

TRANSITIONS OF A FEATHERED WORLD

The Distribution of Bronze Drums in Early Southeast Asia

Ambra Calo'

Thesis submitted in candidacy for the degree of Doctor of Philosophy

Ph.D.

Two Volumes

School of Oriental and African Studies, University of London



ProQuest Number: 10731456

All rights reserved

INFORMATION TO ALL USERS

The quality of this reproduction is dependent upon the quality of the copy submitted.

In the unlikely event that the author did not send a complete manuscript and there are missing pages, these will be noted. Also, if material had to be removed, a note will indicate the deletion.



ProQuest 10731456

Published by ProQuest LLC (2017). Copyright of the Dissertation is held by the Author.

All rights reserved.

This work is protected against unauthorized copying under Title 17, United States Code
Microform Edition © ProQuest LLC.

ProQuest LLC.
789 East Eisenhower Parkway
P.O. Box 1346
Ann Arbor, MI 48106 – 1346

I declare that the work presented in this thesis is the result of my own research at the University of London and at other academic institutions, libraries, and museums in Europe and Asia. In particular, the new conclusions reached in this thesis are based on the data which I collected during my fieldwork in southwest China, Vietnam, and Indonesia.

My field research in 2005 has been supported by the Central Research Fund, Senate House, and by the SOAS Fieldwork Award, University of London.

Ambra Calo'

ABSTRACT

This study focuses on the distribution of early bronze drums from their centres of production in north Vietnam throughout Mainland and Island Southeast Asia, as evidence of cultural contact and cross-regional exchange along river and maritime routes during the late Metal Age and the proto-historic period. This is the period just prior to, and overlapping with, the first Chinese and Indian influences in the region. The exchange of bronze drums established alliances between early centres favouring the trade of other goods, and defining early cultural spheres which set the stage for the process of state formation in the historic period.

Adopting a synoptic view over the entire distribution across national boundaries, I analyse what types of drums are found where by identifying a series of regional clusters. Each cluster of drums highlights and clarifies specific questions regarding chronology, routes of transmission, the geographical extent of trade networks, and new local bronze casting traditions arising from the influence of the imported bronze drums.

VOLUME I – TEXT

VOLUME II – IMAGES

CONTENTS

List of Charts	8
Glossary	9
Acronyms	10
Fieldwork	11

INTRODUCTION	12
---------------------	----

CHAPTER 1

The Feathered Decoration and the Mapping of Selected Clusters	24
--	----

- 1.1. A Visual System: Placement of the Motifs and Standard Dong Son Decoration
- 1.2. The Feathered World and Ethnographic Conceptual Parallels
- 1.3. The Art of Pre-Literate Societies
- 1.4. Contemporary Workshop Variations and Chronological Sequences

THE AREA OF DISTRIBUTION AS CONTEXT	33
-------------------------------------	----

- 1.5. Mapping Selected Clusters of Bronze Drums Based on Decoration and Shape
- RS 1** - Region Specific Cluster 1: Red River Valley Drums
- RS 2** - Region Specific Cluster 2: Dian drums
- RS 3** - Region Specific Cluster 3: Eastern Indonesia Drums
- RS 4** - Region Specific Cluster 4: Guangxi Drums
- SO** - Spread Out Cluster: One Workshop

CHAPTER 2

The Distribution Domain on the Mainland and in Western Indonesia 51

Introduction and Notes on the Classifications Used in the Text

MAINLAND SOUTHEAST ASIA

CENTRES OF PRODUCTION AND REGIONAL EXCHANGE 53

- 2.1. The Red River Highway between North Vietnam and Southwest China
- 2.2. Bronze Drums and Related Bronze Material in Dong Son Sites – Locating the Centres of Production
 - 2.2a. Evidence of Bronze Casting in the Dong Son Region
- 2.3. Dong Son Bronze Casting Technology
- 2.4. Dong Son Bronze Situlas and Bronze Drums
 - 2.4a. A Situla-Shaped Dian Container
- 2.5. The Dong Son - Dian Question
 - 2.5a. Dian Containers for Cowrie-Shells
 - 2.5b. Identification of ‘Dian’ Drums (RS2) in Light of their Similarity to Drum-Shaped Dian Containers for Cowrie-Shells
 - 2.5c. The Special Case of the Engraved Drum (M13:3) at Shizhaishan and Other Examples of Typical Dian Decoration

MAINLAND SOUTHEAST ASIA

CROSS-REGIONAL EXCHANGE NETWORKS FROM DONG SON 93

- 2.6. Bronze Drums as Prestige Goods and as Markers of the Growth of Trading Centres
- 2.7. To Southwest China; East Burma; North Thailand
 - 2.7a. Distinctive Practices of Cutting and Assembling Drums – The Cases of Xilin and Lao Cai
- 2.8. North Central Vietnam: the Starting Point of the Route to the Southwest
 - 2.8a. The Trail of Drums – From North Central Vietnam to Laos and Thailand
 - 2.8b. South Central and South Vietnam

FROM THE MAINLAND TO THE WESTERN ISLANDS 112

2.9. The South and East Coast of the Malay Peninsula as a Bridge to South Sumatra and Java

ISLAND SOUTHEAST ASIA: WESTERN INDONESIA 118

2.10. Eastern and Western Indonesia: Two Different Distribution Domains

2.11. Early links between South Sumatra and Java

2.12. South Sumatra

2.13. Java and West Nusa Tenggara

2.14. Borneo

CHAPTER 3

Alternative Routes to the Eastern Islands 127

3.1. Bronze Drums in Eastern Indonesia: On their Own Way in their Own Time

3.2. Characteristics of the Cluster (RS 3) and Counterparts on the Mainland

3.3. Comparison between the Distribution in the East and the one in the West

3.4. Two Different Distribution Periods

3.5. Alternative Routes: Proposed Model involving Two Main Steps

3.6. The Eastern Route: Chinese Sources and Archaeological Evidence

3.7. The Maritime Peoples of Eastern Indonesia

3.8. Drum Finds and Oral Traditions

3.9. Concluding Remarks

CHAPTER 4:

**The Rise of a Local Island Tradition: Pejeng Bronze Drums
in Bali and Java** 153

4.1. Pejeng Type Bronze Drums in Bali and Java

4.2. Evidence of Local Bronze Casting and Novel Technology

4.2a. Casting Method for Pejeng Drums

- 4.3. Pejeng Bronze Drums in Archaeological Context
- 4.4. Comparison between Pejeng and Dong Son Bronze Drums
- 4.5. Island Bronze Drums and Bronze Axes
- 4.5a. Faces, Spirals, and Marine Life Motifs
- 4.6. A Reassessment of the Term 'Dong Son'
- 4.7. Locations of Pejeng Drums and Later Seats of Power in Bali
- 4.8. A Tale of Rice – Ethnographic and Archaeological Parallels for the Shape and Decoration of Pejeng Drums
- 4.9. *Moko* Bronze Drums
- 4.9a. The Mojokerto Bronze Casting Workshop
- 4.9b. Cast in Java and Used in Alor

CHAPTER 5

The Feathered World and the Island to Mainland Hypothesis

183

- 5.1. Theoretical Framework and Introduction
- 5.2. Linguistic Data as the Missing Link in Early Research
- 5.2a. Borneo to Vietnam – Western Malayo-Polynesian to Chamic Languages
- 5.2b. Katuic Languages
- 5.2c. Daic Languages
- 5.3. Early Research and the Parallels Between the Dong Son Material and the Ethnographic Data from Vietnam and Borneo – Dong Son and Dayak
- 5.3a. Moi, Dayak, and Dong Son
- 5.4. Long Standing Neighbours: Austronesian and Austroasiatic Speaking Minorities of Central Vietnam
- 5.4a. Austronesian Speaking Groups
- 5.4b. Austroasiatic Speaking Groups
- 5.5. Archaeological evidence linking Borneo and Central Vietnam

CONCLUSION

211

REFERENCES

217

LIST OF CHARTS

Region Specific cluster 1 (RS1)	45
Region Specific cluster 2 (RS2)	46
Region Specific cluster 3 (RS3)	47-48
Region Specific cluster 4 (RS4)	49
Spread Out cluster (SO)	50
Bronze Drums Excavated at Dong Son	60
Bronze Drums Excavated at Lang Vac	61
Chart of Pejeng Bronze Drums in Bali and Java	182
Chart of Shared Cultural Traits	206-207

GLOSSARY

Adat: pre-Hindu-Buddhist traditional belief systems throughout the Malay world.

Batugadja: carved 'elephant' stone showing a warrior carrying a Dong Son drum, Pasemah Plateau megalithic complex, south Sumatra.

Batu Pemali: ceremonial stone used in the *Adat* context of Maluku, Indonesia.

Daeng Daeng: brass cooking pot, part of traditional rice steamer in Bali and Java.

Dinh: Chinese ceremonial bronze vessel with three or four feet.

Kekep: brass cover of traditional rice steamer in Bali and Java.

Keledi: mouth organ with gourd resonator in Borneo.

Khene: mouth organ with gourd resonator in central Vietnam.

Ko: Chinese ceremonial bronze vessel of thin elongated shape.

Kokusan: straw cone in traditional rice steamer in Bali and Java.

Kora: term used for both the carved wooden prow of traditional boats and for the carved wooden roof finial at the front of traditional houses in the Tanimbar Islands, Indonesia.

Ling Ling: nephrite or other semi-precious stone earring of the double-headed animal type.

Ling Ling o: nephrite or other semi-precious stone earring of the circular type with lugs.

Mana: impersonal life force or potency possessed by both living beings and objects in the Melanesian and Polynesian world.

Moko: historic and ethnographic hour-glass shaped bronze drum mainly found in the region of Alor in East Nusa Tenggara, Indonesia.

Ngutun Rit: local term for the tympanum of the Dong Son bronze drum found on the island of Kei Kecil, Maluku, Indonesia.

Pan: Chinese ceremonial bronze vessel in the shape of a flat basin.

Sampian: Balinese offering figurine made of banana leaves showing elements of the typical representation of the goddess of rice Dewi Sri.

Semangat: impersonal life force or potency possessed by both living beings and objects in the Malay world.

Pajegang: Balinese offering figurine made of banana leaves and fruits showing elements of the representation of the goddess of rice Dewi Sri.

Tabob: local term for giant sea turtles in the Kei Islands, Maluku, Indonesia.

Tenan Bes: local term [iron/metal object] for the mantle of the Dong Son bronze drum on the island of Kei Kecil, Maluku, Indonesia.

Thap: Dong Son bronze situla.

Tho: Dong Son bronze spittoon.

ACRONYMS

ACM: Asian Civilizations Museum, Singapore.

DS: Dong Son burial and settlement site, Thanh Hoa, Vietnam.

KCM: Kunming City Museum, Yunnan, China.

LJS: Lijiashan burial site, Yunnan, China.

LSC: Lengshuichong type drums. Also identified here as the RS4 cluster of 'Guangxi' drums.

LV: Lang Vac burial complex, Nghe An, Vietnam.

MNI: Museum Nasional Indonesia, Jakarta, Indonesia.

RS1: Region Specific cluster 1, 'Red River Valley' drums.

RS2: Region Specific cluster 2, 'Dian' drums.

RS3: Region Specific cluster 3, 'Eastern Indonesia' drums.

RS4: Region Specific cluster 4, 'Guangxi' drums.

SO: Spread Out cluster, One Workshop drums.

SZS: Shizhaishan burial site, Yunnan, China.

TZM: Tianzimiao burial site, Yunnan, China.

WJB: Wanjiaba burial site, Yunnan, China.

YFT: Yangfutou burial site, Yunnan, China.

YPM: Yunnan Provincial Museum, Kunming, Yunnan, China.

ZGTY: Zhongguo Gudai Tonggu Yanjiuhui [Chinese Association for the Study of Ancient Bronze Drums].

RADIOCARBON DATES

Radiocarbon dates are indicated as BP (Before Present – 'Present' being 1950).

Dates are followed by the laboratory code number (e.g. Bln – 950). When the dates have been calibrated against a dendrochronological curve, and are based on the new (5730 years) half-life of C^{14} , the age is given as: e.g. CAL 800–400 BC at a 95% probability.

The majority of the sources for radiocarbon dates used in this work do not provide sufficient information as to which half-life was used and whether or not they have been calibrated. Dates calculated during the 1960s – early 1970s are usually not calibrated and are based on the old 'Libby' standard half-life of 5568 years. In such cases the dates are listed as given in the original publication, e.g. 2340 ± 89 BP (ZK – 374), for a date from Wanjiaba, Yunnan, China.

FIELDWORK

CHINA: *August 2004; January - February 2005*

Yunnan Provincial Museum, Kunming.

Kunming City Museum.

Lijiashan Archeological Museum, Yunnan.

Yunnan Ethnic Minorities Museum, Kunming.

Guangxi Provincial Museum, Nanning, Guangxi.

VIETNAM: *August 2004; February – March 2005*

Vietnam History Museum, Hanoi.

Institute of Archaeology, Hanoi

Vietnam Museum of Ethnology, Hanoi.

Thanh Hoa Provincial Museum.

Lao Cai Culture Department.

Nam Dinh Provincial Museum.

Co Loa archaeological site and exhibition hall.

Hung Yen Provincial Museum.

Binh Dinh Provincial Museum

History Museum, Ho Chi Minh City

Binh Duong Provincial Museum

Field research in Dac Lac province

INDONESIA: *August 2003; April - June 2005; September 2006 - February 2007*

Museum Nasional Indonesia, Jakarta

National Institute of Archaeology [Pusat Penelitian Arkeologi Nasional], Jakarta

Institute of Archaeology [Balai Arkeologi] Denpasar, Bali

Museum Tantular, Surabaya, Java.

Field research in Selayar Island, south Sulawesi (August 2003); Tanimbar and Kei Islands, Maluku (May 2005); Bali and Java.

INTRODUCTION

This study focuses on the significance of the distribution of about three-hundred-fifty plus ‘migratory’ Dong Son bronze drums, to use Goloubew’s term (1932), throughout Southeast Asia from the late first millennium BC to the first centuries of the common era. It is based on the belief that the most interesting questions related to the study of Dong Son drums, named after the archaeological culture (500 BC – AD 100) in north Vietnam, and also identified by Heger (1902) as his type I, arise from examining their entire distribution from north Vietnam throughout southwest China, Laos, Thailand, Burma, Malaysia, Cambodia, and Indonesia. The exchange of bronze drums established alliances between early centres favouring the trade of other goods and the formation of cultural spheres which, in turn, would have set the stage for the process of state formation in the historic period.

Expanding on the analogy made by Bernet Kempers (1988: 86), I conceptualise Dong Son bronze drums as belonging to a single genealogical tree, comprising different branches and spanning over two to three generations. Following the trails of early bronze drums throughout Southeast Asia, I identify five selected clusters of drums sharing common shape and decoration, as tools for highlighting and clarifying specific questions. I conceptualise the area of distribution as a large archaeological site containing different clusters of drums, each highlighting a specific question associated with their wide distribution. These questions concern locating the centres of production, identifying local bronze casting traditions arising from the import of Dong Son drums, tracing alternative routes of transmission during different periods, and when possible, also advancing hypothesis as to the identity of the traders of bronze drums. My cross-regional approach counters nationalist perspectives on the study of bronze drums within present national boundaries, which have often lead to less-than-scientific debates, particularly between Chinese and Vietnamese scholars. These debates, discussed in detail by Han (1998, 2004), have the potential to turn into obstacles to the understanding of the past in view of present concerns.

My identification of different clusters of drums in Chapter 1 shows that there are ‘colonies’, or regional concentrations of drums belonging to the same cluster, as well as ‘lone travellers’ found at distant locations from one another, yet possibly arising from a single workshop, or a single nuclear family, to keep with the genealogical analogy. In Chapters 2 and 3, I examine how each cluster, in its concentrated or spread out location, tells a different story about exchange routes, the growth of trading centres, some of which grew into larger entrepôts in the historic period, early cultural spheres, resources favouring trade networks, and so on. Each tale is different, yet it is connected by the genealogical thread of the distinctive shape and decoration of Dong Son - Heger I bronze drums. The title of this study highlights this loose connecting thread in the form of the ‘feathered’ environment depicted on the drums.

This typical Dong Son decoration - mainly characterised by bird and feather motifs in the form of adornment of people and objects - depicts a ceremonial environment and is likely to have contributed to endow the drums with that impersonal life force, identified as *semangat* in the Malay world and as *mana* in the Polynesian world, in virtue of which the drums were associated with the political and religious power of the elites. While the specific ceremonies associated with the drums would have varied throughout their distribution, the basic notion that they embodied an essential life force is likely to have been shared by all the keepers of the drums. The Dong Son drums *in situ* in Indonesia, for example, are still revered today as powerful sacred objects by Christians and Muslims alike, as part of their ancient ancestral heritage.

Dong Son bronze drums, from their centres of production in north Vietnam and its environs, spread along the main river routes of Mainland Southeast Asia, and also, along maritime routes throughout Island Southeast Asia. This spread occurred during different, sometimes overlapping, periods mainly during the centuries around the turn of the first millennium BC – AD, with ramifications well into the first millennium AD. My new mapping of different clusters of drums yields more insight into the chronology of the different stages of the spread. Focusing on the environmental factors favouring passage, the drum finds are discussed in terms of early exchange routes and the growth of trading centres along river ways, across mountain passes, and maritime routes. This line of inquiry sheds more light on early economical and socio-political links between specific regions, and furthers the understanding of the coming into being of later socio-political domains in the historic period. For example, the concentrations of bronze drums in central Java and South Sumatra point to early links between these regions in the early to mid first millennium AD, just prior to the rise of the Srivijaya maritime realm, with its centre in south Sumatra and its strong links with central Java from the seventh to the eleventh century AD.

The centuries around the turn of the first millennium BC into the common era represent the threshold between a time of early autochthonous Southeast Asian cultures, participating in wide-ranging exchange networks, and the first influences from China and India in Southeast Asia. Dong Son bronze drums and other bronze artefacts found in association with them, or along some of the same routes, are representative of these early Southeast Asian cultures. Their distribution is evidence of wide-ranging systems of exchange between such cultures. Threads of the early traditions were then integrated into the fabric of each successive cultural layer. In particular, into the cultural matrix of what are identified as the 'Hinduised' states, developing in the second half of the first millennium AD both on the mainland and the islands of Southeast Asia.

The wide distribution of bronze drums thus stands witness to the routes travelled from prehistory to history in Southeast Asia. These elaborate and valuable ceremonial objects were traded as prestige goods embodying notions of socio-political and religious power, thus participating in transactions establishing alliances and marking the growth of centres along exchange routes. In fact, the ancient routes had already been travelled for centuries, and connections were already established between early chiefdoms, opening the way and laying the socio-political ground for the process of state formation. This line of inquiry may thus further the understanding of the transition from the late Metal Age to the historic period.

Along with mapping early trade networks and cultural spheres, this study also inquires into the impact of the 'migratory' drums in their new locations. The arrival of Dong Son bronze drums gives rise to local bronze casting traditions, narrating a different tale of cultural entanglement, relevant to their particular cultural context. The clearest example of such local traditions, arising from the influence of the imported Dong Son bronze drums in western Indonesia in the first-second century AD, are the distinctive hourglass-shaped Pejeng bronze drums in Bali and Java discussed in Chapter 4, and also, more controversially, what I identify as the 'Dian' bronze drums found in the cemeteries of the Dian culture of Yunnan, China, and in its environs, as discussed in Chapter 2. These two local types of drums are distinct from Dong Son drums proper. According to my research, each represents a local adaptation and shows local innovations in shape, decoration, and casting technique.

Introduction to the Chapters

In Chapter 1, I discuss the typical decoration of Dong Son drums as displaying a consistent decorative scheme and artistic vocabulary. I interpret the function of bronze drums following Gell's (1992, 1998) theory of artefacts as 'social agents' participating in social relations, and Tilley's (1991, 1999) phenomenological approach, paying attention to the metaphorical qualities of ceremonial art, with particular reference to the typical 'feathered' motifs depicted on Dong Son drums. Referring to conceptual parallels drawn from ethnographic studies (Campbell 2001; McKinnon 1988; Tilley 1999; Waterson 1997), I discuss the typical bird and feather motifs on Dong Son drums, appearing in the form of adornment of both people and objects in various degrees of stylisation, in terms of how certain idealised qualities taken from the natural world are manipulated into abstract forms breaching natural limitations, thus endowing the object with a sacred power through which humans may master their environment.

As a novel approach of this study, in Chapter 1, I also identify five clusters of bronze drums selected throughout the entire distribution based on shared decorative and morphological features. My identification of selected clusters is not meant as another classification but as a working tool highlighting 'what is found where' and the implications of this type of analysis. Accordingly, the clusters do not include all bronze drums. They are meant as tools pointing to and clarifying special questions which arise from the study of the entire distribution. Such questions are discussed in Chapters 2 and 3. I have chosen to not produce a new classification in light of the fact that many classifications are already available. I consider classifications to be tools for sorting out the material, and I find it more useful to selectively adopt certain typologies, and not others, from more than one classification, depending on which specific question I am discussing. For example, I use the large umbrella classification of the Heger I type, which is useful to describe the typical tripartite 'mushroom' shape of Dong Son drums, but more frequently I refer to the Dong Son types A to C, from the Vietnamese classification (Pham et al. 1987), in order to identify specific decorative features of particular types of drums. I also refer to the main Chinese classification (ZGTY 1988), which names drum types after place names of drum finds in China, when I refer to specific types of drums which are found in their highest concentration in those regions.

Chapter 2 lays the archaeological basis of this study. I survey the finds of bronze drums in burial and settlement sites, and the large number of chance finds throughout the Mainland and the western part of Island Southeast Asia, comprising western Indonesia with the exception of the

single find of a Dong Son drum in Sabah, Malaysian Borneo. I discuss the distribution in eastern Indonesia separately in Chapter 3 in order to emphasize its unique features which distinguish it from the distribution in western Indonesia.

First, Chapter 2 locates the main centres of production in the region of the Dong Son culture (500 BC – AD 100) in north Vietnam and its immediate environs. The main hard evidence for local casting is given by the finds of a casting mould for a bronze drum at Lung Khe (Nishimura 2005), and of four casting moulds for other Dong Son bronze material at Lanc Ca (Higham 1996: 119-120, 129). Apart from the physical evidence for casting, I emphasise that north Vietnam has yielded not only the greatest concentration of early Dong Son bronze drums, but also a great amount of bronze material showing the same distinctive type of decoration of bronze drums. This point is also discussed in Chapter 1, with regard to the Region Specific cluster 1 (RS1), comprising what I identify as the 'Red River Valley' drums. The other bronze material related to the drums by decoration consists of large and elaborate situla containers, pediform axes, and plaques, found together with bronze drums or on their own, both in archaeological context or as chance finds. Thus bronze drums and these other related bronzes are evidence of a distinctive Dong Son bronze casting tradition of a high order in north Vietnam. No other region throughout the distribution has yielded bronze drums in association with directly related bronze material as in the Dong Son region of north Vietnam.

This point deserves attention especially in light of the ongoing nationalistic debates, mainly between Chinese and Vietnamese scholars, regarding the homeland of bronze drums. The study of these debates and of the different classifications arising from them are well described by Han (1998, 2004), and constitute an interesting field of inquiry into present socio-political questions. These however, exceed the scope of the present study. In fact, it is partly because of these ongoing debates that I have chosen to focus on the decorated Dong Son bronze drums, showing the full spectrum of the typical Dong Son artistic vocabulary and decorative scheme, and to leave open the question of the earliest form of the drums. As mentioned above, debates based on nationalistic concerns have the potential to turn into obstacles in understanding a period when current national boundaries were not yet formed. Present nationalist concerns obfuscate, rather than clarify, the early process of formation of national boundaries. Hence, I approach the material from a neutral perspective observing the entire area of distribution, in the belief that the detailed analysis of 'what types of drums are found where' yields the most fruitful insight into questions of chronology, routes of transmission, early cultural spheres, local bronze casting traditions arising from the influence of Dong Son drums, and independent bronze casting traditions contemporary with Dong Son yet

distinct from it, both on the mainland and in the islands, from the late first millennium BC into the early centuries AD.

A first example of a local bronze casting tradition arising from the exchange of Dong Son drums is discussed in Chapter 2. What I refer to as the 'Dong Son-Dian' question concerns the origins of the bronze drums found in the burials of the Dian culture of central Yunnan, in southwest China, which was contemporary and in contact with Dong Son. I newly identify two main types of bronze drums in the Dian burials of Shizhaishan and Lijiashan. These include Dong Son drums, which I argue were imported from the Dong Son region, and what I identify as 'Dian' drums, which I argue were cast locally in the Dian area. My identification of Dian drums thus provides what I consider to be a solution to the 'Dong Son-Dian' question, long debated between Chinese and Vietnamese scholars. Local casting of the 'Dian' drums is supported by their close similarity with drum-shaped Dian bronze containers for cowrie-shells, found exclusively in the Dian burials, and by distinctive casting features which can be observed on 'Dian' drums and not on Dong Son drums. The tympanum and the mantle of 'Dian' drums appear to have been cast separately, while Dong Son drums were cast in one piece, as discussed further in Chapter 2 (sections 2.5, a-b).

In the same chapter, I then follow the long trails of bronze drums along exchange routes to the north and west of north Vietnam, in southwest China, Burma, and north Thailand, and to the southwest of north Vietnam, through Laos, northeast, central, and peninsular Thailand. The region of distribution in the Malay Peninsula and Cambodia is discussed as representing the bridge to western Indonesia, where I then discuss the finds in south Sumatra, Java, Borneo, and West Nusa Tenggara. The large spectrum of the distribution is subdivided into a series of trade networks by tracing the routes, the centres, and also when possible the main local resources and commodities favouring the growth of such networks and thus establishing early cross-regional links. Hence, this line of inquiry also furthers the understanding of the formation of later socio-political domains in the historic period.

Chapter 3 focuses on the distribution of Dong Son bronze drums in eastern Indonesia as the Region Specific cluster 3 (RS3), identified in Chapter 1. As a novel approach, I discuss the drums in eastern Indonesia separately from the ones in western Indonesia. Based on the homogeneity of the drums in eastern Indonesia and their dating around the third-fourth century AD, I argue that their initial mainland to island crossing occurred as a one period event sometime between the late third and the early fifth century AD, thus later than the period when Dong Son drums reached the islands of western Indonesia in the first-second century AD. I also argue that the drums would not have followed the same overland route travelled by the drums found in western Indonesia. Instead,

they are likely to have reached the island domain along a more direct maritime route from their centres of production. I thus inquire into possible alternative routes of transmission from the mainland to the islands of eastern Indonesia. Proposing a model for the trade dynamics leading to the distribution in eastern Indonesia, I also propose that once they reached the islands, the drums entered a series of inter-island trade networks arriving in their final destination over a more extended period of time, possibly spanning through the second half of the first millennium AD and perhaps into the second millennium. Furthermore, I also explore the evidence pointing to the role of early seafaring traders controlling inter-island trade networks in eastern Indonesia at least since the sixth-seventh century AD and possibly earlier.

In Chapter 4, I discuss the hourglass-shaped 'Pejeng type' bronze drums in Bali and Java, in Indonesia, as the clearest example of a local bronze casting tradition arising after the import of Dong Son bronze drums to western Indonesia. The Pejeng type is named after the village in Bali where the first and largest specimen was found. The finds of stone moulds for printing the decoration of Pejeng drums provides evidence of a local bronze casting tradition in the islands, arising from the influence of the imported Dong Son drums in western Indonesia, in the first half of the first millennium AD. Drawing a comparison between Dong Son and Pejeng drums, this chapter traces continuities and local innovations with regard to shape, decoration, and casting technique of Pejeng drums. In Bali, evidence of the inhumation function of Pejeng drums and their association with stone sarcophagi is provided by the excavation of a large Pejeng drum at the burial site of Manikliyu. Pejeng drums are also discussed together with decorated bronze axes which also appear to represent local casting traditions in Indonesia. This locally cast bronze material is evidence of the presence of specialised bronze casting and of the social complexity of early chiefdoms in the islands. Pejeng bronze drums were cast following a local variation of the lost wax technique adopted for casting the Dong Son drums imported from the mainland. In the last section I discuss the *moko* bronze drums as the 'aftermath' of Pejeng drums, using Bernet Kempers term (1988). *Moko* drums are closely linked by shape, and sometimes by decoration, to Pejeng drums. They have been cast for ceremonial use up to the nineteenth and twentieth centuries. The most interesting feature about *moko* drums is that, while they appear to have always been cast in east Java, they have never been used ceremonially in Java, as the archaeological Pejeng drums were. Instead, *moko* drums were, and still are, valuable heirlooms in the Alor region of East Nusa Tenggara. Based on the available data, I argue that the date of the earliest *moko* drums is likely to coincide with a socio-cultural shift in Java and Bali, resulting from the progressive influence of Indian religious and political ideas in the late second half of the first millennium AD and into the second millennium.

These later *moko* drums provide a series of clues for understanding the prehistoric Pejeng drums with regard to chronology and casting technique.

After having journeyed throughout early Southeast Asia following bronze drums in space and time from Chapters 1 to 4, in Chapter 5, I then return the focus on the loose connecting thread of this study, the typical 'feathered' motifs depicted on Dong Son bronze drums. Engaging in an interdisciplinary dialogue between linguistic, ethnographic, and archaeological data, I consider linguistic data in particular as the missing link in earlier studies, which pointed to parallels between the archaeological Dong Son bronze material and the ethnographic data from Vietnam and Indonesia. In the absence of the current linguistic data on Chamic languages, the parallels were explained by assuming a spread of the Dong Son culture from the mainland to the islands. However, in light of later linguistic and archaeological data, matching the ethnographic data from Vietnam and Borneo, the parallels may be discussed as reflecting an 'island to mainland' influence, rather than the other way around.

Classifications and Present Approach

In this study I focus on the fully decorated pre and proto-historic bronze drums found in Southeast Asia, choosing, among the many existing classifications, to refer to them as Dong Son and/or Heger I type drums. The following is a description of the main classificatory studies and of the rationale leading to my choice of classificatory terms.

From its start, in the late nineteenth and early twentieth century, research on bronze drums has yielded many classifications. Taken as a whole, each represents a way to sort the material, and as such, each provides useful clues. However, some classifications clash with each other often because of different nationalistic perspectives. This is most evident with regard to the main Vietnamese and Chinese classifications (Pham et al. 1987; ZGTY 1988).

My choice to consider the distribution as a whole aims at clarifying some of the problems which arise from nationalistic debates. Apart from Bernet Kempers chief study of bronze drums in their entire distribution (1988) and other research which refers to the distribution of bronze drums in terms of cross-regional exchange networks (Sørensen 1988; Reinecke et al. 1999; Glover and Syme 1993; Bellwood 1985, 1997; Higham 1996, 2002; McKinnon 1993, 1994; Nitta 2000, 2005), many bronze drum studies have focused on the drum finds within modern national boundaries, or on the questions and debates arising from contrasting classifications.

Classifications are essentially tools for sorting out and understanding the material. They do not need to be considered as fixed categories, and in particular I do not think it is necessary to adopt exclusively a single classification. Choosing to adopt selectively certain typologies from more than one classification, such as the Heger (1902), the Vietnamese (Pham et al. 1987), and the Chinese (ZGTY 1988) ones, making them interact and complement each other, allows for a more neutral and coherent understanding of the material. I base my choice on the idea that each classification is liable to become problematic to some degree in light of new research, hence their boundaries should allow for constant revision. My approach thus favours the selection of different classifications according to the particular questions which are entertained, rather than faithfully holding to one and only classificatory study.

Heger's (1902) classification of one hundred sixty-five bronze drums into four main types (I-IV), and three transitional sub-types (I-II, II-IV, I-IV), is still a useful tool mainly with regard to shape differentiation. The Heger classification is adopted in this study because it does not carry any nationalist connotations, and the Heger type I is the only type of bronze drum which is distributed widely throughout Mainland and Island Southeast Asia, hence Goloubew called it the 'migratory' type. Before Heger, Meyer and Foy (1897) published a classification of bronze drums subdividing them into six main types. However, Heger's work has prevailed as a term of reference for many later studies. Sørensen (1988) provides his own classification of Heger I drums, based on the decorative analysis of seventy specimens. He subdivides them into three main groups from A to C, and seven sub-groups (A 1-3, B 1-2, C 1-2).

Compared with the widely distributed archaeological Heger type I, the ethnographic and more region-specific Heger types II, III, and IV, have been the subjects of fewer debates. Questions of chronology, function, and casting technique are documented by ethnographic data, such as in the case of the Heger III drums in Burma (Anatriello 1976; Fraser-Lu 1983; Cooler 1994). Heger types II and III drums were used, and in the case of type III also cast, up until the nineteenth and twentieth century respectively, in the highlands of north Vietnam, Burma, southwest China, and Thailand.

Vietnamese archaeologists identify the Heger type I as the Dong Son drum, named after the type-site of the Dong Son culture, in Thanh Hoa province, in North Vietnam (Pham et al. 1987). Heger types II to IV are later 'ethnographic' bronze drums, still found among various ethnic groups in the highlands of the mainland, and as such they have not been included in the classification of Dong Son bronze drums, which are interpreted as the symbol of the Dong Son culture. The

emphasis is thus on the ancient roots of the Vietnamese culture before the advent of the Chinese. Much of the dating of late Heger I bronze drums is based, however, on decorative and morphological links with the ethnographic drums. According to the Vietnamese classification, the drums which go under the appellation of Dong Son drums are thus all the different forms of the Heger I type, but they also include a controversial type named Wanjiaba type by Chinese archaeologists, after the burial site in Yunnan where five drums were found (ZGTY 1988). Here we encounter a first main point of contrast between Chinese and Vietnamese archaeologists. As discussed in more detail in Chapter 2, the Wanjiaba type is identified as a pre-Heger type by Chinese archaeologists, and also by other scholars, based on controversial radiocarbon dates. On the contrary, the Wanjiaba type is considered a later, coarse, and derivative Dong Son type (Dong Son D type) by Vietnamese archaeologists (Pham et al. 1987), who subdivided Dong Son drums into five main types from A to D and Đ, with twenty-one subgroups (A. I-VI, B. I-III, C. I-IV, D. I-V, Đ or E I-III).

The Chinese Association for the Study of Bronze Drums (ZGTY 1988), on the other hand, considered Heger's classification to be outdated in light of additional finds of bronze drums in Chinese territory. Thus it has provided its own subdivision of bronze drums into a chronological sequence of eight types, named after either the main archaeological site where the drums were found, or the place names in Southwest China where high concentrations of the specific drum types were found. This classification includes the above mentioned pre-Heger Wanjiaba type, named after the burial site in western Yunnan, excavated in 1975. As discussed in Chapter 2 (section 2.1), from the burial site of Wanjiaba, three radiocarbon dates from two wooden coffins in tomb 23, which yielded four bronze drums, lead to a much debated seventh-sixth century BC dating (Yunnan Sheng and Sichuan Daxue 1978; Qiu et al. 1983; Wang 1985; Murowchick 1989). Hence, the Wanjiaba type has been interpreted as the earliest type, and western Yunnan has been identified as the cradle of all bronze drums. Many scholars accept the antiquity of the Wanjiaba type, and Imamura (1984) points out that the burial goods assemblages of bronze and pottery can be placed prior to the assemblages at Dian sites such as Shizhaishan, where Heger I drums were found. However, tomb 1 at Wanjiaba, which also yielded a bronze drum, gave two later radiocarbon dates of about the fourth century BC. These later dates are not emphasised as much as the earlier dates. Nitta (n.d.) points out that the Dian cemetery of Lijiashan, where Heger I type drums were found, yielded some fifth-sixth century BC dates, which are earlier than the later Wanjiaba dates. Many of these radiocarbon dates are problematic. Early radiocarbon dates from wood and charcoal samples from Wanjiaba and the Dian burials do not necessarily date the bronze drums. The wood can be earlier than the burial

inventory, especially when the sample is taken from a coffin dug out from the trunk of a large old tree.

Imamura (1973, 1979) named the Wanjiaba/Dong Son D type as the 'pre-Heger' type. Nitta (n.d.) further subdivided the pre-Heger drums into five types based on decorative features, which, according to Nitta, become progressively closer to the ones of the Heger I type. On the other hand, based on finds of this type of drums in Vietnam, Vietnamese scholars reject the antiquity of the Wanjiaba type, and identify it as the Dong Son type D, considering it as a late and coarse sub-type of the earlier Dong Son drums. This is an ongoing debate.

In my opinion, the nationalistic base of this debate fixes the focus on setting chronological sequences and it leads to overlooking questions of regional variations occurring on drums which may be contemporary or overlapping in time, as pointed out by Sørensen (1988). The need to find the earliest drum, and its homeland, can pose a series of obstacles to understanding. Based on the controversial dates available, and considering the likelihood of regional variations, arising from multiple workshops operating within a wide cultural sphere of interacting centres, I believe that the Wanjiaba type may be slightly earlier or overlapping in time with early Dong Son – Heger I drums. I refer to the Wanjiaba question in Chapter 2, but because the Wanjiaba – Dong Son D type drums do not show the pictorial decorative features which are the object of this study, I do not discuss them at length.

Among other Chinese classifications, before the formation of the Chinese Association for the Study of Bronze Drums (1988), Li (1979) classified the bronze drums found in southwest China, based on the study of over one thousand specimens, which include also later ethnographic drums. His classification consists of three types and seven sub-types: Ia-c, Ia-b, IIIa-b. Group Ia equals the pre-Heger type, later identified by Chinese scholars as the Wanjiaba type, and groups Ib and c equal the Heger I type, later identified as Shizhaishan, and Lengshuichong types (ZGTY 1988). Li's groups II and III equal respectively the Heger types II and III, and Li's group IIIb equals the Heger type IV.

Apart from the contrasting Chinese and Vietnamese classification of the Wanjiaba and Dong Son D types, a series of overlapping typologies of bronze drums arises from the classifications discussed above. The Vietnamese Dong Son types A and B equal the Chinese Shizhaishan type. As discussed in Chapter 2 (section 2.5), I consider this latter type to be problematic. In his own classification, Imamura (1993) distinguishes between Shizhaishan and Dong Son drums based on decorative and morphological features. However, his Shizhaishan and Dong Son types are not exactly equal to the Shizhaishan type in China and Dong Son drums in Vietnam. Moreover, the

Lengshuichong type in the main Chinese classification includes all the drums identified in the Vietnamese classification as Dong Son types C and Đ. However, from a Vietnamese point of view, on the other hand, the Lengshuichong type is identified as the Dong Son type Đ. In fact, the Dong Son type C drums present in Vietnam, Indonesia, Thailand, and Malaysia differ significantly from the Lengshuichong type. In Chapter 1, my Region Specific cluster 4 (RS4), which is only present on the mainland and mainly in Guangxi province, in China, equals the Lengshuichong type. Moreover, the Dong Son C1 in the Vietnamese classification corresponds to some of the drums included in my Region Specific cluster 3 (RS3), identified in Chapter 1.

Yoshikai (1998) dated the Lengshuichong type, or late Heger I, found in Guangxi in China and in north Vietnam, to three major periods (Early, Middle and Late), and further subdivided the Middle period into an eastern and a western group. The Heger I drums in the Middle and Late period equal the Chinese Lengshuichong type, and the Vietnamese Dong Son types C and D respectively.

Comparing the four Heger types with the types in the main Chinese classification (ZGTY 1988), the Heger I type equals the Shizhaishan and the Lengshuichong types; the Heger II type equals the Beiliu and Lingshan types; the Heger III type equals the Ximeng type; and the Heger IV type equals the Zuny and Majiang types. The Wanjiaba type is considered to be pre-Heger.

For the purpose of this study, however, the Heger I appellation still best identifies the 'migratory' Dong Son bronze drums in their variations. Only Dong Son - Heger I drums are migratory, the other Heger types are region specific. With regard to further subdivisions among Heger I drums, the present identification of different clusters is intended as an aid for understanding the questions arising from the distribution, and as such it appears to suffice. The other appellation used here for migratory drums is Dong Son, in the light of sound evidence that these decorated bronze drums arise from the Dong Son culture centred in north Vietnam and its immediate environs. Moreover, this study refers to Heger types other than type I, only when they provide useful clues regarding questions of chronology, casting technique, or ethnographic evidence of ceremonial function, relevant to the 'migratory' type I. Otherwise, they are not discussed in further detail.

CHAPTER 1

THE FEATHERED DECORATION AND THE MAPPING OF SELECTED CLUSTERS

1.1. A Visual System: Placement of the Motifs on the Surface of Dong Son Drums

The spatial layout of the decoration of Dong Son – Heger I bronze drums follows a set order. It is distributed over the tripartite body of the drums according to a particular decorative scheme and it employs a particular artistic vocabulary. A predominant feature of this vocabulary is the depiction of stylised bird symbolism, appearing in the form of bird motifs, and chiefly as the feather adornment of both human figures and objects.

Starting from the top, the tympanum shows a central sun or star motif, which is surrounded by a series of concentric decorative bands with geometric or pictorial motifs (**Figures 1.1-9**). The concentric geometric bands, showing ‘saw-tooth’, ‘comb’, and dotted or concentric circle motifs, are always organized symmetrically, framing the pictorial bands or the undecorated areas. These decorative bands follow down to the mantle of the drum, covering almost entirely the upper and the mid sections of the tripartite shape. The lower mantle of early Dong Son drums is undecorated, with the exception of only two large and elaborate drums from the islands of Selayar and Sangeang (**Figure 1.10**), in eastern Indonesia, discussed in Chapter 3.

When present, specific pictorial motifs are consistently placed on the same section of the surface of the drum. For example, the sequences of flying bird motifs (**Figures 1.1-9**) are always placed on a decorative band on the tympanum, while the sequences of motifs showing boats decorated with feathers and with bird-like prows carrying human figures wearing feather headdresses (**Figure 1.3**) are always placed on the upper bulging section of the mantle. On elaborate drums, such as the ones in the Region Specific cluster 1 (RS1) identified as the ‘Red River Valley’ drums below in this chapter, the ceremonial scenes showing dancing feathered-men, seated figures beating drums, standing figures pounding mortars, and houses or granaries on piles with bird-like finials (**Figure 1.2**), appear only on the main pictorial band of the tympanum.

The pictorial scenes on the tympanum are of particular interest, not only because they portray ceremonial activities in detail, but also because they do so in a manner which shows a consistent program of representation. Running over the main concentric band, the scene is typically composed of two corresponding halves, each showing a parallel sequence of motifs (**Figures 1.1-8**). The mid mantle of Dong Son drums is subdivided into panels by vertical geometric bands. These panels often show motifs of standing or dancing feathered-men (**Figure 1.3**). The same figures appear on the boats on the upper mantle, or within the above mentioned pictorial scenes on the tympanum. Simpler drums show undecorated panels on the mid mantle. Feathered motifs may vary in form according to the various clusters of drums, as they are identified below, however the placement of particular motifs over the tripartite mantle is consistent. Hence the typical ‘feathered’ motifs of the decoration of Dong Son – Heger I drums are place specific over the surface of the drums.

As Preziosi (1989:121-5) points out, referring to Leroi-Gourhan interpretation of Paleolithic cave art in France, the placement of each image does not occur at random, on the contrary, it appears to be part of an ‘iconographic program’, which comes to form a visual text over the decorated surface. According to such interpretation, the specific places on the cave surface, or on the surface of a bronze drum, where images are depicted, and their relationships with each other, contribute to yield meaning to the overall composition. Adopting a structuralist framework, Leroi-Gourhan saw the cave gallery as a visual text to be read in light of a system of relationships based on principles of binary oppositions or on multidimensional networks of association and contrast.

With regard to the interpretation of meaning of a visual text, where images are linked by a system of relationships, however, Tilley (1991:123) quotes Ricoeur with regard to the importance of metaphor. According to Ricoeur, the semiotic and the structuralist approaches may be complemented by a hermeneutical interpretation which engages with the metaphorical qualities of art. As Tilley (1991:124-5) points out, quoting Barth (1975:161), the analogy with language needs to be transcended if one is to grasp ‘the signifying power’ of the object and of its decoration. This power being expressed by the metaphorical qualities of the visual text, which are rooted in tradition and which vary according to context.

1.2. The Feathered World and Ethnographic Conceptual Parallels

Anthropological and ethnographic studies of ceremonial boats and houses in Southeast Asia and Melanesia (Waterson 1997, Tilley 1999, Campbell 2001, McKinnon 1988) indicate that the adornment of human figures and objects with elements taken from the world of animals and plants

may imply the notion of a potential for transformation, and thus of breaching the boundaries between the natural and the supernatural. Hence, feather headdresses, the bird-like prows of ceremonial boats, or the bird-like finials of a communal house allow for the empowering appropriation of real or idealized qualities from the natural world, which are manipulated in ways which breach natural categories, endowing humans with the power to master their environment. Moreover, in this potential for transformation, the dichotomy between the natural and the cultural becomes blurred. In this light material culture, in virtue of its presence and agency, actively participates with humans in the natural and supernatural processes.

In his study of canoes in the Vanuatu Islands, in Melanesia, Tilley (1999: 109-13) discusses the bird-like adornment of the 'head' of the canoe, the 'head' of the house, as well as the heads of people, as a 'metaphorical vehicle of meaning that synthesizes' the 'non-human and human domains'. So that the 'feathered' figures, the boat, and the house, 'appear to be fundamental metaphorical transformations of each other'. The canoe is conceptualised as a floating communal house and they are both associated with ancestral presence in light of traditional origin myths. In this light boats and houses, bearing functional and symbolic meaning, express social identity.

Waterson (1997: 108-11) discusses the conceptual parallels drawn between the traditional Southeast Asian house structure and decoration and notions of political authority, social identity, and the cosmos. For example, she describes how on the island of Nias, off the coast of Sumatra, the house is associated with the figure of the ruler. The ruler's 'head-dress with its branching foliate ornaments represented coiled ferns, a design also found on the ridge-pole of the house'. This recurrent choice of metaphorical symbolism may be interpreted as an expression of the myths which function to describe and order the world through association and contrast. The association of humans and their material culture with favoured qualities of animals or plants in the natural world (Campbell 2001: 125), and the breaching of natural categories implied by the depiction of fabulous composite or metamorphic imagery, appear to be a recurrent feature of the artistic repertoire and the conceptual structuring of the world in the contexts of small-scale societies in Southeast Asia and Melanesia.

In her study of the Vakutans boat prows of the Trobriand Islands off Papua New Guinea, Campbell (2001:126) expands on Gell's (1992, 1998) theory of artefacts as 'social agents', and explores the system of meanings imbued in the boat. She argues that the power of a Vakutan canoe, is given by its semiotic meanings linked to the behaviour of animals in the environment. The prow is endowed with desired real or idealized qualities or powers of the osprey bird which represents wisdom and achievement. She examines how such qualities are associated with the boat and its crew in order to ensure the success of actual and symbolic expeditions. The bird's mastery of sea

fishing and its directional qualities in navigation are appropriated by people and reinterpreted in the creation of powerful objects. In this light functional and symbolic meanings appear to merge. The natural and the supernatural are thus not clearly separated, but may be conceptualised as being in a relationship of mutual exchange and support.

Accordingly, the bird shapes fused into the prow of the boats depicted on bronze drums and the feather motifs, linking human motifs with boat and house motifs, may have functioned as a means to endow the artefact with desired qualities or powers taken from the natural world, yet manipulated in a manner breaching natural boundaries, thus charging the object with its potency.

Examples from the ethnographic record may provide a series of conceptual parallels with regard to the symbolic link between boats and houses expressed by their association with the qualities of birds. In the island culture of the Tanimbar archipelago, in southeast Maluku, in eastern Indonesia, where I conducted fieldwork in May 2005, the word *kora* signifies both a decorated boat's prow, and the house roof ridge-pole, both decorated with elaborate bird symbolism (McKinnon 1988: 152-69). Traditional houses and boats are linked by bird symbolism, which in turn is associated in the oral tradition with the sun and the spirit of the ancestors, according to the ancient system of beliefs (*adat*) followed for millennia before the arrival of Christian missionaries. The decorated boats are endowed with the power to undertake ancestral journeys as well as actual inter-island expeditions. In a similar way, the house, as a static boat, with its 'feathered' roof ridge-pole, hosts the ancestors and ancestral powers. The oral tradition refers to the boat as a bird which wears 'golden feathers like the rays of the sun' (ibid. 1988: 155). Birds symbolize speed and flight, and are associated with the sun and with the spirits of the ancestors. In functional terms, the prow endowed with bird qualities ensures the welfare of the expedition directing the navigation. Interestingly, the decoration of Dong Son bronze drums always shows, at the centre of the tympanum, a 'sun/star' motif whose rays are sometimes interspersed by what appear to be stylised feathered motifs. Around the 'sun/star' motif there are always a series of concentric geometric and pictorial decorative bands, showing flying bird or stylised feathered-man motifs.

Another interesting conceptual parallel from Tanimbar is given by the fact that traditionally the entire village was conceptualised as a boat. On ceremonial occasions dancers wearing feather headdresses, and beating drums called *tifa*, used to perform on ceremonial stone boats placed on the central ground of the village, such as the ones in the villages of Sangliat Dol and Arui Bab on the island of Yamdena. The village itself was shaped as a boat. Manguin (1986: 187-213) discusses the symbolism of boats and houses as metaphors for the social group. Referring to Tanimbar and to other island cultures in Southeast Asia, he notes how entire villages are 'spatially organized as a

boat and its crew'. He also points out 'the relationship of symbolic statements about boats and overseas sailing with exchange systems'.

In pre-Christian times the boats with elaborately carved *kora* prow boards, were used for ceremonial expeditions, and carried a bench in the middle where the ritual officials and the nobles would sit, and a gong was hung behind the bench. The carving of the *kora* prow board shows a bird with an exuberance of feathers sprouting upwards in multiple stylised spirals. The bird often holds fish underneath. Such description of the Tanimbar ceremonial boats, with carved prows showing bird and abstract feather motifs, carrying dancers wearing feather headdresses, reminds us of the 'boat with feathered-men' motifs depicted on elaborate bronze drums. The stern of the boat motifs on bronze drums shows the stylised head of a bird, which is identical to the end finials of the gable roof of the house motif (**Figure 1.2**). The boat motifs also carry human figures with or without feather headdresses. Sometimes, in the centre of the boat, a human figure is seated on a bench, placed over a bronze drum or a vessel of different shape.

In the Tanimbar context, the functional and the symbolic meaning of the ceremonial boat or of the communal house coexist, and indeed they appear to reinforce each other. The actual travelling expedition on a decorated boat would have been empowered by the boat's symbolic potential to journey into the world of the ancestors, thus providing ancestral protection. Such a fusion of meanings may provide a conceptual parallel for our interpretation of the 'boat with feathered-men' and the decorated house motifs depicted on bronze drums.

The presence of a Dong Son bronze drum on the island of Yamdena (**Figure 1.11**), in the Tanimbar Islands, which I examined *in situ* in 2005, is not directly related to the mythical tradition of the islands, because it reached the island around the mid first millennium AD or later, as discussed in Chapter 3. However, the parallels between its decoration and the locally significant symbolism described above, may point to a shared Austronesian heritage of symbolic forms and ideas. The hypothesis of a possible Austronesian influence on the decoration of Dong Son bronze drums is discussed in Chapter 5.

The boat motifs depicted on bronze drums may refer simultaneously to the symbolic ceremonial realm and the actual voyages undertaken along ancient exchange routes. Chen (2002: 51-54) discusses the role of ancient seafaring groups in south China and Southeast Asia, as transmitters of material culture and ideas. He highlights the high degree of mobility along waterways, being these rivers or the sea, from prehistoric to historic times. He refers to the boat motifs on bronze drums, relating them to the modern dragon boats present in south China. Chen also discusses the presence of prehistoric sea nomads on the coast of south China, who constructed dwellings on piles on the

coast and 'floating houses on raft'. The role of ancient local seafaring groups involved in inter-island trade networks throughout Island Southeast Asia is discussed in Chapter 3.

1.3. The Art of Pre-Literate Societies

While this study focuses primarily on the implications of the distribution of bronze drums, rather than on its decorative features as such, it seems useful to discuss briefly how the 'feathered' environment depicted on Dong Son bronze drums may be best understood. Such understanding is useful particularly when discussing possible parallels between the ceremonial scenes depicted on Dong Son drums and the ethnographic data deriving from the ceremonial practices and belief systems of indigenous small-scale societies.

The decoration of the ceremonial artefacts of pre-literate societies, such as Dong Son bronze drums, may be best understood as the representation of mythical thought. Myths are the stories which human beings created in order to conceptualise and partake of the workings of the cosmos (Eck 1981: 22). Through ceremony and ritual human beings would have come in communication with, and exerted influence over, the supernatural powers securing the natural events necessary for their survival. The ceremonial art of pre-literate societies does not appear to have been meant as a mere record illustrating natural events. Narrative illustration, as noted by Allan (1993: 11), appears to be associated with the emergence of a literary tradition to be represented. Mythical art may be thus interpreted as an unwritten code, which displays or alludes to myth. It may achieve this by rendering abstract composite images which breach natural categories, thus initiating the viewer into a supernatural realm beyond natural limitations and logic comprehension. Myths would be ritually enacted during ceremonies in which the artefacts are involved. In this light, the decoration of ceremonial objects, intended as ritual instruments, may be interpreted as an essential aid to ritual, meant to facilitate the enactment of myth. Moreover, the ritual function of ceremonial objects may be seen as mediatory, bridging the seen and the unseen worlds, the living and the dead, the world of humans and the one of ancestral spirits. Maintaining a relationship of mutual communication and balance between these realms would have been seen as the ultimate purpose of ritual.

Allan's study of mythical art in pre-literate societies, or 'mythic' societies, as she defines them (1991: 14; 1993), is relevant to the way we may interpret the 'feathered world' depicted on bronze drums. The potential to breach the limitations of natural categories is a fundamental characteristic of the supernatural realm. Representations may thus be composite, distorted, disjuncted, multiplied,

rendered as if in transformation. The deliberate contradictions and unnatural features of the images are meant to display a sacred world beyond common comprehension. This applies both to animate and inanimate objects of representation. The breaching of natural limitations portrays what is not readily experienced in the natural world. The strange world represented is not the result of primitive technical skills and imagination, in the sense of being less mature or less developed. It is a sacred narrative specifically meant to display the workings of the universe, and as such, it may allow human beings to relate to their seen and unseen environment, and to find their place in it. This point assumes particular relevance with regard to euro-centric views considering exact naturalistic representations as reflecting higher degrees of cultural development.

The main difference between written and unwritten myths is that the latter ones would have been directly related to the experience of them. In other words, they would have been renewed each time they were enacted. In ritual enactment myths would come alive again and again, and their meaning would be renewed each time (Allan 1991:14). Once myths are written down, they become mythology, the '*logos*' of myth. Their codification makes them assume an identity, a more permanent form. They are thus somewhat distanced from direct experience, and become something to think about, rather than to experience. Mythological stories are thought about rather than lived in or experienced during ritual practices. Before writing, myths are known by being in them, by performing them, by a more direct experience of them. By writing down these stories, they start to be learned by thinking about them, rather than by embodying them. In 'mythic' preliterate societies, on the other hand, it is through ritual practices associated with ceremonial objects, such as our decorated bronze drums, that humans are able to reach out to the supernatural realm, where natural limitations may be temporarily transcended. During ritual humans thus participate in the processes of the cosmos, and by doing so, they are able to actively maintain a balance between the forces of nature, propitiating life and renewal.

With regard to the feathered motifs depicted on Dong Son bronze drums, the abstract compositions of bird and feather motifs appear to depict a supernatural mythical world where natural categories can be breached. The stylised bird and feather symbolism, in the form of adornment on both human figures and objects, appears to link each pictorial motif to the other, and to convey the idea of a potential transformation of each element into the other. The idea of a mythical environment, where adornment may imply the notion of transformation, is conveyed by a series of abstract manipulations of motifs. It follows that if humans may ritually enact such myths, they may partake of powers beyond common experience, and thus actively participate in, and perhaps exert some influence over, the workings of the cosmos, as they understand them.

For example, the feather headdresses of the human figures end in stylised bird heads, which also appear on the roof of the house motifs on the tympanum, on the stern of the boat motifs of the upper mantle, or on poles and platforms carried on the boats, all point to a symbolic environment with no clear separation between animate and inanimate objects. The fusion of bird shapes into the prow of the boat motifs on the elaborate Ngoc Lu I bronze drum (**Figure 1.12**) shows the manipulation of natural elements into unnatural compositions (Spennemann 1984: 139, quoting Goloubew 1940: 405). The decoration of the prow of the boat motifs is of particular interest. It is always dressed with feathers, it 'wears' feathers as the human figures do. The boat with feathered-men motifs on the drums in the Region Specific cluster 3 (RS3) described below, show feathered bird-like prows which match exactly, and are in line with, the upper part of the feather headdresses of the human figures. The feathers form abstract and intricate patterns filling the whole space above the boats. The emphasis is not on the individual identity of the figures. It is rather on the homogeneous effect given by stylised bird and feather motifs linking figures and objects. Such decoration does not appear as being merely representational. Its fusions and disjunctions of objects and animate beings, resulting in a breaching of natural boundaries, imply that the decoration of bronze drums is not intended to depict natural people and events. In his study of the oral tradition in Melanesia, Scoditti (1996:70) discusses the notion of vital force and animation extending from the world of people, animals and plants, to natural and cultural objects, as a conceptual 'synthesis of the totality of relations' which humans establish with nature, including their relation to the past, manifested by the agency of the ancestors. The burial context of some of the drum finds suggests that they were involved in ancestor worship, functioning sometimes as burial containers, among other possible ceremonial functions.

Accordingly, I interpret ceremonial bronze drums as having actively participated in social and cosmological relationships (Gell 1998: 5). They may be conceived as 'social agents,' which would have reflected, and simultaneously structured, human relations with the natural and the supernatural world (Shanks and Tilley 1994: 133). As Tilley points out, it is 'through creating, exchanging and ordering a world of artefacts' that 'people create an ordering of the world of social relations' (1998: 103). With regard to objects intended for ritual purposes, such as bronze drums, their creation, use, and exchange may thus also have created and ordered socio-cultural and cosmological relations. In pre-literate societies, the production of symbolic artefacts reflects the collective oral tradition through a 'graphic dictionary of images' intended to unite people and the cosmos (Tilley 1991: 139). As Salmond points out (1984: 113), with regard to Maori sacred artefacts, the objects 'are above all a celebration of this unity of men, ancestor gods, and land'.

While the world of myth breaches natural limitations, it nevertheless seems to operate according to its own system. It is based on its own order of relationships, it follows a logic based on the interplay of possible correspondences drawn from the natural world, yet manipulated imaginatively to describe what is beyond common experience. It was Levi Strauss insight (1962, 1964), to suggest that myths could be seen as systems which could be decoded by identifying their basic structure and correspondences. Following the Saussurian semiotic theory, Morphy (1991: 2) suggests that the meaning of an object 'depends on the particular sign system it is encoded in', or on the particular system of codes of a given tradition. The typical decoration of Dong Son bronze drums and its consistent placement of specific motifs over specific parts of the decorated surfaces, may be interpreted in these terms, as a system of codes significant within the Dong Son cultural tradition. Such a system of codes would have endowed bronze drums with a particular ceremonial function or agency. While the particular ceremonies associated with bronze drums surely differed throughout their wide distribution, probably their essential presence and agency enhanced by their typical decoration was perceived by all the keepers of the drums.

1.4. Contemporary Workshop Variations and Chronological Sequences

Only the bronze drums of Dong Son – Heger I type are distributed widely both in Mainland and in Island Southeast Asia. Heger types II to IV are dated to later periods up to the nineteenth and twentieth century, based on ethnographic data, and are found only in specific regions of the mainland, with the exception of three Heger IV drums found in Java, Indonesia, which were traded at a later date.

