), rabbitfish (*Siganidae*) and squids (Komilus *et al.* 1999). In addition, various species of birds, amphibians and reptiles such as monitor lizard and snakes are also commonly found in Semporna. There are also certain species of turtles such as greenback turtles, small hawksbill turtles, and pelagic species such as manta rays and eagle rays which can be seen especially in Sipadan Island waters. The presence of various marine lives depicted the Semporna waters as rich in aquatic assortment. Hence, some of the islands such as Sipadan and Mabul have been protected under the World Wildlife Fund – Malaysia (WWF-Malaysia).

The People of Semporna

The population of Semporna District numbered 108,236 in the year 2000 (Ono 2006:35). The major ethnic group in Semporna is Bajau followed by a number of immigrants such as Filipinos, Indonesian as well as some Chinese (Chia 2003a:6). The Bajau community in Semporna can be divided into two groups, (1) Bajau Darat (Land Sama) and (2) Bajau Laut (Sea Sama). Darat and Laut respectively refer to Land and Sea. Both the groups bear a vast difference in terms of religion, subsistence

economy and socioeconomic status. The following are the descriptions of the Bajau Darat and Bajau Laut of Semporna.

Traditionally, Bajau Darat are known as the group of people who settled on strands environment mostly in shorelines and islands. Almost all the Bajau Darat families in Semporna practice Islamic religion and constitute the major ethnic group in Semporna district. The Bajau Darat can be divided into a few sub-groups namely Bajau Siminul, Bajau Kubang, Bajau Ubian, Bajau Sikubsung, Bajau Ilanau, Bajau Bagini, Bajau Pagahak, Bajau Sibutu and Bajau Benaran.

Only a small number of them are engaged in collecting sea products. Fishing is only a part time job for most of them during the day (Komilus *et al.* 1999). Bajau Darat fishermen own large boats whereby modern fishing gears are used such as gill nets, seine nets and trawls. In addition, they also use bottom and pelagic long line techniques especially to catch sharks and rays (Suliansa 1999). The Bajau Darat prefer to work on land doing activities such as farming, boat building, trade and wage work. Lately, a minority of them have started working as civil servants in Semporna government sectors (Ismail Ali 2010).

On the other hand, Bajau Laut formed the minority group in Semporna. The Bajau Laut still practise a nomadic lifestyle by living in boathouses and moving about the islands of Semporna. For a long period of time, the Bajau Laut in Semporna were known as *Palauk*. This term was given to them due to their lower social status based on their living style as sea nomad and as a group without religion or practicing paganism (Spoehr 1973; Warren 1980).

Fishing activity on coral reefs is their main subsistence economy for both sale and personal consumption. The Bajau Laut still use traditional ways of fishing. For instance, the tools used for fishing consist of hook and line, bamboo spear, traps and even bare hands in shallow water. Their fishing location is more in the open sea and reef areas. A type of sea product commonly collected at reef areas is sea grass (*Enhalus acoroides)*. In addition, they also collect giant clams, shells and octopus which are traded in exchange for rice or tapioca (Suliansa 1999). They still maintain an economic tie with the Bajau Darat where they sell their daily catch while passing through their islands.

In terms of religion, the Bajau Laut practice animistic beliefs (Warren 1980:227; Ismail Ali 2010:161). Their life and knowledge is limited to fishing activities and sea environment. As their life is isolated from the modern development, most of them remain poor and lack in terms of education and economic standing.

Usually, each boathouse supports one nuclear family consisting of five to seven people including children and adults. Sometimes more than one family lives together on one boathouse (extended family). The kinship of the Bajau Laut is believed to be more closely acquainted if all the relatives live together side by side in different boats. The boats of the Bajau Laut will move aligned in groups where this phenomenon can still be seen in Semporna even today. If the family members passed away, the body will be buried ashore (Spoehr 1973:25). This tradition is still practised by the Semporna Bajau Laut where certain abandoned islands are chosen for this purpose. In the past, the boathouse of a dead person is destroyed if the boat is no longer needed by the dead man's family.

The most exciting ceremonies for the Bajau Laut would be marriages where in the past, sea products like shells and pearls were given as dowry. Today, however, cash money has replaced shells and pearls as dowry. The ceremony will be held in the boat and a new boat is given as a gift to the newly married couple. The new boat is always decorated with wood carvings (Puteri Fahsyar 2004).

The language spoken by both the Bajau Darat and Bajau Laut is said as one of the Western Malayo-Polynesian languages within the Austronesian language family (Pallesen 1985). However, most of the Bajau Darat in Semporna now speak the Malay language fluently. The Bajau Laut who still live as sea-dwellers, however, have a different dialect although their language to some extend sounds similar to the language spoken by the Bajau Darat.

SUMMARY

A number of ethnography researches on Bajau pottery-making in Semporna have been carried out since the 1950s. However, most of these researches only contain brief information on the technology and types of pottery produced by the Bajau. The lack of continuous and comprehensive study also resulted in incomplete knowledge and understanding of the tradition of Bajau pottery-making in Semporna. Although several archaeological sites have been excavated in Semporna, with considerable amount of pottery, no comparative study has been done between the prehistoric and present pottery thus far. As a result, information on the cultural relationship between the past and present pottery in Semporna remains unanswered. In addition, the lack

of genealogy study during the previous studies also caused the ancestry of Semporna Bajau potters to remain unknown.

This study is carried out in order to complement the previous ethnography researches on Bajau pottery-making by conducting a comprehensive ethnoarchaeological fieldwork at the remaining and ex-potting islands and villages in Semporna. In terms of methodology, the fieldwork consists of systematic survey, interviews and observation of pottery-making to obtain data on pottery technologies, types, functions, economic value as well as the genealogy of the Bajau potters. In addition, comparative study between the Bukit Tengkorak and Bajau pottery was also done using morphological and scientific analyses in order to understand the technologies and cultural relationship that occurred between the two different era of pottery in Semporna. Lastly, comparative studies were also carried out with other prehistoric sites and remaining traditional potting communities in Malaysia as well as Southeast Asia to view the possible connection from the aspects of technologies, types, functions, trade and exchange of pottery.

CHAPTER 2

THE PAST AND PRESENT POTTERY IN SOUTHEAST ASIA

This chapter surveys and reviews prehistoric and present pottery that had been studied throughout the Southeast Asian region. The main purpose of the survey on prehistoric pottery is to understand, in particular its technologies, types and functions. Survey on present pottery, on the other hand, is to comprehend the pottery-making tradition practised by the various pottery-making communities both in island and mainland regions. By doing so, the cultural links in pottery production from the past to the present in Southeast Asia can be better understood. In addition, this comparative study also hoped to provide some insights into the connections between the Semporna Bajau potters and other adjacent potting communities especially in the island of Southeast Asia. Much information on the present pottery-making presented here is derived from researches conducted by Cort *et al.* (1997), Cort and Lefferts (1999, 2000, 2005 and 2008) and Reith (2003). However, these researches were mainly focused on ethnographic potteries from mainland Southeast Asia and are limited to discussing the vessel pre-forming stage. Therefore, discussion on some of the potting villages in the northern region may lack information in terms of raw material used, pottery type, surface decoration and firing technique. Information on ethnographic pottery from island Southeast Asia, on the other hand, were derived from works done by Spoehr (1973), Ellen and Glover (1974), Bellwood (1980), Santoso (1995), Mahirta (2000), Chia (2003a&b), Guntavid (2005) and Ono (2006). As a whole, this chapter discusses (1) the prehistoric pottery and (2)

ethnographic studies of pottery in Southeast Asia in order to understand the relationships between the two different periods of pottery in Southeast Asia.

SOUTHEAST ASIA

Southeast Asia can be divided into two major geographical regions, mainland Southeast Asia and island Southeast Asia. Mainland Southeast Asia refers to the nations situated in the northern region such as Thailand, Myanmar, Vietnam, Cambodia and Peninsular Malaysia. Island Southeast Asia, on the other hand, comprises East Malaysia, the Philippines and Indonesia. Comprehensive studies on prehistoric pottery from mainland and island Southeast Asia revealed that both regions form separate entities in terms of pottery chronology and typology (Chia 1997:17). The present pottery-making, in turn, indicates a different production manner or tradition between the potting groups in the mainland and island regions. Differences can also be seen in the techniques used for vessel pre-forming and surface decorations. The following discusses the survey of prehistoric sites with pottery and present pottery-making tradition in various parts of Southeast Asia.