The traceable continuity between the different forms of feathered motifs characteristic of the decoration of Dong Son drums, such as feathered human figures, boats, houses, spears, or poles, links each drum to the other, allowing us to refer to a Dong Son – Heger I bronze drums tradition and its exceptionally wide distribution. Hence, following Bernet Kempers (1988: 86), Dong Son – Heger I bronze drums may be conceptualised as a 'large family', with various ramifications sprouting out of 'the main lines of continuity'. The decorative scheme of Dong Son – Heger I bronze drums is rendered in simple, elaborate, and very stylised forms, mainly involving variations of the feathered motifs. These vary from being fairly naturalistic to forming intricate feather patterns which fill the whole space in the pictorial composition. While it is possible to trace chronological links between bronze drums, based on similar features and in light of archaeological and ethnographic data, many variations, especially the ones involving simple and elaborate versions

of the same type of decoration, such as the Dong Son types A (I-V) and B in the Vietnamese classification (Pham et al. 1987), are clearly contemporary rather than sequential. Based on the archaeological context of some drums of these types, the Dong Son types A and B can be dated from the third to the first century BC.

The interpretation of decorative variations as developments or degenerations of previous forms imply the assumption of chronological sequences, which have been proposed to span over many centuries in various classificatory studies. This method of dating should be approached with caution. While it is true that some decorative features may be traced as being sequential to some degree, such sequences could span very short periods of time. Traceable decorative variations do not necessarily justify the dating of bronze drums over sequential temporal spans ranging over a few centuries. We must consider the fact that decorative variations may also be the mark of different workshops, which could have been contemporary or overlapping in time.

THE AREA OF DISTRIBUTION AS CONTEXT

1.5. Mapping Selected Clusters of Bronze Drums Based on Decoration and Shape

The present identification of selected clusters of Heger I type bronze drums - including both Dong Son drums (RS1, RS3, RS4, SO) and what I identify as 'Dian' drums (RS2) - throughout their entire distribution in Mainland and Island Southeast Asia is not meant as another classification. Accordingly, it does not include all bronze drums. The five clusters are selected in virtue of their potential to highlight and clarify particular questions arising from the study of the entire distribution of bronze drums.

Mapping the regional concentrations or the distant finds of bronze drums belonging to the same cluster yields further insight into questions of chronology, routes of transmission, and the spatial range of trade networks. In particular, the Region Specific clusters highlight questions of local adaptations, as in the case of the 'Dian' drums (RS2), or possible alternative routes of transmission, as in the case of the 'Eastern Indonesia' drums (RS3). The spread out (SO) cluster identified as 'One Workshop' points to the common origin and the routes travelled by a few bronze drums found at distant locations from each other.

The absence of a datable archaeological context for the majority of Dong Son bronze drums has sometimes led to confusion about 'what is found where', often resulting in the clumping together of different types of bronze drums, overlooking their distinctive decorative and morphological features and the potential clues which arise from the study of specific regional concentrations of drums. In response to this, as a working tool, I propose that the notion of the archaeological context, as a delimited area yielding material assemblages, can be conceptually expanded, to consider a distribution area as a large archaeological site, in which the distribution of different clusters of objects may be analysed. Within this framework, the locations of the finds of bronze drums, and in particular the numerous chance finds, take on new orders of meaning.

Hence, the region specific (RS) and the spread out (SO) clusters identified below are meant to highlight the clues which arise from the detailed analysis of 'what is found where' (Map of the five clusters **Figure 1.13**). The finds of particular types of bronze drums in specific regions may be interpreted as the finds of particular types of artefacts in an excavated site, in the sense that in both cases the finds may yield insight into questions of cultural contact and exchange. Hence, I argue that envisioning the overall distribution area as a site containing various combinations of contemporary or sequential cluster assemblages may shed some new light on previously unanswered questions.

For example, the exclusive regional presence of a homogeneous cluster of drums, such as the one in eastern Indonesia (RS3), potentially yields new insight into alternative routes of transmission, relative chronology, and the trade dynamics leading to this regional distribution. Conversely, the presence of a few bronze drums distinctively related by decoration, but found scattered throughout the area of distribution at very distant locations from each other (SO), and sometimes in comparable conditions, point to a common workshop, and highlights routes of exchange. Moreover, comparable conditions of the finds show that ideas about the drums travelled along with the objects. This line of inquiry may allow us to link specific practices with particular types of drums, and to trace the extent of region specific exchange networks. The practices associated with bronze drums, such as their upturned position, the piling of two or more drums, and the similar associated material found inside and nearby the drums, may be compared throughout the entire distribution-site. Moreover, the typical locations of the drum finds by river ways or in coastal areas along exchange routes often marks the presence of early trade centres, some of which grew into larger entrepôts in the historic period.

In the following sections I describe the rationale for each of the five selected clusters (RS1-4, SO). The total counts of drums given for each cluster is to date, and is obviously liable to increase in light of new finds and of more available sources. The charts given for each cluster highlight the common features of the drums upon which the clusters are based. Such charts are provided in place of long descriptive lists of drums and their features in the text, which, based on previous presentations, have proven to have, if I am allowed a humorous comment, an immediate soporific effect on the audience. That said, this study is nonetheless based on the belief that the lack of close observation of the specific features of different bronze drums in relation to their location leads to confusion about 'what is what and where it is located'. It is hoped that the following clusters may provide some further insight into such questions.

RS1 – Region Specific Cluster 1: 'Red River Valley' Drums (6)

The Region Specific cluster 1 (RS1), comprising what I identify as the 'Red River Valley' drums includes the six largest and most elaborately decorated early Dong Son drums known. Five of the drums in this cluster were found in the Red River Valley on the mainland, and one in central Java (**Map RS1. Figure 1.14**). By identifying these drums as 'Red River Valley' I emphasise the importance of the region and its natural environment, favouring a culture based on wet rice cultivation, rather than pointing to which side of the Sino-Vietnamese border the drums were found.

The characteristic decoration of these drums (**Chart RS1**) includes elaborate pictorial scenes on the main decorative band of the tympanum (**Figures 1.1-9**); elaborate boat motifs carrying seated and standing human figures with feather headdresses, on the upper mantle (**Figure 1.3**); and the same feathered human figures on the panels of the mid mantle. The scene on the main band of the tympanum (**Figures 1.1-9**) shows house motifs decorated with feathers, human figures wearing feather headdresses dancing while playing musical instruments, and other figures seated on platforms beating bronze drums with vertical bamboo sticks. The drums are placed underneath the platforms with the timpani facing upwards and are suspended from the ground by what may be stone or wooden blocks.

In north Vietnam, the drums in the RS1 cluster include the Ngoc Lu I (**Figure 1.3-4, 1.12**); the Hoang Ha (**Figure 1.5**); the Co Loa I (**Figure 1.1-2, 1.6**); and the Song Da (**Figure 1.7**) drums. The fifth drum was found on the Chinese side of the Red River Valley, at Kai Hua (**Figure 1.8**), in southeast Yunnan. My study of the drums in Vietnam is discussed further in Chapter 2. It is worth

noting that the Red River Valley of north Vietnam is also where the largest and most elaborate Dong Son bronze situlas were found. Examples of these bronze situlas include the Dao Think (**Figure 1.15-16**), the Hop Minh (**Figure 1.17-18**), and the Van Thang specimens, also discussed in Chapter 2. These bronze situlas share the same type of elaborate decoration with the drums in this cluster. Common features include the elaborate boat with feathered-men motifs (**Figures 1.16, 1.18**) and, in the case of the Hop Minh situla, also the house with feathered roof motifs (**Figure 1.18**). On the Hop Minh situla, the house motifs are placed above the boat motif, paralleling the layout of these same motifs on bronze drums. These three situlas were found with the lids while all the other smaller Dong Son situlas were found without lids. Moreover the Hop Minh situla is the only one which was used as a child burial container, as discussed in Chapter 2 (sections 2.2, 2.4). Both these bronze drums and these bronze situlas from the Red River Valley represent the peak of Dong Son bronze casting and the full spectrum of its artistic vocabulary. They thus mark the region as a major centre of the Dong Son culture. According to the Vietnamese classification (Pham et al. 1987), the five drums found in the Red River Valley are identified as the Dong Son type AI, and they are considered to be the earliest Dong Son drums. However, in light of their elaborate decoration and of the finds of other simpler Dong Son drums in the same areas such as the Ngoc Lu II drum, which is of Dong Son type B, without pictorial decoration, I believe that the Red River Valley drums in my RS1 cluster are simply elaborate specimens contemporary with simpler ones such as the Dong Son types AII-V and BI-III in the Vietnamese classification. Because the Red River Valley drums show the full spectrum of the Dong Son repertoire of artistic representation and they are not likely to be the earliest drums.

Based on the available dates from Dong Son sites which yielded Dong Son drums of types A IV and BI-III, as discussed in Chapter 2, the Dong Son types A and B drums can be collectively dated from the third to the first century BC, and into the early first century AD. In my opinion, within this temporal span, the Red River Valley drums (five of which equal the Dong Son AI type) can be dated to the second century BC. The only 'Red River Valley' drum with some archaeological context is the Co Loa I drum, which was found in a field within the moated walls of the Dong Son citadel of Co Loa. As discussed in Chapter 2, the Dong Son period at Co Loa is dated from the late third-second century BC to the first-second century AD.

The drum in central Java was found at Kabunan (**Figure 1.9**). Based on my study of this drum in the Museum Nasional Indonesia, the only difference between the five drums on the mainland and the Kabunan drum is that the former show two pairs of house motifs on the main pictorial band of the tympanum, while the Kabunan drum shows only one pair. However, each of the two house motifs is typically flanked by a group of seated figures beating bronze drums on the right, and by a

sequence of standing feathered-men motifs on the left. Although the decoration is very corroded, the drum shows evidence of boat with feathered-men motifs on the upper mantle and of standing feathered-men motifs on the panels of the mid mantle. Hence, I include the Kabunan drum in this cluster of Red River Valley drums. The presence of one of the drums in this cluster in the Pekalongan area, on the north coast of central Java, is significant with a view to locating the main trading centres in the wider region of distribution. The coastal region of central Java is the area of highest concentration of Dong Son bronze drums in Island Southeast Asia. This is where the ancient Javanese ports involved in long distance trade would have been located (Suleiman 1984). The jar burial site of Plawangan, which yielded a Dong Son drum of type B, is also located in central Java, about 150 kilometres east of Pekalongan. Although no radiocarbon dates are available, based on the finds, Plawangan is dated to the early first millennium AD (Prasetyo 1994-1995). The presence of a Red River Valley drum, representative of the Dong Son tradition at its peak, on the north coast of central Java, further marks this region as the location of major trading centres in Island Southeast Asia in the late Metal Age.

RS2 – Region Specific Cluster 2: Dian drums (21)

The Region Specific cluster 2 (RS2), comprising what I identify as ‘Dian’ drums, clarifies a longstanding question regarding the origin and chronology of the bronze drums found in the cemeteries of the Dian culture (500 BC – AD 100) of central Yunnan, China. This is an ongoing debate between Chinese and Vietnamese archaeologists. I discuss this question at length in Chapter 2 (sections 2.5, 2.5a-c). Here I summarise it briefly.

According to my analysis, the main missing link in previous studies of the Dian material is the fact that the burial inventories of certain Dian tombs at the cemeteries of Shizhaishan and Lijiashan comprise two types of bronze drums, not only one. There are both Dong Son drums, which I argue were imported from the Dong Son region of north Vietnam, and what I identify as ‘Dian’ drums, which are likely to have been cast locally in Yunnan. Local casting is suggested by the close affinity in shape, decoration and casting technique, between these Dian drums and the drum-shaped bronze containers for cowrie-shells, found exclusively in the Dian cemeteries.

To date, I have identified twenty-one specimens of Dian drums (**Map RS2 Figure 1.19. Chart RS2**). In China, nine drums were found in the cemeteries of Shizhaishan (5) and Lijiashan (4), and one was found as a chance find at Huili, in south Sichuan. In Vietnam, six drums were found at Lao Cai, one at Dong Xa (**Figures 1.20-22**), and one at the cemetery of Lang Vac (Lang Vac V. **Figure**

2.14). Two more drums are reported from east Burma, and one from north Thailand. My detailed study of Dian drums in China and Vietnam is discussed further in Chapter 2 (section 2.5b).

The main characteristic features of Dian drums are shared by drum-shaped bronze containers for cowrie-shells, found exclusively in the cemeteries of the Dian culture. Based on these similarities and on the association of Dian drums with Dian containers in the burials, I also suggest that Dian drums may have been intended to function primarily as containers for cowrie-shells. However, questions of primary and secondary functions must only remain a matter of speculation in light of the available data.

Compared with Dong Son drums, Dian drums are characterised by their more naturalistic pictorial decoration and the lack of the typical feathered decoration of Dong Son drums. The rare 'feathered-men' motifs on Dian drums are different from the ones on Dong Son drums, and are often represented together with typical naturalistic Dian motifs. For example, the boat motifs of Dian drums show identical prow and stern (**Figure 1.21**). There is no emphasis on the feathered prow, which instead is always emphasised on Dong Son drums. With regard shape, the profile of the upper mantle of most Dian drums is cup-like (**Figure 1.20**), rather than showing a semicircular bulging section as Dong Son drums. Moreover, the cup-like upper mantle turns inward to form the outer tympanum. This does not occur on Dong Son drums. The tympanum appears to have been cast separately from the mantle and then sealed over the flat base provided by the upper section of the upper mantle. This section is curved inward as if to hold the tympanum disk, in the same way as for the lids of drum-shaped Dian containers (**Figure 1.22**). This feature is unique to Dian drums and does not occur on Dong Son drums, which were cast in one piece, as discussed in Chapter 2 (section 2.3).

Contrary to Dong Son drums, Dian drums are region specific, and the finds outside the Dian area of central Yunnan mark the regions with which Dian was in contact. Moreover, the increasing Han Chinese presence in Dian and Dong Son in the second-first century BC may have led to the appropriation and trade of valuable local objects such as bronze drums. In this regard, the 1993-1994 finds of nineteen bronze drums at Lao Cai in north Vietnam, on the Sino-Vietnamese border, on the Red River bank and a nearby hill, are of particular interest (Pham 1997). The drums found at Lao Cai comprise Dong Son, Dian, and Wanjiaba types (Chapter 2, section 2.1). The find of many drums of different types buried together indicates that the site may have been a sort of 'collecting centre' or a 'storage' of bronze drums which were meant to be further traded.

In this study I mainly adopt the Vietnamese classification (Pham et al. 1987) to refer to early Dong Son drums (Dong Son types A and B). However, my identification of Dian drums contrasts

with two Dong Son types in the Vietnamese classification (types AVI and AVII). The Dong Son type AVI is not adopted here because the only drum identified by this type (SZS M1:58) is included in my Dian drums. Moreover, I also do not adopt the new Dong Son type VII, added to the Vietnamese classification in 2006 (Pham, in press), and also called ‘Dian’ drums, because I use my own identification of Dian drums, which arises from my research in China and Vietnam in 2004, (Calo’, in press a). It should be noted that the Dong Son type AVII includes only Dian drums with three dimensional frog motifs on the tympanum, while my Region Specific cluster of Dian drums includes also other specimens without the frog motifs.

RS3 – Region Specific Cluster 3: Eastern Indonesia Drums (31)

The Region Specific cluster 3 (RS3) comprises what I identify as the ‘Eastern Indonesia’ drums, in light of their high and exclusive concentration in the region. This is the most evident Region Specific cluster because eastern Indonesia hosts only this type of large Dong Son drums. As discussed in more detail in Chapter 3, I identified thirty-one specimens belonging to this cluster (**Map RS3. Figure 1.24. Chart RS3**). Of these, twenty-seven drums have been found in eastern Indonesia, in south Sulawesi, Nusa Tenggara, Maluku, and Papua. These twenty-seven drums comprise thirteen drums *in situ*, five drums not available for study, and the remaining nine drums which are kept in the Museum Nasional Indonesia in Jakarta. Only one large drum belonging to this cluster is reported to have been found in east Java (Bernet Kempers 1988: 408), and is probably the large reconstructed drum on display in the Quai Branly Museum in Paris.

On the mainland, I identified only three direct counterparts of the specimens in eastern Indonesia. They are found in north Vietnam, two in the region of the Red River Delta and one in Nghe Tinh province to the southwest of the Delta. The first is the largest Dong Son drum in Vietnam, found in Hoa Binh province and kept in the Nam Dinh Provincial Museum (**Figure 1.25**). To distinguish this drum from the Hoa Binh drum in the History Museum in Hanoi (Anon. 1990: 22-23), which is not in the RS3 cluster, I refer to it as ‘Hoa Binh-Nam Dinh’ drum. The other two drums are the Huu Chung drum, from Hai Hung province; and the tympanum of the Dong Hieu drum, found in Nghe Tinh province. These latter two drums are kept in the respective provincial Culture Departments. Two other less direct counterparts on the mainland include the larger of the two Terengganu drums found on the Malay Peninsula, and the Ongbah 89 drum, found with five other drums in the Ongbah cave burial in Kanchanaburi province, in west Thailand. However, based on the decorative analysis of the latter two specimens, I am inclined to consider them as

transitional types, which are similar yet not directly related to the RS3 cluster. All the above mentioned drums are discussed in greater detail in Chapter 3.

The exclusive and homogeneous regional distribution of the drums found in eastern Indonesia suggests that they are likely to have reached the eastern islands along their own main route of transmission, distinct from the one travelled by the drums found in western Indonesia. Based on the locations of the few counterparts on the mainland, I suggest that the drums would have reached the eastern islands directly by sea from their centres of production in north Vietnam or southwest China, rather than crossing the western part of mainland Southeast Asia, as the drums found in western Indonesia did. Moreover, based on their homogeneity in the eastern islands, their mainland to island crossing may have occurred as a one period event, as suggested by Ambrose (1996-1997). Based on the relative dating clues available, the drums in this cluster can be dated from the late second to the early fourth century AD.

The main characteristics of the drums in this cluster include their large size (**Figure 1.26**); four equidistant three-dimensional toad motifs on the tympanum; and the stylised feather patterns formed by the high feather headdresses of the human figures, which are depicted on the tympanum, on the boat motifs on the upper mantle, and on the panels of the mid mantle (**Figure 1.27**). Moreover, the prow of the boat motifs is in the form of what appears to be a bird-naga-like mythical being (**Figure 1.25. 1.28**). Throughout the entire distribution of Dong Son drums, only two of the drums in this cluster show pictorial decoration on the lower mantle. These are the drum found on the island of Selayar, off south Sulawesi, which I examined *in situ* in 2003, and one of the seven drums found on the island of Sangeang (MNI code 3364), off the coast of northeast Sumbawa, in Nusa Tenggara, which I examined at the Museum Nasional Indonesia. The drum shows elephant, bird and palm tree motifs, while the Sangeang drum (MNI code 3364) shows elephants and horses lead by human figures, which are larger than the typical feathered figures, and are fully dressed with long vests (**Figure 1.10**). The same atypical human figures also appear on the upper mantle of the Sangeang drum. This latter drum is the only one in the RS3 cluster to show a pictorial scene with two pairs of house motifs and feathered-men motifs on the tympanum. Another atypical pictorial decoration, showing hunting scenes, is found on a drum found on the island of Kur, in the Kei Islands, Maluku. The Kur drum, kept in the Museum Nasional Indonesia (MNI code 1907), shows a Chinese inscription cast under one of the missing toad motifs on the tympanum, as discussed in Chapter 3 (**Figure 1.29**).

According to the Vietnamese classification, these drums are identified as Dong Son type C I. However, this classification does not include all the drums in eastern Indonesia. Based on the data I

collected during my fieldwork in southeast Maluku in 2005, the present study documents for the first time the tympanum of the drum on the island of Kei Kecil (**Figure 1.30**), in the Kei archipelago of southeast Maluku. Only the mantle of this drum, kept in a different location from the tympanum on the same island, has been discussed by Spriggs and Miller (1988). Chapter 3 also documents in more details the drum on the island of Yamdena (**Figure 1.11**), in the Tanimbar archipelago, a picture of which is shown by de Jonge and van Dijk (1995: 21, photo 1.3). Bintarti (1999, fig. 96) provides a photograph of the mid and lower mantle of a drum described as the Tanimbar drum. However, this is not the mantle of the drum on the island of Yamdena in Tanimbar, which has a different profile. The same picture is shown by de Jonge and van Dijk (1995: 18, photo 1.1), who identify it as the drum on the island of Luang.

The RS3 cluster of Eastern Indonesia drums thus provide the first collective study of all the drums found in eastern Indonesia and their counterparts on the mainland, highlighting the regional homogeneity of the drums in the islands. The first point which arises from my identification of this cluster is that the distribution of Dong Son bronze drums in Indonesia is best understood if the eastern and the western domains are considered in their own terms with regard to chronology and routes of transmission. This RS3 cluster thus highlights the need for a new approach to the Dong Son drums in the islands and furthers the understanding of the entire distribution. Based on the divide between the eastern and the western Indonesia domains, in Chapter 3, I discuss possible alternative routes of transmission and trade dynamics leading to the distribution in the eastern islands.

RS4 – Region Specific Cluster 4: Guangxi Drums (c. 200)

The bronze drums in this cluster are identified here as ‘Guangxi’ drums in light of their high concentration in the Guangxi province of southwest China (Map of the five clusters. **Figure 1.13**). Approximately two-hundred specimens are known. Of these, only about twenty are known outside Guangxi, from its neighbouring region of northeast Vietnam, and from north Thailand. These bronze drums are all chance finds and are dated broadly from about the fourth to the twelfth century AD by Chinese scholars (ZGTY 1988), who identify them as the Lengshuichong type, after a location in Guangxi. The Vietnamese classification (Pham et al. 1987) identifies them as Dong Son type D (not D). However, given the high concentration of this type of drums in Guangxi, it appears more appropriate to refer to them as Lengshuichong type drums or ‘Guangxi’ drums.

These are the latest Dong Son drums discussed in this study. The main purpose of this cluster here is to provide some chronological clues for dating the production of the Region Specific cluster

3 (RS3) identified above as 'Eastern Indonesia' drums. Based on a comparative analysis of their shape and decoration, the 'Guangxi' drums are here understood as a later development of the 'Eastern Indonesia' drums (RS3). This parallel between the RS4 and the RS3 drums points to chronological clues, and also to the area of production of the Eastern Indonesia drums (RS3) in the region comprising northeast Vietnam and west Guangxi. As discussed above, the drums in the RS3 cluster on the mainland are found in the region of the Red River Delta of north Vietnam, just to the southwest of Guangxi, where the RS4 cluster is highly concentrated. This geographical proximity thus points to the region of origin of the RS3 drums. The majority of the RS3 drums were then exported to eastern Indonesia.

The Eastern Indonesia (RS3) and the Guangxi (RS4) drums share the same shape and proportions, and the four equidistant three-dimensional toad motifs on the tympanum (**Figure 1.31**). The main characteristics of the Guangxi drums (**RS4 Chart**), however, distinguish them from the Eastern Indonesia ones, in particular with regard to the depiction of the boat motifs on the upper mantle, and of the feathered-men motifs on the tympanum and the mantle. On the Guangxi drums, the boat motifs on the upper mantle are rendered over two decorative bands showing two opposite rows of boat motifs with lines patterns, instead of feathered patterns, and identical ends, and no emphasis on the decoration of the prow (**Figure 1.32**).

The feathered-men motifs on the tympanum of the Guangxi drums are squared, and are similar to the motifs of the 'ethnographic' Heger III and IV type drums. The feathered-men motifs on the upper and mid mantle, which is not divided into panels, are rendered by line patterns which are quite unrecognisable as feathered-men or feather patterns (**Figure 1.32**). The lower mantle is typically decorated with geometric motifs. On the tympanum, sometimes the Guangxi drums also show three-dimensional motifs, other than the toad motifs. Another unique feature of the Guangxi drums is that they often show a pair of opposite hooks on the mantle, to the left of each vertical seam. Evidence of a possible sequential link from the Eastern Indonesia (RS3) to the Guangxi (RS4) drums is given by the fact that a few of what are likely to be early Guangxi drums show decorative features typical of the Eastern Indonesia drums, such as single boat motifs with bird-naga like prow on the upper mantle, and patterns of feather headdresses on the mid mantle (**Figure 1.32**, images below).

SO - Spread Out Cluster: One Workshop (6)

The six bronze drums in this cluster are selected because of their distinctive decoration which points to their possible common origin from a single workshop in north Vietnam, although they are found spread at distant locations from each other (**Map SO Figure 1.33. Chart SO**). The main distinctive motif is the flying bird motif represented on the main pictorial band of the tympani of these drums (**Figure 1.34**), and in the case of one drum (Xilin 281), on the mid mantle. These bird motifs differ from the typical bird motifs on most Dong Son drums. The body, feathers, and beak of the bird are more naturalistic than on the typical Dong Son motifs, which are more squared and stylised. Moreover, they are all rendered in negative impression, rather than in positive contour as many of the more stylised Dong Son bird motifs. I only observed this type of bird motif on these six specimens, out of a total of more than two-hundred Dong Son bronze drums showing the typical flying bird motifs on the tympanum. The Luobowan (M1:10) drum also shows an atypical bird motif, but it is not quite the same as the one shared by the drums in this cluster.

The six drums in the SO cluster include the Xilin 280 (**Figure 1.35**) and 281, from a Han burial at Xilin, in west Guangxi province, in southwest China; the tympanum of the Pha Long drum (**Figure 1.36**), from Lao Cai province, in north Vietnam; the Laos drum (**Figure 1.37**), from south Laos; the Bukit Selindung I drum (**Figure 1.38**), from northwest Borneo, in Indonesia; and the Babakan drum (**Figure 1.39**), from west Java, in Indonesia. These drums are discussed in further details in Chapter 2.

I examined four of the six drums in this cluster. These include the Xilin 280 and 281 drums, in the Guangxi Provincial Museum, in Nanning, in China; the Pha Long drum, in the Lao Cai Cultural Department, in Lao Cai town, in north Vietnam; and the Babakan drum, in the Museum Nasional Indonesia, in Jakarta. According to the Vietnamese classification (Pham et al. 1987), the six drums in this cluster are Dong Son drums of type A II. As discussed in Chapter 2 (section 2.7a), the Xilin 280 was found in a Han burial, in west Guangxi, and it was assembled together with other two Dong Son bronze drums, fitting one inside the other, in a 'Russian dolls'-like manner (**Figure 1.40**). In order to fit in the assemblage, the upper mantle of the Xilin 280 drum was severed from the mid and lower mantle by applying a circular neat cut at the joining point of the upper and mid sections. This specific way of cutting a Dong Son drum appears to be a Han practice, applied specifically to make the drum fit in the drums assemblage, before burying them in the tomb. The only other instance in which we find bronze drums cut in the same way is at Lao Cai, on the Sino-Vietnamese border, in north Vietnam, just to the southwest of Xilin.

Based on my study of fourteen drums available at the Lao Cai Culture Department in 2005, out of the nineteen drums found in 1993-1994, I found that, twelve drums were cut in the same way as the Xilin 280 drum. These twelve drums comprise Dong Son, Dian (RS2), and Wanjiaba types. They were cut in the same way independently of their type (**Figure 1.23**). This indicates that the practice was done on the site. To my knowledge, no other specimen throughout the distribution shows this cutting practice. As discussed in Chapter 2, the drums at Lao Cai, were found together with Dong Son bells and Han Chinese material. This reflects the progressive Chinese presence in the region in the late second-first century BC. It may also indicate that the site, on the bank of the Red River, and on a nearby hill, may represent a collecting storage place, where numerous bronze drums were buried together by Han Chinese after having been taken from local populations. Of course this hypothesis must remain only speculative in lack of more data. However, the common cutting practice observed only at Xilin and at Lao Cai provides a clue worth exploring further. Moreover, the Pha Long drum, which also belongs to our SO cluster as the Xilin 280 and 281 drums, was also found in Lao Cai province, just to the northeast of Lao Cai town. Based on the remaining upper mantle and tympanum of this drum, and in lack of the mid and lower mantle, it may not be said for sure if it was cut in the same manner as the Xilin 280 and the Lao Cai drums. However, it is a possibility, and in any case, its location between the Xilin and the Lao Cai finds further links the two.

With regard to the other three drums in this SO cluster, their distant locations in south Laos, in northwest Borneo, and in west Java, mark their mainland to island route. As discussed in Chapter 2 (section 2.8a), the location in south Laos almost on the border with northeast Thailand is along a major exchange route starting from north and north central Vietnam, into south Laos, northeast, west central, and peninsular Thailand, all the way to the Malay Peninsula and Cambodia, which I consider as the gateway to western Indonesia (Chapter 2, section 2.9).

As discussed in further detail in Chapter 2 (section 2.14), the Bukit Selindung I drum, from northwest Borneo, was found placed above another Dong Son drum of type B, which was turned upside down. The two drums formed a container. While no human remains were found, both inside the container and in the soil around it were found beads and ornaments which are likely to have been burial goods (McKinnon 1994).

RS1 – CHART OF COMMON FEATURES

Abbreviations:

H FM T: House and feathered-men motifs on the tympanum; **FBD T**: Figures beating drums on tympanum; **BFM UM**: Boat with feathered-men motifs on upper mantle; **FM PMM**: Feathered-men on panels of the mid mantle; **ST**: Spiral motifs on tympanum.

§: present; blank space: absent/no

	Examined during Fieldwork	Provenance	Height – Diam. cm.	H FM T	FBD T	BFM UM	FM PMM	ST
1	•	NGOC LUI North Vietnam	H. 63. D. 79.3	4 Houses: 2 opposite pairs	2 groups: 4 Figures each	6 boats with 6 FM	4 panels with 2 FM. 4 panels plain	Deer + Bird motifs
2	•	HOANG HA North Vietnam	H. 61.5. D. 79	4 Houses: 2 opposite pairs	2 groups: 4 Figures each	6 boats with 5 FM	6 panels with 3 FM. 2 panels plain	§
3	•	CO LOA I North Vietnam	H. 53. D. 73.8	4 Houses: 2 opposite pairs	2 groups: 4 Figures each	6 boats with FM	6 panels with 2 FM. 2 panel plain	
4		SONG DA North Vietnam	H. 61. D. 78	4 Houses: 2 opposite pairs	2 groups: 4 Figures each	6 boats with FM	6 panels with 1 FM. 2 panels plain	
5		KAI HUA Yunnan, China	H. 53.3. D. 65	4 Houses: 2 opposite pairs	2 groups: 2 Figures each	6 boats with FM	6 panels with 1 FM. 2 panels plain	§
6	•	KABUNAN Central Java	H. 48.5. D. 64	2 Houses: 1 opposite pair	2 groups: 4 Figures each	Boats but hard to read	FM but hard to read	

RS2 -- CHART OF COMMON FEATURES

Abbreviations:

CK T: Central Knob on Tympanum; **B=E:** Boat motifs with identical ends; **NtH:** Naturalistic Human figures; **NtA:** Naturalistic Animal motifs; **CP UM:** Cup-like Upper Mantle; **Tym Sep:** Evidence that the tympanum was cast separately; **Cr Frg:** Crouching frog (not toad) motifs; **LC:** Large concentric circle motifs.

§: present; blank space: absent/no; ?: data not available; **reconstr KCM:** reconstruction in the Kunming City Museum

Examined during Fieldwork	Provenance	Height-Diam. cm	CK T	B=Ends	NtH	NtA	CP UM	Tym Sep	Cr Frg	LC
1	• Shizhaishan M1:58, Yunnan	H. 30 D. 36	§	§	§	§		§		§
2	• Shizhaishan M10:3	H. 19 D. 21.2	§	§			§	§	§	§
3	• Shizhaishan M20:1	H. 24	no tympanum	§						§
4	• reconstr KCM Shizhaishan M6:1a	H. 23.5	no tympanum	§	§	§				§
5	• reconstr KCM Shizhaishan M61b	H. 23.5		§	§	§				§
6	• Lijiashan M69:171, Yunnan	H. 23.5 D. 28	§	Seated FM			§	§		§
7	• Lijiashan M50:89	H. 23 D. 29	§	no decoration	no decoration	no decoration	§	§		no decoration
8	• Lijiashan M57:84	H. 21 D. 25	§	no decoration	no decoration	no decoration	§	§		no decoration
9	• Lijiashan M69:163	H. 22 D. 32.1	§ with frog	§			§	§		§
10	HULLI, Sichuan, China	H. 30 D. 41	§	§	§	§	§			§
11	• DONG XA, North Vietnam	H. 42 D. 49	§	§	§	§	§	§	§	§
12	• LAO CAI I, North Vietnam	H. 36 D. 44	§	§	§	§	§	§	§	§
13	• LAO CAI IV	H. 20.2 D. 42.3	§	§	§		§	§	§	§
14	• LAO CAI V	H. 34 D. 40	§	§			§	§	§	§
15	• LAO CAI VI	H. 30, D. 43.5	§							§
16	• LAO CAI VII	H. 26.8 D. 36.5	§	§						§
17	• LAO CAI VIII	H. 35.9 D. 48.5	§	§						§
18	LANG VAC V, Vietnam	D. 26.5	§	missing	missing	missing	missing	§?	§	§
19	BEELEART, Thailand	H. 29.3 D. 44	§	§	§	§	§	§		§
20	BAGAN, Burma	?	§	§	§	§	§			§
21	BURMA, unknown location	?	§	§	§	§	§		§	§

RS3 – CHART OF COMMON FEATURES

Abbreviations:

MNI code: Museum Nasional Indonesia code; **4T:** Four 3D Toad motifs; **PS:** Protruding Star on tympanum; **T FM:** Tympanum Feathered-Men; **UM FM:** Upper Mantle Feathered-Men; **BN P:** Bird-Naga Prow of the boat motif; **Rd:** Rudder of boat motif; **Pck:** Peacock motif; **Mnd:** Meander motif; **MM FM:** Mid Mantle Feathered-Men motifs; **LM D:** Lower Mantle decoration; **Sq H:** Many square holes from casting spacers; **Tk Sm:** Thick casting seams; **PH:** Perforated Handles.

§: present; blank space: absent/no; rem: remaining; mis: missing; cor: corroded; ?: data not available

Examined during Fieldwork	Provenance (*MNI code)	Height - Diameter. cm	4T	PS	T FM	UM FM	BN P	Rd	Pck	Mnd	MM FM	LM D	Sq H	Tk Sm	PH
1	● SELAYAR in situ	H. 95, D. 126	§	§	§	§	§	§	§	§	§	§	§	§	§
2	● SANGEANG *3364	H. 85, D. 116	§	§	§	§	§	§	§	§	§	§	§	§	§
3	● SANGEANG *3365	H. 73, D. 101	§	§	§	§	§	§	§	§	§	§	§	§	§
4	● SANGEANG *3367	H. 85.8, D. 111.5	§	§	§	§	§	§	§	§	§	§	§	§	§
5	● SANGEANG *3368	H. 86.5, D. 114.7	§	§	§	§	§	§	§	§	§	§	§	§	§
6	● SANGEANG *3366	rem H. 47, D. 83.5	§	§	§	§	§	§	§	§	§	§	§	§	§
7	● SANGEANG *4948	D. 103.5	§	§	§	mis	mis	mis	§	§	mis	§	§	§	§
8	SANGEANG sold	H. 55, D. 92	§	§	§	§	§	§	§	§	§	§	§	§	§
9	● ROTE *1828	rem H. 59, D. 72.8	§	§	§	§	§	§	§	§	§	§	§	§	§
10	ALOR in situ	H. 67.5, D. 92	§	§	§	§	§	§	§	§	§	§	§	§	§
11	● LETI *3578	H. c. 69, D. 98.5	§	§	§	§	§	§	§	§	§	§	§	§	§
12	LETI in situ	D. 89	§	§	§	mis	mis	mis	§	§	mis	§	§?	§	§
13	LETI in situ	fragments	§	?	?	?	?	?	§	?	?	§	§?	§	§
14	LUANG in situ	rem H. 51	mis	mis	mis	mis	mis	mis	§	§	?	§	§?	§	§
15	● KUR *1907	H. 87, D. 113.5	§	§	§	§	§	§	§	§	§	§	§	§	§
16	KUR *1908	D. 100.7	§	§	§	mis	mis	mis	§	§	§	§	§	§	mis
17	● KEI KECIL in situ	rem H. 62, D. 113	§	§	cor	§	§	§	§	§	§	§	§	§	§
18	● YAMDENA in situ	rem H. 52, D. 78	mis	§	cor	mis	mis	mis	§	§	§	§	§	§	mis
19	GOROM in situ	?													
20	PAPUA in situ	rem D. 55.8	mis	§	cor	mis									
21	PAPUA in situ	rem D. 59.5	mis	§	cor	mis									
22	PAPUA in situ	?	mis	§	cor	mis									
23	PAPUA Ayamaru in situ	?	mis	§											

RS3 – CHART OF COMMON FEATURES (continued)

Examined during fieldwork	Provenance (*MNI code)	Height - Diameter. cm	4T	PS	T FM	UM FM	BN P	Rd	Pck	Mnd	MM FM	LM D	Sq H	Tk Sm	P H
24	SERUA destroyed	?													
25	BURU, 1826 drawing	?													
26	Rumphius 1, Maluku	?													
27	Rumphius 2, Maluku	?													
28	EAST JAVA ?Paris	H.101, D.139	§	§	§					§				§	§
29	HU CHUNG	H. 76, D. 82	§	§	§	§	§	§		§	§		§	§	§
30	• HOA BINH-NAM DINH	H. 83, D. 106.5	§	§	§	§	§	§		§	§		§	§	§
31	DONG HIEU	D. 90	§	§	§	mis									

RS4 – CHART OF COMMON FEATURES

Abbreviations:

4 3DT: Four or more three-dimensional toad motifs on the tympanum; **Sq FM T**: Square feathered-men motifs on the tympanum; **DBL B**: Double opposite boat motifs with no recognisable feathered-men motifs; **P MM**: Patterns on the mid mantle; **LM dec**: Lower mantle geometric decoration; **# 3D T**: 3Dimensional motifs other than toads on the Tympanum; **P Hk**: Two pairs of Hooks on the mid mantle.
 §: present; **blank space**: absent/no; ? data not available

	Examined during fieldwork Provincial Museum code)	Height - Diameter cm	4 3DT	Sq FM T	DBL B	P MM	LM dec	# 3D T	P Hk
1	• GPM 38	H. 58.8 , D. 83.1	§	§	No boat	Feather pattern	§		
2	• GPM 100	H. 60.2 , D. 83.7	§	§	§	§	§	2 horse-men	§
3	• GPM 102	H. 66.2 , D. 87.7	§	§	§	§	§	2 birds	§
4	• GPM 103	H. 59 , D. 82.4	§	§	§	§	§	2 bulls	§
5	• GPM 110	H. 42 , D. 62	§	§	§	§	§	2 horse-men	§
6	• GPM 111	H. 55 , D. 81.5	§	§	§	§	§	1 man on bull	§
7	• GPM 121	H. 61 , D. 84.7	§	§ + horse- men motifs	§	§	§		§
8	• GPM 136	H. 41.9 , D. 73.2	§	§	§	§	§		§
9	• GPM 305	H. 47.2 , D. 68.2	§	§	No boat	Plain panels	§		§
10	• GPM 337	D. 82.6	§	?	Sgl boat	?	?	?	?



SO – CHART OF COMMON FEATURES

Abbreviations:

DFB NC: Distinctive flying bird motifs with negative contour on the tympanum; **Sp T:** Spiral motifs on the tympanum; **BFM UM:** Boat with feathered-men motifs on the upper mantle; **FM PMM:** Feathered-men motifs on the panels of the mid mantle.

§: present; blank space: absent/no

	Examined during fieldwork	Provenance	Height – Diameter cm	DFB NC	Sp T	BFM UM	FM PMM
1	•	XILIN 280 , West Guangxi, China	H. 52, D. 77.5	21 §	§	6 boats with seated and standing FM	12 panels with 2 FM motifs below + deer motifs above
2	•	XILIN 281 , West Guangxi, China	H. 50, D. 72	corroded but same motif on MM	? corroded	§ but hard to read	12 panels with 2 FM and bird motifs
3	•	PHA LONG , Lao Cai, North Vietnam	D. 75	20 §		§ Fragm portion showing feather headress	missing Mid Mantle
4		LAOS , South Laos	H. 58, D. 86.5	30 §	§	§	§
5		SELINDUNG I , Northwest Borneo	H. 50, D. 68.5	§			§
6	•	BABAKAN , West Java	H. 48, D. 67	§	§	8 standing bird motifs	6 panels with 2 standing bird motifs

CHAPTER 2

THE DISTRIBUTION DOMAIN ON THE MAINLAND AND IN WESTERN INDONESIA

Introduction and Notes on Classifications Used in the Text

This chapter sets the archaeological basis of this study. I follow the distribution of Dong Son bronze drums throughout Mainland Southeast Asia and into western Indonesia (**Map Figure 2.1**) along river and maritime routes. The Dong Son drums found in eastern Indonesia are discussed separately in Chapter 3, in order to differentiate them from the ones in western Indonesia in terms of chronology, routes of transmission, and dynamics of trade. I discuss the drums in western Indonesia in this chapter, together with the ones on the mainland, in order to emphasize the direct links between the drums present on the long trail from north and north central Vietnam, through Laos, Thailand, the Malay Peninsula, Cambodia, and into the islands of Sumatra, Java, Borneo, and West Nusa Tenggara. Before reaching the islands of western Indonesia in the first-second century AD, Dong Son bronze drums travelled across the western part of Mainland Southeast Asia. On the other hand, as discussed in Chapter 3, I argue that the Dong Son drums found in eastern Indonesia travelled directly by sea from their centres of production in north Vietnam or southwest China to the islands. Their initial mainland to island crossing is likely to have taken place as a one period event sometime between the late third-fourth and the fifth century AD.

I identify the Dong Son bronze drums discussed in this chapter according to the Vietnamese classification (Pham et al. 1987) as types A (I-V), B (I-III) and C (I-II). The Shizhaishan typology, from the main Chinese classification (ZGTY 1988) is not adopted here because I consider it problematic, as discussed below (section 2.5). On the other hand, I adopt the Wanjiaba typology from the same Chinese classification instead of the Dong Son type D, because it seems more appropriate in light of what we know about this type of drums. The Dong Son types A and B in the Vietnamese classification are the drums which have direct parallels in the archaeological sites of the Dong Son culture (500 BC – AD 100) of north Vietnam, and they are dated from the third century

BC to the early first century AD. The main difference between the Dong Son types A and B, concerns the decoration of the mantle, while their shape is mostly equivalent. Types A (I-V) show pictorial and geometric decoration on the mantle, while types B only show geometric decoration on the mantle. The only pictorial decoration on Dong Son type B drums are the flying bird motifs on the tympanum. Dong Son type C drums, with four three-dimensional toad motifs on the tympanum are dated to the second-third century AD. In the text sometimes I also refer to bronze drums as Heger I types when it appears necessary to distinguish them morphologically from other types of bronze drums, and when I refer to both Dong Son drums and what I identify as 'Dian' drums, as discussed below.

My identification of selected clusters of bronze drums in Chapter 1 is not meant as another classification but as a tool to shed light on specific questions which arise from the analysis of bronze drums in their entire distribution. Because the clusters do not cover all the drums, I adopt the main Dong Son typologies from the Vietnamese classification in conjunction with them. However, my Region Specific cluster 2 (RS2), which I identify as 'Dian' drums, contrasts with the Vietnamese classification. Hence, I do not use the Dong Son types AVI and AVII because I include the drums identified by these types in my own identification of 'Dian' drums, which arises from my research in China and Vietnam in 2004 and 2005. In particular, I do not adopt the new Dong Son AVII type, added to the Vietnamese classification in 2006 (Pham, in press), and also identified as 'Dian' drums, because I use my own identification of 'Dian' drums (RS2), as I discussed in a 2004 paper (Calo', in press a). I identify twenty-one 'Dian' drums including ten drums from southwest China, eight from north Vietnam, two from Burma, and one from north Thailand, as discussed below (section 2.5b) and in Chapter 1 (RS2). The Vietnamese type AVII concerns the drums in Vietnam, and to my knowledge, it only refers to the Dian drums with three-dimensional frog motifs on the tympanum, while I include also other specimens without this motif.

Locating the centres of production of Dong Son drums in north Vietnam and its immediate environs, I discuss the drum finds in archaeological context, the chance finds, and the associated bronze material. With regard to the evidence for locating the centres of production, I emphasise that only in north Vietnam and its immediate environs the typical decoration of Dong Son bronze drums also appears on bronze material other than drums, such as bronze situlas, pediform axes, and plaques. Furthermore, I discuss what I call the 'Dong Son-Dian' question, concerning the origins of the bronze drums found in the burials of the Dian culture in Yunnan (sections 2.5, 2.5a, b, c).

From the centres of production in north Vietnam, I trace the distribution along river routes to its neighbouring regions on the mainland, and along maritime routes to western Indonesia. To the north and northwest of north Vietnam, I survey the drum finds in southeast Yunnan and west Guangxi provinces in China, in east Burma, and in north Thailand (section 2.7). To the southwest of north Vietnam, I then follow the trail of drums from north central Vietnam, into south Laos, northeast, west central, and peninsular Thailand (section 2.8). Further south, I discuss the distribution in the Malay Peninsula and Cambodia as the bridge to western Indonesia (section 2.9). Cutting across present national boundaries, I discuss the environmental factors facilitating contact. I aim at identifying specific inter-regional links facilitated by the exchange routes along river valleys and across mountain passes. In the final sections I follow the drums to the islands of western Indonesia. As a new approach to the island distribution, I argue that western and eastern Indonesia are best understood as two related yet distinct distribution domains. In western Indonesia, I discuss the concentrations of drums in South Sumatra and central Java as providing early evidence of the cultural and economic links between these two regions. Such links became more established during the Srivijaya period, from the seventh to the eleventh century AD.

MAINLAND SOUTHEAST ASIA

Centres Of Production And Regional Exchange

2.1. The Red River Highway between North Vietnam and Southwest China

The Red River (*Honghe* in Chinese, *Song Hong* in Vietnamese) runs from the southeastern foothills of the Tibetan Plateau in northwest Yunnan, China, down to the sea in the Gulf of Bac Bo, on the coast of north Vietnam (**Maps Figures 2.2, 2.3**). In west Yunnan, the Red River flows just south of the Lake Er (*Erhai*) region, where a total of ten bronze drums of pre-Heger, or Wanjiaba type (**Figure 2.4**), were excavated at the burial sites of Wanjiaba (Yunnan Sheng and Sichuan Daxue 1978; Qiu et al. 1983; Wang 1985; Murowchick 1989), Dabona (Xiong and Sun 1964), Bajiadashan, Xiapinman, and Dahaibo (Kan 1985).

Of the five bronze drums excavated at Wanjiaba in 1975, four were found turned upside down under a wooden coffin in tomb 23 (**Figure 2.4**) and another one was found in tomb 1. The dating of

the Wanjiaba type is an open question which has long been at the centre of nationalistic debates. Chinese archaeologists date the Wanjiaba type as early as the seventh century BC, based on three early uncalibrated radiocarbon dates from the coffin wood in tomb 23, which yielded four drums. These dates are: 2340 ± 89 BP (ZK-374); 2565 ± 90 BP (BK-76054); and 2560 ± 80 BP (WB-77-8). However, the 'old wood factor' needs to be taken into consideration, in particular because the samples were taken from the dug-out coffin wood, hence from a large tree trunk which can be much older than the burial itself. Furthermore, two later uncalibrated radiocarbon dates are also available from tomb 1 at Wanjiaba, which also yielded a bronze drum. These give: 2310 ± 80 BP (ZK-373), and 2280 ± 85 BP (BK-76053), thus suggesting a fourth century BC date. I believe this to be more consistent with the possible date of Wanjiaba drums. On the other hand, Vietnamese archaeologists, in light of the chance finds of Wanjiaba type drums in Vietnam, consider the type to be a coarse and late variation of the Dong Son type (Pham et al. 1987). Wanjiaba type drums have also been found as chance finds in southeast Yunnan and Guangxi, in China. Most scholars agree that the Wanjiaba type is likely to be an old type, possibly cast in Yunnan, but considering regional variations rather than direct chronological sequences, the Wanjiaba type could also partly overlap in time with the early decorated Dong Son drums, and thus could be dated to the fourth or early third century BC, as suggested by the radiocarbon dates from tomb 1 at Wanjiaba. Because this study focuses on the significance of the distribution of the fully decorated Dong Son bronze drums, and not on the question of which side of the present Sino-Vietnamese border hosted the casting of the first bronze drums, the Wanjiaba type is not discussed in further detail.

Returning to follow the course of the Red River, from the Erhai region it then runs south through the Yunnan Plateau, and southwest of the Lake Dian (*Dianchi*) region. Dong Son bronze drums of types A and B (Pham et al. 1987) have been excavated together with what I identify as 'Dian' drums' (Chapter 1 and below in section 2.5b) in the Dian cemeteries of Shizhaishan (Sun 1956; Yunnan Sheng 1959), and Lijiashan (Zhang and Wang 1975; Zhang et al. 1993), and as single drum finds in the cemeteries of Tianzimiao (Anon. 1985) and Yangfutou (Yang 2003; Jang 2003). As discussed in Chapter 1, I identify 'Dian' drums as the Region Specific cluster 2 (RS2).

Further south, the Red River enters North Vietnam at Lao Cai, where nineteen bronze drums of Dong Son, Dian, and Wanjiaba type, were found in 1993-4 (Pham 1997). The river then runs through the lowlands of North Vietnam until it flows into the sea in the Gulf of Bac Bo.

The Red River Valley of north Vietnam, along with the Ma and Ca River Valleys, form the main region of the Dong Son culture (500 BC – AD 100). The five largest and most elaborate early Dong Son bronze drums known, and also the largest and most elaborate Dong Son bronze situlas

(*thap* in Vietnamese) known, were found in the Red River Valley. These bronze drums and situlas share the same type of elaborate decoration. I identify these five bronze drums, together with one specimen from Indonesia, as the Region Specific cluster (RS1) of 'Red River Valley' drums, as discussed in Chapter 1. They include the Ngoc Lu I (**Figures 1.3-4, 1.12**), the Hoang Ha (**Figure 1.5**), the Co Loa I (**Figures 1.1-2, 1.6**), the Song Da (**Figure 1.7**), and the Kai Hua (**Figure 1.8**) drums. The latter was found in southeast Yunnan, just east of the Red River. Examples of the elaborate situlas from Yen Bai province in the Red River Valley of north Vietnam are the Dao Thinh (**Figures 1.15-16**), the Hop Minh (**Figures 1.17-18**), and the Van Thang specimens, which are discussed further below (sections 2.2, 2.3).

Of the three-hundred plus Dong Son bronze drums found in Vietnam to date (Pham, in press), the vast majority have been found in the Dong Son region of north Vietnam. They are mostly chance finds, often found by, or in the vicinity of, river banks. However, the few drums found in burial context or near settlement sites have provided dating clues and have furthered the understanding of the Dong Son bronze material as a whole.

Before entering North Vietnam, the Red River connects to the east with the Nan Pan River, which runs through southeast Yunnan. The Wenshan region of southeast Yunnan yielded six Dong Son bronze drums as chance finds (Anon. 2004), among which the above mentioned Kaihua drum, and the Guangnan drum (**Figure 2.5**) (Dewall 1984), are the most elaborate. According to the present study this region represents the northern reaches of the Dong Son cultural sphere, and it is likely to have hosted centres of production of bronze drums.

Continuing eastwards the Nan Pan River then turns into the Si (west) River, in west Guangxi. Here two Han burial sites at Xilin (Anon. 1978a; Jiang 1982) and Luobowan (Anon. 1978b; Anon. 1988) yielded six Dong Son bronze drums, four at Xilin, and two at Luobowan. In the Guangxi Provincial Museum, in Nanning, in 2005, I examined three Dong Son drums from the Han burial at Xilin, and two from the Han burial at Luobowan. Two of the Xilin drums are of Dong Son types AII (Xilin 280. **Figure 1.35**, and Xilin 281) and the third is of type BII (Xilin 282). The larger and more elaborate Luobowan drum is of Dong Son type AII (M1:10. **Figure 2.6**) and the smaller one is of type A IV (M1:11). I could not trace the location of the fourth drum mentioned in the 1978 report of the Xilin excavations.

Based on all the above, the course of the Red River touches directly, or indirectly by its tributaries and ramifications, upon all the areas of greatest concentration of Dong Son bronze drums in Southwest China and North Vietnam. Hence, this river 'highway' connected all the centres mentioned above facilitating the exchange of objects and ideas. The whole length of this important

river way was known in antiquity. The Red River region in Yunnan is described in the first century BC *Shiji* (chapter 116), by Sima Qian (145 – ca. 90 BC), grand historian at the court of Emperor Han Wu Di (Watson 1968: 290).

A sixth century AD Chinese geographical text describes the entire course of the Red River mentioning all the areas of the centres where bronze drums were found. As discussed by Taylor (n.d.), the sixth century *Shui Ching Chu* (chapter 37), is a Chinese text on geography attributed to Li Tao-yuan (d. 527). It traces the course of the Red River (*Yeh-yu* in the text) and its ramifications, mentioning all the main areas where Dong Son – Heger I bronze drums have been found in southwest China and north Vietnam.

The text is organized by river systems. The tales narrated in the text are of a legendary historical nature, and they describe events taking place in the period from the first century BC to the second century AD. The narrative unfolds following river routes and expresses the perceptions of the civilised Chinese encountering the barbarians along the south-western frontiers. River routes are described in connection with important cultural centres. This text thus provides a clear picture of the specific river routes relevant to understanding the distribution of Dong Son – Heger I drums in the region. As the main ways of transport, river routes allowed for cultural contact and exchange, and opened the way for the southern expansion of Han power into Yunnan and north Vietnam at the end of the first millennium BC. According to Taylor, the text says that Yunnan was facing powers expanding from Sichuan, while Guizhou was facing powers expanding from Hunan, and to a lesser extent from Sichuan. Present north Vietnam faced powers expanding from Guangdong and Guangxi.

The *Shui Ching Chu* follows the course of the Red river from the Yeh-yu Lake (modern Erh Hai) and then to the south of the Lake Dian (*Dianchi*) region of Yunnan. As noted by Taylor, the Dian region is also described in the fourth century text *Hua yang kuo chih* by Chang Chu (AD 265 – 316), as being known for the sacrifices made to the ‘mountain spirit’ represented by the ‘golden horse’. The Dian area is characterised by its abundance of cattle, horses, sheep, and gold and silver. It is also said to have been difficult to pacify.

This description of the Dian mountain environment and equestrian culture is reflected in the typical motifs depicted on the Dian bronze containers for cowrie-shells found in the Dian cemeteries of Shizhaishan (Sun 1956; Yunnan Sheng 1959), Lijiashan (Zhang and Wang 1975; Zhang 1993), and Tianzimiao (Hu 1985), as discussed below in section 2.5a. This mountain environment inhabited by an equestrian people is typical of the Dian culture in central Yunnan, but

not of the Dong Son culture in north Vietnam. The latter was based on wet-rice cultivation in the semi-tropical river valleys. This difference of cultural and environmental traits marks the distinction between the Dian and Dong Son bronze material, such as the Dian bronze containers for cowrie-shells and Dian drums, and Dong Son drums. This distinction is evident even when Dian and Dong Son drums are found together as part of the same burial inventories in Dian tombs at Shizhaishan and Lijiashan, as I discuss below (sections 2.5, a-c).

The *I-chou* commandery (in the region of modern Kunming, Yunnan) is described in the text as the 'old kingdom of Tien Lake and Yeh-yu'. These correspond respectively to the present Lake Dian (*Dianchi*) and the Lake Er (*Erhai*) regions of central and western Yunnan. The first century BC *Shiji* (chapter 116), by Sima Qian also refers to the seals bestowed by the Emperor to the King of Dian in 109 BC (Watson 1968: 295-296). The golden seal found in tomb 6 at the Dian cemetery of Shizhaishan has been associated with this event (Sun 1956; Yunnan Sheng 1959).

The Red River (*Yeh-yu*) is then described as flowing south to the Pen-ku District (modern Gejiu in Yunnan), where the Pan River (modern Nan Pan Jiang) flows to the east. Then it continues westward through southeast Yunnan, south of Guizhou (Yeh-lang territory), and it then becomes the West River (*Si Jiang*) of Guangxi and Guangdong. Pen-Ku is emphasised as a point of juncture between the *Yeh-yu* and the Pan river systems.

Then the text returns to the southern course of the Red River, which enters the Me Linh District, in the *Giao-Chi* Han commandery (North Vietnam) established in 111 BC. Here it is joined by its tributaries, the Black River (*Song Da*) and the Chay River. It then divides into five rivers which flow south through *Giao-chi* until the middle branch enters the sea in the Gulf of Bac Bo. The text also mentions that by the Yeh Dinh District, at the centre of the middle branch of the *Yeh-yu* lies a bronze boat cast by the Yueh (Viet) king. The image of a monumental bronze boat is, according to Taylor, an image symbolising authority over the river.

2.2. Bronze Drums and Related Bronze Material in Dong Son Sites – Locating the Centres of Production

According to Vietnamese archaeologists (Pham 2004, in press), out of about three-hundred early Dong Son bronze drums found in Vietnam, about two-hundred specimens were found in the Dong Son cultural sphere of north Vietnam, which comprises the valleys of the Red, Ma, and Ca Rivers.

To date, over seventy Dong Son sites have been found in north Vietnam (Pham 2004). These comprise burial, settlement, workshop, and sites of chance finds, and are dated from the second half

of the first millennium BC to the first century AD (Pham 2004). The origins of Dong Son are found in the Red River Valley of North Vietnam. The Neolithic and Bronze Age sequence of the Phung Huyen (2000 – 1500 BC), Dong Dau (1500 – 1000 BC), and Go Mun (1000 – 500 BC) cultural phases leads to the Dong Son (500 BC – AD 100) Iron Age phase (Ha 1980). The Phung Huyen, Dong Dau, and Go Mun type-sites, and the related archaeological cultures, are all located in the Red River Valley of north Vietnam.

The related decoration of the pottery of these three cultural phases appears to be the precursor of the geometric spiral decoration of Dong Son bronze drums, situlas, and other bronze material (Ha 1980; Davidson 1975: 89-93, fig. 7). Moreover, evidence of bronze casting in the Dong Dau context is given by the finds of a bivalve mould for a socketed bronze axes found by Ha (Nguyen 1998) and by the finds of thirty or so clay and stone moulds for casting bronze axes and fish-hooks at the site of Thanh Den (Ha 1980). As pointed out by Higham (2002: 151-152; 2004), the evidence from Dong Dau shows that bronze axes begin to assume the pediform shape of later Dong Son axes. Higham also notes that the stone and clay moulds found by Ha at Thanh Den are identical to the ones found in the Khorat Plateau of northeast Thailand. Excavations in northeast Thailand have yielded evidence of copper mining and smelting activity dated safely to the late second-early first millennium BC (Natapintu 1988; Piggott 1998; Piggott and Weisgerber 1998). Excavations at the Go Mun site in the 1960s showed an increase of bronze casting activity in the Red River Valley in the first half of the first millennium BC (Higham 2002: 152). Bivalve moulds for axes and arrowheads were found, and several artefacts previously found in stone were now reproduced in bronze. The link between the Dong Dau bronze casting moulds and the ones in northeast Thailand is of particular significance. It points to the exchange taking place between the Red River Valley of north Vietnam and the Khorat Plateau of northeast Thailand, across the Truong Son Cordillera, and to the existence of an independent Southeast Asian bronze industry well established from the late second-early first millennium BC.

Based on the finds of bronze drums and other bronze material in Dong Son sites, such as Dong Son itself, Lang Vac, Viet Khe, and Co Loa, early Dong Son drums - corresponding to the Dong Son types A and B in the Vietnamese classification (Pham et al. 1987) - can be dated from the mid third century BC to the first century AD. The earlier starting dates of the Dong Son culture (500 BC – AD 100) do not concern bronze drums. Dong Son bronze drums, together with bronze situlas and other bronze artefacts related by decoration, are examples of the high degree of specialised bronze casting technology reached by the Dong Son culture at its peak, from the third to the first century BC, and into the first century AD.

The four Dong Son burial and settlement sites which yielded bronze drums include the burial and settlement site of Dong Son itself, in Thanh Hoa province, which yielded six bronze drums; the burial site of Lang Vac, in Nghe An province, which yielded five bronze drums; the boat coffin burial at Viet Khe, in Hai Phong province, in the Red River Delta, which yielded one bronze drum; and the moated citadel of Co Loa, in the Red River Valley, which yielded three bronze drums from the fields within its walls.

The Dong Son type-site is a settlement and cemetery site located on the southern banks of the Ma River, in Thanh Hoa province. The area of Thanh Hoa province has yielded the highest concentration of early Dong Son bronze drums, not only in Vietnam, but also throughout the whole distribution. First discovered in 1924, the Dong Son site was excavated in 1925 and 1929 by Pajot. The finds of these first excavations are discussed by Goloubew (1932). Then, between 1935 and 1937, more systematic excavations were conducted by Janse (1958). Further excavations were later conducted by Vietnamese archaeologists in 1961, 1969-1970, and 1976 (Ha 1994; Chu 1970, 1976). A total of six bronze drums and various miniature drums were found at Dong Son. The code (I-VI) of these Dong Son drums used here is based on Anon. 1990, and it is not sequential. Excavations in 1925 yielded the Dong Son I drum (**Figure 2.7**, Anon. 1990: 82-83), of type B II, and the Dong Son III drum, of type B III (Anon. 1990:146-147). The Dong Son II drum (Anon. 1990: 144-145), also of type B III, was found in 1929. These three drums are kept in the History Museum in Hanoi. During my research at the museum in February 2005, I examined the Dong Son I drum but I could not locate the other two (**Figure 2.8: DS III-II**).

Then in 1936, Janse (1958) excavated the Dong Son V and VI drums (**Figure 2.9: DS V-VI**), both of B II type (Anon. 1990: 84-87). The Dong Son VI drum was excavated in tomb 1, and the Dong Son V drum in tomb 2. They are kept today in the Chernuschi Museum in Paris (MC 8006, MC 8644). The Dong Son IV drum, also of type B III, was excavated in 1970 (Anon. 1990: 142-143), and it is on display in the Thanh Hoa Provincial Museum (**Figure 2.10**). Apart from bronze drums, the other excavated bronze material includes bronze situals (*thap*), spittoons (*tho*), pediform axes, spears, ornaments. The very few iron objects include spears and daggers. The finds of Wu Zhu Chinese coins issued from 119 BC provides a dating clue for the Dong Son site. According to Janse (1958: 33), the settlement site was abandoned in the mid first century AD as a result of the advance of the Chinese armies of Ma Yuan in AD 43. As evidence of local bronze casting, Janse found a casting sprue in one grave together with bronze spears.

BRONZE DRUMS EXCAVATED AT DONG SON

	Drum - tomb #	Excavation Date	Height - Dia. cm	Type	Present Location	Reference
1	DS I	1925	H. 28, D. 31.5	Dong Son B II	Vietnam History Museum, Hanoi	Goloubew 1932
2	DS II	1929	H. 24.5, D. 29	Dong Son B III	Vietnam History Museum., Hanoi	Goloubew 1932
3	DS III	1925	H. 21, D. 23	Dong Son B III	Vietnam History Museum, Hanoi	Goloubew 1932
4	DS IV	1970	H. 24, D. 29	Dong Son B III	Thanh Hoa Provincial Mus.	Chu 1970, 1976
5	DS V – tomb 2	1936	H. 27, D. 35.5	Dong Son B II	Chernuschi Mus., Paris. Code 8644	Janse 1958
6	DS VI – tomb 1	1936	H. 31.5, D. 44	Dong Son B II	Chernuschi Mus., Paris. Code 8006	Janse 1958

The cemetery of Lang Vac, in the Ca river Valley of Nghe An province, is the southernmost site in the Dong Son region and it yielded a total of five Dong Son drums, kept today in the Nghe An Culture Department. It comprises more than one-hundred stone slab and jar burials. Four Dong Son drums of types A and B were found during the first excavations in 1972–1973 undertaken by the Institute of Archaeology in Hanoi (Trinh et al. 1974). These include the Lang Vac I drum (**Figure 2.11**), of type A IV (Anon. 1990: 30-31), found in a field in the cemetery area, and other three drums (LV II-III-IV) which were excavated in the burials, along with bronze situlas, daggers, and ornaments. The Lang Vac II drum (**Figure 2.12**) is also of A IV type and is very similar to the Lang Vac I drum (Anon 1990: 34-35). It was excavated in tomb 3 in 1973. The Lang Vac III drum (**Figure 2.13**) is of type B II, thus without pictorial decoration, and was excavated in tomb 14, in 1973 (Anon. 1990: 60-61). The Lang Vac IV drum is of type B III, and was excavated in 1972 (Anon. 1990: 148-149). A radiocarbon date (ZK-310) from a sample of charcoal from a tomb yielded 40 ± 85 BC or 1990 ± 85 BP (Diep 1976; Ha 1980: 134).

The second excavations at Lang Vac, undertaken by the Institute of Archaeology in 1980-1981 (Pham et al. 1981), yielded the fragmentary tympanum of the Lang Vac V drum from tomb 42

(Anon. 1990: 194-195). It was first classified as a Dong Son type C III (Anon. 1990), and then, in light of the finds at Lao Cai, Pham (1997) reclassified it into the Dong Son type AVI. However, I do not adopt the Dong Son type AVI because the drums identified by it correspond to my Region Specific cluster 2 (RS2) of 'Dian' drums. The Lang Vac V drum is a 'Dian' drum. Although only the fragmentary tympanum of the Lang Vac V drum remains, it parallels closely the tympanum of other Dian drums, such as the Lao Cai VII drum (**Figure 2.14**).

The second excavations also yielded three circular nephrite earrings with lugs (*ling ling o*), typical of the Sa Huynh culture of central Vietnam, contemporary with Dong Son (Ngo n.d.; 1983), which are discussed further below (section 2.8a, **Figure 2.67**). The other Dong Son site which yielded a specimen of Sa Huynh nephrite earring, of the double-headed animal type (*ling ling*), is Xuan An, also in Nghe An province (Southworth 2004) in the southern Dong Son region.

The third excavations at Lang Vac in 1990-1991, undertaken by the Vietnam-Japan joint team did not yield more bronze drums but discovered an associated settlement site (Imamura and Chu 2004). In 1991, the settlement site was found just to the west of the Lang Vac cemetery, at Xom Dinh. Hence, the Lang Vac complex includes both the cemetery and the settlement site. The third excavations also yielded two Ban Liang Chinese coins from burial 114. One is a Ban Liang coin of eight zhu, issued from 180 BC, and the other is a Ban Liang coin of four *zhu*, minted from 144 BC to 120 BC (Imamura and Chu 2004: 153).

BRONZE DRUMS EXCAVATED AT LANG VAC

	Drum - tomb #	Excavation Date	Height - Dia. cm	Drum Type	Present Location	Reference
1	LV I - field	1972	H. 27.8, D. 37.7	Dong Son A IV	Nghe An Cult. Dept.	Trinh et al. 1974
2	LV II – tomb 3	1973	H. 25.6, D. 34.5	Dong Son A IV	same as above	same as above
3	LV III – tomb 14	1973	H. 48.5, D. 56	Dong Son B II	same as above	same as above
4	LV IV	1972	H. 23.2, D. 27.6	Dong Son B III	same as above	same as above
5	LV V – tomb 42	1980-81	D. 26.5	Dian drum	same as above	Pham et al. 1981

The boat coffin burial site of Viet Khe, located on a hill over the Hoa River in Hai Phong province, was excavated in 1961 (Vietnam Museum of History 1965). The largest of the five dug out log coffins measured 4.76 metres in length, and it contained one hundred and seven burial goods. It is on display in the Vietnam Museum of History in Hanoi, where I examined it in 2004 and 2005. The Viet Khe coffin contains a Dong Son drum of type A IV (**Figure 2.15**, D. 23 cm), a bronze situla (*thap*, H. 32 cm), which is elaborately decorated with boat with feathered-men motifs, bronze spittoons (*tho*), bronze bells, and other bronze vessels such as a *binh*, a tripod *dinh* and a *au*. Among the decorated bronze utensils, an impressive spoon shows a human figurine playing a free-reed wind instrument with a gourd resonator (*khene*) (**Figure 2.16**). Bronze weapons included thirty-one bronze pediform axes, swords, knives, spears, arrowheads. Non-metal goods included wooden and lacquered objects, cloth, and basketry. While no human remains were found it is clear that the finds were burial goods. Three radiocarbon dates (Kohl and Quitta 1978; Nguyen V.V. 1989) from samples of the coffin wood in alluvial soil at 1.5 to 2 metres of depth at Viet Khe give: 2480 ± 100 BP (Bln-950), CAL 800 – 400 BC; 2415 ± 100 BP (Bln-1227), CAL 770 – 400 BC; 2320 ± 100 BP (Bln-1249), CAL 520 – 360 BC. The pooling of these dates suggests a fourth-third century BC date for this burial (Higham 2002: 173; 1996: 111-115). This dating allows for the use of old wood for the coffins.

Other Dong Son burial sites, which did not yield bronze drums, but yielded bronze material related to bronze drums by decoration, contribute to our understanding of the typical Dong Son bronze material as a consistent body of related artefacts. The burial site of Lang Ca, in Vinh Phu province, in the Red River Valley, yielded four bronze situlas, thirty-six axes, six bells, and miniature drum, sixty-two spearheads, six daggers and three knives (Trinh and Ngo 1980; Pham 1996). Most importantly, one burial at Lang Ca provides evidence of local bronze casting. It yielded four clay moulds (**Figure 2.17**) for casting a bronze pediform axe, a spearhead, a sword hilt, and a bell, and the associated crucible, which would have contained up to twelve kilograms of molten metal (Higham 1996: 119). As noted by Higham (1996: 122), the mould for the pediform axe equals in size a pediform axe found inside the large bronze drum (Co Loa I) found at the Co Loa site discussed below. A calibrated radiocarbon date from a sample of charred wood from this grave pit at Lang Ca gives 2235 ± 40 BP (Bln-1733), CAL 360 – 90 BC, suggesting a third century BC date also for the Lang Ca cemetery (Kohl and Quitta 1978; Nguyen V.V. 1989).

In 1974, eight dug out log coffins were excavated at Chau Can (Luu Tran Tieu 1977), and in 1982, seven log coffins were excavated at the nearby site of Xuan La, located ten kilometres from

Chau Can (Pham and Trih 1982). Both sites are in the Red River Delta. Burial 3 at Chau Can yielded a bronze pediform axe and a spearhead. A calibrated radiocarbon date from the wood of one coffin gives 2325 ± 60 BP (Bln-1438), CAL 410 – 370 BC (Nguyen V.V. 1989). At Xuan La the coffins yielded a bronze situla, pediform axes, spearheads, and Chinese coins minted between AD 9 and 23.

Eight water logged coffins with textile remains were found by an irrigated canal at Dong Xa, in Hung Yen province, in 2000. The coffins and their content have been investigated by Nguyen Van Viet (pers. com. Feb. 2005), and the site has been further excavated by Cameron and Bellwood leading the Australian-Vietnamese Research Project of Dong Son Textiles in 2003 and 2004. The remains of textile in the water logged coffins have been studied by Cameron (2006). During my visit to the Hung Yen Museum, I saw two of the coffins which are kept in a cement tank filled with chemicals to preserve the organic material. A first century BC date is suggested by the find of a Chinese coin in one coffin. More dates should arise from recent research on the site.

In the Hung Yen Museum, I also examined the Dong Xa bronze drum (**Figures 1.20-22**. H. 42 cm, D. 49cm), which was found in 1997 about 700 m away from the coffins, buried upside down at a 50 cm depth by a canal (Anon. 1999). This is a very well preserved complete bronze drum of the 'Dian' type, which is discussed further below in section 2.5b. Dian drums are also considered here in their geographical distribution, as the Region Specific cluster 2 (RS2) identified in Chapter 1.

The largest Dong Son settlement site is the moated citadel of Co Loa, located 16 km northeast of Hanoi, in the Red River flood plain. The Co Loa citadel is surrounded by three man made moats, created by connecting natural hills. The first central moated wall is rectangular, while the second and third moated walls follow the irregular natural shape. The outer moat measures about 8 km. Remains of Dong Son pottery can be seen in the second moated wall, which measures up to 4 m in height (**Figure 2.18**).

At Co Loa, in 1982, a large decorated bronze drum of Dong Son type A I (**Figures 1.1-2, 1.6**. Co Loa I: H. 57 cm, D. 73.6 cm) was found between the second and the third moated walls of the citadel, in a field at Ma Tre (Nguyen and Nguyen 1983). This Co Loa I drum was found complete and it contained fragments of another smaller drum (Co Loa II). It also contained about two-hundred bronze tools including bronze ploughshares, arrowheads, socketed axes, spearheads, and daggers (**Figure 2.19**). Higham (1996: 122) points out that among the socketed axes, a pediform specimen is identical in shape to the impression on the clay mould found at the cemetery of Lang Ca. Moreover, a Chinese coin dated to 200 BC was also found inside the Co Loa I drum.

Already in 1976 (Tran et al. 1978), five fragments of a bronze drums had been discovered between the second and the third moated walls at Xom Nhoi. This drum also contained bronze arrowheads and other bronze tools, as did the Co Loa I drum. I did not examine these fragments, but as noted by Nishimura (in press), this was a large drum and based on a fragment, its base diameter was calculated to be just over 60 cm. However, I do not include it in the Red River Valley cluster because, to my knowledge, from the fragments it is not known if the drum showed the elaborate decoration of the drums in the RS1 cluster. The area between the second and the third moated walls is used today for wet rice cultivation. According to Pham (pers. com. 2005), this area, where the drums were found, was occupied by water courses in antiquity. The drums could thus have been buried on the banks of a river.

Nishimura (in press) also notes that the Co Loa I drum shows an inscription in Chinese characters on the inner surface of the lower mantle. The inscription gives the weight of the drum with its content. The practice of inscribing the weight in Chinese characters on the surface of Dong Son bronze drums and bronze situlas is also observed on a Dong Son drum (M1:10) and a Dong Son situla found in a Han tomb at Luobowan, in west Guangxi, as discussed in section 2.7 below (Anon. 1978b; Anon. 1988; Nishimura in press; Nguyen 2005). These inscriptions reflect Han Chinese presence, pointing to a second century BC date for the sites. The Vietnamese annals *Viet Su Luoc* and *Dai Viet Su Ky Toan Thu* narrate that Co Loa was built by the legendary king An Duong, who, in the second century BC, was defeated by Zhao Mo (Chao To, Trieu Da), king of Nan Yue (Nam Viet), which was centred in the region comprising Guangdong and Guangxi provinces in China (Nishimura in press). The finds of Dong Son situlas in the tomb of king Zhao Mo, in Guangdong province, are discussed by Dewall (1989).

During my visits to the Co Loa site in February 2005, I was not able to examine the fragments of the smaller Co Loa II drum, or of the other large drum. These should be kept in the Culture Department of Hanoi together with the Co Loa I drum. The Culture Department was not accessible at the time. Fortunately, I had been able to examine the Co Loa I drum the year before, in August 2004, when it was on display at the History Museum in Hanoi, for the exhibition celebrating eighty years of Dong Son studies, since the first excavations of the Dong Son site in 1924.

Co Loa is dated to the late Dong Son phase, from the second-first century BC to the first century AD. Outside the third moated wall of the Co Loa citadel, Neolithic Phung Huyen sites dated from about 2000 BC (Lai 1999), testify to the long standing settlement of this area in the Red River plain. As noted by Higham (1996: 217) the smaller moated site of Ban Chiang Hian, in the middle Chi River Valley of northeast Thailand, dated from 600 BC to AD 200, was in contact with Co Loa, along a route passing through the Truong Son Range. The importance of this mountain

range as a gateway for the exchange routes from north central Vietnam to Laos and northeast Thailand are discussed in more details below (sections 2.8, 2.8a).

The five most elaborate early Dong Son drums on the mainland were found in the Red River Valley. In Chapter 1, I identify these drums as the Region Specific cluster 1 (RS1). Of these, only the Co Loa I drum was found in the area of a settlement site, while the other four were chance finds. Their elaborate decoration parallels closely the decoration of the largest and most elaborate bronze situlas known, which are also found in the Red River Valley, in Yen Bai province, in north Vietnam. Examples of these are the Dao Thinh (**Figures 1.15-16**), Hop Minh (**Figures 1.17-18**), and Van Thang situlas mentioned in Chapter 1 (RS1). Hence, both these drums and situlas are likely to be the products of a single or a few closely related workshops, active during the peak of Dong Son in the mid third-second century BC.

The Vietnamese classification (Pham et al. 1987) identifies these five drums found in the Red River Valley as the Dong Son type A I, and considers them to be the oldest type of Dong Son drums. However, the fact that they are few in number and that they show elaborate decoration, which parallels closely the decoration of the two most elaborate bronze situlas, also found in the Red River Valley, suggests that they represent the peak of the tradition and thus are not necessarily the oldest. I believe these drums to be elaborate versions of the other Dong Son types A and B, which are dated from the third century BC to the first century AD. In my opinion Dong Son type AI drums can be dated to the middle of this dating range, possibly to the second century BC. These five Dong Son A I drums comprise:

1. The Nogoc Lu I drum (**Figures 1.3-4, 1.12**. H. 63 cm, D. 79 cm), found in 1893 at Nhu Trac, in Ha Nam Ninh province, and kept today in the History Museum in Hanoi.
2. The Hoang Ha drum (**Figure 1.5**. H. 61.5 cm, D. 79 cm), found in 1937 in Hoang Ha, in Ha Son Binh province, and also kept today in the History Museum in Hanoi.
3. The Co Loa I drum (**Figures 1.1-2, 1.6**. H. 53 cm, D. 73.8 cm), found in 1982 in a field at Ma Tre between the second and third moated walls of the Co Loa citadel. It is kept today in the Culture Department of Hanoi.

4. The Song Da drum (**Figure 1.7**. H. 61 cm, D. 78 cm, also known as the Moulié drum), found at the end of the nineteenth century by the Da River in Ha Son Binh province. It is kept today in the Musée Guimet in Paris.
5. The Kai Hua drum (**Figure 1.8**. H 53.3 cm, D. 65 cm) from southeast Yunnan, China, and kept today in the Museum of Ethnology in Vienna.

Note: see also the RS1 Chart of Common Features in Chapter 1.

In light of their distinctive elaborate decoration, and their concentration in the Red River Valley, in Chapter 1, I identify these drums as the Region Specific cluster 1 (RS1). The RS1 cluster also includes the Kabunan drum (H. 48.5 cm, D. 64 cm) found in the Pekalongan area of central Java, in Indonesia (**Figure 1.9**). This specimen is the only exception to the regional concentration of this type of drums in the Red River Valley. The Kabunan drum, which I examined in the storage of the Museum Nasional Indonesia in Jakarta (MNI code 1827), parallels the five drums in the Dong Son type A I in shape and decoration. As it is discussed in section 2.13 below, the Pekalongan area, together with the Semarang, and Kendal areas, on the north coast of central Java, is where early ports involved in international trade are likely to have been located (Suleiman 1984). The Kabunan drum parallels its counterparts in the Red River Valley in shape and decoration. Although great part of the decoration is eroded, what is visible on the tympanum shows the presence of pictorial bands with house with gable roof motifs, placed according to the typical layout scheme, between feathered-men motifs and figures beating bronze drums. The upper mantle shows boats with feathered-men motifs, and the panels of the mid mantle show standing feathered-men motifs with tall headdresses. The only difference between the Kabunan and the five counterparts on the mainland is that the Kabunan drum shows two instead of four house motifs on the tympanum.

2.2a. Evidence of Bronze Casting in the Dong Son Region

Evidence of the casting of Dong Son bronze drums in the Dong Son region of north Vietnam is given by two fragments of the outer clay mould for casting a bronze drum (**Figure 2.20**), which have been found in 1998 by Nishimura (2005, in press) during his excavations of the Lung Khe citadel, in Bach Ninh province, in the Red River Valley. Lung Khe is dated from the second to the fourth century AD. A crucible for bronze casting was also found near one of the fragments. The

clay of the mould is mixed with charcoal and rice husk. The decorative motifs on the moulds include the comb and concentric circle with tangent motifs. Both fragments show the decoration for the tympanum of a drum, which is estimated by Nishimura to have measured c. 54 cm in diameter. Nishimura dates the moulds to the second century AD, according to Imamura's classification (1993) based on decorative features, and on associated ceramics dated to the second century AD. Nishimura also points out that the drum which was cast by using the moulds at Lung Khe would have been similar to the one from Don Sane, in south Laos (Sørensen 1992; Nitta 1995), which is discussed further below in section 2.8. This drum from Laos is a late Dong Son type A or possibly CII, which I date to the first-second century AD, based on a comparative decorative analysis. In the absence of the tympanum, it is not sure if it had four three-dimensional toad motifs. Although there is as yet no evidence of casting moulds for early Dong Son bronze drums, evidence of local bronze casting is also provided by a casting sprue at Dong Son, and four clay moulds and a crucible to cast Dong Son bronzes other than drums at Lang Ca.

Apart from the evidence for actual casting, the fact that only the Dong Son cultural sphere of North Vietnam yielded bronze drums in association with a whole series of other bronze artefacts showing the same typical decoration of bronze drums indicates that this large body of distinctive bronze material is representative of the local culture and of its specialised bronze casting technology. In the same way as bronze drums, the other typical Dong Son bronze material was either excavated in archaeological context or it was found by chance, together with drums or on its own. These other types of Dong Son bronzes are chiefly represented by bronze situlae containers (*thap*), which are discussed in more detail in the next section, bronze spittoons (*tho*), distinctive bronze pediform axes, plaques, bells, and spears. This material is evidence of the local specialised bronze casting of a consistent body of related Dong Son bronze material in the Dong Son cultural sphere of north Vietnam and its immediate environs.

Some of these other Dong Son bronzes also show regional variations within the Dong Son region, as bronze drums do. For example, the bronze pediform axes, which are often decorated with boat with feathered-men motifs and other animal motifs, are of two main regional types. The axes from the Red River Valley are in the shape of a square or rectangular boot, while the ones from the Ma River Valley, in the region of the Dong Son site, in Thanh Hoa province, are in the shape of a more round boot (Pham 1996). The rounder pediform axes from the Ma River Valley typically show, above the feathered-men motifs, pairs of snake bodied crocodile-dragon motifs with coiled tails facing each other (**Figure 2.21**). These motifs do not appear on the square pediform axes from

the Red River Valley. Similar pairs of opposite reptile motifs appear also on elaborate bronze situlas, such as the Dao Think specimen, and on bronze plaques.

Among the shared Dong Son pictorial motifs, the typical boat and feathered-men motifs of bronze drums also appear on bronze situlas (*thap*). Examples of these include the Dao Think (**Figures 1.15-16**) and the Hop Minh (**Figures 1.17-18**) specimens from Yen Bai province, the Xuan Lap situla (**Figure 2.22**) from Thanh Hoa province, the Viet Khe situla from Hai Phong province, and also a situla in the tomb of the king of Nan Yue, in Guagzhou (Dewall 1998). Feathered-men motifs also appear on bronze plaques, as the ones from Vinh Loc, in Thanh Hoa province, and from Thieu Duong and Lat Phuong, in Ha Tay province. The typical flying bird motifs on bronze drums also appear on a bronze horned bronze bell from Hung Yen province (Pham 1996: 383), in the Red River Delta.

In summary, the centres of production of early decorated Dong Son bronze drums can be located in north Vietnam and its immediate environs in light of the evidence of the casting mould for a bronze drum from the Lung Khe citadel, of the four moulds for other Dong Son bronze objects at the Lang Ca burial site, and of the casting sprue from the Dong Son burial site. It is also emphasised that this conclusion is also supported by the related body of Dong Son bronzes found together only in the Dong Son cultural sphere. The presence of bronze material directly related to bronze drums by decorative scheme, artistic vocabulary, and often in association with burial practices, shows that this body of related Dong Son bronzes participated 'as a whole' in the local ceremonial context. This fact strongly suggests that Dong Son – Heger I bronze drums were cast in the Dong Son cultural sphere of north Vietnam, rather than in its neighbouring regions of Southwest China or other surrounding areas. In west Guangxi province, as it is discussed in section 2.7 below, Dong Son bronze drums are found in Han burials at Xilin and Luobowan. However, the burial inventories in these two locations comprise mainly Han material. Moreover, in the cemeteries of the Dian culture of central Yunnan, discussed further below (sections 2.5, 2.5a-c), bronze drums are found together with bronze material which shows the entanglement of multiple cultural influences.

As Higham points out (2002: 175-9), the evidence from Dong Son points to the local origin of a specialised bronze industry, associated with the centralization of power in north Vietnam. Some centres of production were probably also located in the immediate environs of north Vietnam, in southeast Yunnan and west Guangxi, in southwest China. According to this study, this region, just over the northern and northeastern border of north Vietnam, correspond to the outer reaches of the

Dong Son cultural sphere, which was the first to become subject to Han expanding power in the second century BC.

2.3. Dong Son Bronze Casting Technology

Having located the main centres of production of Dong Son bronze drums in the Dong Son cultural sphere of north Vietnam and its immediate environs, this section inquires into the technique adopted for their casting. In accordance with most studies, I believe that Dong Son bronze drums were cast by the lost wax method, a technique characteristic of Southeast Asian metallurgy (Barnard 1987, 1996; Bernet Kempers 1988, 1991; Higham 1996: 130-131; McConnell and Glover 1990; Bennett 2005; Nguyen V.V. 2005). Based on previous studies and on my own examination of numerous Dong Son drums, the lost wax method for the casting of a Dong Son drum can be described as follows:

1. First, the process involves the making of a clay core in the shape of a drum. While it has been proposed (Higham 1996) that this core would be cut into two halves, I am inclined to think that this would not have been necessary, and that the inner core may have remained whole. Separate wax sheets printed with the decoration of the mantle are applied over the two halves of the core, yet the core is likely to remain whole.
2. To produce the decoration of the mantle, wax sheets are printed by pouring molten wax into rectangular clay or perhaps wooden moulds. The moulds are incised or carved to produce the negative motifs of the pictorial and geometric decorative bands. A single printing mould is subdivided into sections, which allow for the lifting of separate sheets of printed wax for each of the three sections of the tripartite mantle. Alternatively, separate rectangular moulds are produced and incised or carved to produce the decoration on wax. Each wax sheet, corresponding to one half of the decorative band, is folded over the upper, the mid, and the lower mantle, on each of the two halves of the core. The lower mantle, although undecorated, with the only exception of two drums in Indonesia, would also require two wax sheets created in a mould.

3. A separate circular mould is incised with the decoration of the tympanum.
4. The rectangular incised moulds for the decoration of the mantle, and the circular incised mould for the tympanum are filled with molten wax. Once the wax solidifies and the sheets are lifted from the moulds, they show the decoration of the bands in positive relief, as it will appear on the surface of the drum.
5. Three separate sheets of wax are laid horizontally over each half of the tripartite core. One for decorative bands of the upper mantle, one for the bands and panels of the mid mantle, and one with no decoration for the lower mantle. As pointed out by Higham, further details may be added by stylus at this point, thus resulting in negative lines on the wax and on the resulting bronze surface. The fact that most of the decoration is in positive relief, while some of it is negative, is explained by this procedure.
6. If the inner core was cut into two halves, the two halves would now be joined back together after the core was covered by the wax sheets. However, it would not have been necessary to cut the core in half. It could have remained whole while the wax sheets were applied over each half of the core and joined together.
7. The two positive opposite vertical 'seams' which appear only on the outer surface of all Dong Son drums, may be the result of the drawing of two vertical lines of wax along the joining line of the wax strips. This would have been done to avoid unevenness.
8. The wax model of the tympanum is placed over the clay core covered with the wax sheets. Further details can be incised into the wax at this point, resulting in motifs showing negative contours on the drum, such as the flying bird motifs on the drums in the spread out cluster (SO), identified in Chapter 1.
9. Metal spacers are then applied into the wax on the mantle to fix the distance between the clay core and an outer clay investment over the wax. The distance set by the spacers determines the thickness of the bronze drum. Evidence of casting spacers is found on the mantle of most drums, in the form of square or circular holes or filled marks (**Figure 2.23**). With regard to the spacers on the tympanum, holes or filled marks from casting spacers are found on the undecorated outer rim of the tympani of Dong Son drums (**Figure 2.14**).

10. The wax model with applied spacers is then covered by an outer clay investment, consisting of a thinner and a thicker coarser layers. Holes are left open in this outer investment at the point of the lower mantle, for the wax to come out and the molten metal to be poured in.
11. The investment is heated and the wax melts and comes out.
12. At this point the molten metal is poured in its place.
13. Once the metal solidifies the inner and outer clay are broken off.
14. Metal Spacers are removed and the holes are filled by molten metal.

With regard to the two pairs of handles, as Bennett (2005) points out, there is no evidence of mechanical joining on the inside of the drums, so it is likely that they were either pre-cast by the lost wax method and inserted into the wax model, or that wax models of the handles were attached to the wax layer on the body of the drum, and covered by the same outer clay mould, so to be cast together with the rest of the drum. With regard to the three-dimensional toad motifs, which appear on later Dong Son drums, it is likely that they were cast separately by the lost wax method and joined to the bronze tympanum with molten metal.

Some scholars have argued against the lost wax casting method and in favour of the piece-mould method, a technique which would have been imported from China to Southeast Asia. Heger (1902) believed that only his type III was cast by the lost wax method, as documented by ethnographic evidence in Burma (Fraser-Lu 1983: 54-56), while the other types, and in particular the Heger I type, was cast by the piece-mould method. Meyer (2005) argues against the use of the lost wax technique in light of the lack of visible casting seams on the interior walls of the drums. These are only visible on the outer surface of the mantle of bronze drums. Thus Meyer argues that these vertical lines are evidence of piece-mould casting. In point 7 above, I suggest a possible explanation for why the seams do not appear on the inside wall of the drums. After applying the strips of wax over each half of the core, two vertical positive lines could have been drawn in the wax by the bronze-casters in order to avoid uneven marks resulting from the joining of the wax strips. These would have resulted in the positive 'seams' which we see on the outer surface of the drums. According to this procedure, these lines would not be visible on the interior wall. These

lines appear also on undecorated areas between decorative bands, plain panels on the mid mantle, and on the undecorated lower mantle. On this point I find some discordance between my analysis and Bennett's discussion (2005) of the casting of Dong Son bronze situlas, which also applies to bronze drums. She states that the vertical seams do not appear over undecorated areas. While they do not appear on some situlas, as the one in the Babier-Mueller Museum shown in Bennett's article, the pair of vertical lines do run over the entire height, including the undecorated areas, of elaborate situlas, such as the Dao Think specimen (**Figure 2.24**). On Dong Son bronze drums the vertical lines always run over the entire height of the mantle.

2.4. Dong Son Bronze Situlas and Bronze Drums

The Dong Son bronze situla containers (*thap* in Vietnamese) parallel bronze drums closely both in decoration and in their relation to mortuary practices. As bronze drums, bronze situlas are found both in burial or settlement sites and as chance finds. Contrary to the drums, however, these impressive bronze containers with handles and lids, are found almost exclusively in the Dong Son cultural sphere of north Vietnam. In a recent article, Nguyen (2005) counts a total of two-hundred twenty-nine bronze situlas found to date. The vast majority of these were found in North Vietnam, while only twenty-three specimens were found in southwest China, in Guangxi, Guangdong, and Yunnan provinces. Being more region-specific than bronze drums, yet directly related to them by decoration and context, bronze situlas provide further evidence to understand the Dong Son bronze casting tradition from which bronze drums arise.

Examples of the largest and more elaborately decorated specimens include the above mentioned Dao Think (**Figures 1.15-16**. H. 97 cm, D. 65 cm), Hop Minh (**Figures 1.17-18**. H. 47.4 cm), and Van Thang situlas, found in Yen Bai province, in the Red River Valley of north Vietnam. The Hop Minh situla is the only situla which was used as a full inhumation container. It contained the skeleton of a girl about four years old wrapped in wooden bark. She was buried with a bronze disc, a bronze dagger, a bronze pediform axe, a small bronze bell, and a round earring (Dewall 2003; Nguyen L.C. 1995; Ha V.P. 1995; Nguyen V.V. 2005). Bronze situlas have been found in all the Dong Son burial sites which yielded bronze drums at Lang Vac, in the coffin at Viet Khe, and at the Dong Son burial site itself (Janse 1958: 56), where fragments of human skull were placed in bronze situlas (Janse 1958: 56).

The Dao Think, Hop Minh, and Van Thang situlas were found close to each other, on an axis from north to south, near the Red River in Yen Bai province. I examined the first two in the History Museum in Hanoi, in 2004 and 2005. The Hop Minh situla was on display in the museum in August 2004 for the special exhibition celebrating eighty years from the first Dong Son excavation in 1924. It is now kept in the Culture Department in Yen Bai. These elaborate situlas were found in the same area of the Red River Valley, where the most elaborately decorated early Dong Son bronze drums of type AI, corresponding to the above mentioned five specimens in the Region Specific cluster 1 (RS1) were also found. These drums include the Ngoc Lu I (**Figure 1.3-4, 1.12**), Hoang Ha (**Figure 1.5**), Co Loa I (**Figures 1.1-2, 1.6**), Song Da (**Figure 1.7**) drums from north Vietnam; the Kai Hua drum (**Figure 1.8**) from southeast Yunnan, which is just north of Yen Bai, in north Vietnam. The elaborate decoration of these drums parallels closely the decoration of the elaborate situlas found in the same area. The boat with feathered-men motifs and the scenes with house and feathered-men motifs on these five elaborate drums parallel closely the one on the three situlas from Yen Bai. Hence both these elaborate drums and elaborate situlas mark the Red River Valley as the area where the Dong Son bronze casting tradition reached its peak, around the mid third-second century BC.

Although their bucket-like shape is not tripartite as the one of bronze drums, bronze situlas follow the same decorative scheme and artistic vocabulary of bronze drums. The convex lids of elaborate bronze situlas are decorated with a central star or sun motif surrounded by concentric decorative bands, in the same way as on the tympani of bronze drums. The latter, however, are flat rather than convex. The lids of elaborate situlas show sets of small concentric bands framing a larger band of meander motifs, as on the Hop Minh situla (**Figure 1.17-18**), or a pictorial band showing the typical sequence of flying bird motifs, as on the Dao Think situla (**Figure 1.15-16**). Over this larger band, are placed four three-dimensional equidistant motifs. These three-dimensional motifs on the lids of elaborate situlas vary from specimen to specimen. They appear as a distinctive mark of each situla, within the otherwise fairly standardised decoration. For example, the Dao Think situla shows four copulating couples around the outer lid, and it also shows evidence of a fifth couple, now missing, over the central star of the lid. The Hop Minh situla shows four ducks, and the Van Thang situla (Nguyen 2005) shows four felines holding their prey in the mouth. It should be noted that only elaborate situlas were found with lids, while the majority of situlas have been found without lids. This is curious because all of them show indentations at the rim to hold the lid.

The decoration of the bucket-shaped body of bronze situlas also parallels the general scheme and artistic vocabulary of bronze drums. Elaborate situlas show sets of geometric bands, and sometimes bands showing sequences of animal motifs, framing a main pictorial band with boat with feathered-men motifs next to marine life and reptile motifs (**Figure 1.16**). Simpler situlas may only show geometric bands without any pictorial decoration. The above mentioned Hop Minh situla, is the only specimen which shows two main pictorial bands on its body (**Figure 1.18**). These consist of an upper band with house and feathered-men motifs, and a lower band with boat with feathered-men motifs. As on most situlas, two vertical geometric bands divide the main pictorial bands into two panels showing parallel decoration. Each panel of the upper band shows two sets of feathered-men and two pairs of house motifs, with gable and straight roofs, as it occurs only on the timpani of elaborate bronze drums. Here instead the house motif is on the body of the situla rather than on the lid. Each panel of the lower band shows a pair of boat with feathered-men motifs, as they appear on the upper bulging section of bronze drums.

Dewall (1998) discusses another situla (H. 40.7 cm) decorated with elaborate boat with feathered-men motifs, and found with nine simpler specimens, all without lids, in the tomb of Zhao Mo, who was king of Nan Yue (Nam Viet in Vietnamese) in Guangzhou, Guangdong province, China. Zhao Mo reigned from 137-122 BC, succeeding to king Zhao Tuo, who according to the first century BC *Shiji*, was a vassal of the western Han Emperor Wen (Watson 1968: 242). The bronze situlas in the tomb of king Zhao Mo were almost certainly cast in the Dong Son region of the Red River Valley (Higham 2006). A similarly decorated situla without lid was found at Xuan Lap, in Thanh Hoa province, together with another situla and two Dong Son drums of type B. This elaborate Xuan Lap situla (**Figure 2.22**, H. 43.5 cm.), which I examined in the Thanh Hoa Provincial Museum in 2005, shows a pictorial band divided in two panels with two pairs of boat with feathered-men and marine life motifs.

The method adopted for the casting of bronze situlas was the same lost wax technique adopted for the casting of bronze drums. Based on my analysis of the Dao Thinh situla (**Figures 1.15-16**), in the History Museum in Hanoi, two vertical casting seams appear on the left of each pair of hooks on the upper body (**Figure 2.24**). Moreover, it is interesting to note that the lid of the Dao Thinh situla is crossed by what appears to be a casting seam, as if the decoration had been produced by two joined semicircular sheets of wax. The same occurs on the lid of the Hop Minh situla. On the latter the line on the lid is more visible (**Figure 1.17**). It runs from one pair of hooks to the other. However, these lines resembling a casting seam may also be only decorative features matching the

vertical seams on the body. This point needs to be investigated further by a more technical analysis. Along the two vertical seams on the body the decoration on the bands stops and starts again after each seam. The bands are well matched. The Dao Thinh situla does not have handles but only two pairs of hooks on the body and two on the lid. The body shows many circular and square holes from casting spacers (average D. 90 mm). As on many bronze drums, the decorative motifs are negative with positive internal lines and dots. From the centre of the convex lid (**Figure 1.15**), the twelve rayed central star motif is surrounded by a series of geometric bands with dot, dotted circle with tangent, and meander motifs, framing the main pictorial band with eight flying bird motifs. Over this band are placed four pairs of three-dimensional copulating couples. The figures, with headdress and daggers, are similar to the anthropomorphic handles of Dong Son bronze daggers, such as the ones found at the cemeteries of Dong Son, in Thanh Hoa, and Lang Vac, in Nghe An (**Figure 2.25**). These figures are likely to represent Dong Son aristocrats or warriors. The upper rim of the body shows an indentation to hold the lid. Two opposite sets of geometric bands frame the main pictorial band on the body. It is divided into two panels, each showing three boats with feathered-men motifs with marine life, bird, and the above mentioned symmetrical reptile motifs facing each other between the boats.

Based on the above discussion in sections 2.2 to 2.4, Dong Son bronze drums are found together with other Dong Son bronze material related to the drums by decoration only in the Dong Son sites of the Red, Ma, and Ca River Valleys of north Vietnam. On the other hand, in the cemeteries of the Dian culture of central Yunnan (500 BC – AD 100), which also yielded bronze drums, the typical Dong Son decoration of bronze drums never feature in identical form on any other bronze object. Distinctive Dian boat and feathered-men motifs appear on Dian bronze containers for cowrie-shells and on what I identify as ‘Dian’ drums. However, these are different from the Dong Son representations, as discussed further below.

2.4a. A Situla-Shaped Dian Container

Introducing what I refer to as the ‘Dong Son-Dian’ question in the following four sections (2.5, a-c), it is interesting to discuss a bronze container with lid and feet (**Figure 2.26**), which was excavated in 1979 in tomb 41 (M41:103) at the Dian cemetery of Tianzimidiao (Anon. 1985). Although the bucket-like shape of the body of this container is similar to the one of a Dong Son situla, it also shows typical Dian features such as feet and a lid with three-dimensional Dian motifs, which clearly associate it with the Dian cask-shaped bronze containers for cowrie-shells, such as

the one from tomb 33 at Tianzিমiao (M33:1), and other examples from the other Dian cemeteries of Shizhaishan and Lijiashan (**Figure 2.27**), rather than with Dong Son situlas. Tomb 41 at Tianzিমiao also yielded a Dong Son bronze drum of type B III (**Figure 2.28**. M41: 117. H. 30 cm, D. 37 cm). The following discussion is based on my study of the M41:103 bronze container from Tianzিমiao in the Kunming City Museum in Kunming, in January 2005. The TZM M41:103 bronze container has three feet as the cask-shaped containers, while Dong Son situlas never have feet, and its lid shows an elaborate three-dimensional scene of four bulls (one is missing) walking clockwise around the outer lid. A fifth three-dimensional bull figurine stands on a bronze drum at the centre of the lid (**Figure 2.26**). The bronze drum with the bull figurine is placed over a two-dimensional star motif surrounded by concentric bands with geometric motifs similar to the ones on the lids of Dong Son situlas and the tympani of bronze drums. However, the three-dimensional decoration is typical of the lids of Dian cask-shaped cowrie-containers, such as the above mentioned container from tomb 33 at Tianzিমiao (M33:1), and other containers from the Dian cemeteries of Shizhaishan and Lijiashan (**Figure 2.27**). The fact that the two-dimensional motifs are reminiscent of the typical Dong Son decoration points to the contact and exchange taking place between Dian and Dong Son. Moreover, the Dong Son-like motifs show distinctive Dian features. The upper body of the container shows four motifs of boats with human figures with tall headdress, yet these differ from the typical boat with feathered-men motifs on Dong Son bronze drums and situlas. Below the boat motifs, are six panels showing three motifs of a buffalo with a bird on its back, and three of a single buffalo. At the point of junction between the body and the lid, are two three-dimensional dog-like motifs functioning as handles. The geometric two-dimensional decoration of both the lid and the body show large concentric circle and saw tooth motifs.

Based on the above, I argue that this unique container M41:103 at Tianzিমiao represents a Dian version of a Dong Son situla, or a situla-shaped Dian bronze container, in the same way as there are drum-shaped bronze containers for cowrie-shells. These containers for cowrie-shells are found exclusively in the Dian cemeteries. Tomb 41 at Tianzিমiao also yielded two bronze situlas (M41:100, M41:101) with lids and no feet, which were filled with cowrie-shells, in the same way as Dong Son bronze drums were filled with cowries in the Dian cemeteries (**Figure 2.29**. Anon. 1985: 523). These two specimens appear to be Dong Son situlas imported into a Dian context, in the same way as the Dong Son drum (M41: 117), of Dong Son type B III, was imported to Tianzিমiao and other Dong Son drums were imported to Shizhaishan (Sun 1956; Yunnan Sheng 1959), Lijiashan (Zhang and Wang 1975; Zhang 1993), and Yangfutou (Yang 2003), as discussed in the next four sections (2.5, 2.5a-c).

Tomb 41 at Tianzিমiao has been dated to the mid fourth century BC based on three uncalibrated radiocarbon dates from tomb 41, which give: 2290 ± 70 BP (from wood of the outer coffin); 2280 ± 120 BP (from the wooden shaft of a weapon); and 1820 ± 130 BP (from a cowrie) (Anon. 1985: 529; Pirazzoli-t'Serstevens 1996-97). However this fourth century BC dating for tomb 41 is controversial. In her comparative study of selected bronze material from the Dian cemeteries of Tianzিমiao, Lijiashan, Shizhaishan, and Shibeicun, Pirazzoli-t'Serstevens (1996-1997) points out that 'the more complex the design of an object, the less chance there is of it remaining unchanged over a long period of time' (ibid. 1996-1997: 284). She argues in favour of a span of about one century for the use of a particular complex type of decoration such as the one appearing on the related bronze material in the Dian cemeteries which she discusses. The temporal span is unlikely to extend over four or five centuries. She thus proposes a dating no earlier than c. 250 BC for tomb 41 at Tianzিমiao, and also for tombs 13, 21, and 24, at Lijiashan, while tombs 3, 6, 12, and 13 at Shizhaishan are dated between the second century BC and the first century AD. Hence, the assertion that the material in tomb 41 is all dated to the fourth century BC is problematic.

The analysis of the material in the Dian cemeteries provides evidence that Dong Son bronze artefacts were reinterpreted in Dian, either by creating new Dian objects related to the Dong Son ones, such as the situla-like container discussed above, or by altering imported Dong Son objects according to local taste, as discussed in the next four sections (2.5, 2.5a-c). In this regard, it is worth noting that tomb 41 at Tianzিমiao, where the situla-like container M41:103 was found, also yielded a bronze *ding* tripod container (M41:132), showing an engraved human figure with long vest and tall headdress on each leg of the container (Anon. 1985: 522). These 'shaman' motifs are almost identical to the one engraved over the cast decoration of the remaining half mantle of a Dong Son bronze drum of type A IV found in tomb 13 at the Dian cemetery of Shizhaishan (M13:3, **Figure 2.30**). The entire mantle surface of this M13:3 drum has been engraved with naturalistic Dian motifs. Dian artists engraved the motifs after scraping off part of the Dong Son decoration. Hence, the M13:3 drum from Shizhaishan provides unique evidence for the alteration of a Dong Son bronze drum in the Dian context. The Dong Son-Dian question is discussed below, and special attention is given to the evidence provided by the drum M13:3 from Shizhaishan in section 2.5c.

2.5. The Dong Son - Dian Question

The scope of the following four sections is to shed some light on long standing questions regarding the origin and classification of the bronze drums found in the cemeteries of the Dian culture (500 BC – AD 100) in the Lake Dian region of central Yunnan, in southwest China. As discussed above (section 2.2), in north Vietnam about two-hundred early Dong Son bronze drums, dated from the third century BC to the first century AD, have been found. They are identified as Dong Son drums of types A and B, with further sub-groups, in the Vietnamese classification (Pham et al. 1987). On the other hand, forty plus early Heger I bronze drums were found in southwest China. The majority of these find identical parallels in the Dong Son drums of types A and B in Vietnam and throughout the wide distribution. These early Heger I drums found in China have been identified as the Shizhaishan type in the main Chinese classification (ZTGY 1988).

The Shizhaishan typology is problematic because it lumps together Dong Son drums and what I identify as ‘Dian’ drums (RS2). I identified ten Dian drums in southwest China, and eleven in its environs in north Vietnam, north Thailand, and northeast Burma, as discussed in Chapter 1 and in further detail below (section 2.5b). Hence, the remaining thirty plus drums identified as Shizhaishan type drums in China are in fact Dong Son drums of types A and B, in the Vietnamese classification (Pham et al. 1987). The numerous parallel drums and other bronze material related to the drums by decoration in north Vietnam strongly point to the fact that this type of drums were not cast locally in the Lake Dian area but were imported from the Dong Son region.

In southwest China, the count of forty-one early Heger I drums, comprising Dong Son drums of types A and B, and what I identify as ‘Dian’ drums, includes twenty-nine drums found in the Dian cemeteries of central Yunnan, five drums found in two Han burials in west Guangxi, six drums found as chance finds in southeast Yunnan (section 2.7), and another chance find from Huili in south Sichuan (section 2.5b). No bronze drum has been found as a chance find in the area of the Dian cemeteries in central Yunnan. The exact drum count in the Dian cemeteries, however, may shift slightly in different references because bronze drums and drum-shaped containers for cowrie shells have been discussed as being the same, while, according to my analysis, they are not. Of the twenty-nine bronze drums found in the Dian cemeteries, fifteen drums were found in 1956 at Shizhaishan (Sun 1956; Yunnan Sheng 1959); twelve drums were found at Lijiashan during the first and the second excavation periods in 1974 and in 1992-1993 (Zhang and Wang 1975; Zhang et al. 1993; Anon. 1995); one drum was found at Tianzimiao in 1979 (Anon. 1985); and another drum was found at Yangfutou (Yang 2003). Shizhaishan and Lijiashan yielded both Dong Son and what I identify as ‘Dian’ drums, while Tianzimiao and Yangfutou yielded one Dong Son drum each.

In summary, I argue that in the Dian cemeteries of Shizhaishan and Lijiashan there were two main clusters of bronze drums, one imported and one cast locally. These drums include Dong Son drums which are likely to have reached Dian from the Dong Son cultural sphere centred in north Vietnam, and 'Dian' drums, which are likely to have been produced locally, as a local adaptation of Dong Son drums. Dian drums show close affinity to drum-shaped bronze containers for cowrie-shells, which are found exclusively in the Dian cemeteries, and are locally cast. Because the Shizhaishan typology does not differentiate between Dong Son and Dian drums it is considered problematic here.

The Dong Son and Dian (or Shizhaishan) cultural spheres of influence are best understood as comprising multiple centres involved in networks of exchange of objects and ideas along the main river routes of the region. The Red River, flowing from west-central to southeast Yunnan, and into the Gulf of Bac Bo in north Vietnam, was a most important axis of exchange. The Dong Son sites which yielded bronze drums, at Dong Son, Lang Vac, Co Loa, and Viet Khe, overlap in time with the Dian burials which yielded bronze drums. The latter are dated between the third century BC and the first century AD (Pirazzoli t'Serstevens 1996-97). Thus the Dong Son and Dian cultures were contemporary, at least during the last centuries of the first millennium BC, which is the period when bronze drums would have travelled between the two cultural spheres.

The Dong Son bronze drums found in the Dian cemeteries of Shizhaishan, Lijiashan, Tianzimiao, and Yangfutou correspond to the types identified as the Dong Son types A IV and B II and III in the Vietnamese classification. Several specimens of these have been found in north Vietnam and throughout the distribution at large. For example, Dong Son type A IV drums are found in the Dong Son burials of Lang Vac, discussed above. At Shizhaishan and Lijiashan, this type of Dong Son drums are found buried together with a distinctive type of bronze drums, which share morphological, decorative, and also casting features with bronze containers for cowrie-shells cast in the shape of bronze drums. The latter are found only in the Dian cemeteries.

When we examine these distinctive 'Dian' drums, which have more in common with Dian cowrie-shell containers than with Dong Son drums, the typology of bronze drums identified as 'Shizhaishan' becomes problematic. The problem with this typology is that it lumps together two distinct types of bronze drums. These include the drums which I identify as 'Dian' drums and Dong Son bronze drums. I argue that the former are a local Dian adaptation of the latter.

I identify twenty-one specimens of 'Dian' drums, corresponding to the Region Specific cluster 2 (RS2), discussed in Chapter 1, and also in section 2.5b below. They are distributed only on the

mainland. Nine specimens were found in the Dian cemeteries of Lijiashan and Shizhaishan, one in Sichuan, eight in north Vietnam, two in Burma, and one in north Thailand. I identify 'Dian' drums as a separate type in order to distinguish them from Dong Son drums, which are widely distributed throughout Southeast Asia. Dian drums, along with drum-shaped containers for cowrie-shells, display the typical motifs of the equestrian Dian culture of Yunnan. Both Dian drums and drum-shaped containers represent a local Dian reinterpretation of the shape and decoration of Dong Son drums. These Dian bronzes display characteristic local motifs and distinctive morphological and casting features, as discussed in section 2.5b below. On the other hand, I argue that the Dong Son drums found in the Dian cemeteries reached Dian from the Dong Son sphere of influence as a result of trade or warfare. The issue to be examined is one of cultural contact, exchange, and of a local Dian reinterpretation or appropriation of valuable foreign objects. I thus agree with Bernet Kempers (1988: 316) that 'Yunnan bronze-casters may have imitated certain specimens of Tonkin drums that had found their way to Yunnan', or that alternatively, foreign bronze-casters could have worked in Dian, adapting to local taste. Such a localised Dian phenomenon would have taken place mainly between the second and the first centuries BC, thus overlapping with the initial Han presence in the region, which is marked by the discovery, in tomb 6 at Shizhaishan, of the golden seal of the King of Dian, bestowed by Emperor Han Wu Di in 109 BC. The rise of this local tradition of Dian drums would not have affected the decorative development of Dong Son bronze drums, as it has been suggested in early studies of the Shizhaishan material (Watson 1970: 45-71; Bunker 1972: 314; Wang 1986: 39-42).

Shizhaishan was a major cemetery of the Dian polity located in the Lake Dian (*Dianchi*) region of central Yunnan. The Dian region of influence extended to the regions of Guizhou and of the Sichuan basin. Among various studies, most of the Dian bronze material is discussed in the volume *Bronze Arts of the Dian Kingdom* (Zhang ed. 2000). The Dian tombs, not the entire cemeteries, which included bronze drums in their burial inventories are dated from the mid third century BC to the early first century AD (Pirazzoli t'Serstevens 1974). The controversy about this dating is based on earlier radiocarbon dates which have lead some Chinese archaeologists to date the cemeteries of Lijiashan, Tianzimiao, and Yangfutou as early as the sixth-fifth century BC. However, such dates are mostly taken from the wood of dug out coffins, and it must be considered that the wood can be much older than the burial. When the samples are taken from large tree trunks such as the ones used for dug out coffins, the trees can be very old. Moreover, as discussed below, Pirazzoli t'Serstevens (1996-97) proposes a valid argument against the early dates of the tombs containing bronze drums at Lijiashan and Tianzimiao, based on her comparative decorative analysis of the material.

The excavations of the Dian cemetery of Shizhaishan, in 1956, yielded fifteen bronze drums, from tombs 3, 11, 13, 14, 15, 16, and 17. These comprise Dong Son bronze drums together with what I identify as 'Dian' drums (Sun 1956; Yunnan Sheng 1959). Of these, the Dong Son drum from tomb 14 (M14:1) is the best preserved (**Figure 2.31**). Tomb 14 is dated to the early Western Han (206 BC - AD 8). This M14:1 drum at Shishashan is a Dong Son A IV type, which finds many parallels in north Vietnam and throughout the distribution. Equal parallels are the Lang Vac I (**Figure 2.11**) and the Lang Vac II (**Figure 2.12**) drums from the Dong Son cemetery of Lang Vac, in the Ca River valley of northern Vietnam (Anon. 1990: 30-1, 34-5; Trinh et al. 1974). The Lang Vac I drum was unearthed in 1972 in a field next to the Lang Vac burial site, and the Lang Vac II drum was excavated in 1973 in tomb 3 at Lang Vac. The Lang Vac cemetery is dated to the second-first century BC, based on an uncalibrated radiocarbon date (ZK-310) which gave 40 ± 85 BC or 1990 ± 85 BP (Diep 1976; Ha 1980: 134), and on the finds Ban Liang Chinese coins from burial 114 (Imamura and Chu 2004: 153).

The clearest evidence of the alteration of a Dong Son bronze drum in the Dian context is offered by the mantle of a Dong Son drum, also of type A IV, found at Shizhaishan in tomb 13 (M13:3. **Figures 2.30**). On the surface of this drum a series of typical Dian motifs have been engraved after having scraped off part of the Dong Son decoration cast in positive relief. The unique evidence provided by this important specimen is discussed in further detail below (section 2.5c). Apart from the equivalent shape, the typical decorative features of Dong Son A IV type drums, such as the SZS M13:3 drum, include four boat-with-feathered-men motifs on the upper mantle, four flying bird motifs on the tympanum, and geometric bands with saw tooth motifs.

The first excavations of the Dian cemetery of Lijiashan, located 40 Km south of Shizhaishan, in 1974, yielded eight Dong Son bronze drums from tombs 17, 23, and 24 (**Figure 2.32**) (Zhang and Wang 1975). In the report of the first excavation the cemetery is dated from the third century BC to the first century AD. The full report of the second excavation period from 1992 to 1994 is not available yet. A partial report is given by Zhang (1993), and part of the material is published in the volume *Yunnan Lijiashan Qingtongqi* (Anon. 1995). The present discussion of Dian drums unearthed during the second excavation period is based on the data which I collected at the Lijiashan Museum, in Jiangchuan. Unfortunately I was not allowed to take photographs because the material is not fully published yet, so I am relying on my drawings. I examined four more bronze drums (M69: 163; M69:171; M50:89; M57:84) which I identify as Dian drums, as discussed further

below in section 2.5b, while other drum-shaped specimens from the same excavation period appear to be cowrie containers and not drums.

A controversial single uncalibrated radiocarbon date from tomb 21 at Lijiashan gave 2575 ± 105 (ZK-294) (Kaogu 1977, 3: 203; 4: 231) led to a sixth-fifth century BC dating for the cemetery. However, as noted by Pirazzoli-t'Serstevens (1996-97: 273) the date was obtained from a small composite sample and it does not provide sufficient evidence for dating both tomb 21 and 24 and all their burial inventories, including the bronze drums in tomb 24, to the sixth-fifth century BC. Based on a comparative analysis of the bronze material in the Dian cemeteries, Pirazzoli-t'Serstevens dates Lijiashan no earlier than the third century BC, as in the first excavations report (Zhang and Wang 1975). Here I follow her reassessment of this early dating of Lijiashan.

The other two bronze drums found in the Dian cemeteries are both of Dong Son type BIII. They include the Dong Son drum excavated in 1979 from tomb 41 at Tianzimidiao (**Figure 2.28**. M41: 117: H.c. 30 cm, D.c. 37 cm) (Anon. 1985), and another similar drum (H. c.28 cm, D. c. 24 cm) from tomb 19 at Yangfutou (Yang 2003). Based on an uncalibrated radiocarbon date from tomb 19 at Yangfutou giving 2493 ± 58 BP, Yang dates the cemetery to the fifth century BC (Yang 2003: 14). However, Yang's article gives no information on how the test was done. The sample is likely to have been taken from a wooden coffin. As suggested by Glover (pers. com. Aug. 2005), the date of the wood itself can be much older than the burial. Moreover, if the date is calibrated to 2 sigma (95%) probability it can give a temporal span ranging from the sixth to the third century BC. In fact, Jang (2003: 77), who excavated the Yangfutou site in 1998-1999, dates the Dian phase burials between the third and the first century BC.

The three early radiocarbon dates from tomb 41 at Tianzimidiao are also problematic. Pirazzoli t'Serstevens (1996-97) reassessed these early dates by pointing to the similarity of bronze material assemblages from tombs at Shizhaishan, Lijiashan and Tianzimidiao, and she dates tomb 41 at Tianzimidiao to no earlier than the third century BC.

Following the excavations of the Dian burials, some scholars discussed the Dian material as possibly representing an early phase of the decorative development of Dong Son - Heger I bronze drums, evolving from naturalistic motifs to more stylised ones (Watson 1970: 45-71; Bunker 1972: 314; Wang 1986: 39-42). This argument implies that the bronze drums and containers found in Dian are earlier than the drums found in Vietnam and throughout the distribution. As my identification of Dian drums suggests, I strongly question this assumption, which has also been disputed by Sørensen (1979) and Bernet Kempers (1988), among others. In an early study, Watson

(1970: 60) suggested that all the drums found in Southeast Asia could 'have come there as exports from Yunnan'. Archaeological research in Vietnam and throughout Southeast Asia, has now shown this to be highly unlikely (Pham et al. 1987; Ha 1980, 1994; Sørensen 1979, 1988; McConnell and Glover 1990; Glover and Syme 1993; Pham 1996, 2003; Higham 1996, 2002). Watson himself, in a later article (1992: 178), while still maintaining that Yunnan would have been the cradle of a pre-Heger I form of drums, also states that, for 'the mature Heger I forms, the search for a unique centre of origin may in principle be mistaken'. Moreover, as he continues, multiple exchanges of ideas, and itinerant bronze casters, travelling along river routes, could have allowed for 'contemporary manufacture at fairly widely separate centres'. The notion of the 'interregional extension' of the cultural traditions involving the use of bronze drums has also been discussed by von Dewall (1984: 334- 340).

As Egami points out (1985: I), the Dian material reveals 'a unique synthesis' of an equestrian people, showing close cultural links with north-western Yunnan and western Sichuan, and the agricultural people it came to rule over in the Lake Dian region of central Yunnan. The Dian material indeed shows multiple cultural influences from the immediate and wider environs of the Lake Dian region. The naturalistic human figures on the bronze containers for cowrie shells display a multi-ethnic population, as discussed by Wang Ningsheng (1994: 195-206). In the representation of animals, the Dian material shows a predominance of naturalistic renderings of feline, cattle, and horse motifs, which stand in contrast with the stylised bird and feather motifs characteristic of the decoration of Dong Son bronze drums. The latter do not appear as progressive stylisations of earlier and more naturalistic renderings. The naturalistic depictions of people and events, freely depicted on the surfaces of Dian bronzes, do not belong to the artistic vocabulary of Dong Son and do not fit in the decorative scheme of Dong Son bronze drums.

The typical Dong Son feathered motifs link the motifs to each other by conveying the idea of a potential transformation of each element into the other. For example, the fusion of bird shapes into the prow of the boat motifs on the elaborate Ngoc Lu I bronze drum from north Vietnam (**Figure 1.12**), as noted by Spennemann (1984: 139) quoting Goloubew (1940: 405), and the feather headdresses of the human figures, which turn into stylised bird heads, and which are also present on the house roof motifs on the tympanum and on the stern of the boat motifs on the upper mantle, convey the idea of a symbolic environment where adornment implies the notion of transformation. The emphasis is not on the identity of the figures, such as in the typical Dian decoration. It is rather on the homogeneous effect given by stylised bird and feather motifs linking human figures, animals and objects.