Thailand

Prior to 1960, not much information was available on the prehistory of Thailand. Archaeological explorations in the Kanchanaburi Province, western Thailand in the early 1960s was the starting point that unearthed much evidences on the prehistory of Thailand (Glover 1991:351-352). Among the major prehistoric sites with pottery in Thailand are Non Nok Tha (Higham 1991, 2002), Ban Kao (Sorenson 1973; Parker

1968; Higham 1991, 2002), Spirit Cave (Gorman 1970) and Khok Phanom Di (Higham 1991, 2002) (Figure 2.1). Potteries found at these sites have been scientifically tested and linked culturally with sites in and around the region. The following are discussions on the pottery discovered from a number of major prehistoric sites in Thailand.

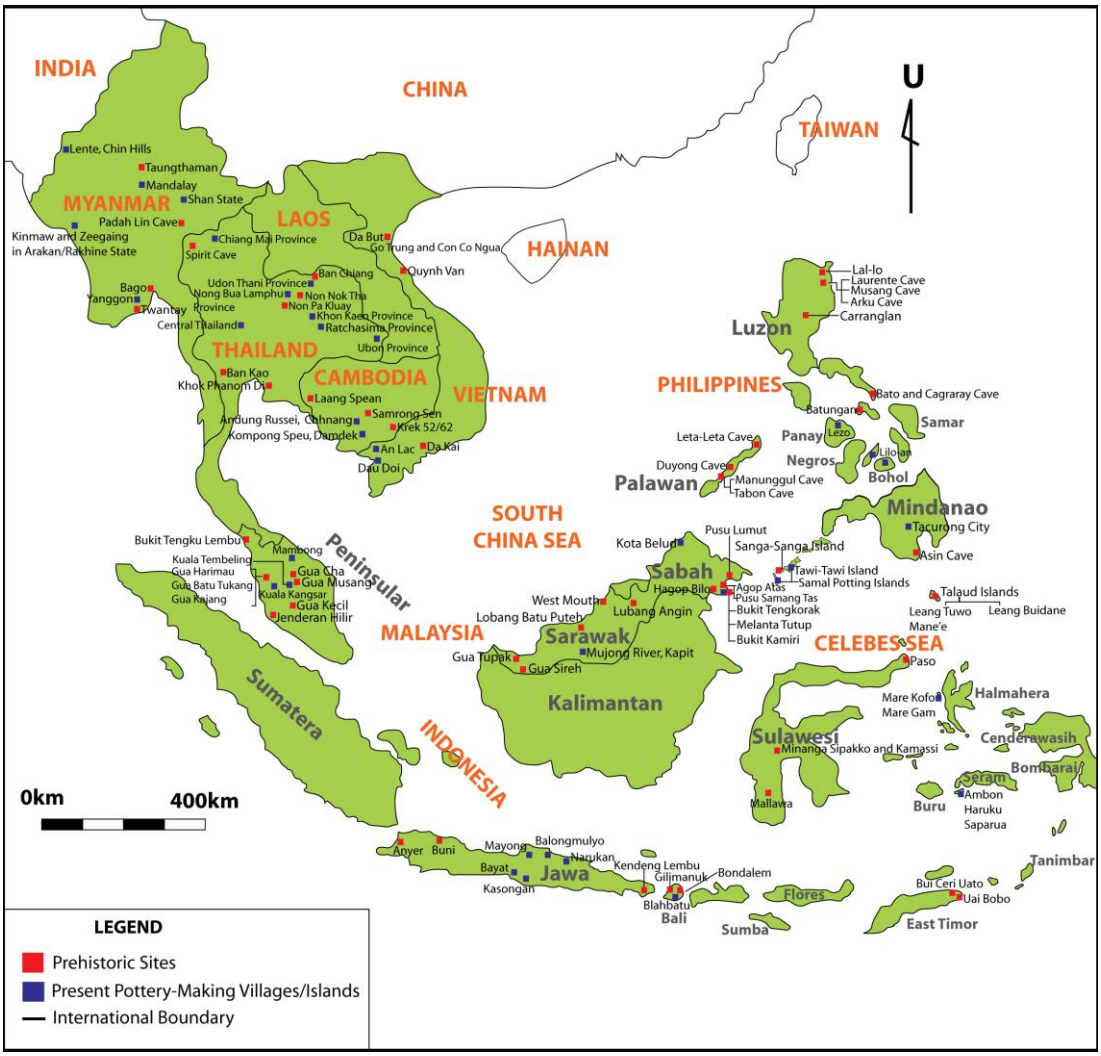

Figure 2.1: Map of distribution of prehistoric sites and present pottery-making villages or islands in Southeast Asia