In their exceptionally wide distribution, Dong Son bronze drums are linked by the continuity of their tripartite shape, decorative scheme, and artistic vocabulary. As mentioned above, the predominant feature of the typical Dong Son decoration is the use of stylised bird and feather motifs, appearing as actual birds, and as the adornment of human figures and objects. Another typical feature of the decoration of Dong Son drums is their specific decorative scheme. The pictorial motifs are placed consistently on specific concentric bands surrounding the central star or sun motif on the tympanum, on the upper mantle, and on panels of the mid mantle. The lower mantle of early Dong Son drums is not decorated. Only two drums of Dong Son type CI, the Selayar and the Sanggean drums found in Indonesia, dated to the third century AD, show decoration on the lower mantle.

What I emphasise is that the layout of Dong Son motifs on the surface of the drums is standardised and consistent. When they appear on the drums, the motifs showing boats with feathered prows carrying human figures wearing feather head-dresses, are always placed on the upper mantle. The same type of feathered figures are also placed on the mid mantle, and on the main pictorial band of the tympanum of the more elaborate drums (**Figure 1.4**). This decorative scheme of Dong Son bronze drums is present in simple, elaborate, and more stylised forms, involving variations of the feathered motifs.

Only the Dong Son – Heger I type drums are found both in Mainland and Island Southeast Asia. Dian drums, on the other hand, are only found on the mainland. The consistent decorative scheme and the traceable links between variations of the feathered motifs of Dong Son drums allow us to identify the ‘Dong Son bronze drums tradition’.

2.5a. Dian Containers for Cowrie-Shells

The Dian funerary material includes unique bronze containers for cowrie-shells cast in the shape of bronze drums. These share a series of features with the local type of bronze drums which I identify as ‘Dian drums’ in the next section. Dian cowrie-shell containers may also be cask-shaped with feet and handles, often in the form of naturalistic felines.

The decoration of these drum-shaped bronze containers shows naturalistic depictions of people and animals involved in ceremonial and everyday activities, such as on the cowrie container M12:2 from Shizhaishan (**Figure 2.33**). The same type of motifs also appear on the surfaces of Dian drums, discussed in the next section. On the drum-shaped containers, the motifs are laid out freely

on the surface, or on concentric bands, in a manner reminiscent of, but quite distinct from, the decorative scheme of Dong Son drums. The containers are often covered with lids showing three-dimensional scenes of battle or ceremonies, sometimes including human sacrifice. Bronze drums are often represented in these scenes. The same type of lids also replace the tympanum of Dian drums, which are converted into containers for cowrie-shells, as in the case of the container from tomb 20 at Shizhaishan (M20:1), to which a base was added by inserting three supporting rivets in the lower mantle. The drums which are turned into containers by adding a base and a lid in place of the tympanum, or by placing one drum over the other, belong to what I identify as 'Dian' drums. Interestingly, the Dong Son drums found in the Dian cemeteries are not manipulated in the same way as Dian drums are. The former are only turned upside down and filled with cowrie-shells. On the lids of drum-shaped containers for cowrie-shells, the three-dimensional scenes displaying bronze drums often show human sacrifice or battle. This occurs, for example, on the lid of two superimposed drums from tomb 6 at Shizhaishan (M6:1). Another example is given by the lid of a cask-shaped container from tomb 12 at Shizhaishan (M12:26. **Figure 2.34**), where a pair of large drums flank a naked figure tied to a pole. The drums are taller than the human figures, and larger than any drums known. These battle and sacrifice scenes may document victory over neighbouring populations, and were placed in the tombs of elite warriors and kings as indicated by the seal of the King of Dian found in tomb 6 at Shizhaishan.

2.5b. Identification of 'Dian' Drums (RS2) in Light of their Similarity to Drum-Shaped Dian Containers for Cowrie-Shells

In Chapter 1, I identify the Region Specific cluster 2 of 'Dian' drums (Map RS2 **Figure 1.19**, Chart RS2), comprising twenty-one specimens. In this section I discuss further the typical features which set Dian drums apart from Dong Son drums. In particular, I argue that it is the close affinity between Dian bronze drums and Dian drum-shaped bronze containers for cowrie-shells, found exclusively in the Dian burials, which set Dian bronze drums apart from Dong Son bronze drums.

The similarity in shape, decoration, and possibly also in function, between the Dian drum-shaped containers for cowrie-shells and Dian drums suggests that these two types of bronzes represent local Dian adaptations of Dong Son bronze drums. The latter are likely to have found their way to the Dian burials as a result of exchange relations between Dian and Dong Son, along the Red River. Chronologically, Dian drums and Dian containers for cowrie-shells are contemporary products of the Dian culture, and can both be dated to the second-first century BC.

The following description of Dian drums is based on my analysis of bronze drums and bronze containers for cowrie-shells in Yunnan, in the Yunnan Provincial Museum and the Kunming City Museum, in Kunming, and in the Lijiashan Museum, in Jiangchuan. In north Vietnam, I examined Dian drums in the Cultural Department of Lao Cai, and in the Hung Yen provincial museum.

The typical features of 'Dian' bronze drums include:

1. Circular Knob: A protruding circular knob at the centre of the sun motif on the tympanum.
2. Boat Motifs: When present, the boat motifs show identical prow and stern, with no emphasis on the prow decoration (**Figure 1.21**). Boat motifs on Dong Son drums always show feathered prows. Moreover, the boat motifs on Dian drums carry naturalistic human figures, which are depicted with detailed dress and hair styles. These human figures are similar to those depicted on Dian cowrie-containers. Alternatively, some more stylised human figures also may appear, seated or standing on the boats. They wear feather headdresses, and often hold a single long feather. However, they differ from the human figures with feather headdress depicted on Dong Son drums. These figures on Dian drums are identical to the feathered figures appearing on drum-shaped cowrie-containers, such as the one from Lijiashan. Their facial, body, and dress features are rendered in greater detail than on Dong Son drums.
3. Animal Motifs: The naturalistic animal bodies, such as buffalo and bird motifs are filled by short line dots.
4. Profile of Upper Mantle: The profile of the bulging upper mantle is often cup-like, as if to hold a lid, as on drum-shaped containers for cowrie-shells. The upper rim of the mantle turns inward, forming the outer rim of the tympanum (**Figures 1.20**).
5. Separate Casting of the Tympanum: The tympanum appears to have been cast separately and then sealed over the upper mantle, which turns inward as described above (**Figure 1.22**).
6. Concentric Circle Motifs: The concentric circle motifs are large with a pointy central dot, and are connected by multiple parallel tangents, as on cowrie-containers.

7. Saw Tooth Motif: The saw tooth motif is thin, as on cowrie-containers.
8. Crouching Frog (not Toad) Motifs: When three-dimensional frog motifs are present on the tympanum, these are small, crouching, and often head up. It should be noted that the three-dimensional motifs on Dong Son drums are standing toads, not crouching frogs, as on Dian Drums.

The twenty-one Dian drums identified here (see also the RS2 Chart of Common Features in Chapter 1), show all or some of the characteristic features described above. From the Dian cemetery of Shizhaishan (Sun 1956; Yunnan Sheng 1959), I identified five specimens, which I examined in the Yunnan Provincial Museum. These include drum M1:58 (**Figure 2.35**. H. 30 cm, D. 36 cm), which is the only drum known with boat motifs on the mid mantle; drum M10:3 (**Figure 2.36**. H. 19 cm, D. 21.2 cm), which is the only drum in the Dian cemeteries with three-dimensional frog motifs; drum M20:1, which has been turned into a container by adding a base supported by rivets (**Figure 2.37**. H. 24 cm); and the two superimposed drums from tomb 6 (M6:1), which form a container for cowrie-shells (**Figure 2.38**. Total H. 53.9 cm). With regard to the Shizhaishan M1:58 drum, the present inclusion into the Dian drums cluster contrasts with its identification as a Dong Son type AVI in the Vietnamese classification (Pham et al. 1987). Accordingly, here I not adopt the Dong Son type AVI.

From the Dian cemetery of Lijiashan, I identified four Dian drums. They were unearthed during the second excavations period in 1992-1993 (Zhang et al. 1993), and I examined them in the Lijiashan Museum. They include the drum M69:171 (**Figure 2.39**. H. 23.5 cm, D. 28 cm); the two undecorated drums M50:89 (H. 23 cm, D. 29 cm) and M57:84 (H. 21 cm, D. 25 cm. **Figure 2.40**), which, although undecorated, can be included in the list of Dian drums because of their shape and the protruding central knob at the centre of the tympanum; and the drum M69:163 (**Figure 2.41**. H. 22 cm, D. 32.1 cm). The latter drum from tomb 69 at Lijiashan, was placed right side up over a container in the shape of a drum turned upside down, but with feet coming out of the 'tympanum' of the drum shape. This assemblage formed a double drum-shaped container for cowrie-shells (M69:163-164. **Figure 2.41**. Total H. 49 cm). The lower drum-shaped cowrie-container was cast and decorated in order to fit together with the top drum/container. The M69:163 drum on top is right side up, and it shows all the typical features of a Dian drum, and not necessarily of a cowrie-container, except for the three-dimensional frog figurine at the centre of the tympanum, which indicates that the centre of the drum was not meant to be beaten. The lower container, however, is definitely not a drum. It shows an indentation on its upper rim - corresponding to the lower mantle

of the drum shape turned upside down - so as to hold the lower mantle of the upper drum. It also shows three feet under its base, corresponding to the upturned tympanum of the drum shape. Moreover, the decoration of the lower container clearly show that it was meant to fit with the upper drum so as to form a container for cowrie-shells. The six panels on its mid mantle show six standing human figures, which are right side up facing the viewer, while this lower container is in the shape of a drum placed up side down. The feathered men motifs hold a long feather. The upper drum M69:163 was also meant to function together with the lower one, thus forming a container. This double-drums-shaped container (M69: 163-164) from Lijiashan points to the question whether Dian drums were actually ever used as drums. In China, another fully decorated Dian drum was found by chance in a field in the Sichuan basin, at Huili (**Figure 2.42**. H. 30 cm, D. 41 cm), in the northern reaches of the Dian sphere of influence (Anon. 1977).

Outside the Dian sphere of influence, I identified other eleven Dian drums. Eight are found in north Vietnam. These include six out of the nineteen drums found at Lao Cai in 1993-1994 (LCI, IV-VIII. **Figures 1.23, 2.43**). Lao Cai is located by the Red River at the Sino-Vietnamese border (Pham 1997). I examined these drums in the Lao Cai Culture Department in 2005. The other thirteen drums at Lao Cai are of Dong Son and Wanjiaba type. The other two Dian drums in north Vietnam include the complete Dong Xa drum (**Figures 1.20-22**. H. 42 cm, D. 49 cm), and the Lang Vac V drum (**Figure 2.14**. D. 26.5 cm), of which only the partial tympanum remains (Anon. 1990: 194-195). The Dong Xa drum, which I examined in the Hung Yen Provincial Museum, is the only complete Dian drum found in Vietnam (Anon. 1999). It was found in 1997 buried upside down about 50 cm below the surface on the bank of an irrigation canal in Hung Yen Province. The location of the find is about 700 m from the site of eight water logged coffins with preserved textiles found in 2000, and dated to the first century BC, based on a Chinese coin in one coffin (Nguyen V.V. pers. comm. 02 – 05).

From north Thailand, the drum named 'Beelaerts' (**Figure 2.44**. H. 29.3 cm, D. 44 cm) after its owner who acquired it in Chiang Mai (Bernet Kempers 1988: 147-8, 553, pl. 13.02a,b) is also of Dian type (Heekeren 1970). Its provenance is uncertain. In east Burma, a drum of this type is kept in the Bagan (Pagan) Museum, and fragments of a second drum have been reported (Moore and U Win Maung, pers. comm. 12 - 04). Their provenance is also uncertain, and there has been little systematic study of them.

The distribution of Dian drums outside the Dian sphere may be related to the expanding Han presence in the region. The above mentioned nineteen drums found at Lao Cai were buried close to each other on the Red River bank and on a nearby hill, as if they were stored or hidden, perhaps

while in transit towards other destinations. Interestingly, the majority of the drums at Lao Cai show a neat circular cut separating the upper bulging section of the mantle from the mid and lower mantle. This practice occurs also on the Xilin 280 drum, from a Western Han tomb in west Guangxi, China (Anon. 1978a). The Xilin 280 drum was cut in this manner in order to fit together with other two Dong Son drums, resulting in a 'Russian-doll-like' package of drums (**Figure 1.40**) which, to my knowledge, does not occur in any Dong Son or Dian site, but only in this particular Western Han burial. Moreover, the presence at Lao Cai of Han bronze vessels, and of ten bronze horned bells, one of which shows a cast Chinese inscription with an auspicious omen, but unfortunately no readable indication of date, may suggest that in the late second-first century BC, possibly also as a result of Han presence, valuable bronze drums of different ages were traded to the wider region. Such trade networks would have continued well into the first centuries AD.

2.5c. The Special Case of the Engraved Drum (M13:3) at Shizhaishan and Other Examples of Typical Dian Decoration

Clear evidence of the local adaptation of a Dong Son bronze drum of type A IV in the Dian context is provided by the remaining half mantle of a drum found in tomb 13 at Shizhaishan (M13:3, **Figures 2.30, 2.45**. H.c. 30 cm, base D.c. 50 cm). Tomb 13 at Shizhaishan is dated to the mid second century BC, based on the find of Ban Liang Chinese coins, not minted before 175 BC. The present discussion is based on my study of this drum in the storage of the Yunnan Provincial Museum in Kunming.

What makes this specimen unique is that its surface has been almost fully engraved with typical Dian naturalistic motifs of people and animals. These engravings were applied after scraping off part of the cast Dong Son decoration, which is in positive relief. Part of the cast Dong Son decoration, such as the shape of the boat motifs and part of the seated feathered-men motifs on the upper mantle, was left visible (**Figure 2.45**). On the boat motifs (**Figure 2.46**), naturalistic Dian human figures have been engraved over the scraped off Dong Son feathered-men motifs. The engraved Dian human figures are clad in feline furs with tail, long vests with sleeves, and they wear buffalo horns in their hair. This cold climate attire is typical of Dian and not of the semi-tropical climate of the Dong Son region in north Vietnam. In front of one of the boats are also engraved naturalistic bird motifs with detailed claws, beaks, and plumage, and naturalistic fish motifs. The only other drum which shows similar bird motifs is the Huili drum from Sichuan (**Figure 2.42**), which I identify here as a Dian drum (RS2). The fact that the same bird motifs are part of the cast

decoration of the Huili drum, while they are engraved over the cast decoration of the M13:3 drum at Shizhaishan is significant. It indicates that the Huili drum is a Dian drum, cast locally, while the M13:3 drum is a Dong Son drum, imported to the Shizhaishan cemetery.

Elaborate naturalistic Dian motifs have also been engraved over the pre-existing Dong Son decoration on each of the six panels on the mid mantle of the M13:3 drum. These engraved Dian motifs show, in sequence from left to right: a monkey with some evidence of a hard-to-read cast motif underneath; a peacock; the above mentioned human figure which appear to represent a priest or shaman, wearing a long vest and a tall elaborate headdress; a composite animal, which is hard to read, engraved over a recognisable cast buffalo motif; a horsemen with tall headdress riding a spotted horse (**Figure 2.47**); a tiger and a composite animal showing tiger, sheep, and bull features, with some evidence of the legs of another pre-existing buffalo motif. On the lower mantle, always undecorated on this type of Dong Son drums, is engraved a naturalistic tiger motif and a sequence of composite animal figures with snake bodies and deer horns (**Figure 2.48**). This tiger motif is very similar to the one appearing on a Dian bronze sword M13:219 in the same tomb (Pirazzoli t'Serstevens 1996-1997: 283). Similar representations of feline motifs appear on various other bronze objects in the Dian cemeteries, such as the elaborate bronze arm-guard M13:4 from Lijiashan, but they never feature on Dong Son bronze drums.

The M13:3 bronze drum found at Shizhaishan is a Dong Son drum of type A IV (Pham et al. 1987), and it finds several parallels in north Vietnam and throughout the distribution. Examples of parallel drums are the Lang Vac I and II drums (**Figures 2.11, 2.12**) from the Dong Son burial site of Lang Vac, in Nghe An province. Lang Vac is dated to the second-first century BC based on a radiocarbon date which yielded 40+-85 BC (ZK-310) (Ha Van Tan 1980). Dong Son type A IV drums share the same profile, the same buffalo motifs on the mid mantle and boat with feathered-men motifs on the upper mantle, and the same type of geometric bands.

Based on the above, this M13:3 Dong Son bronze drum found at Shizhaishan, where it was redecorated by engraving Dian motifs over its Dong Son decoration, provides unique evidence of the active manipulation of Dong Son material in the Dian context. Dian artists engraved significant motifs over the typical pre-existing Dong Son decoration of a drum which reached Dian from Dong Son. This evidence points to an issue of local adaptation and alteration, not of stylistic development, as it has been suggested in early studies of the Shizhaishan material (Watson 1970: 45-71; Bunker 1972: 314; Wang 1986: 39-42). The elaborate engraved motifs, such as the tiger, the horsemen, the shaman, along with the feline coats and the buffalo horns worn by the engraved human figures, are representative of the mountain equestrian Dian culture of Lake Dian. These subjects of

representation contrast with the stylised birds and feathered-men motifs typical of the decoration of Dong Son bronze drums, which originate from a civilization based on wet-rice cultivation in the Red River Valley.

The analysis of the Dian repertoire of motifs shows the representations of human figures wearing feather headdresses which resemble, yet are different from, the feathered-men motifs typical of Dong Son drums. Example of these Dian feathered figures appear on the convex upper lid of a bronze cask-shaped cowrie-container from tomb 12 at Shizhaishan (M12:1, **Figure 2.49**). This upper lid was found placed over a lower lid, also of convex shape, and with a central hole. I examined the fragmentary lower lid and cask-shaped container in the storage of the Yunnan Provincial Museum in Kunming, in January 2005. The lower lid shows naturalistic goat and dog motifs led by human figures. The cask-shaped container shows naturalistic depictions of harvest scenes (**Figure 2.50**). Tomb 12 is dated to the mid second century BC (Sun 1956; Yunnan Sheng 1959). A drum-shaped bronze container for cowrie-shells showing similar decoration also comes from tomb 12 at Shizhaishan (M12:2. **Figure 2.33**).

This M12:1 bronze upper lid from Shizhaishan shows a central star or sun motif at its centre, surrounded by seven concentric decorative bands, as on the tympani of bronze drums or the lids of Dong Son situlas (*thap*). Indeed, the convex shape of the M12:1 lid parallels the lids of situlas rather than the flat tympani of bronze drums. The main pictorial band of the M12:1 lid shows a sequence of human figures wearing tall feather headdresses, each holding what appears to be a long feather. Eight figures hold it with the right hand, and the other fourteen with the left. The two groups separate at a point where a naturalistic human figure is standing. The long feathers held by the figures frame the area where the figure is standing, emphasising its importance in the composition. This figure wears a long Dian vest with sleeves, a long sword at the waist, and a headdress extending upwards in a single long projection that may represent a feather or cloth. The figure almost appears as a 'mark of Dian' among the feathered figures. The cask shaped container covered by the lid shows naturalistic scenes of people and animals, typical of Dian.

The figures with feather headdresses on this M12:1 lid are very similar to the ones appearing on other Dian cowrie-containers and Dian drums, such as the ones from tomb 69 at Lijiashan (M69:163-164 and M69:157. **Figures 2.41, 2.51**). These Dian feathered figures differ from the ones appearing on Dong Son bronze drums and situlas. Their torsos are more elongated than the Dong Son motifs, and their shoulders are broader. They show elongated feet, or boots, pointing upwards, and their facial features and their feathered skirts are depicted in greater detail than the ones of

Dong Son feathered-men motifs. A circle renders the eye and the mouth is open, while the eye of Dong Son feathered-men motifs is rendered by a dot and the mouth is not shown.

The feathered figures on the M12:1 bronze lid from Shizhaishan have been discussed by Bunker (1972: 314), who refers to this lid as a gong, as possibly being the earliest example of feathered-men motifs appearing on 'the earliest gong'. The distinctive features of these Dian feathered men, along with the uniqueness of the object on which they are represented, indicate that this piece displays a Dian version of Dong Son 'feathered-men' motifs in procession, as they appear on the tympani of elaborate drums and situlas. Indeed, the convex shape of the lid, with its side hook, resembles the lids of Dong Son situlas, such as the Dao Thinh situla (**Figures 1.15-16**). These are typically decorated with a central sun motif surrounded by concentric bands, as the tympani of bronze drums. These shared features may indicate that Dian bronze casters had come into contact with the most elaborate Dong Son material as a result of exchange ties between the Dian and the Dong Son cultural spheres. They then produced distinctive Dian bronzes incorporating both foreign and local ideas.

Dian motifs of feathered human figures, similar to the ones on the bronze lid M12:1 from Shizhaishan (**Figure 2.49**), appear also on the drum-shaped bronze container for cowrie-shells (M69:157. **Figure 2.51**) found during the second excavations period at Lijiashan in 1992 (Zhang 1993). This container has a base, feet, and a separate lid. Its body is cast in the shape of the mantle of a drum, and it is covered with a lid showing a three-dimensional scene of procession around a central pole with a gilded human figure carried in a palanquin. The middle section of the body of the container is divided into six square panels, each showing a standing feathered figure. These figures show the same taller torso and wider shoulders as the ones on the above mentioned bronze lid (M12:1) from Shizhaishan. They wear the same feather headdresses and hold the same long feathers or feathered spears. The upper body of the container shows boat motifs with identical ends, carrying naturalistic human figures wearing plumage-like headdresses.

As the above examples illustrate, the Dian bronze artefacts need to be discussed in terms of their own rich iconographic tradition showing the merging of multiple influences, among which bronze drums played a significant part. However, the analysis of the material present in the Dian cemeteries suggests that while bronze containers for cowrie shells are a unique expression of the Dian culture, Dong Son-Heger I bronze drums are not.

Evidence from the Dian repertoire, such as the one offered by the drum unearthed in tomb 13 (M13:3) at Shizhaishan (**Figure 2.30, 2.45-48**) suggests that the question to be examined is not one of stylistic development, from naturalism to stylisation, but one of reinterpretation or appropriation

and adaptation of the shape and decoration of Dong Son drums and situlas to the Dian cultural style. The uniqueness and greater naturalism of certain bronzes from the Dian cemeteries, such as the bronze lid M12:1 from Shizhaishan (**Figure 2.49**), suggest that these represent local reinterpretations of the decorative features of Dong Son bronze drums and situlas, rather than being their precursors. The presence of bronze cowrie-shell containers cast in the shape of drums points to cultural contacts between Dian and the Dong Son, and of local reinterpretation in Dian.

What I identify as 'Dian' drums are the drums which share a series of identical decorative, morphological, and casting features with Dian drum-shaped bronze containers for cowrie-shells. Hence, I have argued that Dian drums, together with the Dian containers, represent a local tradition arising around the second century BC in Yunnan, from the influence of Dong Son drums and situlas, which reached the Dian cemeteries from the Dong Son cultural sphere centred in north Vietnam as a result of trade, tribute, or warfare.

Cross-Regional Exchange Networks From Dong Son

2.6. Bronze Drums as Prestige Goods and as Markers of the Growth of Trading Centres

Outside the main centres of production in north Vietnam and its immediate environs, the distribution of bronze drums marks the growth of centres involved in intra and inter-regional trade networks. The presence of bronze drums, associated with the political and religious power of the elites, highlights the main routes of a wide-ranging system of connected trade networks. The drum finds are located at strategic points, along or with easy access to river ways, inland from river deltas, or on coastal areas favouring maritime traffic. The wealth produced by each network was due to specific resources available in the particular regions. The identification of the most important resources traded within each regional network allows us to trace their geographical extent. By establishing alliances between centres, the exchange of bronze drums would have thus facilitated the trade of other goods and the establishment of early cultural spheres.

Studies in economic anthropology may provide some further clues on the nature of the exchange of bronze drums. Anderson (1989: 31-32), following Malinowski's interpretation of the

Kula exchange in the Trobriand Islands of Melanesia (1922), argues that the exchange of artistic non-utilitarian objects functions to reinforce and ensure the constant production and supply of subsistence goods between trading partners by cementing alliances and reciprocal duties. He also refers to other studies on the nature of the trade of symbolic objects in small scale societies (Rappaport 1968: 106-107; Harner 1972: 129). For example, Rappaport, in his study of trade relations between small scale groups in New Guinea, argues that the demand for non-utilitarian prestige goods functions to maintain the constant manufacture of necessary goods, such as axes and salt, which otherwise could be interrupted when demand for these items diminishes. This theory may apply to bronze drums as part of a whole body of non-utilitarian ceremonial objects which would have served to reinforce and assure the regular flow of necessary goods. It should be noted that often, throughout the distribution, other ceremonial or decorative non utilitarian items were found together with, or in the vicinity of, bronze drums. Examples of these include bronze bracelets, rings, earrings and pendants, beads of semi-precious stone, glass, and gold.

In the following sections, I first survey the distribution of Dong Son drums on the western part of Mainland Southeast Asia, tracing routes along river courses and across mountain passes. Following Reinecke's research (Reinecke et al. 1999), I trace a major early exchange route from the northern part of central Vietnam through Laos and into Thailand and the Malay Peninsula (**Map. Figure 2.52**). Then I follow the distribution to the island of western Indonesia tracing possible maritime routes from the Malay Peninsula to Sumatra and Java. When possible, I attempt to identify the specific resources and specialised craftsmanship which favoured the growth of specific interregional networks. The trade of specific goods would have favoured the growth of trading centres placed at strategic locations within each network. For example, salt production and iron smelting appear to have played a key role for the growth of centres along the Mekong River in the regions comprising northeast Thailand and central Vietnam, as discussed by Nitta (2005). In western Indonesia, alluvial gold deposits and gold production may have played a key role for the growth of centres in west Kalimantan Borneo, as discussed by McKinnon (1994).

2.7. To Southwest China; Burma; North Thailand.

This section surveys the distribution of Dong Son drums in southeast Yunnan and west Guangxi provinces, in southwest China, and also in Burma and north Thailand. The Wenshan region of southeast Yunnan has yielded six Dong Son bronze drums, all as chance finds. The largest and most

elaborate of these is the Kai Hua drum (**Figure 1.8**). This drum is of Dong Son type AI, and belongs to the Region Specific cluster 1 (RS1) identified in Chapter 1, and also discussed above (sections 2.1-2.2). It is kept in the Museum of Ethnology in Vienna. The other elaborate drum found in Wenshan is the Guangnan drum (**Figure 2.5**. H. 46 cm, D. 67 cm), which is a Dong Son drum of type AII, decorated with boats with feathered-men motifs (Dewall 1984). It is kept in the Yunnan Provincial Museum in Kunming. The other four drums are of Dong Son type A IV, and B, and are kept in the Wenshan Museum.

The Guangnan drum is decorated by distinctive pictorial scenes on the mid mantle (Dewall 1984). While it conforms to the typical decorative scheme and artistic vocabulary of Dong Son drums, it also shows some pictorial scenes which do not appear on other bronze drums. One panel shows two feathered-men motifs in the act of sacrificing a buffalo by a pole, and another scene shows two feathered-men in the act of libation using two containers. Typically, the feathered-men motifs on the mid mantle of Dong Son drums are only shown standing or dancing. The distinctive scenes on the Guangnan drum may be interpreted as the mark of local workshops in southeast Yunnan.

In west Guangxi, four Dong Son drums were found in a Han burial at Xilin (Anon. 1978a; Jiang 1982) and two were found in another Han burial at Luobowan (Anon. 1978b; Anon. 1988). Based on the report of the excavations in 1972 of the Han burial at Xilin, four bronze drums were excavated and three were found assembled together (Anon. 1978a). However, in the report, the drawing of how the drums were assembled together in the Xilin tomb (**Figure 2.53**) does not match the reconstruction of the assemblage at the Guangxi Provincial Museum (**Figure 1.40**), in Nanning, where, in 2005, I examined three Dong Son drums from Xilin (Xilin 280, 281, 282). Based on their measurements and shape, these three drums (Xilin 280: H. 52 cm, D. 77.5 cm; Xilin 281: 50 cm, D. 72 cm; and Xilin 282: H. 41 cm, D. 52 cm) fit with the reconstruction at the museum.

According to the museum reconstruction (**Figure 1.40**), the section of the tympanum and upper mantle of the Xilin 280 drum was cut out from the section of the mid and lower mantle, and it was placed upside down, with its upturned tympanum as the base of the assemblage. The Xilin 282 drum was placed right side up into the upturned upper mantle of the Xilin 280, and then the remaining portion of the Xilin 280 was placed right side up over the Xilin 282. The assemblage was then covered by the third drum Xilin 281, which was placed right side up over the assemblage. However, because the drawing in the report (**Figure 2.53**) is different from the reconstruction of the assemblage in the museum, and, in the report, the Xilin 282 is shown as not being part of the assemblage, the middle drum could be the fourth drum which was not available for study during my

visits to the museum. Unfortunately, I could not trace this fourth drum. Hence I discuss only three drums from Xilin. The Xilin 280 and 281 drums are of Dong Son type AII (Xilin 280. H. 52 cm, D. 77.5 cm. **Figure 1.35.**; Xilin 281: H. 50 cm, D. 72 cm), and the Xilin 282 is of Dong Son type BII (Xilin 282. H. 41 cm, D. 52 cm. **Figure 2.54.**).

Two other Dong Son drums were excavated in west Guangxi in 1976 in a Han burial at Luobowan. Both at Xilin and Luobowan the burial inventories comprise mainly typical Han material. Other than bronze drums, the Dong Son material in these tombs include a bronze horned bell at Xilin, and a bronze situla (H. 26cm) and a horned bell at Luobowan. The larger of the Luobowan drums (M1:10. H. 36.8cm, D. 56.3 cm. **Figure 2.6**) is of Dong Son type AII, and is elaborately decorated with boat motifs carrying feathered-men with elaborate feather headdresses on the upper mantle, and with similar standing feathered-men motifs on the panels of the mid mantle. The smaller Luobowan drum (M1:11. H. 24.4 cm, D. 28.8 cm) is of Dong Son A IV and shows simpler boat motifs carrying two figures without headdress. As discussed by Nishimura (in press) and Nguyen (2005), both the larger Luobowan M1:10 drum and the Luobowan situla show Chinese inscriptions indicating their weight. Another inscription in Chinese characters, indicating the weight of the drum and its content of bronze objects, is found on the inner surface of the Co Loa I drum discussed above (section 2.2).

Based on the data from the drum finds in southeast Yunnan and west Guangxi, it is possible that some drums were cast in local centres in these regions. According to the present study, these centres represent the northern and north-eastern reaches of the Dong Son cultural sphere, centred in the Red River Valley of north Vietnam. The Dong Son sphere of influence is understood here as a series of connected centres sharing cultural traits to various degrees.

We now turn to the northwest and west of north Vietnam, surveying the finds of bronze drums in Burma and north Thailand. In Burma to date I know of two Dian drums, two Dong Son drums, and what looks like a Wanjiaba type drum. They have been reported by U Win Maung and Moore has kindly shown me his drawings and photographs. Because I have not examined these drums yet and there has been no systematic study of them, I rely on the images which I have been shown. Two specimens are Dian drums. One of these drums (**Figure 2.55**) is complete and is kept in the Bagan Archaeological Museum (Moore and U Win Maung, pers. com. 12 - 04). The other Dian drum (**Figure 2.56**) is fragmentary and its present location is uncertain. U Win Maung (2001) also reports the find of a Dong Son drum from a Bronze Age burial site by Yetagoon Taung, in the foothills of Mount Shan Yoma, east of Mandalay. However, from the drawing available I am not able to tell specifically which type it is. It could be a Dong Son drum of type C with toad motifs, but it could

also be a Dian drum. For the moment I hold the first option in lieu of examining the specimen. The other Dong Son drum described by U Win Maung (H. 40.5 cm, D. 51 cm) is kept in the Sagaing Buddhist Museum. It shows house and feathered-men motifs on the tympanum. It can be classified as a Dong Son drum of type A, close to the Dong Son AV type. The fifth drum reported by U Win Maung is kept in Sin Co village, near Myit Kyee Nak, in the Kachin state. It appears to be a Wanjiaba type drum (**Figure 2.57**). The region of east Burma is likely to have been in contact with the Dian area of central Yunnan. In this regard, Moore has shown me pictures of the chance finds at Myauk Mi Kon, of a bronze gourd and of a ceremonial spoon or perhaps a wind instrument with an anthropomorphic figurine (**Figure 2.58**), both of which find similar parallels in the Dian cemeteries.

From north Thailand, eight Heger I bronze drums are known. I refer to them as Heger I drums because seven drums are Dong Son drums (types B and C) and one is a Dian drum (RS2). Two drums are known from the area of Chiang Mai, and the Thai Fine Arts Department (Anon. 2003) lists other six Dong Son drums of types B and C found in Uttaradit, Tak, and Sukhotai provinces. From the Chiang Mai area, a Dong Son drum of type B with no pictorial decoration was unearthed in 1972 when digging an irrigation ditch at Ban Gaw (H. 41 cm, D. 49.6 cm). It is kept in a shrine in the Ban Gaw temple, and was involved in the ceremonial context at the time when Sørensen examined it in 1973 (Sørensen 1976). Another drum was bought in Chiang Mai by Mr Beelaerts, thus it is named the 'Beelaerts' drum (**Figure 2.44**, H. 29.3 cm, D. 44 cm) (Heekeren 1970). Its exact provenance is uncertain. Sørensen, who examined this drum in Chiang Mai with Van Heekeren, believes that it probably came from China (pers. com. Sept. 2004). I identify this drum as a 'Dian' drum, corresponding to my Region Specific cluster 2 (RS2) discussed in Chapter 1.

Four other drums of Dong Son type B were found in Tha Sao Sub, in Uttaradit province; one drum of Dong Don type C II was found in Ban Na Bot, in Tak province; and the tympanum of another Dong Son drum of type CII was found at Na Choeng Sub, in Sukhotai province (Anon. 2003). Three of the drums from Uttaradit province are kept in the National Museum in Bangkok, where I examined them in August 2004. I name these drums Uttaradit I-III. The Uttaradit I (KP1) drum (H. 53 cm, D. 65 cm, **Figure 2.59**) is a Dong Son drum of type B, based on its shape and two-dimensional decoration. However, it also shows four three-dimensional spiral shell motifs on the tympanum, instead of the more common toad motifs. I observed this feature only on this drum. The Uttaradit II drum (KP2, H. 53.5 cm, D. 69, 5 cm, **Figure 2.60**) also shows an unusual decorative feature in the form of seated feathered-men motifs on the main pictorial band of the tympanum. Seated feathered-men motifs usually appear on boat motifs on the upper mantle or occasionally on the panels of the mid mantle, but not on the tympanum. On the Uttaradit III drum (KP4) the flying

bird motifs on the tympanum have been re-inscribed possibly in antiquity (H. 42 cm, D. 61.5 cm. **Figure 2.61**). The fourth drum of Dong Son type B from Uttaradit (KP5. H. 40 cm, D. 48 cm) is kept in the Prachinburi National Museum, in Mueang district.

2.7a. Distinctive Practices of Cutting and Assembling Drums - The Cases of Xilin and Lao Cai

This section discussed the particular way in which certain Dong Son bronze drums have been cut before being buried in their locations at Xilin, in west Guangxi, China, and at Lao Cai, in north Vietnam. Based on my study of the drums in the Guangxi Provincial Museum in Nanning, the Xilin drum 280 (**Figures 1.35**) was found assembled together with two other Dong Son drums in a Han burial at Xilin in 1972 (**Figure 1.40**). Its upper section, comprising the tympanum and the upper mantle, was severed from the mid and lower mantle by a neat circular cut at the point where the mid mantle joins the upper mantle. The drum was cut in order to make it fit together with the other two drums, forming a symmetrical assemblage, in a 'Russian-doll-like' fashion. This three-bronze-drums assemblage is found in a Western Han burial (206 BC – AD 9), where the majority of the burial goods are typically Han Chinese in style. An example of these is a bronze statue of a horse mounted by a man in Han Chinese attire (**Figure 2.62**). The evidence from Xilin suggests that this specific way of cutting Dong Son bronze drums may be a Han practice. As mentioned in Chapter 1 (SO cluster), the only other location where bronze drums were found cut in the same way is the site of Lao Cai, by the Red River on the Sino-Vietnamese border (Pham 1997; Diep 2003). The majority of the nineteen bronze drums found at Lao Cai between 1993 and 1994 are also severed by a neat circular cut around the joining point between the upper mantle and the mid and lower mantle, as in the case of the Xilin drum 280 (**Figures 1.23, 2.43**).

The Xilin drum 280 belongs to the spread out cluster (SO) discussed in Chapter 1, which points to a specific workshop which produced a few drums which ended up at very distant locations from each other. I identify six specimens belonging to this SO cluster. As we have seen, these drums include the Xilin 280 and 281 drums, from west Guangxi; the Pha Long drum (**Figure 1.36**. D. 75 cm), from Lao Cai province, in north Vietnam; the Laos drum (**Figure 1.37**. H. 58 cm, D. 86.5 cm) from south Laos (section 2.9 below); the Bukit Selindung I drum (**Figure 1.38**. H. 50cm, D. 68.5cm) from northwest Kalimantan (section 2.14 below), which is one of a pair of superimposed drums forming a container with possible burial goods (McKinnon 1994); and the Babakan drum (**Figure 1.39**. H. 47.5 cm, D. 66 cm) from Cianjur, in west Java.

The Pha Long drum was found in 1958 in Lao Cai Province, just to the northeast of the Lao Cai site. I examined the Pha Long drum in February 2005, together with the Lao Cai drums in the storage of the Culture Department of Lao Cai, soon to become the Lao Cai Museum. Only the large tympanum and part of the upper mantle (D. 75 cm) of the Pha Long drum remain, so it may not be known if this drum was cut in the same way as the Xilin 280 drum and the other drums at Lao Cai. However, it is interesting to find a specimen belonging to the same SO cluster as the Xilin 280, near Lao Cai, where many drums have been cut in the same distinctive manner as the Xilin 280 drum.

At Lao Cai, I examined fourteen bronze drums from the 1993-1994 finds, ten horned bronze bells, and also the associated Han material from the same excavations. I was told that the remaining five drums from the 1993-94 finds had been sent to another storage room so they were not available. Out of the fourteen drums which I examined (the LC II and LC XIII drums are not cut in this way), twelve show the circular neat cut also found on the Xilin 280 drum (**Figures 1.23, 2.43**). Out of the nineteen drums, twelve were found on the bank of the Red River, and seven on a nearby hill. The drums were found in close association with Han Chinese bronze containers such as *pan*, *ding*, and *ko* types, stone rings with protruding internal rim, and also ten horned bronze bells. One of the horned bells bears a cast Chinese inscription. The auspicious message on the bell however, does not appear to provide a dating clue. The nineteen drums found at Lao Cai include Dong Son – Heger I drums, pre-Heger or Wanjiaba type drums, and Dian drums (RS 2), as they are identified in section 2.4b above. While early Dong Son drums can be dated from the late third century BC to the first AD, the controversial pre-Heger, or Wanjiaba, drums are dated by Chinese archaeologists as early as the sixth century BC, while Vietnamese archaeologists consider them as a coarse later type derived from Dong Son drums. As discussed in section 2.1 above, a late fourth-third century BC date for this type of drums seems more consonant with the available data. Based on my identifications of Dian drums, I date them to the second – first century BC, as discussed above in section 2.4b. It is interesting to note that the specific practice of cutting the drums at the point of junction between the upper and the mid mantle at Lao Cai occurs indistinctively of the type of drum. This indicates that the drums were cut when they were gathered together and buried at Lao Cai. Based on the latest dates of the finds at Lao Cai, the drums are likely to have been cut and buried in the first century BC.

Moreover, I suggest that the evidence from Xilin and Lao Cai indicates that the specific practice of severing the upper mantle from the mid and lower mantle by a single neat cut was a Han practice, reflecting the progressive Han Chinese presence in the region from the first century BC onwards. The finds at Lao Cai of different types of bronze drums dated to different periods and cut according to what appears to be a Han practice, and in associations with Han material, suggests that

the drums may have been gathered together, cut, and stored there by Han people, perhaps to be later traded elsewhere.

2.8. North Central Vietnam: the Starting Point of the Route to the Southwest

The region of north central Vietnam appears to be main gateway crossed by the Dong Son bronze drums found in the western part of Mainland and Island Southeast Asia. It was a major crossroads for the routes linking Metal Age centres, both on a north to south axis, and on an east to southwest axis. On a north to south axis, it linked Dong Son sites with the jar burial sites of the Sa Huynh culture of central and south Vietnam. This culture is named after its type site in Quang Ngai province, in central Vietnam, and it extended from the area of Quang Binh and Quang Tri provinces in north central Vietnam, to Dong Nai province in the south (Reinecke 1994; 1996, 1998; Ngo 1991). Based on available radiocarbon dates and on the comparative analysis of the excavated material, the Sa Huynh culture is dated from the fifth century BC to the first century AD. It is thus contemporary with Dong Son to the north.

Even more importantly with regard to the present inquiry, the region of north central Vietnam linked centres on a east to southwest axis, from southern Dong Son and northern Sa Huynh, into south Laos, northeast, west central, and peninsular Thailand, all the way south to the Malay Peninsula and Cambodia, and then into western Indonesia.

Archaeological research tracing the main exchange routes linking early Metal Age centres from north to south Vietnam, and from central Vietnam to the Khorat Plateau by the Mekong River, in northeast Thailand, has been conducted in 1997 and 1998 by Reinecke and its team (Reinecke et al. 1999; Reinecke and Le 2002). Reinecke's research area in north central and central Vietnam comprises, from north to south, the provinces of Quang Binh, Quang Tri, and Thua Thien-Hue. This area is also called Binh Tri Thien (ibid. 1999: 8 - fig. 1, 59-64). The natural boundaries of this region include the South China Sea in the east, the Truong Son Range in the west, the Hoan Son foothills in the north, and the Bac Ma foothills in the south. The route from north to south Vietnam crosses the Hoan Son foothills at the Ngang Pass, and the Bac Ma foothills at the Hai Van Pass. The area between these two passes, was also a major crossroad for exchange to the southwest, across the Truong Son range, into Laos and northeast Thailand.

In Quang Tri province, in the northern part of central Vietnam, four Early Metal Age sites were found near the Thac Han River and its tributaries. These sites are Ba Long, Ban Vang, Huyen Cu,

and Nhu Le (ibid. 1999: 61-64). Dong Son bronze pediform axes and spears have been found at Huyen Cu and Nhu Le, as evidence of exchange with Dong Son centres located to the north, in the Ma River valley of Thanh Hoa province. At Ban Vang, two jar burials yielded decorated bronze bangles similar to those found in northeast Thailand (Higham 2002: 157). Evidence of Sa Huynh artefacts in Dong Son sites in Nghe An province is given the finds of a bicephalous nephrite earring (*ling ling*) typical of the Sa Huynh culture, at the Dong Son site of Xuan An, and also, as mentioned above, of three round earrings with lugs (*ling ling o*) at the Dong Son cemetery of Lang Vac (Ngo n.d., 1983).

The total number of Dong Son bronze drums found in central and south Vietnam has grown significantly in recent years. From Pham's latest report (in press), and from my own research, I counted about forty Dong Son drums, found in the coastal and highland regions of central Vietnam. The majority of these were found in the coastal regions of Quang Tri, Thua Thien-Hue, Quang Nam, Quang Ngai, Binh Dinh, Phu Yen, and Khanh Hoa provinces. A few drums were also found in the highlands of the interior, in Gia Lai, Dac Lac, Con Tum, and Lam Dong provinces. According to Pham (in press), including also the finds in south Vietnam, the count of Dong Son drum finds outside north Vietnam is up to fifty-one to date. These numbers, however, are subject to fluctuations in light of new finds, available sources, and of the significant presence of drums in private collections. Some confusion also arises from the fact that sometimes the same drums are identified by the name of the village where they were found in some sources, while they are identified by the name of the district or the province in other sources.

On a north to south axis, in Quang Binh province, the Phu Lu drum (H. 45 cm, D. 65 cm), of Dong Son type CII, was found in 1977 (Pham 1978). From Quang Tri province, the Gio Son drum (H. 26.8 cm, D. 30 cm), of Dong Son type A IV, and the Tra Loc drum (H. 27.4 cm, D. 33.4 cm), of type B III (**Figure 2.63**), were found respectively in 1997 and 1998 by mine detectors (Reinecke et al. 1999: 38, 62-64; Reinecke and Le 2002: figs. 5, 6). They respectively find equal parallels in the Lang Vac I (**Figure 2.11**) and Lang Vac IV drums from the Dong Son cemetery of Lang Vac, in Nghe An province, about 200 Km to the north of Quang Tri province. Lang Vac is the southernmost burial site of the Dong Son region. From Quang Tri, Pham (in press) also reports the Quang Tri drum of type BII, the Do Son drum of type BIII, and the Hien Luong drum, which is not classified.

In Thua Thien-Hue province, the Khe Tran drum (H. 58 cm, D. 63 cm) was found in 1994. It shows the two-dimensional decoration of Dong Son type C drums, but without the three-dimensional toad motifs (Reinecke et al. 1999: 62, 37-fig. 17). The presence of boat motifs on the

upper mantle of the Khe Tran drum would place it as a Dong Son CI drum, but its tympanum equals the type CII, not the CI. Hence, considering also the lack of toad motifs, I am inclined to consider this drum as a transitional type between the Dong Son CI and CII types, possibly dated to the first-second century AD. From the same province Pham (in press) also reports the find of the Phong My drum of type CII.

Based on the above, the bronze drums found in the northern part of central Vietnam are dated between the third century BC and the first century AD (types A and B), and to the first-second century AD (types C), allowing for possible chronological overlapping between types A-B and early C. In particular, the finds of the early drums points to the Binh Tri Thien area of north central Vietnam as the starting point of a major cross-regional exchange route into Laos and Thailand, then leading to further river and maritime routes to the Malay Peninsula, Cambodia, and western Indonesia, during the centuries around the turn of the first millennium BC-AD.

In this regard Reinecke et al. (1999: 61-62) discuss the geographical factors favouring the region of Quang Tri province as the starting point of the journey to the southwest. Here, from the area of Dong Ha, the Truong Son Cordillera can be crossed more easily than anywhere else in central Vietnam because of a pass which runs through the mountains. Accordingly, what would have been an important exchange route in the Metal Age can be traced from this area of Quang Tri province, from Dong Ha, across the Truong Son range, through Laos to Savannakhet, and westward into the Khorat Plateau of north-east Thailand. This route extends over about 500 km and it links Binh Tri Thienh with early Metal Age centres near the Mekong River, in the Khorat Plateau, including Ban Chiang, Ban Na Di, and Non Nok Tha. The modern Vietnamese National Route 9 still follows the initial section of this route.

As evidence of this east to west exchange route from north central Vietnam to northeast Thailand, Reinecke reports the finds of two bronze bracelets, in two jar burials buried together at the site of Ban Vang, in Quang Tri province. One is a rattle bracelet with a double hollow core, the other is decorated with knobs and cord motif (**Figure 2.64**. Reinecke et al. 1999: 32 - fig. 12). Two other similar bracelets were documented from a dealer in Hue (ibid. 1999: 34 - fig. 14). These bracelets are unknown in Dong Son. On the other hand, according to Reinecke, the bracelets find their closest parallels in burial complexes in the Khorat Plateau in northeast Thailand, such as the bracelet found at Ban Na Di (M1:2) (ibid. 1999: 32 - Fig. 13 [after Higham and Kijngam 1984]), and at the jar burial site of Ban Kan Luang, in the lower valley of the Mun river (ibid. 1999: 35 - fig 15 [after Higham 1996: 230 - fig. 6.22b]; Higham 2002: 183). As noted by Higham (1996: 229), Ban Kan Luang is located just north of Ubon, at the confluence of the Mun and Chi rivers, near the

Mekong, and the contact with the coast of Vietnam would have been facilitated by the mountain passes in the Truong Son Range.

The lidded jar burials at Ban Kan Luang yielded human remains and bronze bracelets, rings, and armlets, and bronze and iron tools. As quoted by Higham (1996: 228), Woods and Parry (1993) describe the bronze material at Ban Kan Luang. From one of the jars, they describe a bronze figurine of a man measuring 45 cm in height, whose body is decorated with discoid motifs which match the ones on the bracelets. Hence, the finds of this type of bronze bracelets at Ban Vang in central Vietnam, and at Ban Na Di, and Ban Kan Luang, in the Khorat Plateau, provide evidence of the route from north central Vietnam to northeast Thailand.

With a view to further routes to western Indonesia, these bronze bracelets with spiral knobs and cord motifs, found in association with the human figure with matching spiral decoration at Ban Kan Luang, closely parallel similar material found by the village of Kuwu, in the district of Bangkinang, on the east coast of south Sumatra, as reported by Van Heekeren (1958: 36-37, pl. 9). The Bangkinang finds comprise four bronze bracelets with spiral knobs and cord motif, which were found together with fourteen bronze human figurines with a spiral headdress and spiral knobs on the body. These match the knobs on the bracelets, as at Ban Kan Luang.

In the Museum Nasional Indonesia in Jakarta, in 2005, I examined three of these bronze bracelets (MNI codes 6016, 6017, 6018), and two of the bronze statuettes (MNI codes 6000, 6002) (**Figure 2.65**). When these bronze artefacts were offered for sale to the Archaeological Service in Jakarta in 1951, they were said to have been found at a depth of 4 m below the ground by the village of Kuwu, in Bangkinang district, on the east coast just north of Palembang. Van Heekeren notes that the figurines were cast by the lost wax method. These finds on the east coast of south Sumatra, not far from Palembang, provide evidence of exchange from the centres in northeast Thailand, passing through peninsular Thailand and the Malay Peninsula, and reaching the east coast of south Sumatra, in the area which became the main centre of the Srivijaya maritime empire from the seventh to the eleventh century AD.

I located a further parallel to this type of bronze figurine with a spiral headdress in an antique dealer in the River City complex in Bangkok in 2005. I inspected a bronze figurine with spiral knobs and spiral headdress which shows a striking resemblance to the Bangkinang statuettes in the Museum Nasional in Jakarta. This figurine was said to have been found in the Ban Chiang region. 'Ban Chiang' is here to be interpreted as a trade term, broadly used to identify prehistoric bronze material from northeast Thailand, and not necessarily related to the Ban Chiang Bronze Age site, where bronze casting activity was established since the period between 1500 and 1000 BC, as

proposed by Higham (2002: 134). The provenance of this statuette in northeast Thailand would be consistent with the find of the statuette at Ban Kan Luang mentioned above. Their resemblance to the statuettes found in Sumatra provide further evidence for tracing the Metal Age routes from the mainland to the western islands of Indonesia.

2.8a. The Trail of Drums – From North Central Vietnam to Laos and Thailand

This section follows the trail of Dong Son drums along the exchange route from the Binh Tri Thien area of north central Vietnam, to south Laos and northeast Thailand, and further on to central and peninsular Thailand (**Map Figure 2.52**). The other drum finds in Vietnam, to the south of the Binh Tri Thien area are discussed in the following section 2.8b. To the west of the Binh Tri Thien region of north central Vietnam, across the Truong Son Range, and into south Laos and northeast Thailand, we find a trail of bronze drums of Dong Son types A, B, and C along or in the vicinity of river ways. The locations of the drum finds often mark the presence of centres or strategic passage ways along exchange routes.

In Laos, the five Dong Son bronze drums known were found in the south, along a route leading to where the Mun River joins the Mekong River in northeast Thailand (Higham 1996: 230-231). They are of Dong Son types A and B. The ‘Laos’ drum, also known as the ‘Ubon’ drum because it was found in a field on the road from Pakse, in south Laos, to Ubon in northeast Thailand (Bernet Kempers 1988: 420), is one of the six drums which I identify as the spread out cluster (SO) in Chapter 1. It is now kept in the National Museum in Phnom Penh, in Cambodia. The ‘Nelson’ drum was owned by a man living in Pakse, on the left bank of the Mekong, opposite to Ubon. Its present whereabouts are unknown. Sørensen (1997) describes a third drum found in 1990, buried upside down on the bank of Sane Island (Don Sane) in the Mekong River, near the Khong Falls, and located 130 km south of Pakse. Sørensen dates the drum to the third century BC, on the basis of stylistic analysis. However, the prow of the boat motifs and the tall feather headdresses of the figures show similarity with late Dong Son drums of type A and also Dong Son drums of type C. In the absence of the mantle it is not sure if this drum had three-dimensional toads on the tympanum. In my opinion, this drum may be dated to the first century AD. Interestingly, as discussed above in section 2.2, in 1998, Nishimura (2005) found two mould fragments for casting a bronze drum at Lung Khe in the Red River Valley. He dates the drum cast with the mould to the second century AD, and points out that it would have been similar in type to the drum from Don Sane. Nitta (1995)

discusses the Don Sane location of the drum find as a key point of transportation in the Mekong basin. Two other Dong Son drums were found in Ban Houei Huasang, 40 km north of Savannaketh, which is located 170 km north of where the Mun River joins the Mekong River.

Following the drum finds from south Laos to the Khorat Plateau of northeast Thailand, the area where the Mekong River joins the Mun and Chi River systems, in Ubon Ratchatani province, is an important transport point, and it hosts a concentration of bronze drum finds.

Nitta (1991; 1994; 2005) has shown that iron-smelting and salt production were established by the third century BC in the valleys of the Mun and Chi Rivers. Transportation along the Mun and Chi Rivers was crucial for the economy of the region. Strategically placed along river routes, various centres grew in importance. Most Dong Son bronze drums were found at important points of transportation such as the junctions of rivers, river-mouths, or at river cross points. The presence of these bronze drums, as prestige goods, in the centres of the Khorat plateau, is evidence, according to Nitta, of the growth of ranked society as a result of increased wealth.

Vallibhotama (n.d.) also points to the evidence of iron-smelting in the lower Mun-Chi Rivers basin in connection with jar burial sites, which he discusses as evidence of contact with the jar burial Sa Huynh culture of central Vietnam. He points out that in the Mun-Chi Rivers basin jar burials are found for both adults and children, as in the Sa Huynh jar burial sites, while in the Ban Chiang region to the north, jar burials are only for children.

At the confluence of the Mun and Mekong rivers, a Dong Son drum of type B was found at Ban Na Pho Tai, just north of the above mentioned Sane Island, in the Mekong River, in Laos. Just to the north of Ban Na Pho Tai, the largest Dong Son drum found in Thailand (**Figure 2.66**. H. 65.4cm, D. 86.4 cm) was found on the small island of Don Tan (Koh Don Tan) in the Mekong river, which in antiquity was attached to the burial site of Don Tan, located on the right bank of the Mekong River, in Mukdahan province (Vallibhotama n.d.; Nitta 1994). This elaborate drum is of Dong Son type CII, and it shows four three-dimensional toad motifs on the tympanum, boat with feathered-men motifs on the upper mantle, and sequences of feather patterns on the panels of the mid mantle. According to Vallibhotama, local sources reported that a few other smaller drums were found at the same site, and are now kept in the Suan Phak Kard Museum in Bangkok. The Don Tan drum is now kept in the local Wat (temple) Matchimawat. Vallibhotama suggests that Don Tan was a 'way station' from where objects from Vietnam, and particularly from the Sa Huynh culture of central Vietnam, were then distributed across the Phu Phan Range to the Yasothorn – Ubon area. Another Dong Son drum of type B (H. 62 cm, D. 64 cm) was found at the large moated site of Ban

Chi Thwang, in the flood plain of the Chi River (Vallibhotama n.d.). With a view to the route from northeast to central Thailand, in 1990, a Dong Son drum was found at Pak Thong Cha, in Nakhon Ratchasima province, on an arterial route linking the Khorat Plateau with central Thailand (Nitta 1994; Higham 1996: 231).

With regard to other distinctive artefacts found along some of the same routes travelled by Dong Son drums, Reinecke et al. (1999: 62) note that probably also the double-headed animal nephrite earrings (*ling ling*, **Figure 2.67**), found in central Thailand at the burial site of Ban Don Ta Phet (Glover 1990) in Kanchanaburi province, and at U Thong in Suphanburi province, travelled from the region of the Sa Huynh culture (500 BC – AD 100) in central Vietnam, where they are found in their greatest concentration, across the Mun River Valley of northeast Thailand. In 1996 Reinecke reported seventy specimens of these double-headed animal nephrite earrings from fifteen sites in Southeast Asia, with their greatest concentration in the jar burial sites of the Sa Huynh culture of central and south Vietnam (Reinecke 1996a, b; Reinecke and Le 2000). Further south, this exchange route would have reached Peninsular Thailand, at Khao Sam Kaeo, where another specimen of *ling ling o* (the circular variety of nephrite earring with lugs, **Figure 2.67**) and an unfinished specimen of the double-headed animal variety (*ling ling*) have been found, along with three bronze drums, as discussed further below in this section.

The same route to central Thailand may have also been travelled by the three pairs of Dong Son bronze drums found in the cave burial, in association with about ninety boat-shaped dug out wooded coffins (**Figure 2.68**), in Kanchanaburi province (Sørensen 1988, 1979). The six Dong Son bronze drums from the Ongbah cave burial were found in 1957, and the cave was later surveyed by the members of the Thai-Danish Prehistoric Expedition in 1960-1961, but only four drums were still present. Sørensen (1979; 1988) reports the rediscovery of the fifth drum in 1973, in the Chai Choom Polchana Songkhram Temple, in Kanchanaburi province. This drum was named the 'Governor' drum because it was previously in the custody of the governor of Kanchanaburi, who later donated it to the temple. It is a Dong Son type B (H. 44.3 cm, D. 62.4 cm). The sixth drum was said to have been sent to the National Museum in Bangkok but it never arrived. Sørensen (1988) conducted excavations of the Ongbah cave during the second Thai-Danish Expedition in 1965-1966, and discusses the four bronze drums (OB 86: H. 53.5, D.67 cm. **Figure 2.69**; OB 87: remaining H. 35.4 cm, D. c. 60 cm. **Figure 2.70**; OB 88: remaining H. 40.3 cm, D.c. 58 cm. **Figure 2.71**; OB 89: H. c. 59.5 cm, D. 74 cm. **Figure 2.72**).

A radiocarbon date from a sample of charcoal of a coffin found next to the Ongbah 89 and 86 drums, which were paired together, gave 2180 ± 100 BP (K-1300) (Sørensen 1988: 28, 98; *Radiocarbon* 1973: 111). However, as for other early radiocarbon dates from large tree trunks, we have to consider that the tree is likely to be much older than the burial where the dug-out coffin is found. Moreover, the calibration of radiocarbon dates gives dating ranges spanning over a few centuries. The Ongbah 89 drum is of Dong Son type C II, or possibly a transitional Dong Son type between the C I and C II types, and may be approximately dated typologically to the second century AD. The Ongbah 86 drum shows two house motifs on the tympanum but no pictorial decoration on the mantle. As the Ongbah 89 drum, the Ongbah 86 drum is also not easy to classify according to the Vietnamese classification. It is a transitional Dong Son type between the A and C types, approximately dated to the late first-second century AD. The Ongbah 87 and 88 drums are both Dong Son B types, which, based on their decoration, can be dated between the first century BC and the first AD. Among the various cave burials with boat-shaped dug-out coffins found in west Thailand, only the Ongbah cave includes bronze drums. The presence of bronze drums in the Ongbah cave burial is thus an exception, possibly marking the importance of the site, and not the norm for the cave burials with coffins in west Thailand.

According to Sørensen (1988), the Ongbah 86 drum is in the custody of the National Museum in Bangkok; the Ongbah 87 and 88 drums are kept in the National Museum in Copenhagen; and the Ongbah 89 drum was redelivered to the Fine Arts Department in Bangkok, after having been kept in the National Museum in Copenhagen. With regard to the present location of the tympanum of the Ongbah 89 drum, the photograph (**Figure 2.73**) of the reconstructed fragmentary tympanum of the Ongbah 89 drum provided by Sørensen (1988: 150, pl. 50.24) matches perfectly the drawing of an unidentified tympanum shown in the publication of the Thai Fine Arts Department (Anon. 2003: 296) (**Figure 2.72**). On the photograph shown by Sørensen the contours of the fragments are clearly visible. The main central fragment matches exactly in shape and decoration the unidentified fragment drawn in the Fine Arts publication (Anon. 2003: 296). Hence, the tympanum of the Ongbah 89 drum is now kept in the National Museum of His Majesty the King's Golden Jubilee, in Pathum Thani province (Anon. 2003: 295-297). Perhaps some other fragments are there too. The publication of the Fine Arts Department does not mention any of the Ongbah drums, and it also does not mention the Bangaw drum (Sørensen 1976), or the Beelarts drum, examined by Sørensen and Van Heekeren (Heekeren 1970. **Figure 2.44**) in Chiang Mai, as discussed above in section 2.7.

Also from Kanchanaburi province, the Fine Arts Department lists the chance find, in 1976-1977, of a fragmentary Dong Son drum, at Khao Saphai Raeng (previously known as Khao Noi Klang Dong). Other bronze drums and pre-historic pottery and beads are reported to have been found in the same area. However, no further details are given on these other finds. The drum appears to be a transitional type between types B and C (D. 67.5 cm). It is kept today in the local Niwitrat Uppatham school. From Ratchaburi province other two Dong Son drums of types B were found. The first drum (D. 44 cm) was found at the Khu Bua site, and is now kept in the Ratchaburi Museum. The second drum was found at Ban Nong Wua Dam, in Pak Tho district, buried 1 m below the ground and in association with a burial yielding fragments of human bones and teeth, bronze rings on human finger bones, bronze bracelets, pottery sherds, agate and carnelian beads, and a clay spindle whorl (Anon 2003:120). The drum and the associated material are kept in the Rachaburi Museum.

In the Trat province of east central Thailand, three Dong Son bronze drums are reported as chance finds (Anon 2003). In 1981 and 1987 two fragmentary Dong Son bronze drums of type B (1981: D. 58.5 cm; 1987: D. 40.7 cm) were found in the same area in Ban Sam Ngam, in the Mueang district. Then in 1988, a drum of Dong Son type CII (H. 53 cm, D. 72 cm), but without three-dimensional toad motifs, was found in a field at Wang Kra Chae Sub, also in Mueang district, close to the location of the drum found in 1987. Its decoration includes boat with feathered-men motifs on the upper mantle, and feathered-men motifs on the mid mantle. I consider this drum to be a transitional type between the Dong Son types AV and CII. It was buried upside down 60 cm below the ground, by a canal which flowed into the Khao Rakam Reservoir and into the sea at Khlong Tha Ruea. It contained human bones, iron tools, fragments of bronze ornaments, rectangular carnelian beads, a gold hoop, and pottery sherds. The drum and the associated material are said to be kept *in situ* in a shrine (Anon 2003). Unfortunately, I could not find further references on the archaeological context of this burial site.

Further south, in peninsular Thailand, a total of thirteen Dong Son bronze drums are known to date. On a north to south axis, three drums were found in Chumpon province; three in Surat Thani province; five in Nakhon Sri Thammarat province; and two in Songkla province (Anon. 2003). Three drums were found in archaeological context, at the site of Khao Sam Kaeo, in Chumpon province, and the other ten drums were found by chance, to the south of Chumpon.

The site of Khao Sam Kaeo, on the east coast of Peninsular Thailand, in Chumpon province, was first surveyed by the Thai Fine Arts Department in 1981, and through the 1980s. As listed by Srisuchat (1989, 1993), the site yielded numerous glass and semiprecious stone ornaments and three

Dong Son drums, only two of which are preserved and kept in the Chumpon National Museum. These two drums, one larger and one smaller, are both of Dong Son type BII (**Figure 2.74**. KSK I: H. 56 cm, D. 72 cm; KSK II: H. 16.5 cm, D. 18 cm). Khao Sam Keo is located on four hills beside the Tha Thapao River. As noted by Jacq-Hergoualc'h (2002: 83), in antiquity the site was at the estuary of the Tha Thapao River, which would have provided access to the Tenasserim Range, and to the west coast of Peninsular Thailand. Moreover, Jacq-Hergoualc'h (ibid.: 44) notes that at this latitude, in the Isthmus of Kra, the distance of about 40 km between the east and the west coast is the shortest in the peninsula. This would have facilitated trade links with both Vietnam to the east and India to the west. In fact, according to Bellina (Bellina and Silapanth 2006), who investigated the site with Glover in 2002 (Glover et al. 2003: 99), and then led the excavations of the Thai-French archaeological team between 2002 and 2005 and also in 2006, the finds of many agate, carnelian, glass and gold beads and ornaments together with bronze objects, indicate that Khao Sam Kaeo was a manufacturing centre of semi-precious ornaments, and it was involved in interregional trade with central Thailand, central Vietnam, and the Philippines, and with India to the west in the late first millennium BC. Bellina and Silapanth (2006) report three calibrated radiocarbon dates from charcoal in the layers which yielded glass and carnelian beads give: 2316 ± 45 BP, 2188 ± 47 BP (test pit 9), and 2217 ± 33 BP (test pit 15). Pit 12 yielded a sherd of Indian Rouletted Ware dated to the turn of the first millennium BC – AD. Charcoal from an ancient well, yielding evidence of glass ornaments manufacture, gave another radiocarbon date of 2182 ± 49 BP. Two other radiocarbon dates are from pit 7, which also yielded evidence of glass and stone ornament production. These dates give: 2258 ± 33 BP and 2236 ± 45 BP, indicating that craft industry was active from the third century BC. All the dates are from the Wk (Wakata, New Zealand) laboratory.

New excavations run by Bellina in 2006 yielded a partly carved nephrite slab showing an unfinished double-headed animal nephrite earring (*ling ling*). As described by Srisuchat (1989, 1993), the site had already yielded a specimen of the other type of nephrite earring of circular shape with lugs (*ling ling o*), which is associated with the double-headed animal form (**Figure 2.67**). This find of the unfinished slab confirms that manufacturing of this type of ornament occurred on the site, and that both the finished object and the raw material were traded. This type of nephrite earrings is found in its greatest concentration in Sa Huynh sites in central and south Vietnam. Single finds or a few specimens are also found in Taiwan, the Philippines, Malaysian Borneo, central Thailand, and Cambodia. Evidence of local manufacture of the same type of earrings in central Vietnam, is given by the finds of an unfinished specimen at Dai Lanh, in Quang Nam province (Southworth 2004).

Recent research conducted by Bellwood, Hung, and Iizuka shows that a major source of the nephrite material was located at Fengtian in Taiwan (Hung et al. 2006; Iizuka et al. 2006). The nephrite slab partly carved with a double-headed animal earring found at Khao Sam Kaeo was going to be tested in 2006 to find out if it matched the Taiwan nephrite.

To the south of Chumpon province, other ten Dong Son drums finds are reported from the region comprising the Surat Thani, Nakhon Sri Thammarat, and Songhla provinces (Anon. 2003). The Tha Thapao River, at the estuary of which the site of Kao Sam Kaeo is likely to have been located in antiquity, gave access to the Tenasserim Range and peninsular Thailand. According to Jacq-Hergoualc'h (2002: 45), the low reliefs area between the Tenasserim Range and the Nakhon Sri Thammarat Range allows for north to south passage along its many valleys. These passages would have lead to Songhla province, and then further south, to the Malay Peninsula, along river ways, as discussed in further detail below (section 2.9).

Three Dong Son drums were found in Surat Thani province. A Dong Son drum of type AII was found buried 1 m below the ground at Taling Phang (H. 53.5 cm, D. 69.5 cm). It is kept in the Chaiya National Museum. In the same museum is also kept another Dong Son drum of type B (H. 39cm, D. 51 cm), which was found in the Chaya district. No details are given about the time, place or condition of the find (Anon. 2003). In 1969, another Dong Son drum of type B was found at Wat Khi Lek (H. 44 cm, D. 51cm), in Surat Thani, and is kept in the Nakhon Sri Thammarat Museum (Anon. 2003).

Of the five drums reported from Nakhon Sri Thammarat province, four are of Dong Son type B, and one is a large type CII. The large fragmentary Dong Son drum of type CII (D. 81.5 cm), was found at Tha Ruea and is also kept in the Nakhon Sri Thammarat Museum. Fragments of two drums were found together in a field in the Sa Kaeo district, and another fragmentary drum was found at Ban Pa Krai. The latter three drums are kept in the Songkhla campus of the Sri Nakharinwirot University. Another tympanum was found at Khlong Kut Dan (D. 44cm), and is kept in the Prachinburi National Museum. In Songkhla province, the fragment of the lower mantle of a Dong Son drum of type B was found at Cha Na, and a tympanum fragment of another type B drum was found at Cha Nong Sub, and they are kept in the Songkhla Museum.

2.8b. South Central and South Vietnam

Returning to Vietnam, this section surveys the finds of Dong Son drums in the coastal region south of Thua Thien Hue. From Quang Nam province, Pham (in press) reports the Phuoc Tra drum, of Dong Son CII type, and the unclassified Duy Xuyen and Co Noonh. In Quang Ngai province, she reports the Bau Lat drum of AIII type.

Binh Dinh province has yielded the highest concentration of Dong Son drums in central and south Vietnam. To date, fifteen Dong Son drums of types B and C are known in the province (Ho and Nguyen 2004; Dinh 1988). In August 2004, I examined eleven of these drums in the Binh Dinh Museum in Qui Nhon. Five Dong Son drums of type C were found in Binh Dinh. These include the Dinh Binh (Vinh Quang) drum, of type CII (H. 47 cm, D. 63 cm), found in 1997; the Cat Tai drum (H.c. 50 cm, D. 60 cm, **Figure 2.75**); the Binh Tan (Thuan Ninh) drum (H. 48 cm, D. 54 cm), of C II type; the Tay Thuan (H. 20 cm) found in 1997, of C IV type; and the An Trung (An Lao) drum (**Figure 2.75**, D. 45 cm) of type CII, also found in 1997. The small Cat Tan drum (H. 20 cm, D. 19 cm) is unclassified because of its unique handles on the mid mantle and its four toad motifs crawling between the upper mantle and the tympanum. This feature is commonly found on miniature bronze drums. Nine Dong Son drums of type B were also found. Six drums were found in 1998 at Vinh Thinh, and are all of Dong Son BII type. Of these six drums, only the fragmentary Vinh Thinh I and II are in the museum (**Figure 2.76**. VTI: H.c. 38 cm, D. 45 cm; VTII: H. 35 cm, D. 45 cm). They were found buried piled one on top of the other, with the lower one upside down. The other drums of type B include the Vinh Phuc (Vinh Hiep) drum (H. 35 cm, D. 55 cm), found in 1997; the Tai Giang drum found in 1996 (D. 42 cm); and the Dap Da drum found in 2002 (H.c. 52 cm). The latter however is very fragmentary and could also be a C type. Pham (in press) lists a Kim Chau drum, which I could not locate.

Further south, Phu Yen province yielded the Hoa Tan Tay drum, of Dong Son type C II, and Khanh Hoa province yielded the Dai Cat I and II drums, both of type A III, and the two Nha Trang I and II drums, of type B and AV, respectively. One of the two Nha Trang drums was found in 1984 in a Sa Huynh cultural layer at the site of Phuoc Hai (Ngo 1984, n.d.). The two latter drums are kept in the Khan Hoa Provincial Museum in Nha Trang.

The most interesting find of Dong Son drums in South Vietnam occurred at the Phu Chanh burial complex, in the alluvial plain of Binh Duong province (Bui 2004, in press). The complex comprises a settlement and a cemetery site. Three Dong Son drums of type B (Phu Chan I-II-III) were found between 1995 and 1999 (Phu Chan I-1995: H. 47.5 cm, D. 57.5 cm; Phu Chan II-1998:

H. 40 cm, D. 47.5 cm. **Figure 2.77**; Phu Chan III-1999: H. 21.5 cm, D. 37.5 cm). The drum found in 1998 (Phu Chan II) was placed over a burial wooden jar, functioning as its cover (**Figure 2.78**). This practice of placing a drum over a wooden burial container is only found at the Ph Chanh site. The wooden containers were also found covered by other objects, such as ceramic pots. Excavations in 2000 yielded a fourth drum of Dong Son type B (Phu Chan IV-2000: H. 40 cm, D. 47.2 cm. **Figure 2.79**). Apart from the wooden jars, the other material associated with the drums include a Han Chinese bronze mirror, wooden tools for producing textile, wooden combs, and ceramics (Bui 2004; Yamagata et al. 2001). I examined the Phu Chanh drums and the associated wooden containers in March 2005 in the Binh Duong Museum. Later excavations at Phu Chan (Bui in press) yielded seven more burials with wooden jars and more wooden material. Of these, burial 6 yielded a fifth Dong Son bronze drum of type B, also found in association with a wooden jar. A sixth Dong Son drum was found in 2006 nearby in the Phu Giao district. Based on four radiocarbon dates available from Phu Chanh, giving 2100 ± 150 BP; 1910 ± 60 BP; 1850 ± 55 BP; and 1750 ± 70 BP, the burial complex is dated from the third century BC to the first century AD.

In the History Museum in Ho Chi Minh City, two Dong Son drums (museum codes 1396 and 1687) are on display. The first (code 1396) is a Dong Son type AII, and shows boats with feathered-men motifs rendered with the same type of headdress as on the larger of the two drums found in a Han tomb at Luobowan (M1:10), in west Guangxi, discussed in section 2.7 above. The other smaller drum is of type BII. Unfortunately I could not retrieve the exact provenance of these two drums.

FROM THE MAINLAND TO THE WESTERN ISLANDS

2.9. The South and East Coast of the Malay Peninsula as a Bridge to South Sumatra and Java

The distribution of the six Dong Son bronze drums found in the Malay Peninsula, and of the two in Cambodia, points to the trade routes linking the mainland to the islands in the early first millennium AD (**Maps Figures 2.52, 2.1**). The locations of these bronze drums point to the region's role as a bridge to south Sumatra and Java. Before the time when larger entrepôts emerged on the northwest coast of the Malay Peninsula, thus favouring trade passing through the Straits of Melaka, inter-

regional sea trade is likely to have occurred between centres located on the south and southeast coast of the Malay Peninsula (Leong 1993: 9). The finds of bronze drums and bronze bells in the Malay Peninsula and Cambodia mark some of these centres.

In particular, from the southern and eastern coast of the Malay Peninsula, a maritime route would have reached south Sumatra and also west and central Java. Central Java hosts the largest regional concentration of bronze drum finds in Island Southeast Asia, as discussed in section 2.13 below. The trade link from the mainland to southeast Sumatra is likely to have represented the early fortune of the region at the estuary of the Musi River, near Palembang, which then became the centre of the Srivijaya maritime empire from the seventh to the eleventh century AD (Jacq-Hergoualc'h 2002: 49; Manguin 1993). The parallel finds of bronze material at Bangkinang on the east coast of south Sumatra and in the Khorat Plateau point to links even further to the north, as discussed above in section 2.8. Moreover, the fact that the maritime route also reached Java, may allow us to trace the early roots of the socio-economic ties between south Sumatra and central Java which became more established later during the Srivijaya period from the seventh to the eleventh century AD.

The routes travelled by Dong Son drums from peninsular Thailand to the Malay Peninsula involved a series of river routes favouring passage (**Map Figure 2.1**). One route is likely to have been along the course of the Menam Pattani River, which starts just south of Songkhla province, in Thailand, on the east coast of the peninsula, and then passes through the upper valley of the Perak River, which flows north to south ending in the sea on the west coast, just north of Selangor, where three Dong Son drums were found and Klang and Sungai Lang. Another major route involved the valley of the Kelantan River, which starts on the east coast of the Malay Peninsula, just south of Pattani, and flows to the central region. The Kelantan River Valley provides another north to south passage, because it allows for contact with the Pahang River, where a bronze drum was found at Batu Pasir Garam, in Pahang; with the Terengganu region on the east coast, where two bronze drums have been found; with the central area of the Tembeling River, where a bronze drum was found; and also, to the west, with the Bernam River and Selangor. Further south, the Kelantan River Valley also comes in contact and with the Muar River, in Johor, where a large bronze bell was found at Kampong Pencu (Jacq-Hergoualc'h 2002: 49, 77).

In the Malay Peninsula, the tympanum of a Dong Son drum was first found in 1926, at Batu Pasir Garam, on the lower reaches of the Tembeling River, in the central region of the Peninsula, between Terengganu on the east coast, and Selangor on the west coast (Loewenstein 1956; Linehan

1951). Another fragmentary drum, similar to the one from Tembeling, was found at Bukit Kuda, east of Klang, in Selangor in 1944. Both the Tembeling (D. 61 cm) and the Klang (D. c. 50 cm) drums are of Dong Son type B (**Figure 2.80**).

In 1964, road improvements on the east coast of the Peninsula at Batu Burok, south of Kuala Terengganu, led to the finds of a pair of Dong Son drums. The larger drum is of Dong Son type C, and the smaller one of type B (D.c. 65 cm. **Figure 2.81**; D. 54 cm). They were buried upside down in the sand. At the time of the find the drums were still complete, but were reduced to fragments by the bulldozers. In their inverted position, they were used as containers, as it is indicated by a socketed iron spearhead attached to the interior of the larger tympanum, and the evidence of iron rust and traces of woven matting on the interior patina. Pottery sherds and seven purple, yellow, and blue glass beads were also reported to have been found near the drums. The larger of the Terengganu drums appears to be a large specimen of Dong Son type CII, which resembles the large type CI. Type CI drums equal our Region Specific cluster 3 (RS3), concentrated in eastern Indonesia.

Also in 1964, at Kampung Sungai Lang, in Selangor, another pair of Dong Son drums, one larger and one smaller (D.c. 45.5 cm; D.c. 36 cm), were found buried upside down over a wooden plank, in a circular mound. The wooden plank could represent the remains of a dug out canoe (Peacock 1979: 207). The larger Sungai Lang drum is of Dong Son CII type, with four three-dimensional toad motifs and square two dimensional bird motifs on the tympanum (**Figure 2.82**). This latter motif links this type of drums to the later ethnographic drums of Heger types III and IV, which are documented to have been cast and used up to the nineteenth and twentieth century, by ethnic minorities on the mainland, such as the Karen of Burma (Heger type III), and the Zhuang of southwest China and northeast Vietnam (Heger type IV) (Bernet Kempers 1988). Hence, the Dong Son type CII is dated to the early centuries AD, while types A and B are dated from the third century BC to the first century AD. The smaller Sungai Lang drum is a Dong Son type B, hence without three-dimensional toad motifs on the tympanum. This type B drum is likely to be overlapping in time with the larger drum of type CII. The drums were surrounded by a circular array of pots coated with a laquer-like resinous material, similar to the one on pottery associated with iron tools at Klang. Under one pot numerous red glass beads were also found. Three radiocarbon dates from the wood of the planks under the Sungai Lang drums are available (Peacock 1979: 212-213; *Radiocarbon* 1967(9): 15-27). These dates are: $2435 \pm 95\text{BP}$ (GX-0280); $1850 \pm 90\text{BP}$ (Gak 68 4); $2145 \pm 100\text{BP}$ (ANU 27). The pooling of these dates suggests a second century BC date. The Klang drum and the two pairs of drums from Terengganu and Sungai Lang are kept in the

Museum Negara in Kuala Lumpur, while the Tembeling tympanum is kept in the National Museum in Singapore (36.547).

The Klang drum was found in the vicinity of the earlier find of a large decorated bronze bell (**Figure 2.83**). This bell belongs to a bronze casting tradition which would have been contemporary with, yet distinct from, Dong Son (Parmentier 1932: 176). Three specimens were found in 1905 in Selangor, near the estuary of the Klang River, together with one socketed iron spear-head, and three socketed iron tools (Linahan 1951: 8-11; Peacock 1979: 199-202, 206). The three Klang bells are kept respectively in the Selangor Museum, the Kuala Lumpur Museum, and the British Museum (Loewenstein 1956: 36-38). Loewenstein points to the similarity between these large bells and a smaller decorated bell (**Figure 2.83**) excavated by Janse at the Dong Son site (Janse 1947-1951(1): 24, fig. 4). However, while the shape of the bell from Dong Son can be compared with the large Klang bells, the latter are larger, more elongated, and they show a different decoration of spiral patterns. The decoration of the bells thus points to a tradition perhaps related to, yet distinct from, Dong Son.

A fourth large bronze bell was found in the Malay Peninsula in the 1970s in Kampong Pencu, near the Muar River, in Johor (Haji Taha 1983: 61, pl. 11). A sample taken from clay remains inside this bell from Kampong Pencu was examined by thermoluminescence and yielded a date of AD 150 (Jacq-Hergoualch'h 2002: 77). A fifth bronze bell of the same type was found in Tuol Thmr Samron, in Battambang province, in west Cambodia. Nearby, a Dong Son drum of type B (**Figure 2.80**, D. 62 cm) was found in the village of Thnom Mong Rusei, in Battambang province (Parmentier 1932: 176-179, pl. XI; Loewenstein 1956: 36-43). More recently, a large hoarde of bronze bells of this type was found in Cambodia, but they all entered the trade quickly and unfortunately no information is available about the context of the find.

The Battambang drum is similar to the Klang drum, also of type B. The other Dong Son drum in Cambodia, was found in the village of Tos-Tak (D.c. 67 cm), in Kompong Chnang province, and it is also of type B. The two drums and the bell from Cambodia are kept in the Phnom Pen Museum. The finds of a drum and bells in the Klang River area of the Malay Peninsula parallel the finds of a drum and a bell in the Battambang area of Cambodia. The similar finds at Klang and Battambang may point to a possible direct maritime link between the Malay Peninsula and Cambodia, across the Gulf of Thailand, rather than along a coastal route.

Based on the locations of trading centres in coastal areas or inland by river courses, Leong (1990: 23) describes them as 'collecting centres' gathering local resources. Their importance stands

in their geographical proximity to, or along river routes facilitating access to, specific local resources. The bronze drum find locations of Kampung Sungai Lang, in Selangor, and Batu Buruk, in Terengganu are chief examples of such collecting centres. The Selangor riverine area is rich in alluvial tin, and the riverine areas of Pahang and Terengganu are rich in alluvial gold. As also noted by Peacock (1979), the sources of tin in Selangor, in the west of the Peninsula, and of gold in Pahang, in the east, favoured the intra-regional trading link between these two regions. Tin is also present in peninsular Thailand, pointing to a regional trade route across the Nakhon Si Thammarat Range to the Malay Peninsula (Jacq-Hergoualc'h 2002: 46-47), as discussed above in section 2.8a. Again, the finds of bronze drums mark intra and inter-regional trade links. Wisserman Christie (1990) also discusses the distribution of tin and gold ores in the Malay Peninsula in association with sites of bronze drum finds, and points to the links between the Peninsula and south Sumatra.

Some of the collecting centres involved in intra-regional trade, were placed at strategic locations which allowed them to take advantage of long distance trade between Mainland and Island Southeast Asia. Some of them thus grew into larger emporia, offering imported foreign goods, along with the native ones. In time, the increase of long distance seaborne trade led to the growth of larger entrepôts. Jacq-Hergoualc'h (2002: 78-79) notes that the locations of bronze drum finds in peninsular Thailand mark the presence of collecting centres 'evolving to the status of city-states with entrepôt ports in the historic period'.

Archaeologically, as noted by Leong (1990: 26), emporia or larger entrepôts are recognizable, apart from their strategic geographical location and good natural harbours, by the 'mixed character of the material culture', including trade goods of Chinese, Indian, and local origins. This is a useful notion with regard to our interpretation of bronze drum finds throughout the distribution. In particular, it is useful when interpreting the finds of different types of bronze drums, dated to different periods, yet assembled together in one location, as in the case of Lao Cai, as discussed in section 27a.

Wheatley (1954) discusses the place names mentioned in a third century AD Chinese source, the *Nan chou i wu chih*. This text is quoted in the tenth century *T'ai p'ing yu lan* (compiled between 977-983). The third century quotations and the tenth century text refer to place names and routes travelled along the coasts of central and south Vietnam to the Mekong Delta region, into the Gulf of Thailand, and then to Chü-li (Chü-chih in the third century quotation). Chü-li appears to have been located on the south-eastern coast of the Malay Peninsula, at the estuary of the Kuantan River by Tanjung Tembeling. The Tembeling bronze drum was found inland from the area identified as the

port of Chü-li. According to Wheatley, Chü-Li corresponds to the town of Kole, mentioned in the *Geographia* of Claudius Ptolemy (Stevenson 1932), the Egyptian geographer who headed the library of Alexandria between AD 127 – 150. Ptolemy's text, however, was revised by Byzantine academics in the tenth and eleventh century, and it is this version which is known at present (Suárez 1999: 64).

According to the Chinese sources, from Chü-li, it is then one month journey south across the southern Oceans to the unidentified Ko-ying. The early maritime routes from the mainland to western Indonesia are discussed by Suleiman (1984). She argues that the ancient port of Ko-ying could have been located at Kerawang, in west Java, by the Tarum River, south of the Krakatau volcano. She notes that also Wolters (1967), who had previously placed Ko-ying in south Sumatra, later revised his theory placing it in Kerawang. Moreover, according to Suleiman, the ancient ports of central Java would have been located in the areas of Pekalongan, Kendal, and Semarang. Central Java host the greatest concentration of bronze drums in Island Southeast Asia, as discussed below (section 2.13). In either case, the location of Ko-ying in south Sumatra or in west Java would mark the role of the south and east coasts of the Malay Peninsula as the bridge from the mainland to western Indonesia.

Further evidence pointing to the link between the Malay Peninsula and South Sumatra, as pointed out by Wisserman Christie (1990: 51-52), is given by the stone cist graves found in the tin rich area of south Perak and north Selangor, in the Peninsula. These find their closest parallels in the cist graves of the Pasemah Plateau in south Sumatra. The burial goods in the cist graves at Pasemah include bronze, gold, and iron objects, and various types of glass beads (Soejono 1969: 5). The cist graves are found in the highlands of Lake Kerinci and also south of Lake Ranau. Dong Son drums have been found throughout south Sumatra, and Lake Ranau and Kerinci are sites of drum finds. In the Pasemah Plateau, as discussed further in section 2.12, some of the cist graves are painted on the inside walls. Recently, Indonesian archaeologists found a painting on the inside wall of a cist grave in the Pasemah Plateau which show a Dong Son bronze drum held by two human figures (Kusumawati and Sukendar 1999-2000). The Pasemah Megalithic complex also yielded two carved megaliths showing human figures carrying Dong Son drums and a third megalith with a drawing of a human figure carrying two Dong Don drums (Hoop 1932; Heekeren 1958: 70-73; Kusumawati and Sukendar 1999-2000). Moreover, as discussed by Soejono (1969), in Indonesia the cist graves in south Sumatra find parallels in the cist graves in central Java, at Kadjar, Wonosari (Hoop 1935), and at Tjepu. The burial goods in the cist graves in Java include glass and carnelian beads, bronze rings, iron axes and tools, textile, and stone tools.

ISLAND SOUTHEAST ASIA: WESTERN INDONESIA

2.10. Eastern and Western Indonesia: Two Different Distribution Domains

In Island Southeast Asia, eighty-five plus Dong Son bronze drums have been found. With the single exception of a drum found on Banggi Island, off the coast of Sabah in Malaysian Borneo, they have all been found in Indonesia. Based on my analysis of the island distribution, I argue that the western and the eastern Indonesia distribution domains are best understood if they are considered separately, as comprising different types of drums, which reached the two island domains during two different, possibly partly overlapping, periods and along two different main routes. The geographical domain of the distribution in western Indonesia comprises the islands of Sumatra, Java, Borneo, and part of West Nusa Tenggara. The domain of the distribution in eastern Indonesia comprises the regions of Maluku, west Papua, south Sulawesi, East and part of West Nusa Tenggara.

The drums in western Indonesia, including the single find in Malaysian Borneo (Map **Figure 2.84**), are directly linked to the drums found throughout the mainland, from north and north central Vietnam, through Laos, Thailand, the Malay Peninsula and Cambodia, which are mostly dated from the third-second century BC to the first century AD, as discussed above. Hence, the mainland and the western islands are discussed here in the same chapter.

The Dong Son drums found in eastern Indonesia, identified in Chapter 1 as the Region Specific cluster 3 (RS3), are dated to the late second-third century AD. I argue that these drums reached the eastern islands directly by sea from their centres of production in north Vietnam or southwest China, in the mid first millennium AD. They are not found along the routes crossing the western part of the mainland to the southwest of north Vietnam, as the drums found in western Indonesia are. Moreover, the drums in eastern Indonesia outnumber their counterparts on the mainland, while the drums in the western islands are outnumbered by their counterparts on the mainland. Hence, to emphasise the difference between the western and the eastern Indonesia distribution domains, the latter is discussed separately in Chapter 3.

2.11. Early Links between south Sumatra and Java

The highest concentration of Dong Son bronze drums in western Indonesia is found in central Java. In particular, bronze drums are concentrated in the areas of Pekalongan, Semarang, and Kendal, on the north coast of central Java, where early centres are likely to have been in contact with south Sumatra and the Malay Peninsula in the early-mid first millennium AD. Again, we may consider the finds of Dong Son bronze drums in these regions as a mark of such contacts.

The regional link between Java and south Sumatra is of particular interest. It may be considered as the early establishment of trading and cultural ties which then become more apparent from the seventh to the eleventh century AD, when the maritime Srivijaya realm, centred in Palembang in South Sumatra, stands in a relationship of mutual support with the rice-farming realm of central Java (Hall 1999: 203). As mentioned above, the early fortune of the area of Palembang is likely to have arisen from its geographical location which favoured trade links with the Malay Peninsula and the mainland at large. Then in the eleventh century east Java began to replace central Java as the main centre of power, which was relocated in the basin of the Brantas river, the seat of the future Majapahit empire. Challenging Srivijaya maritime trade supremacy, the east Javanese power thus interrupted the previous 'symbiotic' link, to use Hall's term, between central Java and south Sumatra. It is interesting to note how the cross-regional trade networks taking place in the early first millennium AD opened the way, and set the stage for, the establishment of later socio-political domains.

2.12. South Sumatra

The most interesting finds associated with Dong Son bronze drums in Sumatra are two large carved stone monoliths, a painting on the inside wall of a cist grave, and a drawing on another monolith, each representing Dong Son bronze drums carried or held by human figures. These were found in the megalithic complex of the Pasemah Plateau of south Sumatra. This Plateau is surrounded by the Jambi, Bengkulu, and Lampung districts, all of which have yielded bronze drums. To date, ten Dong Son bronze drums of type B are known, one from Jambi, four from Lampung, and five from Bengkulu.

Van der Hoop, in his early study (1932) of the megaliths of the Pasemah Plateau, reports, among many sculpted monoliths, a *batugadja* or elephant stone (**Figure 2.85**). This carved stone measures 2.17 m in length and is carved in relief following the natural shape of the stone. It

represents a kneeling elephant with one human figure on each side pulling the elephant's ears. The figures are dressed in loincloth and armed with spears. One of them carries a Dong Son bronze drum tied to his back with a rope into the handles (Van der Hoop 1932; Van Heekeren 1958: 76-77; Bernet Kempers 1988: 235). The *batugadja* is now kept in the Bandarudin Museum in Palembang. Another carved monolith (**Figure 2.86**) showing a Dong Son drum was found by Vonk, in 1934, at Airpurah (Van Heekeren 1958: 77, plate 31). The drum is held by two human figures clad in similar attire as the ones on the *batugadja*, and under the drum is the head of a dog.

Also from the Pasemah complex, in the 1990s, Indonesian archaeologists found a series of wall paintings inside cist graves, and more monoliths with drawings (**Figure 2.87**. Kusumawati and Sukendar 1999-2000: 188, fig. 133). One painting on the inside wall of a cist grave shows two human figures in profile holding a Dong Son drum, as on the carved stone at Airpurah. They also found another carved monolith which shows a drawing of a human figure carrying a Dong Son drum turned to the side on its back, and, although the drawing is not very clear, holding a second drum in his hands (**Figure 2.87**). The dating of the Pasemah megaliths is still not fully understood. It ranges from the early to the mid first millennium AD (Glover, pers. com. 2005).

McKinnon (1993: 229) points to the finds of Srivijayan inscriptions at Palas Pasemah, on the Pisang River, a tributary of the Sekampung River, as evidence of the economic and political importance of the area in the seventh century AD. Bonatz et al. (2006: 513) note that, while there is evidence that in Srivijaya times (seventh – eleventh century AD) the highlands and the lowlands of south Sumatra were connected by a 'river-based trade network' (Bronson 1977; Wolters 1979; Miksic 1985; Manguin 2000), the pre and proto-historic period of south Sumatra is still not fully understood. An analysis of the geographical context of the finds, especially the chance finds, focusing on the environmental factors facilitating mobility and exchange, such as McKinnon's discussions (1993, 1994) of the bronze drums found in Sumatra and Borneo, is a most useful approach to further the understanding of the pre and proto-historic period in western Indonesia.

In the Jambi district, fragments of the tympanum of a Dong Son drum of type B (D. 75 cm.) were found in 1936 in a field by Lake Gadang, south of Lake Kerinci (Hoop 1941: 201; Van Heekeren 1958: 20; Bintarti 1996: 58). The Kerinci drum fragments are now kept in the Museum Nasional Indonesia (code 3003). Also in the Kerinci area by the village of Mindopo Lolo a decorated bronze flask (**Figure 2.88**. H. 50.8 cm) was reported by Bosch in 1922. This bronze flask belongs to a bronze casting tradition distinct from Dong Son, yet possibly contemporary with it. The distribution of this type of flasks indicates that they travelled along some of the same routes as bronze drums. Hence, the locations of these flasks also point to early cross-regional trade networks

from the mainland to western Indonesia. Glover (2004, 1992) discusses nine specimens found at Kerinci (**Figure 2.88**. H. 58.8 cm) and in Lampung province, in south Sumatra; on the island of Madura (**Figure 2.88**. H. 76 cm), off northeast Java; in Kandal in Cambodia; in Phu Keo cave, in Udon Thani province in Thailand; plus four more specimens of unknown provenance in private collections. To date, four more flasks are known from private collections bringing the specimen count to thirteen (Glover pers. com. June 2007).

The finds of three Dong Son drums in the valley and delta of the Semangka River, flowing through Lampung and south Bengkulu, point to this river course as the main route of transmission from south Sumatra to west Java across the Sunda Strait in the pre and proto-historic period.

A fragmentary drum was found in 1914 in the village of Sumberjaya, by Lake Ranau, just west of the Semangka River (Van Heekeren 1958: 21). Then in 1937, two other fragmentary drums were found between Kota Agung, on the delta of the Semangka River, in Lampung, and Krui, in Bengkulu (Hoop 1941: 202-203). The Lake Ranau and one of the Kota Agung drums are now kept in the Museum Nasional Indonesia (MNI codes 5368 and 3372). Bintarti (2001) lists the drum with code 3372 as being kept in the Museum Negeri Lampung. However this appears to be a mistake because the same code corresponds to the drum catalogued as Lampung (Kota Agung), which I examined in the Museum National in Jakarta (**Figure 2.89**). My measurements of it (H.c. 45 cm, and D. 55.5 cm) are close to Van Heekeren's measurements (H. 43.5 cm, and D. 55 cm). Hence, it is the other Kota Agung drum (remaining D. 36.8 cm) which is in the Museum Negeri Lampung.

In 1980, two fragmentary Dong Son drums were found at Bumisari (H. 41, 5 cm, D. 63 cm), and at Padangperi (H. 50 cm), in Bangkulu. They are now kept in the Museum Negeri Bengkulu (Bintarti 1996: 58). In 1988, a complete Dong Son drum of type BI (H. 39 cm. D. 39 cm.) was found in the village of Sri Minosari, by Labuan Meringgai (**Figure 2.90**), in Lampung (McKinnon 1994: 230-31; Bintarti 1996: 59). Labuan Meringgai is on the coast of southeast Lampung, west of the Sekampung River, and just north of the Palas Pasemah megalithic complex. The drum is now kept in the Museum Negeri Lampung. Also in Labuan Meringgai, in 1989, another decorated bronze flask, belonging to the same tradition as the above mentioned specimen from Kerinci, was found by chance by an ancient beach ridge (McKinnon 1993: 232). Then in 1991, another complete Dong Son bronze drum of type A IV was found by a farmer in a field on the edge of a former river bed by the village of Panca Tunggal Jaya (H. 50 cm, D. 60 cm), in Lampung (McKinnon 1993: 229-232. **Figure 2.90**).

McKinnon (1993) discusses the finds of the Labuan Meringgai (or Sri Minosari) drum and the Panca Tunggal Jaya drum, in eastern Lampung, in terms of their geographical location. Inquiring into the river routes linking pre and proto-historic centres in south Sumatra, he highlights the importance of the Tulangbawang River, flowing near the drum finds, which 'affords access to the main maritime routes from Sumatra to Java, Bali, and the spice islands', and also to Palembang. This river was known by seventh century Chinese geographers as the *To-lang-p'o-huang* River (Wolters 1976: 162).

In the Museum Nasional Indonesia in Jakarta, I examined a fragment of the central part of a tympanum (**Figure 2.91**), catalogued as Tulangbawang (code 6193), thus likely to have been found by the Tulangbawang River. This almost circular fragment seems to match Van Heekeren's description (1958: 21) of the circular fragment of a tympanum found in 1953 somewhere in Bengkulu. The largest width of the Tulangbawang fragment in the museum is 21 cm, and Van Heekeren reports that the diameter of the circular fragment is 29 cm. He also reports that the fragment was found placed over a circle of standing stones, which were said to have contained ashes. The only remaining decoration of the described fragment is the central star with ten rays, as on the Tulangbawang fragment in the museum. Hence this is the third drum find in the Tulangbawang River area, along with the Labuan Meringgai and the Panca Tunggal Jaya finds. In the Museum Nasional I also examined eight fragments (**Figure 2.91**) of the mantle of a bronze drum catalogued as Lake Ranau (MNI code 5368). The fragments show many square or round holes from casting spacers. Van Heekeren (1958: 21) reports the find of the mid mantle of a bronze drum from an unknown location in Bengkulu. His description of the decoration matches the one on the eight fragments catalogued as Lake Ranau in the museum. This Lake Ranau drum in the museum is not the same as the Sumberjaya drum found in 1914, near Lake Ranau (Heekeren 1958: 21; Bintarti 1996). The latter comprise only one fragment, not eight, and Bintarti lists it as lost.

2.13. Java and West Nusa Tenggara

Out of the thirty-seven Dong Son bronze drums found on the island of Java, twenty-six were found in central Java, in the areas of Semarang, Pekalongan, and Kendal. The majority of these drums are of Dong Son types A and B, while only three specimens are of type C. As noted by Suleiman (1984), the area of Semarang, Pekalongan and Kendal is where ancient ports involved in distant trade were located by the mid first millennium AD, and possibly earlier. Given their strategic location, the ports on the north coast of central Java are likely to have been linked by trade to south

Sumatra and the Malay Peninsula from the early first millennium AD. Such early trade routes would have opened the way and set the basis for the establishment of later socio-political ties and inter-regional economic alliances. These early trade contacts could be the roots of the relationship of mutual support which arose between the maritime Srivijaya realm, centred in south Sumatra, and the rice farming central Javanese realm from the seventh to the eleventh century AD.

In Java, two burial sites yielded Dong Son bronze drums, at Plawangan, in central Java, and at Lamongan, in east Java. Other possible burial sites, yielding bronze drums in association with what are likely to be burial goods, but without human remains, include Traji and Kendal, in central Java.

The large jar burial site of Plawangan, in Rembang, was discovered by villagers in 1977 (Soejono n.d.; Bintarti 1987). Then from 1978 and through the 1980s and 90s, Indonesian archaeologists from the National Research Institute of Archaeology have excavated the site (Sukendar 1981; Soejono n.d.; Prasetyo 1994-1995; Bintarti 1987; 1996). The Plawangan burial complex yielded eighteen primary and secondary prehistoric burials and ten later Islamic burials. One of the prehistoric burials yielded a Dong Son bronze drum of type B (D. 53 cm.) buried upside down over a primary jar burial of a child (**Figure 2.92**). The drum contained child bones, beads, bronze and gold ornaments, molluscs, and animal bones. No radiocarbon dates are available from this site, but based on the analysis of the material the prehistoric burials are dated to the early first millennium AD.

In 1981, excavations in the village of Kradenanrejo, in the district of Lamongan, in east Java, yielded a Pejeng drum placed up side down under a Dong Son drum of type B. Thus assembled, the two drums formed a burial container (**Figure 2.93**). It contained fragments of child bones and teeth, gold ornaments, gold and carnelian beads, bronze and iron tools and fragments, pottery sherds, stone and wood fragments, and animal bones (Bintarti 1985, 1996: 66-67; Prasetyo and Yuniawati 2004-2005: 143-149). The Lamongan drums are kept in the Museum Tantular in Surabaya, east Java. At the time of my visit in May 2005, I could only examine the Dong Son drum (**Figure 2.93**. H. 42 cm, D. 49 cm), while the fragmentary Pejeng drum was not found. The tympanum of the Dong Son drum was cut out from the upper mantle, and the drum shows evidence of repair in antiquity. It is worth noting that both at Plawangan and at Lamongan, bronze drums were associated with the burial of a child.

At Traji in Temanggung, in central Java, two Dong Son drums of type B were found piled one on top of the other next to a Pejeng drum in 1994 (Bintarti 1996: 94-96). The three drums contained and were surrounded by what appear to be burial goods, such as iron and gold ornaments. This associated material suggests that this location at Traji may have been a burial site, yet no human

remains were found. Another pair of Dong Son drums of type B were found piled one on top of the other, at Gunungpati, in the of area Semarang, in central Java. In Kendal, also in central Java, a Pejeng drum was found together with five fragmentary Dong Son drums at Gowok, by the village of Nagbean in 1984. According to Bintarti (pers. com. May 2005), the Kendal drum could also have been in a burial site, however no human remains were found. One of the two Heger IV drums found in Java was also found in the area of Kendal, at Weleri. The other Heger IV drum was found at Banten in west Java. Heger IV type drums are dated very broadly by Chinese scholars from the tenth to the twentieth century (ZGTY 1988). Leaving open the question of their earliest date, Heger IV drums have been cast and used by minority groups, such as the Zhuang people in southwest China and northeast Vietnam, up to the present, so the two specimens in Java are likely to have been traded at a much later date than the Dong Son - Heger I drums.

In east Java, at Weleran, in the Tuban region, a Dong Son drum of type B (**Figure 2.94**. H.c. 70 cm, D.c. 90 cm) was found buried upside down containing a bronze sculpture of an elephant with a handle on its back, measuring 32 cm in height, a bronze *cendrasa* axe, and iron tools. The bronze elephant sculpture is naturalistic, and it may show early stylistic influences from India.

With regard to decoration, out of all the Dong Son drums found in Java, two drums which I examined in the Museum Nasional, in Jakarta, stand out for their distinctive features. The first is the drum which was found in 1904 at Babakan, in Cianjur, in west Java (**Figure 1.39**. H. 48 cm, D. 67 cm. MNI code 1829). It belongs to the spread out cluster (SO). As discussed in Chapter 1, the distinctive flying bird motifs on the drums in the SO cluster point to their common origin from a single workshop. Of the other five drums in the SO 1 cluster, two were found in a Han tomb at Xilin, Guangxi province, in southwest China; one in Pha Long, Lao Cai province, in north Vietnam; one in south Laos; and one in Bukit Selindung, northwest Kalimantan, in Indonesia.

The second drum which stands out because of its decoration is the drum found in 1909 at Kabunan (**Figure 1.9**, H. 48.5 cm, D. 64 cm. MNI code 1827), in central Java. On its tympanum, it shows two house motifs with gable roofs, placed between scenes of human figures seated on platforms and beating bronze drums underneath, and sequences of feathered-men motifs. I include the Kabunan drum, as the non-regional exception, in Region Specific cluster 1 (RS1) of 'Red River Valley' drums because it shares the same shape and almost the same decoration with the drums in this cluster. The only difference in decoration is that the Kabunan drum shows two house motifs on the tympanum while the drums on the mainland show four motifs. A unique decorative feature of the Kabunan drum is the presence of two-dimensional frog motifs between the rays of the central star-sun motif on the tympanum.

In West Nusa Tenggara, Dong Son bronze drums have been found on the islands of Lombok and Sumbawa. In east Lombok, a Dong Son drum of type B was found in 1984 in the village of Sugian (H. 48.5 cm, D. 63 cm). In 1938 a Dong Son drum of type B was found on the island of Sumbawa (H. 40 cm, D. 51 cm), and another fragmentary drum was reported but it was sold. Moreover, in the Bima district of eastern Sumbawa, the only two stone sculptures of Dong Son drums known to date were found by the villages of Wadu Nocu and Doro Parewa (Bintarti 1996: 68-69).

2.14. Borneo

To date, five Dong Son bronze drums, and perhaps a sixth unverified find, have been found on the island of Borneo. Four specimens were found in Kalimantan, in Indonesia, and one in the Sabah region of Malaysian Borneo. Schnitger first reported the find of a fragment of a tympanum from the lower Barito, central Kalimantan, in 1939 (Bernet Kempers 1988: 411). Bintarti (1996) reports the find of a Dong Son drum (H. 44 cm, D. 45 cm.) kept in the royal palace (*keraton*) in Kotawaringin, in central Kalimantan, and another unverified find of a drum in the Delong district. Another Dong Son drum of type B has been found in 1994 on the island of Banggi, off the northeast coast of Malaysian Borneo, in Sabah, and it is kept in the Sabah Museum (Aoyagi 1996).

The most interesting find of Dong Son bronze drums in Borneo occurred in 1991, when two superimposed Dong Son drums were found at Bukit Selindung (**Figure 2.95**), in the Sambas region of northwest Kalimantan. The site may have been a drum inhumation site with burial goods, yet no human remains were found (McKinnon 1994). The Selindung I drum is of Dong Son type AII (**Figure 1.38**, SEL I: H. 50 cm, D. 68.5 cm) and was placed over the upturned Selindung II, of type BI (SEL II: H. 51.2 cm, D. 66 cm), forming a two-drums container. The Selindung I drum is one of the six specimens belonging to the spread out cluster (SO) identified in Chapter 1. In Indonesia, the other drum in the SO cluster is the above mentioned Babakan drum from west Java (section 2.13). The two Selindung drums are kept in the Museum Negeri Pontianak.

McKinnon (1994) emphasises the geographical position of the Bukit Selindung site which is now inland but, in all likelihood, was a coastal site before the ninth century AD. The artefacts found in the soil inside the two-drums container and around it comprise gold ornaments weighting 50 g in total; 164 carnelian beads, 19 banded agate beads, and 216 black, 190 red, 10 green, and 7 blue glass seed beads; 8 glass bracelets, 4 copper bronze bracelets, and 5 open bronze circlets, possibly ear ornaments. As McKinnon points out, the etched agate beads found by Glover at the burial site

of Ban Don Ta Phet, in central Thailand, are dated to the centuries around the turn of the first millennium BC – AD (Glover 1990: 20). He also notes that while the Selindung cylindrical agate beads may not be as old as the Thailand beads, they nevertheless appear to represent a very old bead making tradition. The beads and ornaments found with the pair of drums at Bukit Selindung are likely to have been burial goods for a drums inhumation site (McKinnon 1994: 21). As discussed above, bronze drum burials are also found in Java. Bronze drums containing child bones have been excavated in Java. One Dong Son drum of type B at the Plawangan jar burial site, in central Java, contained child bones and was placed over a jar child burial (Prasetyo 1994-1995). Moreover, at Lamongan, in east Java, a pair of superimposed drums, one of Dong Son type and the other of Pejeng type, formed a burial container which contained fragments of human bones and teeth (Bintarti 1985: 81-91, 1996: 129). Other possible burial sites which yielded Dong Son drums with what are likely to be burial goods, but without human remains, are Traji and Kendal in central Java (Bintarti 1996: 129-131).

According to McKinnon, the finds of the two bronze drums at Bukit Selindung, in the Sambas region of northwest Kalimantan, points to the possible presence of a chiefdom or a small polity in the early first millennium AD. The Sambas region also appears to have hosted gold deposits and production centres active during the earlier Hindu-Buddhist period, around the mid first millennium AD. The importance of the Sambas region, as part of the Srivijayan domain, is documented by the finds of a series gold and silver Buddhist images, dated to the eight to tenth century AD, and found in a large earthenware jar, at Pelangi Sabon near the town of Sambas (Tan 1948: 31; 1949: 20; Quaritch Wales 1949; Sastri 1949: 19). McKinnon also points out that the gold used for the production of the many gold artefacts found in Java, dated to the early – mid first millennium AD, is likely to have come from Kalimantan.

CHAPTER 3

ALTERNATIVE ROUTES TO THE EASTERN ISLANDS

3.1. Bronze Drums in Eastern Indonesia: On their Own Way in their Own Time

This chapter focuses on the Dong Son bronze drums found in eastern Indonesia as the Region Specific cluster 3 (RS3) identified in Chapter 1 (**Maps Figures 3.1, 1.13, 1.24. Chart RS3**). Based on my fieldwork research in Indonesia in 2003, and from late 2005 to 2007, and expanding on a preliminary paper on the subject (Calo' in press b), I argue that the distributions of Dong Son drums in eastern and western Indonesia are best understood if they are considered as two related yet separate phenomena, occurring during different periods and along different routes. I first highlight the differences between the two regional distributions. Based on such differences, I discuss the eastern distribution in its own terms with regard to chronology, routes of transmission, and the possible trade dynamics leading to it. The case of eastern Indonesia is unique because the region hosts exclusively Dong Son bronze drums belonging to the Region Specific cluster 3 (RS3).

Out of the thirty-one drums in the RS3 cluster, twenty-seven were found in eastern Indonesia. As shown on the map in **Figure 3.1**, the bronze drums in eastern Indonesia were found on the island of Sangeang, off the coast of north-eastern Sumbawa; on the island of Selayar, off the coast of south Sulawesi; on the islands of Alor and Roti, in East Nusa Tenggara; on the islands of Leti and Luang, in south-western Maluku; on islands in the Tanimabar, Kei, and Banda archipelagos, in southeast Maluku; on the islands of Gorom and Buru in central Maluku; and in the Mejbrat region of northwest Papua. All of these drums share distinctive decorative and morphological features, and ethnographic evidence shows that most of them were, and some specimens *in situ* still are, involved in the local traditional ceremonial context (*adat*) at the time when they were reported. In western Indonesia only one large fragmentary drum belonging to the Eastern Indonesia cluster is reported to have been found in east Java, in the area between Tuban and Gresik (Bernet Kempers 1988: 408). This drum has been reconstructed and is kept in the Quai Branly Museum in Paris (Glover 2004: 176, fig. 3).

On the mainland, I identified only three direct counterparts in north Vietnam. According to the Vietnamese classification (Pham et al. 1987), these drums are identified as the Dong Son CI type (Pham et al. 1987: 93-94; Pham, in press). However, this classification focuses mainly on the drums in Vietnam and does not discuss all the drums in eastern Indonesia. Two other less direct counterparts are the Ongbah 89 drum from west Thailand, and the larger of the two Terengganu drums from the Malay Peninsula, as discussed in further detail below (section 3.2).

In section 3.3, the comparison between the two distributions of Dong Son drums in eastern and western Indonesia, including one find in Malaysian Borneo, concerns physical features, counterparts on the mainland, and context of find. The homogeneity of the drums in eastern Indonesia suggests that their initial mainland to island crossing occurred as a one period event. The comparison also highlights the few counterparts on the mainland for the drums in eastern Indonesia, while the drums in western Indonesia are largely outnumbered by their mainland counterparts. As discussed in Chapter 2, Dong Son drums leave a long trail across the western part of the mainland along river routes, from their centres of production in north Vietnam. The drum on this trail parallel directly the ones in western, but not eastern, Indonesia. Hence, the drums in western Indonesia travelled extensively overland before eventually reaching western Indonesia, possibly from the Malay Peninsula in the first-second century AD. On the other hand, no significant trail is left by the mainland counterparts of the drums found in the eastern islands. This suggests that their initial mainland to island crossing would have occurred directly from their centres of production in north Vietnam or southwest China along maritime routes to the islands. In section 3.4, I discuss the available clues pointing to the dates of production for the drums in eastern Indonesia and for the ones in western Indonesia, and the different periods when the drums are likely to have reached the two island domains.

As the main argument of this chapter, I propose that the bronze drums in eastern Indonesia followed their own main route of transmission. This route would not have been the same as the main route leading to the distribution of Dong Son drums in western Indonesia. Previous studies have discussed the distribution of bronze drums in Indonesia as a whole, tracing only one main route of transmission for all the Dong Son drums found in Island Southeast Asia. This route has been associated with one of the main routes of the spice trade (Spriggs 1990: 55, 2000: 68; Swadling 1996: 54). It has been traced roughly from the Malay Peninsula, to south Sumatra, into Java, and eastward, through West and East Nusa Tenggara, and into south and central Maluku and west Papua. This route, from the Malay Peninsula, up to Java and West Nusa Tenggara, is the one

which most likely lead to the distribution of bronze drums in western Indonesia, occurring around the first-second century AD. However, I argue that this west to east route would not have continued into eastern Indonesia. The distinctive bronze drums found there are likely to have followed their own main route, not the same as the one leading to the distribution of Dong Son drums in Java, Sumatra, Borneo, Lombok, and Sumbawa. The assumption of a single main route accounting for the entire distribution of Dong Son drums in Indonesia arises from the lack of distinction between the eastern and the western distribution domains.

While the exact details of a proposed alternative maritime route to eastern Indonesia cannot be identified specifically at present, I argue that the initial mainland to island crossing involved a direct maritime route from the coast of north Vietnam or southwest China into the islands. It was possibly related to the early commerce of spices and of other products from eastern Indonesia to China and Vietnam, around the mid first millennium AD. Early references to cloves, then only produced in north Maluku, and possible Maluku place names, appear in Han Chinese documents (Lape 2000: 141; Andaya 1991).

As a working tool, based on the available historical and archaeological data, in section 3.5 I propose a model concerning the chronology and the dynamics of trade leading to the distribution in eastern Indonesia. My model involves two main steps. First, I envision an initial mainland to island crossing of bronze drums, occurring as a one period event, between the late third-fourth and the fifth century AD. Once they reached the islands, the second step of my model envisions bronze drums entering a series of inter-island trade networks, controlled by local seafaring traders in eastern Indonesia. The exchange of bronze drums is likely to have established alliances between centres thus favouring the trade of other goods. Bronze drums are likely to have been exchanged over an extended period of time through the second half of the first millennium AD and perhaps into the early second millennium.

In particular, I propose that bronze drums could have been carried by private Chinese or Malay traders leaving the coast of north Vietnam or southwest China, stopping in one of the trading centres on the coast of central Vietnam, and then heading in a south-eastern direction towards the north coast of Borneo, perhaps stopping on the coast of Sabah, then coming into the Sulu zone, and into the Sulawesi and Maluku seas (Map RS3. **Figure 1.24**). Once there, bronze drums would have been exchanged with local seafaring traders controlling inter-island trade networks in eastern Indonesia. In exchange for bronze drums, the traders from the mainland would have been granted safe passage to their trading destinations in Maluku or elsewhere in eastern Indonesia.

An alternative route for the initial mainland to island crossing could also have begun from the coast of north Vietnam or southwest China, following the Vietnamese coast to the south and then turning in a south-western, rather than a south-eastern direction, by the east coast of the Malay Peninsula, and further south between west Borneo and the Riau Islands. This region has also been an outpost of seafaring groups (*orang laut*) since ancient times. Once there, the drums would have entered a series of inter-island trade networks, controlled by local seafaring traders, which would have lead, over time, to their final destinations in eastern Indonesia.

In summary, I propose that the drums in eastern Indonesia left directly their centres of production in north Vietnam or southwest China by sea, as a one period event occurring between the late third-fourth and the fifth century AD. The drums would have been carried on vessels sailing south along the coast of Vietnam and then reaching either the Sulu and Sulawesi Seas, off the coast of northeast Borneo, or alternatively, the Riau region, off the west coast of Borneo. After reaching either of these regions as a one period event, the drums would have then been exchanged over a more extended period of time, perhaps breaching into the early second millennium AD.

In section 3.6, I inquire into the historical and archaeological clues supporting the argument of an alternative eastern route to the eastern islands following the proposed model described above. As a term of reference regarding trade dynamics and navigation routes, I refer to mid fourteenth century Chinese sources, describing the eastern route to the Spice Islands travelled by Chinese vessels in their direct trade with Maluku in the Yuan Period (Ptak 1992, 1998). The texts discussed by Ptak provide accounts of Chinese relations with local seafaring traders controlling inter-island trade networks in the Sulu zone. Some archaeological evidence of trade activity between China or Vietnam and Maluku in the second half of the first millennium is given by Chinese ceramics radiocarbon dated to the seventh century AD, excavated by Lape (2000) in the Banda Islands, in southeast Maluku.

The first question which arises is how early was the South China Sea crossed from the coasts of north Vietnam and southwest China to the Sulawesi and Maluku Seas, or to the sea region off west Borneo, by Chinese or Malay traders carrying bronze drums, if only on a lesser scale of maritime traffic than in later periods. Moreover, still drawing from the parallel of trade dynamics in the Yuan period, this study inquires into the possible role played by local seafaring traders controlling early inter-island trade networks in eastern Indonesia.

In section 3.7, I explore the possible role played by local seafaring groups, which appear to have controlled inter-island trade networks in eastern Indonesia since early times. The presence of early sea-faring cultures in the Sulu, Sulawesi, and Maluku Seas is documented from prehistoric times.

The spread of the Bajau seafaring group, from its homeland in the Sulu Sea, appears to have been contemporary and connected with the early Srivijaya trading activity in the seventh century AD. The link between the trading activity of the Bajau and of the early Bugis kingdoms, in their homeland in south Sulawesi, is also explored.

3.2. Characteristics of the Cluster and Counterparts on the Mainland

The following are their main characteristics of the Dong Son drums found in eastern Indonesia:

- The large size, averaging about 80 cm in height, and 110 cm in tympanum diameter (Figure 1.26).
- Four equidistant three-dimensional toad motifs, decorated with bands of geometric motifs (Figure 3.2).
- A significantly protruding central star motif on the tympanum (Figure 3.2).
- Parallel sequences of stylised 'feathered-men' motifs with feather headdresses forming elaborate patterns. They appear on the tympanum, on the boat motif on the upper mantle, and on the panels of the mid mantle (Figure 1.24).
- 'Boat with feathered-men' motifs showing a distinctive prow in the shape of a bird-*naga* head, and a rudder (Figure 1.28). Sometimes next to the boats, a peacock and marine life motifs are depicted, as in the case of the drum from Leti (MNI 3578).
- Unique decoration on the lower mantle. Only on the Selayar and the Sanggeang I drums (Figures 1.10).
- Meander, comb, concentric circle motifs. Only the Selayar drum shows the saw tooth motif together with the comb motif.

- Many equidistant square holes or filled-in marks from casting spacers over the whole mantle (**Figure 3.3**). On the tympanum some evidence of these marks appears on the outer undecorated rim.
- Two pairs of handles showing positive cord motif and two-four rectangular perforations (**Figure 3.3**).
- Thick casting seams.

The six ‘boat with feathered-men’ motifs on the upper mantle (**Figure 1.28**) show boats carrying sequences of stylised human figures wearing tall headdresses forming intricate feather patterns. The pattern is formed by the repetition of the feather headdresses upwards. The prow of the boat often equals the upper part of this pattern of headdresses, rendering an elaborate and intricate design, which fills the whole area of the decorative band above the boat shape. To be noticed is also the presence of a boat rudder, which has been discussed by Sørensen (1990) as an indication of maritime, rather than river, navigation, and the occasional presence of a peacock preceding the boat. A unique decorative feature of these island drums, which does not appear on the few counterparts on the mainland, is the decoration of the lower mantle, as it appears on the Sangeang drum (MNI code 3364), and the Selayar drum (**Figure 1.10**). The lower mantle of each of these drums is decorated by a pictorial band, framed by bands of net/lozenge motifs. The pictorial motifs show elephants and horses led by human figures, in the case of the Sangeang drum, and elephants and birds, interspaced by palm trees, in the case of the Selayar drum.

On the mainland, I identified only three direct counterparts of the homogeneous cluster of drums in eastern Indonesia, in north Vietnam. As mentioned above, these drums are identified as the Dong son CI type in the Vietnamese classification (Pham et al. 1987). The counterparts in Vietnam include the largest drum found in Vietnam, the Hoa Binh-Nam Dinh drum, from Hoa Binh (**Figure 1.25**. H. 83 cm, D. 106.5 cm), now kept in the Nam Dinh Museum – I name it Hoa Binh-Nam Dinh drum in order to distinguish it from the other Hoa Binh drum, which is of Dong Son type AII (Anon. 1990: 22-23); the Huu Chung drum (**Figure 3.4**. H. 76 cm, D. 82 cm), from Hai Hung, kept in the Hai Hung Culture Department; and the tympanum of the Dong Hieu drum (D. 90 cm), from Nghe Tinh, kept in the Nghe Tinh Culture Department.

Other two possible counterparts include the Ongbah 89 drum (**Figure 2.72**. H.c. 59.5 cm, D.c. 74 cm), found, in 1957, as part of three pairs of drums, in the Ongbah cave burial, in Kanchanaburi

province, in west central Thailand, and the larger of the pair of drums found in 1964 at Batu Burok, south of Kuala Terengganu (**Figure 2.81**. D.c. 65 cm), on the east coast of the Malay Peninsula (Peacock 1967, 1979), which are discussed in Chapter 2 (sections 2.8a, 2.9). However, while the above mentioned three Dong Son C I drums in Vietnam are directly related, by shape and decoration, to the ones in eastern Indonesia, the boat motifs of the Terengganu drum do not show the feather patterns typical of the RS3 drums, and on the Ongbah 89 drum, the feathered-men motifs on the tympanum are different from the ones on the RS3 drums. Hence, for the moment, in view of further close examination of these two latter drums, I am inclined to identify them as being related to, yet not fully the same as, the drums in eastern Indonesia.

3.3. Comparison Between the Eastern and the Western Distributions

The following comparison between the distribution of bronze drums in eastern Indonesia and the one in western Indonesia concerns decorative, morphological, and context features, and is meant to explain why it is argued here that the two distributions may be best understood as two separate, if related, phenomena, occurring during two different periods and along different routes of transmission. The geographical domain of the eastern distribution comprises the regions of central, southeast, and southwest Maluku, northwest Papua, the island of Selayar, off the coast of south Sulawesi, the islands of Roti and Alor, in East Nusa Tenggara, and the island of Sangeang, off the northeast coast of Sumbawa, in West Nusa Tenggara. The domain of the western distribution comprises the islands of Java, south Sumatra, Borneo, and Lombok and Sumbawa, in West Nusa Tenggara.

Drawing a comparison between the two distribution domains, the Dong Son bronze drums found in eastern Indonesia are:

1. Homogeneous in shape and decoration. They belong to the Region Specific cluster 3 (RS 3), identified in Chapter 1, and above in section 3.2. According to the Vietnamese classification, these drums are identified as Dong Son type CI (Pham et al. 1987). On the other hand, the drums found in western Indonesia are much more heterogeneous in shape and decoration. The vast majority of them belong to the Dong Son A and B types (52 drums). In Java, there are also five Dong Son CII drums, one reported Dong Son CI, and three later Heger IV types (Heger 1902).

2. They outnumber their direct counterparts on the mainland, only five of which are known. On the other hand, the drums in western Indonesia are largely outnumbered by their counterparts on the mainland.
3. Their few counterparts on the mainland do not leave a significant trail of parallel drums across the mainland. Three direct counterparts are found in north Vietnam, while other two similar but not equal drums are found in the west Thailand and the Malay Peninsula. On the other hand, the numerous mainland counterparts of the drums found in western Indonesia leave long trails from Vietnam and southwest China, through Laos, Burma, Thailand, Cambodia, and the Malay Peninsula.
4. All are chance finds with no archaeological context. While, in Java, bronze drums have been excavated in two burial sites, at Plawangan, in central Java, and at Lamongan, in east Java (Bintarti 1985: 81-91, 1996: 129). In western Indonesia, there are other possible burial sites which yielded drums and other burial goods, but no human remains. These are Traji and Kendal, in central Java, and Selindung, in west Kalimantan (McKinnon 1994:21; Bintarti 1996: 129-131).
5. Few in each location, at times in pairs, except the concentration of seven drums found on Sangeang Island. On the other hand, the western distribution shows more regional concentrations of drums. The greatest one is found in central Java.
6. Never found together, or in association with, locally cast Pejeng type drums. The mokos in the Alor region are cast in Java, and are not associated with the Dong Son drum finds. On the other hand, in Java, Dong Son drums are found together with, or in proximity of, mid-size Pejeng type drums, at Lamongan, in east Java, and at Traji, and Kendal, in central Java (Bintarti 1996: 130-131).
7. Many drums are *in situ*, and were part of the local *adat* ceremonial context at the time of the find, and some still are. While in western Indonesia none of the drums was part of the *adat* context at the time of the find, and no drum is still *in situ*.

The above remarks yield some further clues on chronology and routes of transmission. For example, the homogeneity of the cluster in eastern Indonesia, as Ambrose also points out (1996-

7:1080), may indicate that their import in the islands may have been a one period event. On the other hand, the heterogeneity of the Dong Son drums in the western domain indicate that their import to the islands may have occurred over more than one period. Moreover, the presence of few drum counterparts on the mainland may indicate that a short time may have elapsed between production and export. While a large number of parallel drums distributed widely on the mainland may indicate that a longer time may have elapsed between production and export. Points 2 and 3 also concern the question of routes of transmission. The fact that the few mainland counterparts of the drums in eastern Indonesia do not leave any significant trail across the mainland, while the many counterparts of the drums in western Indonesia do, indicates that the latter reached the islands after having travelled by land from their centres of production across the mainland, while the former are likely to have reached eastern Indonesia after leaving directly from their centres of production by sea.

3.4. Two Different Distribution Periods

While the drums in western Indonesia are dated from the third century BC to the first century AD, and reached the western islands in the first-second century AD, the drums in eastern Indonesia are dated to the third-fourth century AD and first reached the islands from the mid first millennium AD. Evidence for this different chronology is given by the fact that the majority of the drums in western Indonesia find direct parallels in the drums excavated in Dong Son burial sites in north Vietnam, dated from the third century BC to the early first century AD, based on radiocarbon dates and other dating clues as discussed in Chapter 2. Although no radiocarbon dates are available, the burial site of Plawangan (Prasetyo 1994-1995), in central Java, which yielded a Dong Son drum, and the Dong Son and Pejeng double drums burial container at Lamongan (Bintarti 1985, 1996), in east Java, are dated to the first-second century AD based on the analysis of the material. Moreover, in the Pasemah Plateau of south Sumatra, Dong Son drums are carved and drawn on megaliths and also painted on the inside wall of a stones cist grave. The Pasemah megaliths and cist graves are dated to the first half of the first millennium AD. Another dating clue is offered by the fact that the import of Dong Son drums in western Indonesia influenced the rise of the local bronze casting tradition of Pejeng type drums, discussed in Chapter 4. Pejeng bronze drums are dated from the late first-second century AD up to the mid first millennium based on the excavation of printing moulds for their casting found in association with Indian Arikamedu pottery dated to the first-second century AD (Ardika and Bellwood 1991), as discussed in more detail in Chapter 4. These finds provide

evidence for dating the first arrival of Dong Son bronze drums in western Indonesia from the first-second century AD.

On the other hand, the drums in eastern Indonesia lack parallels from datable archaeological contexts on the mainland, and they were all found as chance finds in the islands, often still in use as part of the local ceremonial context (*adat*). The available clues for dating the production of the drums are based on stylistic analysis, the evidence of a Chinese inscription on a drum from the island of Kur, in Maluku, metallurgical analysis, and the comparison with the drums belonging to the Region Specific cluster 4 (RS4) of 'Guangxi' drums, mainly found in Guangxi province, in southwest China. The combined evidence indicates that the drums found in eastern Indonesia were produced in north Vietnam or southwest China in the third-fourth century AD.

Bernet Kempers interprets the stylisation of pictorial motifs as a later development of naturalistic depictions on earlier drums, and thus identifies this cluster as 'Late Tonkin' drums, dated to the first centuries AD (Bernet Kempers 1988: 240-241). The same author also discusses the presence of a Chinese inscription, cast in positive relief on one of the two drums found on the island of Kur, in the Kei Islands of southeast Maluku (**Figure 1.29**). The script is found under one of the missing toads on the tympanum. Unfortunately a final translation is not available to date. The script appears to be missing characters from corrosion, and the visible ones are hard to interpret. My own attempts to have it translated at SOAS, in London, have also unfortunately not been fruitful. The characters appear to be reversed. Bernet Kempers (1988: 282-284) quotes the opinion of Prof. Yang at Harvard in 1956. On the outer line, if two of the characters may be interpreted as *san chieh*, they may be associated with the Buddhist term for the 'Triple World'. Based on the fact that Buddhism reached North Vietnam by the early third century AD, a third century date has been proposed by Bernet Kempers as the beginning of the dating range for this type of drums. However, this interpretation, as Yang cautions, is only a hypothesis. As discussed by Hall (1999: 263), from about the mid second to the sixth century AD, the Han-Viet elite in north Vietnam was progressively interested in seaborne trade and in commerce of luxury goods, a condition which turned the coasts of Vietnam in general into a series of international entrepôts. The trade in bronze drums as prestige goods could perhaps fit within this framework.

The high proportion of lead content, yielding 13.8% for one of the drums in the Mejbrat area of west Papua, and 15.8% for the larger Kur drum in Maluku (Hollman and Spennemann 1985: 92), has also lead to a relative dating into the first centuries AD (Ambrose 1996-7). Ambrose points out, however, that weathering conditions in tropical climates may cause depletion of lead 'in thin-walled bronze objects, such as Dong Son bronze drums' (1996-1997: 1084). Moreover, as noted by

Spriggs and Miller (1988: 86), only these two drums from eastern Indonesia have been chemically analysed.

Another dating clue arises from the comparison between our Region Specific cluster 3 (RS3) and the related but different cluster of 'Guangxi' drums, identified in Chapter 1, as the Region Specific cluster 4 (RS4). These drums are present only on the mainland, and mainly in Guangxi province in China (**Figures 1.31-2**). Chinese scholars identify this type of drum as the Lengshuichong type (ZGTY 1988), and date it very broadly from the first century BC to the tenth AD. Vietnamese scholars (Pham et al. 1987) identify the same drums as the Dong Son Đ2 type, and consider it as a late type, dated to the first half of the first millennium AD. Based on the relative dating clues available, the latter dating is more accurate.

Based on my study of the collection of the Guangxi Provincial Museum, the RS3 and RS4 clusters share similar shape and proportions, four life-size, three-dimensional toad motifs, similar handles with cord motif and rectangular perforations, and meander, comb, and concentric circle motifs. The main differences between the two clusters are the different 'boat with feathered-men' motifs, and the 'feathered-men' motifs on the mid mantle. The boat motifs on the drums in the RS4 cluster show identical prow and stern, and they are depicted over two bands of boats in opposite positions (**Figure 1.32**). The 'feathered-men' figures are unrecognisable on these drums. Moreover, the mid mantle of the drums in the RS4 cluster is not subdivided into panels, as on the drums in the RS3 cluster. It shows instead a continuous band of curved line patterns, which are related to the feather patterns of the RS3 drums, yet they may not be recognised as the feathers of the headdresses replicating upwards, as in the case of the RS3 drums (**Figure 1.32**). Evidence of a possible chronologically sequential link between the RS3 and the RS4 cluster is the fact that what appear to be early drums in the RS4 cluster, such as the drums with codes 337 and 38, in the Guangxi Provincial Museum, show boat motifs on the upper mantle, and feather patterns on the mid mantle (**Figure 1.32**), very similar to the ones appearing on the drums in the RS3 cluster.

In summary, the clues discussed above support a date of production for the drums found in eastern Indonesia not much earlier than the third century AD. The drums are thus later than the ones in western Indonesia, which are dated from the late third century BC to the first-second century AD. I thus suggest that the bronze drums in eastern Indonesia are likely to have reached the islands as a one period event sometime between the late third-fourth and fifth century AD. On the other hand, earlier Dong Son drums first reached the islands of western Indonesia in the first-second century AD. This dating is supported by the excavation of drums in burial contexts at Plawangan and Lamongan, in Java, and by the representations of drums on megaliths and cist graves in south

Sumatra (Chapter 2). Further evidence for this dating is given by the fact that the Dong Son drums in western Indonesia influenced the rise of the local tradition of Pejeng drums in Bali and Java, which can be dated from the early first millennium AD, based on the excavation of casting moulds in association with Indian Arikamedu pottery (Chapter 4).

3.5. Alternative Routes: Proposed Model involving Two Main Steps

As a working tool, I propose that the journey of bronze drums from the mainland to eastern Indonesia may have involved two main steps. The first step involves an initial mainland to island crossing occurring sometime between the late third-fourth and the fifth century AD. The homogeneity of the cluster in eastern Indonesia suggests that this initial mainland to island crossing would have occurred as a one period event. According to my model, this initial crossing starts directly from the centres of production of the drums in north Vietnam or southwest China. On the other hand, the drums found in western Indonesia travelled overland from their centres of production in north Vietnam, through Laos, Thailand, Cambodia, and the Malay Peninsula, to then reach their locations in the western islands. The long trail of parallel drums in these regions on the mainland is evidence of this. In my opinion, this is a crucial point for understanding the western and the eastern distributions as two different phenomena occurring along two different main routes and during two different periods.

The second step of my model envisions bronze drums entering a series of inter-island trade networks, controlled by local seafaring traders, leading to the final destinations of the drums over a more extended period of time. The map shown in **Figure 3.5** is redrawn from Ptak's study (1992: 30, map 1) of what he identifies as 'the northern route to the Spice Islands', travelled by Chinese traders in the fourteenth century. I have added the red arrows from the coasts of north Vietnam and southwest China to indicate the two possible routes of the initial mainland to island crossing of the drums, occurring as a one period event between the late third-fourth and the fifth century AD. The black unbroken arrow shows the eastern route from China to the Spice Islands in the fourteenth century, and the broken black line shows the routes travelled by private Chinese merchants in the fifteenth century.

The fourteenth century model may provide a series of clues regarding the routes and dynamics of trade activity taking place in the same region in earlier periods, if only on a lesser scale of maritime traffic, as discussed further in the following section.

According to the first step of my model, Chinese or Malay traders carrying bronze drums from the coast of north Vietnam or southwest China, would have sailed along the coast of Vietnam, stopping in the ports of central and south Vietnam, and then sailing in a south-eastern direction, stopping on the northeast coast of Borneo, around Sabah, and then entering the Sulu Zone, the 'bottleneck' to the Maluku and Sulawesi Seas, to use Ptak's term (1992). Once in the Sulu region, the bronze drums would have been exchanged with local sea-faring traders controlling inter-island trade networks in the Sulu, Sulawesi, and Maluku seas. The exchange of bronze drums between traders arriving from the mainland and island traders would have secured access for the traders from the mainland to their desired destinations in Maluku, Nusa Tenggara, and possibly as far as east Java. The exchange of bronze drums in the Sulu or Maluku Sea leads to the second step of our model. It envisions bronze drums entering a series of inter-island barter trade networks in eastern Indonesia controlled by local seafaring traders.

Alternatively, once the vessels reached the coasts of south central Vietnam, instead of heading south-east to the Sulu Zone, they could have sailed south-west, by the east coast of the Malay Peninsula, and further south between the west coast of Borneo and the Riau Islands. This region hosts outposts of seafaring groups (*orang laut*). Although it is uncertain since when the *orang laut* have been present in the region, it is likely that they were present during the second half of the first millennium AD. These groups were possibly maintaining trading links with other seafaring groups such as the Bajau in the seas of Sulawesi and Nusa Tenggara.

References to the sailing route from south Vietnam towards Borneo appear in the sixteenth century rendering of Marco Polo's journey in the thirteenth century, by Ramusio, in volume II of his *Navigazioni* (1559). From Champa, Polo sailed to the Condore islands, off the Mekong Delta in south Vietnam, and then sailed per '*scirocco*', which means following the wind 'to the southeast' according to the Venetian compass (Suárez 1999: 106). Sailing from Condore, Polo reached *Lochac*, which has been identified by Wheatley (1965) as possibly corresponding to a location on the coast of southwest Borneo.

Thus either from the Sulu and Maluku seas, or from the region between west Borneo and the sea of Riau, bronze drums would have entered a series of inter-island trade networks, controlled by local seafaring traders. Such networks would have accounted for the final destinations of the drums over an extended period of time, perhaps breaching into the Majapahit period (thirteenth – sixteenth century AD).

3.6. The Eastern Route: Chinese Sources and Archaeological Evidence

Inquiring into a possible alternative eastern route from the mainland leading to the distribution of drums in eastern Indonesia, a mid fourteenth century Chinese sources describes the direct Chinese trade with Maluku along an eastern route to the Spice Islands (Ptak 1992, 1998). I consider the fourteenth century model described by Ptak as an analogue which may provide some useful clues with regard to the dynamics of trade in earlier times in the same region. As noted by Caldwell and Bougas (2004: 505, note 47), 'Portuguese accounts of Ternate and Tidore report that Javanese and Malay traders replaced earlier Chinese traders (Reid 1992: 182) and that this had happened shortly before the Portuguese had arrived in the fifteenth century (Andaya 1990:1-2).' The eastern route from south China to the Sulu zone and Borneo travelled by Chinese vessels in the fifteenth century has been discussed by Mills (1984 [1979]).

Based on the *Daoyi zhilue* (c. 1350) by Wang Dayuan, Ptak discusses the direct Chinese trade route to the Spice Islands in the Yuan period (1279 – 1368 AD). The Sulu region is described by Ptak as a 'bottleneck' to the Spice Islands. Based on traditional accounts, Ptak mentions that Chinese alliances with the Sulu seafaring peoples may have occurred as a means for the Chinese to secure passage to the Spice Islands west of Halmahera, in the Banda, and south to Timor. A thirteenth century source, the *Zhufan zhi* (c. 1225), also mentions Maluku suggesting that some Chinese trade occurred along the eastern route until the Sulu region (Ptak 1998).

The first question which arises then is how early was the South China Sea crossed from the mainland coasts in a southern direction, eventually reaching the Sulawesi and Maluku Seas, if only on a lesser scale of maritime traffic than in later periods. Archaeological research has provided new insightful clues. Lape's excavations in the Banda Islands in 1997 and 1998 were the first in this island group (Lape 2000a), which was once the only source of nutmeg and mace in the world. The finds included the earliest evidence of Chinese pottery in eastern Indonesia. It consists of Chinese glazed ceramics found in layers dated from AD 560 to 770, at the settlement site BN1, on Banda Neira Island (Lape 2000b: 142, 2002: 59-60). These finds, as Lape points out, provide evidence that some long-distance trade was occurring in the period ranging from the sixth to the eighth century AD, only to rise to a greater scale in the twelfth-thirteenth century.

Secondly, I propose that what Ptak describes as the 'Sulu factor' in the fourteenth century, or the potential for the local maritime peoples of the Sulu region to control the flow of goods, and the alliances of Chinese traders with the Sulu people as a means to secure safe passage to their

destinations, may be relevant with regard to earlier periods of maritime trade in the Sulawesi and Maluku Seas. Spriggs and Miller (1988: 86, note 3), in their study of the Dong Son drum on Kei Kecil Island, in southeast Maluku, observe that bronze drums may have served 'to cement alliances between foreign traders or emissaries and local elites rather than entering exchange networks directly'.

3.7. The Maritime Peoples of Eastern Indonesia

Following the second step of my proposed model, the Dong Son drums in eastern Indonesia (Map **Figure 3.1**) entered a series of inter-island trade networks, and were traded over an extended period of time through the second half of the first millennium AD, and perhaps into the early second millennium. The drums entered these island networks after their initial mainland to island crossing, which, on the contrary, is more likely to have occurred as a one period event, sometime between the third and the fifth century AD. Local seafaring traders, such as the Bajau people, appear played a significant role in inter-island trade networks at least since the seventh century AD and possibly earlier. The diaspora of the Bajau from their homeland off the coasts of northeast Borneo throughout Indonesia occurred during the seventh-eighth century AD. Blench (2006) points out that the Bajau traded bronze gongs to Borneo and the Philippines in the historic period, and that 'pirates were the major agents acting to distribute gongs throughout the region of Borneo and the Philippines (Skog 1998)'. Bronze gongs may be paralleled with bronze drums in their role of valuable prestige goods participating in 'economic and social transactions'. In fact Blench also notes that 'gongs in Sabah and part of the Philippines play a significant role in bridewealth transactions (Frame 1982)', and that bronze gongs may have replaced bronze drums 'as a type of small, more flexible prestige good'.

The Bajau seafaring people, from their homeland on the coast and islands of northeast Borneo, thus the Sulu region, have an ancient history of trade activity in the China, Sulawesi, and Sulu Seas, as discussed by Pelras (1996). Moreover, the Bajau appear to have a long history of exchange with the Bugis from South Sulawesi, and to have been involved in complementary commercial activities. Although the Bugis as a distinctive cultural entity, appear to have taken to the seas only in the seventeenth century, early schooners from South Sulawesi, as the ones depicted on the reliefs of Borobudur (eighth century AD) in central Java, appear to have sailed throughout eastern Indonesia at least from the time of Srivijaya (seventh – eleventh century AD). The fourteenth century Bugis epic

La Galigo refers to the 'Bajo Sereng' (Molukkan Bajau), pointing to their role in the trade relations between Maluku and south Sulawesi (Pelras 1996: 74). The role of the Bajau in sea-power policies and their involvement in the trade with China from the seventh to the fifteenth century is also discussed by Harrison (1973, 1976). Pelras (1996: 75) suggests that the Sama Bajau dispersal in the eight-ninth century from northeast Borneo, may be linked to the maritime commercial activity of the South Sumatra based Srivijaya empire (seventh – eleventh century AD), with capital in Palembang. As Sopher (1965: 161-162) points out, the term Bajau or Bajo appears in many coastal and island place names in east and west Borneo, Maluku, Nusa Tenggara, and Sumatra. Moreover, Pelras also suggests that Srivijaya commercial monopolies in western Indonesia may be the reason why 'South Sulawesi navigators did not sail to the western part of the archipelago' (1996: 71). *La Galigo* reports on the early Bugis trade routes in eastern Indonesia, and does not mention any travel in the western regions. Although *La Galigo* is a poetic epic and not a history book, it nevertheless provides clues regarding a demarcation of maritime domains between eastern and western Indonesia, which may be linked to the differences in the distributions of bronze drums in eastern and western Indonesia.

The nomadic connotation attached to the Bajau is to be considered with caution, as well as the one of piracy, which is also attached to the Bugis. The phenomenon of piracy in fact appears to have arisen mainly in response to maritime monopolies imposed by European traders in alliance with local sultans, or taking over direct power from them, such as in the case of the fall of Makassar to the Dutch in 1669 (Villiers 1990b: 156). Previous to such monopolies, many of the long standing seafaring traders of Island Southeast Asia had paid tributes to local rulers and had been instrumental for the growth of local entrepôts.

On the basis of stone axe types, Glover points out (1979: 183-184) the existence of early 'intra-regional' trade networks, which began to define East Nusa Tenggara and Maluku as a broad cultural area from the late prehistoric period. The activity of mobile maritime cultures, forerunners of the historical 'sea nomads', involved in the early commerce of commodities such as tortoise shell, mother of pearl, plumes, and sago, is likely to have contributed to the definition of such cultural areas. Bellwood (1989) points to 'a strongly maritime-focused economy dating back to 1000 BC' at the site of Bukit Tengkorak, in south-eastern Sabah. Moreover, Bellwood (1997: 136) points out that linguistic data put forward by Pallesen (1985) indicates that the Sama Bajau were in the Sulu region by at least AD 800. The long standing contacts and trade dynamics between the drum finds centres in Maluku and Nusa Tenggara, some of which grew into larger entrepôts, are documented in some detail in sixteenth century Portuguese sources (Villiers 1990a).

The largest and most elaborately decorated bronze drums in eastern Indonesia are found on two small islands which up to present day are outposts of the Bugis and Bajau peoples. The latter are settled in traditional fishing villages of houses on piles by the water. These drums include the one found on the island of Selayar (**Figures 1.26, 3.2**), off the coast of south Sulawesi (Reid 1990a: 101; Bernet Kempers 1988: 17), and seven drums found on Sangeang Island, off the coast of northeast Sumbawa, in the Bima District (Bernet Kempers 1988: 21; Bintarti 1996: 189-192). Traditional Bugis boats are still built nearby these drum finds locations. Bugis schooners are built on Bira, on the coast of south Sulawesi facing Selayar, and smaller Bugis vessels are built in the new village of Sanggeang, which has been rebuilt on the coast of Sumbawa, after the eruption of the volcano (*gunung api*) on Sangeang Island in 1985. The island of Sangeang is located about 150 kilometres southwest of the island of Selayar, on an unobstructed sea axis, and the bronze drums finds point to long standing links between the two centres. The peoples of Bira and Selayar carry on their ancient tradition as builders of Bugis schooners and as suppliers of their seafaring crews.

Of particular interest for this line of inquiry is the possibility of early trade links in the early to mid first millennium AD, between the Bugis homeland in south Sulawesi and the Bima region of eastern Sumbawa, where the Selayar and the Sangeang bronze drums have been found. The fourteenth century Bugis epic *La Galigo* refers to Bima as 'Gima', a term still used today by the Bugis (Pelras 1996: 67). Political links between the Makassar kingdom of south Sulawesi and the Bima kingdom of eastern Sumbawa are documented from the sixteenth-seventeenth century, by alliances between the kingdoms and the resulting Islamization of the previously Hinduised Bima kingdom, linked to the Majapahit trading empire (thirteenth – sixteenth century AD). Portuguese sources describe the inter-island trade networks involved in the spice trade in the fifteenth and sixteenth century (Villiers 1990). A series of inter-island trade networks linking Maluku, Nusa Tenggara, south Sulawesi, and Java, were established at least from the Majapahit period, and possibly much earlier on a lesser scale of maritime traffic.

With regard to place names, an interesting clue pointing to the maritime routes from south Sulawesi to Maluku, is offered by the name of the village of Selayar, located on the west coast of the island of Kei Kecil (*Nuhu Roa* in the local pre-Malay Evav language), in the Kei archipelago of southeast Maluku. During my fieldwork on Kei Kecil, I was informed that the inhabitants of Selayar village trace their origin to the south Sulawesi island of Selayar, where the large bronze drum mentioned above was found.

Archaeological research shows some evidence of early Bugis settlement and trade activity in the Cerana Valley of south Sulawesi, in the mid-late first millennium AD. Caldwell et al. (in press) report their 2005 excavations of the Bugis palace site of Alangkananggé, in the Cerana Valley, which according to Caldwell, is widely believed to be the palace site of the kingdom of Cina, the earliest known polity in South Sulawesi. Trade activity of Metal Age early Bugis (300 BC - AD 1400) facilitated the growth of social complexity leading to the formation of what Caldwell et al. refer to as 'trade-based kingdoms' (AD 900 - 1300). Moreover, in an article on the history of the region Jeneponto, on the coast of south Sulawesi, Caldwell and Bougas (2004) refer to the archaeological finds which place South Sulawesi on an inter-island trade route since the early first millennium AD. Along with the large decorated Dong Son bronze drum found on the island of Selayar in the nineteenth century, two bronze statuettes of dogs were found ca. 50 kilometres south of Makassar, and were radiocarbon dated from their cores to 155 BC-AD 330 and AD 230-580 (Glover 1997: 218-9). In 1998, twenty-one exagonal carnelian beads were also excavated in Bantaeng (Fadillah 1999:28; Bulbeck and Fadillah 2000: 47). At Ara, in the Bulukumba District, on the coast just north of Selayar Island, Pelras (1996: 26) refers to the find of several glass beads of Indian origin as evidence of early Metal Age trade activity. Bulbeck and Fadillah (2000: 47) describe a single, light-blue glass bead excavated by Van Heekeren (1972:110) at a cave site at Ara (Caldwell and Bougas 2004: 457, note 5). Moreover, three bronze Buddhist statues, dated to the seventh or eighth century AD, were found in Bantaeng in the early twentieth century (Scheurleer and Klokke 1988: 111-113). Early trade items to south Sulawesi would have been exchanged for 'ships' supplies, safe anchorages, forest products, and gold from the highland interior of southwest and central Sulawesi, and spices trans-shipped from the Moluccas' (Caldwell and Bougas 2004: 459).

The only bronze drum belonging to the eastern Indonesia cluster which was reported to have been found in Java (Bernet Kempers 1988), is said to have come from the area of Tuban and Gresik. As noted by Ptak (1992: 36), these two ports in east Java had become established Chinese trader outposts by the fifteenth century. The place names of Garassiq (Gresik), Tuban, Surobaya (Surabaya), and Mancapaiq (Majapahit), are found in south and south-western Sulawesi in the areas of former Bugis and Makassar kingdoms (Caldwell and Bougas 2004: 505; Pelras 1996: 74). This evidence points to the links between Majapahit east Java (thirteenth – sixteenth century AD) and the kingdoms of south Sulawesi. It is possible that some of the bronze drums which would have already reached eastern Indonesia around the mid first millennium AD, could still have been traded as prestige goods between centres up to the Majapahit period. As pointed out by Villiers (1990a:

87), Tomé Pires, in his sixteenth century account, the *Suma Oriental* (Corteseo 1944: 202), describes the strategic central position of Bima, on the route between Java and eastern Indonesia, and the trade activity from Bima, not only to eastern Indonesia, but also in the reverse direction, from Bima to the ports of east Java, such as Gresik, Tuban, and Surabaya. The only drum belonging to the RS3 cluster of 'Eastern Indonesia' drums found in western Indonesia, comes from the area between Tuban and Gresik, in east Java. The drum could have travelled to east Java from Bima, in an east to west direction, and not necessarily the other way around, as it is often assumed.

In summary, I argue that the demarcation of maritime trade domains between eastern and western Indonesia may be linked to the differences in the eastern and western distributions of Dong Son bronze drums. The Bajau and the Bugis from South Sulawesi appear to have a long history of exchange with each other, and to have been involved in complimentary commercial activities from as early as the eight century AD. Thus the nomadic connotation attached to the Bajau is to be considered with caution, as well as the one of piracy, which is also attached to the Bugis. Piracy in fact appears to be a later phenomenon, arising in response to maritime monopolies imposed by European traders in alliance with local sultans, or taking over direct power, such as in the case of the fall of Makassar to the Dutch in 1669 (Villiers 1990b: 156).

3.8. Drum Finds and Oral Traditions

Twenty-seven bronze drums are known from eastern Indonesia. On a west to east axis, they are distributed from Sangeang Island, northeast of Sumbawa, in the west, to northwest Papua in the east (Map. **Figure 3.1**). This includes four drums not available for study, such as the two drums from an unknown location in Maluku mentioned by the naturalist Rumphius in his early study (1705), a drum from the island of Serua in the Banda Sea, which was destroyed by the governor of Ternate in c.1625, and a drum from the island of Buru, west of the island of Seram, for which we only have a drawing by Duperrey dated to 1825-30 (**Figure 3.6**).

The RS3 cluster of drums in eastern Indonesia represents about one third of the total count of the drums known in Island Southeast Asia, which includes eighty-five plus specimens to date. During my fieldwork research, I examined ten drums belonging to the RS3 cluster. These include three drums still *in situ*, one in the village of Bontobangun, on the island of Selayar (Figure 1.23. H. 95 cm, D. 126 cm), off the south coast of Sulawesi, and in southeast Maluku, one drum in the village of Arui Das on the island of Yamdena (**Figure 1.11**. Mid-low mantle H. 52 cm, D.c. 78 cm),

in the Tanimbar archipelago, and one drum on the island of Kei Kecil, or *Nuhuroa*, in the local Evav language, (**Figure 1.30**. Mid-low mantle H. 62 cm, D. 113 cm), in the Kei Archipelago. The mantle and the tympanum of the latter Kei Kecil drum are kept in two different villages on the island. The mantle (*tenan bes*) is kept in the village of Faan, and the tympanum (*nutun rit*) in the village of Madu Air.

On the island of Selayar, off the south coast of Sulawesi, the largest complete Dong Son – Heger I bronze drum throughout the distribution (**Figures 1.26, 3.2**. H. 95 cm, D. 126 cm) was found in the late nineteenth century (Hoëvell 1904). It was found buried about two feet below ground, near the village of Bontobangun, on the east coast, and it was reported in 1863 to the Dutch authorities. During my visit in 2003, I examined the Selayar drum which is kept in its own pavilion in the village of Bontobangun (Heekeren 1958: 33-34; Hadimulyono et al. 1982; Reid 1990b: 10; Bernet Kempers 1988: 17; Bintarti 1996: 73-74). Its elaborate decoration shows all the typical features of the Eastern Indonesia cluster RS3, discussed above (Chart RS3, Chapter 1). The lower mantle is also decorated with elephant and palm tree motifs (**Figure 1.10**). The only other Dong Son drum showing pictorial decoration on the lower mantle is one of the seven drums (MNI code 3364), found on Sangeang Island, located about 150 kilometres to the southwest of Selayar Island.

Evidence of early foreign trade and cultural contact on Selayar is provided by the finds of three secondary jar burials, found at a depth of 50 cm at Tiletile, in the southwest of the island, as reported by Schröder (1912). The jars measure 60 cm in height and contained broken human bones and ornaments. One jar examined by Schröder contained beads of semi-precious stone, a bronze earring, a ring, and three bracelets, and golden leaves. In Indonesia, primary and secondary jar burials are also found at Anyer, in west Java, at Plawangan, in central Java, at Melolo, in Sumba, and at Gilimanuk, in Bali. As discussed in Chapter 2, only at the site of Plawangan, on the north coast of central Java, a Dong Son drum was found placed upside down above a jar burial (Prasetyo 1994/1995). While the jar burials and the associated material on Selayar points to early trade contacts in the prehistoric period, they do not appear to be associated with the drum on Selayar, which, according to the present study, would have reached the island during the mid first millennium AD.

On the island of Sangeang, off the northeast coast of Sumbawa, in Nusa Tenggara, six bronze drums were found by old graves in a deserted village in 1937 (Heekeren 1958: 24-29; Bernet Kempers 1988: 21.22; Bintarti 1996: 189-192). A seventh bronze drum of the same type (rem. H. 55 cm, D. 92 cm) was found on the island by Indonesian archaeologists on the island in 1983

(Kosasih 1983). Bintarti (1996: 68) reports that the drum has been sold. The six Sangeang drums found in 1937 are kept in the Museum Nasional Indonesia, in Jakarta (MNI code 3364: H. 85 cm, D. 116 cm; MNI code 3365: H. 73 cm, D. 101 cm; MNI code 3366: rem. H. 47 cm, D. 83, 5 cm; MNI code 3367: H. 85.8 cm, D. 111.5 cm; MNI code 3368: H. 86.5 cm, D. 114.7 cm; MNI code 4948: D. 103.5 cm). At the time of the find, the drums were still used by the population for rain making. It was believed that beating the drums would provoke a storm, and produce fires (Bernet Kempers 1988: 21-22). We know that three of the drums were named *Makalamau* (MNI code 3364), *Waisarinci* (MNI code 3365), and *Saritasangi* (MNI code 3367). The *Makalamau* drum (**Figures 3.7-9**) shows four house motifs on the tympanum (**Figure 3.8**). Inside the houses are unique human figures wearing long vests with sleeves. A large similar human figure also appears on the upper mantle fighting with a tiger between the boat motifs (**Figure 3.9**). Another atypical motif between the boats is the depiction of a horse. On the lower mantle, the same human figures wearing long vests are depicted leading horses and elephants (**Figure 1.10**). Heine-Geldern (1947) pointed to parallels between the scenes with human figures and elephants on the *Makalamau* drum and second century AD Han bas-reliefs shown by Chavannes (1909 – 1913, pl. XXVII). He argued that the figures were wearing Han Chinese garments, and proposed an origin of the drum in south Vietnam, in the kingdom of Funan, centred in the Mekong River Delta, and dated to the first centuries AD (1947). However, as Malleret (1956) points out, elephants were also trained by the people of north Vietnam and southwest China in the same period. The motifs on the *Makalamau* drum appear to reflect the progressive Chinese presence and influence in north Vietnam in the first centuries AD, during the Han Viet period, thus providing a further dating clue for this type of drums. A similar type of decoration of the lower mantle, otherwise undecorated on Dong Son-Heger I drums, appears only on the Selayar drum

In 1871, a fragmentary bronze drum was found on the island of Roti (**Figure 3.10**. H.c. 59 cm, D. 72.8 cm), off the west coast of Timor. The fragments are kept in the Museum Nasional Indonesia (MNI code 1828). Bernet Kempers shows a large fragment of this drum comprising the tympanum, upper mantle, and part of the mid mantle of the Roti drum (1988: 520-521, pl. 6.01a-c). However, in the Museum Nasional Indonesia, I could only examine seven smaller fragments of the remaining mid and lower mantle. I will have to inquire further about the location of the large fragment of the upper section. On the nearby island of Alor, a complete bronze drum (**Figure 3.11**. H. 67.5 cm, D. 92 cm) was found in 1972 nearby the village of Seyeng. It has been recently returned to Alor from the Museum Negeri in Kupang on the island of Timor.

In southwest Maluku, just east of Timor, three fragmentary bronze drums were found on the island of Leti in the late nineteenth and early twentieth centuries (Heekeren 1958: 30-31; Bernet Kempers 1988: 412). One of these Leti drums was bought by Nieuwekamp in the village of Lulubele (Hoëvell 1890b), and is kept in the storage of the Museum Nasional Indonesia, where I studied it in 2005 (**Figures 3.3**-image below, **3.12, 1.25, 1.24**-image below. H.c. 69 cm, D. 98.5 cm. MNI code 3578). The other two Leti drums should still be *in situ*, by the village of Tapulewang (one of the two drums: D. 89 cm). On the nearby island of Luang, another bronze drum (rem. H. 51 cm) was reported by Barchewitz (1730: 311-313, 315). It was found half buried on top of a hill six hundred metres high, and it was venerated by the population, who believed that beating the drum could cause illness and death if sacrifices were not made to it (Heekeren 1958: 29-30). Although de Jonge and van Dijk (1995: 18, photo 1.1) show a photograph of the remaining mid and lower mantle of the Luang drum, the details are hard to read.

In the Kei archipelago of southeast Maluku, three bronze drums have been found, one on the island of Kei Kecil, and two on the island of Kur (Van Heekeren 1958: 31.33; Hoëvell 1890a). As mentioned above, the mantle and the tympanum of the drum on Kei Kecil (*Nuhu Roa* in the pre-Malay local Evav language) are kept separately in two different villages (**Figure 1.30**). The mantle of the drum (remaining H. 62 cm) was first described by Spriggs and Miller (1988). It is kept in the forest, by the earlier coastal location of the village of Faan, which was later moved more inland by Dutch missionaries around 1890. Faan is in the northeast of the island. In the southwest of the island, the tympanum of the same drum (D. 113 cm) is kept in the forest by the village of Madu Air. Both the tympanum and the mantle are considered sacred and are revered with offerings. The tympanum in Madu Air has not been documented prior to the present study. It is placed on the ground in a cleared out space in the forest, and it lays next to a flat circular stone (*batu pemali*) of the same size (**Figure 3.13**). The ritual ground comprising the tympanum and the stone is enclosed by wooden poles.

The story of how the bronze drum reached the island of Kei Kecil is of particular interest. It was narrated to me by the local scholar Max Renjaan, in the town of Langgur. The bronze drum was carried to Kei Kecil from northwest Papua by the local hero *Towi*. The drum was carried on the back of a giant turtle (*tabob*). *Towi* left the tympanum (*ngutun rit*: cover) and the mantle (*tenan bes*: iron/metal object) in the respective villages of Madu Air and Faan on Kei Kecil. Leaving the mantle in Faan, *Towi* explained that this metal object was important and was going to ensure the welfare of the villagers and their neighbours, establishing an alliance between the villages in the region, and

perhaps beyond with the region of Papua. Spriggs and Miller (1988: 82) were also told a story about the origin of the drum from Papua. In the Mejbrat region of northwest Papua, three tympani of bronze drums were found in 1957-58 (Elmberg 1959: 79), and a fourth is mentioned by Bintarti (1996, 1999) in the same region by Lake Ayamaru. This tale points to the exchange of bronze drums between Kei and northwest Papua. It also hints that the exchange of bronze drums was linked to inter-island alliances. Giant turtles follow the currents off the coast of northwest Papua to the Kei archipelago, and the same currents are likely to have facilitated navigation and exchange between the regions since an early period.

With a view to further clues, I wish to note that on the north coast of Kei Kecil, between the villages of Ohoidertawun and Dudumahan, there are a series of rock paintings showing people and boats, which parallel similar rock art in Indonesia and Melanesia. These paintings are described by Ballard (1988). Following the local map maker, Mr. Lucas Rahakbaum, who guided me to the site, I examined a stretch of limestone cliff wall measuring 400 metres in length, with rock paintings depicting human figures with elongated hair or perhaps feathers standing on boats, along with the more common hands and star or sun-like motifs. These rock paintings show close parallels with other rock art in eastern Indonesia, such as in east Timor (Lape et al. 2007; O'Connor and Oliveira 2007; O'Connor 2003), in west Papua, Kalimantan, Sulawesi (Arifin and Delanghe 2004), and also in Melanesia (Ballard 1988). While these paintings are dated approximately to the second millennium BC, and thus are much earlier than the bronze drum on the island, they point to ancient routes possibly travelled by Austronesian speakers, and to cultural links in the Indo-Pacific region, in the transitional period from the Neolithic to the Metal Age.

The two drums found on the island of Kur, also in the Kei archipelago, were first reported by van Hœvell (1890a: 102-159). They were found half buried on a mountain, under a tree. The larger drum (**Figure 3.14**. H. 87 cm, D. 113.5 cm) was called the 'man', and the smaller one (D. 100.7 cm), the 'woman'. Later, in 1933, Admiraal revisited the site of the finds and learned that the small drum had been destroyed and that large fragments of the larger one were taken to the Ethnological Museum in Zurich (Steinmann 1941). The larger Kur drum is kept today in the Museum Nasional Indonesia in Jakarta (MNI code 1907). This Kur drum bears a Chinese inscription (**Figure 1.29**), cast under one of the four three-dimensional toad figurines on the tympanum, now missing. This script has been associated with a Buddhist term, and thus it has been interpreted as a possible clue supporting a third century AD date for the production of the drum on the mainland. The Kur drum also shows unique hunting scenes on the tympanum, a decorative feature which does not appear on any other drum. As reported by Admiraal (Heekeren 1958: 31-32; Bernet Kempers 1988: 19-20),

three different accounts for the arrival of the two drums found on the island of Kur were collected. The first tale narrates that two drums descended from the sky in the village of Hirit, on Kur. The second describes four drums which were washed ashore on Kur. They were animated and protested when the inhabitants carried them inland. Two of the drums turned into stone. The third account, possibly related to the second one, also refers to four drums which were carried to Kur by the people of the Banda Islands, when they were driven away by the Dutch. Then, after quarrels with the local inhabitants of Kur, the Bandanese left and the drums remained on the island. This tale specifically links the region of Kei and Banda. The two archipelagos have long standing links, and both are renowned for their traditional boat building (*belang* or *korakora*). As mentioned above, in the Banda Sea, one bronze drum has been reported on the island of Serua, but it was destroyed by the Governor of Ternate in c. 1625. The reference to the Dutch period may also point to the possibility that bronze drums kept on being exchanged over an extended period of time after their initial arrival in the eastern islands sometime in the centuries around the mid first millennium AD.

About 100 kilometres southwest of the Kei archipelago stands the Tanimbar archipelago, where another fragmentary bronze drum is kept *in situ* in the village of Arui Das, on the east coast of the main island of Yamdena (Jonge and Dijk 1995: 21, ph. 1.3). In 2005, I examined the four fragments of this drum in Arui Das (**Figure 1.11**. Mid-low mantle H. 52 cm, remaining D. 78 cm). It is kept in the front yard of the home of the head of the village in the central square. The upper mantle is missing, and the fragment of the central part of the tympanum is laid on the ground inside the remaining mid and lower mantle. The Kei and the Tanimbar Islands are linked both culturally and linguistically. As reported by the head of the village in Larat, in north Tanimbar, their language is very similar to the Kei language.

In central Maluku, on the island of Gorom, east of Seram, one bronze drum was found in 1950 by the village of Kataloka, and it is *in situ* (Soejono 1957). Another bronze drum is reported from the island of Buru, west of Seram. However, as mentioned above, the only reference available for this drum is an 1825-30 drawing of a local festivity in the village of Kayeli, by Duperrey (**Figure 3.6**), as shown by Spriggs and Miller (1988: 79, fig.2). Allowing for a degree of licence in the rendering of the scene, the Dong Son drum, or its mid and lower mantle, appears to be the one placed on the ground and played by a seated figure, in the right end corner of the drawing, while the instrument hung on a stand next to it appears to be a metal pot.

3.9. Concluding Remarks

My main goal has been to emphasise that the bronze drums found in eastern Indonesia are likely to have travelled along their own main sea route from the mainland to the islands. Based on the differences between the western and the eastern distribution of Dong Son drums in Indonesia, I emphasised is that the drums found in eastern Indonesia do not appear to have travelled over land from their centres of production in north Vietnam, across the mainland, as the drums found in western Indonesia did. The trail of parallel drums from Vietnam, through Laos, Thailand, Cambodia, the Malay Peninsula, and then South Sumatra, Java, Borneo and west Nusa Tenggara indicates that the drums in western Indonesia reached their locations from the western part of the mainland. Their multi-phased overland and maritime journey occurred during a period spanning from the second century BC to the first-second century AD.

On the other hand, I argued that the drums found in eastern Indonesia reached the islands directly by sea from their centres of production on the mainland. The drums would have been carried on vessels leaving the coast of north Vietnam or southwest China, sometime between the late third-fourth to the fifth century AD, sailing in a southern direction along the coast of Vietnam, and reaching eastern Indonesia from either the Sulu and Sulawesi Sea off northeast Borneo, or from the Java Sea off southwest Borneo and south Sulawesi. While the exact details of the maritime route to the eastern islands are not known in light of present data, I suggested that the drums travelled along a more direct sea route starting from the mainland coasts of north Vietnam or southwest China, sailing along the coast of central and south Vietnam, and crossing the South China Sea in a south-eastern direction to the Sulu Sea, or alternatively in a south-western direction, entering the sea region between west Borneo and the Riau Islands. From either of these regions the drums would have then entered a series of inter-islands trade networks, controlled by local seafaring traders. These networks would have lead, over time, to the final destinations of the drums in eastern Indonesia. The initial mainland to island crossing would have been travelled as a one period event, sometime between the late third-fourth and the fifth century AD. Following this mainland to island crossing, the drums then entered a series of inter-island trade networks which eventually lead to their final destinations over a more extended period of time, through the second half of the first millennium AD and perhaps into the early second millennium.

Regarding the identity of the carriers of the drums, I also suggested that the two main steps of my proposed model for the journey of the drums could have involved different groups of traders. The first crossing would have been related to a demand for spices and other eastern Indonesian products on the mainland, which would have been carried by traders from the mainland. Then,

bronze drums would have been carried to their final destinations by island sea-faring traders controlling inter-island trade networks in eastern Indonesia.

As a final note, introducing the next chapter, all the available evidence indicates that we may safely place the production of all the Dong Son drums found in Indonesia on the mainland, in north Vietnam and its immediate environs. With regard to the question of local island bronze casting, Chapter 4 identifies the only distinctive type of bronze drums which is documented to have been cast in the islands.

CHAPTER 4

THE RISE OF A LOCAL ISLAND TRADITION: PEJENG BRONZE DRUMS IN BALI AND JAVA

4.1. Pejeng Type Bronze Drums in Bali and Java

In the early first millennium AD the import of Dong Son bronze drums and of bronze casting technology from the mainland to western Indonesia gave rise to a local bronze drum casting tradition in Bali and Java. Evidence for local bronze casting is given by the finds of stone printing moulds at Manuaba and Sembiran in Bali. These locally cast bronze drums are identified as the 'Pejeng type' after the village in Bali from where the first and largest specimen (**Figure 4.1**) was reported by the naturalist Rumphius (1705) in the late seventeenth century.

Although Pejeng bronze drums clearly share decorative, morphological, and casting features with the imported Dong Son bronze drums, they are distinguished by their typical 'hourglass-like' shape, as opposed to the 'mushroom-like' shape of the imported Dong Son drums (**Figure 4.2**). Moreover, the typical pictorial decoration of Pejeng drums shows face motifs on the upper mantle, and spiral motifs with knobs on the tympanum, which do not appear on Dong Son drums.

The finds of fragments of volcanic tuff stone printing moulds for the casting of Pejeng bronze drums by the villages of Manuaba and Sembiran, in Bali (**Figure 4.3**), provide evidence of local casting (Bernet Kempers 1988: 21, 409; Ardika n.d.), as discussed in section 4.2. The Sembiran mould was excavated by Ardika in 1989, and it was found in close association with Indian Rouletted Ware dated from 150 BC to AD 200 (Ardika n.d.; Ardika and Bellwood 1991; Ardika and Bellwood n.d.). This provides evidence for dating the mould and Pejeng bronze drums to the early first millennium AD.

The casting method for Pejeng drums was a local variation of the lost wax technique imported from the mainland. The main local casting innovation in the islands concerns the casting of separate sections of Pejeng drums, which were then joined together horizontally. Dong Son drums, on the other hand, were cast in one piece. Hence, also with regard to casting, while the link with Dong Son drums can be clearly traced, local innovations are also apparent.

To date, fifteen archaeological Pejeng drums are documented (**Map Figure 4.4**; Chart at the end of this chapter). They were all found, or reported to have been found, in Bali and Java. A few more specimens are found in private collections. It should be noted that there is some grey area between late Pejeng drums and early 'moko' bronze drums. The latter are discussed later in this chapter (4.9, a-b), as the historic and ethnographic 'aftermath' of Pejeng drums. *Moko* drums appear to have been always cast in east Java possibly from as early as the late first millennium AD up to the twentieth century. However, they were not meant for local use but for export to the Alor region of eastern Indonesia, where hundreds of mokos have long been used ceremonially and valued as sacred heirlooms (Du Bois 1944). Although the majority of the mokos, even the ones showing old Pejeng-like motifs, are dated to the historic period, it is possible that some late Pejeng drums reached eastern Indonesia. A recently reported drum kept as a heirloom on the island of Selaru in the Tanimbar archipelago, in south Maluku, could be an old Pejeng drum based on the pictures which Ririmasse kindly showed to me in Ambon, however, the question is awaiting on further examination (Ririmasse and Sudarmika 2006).

The largest Pejeng bronze drum is referred to as the 'Moon of Pejeng' (**Figure 4.1, 4.5**. H. 198 cm. D. 160 cm), after a Hindu-Balinese legend according to which the drum is a fallen wheel of the chariot carrying the moon through the night sky. This large bronze drum is still revered today, and is kept in a tall shrine in the temple *Penataran Sasih*, which means 'place of the moon', in the village of Pejeng, in Gianyar, in south-central Bali. It is laid to its side with the tympanum facing the viewer below.

According to Balinese royal edicts (*prasasti*) Pejeng was the seat of old Balinese royal lines at least by the ninth century AD (Hobart et al. 1996). The finds of Pejeng bronze drums, bronze axes, and several distinctive stone sarcophagi in the environs of Pejeng, and also on its northern axis into the region of Kintamani, and further north to the old port of Sembiran, on the north coast, suggest the presence of political centres in these regions of Bali, already during the early to mid first millennium AD, before the first Hindu-Buddhist influences reached Bali from east Java around the eighth century AD.

In Bali, only Pejeng bronze drums are found, both as chance finds and in burial context, and to date no Dong Son bronze drum has been found. In Java, on the other hand, both Dong Son and Pejeng bronze drums have been found, sometimes together. For example, excavations in 1981 at Lamongan, in east Java (Bintarti 1985), yielded a Pejeng drum placed upside down under a Dong

Son drum (**Figure 2.93**). The pair of drums assembled in this way formed a burial container with fragments of child bones, teeth, and other burial goods (Bintarti 1985), as discussed in section 4.3. Moreover, at Traji and Kendal, in central Java, Pejeng and Dong Son drums have been found close to each other as chance finds (Bintarti 1996: 130-131).

In summary, evidence of local bronze casting and the analysis of their morphological, decorative, and casting features indicate that the hourglass-shaped Pejeng bronze drums found in Bali and Java are representative of a local bronze casting tradition arising during the early first millennium AD from the influence of Dong Son drums imported to Java. Moreover, this local tradition highlights the early cultural sphere comprising east central Java and Bali in the early first millennium AD.

4.2. Evidence of Local Casting and Novel Technology

By the village of Manuaba in 1931, K.C. Crucq found three fragments of a printing mould of volcanic tuff carved with a face motif on a large horizontal band, framed above and below by smaller bands with geometric saw tooth motifs (**Figure 4.3**). This decoration was meant to appear, in positive relief, on the upper mantle of a Pejeng bronze drum. This find provided the first evidence for local bronze casting of Pejeng drums in Bali. The stone moulds are still kept and revered in a shrine in the local temple in Manuaba, where I examined them in 2003. Another mould fragment was found at Manuaba by Soejono in 1963 (Bernet Kempers 1988: 21, 409). Then in 1989, Ardika's excavations at Sembiran, on the north coast of Bali, yielded another fragment of a printing mould of volcanic tuff carved with two parallel bands of saw tooth motifs. The mould was used for stamping the geometric decoration of a Pejeng drum, which would have been similar in size to the drum found nearby at Pacung in 1978 (Ardika n.d.; Bernet Kempers 1988). The Sembiran mould was excavated at a depth of 3.4 metres, in close association with Indian Rouletted ware of Wheeler's Arikamedu type 10, dated from 150 BC to AD 200, and also with a slipped sherd with a graffito in Brahmi or Kharoshthi script, dated to AD 100-200 (Ardika and Bellwood 1991; Ardika n.d.; Bellwood 2004a). During the same excavation period, the nearby trench of Pacung I yielded another Rouletted Ware sherd at the same depth of 3.4 metres. This was the same location of the find of the Pacung drum in 1978. The evidence from Sembiran is thus crucial for the dating of Pejeng drums to the first centuries AD, and it also points to two main trade routes into Indonesia in the early first millennium AD. One route from Mainland Southeast Asia, highlighted by the import of Dong Son drums and bronze technology, and the other from India (Ardika and Bellwood

1991). Several Indian Rouletted Ware bowls were also found in association with burials at Buni, in west Java (Walker and Santoso 1980). McConnell and Glover (1990: 31), who conducted a technical analysis of the Pacung drum, from the collection of Professor Eilenberg, argue convincingly that the lack of piece-mould joins on the mantle of Pejeng drums suggests that the stone moulds found are 'printing moulds, into which wax was poured or pressed in order to produce a facsimile which was then encased in a clay investment' for lost wax casting.

The novel lost wax technology imported from the mainland was reinterpreted in Bali and Java. This led to an innovative casting technique for the casting of the local hourglass-shaped Pejeng drums. The hourglass shape could have been represented in other mediums before the introduction of bronze technology. The clearest evidence of local innovations in casting technique for large Pejeng drums is the fact that they do not show the pair of vertical casting seams present on Dong Son drums. Instead, they show horizontal seams or join marks around the mantle. Hence, the method adopted to cast Pejeng bronze drums was a modified version of the lost wax technique, which, in accordance with most scholars, is the method adopted for the casting of Dong Son drums (Barnard 1987, 1996; Bernet Kempers 1988: 185-196, 1991: 27; McConnell and Glover 1990: 7-10, 3; Higham 1996:130-131; Bennett 2005; Nguyen 2005). The lost wax method for Dong Son drums involved the making a clay core, in the shape of the mantle of the drum, which was then covered by layers of wax printed with the decoration. After inserting metal spacers in the wax, the clay core covered with wax was then enclosed in an outer clay investment. The investment was then heated to melt away the wax and pour in the molten metal. Once the metal solidified, the clay was broken out, the metal spacers extracted, and the holes left by them filled in. The local bronze casters of Pejeng drums in Bali and Java absorbed this foreign technique. However, they also modified the new technology to cast bronze drums with a locally significant shape and decorated with locally significant motifs. Not only the shape but also the motifs may have been represented in other media long before the introduction of bronze casting technology.

4.2a. Casting Method for Pejeng Drums

Large Pejeng drums do not show evidence of vertical casting seams. On the other hand, vertical seams always occur on the mantles of Dong Son drums, as discussed in Chapter 2 (section 2.3). When vertical seams appear on smaller Pejeng drums, they appear to be decorative features possibly mimicking the seams on Dong Son drums. The following discussion is based on my

detailed study of the large Manikliyu drum (**Figures 4.6-10, 4.12**. H. 120 cm, D. 77 cm), from a burial site in north Bali, discussed further below (section 4.3), and also on my observation of the 'Moon' of Pejeng (**Figures 4.1, 4.5**. H. 198cm, D. 160 cm), in the temple Penataran Sasih in Pejeng, in central Bali, and of the large Pejeng drum kept in the Asian Civilizations Museum, in Singapore (**Figure 4.2**-image above. H. 161 cm, D. 81 cm).

Based on my analysis of the large Manikliyu drum in Bali, the lost wax casting process for large Pejeng drums involved the casting of four separate bronze sections (**Figure 4.6**), which were then joined or sealed together horizontally to compose the drum. With regard to local innovations adopted by different bronze drums traditions influenced by Dong Son drums, it is worth noting that also what I identify as 'Dian' drums in Chapters 1 (RS2) and 2 (section 2.5b) show the separate casting of the tympanum and the mantle, which were then joined together.

The four sections (**Figure 4.6**) cast separately and then joined or sealed together horizontally consist of:

1. The tympanum and the upper portion of the bulging upper mantle. The latter is thicker than the lower portion of the upper mantle (**Figure 4.7**).
2. The remaining portion of the bulging upper mantle. At the point where it joins the mid mantle, the lower portion of the upper mantle turns inwards, providing a flat horizontal base for the upper rim of the mid mantle (**Figure 4.8**).
3. The cylindrical mid mantle.
4. The lower mantle. Its upper rim turns inward providing a base for the lower rim of the mid mantle.

The inner surface of the mantle fragments of the Manikliyu drum show evidence of the joining of these four sections (**Figure 4.7-9**). In particular, examining the cross sections where the cylindrical mid mantle joins the upper and the lower bulging sections (**Figures 4.8-9**), it appears that the mid mantle rests above and below on the flat portion of the upper and lower sections which turn inwards. These flat horizontal rims are thicker than the cylindrical mid mantle. The handles, which begin on the upper mantle and end on the mid mantle, appear to have been cast separately by the lost wax method and then to have been inserted into the mantle mechanically, after drawing

holes into it, and then to have been sealed from the inside. The inner surface of the mantle of the Manikliyu drum shows clear marks of where the handles were inserted and sealed to the mantle (**Figure 4.10**).

McConnell and Glover (1990: 1-38) conducted a detailed technical investigation of the Pacung drum from the collection of Professor Eilenberg, found in 1978 in Pacung in north Bali (Widia 1981). With regard to how the tympanum and the upper section of the upper mantle were joined with the lower section, they show that the rim of the upper section of the upper mantle had two flanges. Into these flanges was inserted the rim of the remaining upper mantle, which they call 'case', thus making the parts fit together (**Figure 4.11**).

The inner fragments of the Manikliyu drum show marks of the joining of the upper portion of the upper mantle with the remaining upper mantle. These would also have been fixed by sealing the parts together (**Figure 4.7**). The outer surface shows the joining point as marked by a thicker seam. McConnell and Glover propose that the casting method involved two separate lost-wax castings, one for the tympanum and the upper section of the upper mantle, and one for the rest of the body and the handles. The Pacung drum examined by McConnell and Glover is a mid size Pejeng drum (H. 86 cm, D. 53 cm) which involved the casting of only two bronze parts. However, I argue that the casting of large Pejeng drums involved four separate lost wax castings, as listed above. The four sections would have then been joined or sealed together. Before being sealed together, the lost wax casting process for the four sections of the drum would have involved the following steps:

For the tympanum and the upper portion of the mantle:

1. The making of a circular clay core with an outer rim for upper portion of the mantle and the tympanum.
2. The circular side of the clay core is covered by wax sheets, printed with positive lines after stone moulds possibly reproducing one half section of the mantle.
3. The top of the clay core is covered by a circular wax disk.
4. This circular wax disk had been first printed over a stone mould carved with the decoration of the tympanum.

5. Metal spacers are inserted into the wax on the upper portion of the mantle, and into the undecorated outer rim of the wax tympanum.
6. The clay and wax investment is then covered by an outer layer of clay, leaving holes for the wax to come out after heating, and for pouring molten metal.
7. The investment is heated and the wax melts and comes out from the holes.
8. Molten metal is poured into the same holes from where the wax came out.
9. When the metal cools off the inner and outer clay is removed.
10. The metal spacers are removed and the holes left are filled in by molten metal.

For the lower, mid, and lower part of the upper mantle:

1. The making of three clay cores.
2. The clay cores are covered with wax sheets printed with positive decorative motifs after stone printing moulds, possibly reproducing one half of the decorated circular mantle.
3. Metal spacers are inserted into each of the three clay and wax investments.
4. The three investments are each covered by an outer layer of clay, leaving holes for the wax to come out and for the molten metal to then be poured in.
5. For each of the three investments: the same as indicated in points 7, 8, 9, and 10 above.

4.3. Pejeng Bronze Drums in Archaeological Context

The finds of Pejeng drums in archaeological context in Bali and Java have yielded significant insight into questions regarding the burial function of the drums and the material associated with

them. In particular, the material excavated with Pejeng drums include a stone sarcophagus excavated next to the large Pejeng drum used as a inhumation container at the burial site of Manikliyu in Bali, and a Dong Son drum placed over an upturned Pejeng drum, forming a burial container, at Lamongan in east Java.

In 1997, excavations at Manikliyu, in Kintamani, in northeast Bali, yielded the above mentioned Manikliyu drum (**Figures 4.6-10**). It contained the full skeleton of an adult in fetal position and it was placed next to a rectangular stone sarcophagus (**Figure 4.12**. Kompiang Gede 1997-1998; Balai 1997-1998). Previous to the Manikliyu excavation, the association between bronze artefacts and the typical stone sarcophagi found only in Bali had already been shown by the finds of bronze bracelets, arm ornaments, spiral finger ornaments, double spiral necklaces, belts, ear rings, finger rings, plates, chains, shovels, and hoes inside sarcophagi (Ardika n.d.). However, the find of a large Pejeng drum in a burial site next to a stone sarcophagus at Manikliyu provides the first clear evidence that Pejeng drums and stone sarcophagi are contemporary.

It is worth noting that the sarcophagi are made of soft volcanic tuff as the stone printing moulds for Pejeng drums found at Manuaba and Sembiran (Ardika n.d.; Ardika and Bellwood 1991). Sembiran is located about 30 kilometres to the north of Manikliyu. The Sembiran moulds are dated to the late first-second century AD, based on their association with Indian Arikamedu pottery sherds. This dating provides evidence for dating Pejeng drums from the mid first-second century AD. By association, the stone sarcophagi in Bali can be dated to the same period. It is also worth noting that the stone sarcophagus at Manikliyu is of rectangular shape and is similar to the one found by the village of Manuaba, in central Bali, where the first printing moulds for Pejeng drums were found (Mahaviranata 1997-1998).

Soejono (1977) listed ± 87 examples of stone sarcophagi found in forty-six locations in Bali. To date the count exceeds one hundred. Although they show different shapes and decoration, they are all composed of two parallel half sections. The majority of them were found in the districts of Gianyar and Bangli, in east-central Bali, and in the region of the Batur volcano in Kintamani district, in north-east Bali, where Manikliyu is located. With a view to further links, some of the stone sarcophagi in Bali, such as the one from Taman Bali (**Figure 4.13**), in Bangli, show pairs of protruding human heads, with bulging eyes and elongated ears with earrings, which may perhaps be related to the face motifs on Pejeng drums.

Also in 1997, the smallest Pejeng drum known (H. 27 cm, D. 16 cm), which is not in the category of miniature drums, was found during the excavations of the site of Uluran, in Buleleng,

north Bali. Nearby two sarcophagi were also unearthed (Kompiang Gede 1997-1998: 17-47, 2002: 46). The drum is now kept in the Museum Kertyasa in Singaraja, north Bali.

Based on the above, the association of Pejeng drums with the typical stone sarcophagi found only in Bali, and also with bronze axes found inside the sarcophagi (Heekeren 1992; Soejono 1997), provides further evidence for dating Pejeng drums from the early to mid first millennium AD.

In 1981, excavations in the village of Kradenanrejo, in the district of Lamongan, in east Java, yielded a Pejeng drum (D. 52 cm) placed up side down under a Dong Son drum of type B. Assembled in this way the two drums formed a double drum burial container (**Figure 2.93**). It contained fragments of child bones and teeth, gold ornaments, gold and carnelian beads, bronze and iron fragments, pottery sherds, stone and wood fragments, and animal bones (Bintarti 1985, 1996: 66-67, 90-94; Prasetyo and Yuniawati 2004-2005: 143-149). The Lamongan drums are kept in the Museum Tantular in Surabaya, east Java. At the time of my visit, however, the fragmentary Pejeng drum was not found, and I could only examine the Dong Son one.

Also in Java, in 1984, a fragmentary Pejeng drum (D. 50 cm) was found at Gowok, in Kendal, in central Java, together with five other fragmentary Dong Son drums (Bintarti 1996: 97, 131). Although no human remains were found, according to Bintarti (pers. com. April 2005), this location may have been a burial site. The drums are kept in the Provincial Museum of Central Java in Semarang. In 1994, at Traji, in Temanggung, also in central Java, another fragmentary Pejeng drum (H. 48 cm) was found near a pair of superimposed Dong Son drums. Inside the drums and around them were found iron tools, gold ornaments, and pottery sherds, which appear to be burial goods, however no human remains were found (Bintarti 1996: 63-64).

In 1989, a fragmentary Pejeng drum (H. 53 cm, D. 35 cm) was excavated at Lumajiang, in east Java. This drum was eventually acquired by a collector in London. De Silva (1992) describes a Pejeng drum from Lumajiang (H. 53, D. 35cm). Glover and Syme (1993: 61, fig. 24) show a drawing of the same Pejeng drum from Lumajiang. The large Pejeng drum exhibited in the Asian Civilizations Museum (**Figure 4.2**), in Singapore, appears to also have been found in the Lumajiang area. I was informed by the museum curator that the drum had been acquired from a dealer in London, who had restored it, and had provided the museum with photographs of the initial fragmentary condition. The drum was said to have been found near Lumajiang. The drum in the museum in Singapore could perhaps be a second larger Pejeng drum from the same Lumajiang location where the drum described by De Silva was found. This Pejeng drum in Singapore (H. 161 cm, D. 81 cm) is the second largest Pejeng drum known after the Moon of Pejeng.

The other Pejeng drums known were chance finds. In Bali, they include the above mentioned 'Moon of Pejeng' (H. 198 cm, D. 160 cm. **Figure 4.1, 4.5**), found at Pejeng, in Gianyar, and kept *in situ* in the local temple Penataran Sasih; the Pondok drum (D. 40.8 cm) found in Badung in 1941, and kept in the Museum Nasional Indonesia (code 1459); the tympanum found at Bebitra in Gianyar in 1962 (D. 65.2 cm. **Figure 4.14**), and kept in the Institute of Archaeology in Jakarta; the Besangbe drum (H. 48.5 cm, rem. D. 28 cm. **Figure 4.15**) found in Tabanan in 1971, and kept *in situ*, in the local temple; the Pacung drum (H. 86 cm, D. 53 cm) found in 1978 in Buleleng (Widia 1981), and kept in the Eilenberg collection; and the Panek drum (H. 45 cm, D. 22 cm) found in Karangasem in 1986, which has been sold (Kompiang Gede 2002; McConnell and Glover 1990).

In Java, the chance finds include the tympanum found in 1911 at Tanurejo (D. 51.5 cm), in Temanggung, in central Java, and kept in the Museum Nasional Indonesia (MNI code 1785), and the tympanum kept in the Museum of Ethnology in Leiden (D. 58.5 cm), which was found in 1883 in an unspecified location in Java.

4.4. Comparison between Pejeng and Dong Son Bronze Drums

A series of morphological and decorative features show that the Pejeng bronze drum tradition arises from the influence of Dong Son bronze drums imported from the mainland. At the same time, as discussed in the previous sections 4.2 and 4.2a, it is also evident that local bronze casters modified the imported lost wax technique and produced locally significant bronze drums showing distinctive shape and decoration.

The shared morphological features between Pejeng and Dong Son drums include the tripartite mantle, which is composed of an upper and a lower section connected by a cylindrical mid section; the tympanum extending over the upper section of the mantle; and two pairs of perforated handles connecting the upper and the mid sections. With regard to decoration, the shared features include the protruding central star or sun motif on the tympanum; the layout of the decoration on concentric bands surrounding the central star or sun motif; sometimes the geometric saw-tooth and comb motifs of the geometric decorative bands.

Apart from the main difference between the hourglass shape of Pejeng drums and the mushroom shape of Dong Son drums, it is also with regard to their main pictorial decoration that Pejeng and Dong Son drums differ significantly. All the typical 'feathered' motifs, which characterise the decoration of Dong Son drums, such as the boat, feathered men, house, and bird

motifs, are absent on Pejeng drums. Moreover, Pejeng drums never show the three-dimensional toad motifs on the tympanum, as they appear on some Dong Son drums. Instead, Pejeng drums show distinctive pairs of face motifs on the lower part of the upper mantle (**Figure 4.16. 4.17**). These face motifs, depicted in various degrees of stylisation, show long ears with earrings, bulging eyes, and open mouth. On the tympanum, the main concentric decorative band shows an intricate pattern of interlocked dotted spirals with knobs. On the larger Pejeng drums, these curling spiral motifs sprout out of octopus-head-like stylised shapes (**Figure 4.18**). This type of decoration is unique to Pejeng drums, and is thus characteristic of this island tradition.

Similar face motifs, in association with dotted spiral motifs, also appear on large distinctively shaped bronze axes found in eastern Indonesia. These large decorated axes include the Makassar socketed axe (**Figure 4.19**), two axes from the island of Roti (**Figures 4.20, 4.21**. MNI codes 1441, 1442), and two axes or sceptres from the island of Sawu (**Figure 4.22**), in East Nusa Tenggara (Bintarti 1981). This decorative similarity suggests some links between Pejeng drums and these axes. This link may reflect an autochthonous island repertoire of meaningful motifs. According to my analysis, these large decorated bronze axes also represent local bronze casting traditions.

4.5. Island Bronze Drums and Bronze Axes

The Pejeng bronze drums from Bali and Java and certain large decorated bronze axes found in eastern Indonesia are representative of local island bronze casting traditions (Calo' 2007). Evidence of local bronze casting in Island Southeast Asia, as McConnell and Glover (1990: 7) and Ardika (n.d.) point out, is given by the the finds of terracotta moulds in west Java and in Sumatra (Rothpletz 1951: 78 and Pls. X-xi; Sutayasa 1979: 68), in Leang Buidane, in the Talaud Islands, north of Sulawesi (Bellwood 1976: 412-20), in Pusu Lamut cave, in Sabah (Harrisson 1971: 210; Bellwood 1988), and in the Tabon Cave, in the Philippines (Fox 1970). McConnell and Glover (1990: 7) note that bronze axes in Indonesia represent 'distinct stylistic regional traditions' pointing to local bronze casting, perhaps as early as the late first millennium BC and well into the first millennium AD.

The introduction of metal technology from the mainland to the islands in the centuries around the turn of the first millennium (BC - AD) immediately antedates and overlaps with the earliest Indian contact by trade (Ardika and Bellwood 1991, Ardika n.d.). It also marks the beginning of a new era in Island Southeast Asia, when novel social, religious, and technological ideas are

introduced in the western part of Indonesia (Spriggs 2000: 69-70). This later leads to the formation of what are identified as the 'Hinduised' kingdoms (Coedès 1968), characterized by syncretic systems of beliefs. Thus, as Spriggs points out, the links between Island Southeast Asia and the Western Pacific, which before this period can be clearly traced back for millennia, become less obvious following the introduction of metal technology. The earlier Austronesian legacy with the Western Pacific is somewhat disrupted in the historical period by new layers of foreign influences in Indonesia, such as from the Southeast Asian mainland and from India. It may follow that the motifs appearing on early metal artefacts cast in the islands, especially the ones from eastern Indonesia, would still retain the symbolism of the Austronesian heritage of Island Southeast Asia. Indeed, these artefacts could well represent the cultural context that immediately antedates or overlaps with the first Indian influence in the region.

The distinctive pictorial motifs depicted on Pejeng bronze drums and on the large bronze axes examined here are more likely to be related to a local heritage of symbolic forms rather than to the typical decoration of the Dong Son bronzes from north Vietnam. Indeed, the face and dotted spiral motifs cast on some of the island bronze axes, especially on the two axes found in Landu, on the island of Roti (**Figures 4.20, 21**), now in the Museum Nasional Indonesia, show closer links to the face motifs appearing on the stamped Lapita pottery (**Figure 4.22**) from the Santa Cruz Islands in Melanesia (c. 1300-700 BC), than to any of the motifs in the Dong Son repertoire from the mainland (Newton 1988). An ancestral link between the populations of eastern Indonesia and Melanesia is supported by linguistic and archaeological data (Blust 1995: 458; Bellwood 1997: 234-36; Spriggs 2000: 62-68; Heekeren 1958: 11). Symbolic motifs may have been transmitted and represented in various media over time, with seeming gaps in material culture data that may be due to the use of perishable materials. Nonetheless, significant motifs may reappear on bronze artefacts as vestiges of earlier cultural legacies, which are integrated into successive cultural layers.

The bronze axes which I discuss here are representative of local bronze casting traditions in Indonesia. These axes, which I examined in their museum locations, include the socketed Makassar axe (**Figure 4.19**) kept in the Museum Nasional Indonesia (MNI code 1839); the two axes found in 1875 in Landu, on the island of Roti, in East Nusa Tenggara (Heekeren 1958), also kept in the Museum Nasional Indonesia (**Figure 4.20**, MNI codes 1441, 1442); and the largest ceremonial axe found in Indonesia (**Figure 4.23**), measuring 150 cm in height, found in Kabila, on the small island of Sawu, west of Roti (Bintarti 1996). I examined this Sawu axe in the Museum Tantular in Surabaya. It should be noted that the Makassar axe was so-named because it was acquired at an

auction in the city of Makassar in Sulawesi (Heekeren 1958: 10). However, it could well have originated from Bali, Java, or Nusa Tenggara, given that various smaller axes of the same shape have been found there. According to Soejono's classification (1972) of bronze axes in Indonesia, the Makassar axe is the largest and most elaborate specimen of his Type I axes, while the elaborate unique shape of the axes from Roti, with elongated curved handles and round blades, sets them in a class of their own as Type VIII. The Sawu axe is not included in Soejono's classification because, given its elongated shape, it may also be interpreted as a sceptre. It is included, however, as Type 17 in the 1993 classification of Southeast Asian bronze axes by Glover and Syme (1993). All the typical shapes of these axes are not found on the mainland. Hence, based on shape alone, these axes do not appear to have been imported.

4.5a. Faces, Spirals, and Marine Life Motifs

According to my analysis, face motifs, in conjunction with spiral decorative bands, as they appear on Pejeng drums (**Figures 4.16, 4.17**) and also on the Makassar axe (**Figure 4.34**. MNI code 1839), or in conjunction with marine life motifs, such as on the Roti axe (**Figure 4.21**. MNI code 1442), are representative of the artistic vocabulary of local island bronze casting traditions. On the other hand, the typical Dong Son decoration of bronze drums, situlas, axes, and plaques, originating in north Vietnam and its environs, is characterized by the presence of bird and feather motifs as the adornment of both people and objects.

Face motifs, sometimes showing dotted highbrows, triangular motifs or curved bands in relief on the cheeks, and elongated earlobes with earrings, appear in comparable form on the Makassar axe (**Figure 4.24**), the Sawu axe (**Figure 4.23**), and on the upper mantle of large Pejeng drums such as the 'Moon of Pejeng', the Manikliyu drum, and the Pejeng drum in the Asian Civilizations Museum in Singapore (**Figures 4.16-17**). On the Sawu axe, the face motif (**Figure 4.23**) is characterized by dotted highbrows, cheeks crossed by curved bands, an open mouth with sharp teeth, and earrings. It is crowned by a net of intersecting bands with concentric circles at the joining points. Moreover, each of the two Roti axes (MNI codes 1441-1442) shows a displayed human figure with feather-headdress on one side of the blade (**Figures 4.20-21**), which, as mentioned above, may be compared to the human figures stamped on the Lapita pottery from Melanesia (**Fig. 4.22**).

Both the bronze axes and the Pejeng drums mentioned above show spiral decorative bands in conjunction with the face motifs. The face motif on the Makassar axe is framed by two decorative bands, a spiral band below and a wavy band above (**Figure 4.24**). On the Sawu axe, two symmetrical dotted spiral bands extend over the length of the axe, below the face motif (**Fig. 4.23**). These dotted spiral bands may be compared to the dotted spiral and concentric circle motifs appearing on the main decorative band of the tympani of large Pejeng drums (**Figures 4.1, 4.14, 4.18, 4.25**). Dotted and curvilinear decorative bands are also typical of the stamped Lapita pottery. One of the Roti axes (**Figure 4.26**, MNI code 1441), likewise, shows a concentric dotted spiral band around a star-like flower motif, on the circular section that connects the axe blade to the handle.

Along with the face and spiral motifs, the decoration of these bronze artefacts also show a series of marine life elements. For example, the other Roti axe (MNI code 1442) shows, on the reverse side of where the human figure appears, two opposed fish motifs with large mouths and bared teeth (**Figure 4.27**). Such a composition bears some resemblance to the reconstructed tympanum of the Pacung drum (Widia 1981), examined by McConnell and Glover (1990: 17), from the collection of Samuel Eilenberg. The tympanum decoration of the Pacung drum has been reconstructed from fourteen fragments (**Figure 4.28**). However, the many missing fragments do not allow a full view. The drawing of the reconstructed tympanum, by E. Currie, shows two opposed half-moon shapes, each crossed by a curved line of opposed tangents, and two eye-like concentric knobs, on the main pictorial band around the central star motif. This tympanum decoration is unique among Pejeng bronze drums. On the Makassar axe (MNI code 1839), a protruding motif resembling a fish bone is also cast on the reverse side of where the face motif appears (**Figure 4.29**). With a view to further links, as mentioned above, the irregular spiral motifs on the tympani of large Pejeng drums, such as the Manikliyu, Bebitra, Leiden, and the drum in the Asian Civilizations Museum, in Singapore, often spread out of four open octopus-head-like motifs (**Figure 4.18**).

4.6. A Reassessment of the Term 'Dong Son'

The identification of local island bronze casting traditions leads to a reassessment of the Dong Son appellation. The latter has been applied broadly, in particular as a trade term, to identify most prehistoric bronze artefacts found both in Mainland and Island Southeast Asia. The dating of such a large body of material has been matched with the dates of the Dong Son culture (500 BC – AD

100). In Island Southeast Asia, the term has been used incorrectly to identify all the bronze material predating the first Indian influences in the region. In the same way, the term Majapahit has been used incorrectly to identify all the bronzes which show Indian influence. However, as the above examples of Pejeng drums and bronze axes illustrate, there is evidence of local island bronze casting traditions distinct from Dong Son, and the dating of the axes in particular is still problematic. It is worth noting that local island traditions in eastern Indonesia may not have been directly affected by Hindu-Buddhist influences because of their remoteness and strong local customs. For example, the decorated bronze axes found in eastern Indonesia may be representative of early traditions maintained well into the mid and late first millennium AD, at the same time when, in western Indonesia, Hindu-Buddhist influences were incorporated into the pre-existing cultural matrix.

As discussed in Chapter 2, Dong Son is the name of the type-site of the thus named archaeological culture which flourished in the Red, Ca, and Ma River Valleys of north Vietnam from the fifth-fourth century BC until its gradual disappearance after the region was incorporated into the Han empire as the commandery of Giao-chi in 111 BC. The term Dong Son thus implies a direct link to the mainland, and to north Vietnam in particular. Because of this mainland association, if the term is applied broadly to all the prehistoric bronze artefacts found throughout Mainland and Island Southeast Asia, it overshadows distinctive local traditions. The finds of prehistoric bronze artefacts in Southeast Asia show the presence of distinct traditions which would have been contemporary with Dong Son. As discussed further below, an example of such independent traditions is offered by the large decorated bronze flasks found scattered between the mainland and the islands, possibly following the same exchange routes travelled by Dong Son bronze drums. In the islands, the chief example of a distinct tradition, this time arising from the influence of Dong Son drums and bronze casting technology imported from the mainland, is the Pejeng bronze drum tradition. Moreover, the finds of the above mentioned large decorated bronze axes in eastern Indonesia show the presence of early local traditions possibly continuing well into the first millennium AD, especially in the eastern part of Indonesia, which was not subject to Hindu-Buddhist influence as early as the western part.

Hence, a reassessment of the Dong Son appellation entails that the term should appropriately identify only the bronze drums, situlas, axes, spears, plaques, bells and tools clearly originating from the Dong Son cultural region of north Vietnam and its immediate environs. Obviously, the fact that Dong Son – Heger I bronze drums have been found throughout all of Mainland and Island

Southeast Asia does not mean that all the prehistoric bronze material found throughout Southeast Asia may be identified as Dong Son bronzes.

An intriguing example of a bronze casting tradition which is likely to have been contemporary with Dong Son, yet distinct from it, is offered by the large decorated bronze flasks, found, all by chance, both on the mainland and in the islands. Glover (2004, 1992) discusses nine specimens belonging to this bronze flask casting tradition. They include one flask from Kendal in Cambodia, one from Udon Thani in Thailand, one from Kerinci and one from Lampung, both in south Sumatra, and one from the island of Madura (**Fig. 2.88**, H. 85 cm), off the northeast coast of Java, plus three more specimens in private collections. To date, four more specimens in private collections are known (Glover pers. com. June 2007). Their distinctive shape and decoration set them apart from the Dong Son repertoire. The distribution of the flasks indicates that they followed some of the same routes of transmission as Dong Son bronze drums. So, as bronze drums, these bronze flasks also would have been exchanged as prestige goods establishing alliances between centres. However, the absence of evidence for their main centres of production leaves many open questions.

Another example of a bronze casting tradition which appears to be contemporary with Dong Son, yet distinct from it, is represented by the finds of distinctive large decorated bronze bells in the Malay Peninsula and in Cambodia, as discussed in Chapter 2 (section 2.9). In the Malay Peninsula, three bells were found in Selangor (**Figure 2.83**), by the Klang River delta, and one in Johor. In Cambodia, one bell was found at Battambang (Parmentier 1932: 177-178, pl. XI; Linehan 1951: 8-11; Loewenstein 1956: 36-43; Peacock 1979: 199-202, 206; Haji Taha 1983: 61, pl. 11; Jacq-Hergoualc'h 2002: 77-79). More recently a hoard of this type of bells was found in Cambodia, but it entered the market directly and the data from the context of the find is sadly lost. Dong Son bronze drums of type B were also found near the bell finds. One drum was found in the area of the Klang River, and another in the area of Battambang. Loewenstein points to the similarity between these large bells and a smaller decorated bell (**Figure 2.83**) excavated by Janse at the Dong Son site (Janse 1947-1951(1): 24, fig. 4). While the shape of the Dong Son bell can be compared with the large bells, the latter are larger, more elongated, and they show a different decoration of spiral patterns. Thus, the analysis of these bells, together with their association with the bronze drum finds, indicate that they may be the product of local workshops, perhaps located in Cambodia or the Malay Peninsula. The bronze casters of these bells are likely to have come in contact with traded Dong Son material, yet they produced distinctive bronze objects which should not be identified as Dong Son.

With regard to Island Southeast Asia, the need for a reassessment of the Dong Son appellation is even more apparent than with regard to the mainland. The presence of Pejeng bronze drums and of large ceremonial axes, which show distinctive local shape and decoration absent on the mainland, indicates that they represent local island bronze casting traditions, displaying locally significant forms and motifs. The latter could have been transmitted in non metal perishable mediums long before the introduction of bronze casting technology, and possibly they could be traceable back to the Austronesian heritage of the peoples of Island Southeast Asia.

4.7. Locations of Pejeng Drums and Later Seats of Power in Bali

In Bali, the largest and most elaborately decorated Pejeng bronze drums, such as the Moon of Pejeng from Gianyar, in southeast Bali, and the Manikliyu drum from Kintamani, in northeast Bali, are found in locations which became centres associated with Balinese royal power, at least from the eight century AD, before Bali was conquered by the east Javanese Singosari king Kertanegara in AD 1284. As it is discussed by Hobart et al. (1996: 23), in 1924, small clay stupas with seals and clay tablets of the Tantric tradition of Mahayana Buddhism, dated to the eight century, were found in Pejeng. These finds are evidence, along with other Buddhist artefacts in Gianyar, such as stone statues and reliefs, that Tantric Buddhism was present in Bali in the eight century AD (Astawa 2005). This type of Buddhism would have existed under the patronage of an established royal house.

Moreover, the area where the villages of Pejeng and Bedulu are located (**Map Figure 4.30**), in the valley of the Pakerisan River, in southeast Bali, was the seat of royal power in the tenth-eleventh century, and the Pura Penataran Sasih, where the 'Moon' drum is kept, was the state temple of the royal dynasty (Hobart et al. 1996: 24-33). Here reigned the Balinese prince Udayana and the east Javanese princess Gunapriya Dharmapatni, also known by her maiden name, Mahendradatta. She is associated traditionally with the introduction of Tantric rites and sorcery in Bali. After AD 989, royal decrees were written in Old Javanese rather than in Old Balinese (ibid. 1996). In Kintamani, sculptures of the royal couple, dated to AD 1011, appear in the Pura Tegeh Koripan, in Sukawana village, on Mount Panulisan, part of the volcano Batur range, in Kintamani. This temple, and the whole region of Mount Batur, located on a direct axis north Pejeng, following the upper course of the Pakerisan River in Tampaksiring, was an important centre of monastic settlements of both Buddhist and Siwaist priests connected to the royal house. Interestingly,

ethnographic data show that the ironsmiths clan of Pejeng traced their ancestral origins to the temple on Mount Penulisan (Guermontprez 1987: vol. 142).

The burial site of Manikliyu, in Kintamani - the only site known where a large Pejeng drum was used for the inhumation of a full skeleton of an adult, and was buried next to a rectangular stone sarcophagus - is located about 15 km south of Mount Penulisan. At about the same distance north of Mount Panulisan, is Sembiran, which was a maritime commercial centre at least as early as the first century AD. As discussed above, Ardika's excavations at Sembiran, in 1998, yielded Indian Rouletted Ware dated to the first-second century AD, which is evidence of the earliest Indian contact in Bali. As discussed in section 4.2, the Indian ware was found in close association with the fragments of the stone printing moulds for the casting of a Pejeng drum, similar in size to the Pejeng drum found, in 1978, in nearby Pacung (Ardika and Bellwood 1991; Ardika n.d.). This evidence supports the dating of Pejeng drums to the early first millennium AD.

4.8. A Tale of Rice – Ethnographic and Archaeological Parallels for the Shape and Decoration of Pejeng Drums

This section follows a more interpretative line of inquiry than the previous ones. By engaging with the shape and decoration of Pejeng drums, I draw a series of possible parallels between these and the ethnographic and archaeological data which I collected in Bali and Java from late 2005 to 2007.

I propose that the distinctive hour-glass shape of Pejeng bronze drums and their distinctive decoration, in particular the face motifs on the upper mantle, could be indicators of the association of Pejeng drums with early rice and fertility cults. My analysis explores how the shape of Pejeng drums may be compared to traditional rice steamers (**Figure 4.31**), which today are often replaced by electric ones, but which are always used for ceremonial occasions both in Bali and Java. Moreover, the shape of Pejeng drums is compared to the representations of Dewi Sri, the goddess or female spirit of rice (**Figure 4.32**). This female generating spirit arises from the ancient animistic substratum of Southeast Asia. Agricultural rites devoted to her are enacted today by Hindu, Muslim, and Christians alike, both in Bali and Java, and also throughout the Malay world. Based on these associations, linking archaeological and ethnographic data, I propose that Pejeng drums are likely to have been involved in agricultural rites for propitiating rice cultivation and processing. The burial context of some of the drums would be explained by their role in both life sustaining and funerary rites, within a belief system in which life and death would have been intended as a cyclic continuum.

The first ethnographic parallel may be drawn by comparing the shape of Pejeng drums with the shape of the traditional brass rice steamers, used both in Bali and Java. These rice steamers are composed of three parts. Interestingly, these three parts, when assembled together, come to form a shape which is reminiscent of the one of Pejeng drums (**Figure 4.31**). The traditional steamers are still used today in village households for everyday meals and in particular when cooking rice for ceremonies. In Bali today, while new electric steamers often replace the traditional ones for everyday cooking, the traditional steamers are always used to cook rice for the various Hindu-Balinese ceremonies.

The first and main component of three-piece steamer (**Figure 4.33**) is a brass pot (*daeng daeng*), in which the water is brought to a boil. The second component of the steamer is a wide straw cone (*kokusan*), which is meant to contain the rice to be steamed. For steaming rice (*beras* if uncooked; *nasi* when cooked), the wide straw cone is inserted over the rim of the brass cooking pot. Once inserted in the pot, the wide circular rim of the straw cone protrudes out of the pot a few centimetres. The third component is a brass cover (*kekep*), which is laid over the protruding rim of the straw cone. Placing the *kekep* cover directly over the *daeng daeng* pot shows a familiar shape (**Figure 4.34**).

The main *daeng daeng* brass pot, has a bipartite body (**Figure 4.33**), in the shape of two slightly bulging truncate cones intersecting. In height, the upper section is about one third of the lower one. The upper and the lower sections are connected by three handles, starting from the upper rim of the pot and ending on the upper part of the lower section. When the *kekep* brass cover is placed over the *kokusan* straw cone, however, it increases the height of the upper section, which then matches the height of the lower section, forming an hourglass-like shape roughly comparable to the one of Pejeng drums, without the cylindrical mid section.

Attempting a detailed comparison between the shape of Pejeng drums and the one of the three-piece traditional rice steamers, the flat top of the brass cover would parallel the tympanum of the drum. It is interesting to note that the tympanum of Pejeng drums was cast together with the upper part of the upper mantle, and then joined to the lower upper mantle. The large Manikliyu drum, from north Bali (section 4.2a) shows a horizontal seam, which appears to be a sealing mark, connecting the tympanum and the upper part of the upper mantle, with the lower part of the upper mantle (**Figure 4.7**). Thus, following our morphological comparison, the tympanum and the upper part of the upper mantle would equal the *kekep* brass cover. The horizontal seams on the Pejeng drum would equal the rim of the steamer's cover, when placed over the protruding *kokusan* straw

cone. Just below the protruding part of the *kokusan* straw cone, the two handles of the *daeng daeng* pot flare out of the upper rim of the pot, turning down to the lower section. The two pairs of handles of Pejeng drums start on the lower upper mantle and turn on to the mid mantle.

Interestingly, the shape of traditional three-piece rice steamer parallels quite closely the shape of the only stone sculpture which has been interpreted as representing a Pejeng drum (**Figure 4.35**). This stone sculpture is in the Pura Puseh Kangin, in Karang Sari, Badung, in central Bali. The temple is thought to have been built over a pre-Hindu ceremonial site, as indicated by a series of tall plain stones standing in lines throughout the temple grounds. The only reference that I found also pointing to the parallel between the *daeng daeng* brass pot and the sculpture in Karang Sari is an article by Swastika (1999: 12-23). Swastika also notes that the stone sculpture does not represent a Pejeng drum proper, but resembles more what he calls a 'Dandang type' drum.

The bipartite shape of the stone sculpture at Karang Sari resembles a Pejeng drum, but without the mid section, as in the case of the rice steamers described above. As part of the stone sculpture of a seated Hindu deity, the Pejeng drum shape functions as the pedestal on which the deity is seated. The remaining part of the seated figure shows the crossed legs, the lower torso, and one resting hand. On its back part of its garment is visible. The sculpture is placed in a row together with other Hindu sculptures, thought to be the remains of an old Majapahit palace temple, on which the present temple is built. The Pejeng shape stone pedestal, measuring 36 cm in height and 29 cm in tympanum diameter, rests on a square stone block. As mentioned above, the Karang Sari stone pedestal is bipartite in shape. It does not have a mid section as Pejeng drums do. The upper section of the stone pedestal is slightly shorter than the lower one, as on the *daeng daeng* pot described above. Moreover, the upper section shows what resembles the open end of a *kukusan* cone coming out of a *daeng daeng* pot, covered by a flat disk. No decoration appears on the surface of the stone pedestal. Hence, this stone pedestal resemble quite closely the shape of the three piece traditional rice steamers described above, the only difference being that the sculpture shows four solid handles while the steamer only has two handles.

In Bali and Java alike, since ancient times and up to present, offerings to the goddess of rice are made at time of harvest by Hindus and Muslims alike, and the land cannot be cleared and cultivated before having conducted the appropriate rites to the real 'owner of the land'. Moreover, the goddess of rice *Dewi Sri*, as it is understood in the Hindu-Balinese context, is not directly drawn from the Hindu pantheon, but is the manifestation of the pre-Hindu animistic belief in the female spirit of rice. It has been considered as a life nourishing female spirit long before it became a Hindu *dewi*

(goddess). The ancient indigenous belief system is the matrix over which successive cultural layers have been laid, integrating the core beliefs and practices into the new systems. The belief that the land, and everything in nature, embodies a spirit, and that humans must keep a balanced relation of reciprocity with the natural elements, of which they are part, chiefly applies to cults associated with the main means of sustenance and prosperity, such as rice in Southeast Asia. Within the same conceptual framework, objects made of metal, such as bronze drums, involve the transformation of raw natural material by fire, and are perceived as being spiritually charged and potent in virtue of their possessing a life force referred to as *semangat* throughout the Malay world, and as *mana* in the Polynesian world (Linehan 1951: 18-20; Skeat 1900: 143, 273-4, 398, 429).

Based on the above, I also propose that the ethnographic representations of the goddess of rice, or the female spirit of wet rice cultivation, *Dewi Sri*, provide a further link between the shape of Pejeng drums and the rites associated with rice cultivation and processing. *Dewi Sri* is worshipped both in Bali and Java, by Hindu-Balinese, Muslims, and Christians alike, during agricultural rites, when the first seed is sown and at harvest times. She represents the life generating and sustaining spirit of fertility and prosperity. In Bali, *Dewi Sri* is represented in various degrees of stylisation as two connected opposite triangles, with a triangular face depicted on the lower section of the upper triangle, close to the connecting point between the two triangles. This shape is represented by straw figurines (*cili*. **Figure 4.32**), and by various propitiatory offerings cut out of banana leaves (*sampian*. **Figure 4.36**). It is interesting to note that also the face motifs on Pejeng drums appear on the lower part of the upper section of the drum, close to the mid section, which connects the two symmetric upper and lower sections. Moreover, the typical face motifs on Pejeng drums are also triangular, in various degrees of stylisation (**Figure 4.17**).

Today throughout Bali, representations of *Dewi Sri* are made of straw, banana leaves, bamboo, paper, or other natural fibres, and they are hung, as propitiatory offerings, on house and temple shrines, and also, on designated days, on motorbikes and cars. Moreover, each house shrine shows a fabric banner showing *Dewi Sri* in naturalistic female form or in the stylised form of opposite triangles with face motif. During the cyclic calendrical festival of *Galungan*, celebrated every six months, tall bamboo poles line the streets of each village. The tall poles bend over the streets on both sides of the road, forming flowing arches. Figurines made of cut out banana leaves called *sampian*, measuring about 40 cm in height, are hung at the ends of the poles (**Figure 4.36**). The tripartite shape of these *sampians* shows the triangular upper form of the *Dewi Sri* representations, a waist, and a lower section of leaves flaring outwards. Bunches of unhusked rice (*beras*) are also hung on the poles below the *sampians* during the *Galungan* period. The rites involve propitiatory

offerings made to all the gods, among which the goddess of rice Dewi Sri holds a much revered place. Although the Hindu-Balinese meaning of the *galungan* celebrations is explained as the victory of Dharma over A-Dharma, thus of good over evil, this meaning appears to have been laid over a previous celebration of life and prosperity, centering on rice as the means of subsistence and renewal of life.

Moreover, in Bali, larger offerings assemblages made of banana leaves and fruits, called *pajegang*, also show a tripartite shape (**Figure 4.36**). Carried by women, who balance them on their head in ceremonial processions, *pajengangs* measure up to 1m in height and are made for most major celebrations, not only *Galungan*. Their tripartite shape, also shows a triangular upper section made of banana leaves, often showing the face motif, a mid section made of piled up fruits, and a lower section of hanging leaves flaring outwards. When I asked Balinese celebrants about the connection between the *sampian* and *pajegang* and the representations of Dewi Sri, I was told that of course they are connected, yet they are different. This type of familiar reply which one often receives in Indonesia, appearing humorous and puzzling at times, points in this case to the essential underlying meaning of a core belief and to the multiple possibilities of its representation. The concept of the spirit of rice is integrated with Hindu-Balinese teachings, yet the essential principle of rice as life giving remains the original driving force of the celebration. Moreover, while the association with *Dewi Sri*, as the goddess or spirit of rice, is acknowledged, it is further emphasised that such representations, in particular the upper triangular shape discussed above, is meant to signify and rever not only *Dewi Sri* but all the *Dewis*, all the goddesses. This stands to signify that it is the feminine principle of life giving which is revered in association with rice produced by the earth as life maintaining nourishment. Accordingly, it may be noted that throughout the Austronesian world, societies were traditionally matrilineal, and women were held in high respect within the traditional belief systems (*adat*). It may be said that, in Southeast Asia, even through the various successive layers of Hindu, Muslim, and also Christian traditions, the socio-cultural position of women remains comparatively higher than in the regions from where such successive traditions originate.

The phases of the moon are associated with the agricultural cycles and this is likely to have occurred much earlier than the traditional lunar calendars appeared in Java and Bali, in the form which is still observed today. With a view to further links, the name 'moon' for the largest Pejeng drum, kept in the Pura Penataran Sasih, which means 'place of the moon temple', apart from its legendary association with Hindu-Balinese mythology, could perhaps refer to the role that Pejeng drums may have played in propitiatory rites associated with rice cultivation and harvest, and in general with agricultural cycles following a set number of lunar phases.

Based on all the above, I propose that Pejeng drums may have been involved in propitiatory rice cults. Their distinctive shape appears to be associated to a pre-Hindu animistic belief in the female spirit of rice. While the traditional rice steamer composed of the *daeng daeng*, *kokusan* and *kekep* may appear as a simple utilitarian object, it actually plays a fundamental role in the process of turning the raw product of the earth into life sustaining nourishment. A role directly related to the continuation of life, thus a revered and sacred role.

The process of steaming the uncooked rice (*beras*) transforms it into its eatable form (*nasi*), which maintains life. Also the fact that two distinct words are used for cooked and uncooked rice emphasises the importance of the process of turning the rice into a means of sustenance. This may support the hypothesis that the bipartite shape of traditional rice steamers may be related to the ancient form chosen for the ceremonial Pejeng bronze drums, which may have been cast to function within the context of propitiatory rice cults. The fact that some Pejeng drums were found in burial contexts, and were also used as inhumation containers, as in the case of the Manikliyu drum, would not disprove the link with propitiatory rice cults. If Pejeng drums functioned to propitiate life within cyclic agricultural rites, they could also have participated in propitiating burial rites, within a belief system in which death would have been conceived in a cyclic continuum with life.

4.9. Moko Bronze Drums

Moko bronze drums are the ‘aftermath’ of Pejeng bronze drums, using Bernet Kempers’s term (1988). These hourglass shaped drums are found mainly on the Alor and Solor Archipelagos and on the island of Flores, in East Nusa Tenggara (**Map Figure 4.37**). Ethnographic evidence shows that in Alor *moko* drums are still played today during ceremonies and are considered as sacred heirlooms (Du Bois 1944). They are associated with the identity of the clan, and are involved in rites propitiating life transitions such birth, death, marriage, or a new house.

The hourglass shape and the two pairs of handles of *moko* bronze drums clearly link them to the archaeological Pejeng drums. The majority of mokos are dated to the late historical period, from around the seventeenth to the twentieth century. However, there are some early mokos which are equivalent to mid size Pejeng drums found in Java and Bali. Their earliest dating is still uncertain. It might coincide with the period when the drums begun to be exported from east Java to east Nusa Tenggara, sometime around the late first millennium AD, as the result of the process of ‘Indianization’ in Java and Bali. The dating of mokos is based mainly on the decorative motifs which incorporate elements from various historical periods. Some mokos show motifs of Indian

influence, such as *kala* face motifs, and others display Dutch or English emblems (**Figures 4.38, 4.39**). These latter motifs provide a *terminus post quem* for dating these mokos. The tympanum of these mokos is undecorated. The tympanum of mokos is fully decorated only on the type which shows a decoration close to the one of mid size archaeological Pejeng drums, such as the above mentioned Besangbe drum (**Figure 4.15**). The tympanum decoration of these mokos is reminiscent of the one on Pejeng drums, and the upper mantle shows very stylised face motifs, similar to the face motifs on Pejeng drums.

While a few hundreds *moko* drums have been found in the Alor region, to date, there is no evidence of local bronze casting workshops there. Some evidence of local repair possibly occurring in the Alor region, is given by a mid size Pejeng drum, or early moko, reconstructed by coarsely sealing fragments of a different drum to its mantle, as it is shown by a moko drum in the Museum Nasional Indonesia (**Figure 4.40**). The lower mantle of this drum is reconstructed by sealing into it a fragment with a face motif, which originally was part on the upper mantle of another drum.

Evidence for the casting of moko bronze drums comes instead from east Java, in the area of Mejkerto, and other towns between Tuban and Gresik. Bernet Kempers (1991: 31) reports that in the nineteenth and twentieth century mokos were still cast in Gresik. Bronze casting workshops are likely to span back over many centuries in this area of east Java. It is possible that this was the other main region, along with Bali, where the archaeological Pejeng bronze drums were cast. At present, this area hosts a large smelting and casting industrial plant, the 'Gresik Copper Smelting & Refinery', and many traditional and less traditional bronze casting workshops. As to be expected however, the present production of *moko* bronze drums, together with a wide range of bronze objects inspired by museum catalogues, is intended for the new international markets of curiosities and so-called antiques. The opening of these new markets today has initiated a new shift in the production and trade target of mokos. In a broad sense, this phenomenon involving new markets and new historical conditions, may serve us to conceptualise how it may have come into being that mokos were always cast in Java but, at a point in time begun to be cast for export to eastern Indonesia, instead of continuing to be produced for local use, as it was the case for the earlier Pejeng drums.

Hence, I propose that new historical conditions, such as the progressive influence of Indian religious and political ideas in Java and Bali in the late first millennium AD, initiated a shift in purpose with regard to the production of mokos, which turned into trade objects for the new markets in eastern Indonesia. The earliest mokos could thus be dated to this period. However,

mokos with early decoration appear to have been reproduced over time, and thus some of them are likely to be contemporary with the ones showing later motifs.

4.9a. The Mojokerto Bronze Casting Workshop

In Mojokerto, south of Surabaya, in east Java, bronze casting workshops are still producing *moko* bronze drums today using the lost wax technique. During my visit to the workshop of Bapak Malik Abdul, in Bejigong Trowulan, in March 2007, I observed the steps of the lost wax casting process. Although the workshop was not casting mokos on that day, but Buddha figurines based on the orders they had, the main steps for casting the mokos are the same. The difference stands in how the decoration is produced in wax. In this regard, I was shown the cement moulds for printing the decoration on wax (**Figure 4.41**). The motifs show that these moulds in particular are meant to cast a small replica of the Moon of Pejeng. The workshop casts replicas of both archaeological Pejeng drums and ethnographic mokos.

As described below, hot wax is poured over the printing moulds and then, when the wax cools off, the mould and the wax are soaked in water to remove the wax model, which is then applied over the inner clay mould. It is interesting to note that this process of moulding the wax with cement printing moulds may perhaps parallel the way in which the stone printing moulds for Pejeng drums found at Manuaba and Sembiran in Bali may have been used. In the traditional workshop of Bapak Abdul Malik all is manufactured as it has been for centuries, and the only new element is the use of cement rather than natural stone for the printing moulds.

Based on the data I collected during my visit to the workshop in Trowulan Mojokerto, the following are the steps involved in the lost wax process for the casting of a *moko* bronze drum today:

1. Two inner clay cores are moulded (**Figure 4.42**). The first for the upper mantle and half of the mid mantle. The second for the lower mantle and the other half of the mid mantle.
2. The decoration of the mantle is printed on wax using cement printing moulds (**Figure 4.41**). Two cement moulds are used. One for the decoration of the upper mantle, with the face motifs, and the other for the decoration on the mid and lower mantle. The decoration is carved into the inner surface of the moulds.

3. Hot wax is poured over the moulds, and when cooles off, the cement and wax investment is soaked in water to remove the wax.
4. The wax models showing the positive decoration are applied over the inner clay cores prepared in step 1.
5. Metal spacers are inserted into the wax, to fix the thickness of the mantle.
6. An outer clay investment mould is applied over the wax, leaving holes for the wax to come out when the investment is heated.
7. The investment is heated over an open earth oven. The wax melts and comes out of the holes (**Figure 4.43**).
8. The metal is melt in a brick furnace, and the molten metal is poured into the same holes from where the wax came out (**Figure 4.44**).
9. When the metal cools off the inner and outer clay is removed.
10. The metal spacers are removed and the holes lefts by them are filled with hot metal.
11. The metal object is finished by beating away imperfections from the surface with a small hammer.
12. The tympanum is cast separately. A circular wax model is created by pouring hot wax over a circular cement printing mould (**Figure 4.41**), which is covered with clay and cast separately. It should be noted that the casting of only the tympanum as a separate piece is a present innovation. For the mokos of Alor and for the earlier Pejeng drums the tympanum was cast together with the upper section of the upper mantle. The latter is then was joined and sealed to the other part of the upper mantle.

Note: The lost wax process is repeated for casting three separate pieces, comprising an upper and a lower mantle sections, and a tympanum section. These three bronze pieces are then sealed

together horizontally with hot metal, as it can be seen examining the sealing marks on the mantle of mokos.

The lost wax process described above yields some clues for understanding further the casting process for the mokos of Alor, the earlier Pejeng drums, and also Dong Son drums. As point 10 indicates, the holes left by metal spacers are filled by hot metal. The many holes which appear on many Dong Son drums, and in particular on the ones in the RS3 cluster of 'Eastern Indonesia' drums, are possibly caused by the use of softer metal material to fill the holes, which would have disappeared over time.

At present as well as in the past, the lost wax process may include a series of variations depending on different needs and degrees of experimentation of particular workshops. The ethnographic data discussed above contributes evidence for understanding the basic steps of the lost wax process. From this stand point one may better envision its variations. The horizontal sealing marks on the upper mantle and in the centre of the mid mantle of mokos indicate that they were cast into three separate parts, which were then sealed together horizontally. The tympanum and the upper section of the upper mantle are sealed together with the lower section of the upper mantle and half of the mid mantle. The latter part is sealed together, at the mid waist of the drum, with the remaining part of the mid mantle and the lower mantle (**Figure 4.45**). The casting of separate parts joined together horizontally is clearly derived from the method for casting the archaeological Pejeng drums. While the mokos showing Pejeng-like motifs show the horizontal sealing marks of the three separately cast parts, as all mokos do, they also show two opposite vertical positive lines which are seam-like. These are not seams from the casting process but decorative features. They appear also on mid size Pejeng drums, possibly as a decorative reproduction of the vertical seams on Dong Son bronze drums. Both on Pejeng drums and on the mokos with Pejeng-like motifs, however, these vertical lines do not continue on the part comprising the upper section of the upper mantle and the tympanum.

It may seem difficult to distinguish between mokos with Pejeng-like motifs and archaeological mid size Pejeng drums. However, based on my analysis, the main mark of distinction between the two is the fact that the drums identified as Pejeng drums do not show the horizontal mark at the centre of the mid mantle, as it is shown by the Besangbe drum from Bali (**Figure 4.19**), while mokos, even the ones showing early motifs, do show this central sealing mark (**Figure 4.45**). As discussed at the beginning of this section, the presence of mid size Pejeng drums in the Alor region

is evidence of an early shift regarding the production and trade of Pejeng drums, as a result of the process of Indianization in western Indonesia from the late first millennium AD.

It is tempting to consider the mokos with Pejeng-like face motifs and decorated tympani as early types dated to a transitional period between the archaeological Pejeng drums and the later ethnographic mokos. However, in the same way as we should use caution in ascribing sequential chronologies for different clusters of Dong Son drums, the lack of datable contexts for *moko* drums and their many variations, still leave grey areas with regard to their dating. It is possible that some of the mokos which resemble the earlier Pejeng drums may be overlapping in time with later mokos, such as the ones showing Dutch emblems, in a scenario in which east Javanese bronze casters in the eighteenth century, for example, would have drawn from a repertoire of both ancient and more contemporary motifs. Regarding the question of the transition from Pejeng drum to *moko*, a useful line of inquiry would be to trace back when mokos begun to be traded from east Java to Alor and its environs, where they have been used and revered up to present. Hence, apart from shape and decoration, the main difference between Pejeng drums and mokos lies in where they were used as ceremonial objects.

4.9b. Cast in Java and Used in Alor

Probably the most intriguing question about *moko* bronze drums is that they appear to always have been cast in east Java, in the same region where some of the archaeological Pejeng drums were possibly cast, but they have been and still are used and revered on the island of Alor, and its neighbouring islands in East Nusa Tenggara. There is no evidence that mokos were used ceremonially in Java or Bali at any point in time, while on the island of Alor, hundreds of mokos are still part of the local traditional *adat* ceremonial context (Du Bois 1944). However, there is no evidence of workshops casting mokos in eastern Indonesia. Mokos continued to be cast in east Java, in the region of Tuban and Gresik, and then were exported to the Alor region. The nature and the earliest date of this trade is still open to inquiry. It is worth noting that Tuban and Gresik are ports on the north coast of east Java, which were well established as Chinese traders outposts by the fifteenth century (Ptak 1992: 36). Mokos are likely to have travelled from the east Java ports to the Alor region, as prestige goods meant to facilitate the acquisition of other commodities from eastern Indonesia, during the Majapahit period (thirteenth – sixteenth century) and up to nineteenth century. This process could have begun as early as the late first millennium AD.

Bintarti (1996, 2001) lists fifty-six *moko* bronze drums from the Alor and Solor Islands and from Flores. She classifies Pejeng drums and mokos into five types based on the main decorative motifs, and into six types based on the shape of the mantle. Bintarti type I includes all the drums showing face motifs. These range from the more naturalistic representations on large Pejeng drums, such as on the 'Moon' and the Manikliyu drums, to the greatly stylised triangular or heart-shaped face motifs on smaller Pejeng drums or early mokos. Bintarti type II are the mokos with motifs showing motifs related to the temple decoration of east Java; type III are the ones showing motifs of European influence, such as Dutch emblems; types IV and V show human and animal motifs not specifically related to either type II or III.

One *moko* (H. 53 cm. D. 28 cm) was also found in Sabah, in Malaysian Borneo. As discussed by Harrisson (1971), G. C. Woolley collected the drum before 1936 in Sabah. It is kept today in the Sabah Museum as part of the Woolley collection. This *moko* is of the same type as many found in Alor and Flores, and it probably found its way to Sabah as a trade item at a date which is impossible to trace at present. The decoration of its upper mantle shows crescent moon motifs in relief, similar to the ones on bronze plaques and pendants from the Timor and Alor region of Nusa Tenggara Timur (Lesser Sunda Islands), where the vast majority of mokos have been found. The lower mantle shows human figures of the type which appears on many mokos found in Alor, and which, along with the foliage motifs, are referred to broadly as a Majapahit motifs. This appellation does not imply that the drum was cast during the Majapahit period (thirteenth – sixteenth century), but it is commonly used as a trade term to identify most of the artefacts of the early historical period, mainly to distinguish them from the artefacts and motifs deriving from pre-Hindu-Buddhist traditions. With regard to those, the term Dong Son is broadly used as a trade term to identify all the prehistoric bronze artefacts in Southeast Asia. A reassessment of the Dong Son appellation is discussed earlier in this chapter. The Sabah *moko* is not listed by Bintarti, but it should fit into her decorative type II, because of the human figure and the foliage motifs. Harrisson is inclined to propose a local origin of the *moko* in Borneo, pointing to possible decorative links with Sabah Bajau and Sarawak Iban motifs. However, based on the evidence provided by the finds of hundreds of mokos in the last two decades, the morphological and decorative features of the *moko* in Sabah place it clearly among the many other mokos which were cast in east Java and imported to eastern Indonesia throughout the historical period.

CHART OF PEJENG BRONZE DRUMS IN BALI AND JAVA

	Provenance	Found	Conditions	Dim. cm.	Context	Present Location	References
1	Pejeng, Gyanyar, Bali	1690's	almost complete	H.198, D.160	?	in situ. Pura Penataran Sasih	Rumphius 1705; Niewenkamp 1908
2	Manikliyu, Kintamani, Bali	1997	most fragments	H. 120, D. 77	burial, drum inhumation	Balai Arkeologi Denpasar	Forum Arkeologi II. 1997-1998
3	Bebitra, Badung, Bali	1962	tympanum	D. 65.2	?	Pusat Pen. Arkeol. Jakarta	Soejono 1977: pl.127
4	Pondok, Badung, Bali	1941	tympanum	D. 40.8	?	Mus. Nasional Indonesia Co.1459	Van der Hoop 1941
5	Pacung, Buleleng, Bali	1978	fragmentary-reconstr.	H.86, D. 53	chance find in a well	Eilenberg collect. London	McConnell and Glover 1990
6	Ularan, Buleleng, Bali	1997	fragmentary-reconst.	H. 27, D.16	excavation	Mus. Kertyasa, Singaraja	Gede, I Dewa Kompiang 2002:46
7	Besangbe, Tabanan, Bali	1971	mostly complete	H.48.5, D. 28	chance find	in situ. Pura Batur Tamansari	Bintarti 1996
8	Panek, Karangasem, Bali	1986	fragmentary	H. 45, D. 22	chance find	?	Gede, I Dewa Kompiang 2002:48
9	Lamongan, east Java	1981	tympanum fragment	D. 52	burial cont.under Heger I	Mus.Tantular, Surabaya ?	Bintarti 1985, 1996: 67
10	Lumajiang, east Java	1989	fragmentary-reconstr.	H. 53, D. 35	burial site?	England ?	Mc.Connell and Glover 1990
11	Tanurejo, central Java	1911	tympanum	D. 51.5	chance find	Mus. Nasional Indonesia 1785	Van Heekeren 1958
12	Kendal, central Java	1984	fragmentary	H. 50	cont. with Heger I	Mus. Propinsi Jawa Tengah	Bintarti 1996: 131
13	Traji, central Java	1994	fragmentary	H. 48	near 2 Heg I + bur goods	SPSP central Java	Bintarti 1996: 64
14	Leiden Ethn. Mus.	1883	tympanum	D. 58.5	?	Mus. Ethnology, Leiden 2885	Van Heekeren 1958
15	Singapore A.C. Mus.	?	fully reconstructed	H. 161, D. 81	Lumajang?	Asian Civilizations Museum, Singapore	Present Fieldwork

CHAPTER 5

THE FEATHERED WORLD AND THE ISLAND TO MAINLAND HYPOTHESIS

5.1. Theoretical Framework and Introduction

After having surveyed the entire cross-regional distribution of Dong Son drums and all its implications in the previous chapters, I now turn back the focus on the typical decoration which links all Dong Son drums by addressing its possible formative influences. This subject involves a more experimental line of inquiry pointing to new question rather than providing definite answers. It nevertheless enhances the completeness of this study and further validates the advantages of the neutral synoptic view adopted here.

I engage in a preliminary dialogue between linguistic, ethnographic, and archaeological data from Vietnam and Borneo, inquiring into the cultural influences related to the typical 'feathered' environment depicted on Dong Son bronze drums. What I propose is a possible Austronesian influence resulting from the contact between the settled population of north and north central Vietnam, speakers of an Austroasiatic, or perhaps a Daic language, with new settlers from southwest Borneo, speakers of an Austronesian Chamic language, who reached central and north central Vietnam in the second half of the first millennium BC. I do not argue in favour of the direct overlay of a set of new cultural traits over a pre-existing one, which would be an unlikely oversimplification of the nature of cultural contact, borrowing, and exchange. Both at present and in the past, scenarios of bilingualism and mutual cultural borrowings point to the fact that socio-cultural phenomena are constantly evolving and they hardly fit into neat categories. Notions of ethnic identity are liable to expansion and multiple associations, in light of socio-economic and environmental shifts. What can be said though, is that there are traits depicted on Dong Son bronze drums which suggest borrowings resulting from contact with new settlers to Vietnam in the period just prior to the peak of the Dong Son culture (500 BC – AD 100). To do this the ethnographic, linguistic and archaeological data is woven together, observing which particular traits stand out as potentially traceable to the cultural context of the new settlers from Borneo, and which may have been incorporated into the pre-existing Dong Son cultural matrix.

What I emphasise as a premise to this discussion, is that, as pointed out by Peters (1990), archaeological cultures should not be assumed to be representative of one single ethnicity. This point is of particular relevance within the study of bronze drums in light of the nationalistic debates between some Chinese and Vietnamese scholars. These debates have been discussed in details by Han (1998, 2004). Archaeological cultures are identified by a main excavated type-site, and their geographical extent is determined by the excavation of the associated material. However, archaeological research also takes into account that one archaeological culture may have comprised a multi-ethnic population, as is sometimes suggested by the entangled features of its material culture, such as in the case of the Dian culture discussed in Chapter 2. Moreover, different ethnic groups may have shared the same cultural traits as a response to a shared ecological and socio-economic environment. The pairing of an archaeological culture, such as Dong Son or any other, with one ethnic population, further viewed as the glorified ancestors of the present population of the region in question, is an assumption which validates notions of present national identity rather than favouring the understanding of the past.

Hence, an inquiry into the possible association of specific cultural traits with the archaeological material, such as the present attempt, yields better results when based on an inter-disciplinary discourse taking into account linguistic, ethnographic, and archaeological data, thus yielding a fuller picture, which comes closer to describe socio-cultural phenomena in transition. The scope of this inter-disciplinary inquiry is to point out how the available data from the above mentioned three disciplines may fit together, thus possibly yielding new clues regarding questions of cultural contact and exchange. It does not aspire at providing exhaustive accounts of each set of data. To examine all the implications of the combined data would necessarily require a separate extensive study, which is beyond the scope of the present one.

Roger Blench, whose expertise extends from ethnomusicology to linguistics, archaeology, and genetics, has extensively discussed inter-disciplinary approaches, with particular regard to archaeo and ethnolinguistic methods (2004, 2005; Blench and Spriggs 1998). Commenting on the fact that inter-disciplinary approaches are not widely adopted he notes, in a half humorous but pertinent tone, that 'no academic points are to be made by being inter-disciplinary', but also that the data from different disciplines not always match (2004: 65). For example, with regard to the present inquiry, the numerous mutual cultural and linguistic borrowings between different neighbouring linguistic groups in central Vietnam often result in uneven sets of data, which may not be directly linked to the archaeological material, in particular concerning the ethnicity of the population of the archaeological culture. On the other hand, it is still possible to point out comparable data from the

ethnographic and the archaeological record, and to observe when such traits can be associated with a certain language phylum, such as the Austronesian or the Austroasiatic ones, and when they do not, because they are too widespread. In summary, allowing for margins of error and hidden variables, inter-disciplinary approaches tackle a greater range of implications than the strict adherence to the confines of a single discipline. That said, they also require a sound expertise in the subjects and methods of each discipline examined. This is why the present discussion is only meant as a preliminary exploration, in view of further research on the part of the author.

The question raised is whether there is an Austronesian influence on the pictorial decoration of Dong Son bronze drums and other Dong Son bronze material. I put forward the claim that linguistic data is the missing link in earlier studies, which pointed to parallels between the Dong Son archaeological material and the ethnographic data from Vietnam, and Island Southeast Asia, with particular reference to Borneo, as discussed further in section 5.3 (Goloubew 1929, 1940; Colani 1936; Vroklage 1936; Steinmann 1946). Based on the available data at that time, the early research pointed to a possible spread of the Dong Son culture from Vietnam to the islands. Yet, in light of later linguistic and archaeological research, this ‘mainland to island’ assumption can be reversed to an ‘island to mainland’ movement of people and ideas, as discussed further below.

It should be noted again that the Dong Son bronze drums, situlas, pediform axes, and plaques, which are decorated with the typical feathered decoration in question, are dated to the third-second century BC. This period represents the peak of the Dong Son culture (500 BC – AD 100). While the geometric decoration of Dong Son drums has fairly convincingly been linked to the motifs on pottery of the Neolithic and Bronze Age Phung Nguyen, Dong Dau, and Go Mun cultures, preceding Dong Son in the Red River Valley, no earlier motif traceable to the Dong Son pictorial feathered decoration has been found.

The fact that the typical pictorial decoration of Dong Son bronzes is dated to the peak of Dong Son is significant. In a rich cultural milieu, profiting from mutual exchanges with neighbouring populations or new settlers, the repertoire of significant motifs could have reflected the early contact with speakers of Austronesian Chamic languages, who had reached central and north central Vietnam from southwest Borneo, in the second half of the first millennium BC. As discussed further below, the theory of an island to mainland population movement from Borneo to Vietnam in this period is supported by linguistic, archaeological, and ethnographic evidence (Blust 1984-1985, 1994, 1995, 1996; Bellwood 1985; 1997; 2004a,b; Higham 2002; Thurgood 1999).

Moreover, although the available data favours an Austroasiatic speaking Dong Son population, the question of which language the Dong Son people spoke should also consider the possibility of

the Daic languages, which are documented to have been spoken in north Vietnam and southwest China during the Dong Son period (Ostapirat 2005, 2000). New groundbreaking linguistic research on Daic languages has demonstrated that they are genetically linked to the Austronesian macro-family of languages, and that they probably separated from it around 2000 BC. The distribution of Daic languages in southwest China and north Vietnam can be traced from this period onwards (Ostapirat 2005, 2000; Sagart 2005).

In the following sections I first discuss the linguistic theory of a massive population movement from southwest Borneo to central Vietnam in the second half of the first millennium BC. This theory is based on the links between the Chamic languages spoken in central Vietnam in the late first millennium BC and the languages spoken in north and southwest Borneo during the late second-early first millennium BC (Blust 1984-1985, 1994, 1996). Regarding the development from pre Chamic to Chamic in central Vietnam, I refer to Thurgood's research (1996, 1999, 2000, 2005). I also briefly discuss the new linguistic data on Daic languages (Ostapirat 2005, 2000; Sagart 2005), as well as the ethno-linguistic data from the minorities living at present in central Vietnam. The latter comprise speakers of Austronesian languages and speakers of Austroasiatic languages. Their longstanding proximity and contact has resulted in multiple cultural and linguistic borrowings. However, the main linguistic divide and certain distinctive cultural traits are still apparent.

Secondly, I examine the parallels noted in early studies (Goloubew 1929; Colani 1936; Steinmann 1946) between the decoration of Dong Son bronzes and the ethnographic data from Vietnam and Borneo. In the absence of the linguistic and archaeological evidence available today, the earlier studies explained the parallels as evidence of the spread of the Dong Son culture from the mainland to the islands. However, current research provides new insights which I suggest may support the hypothesis of an 'island to mainland' influence on the typical pictorial repertoire of Dong Son in the second half of the first millennium BC.

I also examine the cultural traits and borrowings resulting from the long-standing contact between the Austronesian and Austroasiatic speaking ethnic minorities of central Vietnam, noting how the data from the Austronesian groups may be related to the data from the Dayak groups of Borneo. The ethnographic data is also examined in relation to its possible association with the archaeological data from Dong Son. The discussion of distinctive cultural traits and borrowings between Austronesian and Austroasiatic minorities of central Vietnam is based on my research at the Vietnam Museum of Ethnology in Hanoi, and in the highlands of Dac Lac province, in central Vietnam, where the Chamic speaking Ede (Rade) people live.

The last section brings the archaeological record to the foreground against the linguistic and ethnographic data. In the coastal region of central Vietnam, excavations have yielded several jar burial sites of the Sa Huynh culture (500 BC – AD 100), named after its type-site in Quang Ngai province (Reinecke 1994, 1996; Reinecke et al. 1999; Ngo n.d.). The people of Sa Huynh were speakers of an Austronesian Chamic language, and have been identified by scholars with the early settlers from southwest Borneo (Thurgood 1999: 15-16; Bellwood 1985: 276, 1997: 271-275; Blust 1984-1985; Higham 2002: 183).

The main archaeological evidence pointing to the movement of people from Borneo to central Vietnam in the second half of the first millennium BC is given by the finds of jar burials with associated pottery and nephrite earrings at the Niah caves, in north Borneo, and at the Tabon Caves in the Philippines, which parallel closely the jar burials, pottery, and nephrite earrings of the Sa Huynh culture of Central Vietnam (Bellwood 1997: 236-241, 271-275). The jar burials at the Niah and Tabon caves are dated to the late second-early first millennium BC, while the Sa Huynh burials are dated to the second half of the first millennium BC.

Hence, based on the combined linguistic, ethnographic, and archaeological data available, it seems possible to suggest an 'island to mainland' hypothesis, tracing possible Austronesian influences on the feathered environment depicted on bronze drums. The region of north-central Vietnam, just to the south of the Dong Son region, or perhaps the Dong Son region itself as suggested by Blust (1984-1985), could have been reached by the progressive settlement of Austronesian Chamic speakers from Borneo. Hence, it is possible that the settled Austroasiatic Mon-Khmer, or perhaps Daic, speaking peoples of north Vietnam, with knowledge of bronze technology, and the Austronesian speaking new settlers, bearing their own set of cultural traits, would have come in contact with each other. The extended contact would have led to a series of mutual exchanges in which exotic Austronesian traits would have been absorbed and elaborated in their new context by the settled population. The present ethno-geography of Vietnam still bears evidence of phenomena of this nature.

As an additional remark, because this chapter focuses on the influences related to the pictorial decoration of Dong Son bronze drums, the type of bronze drums identified as the Wanjiaba type by Chinese archaeologists (ZGTY 1988), discussed in Chapter 1, do not show any of the typical 'feathered' motifs. They show the tripartite shape of Dong Son drums, and they are decorated by a simple form of the central star motif on the tympanum, and by geometric or occasionally very stylised reptile motifs. Although these drums are unlikely to be dated as early as the seventh-sixth

century BC, as proposed by Chinese scholars (ZGTY 1988), they are possibly earlier or overlapping in time with the early Dong Son drums, which are decorated with the typical 'feathered' motifs. This may indicate that the tripartite shape and the feathered decoration of bronze drums may have developed at different times, and perhaps in different cultural contexts. This however, remains speculative pending on further data.

5.2. Linguistic Data as the Missing Link in Early Research

As mentioned above, I consider the data from current linguistic research as the missing link in the earlier studies pointing to parallels between the Dong Son bronze material and the ethnographic data of Vietnam and Borneo. The missing link consists of the linguistic theory which traces a massive population movement from the coast of southwest Borneo to the coast of central and north central Vietnam in the second half of the first millennium BC. This explains the linguistic divide, but also the mutual borrowings, between the Austronesian and Austroasiatic speaking ethnic minorities of central Vietnam, which have been neighbours, allowing for intra-regional movements through time, for more than two thousand years, first in the coastal region and later on the highlands.

The specific linguistic data leading to the above mentioned theory arises from the study of Chamic languages, a branch of the Austronesian macro-family of languages. Thurgood (1996, 1999, 2000, 2005) has conducted extensive research on the linguistic development from pre Chamic to the modern Chamic languages. Chamic theory fits within the larger theory of the dispersal of Austronesian speakers, which has been widely discussed by Blust (1984-1985, 1993, 1994, 1996) in linguistic terms, and by Bellwood (1985, 1997) with regard to how the linguistic data matches the archaeological record. In brief, Austronesian speakers are believed to have left southeast China and Taiwan in the late or mid fourth millennium BC, and then to have reached the Philippines. From there, along both eastern and western routes, they reached eastern Indonesia, Melanesia, Polynesia and New Zeland (AD 1200) in the east, and western Indonesia, and as far as Madagascar (AD 500) in the west. North Borneo was reached by Austronesian speakers in the late third-early second millennium BC (**Map Figure. 5.1**).

5.2a. Borneo to Vietnam – Western Malayo-Polynesian to Chamic Languages

The period when the Austronesian speakers reached central Vietnam from southwest Borneo is placed by both linguists and archaeologists to the second half of the first millennium BC. According to Thurgood (1999: 5, 2005: 2), the Austronesian speaking seafarers from Borneo had reached central Vietnam in the late or mid first millennium BC. Based on the archaeological evidence from the jar burial sites of the Sa Huynh culture (500 BC- 100 AD) of central Vietnam, he notes that the initial contact of the Austronesian speakers may have occurred as early as 600 BC (ibid. 1999: 16). Blust (1984-1985: 56-7, 1994, 1995, 1996) proposes a third or fourth century BC date for a large population movement from southwest Borneo, which led to the settlement of the coasts of central Vietnam. He also notes that they may have possibly reached as far north as the Gulf of Tongkin (Bac Bo), which is the Dong Son region of the Red River Delta, along with east Sumatra, and the Malay Peninsula.

The possibility that the northern coast of Vietnam may also have been reached by new settlers from Borneo, during a period coinciding with the early stage of the Dong Son culture (500 BC-AD 100) is of obvious interest for the present inquiry. The Austronesian speaking settlers from Borneo may have reached, not only the coasts of central Vietnam, giving rise to the Sa Huynh culture, but also the coasts of north Vietnam, thus possibly coming in contact with the Austroasiatic speaking population of the Dong Son culture.

From Blust's (1984-1985: 56-57) discussion of the theory of a massive population movement from southwest Borneo to central Vietnam, which he dates to the fourth-third century BC, it arises that the Proto-Chamic languages spoken in central Vietnam during the first millennium BC are linked to those which were spoken in southwest Borneo in the late second-early first millennium BC. The modern Bintulu, Lower Baram, Kenyah, and Kelabit languages of central and southwest Borneo arose from these languages. In turn, these languages spoken in southwest Borneo in the first millennium BC had split from their northern relative languages in north Borneo in the region of west Sabah around 2000 BC. Interestingly, the archaeological evidence linking the jar burials of the Sa Huynh culture of central Vietnam to earlier jar burials in Borneo comes from the finds at the Niah caves in Sarawak, just to the west of Sabah, in north Borneo, which are dated to the late second-early first millennium BC (Bellwood 1997: 240-241, 271-275).

The language spoken by the new Austronesian settlers from Borneo was pre-Chamic, a Western Malayo Polynesian language (Thurgood 1996). This language was disyllabic and nontonal, and it

contained four basic vowels (-a, -i, -u, -e), and three final diphthongs (-ay, -uy, -aw). The few consonants were unmarked, unlike Chamic and modern Cham.

In Vietnam, pre-Chamic developed into Proto-Chamic through the second half of the first millennium BC, from its intimate contact with Mon-Khmer. This resulted in a Proto-Chamic language with disyllabic roots with a new final stress, more consonants, and new monosyllabic and iambic morphemes (Thurgood 1998, 1999: 60-63). The latter consist of a first unstressed syllable followed by a second stressed syllable. Monosyllabic and iambic words are characteristic of the Mon-Khmer languages of Vietnam. Thurgood gives the examples of Vietnamese and Mnong Rolom, which are monosyllabic, and of Chrau (Thomas 1971), which is iambic. Later, the Chamic languages which arose from Proto-Chamic differed significantly from its Malayo-Chamic ancestor in phonology, morphology, lexicon, and syntax (Thurgood 2002). Reviewing Lee's (1966) reconstruction of Proto-Chamic, Hadley (1976) notes conservatively that about ten per cent of Lee's seven hundred plus lexical reconstructions are Mon-Khmer borrowings. Thurgood (1996, 1999) points out that the fact that these reconstruct to Proto-Chamic, rather than to the later Chamic languages, allows us to date the borrowings roughly to the late first millennium BC. This dating of the borrowings in turn points to a slightly earlier date for the first arrival in the mid first millennium BC. According to the linguistic method, if a term in a Chamic language is also found in a reconstructed Mon-Khmer language subgroup, it is a loan. Then, based on intra-language correspondences, linguists determine if the loan reconstructs to Proto-Chamic, or if it was borrowed after its break up into Chamic (Thurgood 1999: 11).

The relative dating to the mid first millennium BC for the arrival of the Austronesian speakers in Vietnam is also supported by the oldest inscription in a Chamic, not Proto-Chamic, language dated to the fourth century AD (Coedès 1968: 48). This inscription is the oldest Austronesian text known. It was found at the site of Tra Kieu, near Indrapura, the old capital of the Champa state (second – fifteenth century AD). This indicates that in the fourth century AD the language had already turned into Chamic as a result of the extended contact of its pre and Proto-Chamic forms with Mon-Khmer languages at least from the late first millennium BC (Thurgood 1996: 2).

According to Thurgood (2005), during the first millennium AD the Chamic languages formed a rather homogenous cluster of dialects. It was from about the tenth century AD onwards, that Chamic languages divided into more distinct groups, as a result of the Vietnamese expansion to the south, first marked by the sack of the Champa capital Indrapura in AD 982, which caused many groups to retreat to the highlands from their previous coastal locations, and much of the old ties between coastal Chamic communities were disrupted. Moreover, the new historical conditions

yielded new social and linguistic scenarios, in which Chamic speaking groups were integrated into Mon-Khmer contexts, such as the case of the Chamic speaking Haroi, who became a part of a Mon-Khmer social network, or the Phan Rang Cham who eventually became integrated in the Vietnamese social network in the lowlands.

Hence, previously coastal dwellers, the majority of the Chamic speaking groups began to retreat to the highlands of the interior from the tenth century AD, as a result of the increasing Vietnamese presence in the coastal plains. Their extended intense contact with the Austroasiatic speaking minorities in the region is shown by the many mutual linguistic and cultural borrowings. Champa collapsed with the fall its capital Vijaya in AD 1471. After this date, a further Chamic diaspora led to the present distribution of Chamic languages from the highlands of central and south Vietnam, to Hainan Island and Guangzhou, in southwest China, to Melaka, in Malaysia, to Aceh and Java, in Indonesia, and to parts of Thailand and Cambodia (Thurgood 1999: 20-22).

5.2b. Katuic Languages

The ethno-linguistic geography of the northern part of central Vietnam is of particular interest to this inquiry. In particular, the Austroasiatic Katuic languages are spoken in the northern part of central Vietnam from Quang Bin province to Thua Thien Hue province, and also in the regions of Laos and northeast Thailand, to the west of central Vietnam. Hence, the distribution of Katuic is found along the major exchange route travelled in the Metal Age, from north central Vietnam, across the Truong Son Cordillera, to Laos and northeast Thailand, as discussed in Chapter 2 (section 2.8).

The Katu people have been rather idealized as the descendants of the 'ancient Viet' population in Vietnamese accounts. Hence, they are identified by some Vietnamese scholars (Ta 2002) as the descendants of the Dong Son people, and they are described as the glorious ancestors of the present population of Vietnam. The latter are speakers of modern Vietnamese, or Kinh, which is also an Austroasiatic Mon-Khmer language. However, macro-families of languages comprise many branches and ramifications through time and space, and assertions of direct links are to be considered with caution. For example, Kinh is also spoken on the coast of Guangxi province in China, in close proximity with speakers of Zhuang, a Daic language.

Linguistic data on Katuic languages provides evidence of the mutual extended contact between speakers of Katuic and speakers of Chamic languages. Thurgood (1999: 10) points out that the Katu

linguistic evidence has to be considered with caution because, in accordance with Diffloth (pers. com. with Thurgood), “the Katu have clearly borrowed extensively from Haroi”, which is a Chamic language. Moreover, discussing the early Champa civilization (second - fifteenth century AD), arising from the Sa Huynh culture (500 BC – AD 100), on the coast of central Vietnam, Thurgood (1999: 20) states that ‘the Chamic dialect chain extended north at least as far as Quang-Tri, where they undoubtedly encountered Katuic speakers. The linguistic evidence suggests that it was the Chamic speakers who left their linguistic imprint on the Katuic languages in the form of borrowings and perhaps even some morphology’. Indeed, as quoted by Thurgood, Reid (1994) argues that the morphology of some Katu dialects is Austronesian. The reason why there are no Austronesian speaking minorities today in the northern part of central Vietnam is that, as Thurgood continues, ‘under pressure from the north, these Chamic speakers left, probably to become the modern Achenese of northern Sumatra’. Thurgood refers to the early Champa period in the early first millennium AD. However, following Blust’s account (1984-1985) Proto-Chamic speakers are likely to have been present in north central Vietnam already in the centuries around the fourth-third century BC, and perhaps a few centuries earlier. A reconstruction of Proto Katuic is provided by Pejros (1996).

The Katu share cultural and linguistic traits with their Chamic-speaking Giarai neighbours, and in turn to some degree, with the Ngaju Dayak of Borneo, as discussed further below in the section on the Austroasiatic speaking minorities in Vietnam. Some of these features, may be compared with the archaeological data from Dong Son. Such parallels may be explained by the extended cultural contact and exchange occurring between the ancient Katu and the Austronesian Chamic-speaking new settlers, who reached the coasts of Vietnam in the centuries just prior to the peak of the Dong Son civilization in the third-second century BC, and whose descendants are still the Katu’s neighbours. Hence, it is suggested that while the Katu traits may possibly be linked to Dong Son, as suggested by Ta (2002), this link should include the possibility of an Austronesian influence on those traits, resulting from the contact with new settlers from Borneo, rather than stating that the ancestors of the Dayak came from Vietnam (Ta 2002: 46).

5.2c. Daic Languages

The presence of Daic languages in the Dong Son scenario of north Vietnam is also worth considering. Daic languages were spoken in north Vietnam and southwest China from the second

millenniumBC (Ostapirat 2005). Today, Daic speaking groups such as the Co Lao (Gelao in China), Laha, and Laqua (Pupeo), Dao, and Zhuang, live in the same region on both sides of Sino-Vietnamese border and practice wet rice cultivation. Linking Daic with the Austronesian macrofamily of languages, Blench (2005: 40) points out that ‘a very distinctive feature of Daic not shared elsewhere in the region is that hulled, unhulled and cooked rice are usually called by the same name. The lack of any very ramified terminology and the astonishing homogeneity between Daic lects argues very strongly that Proto-Daic speakers were not originally rice cultivators and that they borrowed rice from their AA neighbours during an early period of expansion.’ This interesting clue links Daic speakers with early seafaring Austronesian speakers. However, rice was probably cultivated by Daic speakers by the second millennium BC and certainly during the Dong Son period (500 BC – AD 100).

New ground breaking linguistic research has recently demonstrated that Daic languages are genetically related to the Austronesian macro-family (Ostapirat 2005). Daic appears to have split as a subgroup of Austronesian around 2000 BC. From this period onwards, Daic speakers would have spread from an ancestral Austronesian homeland in southeast China throughout the region of southwest China and north Vietnam. Furthermore, following Ostapirat’s dating of the split of Daic as a subgroup of Austronesian, Sagart (2005) proposes that Tai Kadai (Daic) originated from a language which he identifies as the ‘Austronesian Ancestors of Tai Kadai (AAK)’, a daughter language of Proto Austronesian, and related to Proto Malayo-Polynesian languages. Envisioning a possible return from the islands to the mainland, Sagart also suggests that AAK speakers may have left the coast of Taiwan reaching southwest China at about 2000 BC. The relation between Tai Kadai (Daic) and Austronesian languages had already been pointed out by Benedict (1942, 1975) in his Austro-Thai hypothesis, however, Daic had not been proven to be genetically related to the Austronesian macro-family.

Daic traits associated with Dong Son and also common among the Austronesian speaking minorities of central Vietnam include the practice of blackening the teeth, of drinking ceremonially from communal jars from long bamboo sticks, and of tattooing. Interestingly, up to present, various Daic minorities play bronze drums, of a Heger IV type, at funerals. These include the Zhuang of southeast Yunnan and Guangxi provinces, in southwest China (**Figure 5.2**), and the Laqua and Lachi (or Lati) of northeast Vietnam and west Guangxi. It may follow that although Austroasiatic Mon-Khmer speaking peoples are the most ancient settlers of Mainland Southeast Asia, the question of what language did the Dong Son people speak should not exclude Daic.

This hypothesis finds supporting evidence in Chamberlain's (n.d.) study of Mene, a Tai dialect spoken in Laos with close relatives in Thanh Hoa province in Vietnam. He suggests that Tai (Daic) languages were spoken as a continuum from southwest China in the north, to the Ma and Ca River Valleys of Thanh Hoa and Nghe An provinces in Vietnam, possibly by the first century AD. Although he states that prior to this period the linguistic distribution is problematic, he also notes that the ancestors of the modern Vietnamese moved to the Red River Delta from somewhere in the south, not the north, 'during a period of heavy Sinicization', hence sometime during the mid to late first millennium AD, not BC. Before then, Daic languages were spoken in the Red River Delta. He also points out that Diffloth (pers. com. between Chamberlain and Diffloth) places the homeland of the Viet-Muong branch of Austroasiatic languages, spoken by the ancestors of the modern Vietnamese, in the Ca River Valley of Nghe An province.

Reid (1984-1985), reviewing Benedict's Austro-Thai hypothesis, notes that early research already pointed to the structural similarities between the Laqua, Gelao, and Lachi (Lati) Daic languages, spoken in northeast Vietnam, and the Austronesian languages of Taiwan. The Laqua language in particular was also linked to Cham. Reid points out that these languages all share the Verb-Object word order and modifiers follow their head word, meaning that the adjectives follow the nouns, and the possessives follow the possessor. The noun prefixes of Laqua, Gelao, and Lachi are phonetically the same or similar to the ones of Austronesian languages. It is worth noting that Laqua is also closely related to the Laha language, spoken in Lao Cai and Son La provinces, in north and northwest Vietnam (ethnologue.com, report for language code LHA), thus indicating that closely related Daic languages are distributed over the whole of north Vietnam.

All of the above may support the hypothesis that the Dong Son people of north Vietnam may have been speakers of a Daic language. However, based on the early presence of Austroasiatic languages in Southeast Asia and on the distribution of Mon-Khmer languages in north central Vietnam, such as Katuic, the hypothesis that the Dong Son people were speakers of a Mon-Khmer language is still given priority. Yet, the question remains open to further research, especially in light of the recent ground breaking linguistic data on Daic.

5.3. Early Research and the Parallels between the Dong Son material and the ethnographic data of central Vietnam and Borneo – Dong Son and Dayak

Early ethnographic and archaeological studies, from the time of the French colonial period in Vietnam in the 1920s-30s (Goloubew 1929, 1940; Colani 1936; Vroklage 1936; Schärer 1946,

1963; Steinmann 1946), already pointed out a series of parallels between the decorated Dong Son bronze material and the ceremonial practices and material culture of the indigenous peoples of Island Southeast Asia, and in particular the peoples of Borneo, collectively referred to as Dayak (**Map Figure 5.3**), and of the ethnic minorities in the highlands of Vietnam, collectively referred to as Moi (**Map Figure 5.4**). I first examine the parallels drawn between the Dong Son pictorial decoration and the data from the Dayak groups of Borneo, then we examine this first set of data against the evidence from the minorities of Vietnam.

As discussed in Chapters 1 and 2, the ceremonial scenes on the main pictorial band of the tympani of elaborate bronze drums show sets of figures wearing tall feather headdresses - hence they are called 'feathered-men' motifs - dancing and playing musical instruments such as the gourd mouth organ (*khene*), placed next to opposite pairs of house motifs with gabled and convex roofs with bird's head or feather finials, groups of human figures beating bronze drums with vertical bamboo sticks, and other figures beating into mortars (**Figures 1.1-9**). This typical Dong Son pictorial scene has been linked to the *tiwah* funerary ceremony of the Ngaju and Ot Danum Dayak, of west and central Borneo by Goloubew (1929: 36-37). According to him, during the *tiwah* ceremony of the Ngaju and Ot Danum Dayak, practised up to the twentieth century, dancers wear feather headdresses, and houses on piles are erected. Music is played by drums beaten with vertical stamping bamboo, by mouth organs with a gourd resonator and attached bamboo resonant tubes (*keledi* in Borneo, *khene* in Vietnam), and rice is beaten rhythmically into mortars (Goloubew 1929: 36-7). The *tiwah* ceremony is depicted on incised bamboo tube containers, showing intricate scenes with pairs of house motifs with differently shaped roofs with bird-like finials, people beating into mortars and playing gongs (**Figure 5.5**). The same pairs of house motifs also appear on the wooden funerary boards of the Ngaju and Ot Danum Dayak (**Figure 5.6**). On the boards, the houses are depicted on or next to boat motifs. Goloubew (1929: 36) discusses the boat motifs as representing 'soul boats' for the journey after death. The boats are in the shape of the hornbill bird, of the water snake-dragon (*naga*), or they show foliate-feather prow and stern. The pair of house motifs show differently shaped roofs with bird-like finials, and sets of hanging gongs, as the ones incised on the bamboo tube containers. The bird or water serpent-dragon prow of the 'soul boat' motif is reminiscent of the prow of the boat with feathered-men motif on the Dong Son drums belonging to the 'Eastern Indonesia' cluster (RS3), discussed in Chapters 1 and 3 (**Figures 1.25, 1.28**).

The description and the representations of the *tiwah* funerary ceremony among the Ngaju and Ot Danum Dayak parallels quite closely the pictorial scenes depicted on the tympani of elaborate Dong Son drums. In particular, the association of the boat motifs with the pair of house motifs with

different roof shape on the Ngaju funerary boards can be compared to some degree with the two types of house motifs with gable and convex roofs, and with the boat with feathered-men motifs depicted respectively on the tympanum and on the upper mantle of the 'Red River Valley' drums (RS1).

Although different Dayak groups depict them in different ways, the water serpent-dragon and hornbill motifs are represented by all groups. The examples discussed here are from the Ngaju, Ot Danum, Iban, in west and central Kalimantan, and the Kenyah Dayak in east and central Kalimantan. The motifs are painted on wood and rattan, carved into wood and bone, incised into bamboo and bone, tattooed on the skin, created from bead-work, reproduced into metal or bone ornaments and tools. In virtue of their propitiating protective function, the representation of these motifs endows objects with a sacred power, thus blurring the divide between the ceremonial and the merely functional. They function as propitiating and empowering agents of both life and death. For example, the handles of the knives for cutting the rice grass (*padi*) in east Kalimantan are in the shape of the water serpent-dragon (**Figure 5.7**). The same can be said for wooden boards to cut rattan, as well as for tools intended for more ceremonial activities, such as the bamboo sets for tattooing the skin. Moreover, the wooden dug-out coffins of the Dayak groups of east and central Kalimantan are in the shape of the water serpent-dragon naga.

Among the Kenyah Dayak (Tillema 1989), the water serpent-dragon motif is represented symmetrically as a pair of opposite figures in profile, connected by the curling tails, or as a double headed animal. It is painted on the outside walls of rice granaries, and funerary abodes on piles, while the roof finials of these structures are in the shape of hornbill's heads (**Figure 5.8**). Important longhouses also show the serpent-dragon motifs on the walls. Pairs or single double headed serpent-dragon motifs facing each other are also painted on the tall shields of the Kenyah Dayak (**Figure 5.9**). These Kenyah representations of the water serpent-dragon motifs, painted as symmetric pairs in profile with coiled tails, may be compared with the pairs of serpent-bodied crocodile/dragon motifs depicted on Dong Son bronze pediform axes from the Ma River Valley (**Figure 2.21**), and also on elaborate Dong Son bronze situlas between the boat motifs (**Figure 1.16**). The latter are also depicted in profile facing each other and with coiled tails. Moreover, the 'dragon' motif of the Iban and Bidayu Dayak of southwest Borneo described by Sellato (2001) is also represented in profile with a curled tail. This motif is even closer to the Dong Son motif than the Kenyah representations.

As discussed by Bernet Kempers (1988: 157-158, quoting Schärer 1946, 1963), Ngaju cosmology conceives of a tripartite cosmos. The middle world is inhabited by humans. The world

above is associated with male energy, and is the domain of the sacred hornbill bird. Below there is the water world, associated with female energy, and presided by the sacred water-snake or dragon. The presence of the water serpent-dragon and of the hornbill, respectively on the walls and finials of the rice granaries and funerary abodes of the Kenyah, of east and central Borneo (**Figure 5.8**), may be interpreted as achieving a balance between cosmological forces. This would have a propitiating effect on the harvest and the continuation of life, and also on the journey after life.

Among the Kenyah, and other related groups, the protective water serpent-dragon motif can be represented either with the head of a reptile or a dog. Hence it is referred to as *kalung kabo* (monitor lizard or dragon) or *kalung aso* (dog) (Sellato 2001; King 1993: 249). These motifs function as protective propitiating agents and they are simultaneously markers of high status, which in turn is indicative of the strength of the soul. As Sellato (2001) remarks with regard to the Kenyah, the 'motifs contain spirits or, rather, motifs are spirits. While these spirits are benevolent and meant to protect the motif bearers, they are very powerful and thus potentially harmful if mishandled. This is why only mature individuals with 'strong souls' may create or use powerful motifs', 'for the same reason, a Kenyah commoner would never dare use a motif used for high aristocrats'. The same is true for the long feathers on the headdresses of the Kenyah of noble birth (**Figure 5.9**). According to Tillema (1989: 14, 112), the sacred feathers of the hornbill bird were reserved for people of high rank, referred to as 'those of the right or people of the sun'. The number and length of the feathers on the headdress indicated status and was related to headhunting prowess. Today headhunting is not practiced anymore, and the feather headdresses along with the traditional dress, are worn for traditional ceremonies and dances.

5.3a. Moi, Dayak, and Dong Son

The specific objects examined by Goloubew (1929) and Colani (1936) in relation to Dong Son, include musical instruments, tools, and ornaments from the ethnic groups in Vietnam and Borneo. Among the musical instruments, these authors compare the mouth organ (*khene* in Vietnam, *keledi* in Borneo) - made of a gourd resonator with attached bamboo sticks and found among the ethnic groups in central Vietnam and in Borneo - with its representations on Dong Son bronzes (**Figures 5.10-11**). The *khene* is represented in bronze both in the Dong Son and Dian funerary inventories. It is depicted as being played by feathered-men on the drums in the RS1 cluster of 'Red River Valley' drums, on Dong Son bronze pediform axes, bronze statuettes, and libation cups, such as the one found in the large boat coffin burial at the Dong Son site of Viet Khe (**Figure 2.16**). It is also

depicted on a drum-shaped bronze container for cowrie-shells (M12:1) from the Dian cemetery of Shizhaishan in Yunnan, China. In the Dian burial inventories, the *khene* also features as a single bronze instrument at Shizhaishan and Lijiashan.

Colani (1936) devotes special attention to the musical instruments of the Moi of Vietnam, in particular from the region of north central Vietnam, noting their counterparts among the Dayak of Borneo, and elsewhere in Indonesia. Among others, she discusses xylophones, which have parallels in Java and Sumatra; idiophones, including metal gongs, used in sets by both the Moi and the Dayak, and also metal rings and wind chimes, which are also found in north Sulawesi. She also discusses the jew's harp (1936: 209-211), a small idiophone instrument with one vibrating tongue played by the Moi of the region of Dalat, in Vietnam, and also in Laos (**Figure 5.11**: fig. below). Dalat is in Lam Dong province, and the Moi mentioned by Colani could be the Chamic speaking Raglai or Ede, and also the Mon-Khmer speaking Ma, Coho, or Mnong. As mentioned in the next section, the jew's harp is part of the musical instruments of the Chamic speaking Ede, and of the Mon-Khmer speaking Ma. This instrument is also found in Burma; in Yunnan and on Hainan Island, in China; in Taiwan; and in Sulawesi and possibly Borneo in Indonesia. Blench (n.d.) points out that the jew's harp on the mainland and in Taiwan had two or more tongues allowing for complex melodies, while in the Austronesian island region it is only found in its more simple form with a single tongue. According to Blench, the instrument appears to have been simplified after Austronesian speakers left Taiwan during the fourth millennium BC. It is significant that the jew's harp in central Vietnam is single-tongued, thus linked to the instruments used by Austronesian speakers in the islands rather than to the ones on the mainland. It is also found among the speakers of Li, a Daic language of Hainan Island, in southwest China. As noted by Reid (1984-1985), Li has been associated by early researchers with the Austronesian languages of Taiwan, and also with Cham. The fact that Daic has been demonstrated to be a subgroup of Austronesian (Ostapirat 2005), as discussed further in the next section, explains these parallels. Moreover, linguistic evidence and Chinese records show that some of the northern Chamic speakers from Vietnam first reached the island of Hainan in the tenth century after the capital of Champa Indrapura was sacked by the Vietnamese in AD 982 (Thurgood 1999: 20-22). Hence Chamic speakers have been in contact with Li speakers for one thousand years on Hainan Island.

Among the aerophones, or wind instruments, Colani devotes special attention to the above mentioned *khene* mouth organ - found widely among the minorities of Vietnam, and also in southwest China, Laos, Burma, and Cambodia - for its parallels among the Dayak of Borneo, and its representation on Dong Son bronze drums. The string instruments are represented by the

thirteen-string zither, composed of a half gourd attached to a bamboo stick with strings. The latter is typically used by the Chamic speaking Jarai of Gia Lai and Kon Tum provinces, and Colani points out that it is also found in Cambodia and Sulawesi, in Indonesia.

Goloubew (1929: 28) and Colani (1936: 201) also compare Dong Son bronze spears with anthropomorphic handles with the wooden examples from both the Moi of central Vietnam and the Dayak of Borneo (**Figure 5.12**). According to Goloubew, the dress, hair style, and ornament of the figures on the Dong Son spears parallel the ones shown by both the Moi and the Dayak. In a gallery in Bali (Guci Gallery, Banjar Basangkasa), I located three rare wooden spears from Kalimantan, said to be dated roughly from one to two-hundred years ago, which show anthropomorphic handles with figures wearing pointed headdresses. As shown in **Figure 5.13**, these wooden spears bear some resemblance to the Dong Son bronze spears. However, the provenance of these spears needs to be located with more certainty before drawing more parallels. The practice of extending the ears lobes with heavy metal earrings of the Chamic speaking minorities of central Vietnam is notably similar to the Dayak practice (**Figure 5.14**), and is also shown on the anthropomorphic handles of the Dong Son bronze spears (**Figures 5.12-13**).

In the same way as for the *khene* mouth organ, other objects made of non metal materials in their Dayak and Moi ethnographic contexts, have bronze counterparts in the archaeological Dong Son material. Goloubew (1929: 21-22) points out that the Dong Son bronze situlas may be compared, in shape and decoration, with both the Dayak and Moi rattan buckets with handles, which are decorated with geometric motifs laid out on horizontal bands over the body (**Figure 5.15**).

The early studies stand as valuable pointers to existing parallels. However, the question of why these parallels exist has been either left open to further inquiry, or explained by assuming a spread of the Dong Son culture from the mainland to the islands of Southeast Asia. Hence, the ethnic minorities living in the highlands of central and north-central Vietnam have been considered as the descendants of the ancient peoples who remained on the mainland, while the others spread throughout island Southeast Asia (Colani, quoting Finot, 1936: 255). This implied that Austronesian speaking peoples migrated from Vietnam out to the islands at an early, but not clearly defined, period. These early assumptions were formulated based on a comparative analysis of the archaeological and ethnographic material available at the time. In the absence of linguistic data, the divide of the Moi minorities of Vietnam between speakers of Austronesian and Austroasiatic languages was not acknowledged, and neither was the fact that these two main linguistic groups

have been neighbours for more than two millennia, mutually exchanging and borrowing cultural and linguistic traits.

5.4. Long Standing Neighbours: Austronesian and Austroasiatic Speaking Ethnic Minorities of Central Vietnam

The ethnic minorities present today in the highlands of central and north central Vietnam, with some coastal dwellers, are linguistically divided into speakers of Austronesian Chamic languages, and speakers of Austroasiatic Mon-Khmer languages. They constitute about twenty-three per cent of the population of Vietnam, while the rest are Kinh, or ethnic Vietnamese. As discussed above, linguistic research on the development from pre-Chamic to Proto-Chamic (Thurgood 1999) indicates that in the second half of the first millennium BC, the Austronesian Chamic speaking new settlers from Borneo and the settled Mon-Khmer speaking population of central and north central Vietnam underwent a very long process of contact and exchange. This obviously has resulted in mutual cultural and linguistic borrowings. Hence, the present cultural and linguistic scenario of the minorities of central Vietnam is the living evidence of the continuous contact and exchange which begun more than two thousand years ago.

5.4a. Austronesian Speaking Groups

The Austronesian Chamic speaking minorities present today in central Vietnam include the Giarai, Ede, Cham Haroi, Raglai, Chru, and Cham. The first three groups are distributed inland in the highlands of Kon Tum, Gia Lai, and Dac Lac and west Binh Dinh provinces. The Raglai and Chru live closer to the coast in Khan Hoa, Lam Don, and Ninh Thuan provinces. These Chamic groups maintain a tradition of matrilineal kinship (Vietnam Museum of Ethnology 1998).

The Cham group is present mainly in Ninh Thuan and Binh Thuan provinces, with scattered groups in the south. The mountain Cham (Cham Haroi) live next to the Ede and Bahnar (the latter Mon-Khmer) in the western part of Bin Dinh, Phu Yen, and Kan Hoa provinces. The maritime heritage of the Cham shows in their fishing and their ocean-going vessels for trade and war, which are no longer in use today.

The Giarai people, in the highlands of Kon Tum and Gia Lai provinces, build tombs which are covered with a tall painted wooden roof (**Figure 5.16**). The top of this roof shows a boat carrying a squared structure. Inside the structure are two seated human figures drinking from a communal jar with long bamboo sticks. The practice of drinking rice wine ceremonially from communal jars with long bamboo sticks is followed by both Austronesian and Austroasiatic groups in the central highlands of Vietnam and among the Dayaks of central and west Borneo. Interestingly it is also practiced by the Daic speaking minorities of north Vietnam and Southwest China, which have been briefly discussed in linguistic terms in the previous section. This practice also appears to be depicted on bronze drums by the representation of pairs of figures in profile seated inside the house motifs with gable roofs. The figures face a central jar with what may be bamboo sticks coming out of the rim. This practice also appears to be depicted on bronze drums by the pairs of figures in profile inside the house motifs with gable roof (**Figure 1.2**). The latter motif is not very easy to read on any of the drums I examined, and it should be considered only as a possible link. The wooden funerary poles of the Giarai show the typical crouching human figure with high knees meeting the elbows and hands holding the jaws (**Figure 5.17**), which is found throughout the Austronesian world, and which features frequently in the context of all Dayak groups in Borneo (**Figure 5.18**).

The Ede people in the highlands of Dac Lac province, to the south of the Giarai people, also carry on the practice of drinking ceremonially from a communal jar with long bamboo sticks. The jars are kept along with the gongs and the gourds, in their communal longhouses on poles (**Figure 5.19**). These communal longhouses can be compared with the ones of the Ngaju Dayak both in external shape and with regard to the interior layout, and the specific heirlooms kept inside, in particular the musical instruments. The Giarai people mentioned above also traditionally lived in longhouses. Until the 1970s the Ede people in the region of Buon Ma Thuot still lived in longhouses fifty-sixty metres long. In the past the length of the longhouses reached two-hundred metres. The front part of the interior (*gah*) is an open space for communal gatherings and ceremonies. Here ceramic jars with long bamboo sticks used to drink communally on ceremonial occasions are lined up. There are also sets of bronze gongs, a large drum with stretched buffalo skin, bamboo mouth organs with gourd resonators, the single tongued jew's harp, bamboo mouth bows with attached strings, and buffalo horns. The sets of gongs are important heirlooms for each family. The same can be said for the bronze gongs kept in the longhouses of the Dayak groups of Borneo, and elsewhere in Southeast Asia. Dried gourds are also used as containers. The wooden beams and columns in this front section of the longhouse are carved with pot-shaped motifs said to represent bronze pots, and turtle, lizard or crocodile, crab, dog, and elephant motifs. These motifs

are significant within the Ede system of beliefs. In the rear section of the house several living compartments are aligned on one side. This interior layout parallels closely the longhouses of the Dayak of Borneo, such as the ones of the Gerai Dayak, of the Ketapang district in west Kalimantan Borneo (Helliwell 1993).

Based on my study of Ede longhouses in Ban Don, in Dac Lac province, and in the Vietnam Museum of Ethnology in Hanoi, in 2005, I wish to point out some unexplained new parallels. A most intriguing feature of the Ede longhouse are the 'pot-shaped' wooden sculptures, which are also carved on columns and supporting beams. The 'pot-shaped' sculptures are placed as a pair on either side of the entrance to the front deck of the house (**Figure 5.20**). While it may be just a coincidence, these 'pot-shaped' sculptures curiously resemble Dong Son bronze drums in shape. Interestingly, these wooden sculptures are described in the Vietnam Museum of Ethnology as representing bronze pots. The placement of these pot-shaped wooden sculptures in the house, at the main entrance on the front deck, and on columns and beams supporting the structure (**Figures 5.20-21**), suggests that they played an important symbolic role, together with the other carved turtle, crab, and crocodile motifs. These wooden sculptures, and the bronze pots which they are said to represent, may relate to the shape of bronze drums. This new parallel may be a pure coincidence but it is certainly worth noting and exploring further.

Another type of carving typical of the Ede longhouse is worthy of special attention. The wooden stairs leading up to the front deck, and the two main supporting wooden columns and beams at the main entrance, are carved with pairs of protruding motifs interpreted as female breasts with half moon motifs over them (**Figures 5.20-21**). These columns and beams also show the pot-shaped motif. Below the breast motifs on the Ede columns are geometric square patterns. What calls for attention is that the same combinations of half moon, breasts, and geometric motifs are also carved, in the same order, on the wooden doors and panels of the houses of the people of the Belu region, in the Indonesian part of east Timor, in eastern Indonesia (**Figure 5.22**). The Belu doors are illustrated by Vroklage (1953: figs 365, 367). The people of the Belu region are speakers of the Tetum language, which is likened by linguists to languages of south Sulawesi (Hull 1998). In Belu, the wood carvings on wooden doors, panels, and poles, parallel the repertoire of Ede carvings, also include turtle, crab, and lizard motifs on wooden beams and columns. The parallel also includes the carving of pot-shaped motifs on wooden house posts, sometimes showing a seated human figure on top (**Figure 5.23**).

The parallel between the Ede and Belu carvings of the half moon and breasts motifs, and the geometric pattern, do not only concern similar motifs, but also their association and order of

placement, and the objects upon which they are represented. These three variables strengthen the parallel between the Ede house of central Vietnam and the house of the Tetum speakers of east central Timor. To my knowledge, this parallel is found only between these two distant regions in the Austronesian world. The only other reference which I found pointing to the parallel between the carvings of the breast and half moon motifs in the Ede and the Timor contexts is in a publication by Ta Duc (1999: 138). However, Ta Duc interprets this data as evidence that the minorities of Vietnam are the ancestors of the island peoples, within an ideological framework envisioning the spread of Dong Son cultural traits from Vietnam to the islands. This theory however is not supported by the linguistic and archaeological record. It would be interesting to explore whether Tetum may be linked to Western Malayo Polynesian Chamic languages via its link with languages from south Sulawesi, but this far exceeds the purpose of the present study.

The Raglai people in Khanh Hoa, Ninh Thuan, and Lam Dong provinces, are the most coastal of the Chamic groups. They build funerary structures with elaborate feather-like carvings on the roof (**Figure 5.24**). Their bamboo tube containers for arrows, incised with geometric decoration, are reminiscent of the incised bamboo containers of Dayak groups in Borneo. A typical musical instrument of the Raglai is the bamboo-tube-zither without gourd resonator.

5.4b. Austroasiatic Speaking Groups

The fifteen recognized ethnic minorities speaking Austroasiatic Mon-Khmer languages in central Vietnam are distributed in the region of the Truong Son Cordillera and in the highlands to the south of it, from Quang Binh province in the north, to Ninh Thuan province in the south. The total population amounted to about 730,000 people, according to a 1989 census (Vietnam Museum of Ethnology). They include the Banhar, Brau, Bru, Choro, Co, Coho, Katu, Gie-Trieng, Hre, Ma, Mnong, Romam, Ta Oi, Sedang, and Stieng. The groups in the northern Truong Son range follow a patrilineal kinship system, while the ones in the centre and south follow a matrilineal system like their Chamic neighbours. There are also other five groups of Mon-Khmer speakers distributed in the western highlands of north Vietnam, in Nghe An, Son La, and Lai Chau provinces. They include the Khang, Khmu, Mang, Odu, and Sinh Mun, amounting to about 65,000 people in 1989. They follow a patrilineal kinship system.

In particular, the above mentioned Katu peoples in north-central Vietnam, present from Quang Binh to Thua Thien Hue provinces, are of particular relevance for the present inquiry. They are

considered by some Vietnamese ethnographers (Ta 2002) as the descendants of what are referred to as the 'ancient Viet' people, among whom the Dong Son civilization would have flourished. The parallels between the Katu and the Dong Son context includes the Katu communal house with bird finials, the feather headdresses, although quite different in style, the men's long loincloth, the blackening of the teeth, and possibly headhunting in the past (Ta 2002).

The question which arises is whether some of the Katu traits comparable to the Dong Son data may have been adopted by the Mon-Khmer speaking Katu as a result of the extended contact with their Chamic speaking neighbours. The traits in questions are indeed common, to various degrees, to a several Austronesian island contexts, including the Dayak of Borneo, and also the Batak of Sumatra, and the Toraja of Sulawesi, among others.

As for the evidence of contact between specific neighbouring linguistic groups, Thurgood (1999:10), points out that the Mon-Khmer Mnong were under the dominance of the Chamic speaking Rade (Ede). Moreover, the Mon-Khmer speaking Bahnar and the Chamic speaking Jarai have been in mutual cultural interaction from ancient times. Indeed, among the Mon-Khmer minorities, the Mnong and the Bahnar, are the ones who share the most evident cultural traits with their Austronesian speaking neighbours.

The long standing contact and exchange between Austroasiatic and Austronesian speaking groups has also lead to language shifts and bilingualism in some cases. For example, in the case of the Chamic Haroi speakers, who live in west Binh Dinh province, between the Mon-Khmer Banhar in the north, and the Chamic Ede in the south, Thurgood (1999: 27) points out that they 'have effectively become a Chamic-speaking branch of the otherwise Bahnaric-speaking Hrê'. Thurgood (1996: 18) also notes that 'at the earliest stage, it looks as if some speakers of Hrê, a Bahnaric Mon-Khmer language, shifted to using a Chamic language closely resembling Rade (Ede) as their dominant language; however, following the shift, there has nonetheless been a long period of continuing bilingualism between the Haroi and the Bahnaric speakers'.

The Mon-Khmer Bahnar people live mainly in the highlands of Gia Lai and Kon Tum provinces, in central Vietnam. Among others, one of the cultural traits which they share with their Chamic speaking Jarai and Ede neighbours, is the practice of drinking ceremonially from communal ceramic jars using long bamboo sticks. The tall roof with curved finials of the traditional Bahnar house bears some resemblance to the roof of the tombs of the Chamic speaking Giarai (**Figures 5.25, 5.16**). Moreover, the Mon-Khmer speaking Co, in Quang Nam and Quang Ngai provinces, build tall ceremonial poles which are very similar to the ones of their Chamic speaking Ede neighbours (**Figure 2.26**).

With regard to musical instruments, the Mon-Khmer speaking groups play some of the same instruments as their Chamic speaking neighbours. For example, the Mon-Khmer speaking Ma, in Lam Dong province, play the mouth organ, and the jew's harp (**Figure 2.11**: fig. below), like their Chamic speaking Ede neighbours, in Dac Lac province. Moreover, the Mon-Khmer speaking Hre, in Quang Ngai province, play two-stringed zithers with gourd resonator, while their Chamic speaking Giarai neighbours, living to the west and south of the Hre, in Kon Tum and Gia Lai provinces, play thirteen-stringed zithers. Widespread among the Mon-Khmer speaking groups are also other types of mouth organ and horn; drums with stretched buffalo skin, which are smaller than the ones of their Chamic speaking neighbours; other percussion instruments, including bronze gongs, cymbals and wind chimes made of thin sheets of bamboo; and stringed zithers played with fingers or a bow. Other cultural traits which are common throughout the Austronesian world at large and which are shared by the Mon-Khmer speaking groups in Vietnam include the beating of bark cloth, tattooing, the chewing of betel nut, and the blackening of the teeth.

CHART OF SHARED CULTURAL TRAITS

Abbreviations:

DS: Dong Son - **BE:** Borneo Ethnography - **VE AN:** Vietnam Ethnography Austronesian Speakers - **VE AA:** Vietnam Ethnography Austroasiatic Speakers - **DE:** Daic Speakers Ethnography
§: Present; **?**: not certain; blank space: absent

	DS	BE	VE AN	VE AA	DE
PRACTICES AND CUSTOMS					
Extended ear lobes with earrings	§ Figs. 2.25, 5.12-13	§ Fig. 5.14	§ VT Ethnology Museum exhibit	?	?
Blackening of the teeth	§ possible but not certain	§ Tillema 1989:157, fig. 137	§ VT Ethnology Museum exhibit	§ Ta Duc 2002:7	§ VT Ethnology Museum exhibit
Tattooing	§ possible but not certain	§ Tillema 1989: 161-165	§ VT Ethnology Museum exhibit	§ Ta Duc 2002:30	§ VT Ethnology Museum exhibit
Headhunting	?	§ King 1993: 86, 98; pl.25	?	?	?
Chewing betel nut	?	§ King 1993:91; Tillema 1989	§ VT Ethnology Museum exhibit	§ VT Ethnology Museum 1998:90	§ Guangxi Prov. Museum exhibit
Beating bark cloth	?	§ King 1993:85, pl.22	§ VT Ethnology Museum exhibit	§ VT Ethnology Museum exhibit	?
Drinking from communal jars with bamboo	§? Fig. 1.2	§ King 1993	§ Fig.5.16, 5.19	§ VT Ethnology Museum exhibit	§ VT Ethnology Museum exhibit
Beating drums with vertical bamboo	§ Figs. 1.1-9	§ Goloubew 1929:36-7	?	?	?

	DS	BE	VE AN	VE AA	DE
MATERIAL CULTURE					
Tall feather headdresses	§ Figs. 1.35, 2.5/6	§ Fig. 5.9	?	?	?
Anthropomorphic spear handles (br+wd)	§ Fig. 2.25	§ Figs. 5.12-13	§?		?
Longhouses	§? Tillema 1989: 14, fig. 14	§ Figs. 5.19-20	§		§?
Bird finials on roof of structures on piles	§ Fig. 1.3	§ Fig. 5.8	§?	§ Fig. 5.25	§?
Bird-naga decoration on prow of boats	§ Figs. 1.12, 1.28	§ Fig. 5.6-7	§ Fig. 5.16	?	?
Symmetric reptile-bird motifs	§ Fig. 2.21	§ Fig. 5.8	?	?	?
Mouth organ with gourd resonator	§ Figs. 2.16, 5.10	§ Fig. 5.10	§ VT Ethnology Museum exhibit	§ Figs. 5.10-11	§ VT Ethnology Museum exhibit
Stringed zither with gourd resonator	?	?	§ VT Ethnology Museum 1998:111	§ VT Ethnology Museum 1998:92	?
Bronze gongs		§ Fig. 5.5-6	§ Fig. 5.19	§ VT Ethnology Museum exhibit	§ Fig. 5.2
Jew's harp	?	§ ? Colani 1936: pl. XXXI	§ VT Ethnology Museum exhibit	§ Fig. 5.11	?
Tall shields	§ Figs. 1.3, 1.7	§ Fig. 5.9	§ History Museum, Ho Chi Minh City	?	?
Incised bamboo containers	?	§ Fig. 5.5	§ VT Ethnology Museum 1998:112		?
Dried gourd containers	§ bronze gourd	§ Tillema 1998	§ VT Ethnology Museum exhibit	§ VT Ethnology Museum 1998:82, 94	§ VT Ethnology Museum exhibit

5.5. Archaeological Evidence Linking Borneo and Central Vietnam

The archaeological evidence pointing to the movement of Austronesian speakers from Borneo to central Vietnam in the second half of the first millennium BC is given by the finds of jar burials, associated pottery, and nephrite earrings in north Borneo and the Philippines, which parallel the finds of jar burials and associated material of the Sa Huynh culture (500 BC – AD 100) in central Vietnam. The jar burials at the Niah caves in east Sarawak, in north Borneo, and at the Tabon caves in Palawan (Fox 1970), located just to the east of northeast Borneo in the Philippines, are dated to the late second-early first millennium BC (Bellwood 1997: 240-241, 271-275, 1985: 272-76; Harrison 1968). They are thus earlier than the Sa Huynh jar burials in central Vietnam.

The Sa Huynh culture was centred on the coastal region of central Vietnam, and was contemporary with the Dong Son culture (500 BC – AD 100) in the north. It extended on a north to south axis, from the region of Quang Binh and Quang Tri provinces in the north, to the region of Khan Hoa province in the south, with ramifications further south in the region of Dong Nai province. The people of Sa Huynh were speakers of a Chamic language, and they are identified with the early settlers from southwest Borneo (Bellwood 1997; 1985; Higham 2002: 183). The fact that the jar burials at the Niah caves in north Borneo, and also at the Tabon caves in Palawan, are dated to the late second-early first millennium BC, thus earlier than the Sa Huynh jar burials, provides evidence of a sequential link and supports a population movement from Borneo to Vietnam. The circular nephrite earring with lugs (*ling ling o*) found at the Niah caves (Iizuka et al. 2006), and the three earrings of both circular and double-headed animal type (*ling ling*), found at the Tabon caves, are of the same type as the hundred plus specimens (**Figure 2.67**) found in Sa Huynh jar burial sites in central and south Vietnam (Reinecke 1994, 1996a,b; Reinecke and Le 2000).

Moreover, the similar cord-marked pottery found at the Niah caves in Sarawak, and at the Tabon and Kalanai caves in the Philippines, parallels the Sa Huynh pottery. Hence Solheim identified this pottery type as the 'Sa Huynh-Kalanai' tradition (Solheim 1957, 1966). The distribution of this pottery provides further evidence of an Austronesian settlement of central Vietnam in the second half of the first millennium BC (Bellwood 2004b).

The location of the Niah caves in east Sarawak, in north Borneo is of particular significance because it matches Blust's linguistic data (1984-1985: 56). As discussed above, Blust traces the language spoken around 2000 BC in the region of west Sabah, thus the same region of east Sarawak, as the ancestral language of those spoken in southwest Borneo in the first millennium BC

(1984-1985: 56). The latter are the languages linked to the pre and Proto-Chamic languages spoken in central Vietnam in the second half of the first millennium BC.

Nephrite earrings of the *ling ling* and *ling ling o* types are found in their greatest concentration in the Sa Huynh sites of central and south Vietnam. Other finds of one or a few specimens, along with the Niah and Tabon caves finds, include the Dong Son sites of Lang Vac (Ngo 1993, ND) and Xuan An (Southworth 2004), both in Nghe An province, Ban Don Ta Phet (Glover 1990) and U Thong in central Thailand, Khao Sam Kaeo in peninsular Thailand, Cambodia, and other sites in the Philippines and Taiwan, pointing to a wide ranging exchange network in the first millennium BC. Evidence of local production in Vietnam and Thailand is given by the finds of unfinished specimens at Dai Lanh, in Quang Nam province, in central Vietnam (Southworth 2004), and at Khao Sam Kaeo, in peninsular Thailand, as discussed in Chapter 2 (section 2.8a). These finds indicate that both the finished product and the nephrite raw material were traded. According to recent research conducted by Bellwood and his students, a major source of the nephrite material was located in Taiwan (Hung et al. 2006; Iizuka et al. 2006).

The nephrite earrings found at the Dong Son sites of Xuan An and Lang Vac include one double-headed animal type (*ling ling*) at Xuan An (Southworth 2004), and three of the circular type with lugs (*ling ling o*) at Lang Vac (Ngo 1983, ND). Both sites are located in Nghe An province, in the southern reaches of the Dong Son region in the Ca River valley. The location of the finds of Sa Huynh nephrite earrings at Lang Vac and Xuan An, in the southern reaches of the Dong Son region, bordering the northern part of central Vietnam is significant. The northern part of central Vietnam was a 'borderland', to use Reinecke's term (Reinecke et al. 1999: 64), between Dong Son and Sa Huynh, and it was also the starting point of a major exchange route to the southwest, through south Laos and into north-east Thailand across mountain passes. As discussed in Chapter 2, Reinecke's research points to the multiple contacts and exchanges between the coastal peoples of central Vietnam, with maritime trade access, and the peoples of north Vietnam and northeast Thailand, possessing specialised bronze technology (Reinecke et al 1999). The overall finds at the large Dong Son burial site of Lang Vac (Trinh et al. 1974; Pham et al. 1981; Imamura and Chu 2004), point to the importance of the southern reaches of the Dong Son region, which would have profited from its proximity to north central Vietnam as a major gate to the south and the southwest across mountain passes. As discussed in Chapter 2, further evidence of exchange between Dong Son and Sa Huynh is shown by the growing number of Dong Son bronze drums and other Dong Son bronze material in the Sa Huynh region.

In conclusion, both archaeological and linguistic evidence indicates that Austronesian Chamic speakers settled central and south Vietnam from southwest Borneo in the second half of the first millennium BC. I suggest that if, following Blust (1984-1985: 57), these new settlers from Borneo reached not only central and south Vietnam, but also north central and perhaps north Vietnam, they would have come in contact with the population of Dong Son, speakers of an Austroasiatic or a Daic language. Such contact may have resulted in the adoption and integration of cultural traits of the new settlers into the system of beliefs of the settled population.

CONCLUSION

In this study of the entire distribution of Dong Son bronze drums I have aimed at highlighting early exchange routes and cultural contact throughout Southeast Asia in the centuries around the turn of the first millennium BC – AD, thus during the period just prior to, and overlapping with, the early influences from China and India in the region. The exchange of valuable ceremonial bronze drums, associated with religious and political power, established alliances between centres favouring the trade of other goods. The routes of specific trade networks define early cultural spheres, which would have opened the way and set the stage for the process of state formation, thus favouring the transition from the late Metal Age to the historic period.

Taking a synoptic view over the entire area of distribution, which I interpreted broadly as a large 'archaeological site' containing different cluster assemblages, I have highlighted and hopefully clarified the questions which arise from a neutral analysis of the distribution. My approach counters most previous studies of bronze drums within modern national boundaries, thus not yielding insight into early cross-regional exchange in Southeast Asia. The main exception to national approaches is the valuable account by Bernet Kempers (1988), from which my study draws its foundations. However, the main new conclusions reached here, such as what I consider to be the solution to the question of the origins of the bronze drums found in the cemeteries of the Dian culture of Yunnan, discussed in Chapter 2, and my new approach marking the geographical and chronological divide between the distributions of bronze drums in western and eastern Indonesia, discussed in Chapter 3, are based on my new selected clusters and on the analysis of important new material which clarifies questions left open in all previous studies. While Bernet Kempers did not focus specifically on exchange routes, I based this study on early cross-regional exchange as the crucial point which can be expanded and clarified by the analysis of the distribution of Dong Son drums as a whole, focusing on 'what is found where'. After completing the survey of the entire distribution and discussing all its implications from Chapters 1 to 4, in Chapter 5, I took a more experimental inter-disciplinary approach in order to point to new questions regarding the possible cultural influences related to the typical 'feathered' decoration of Dong Son drums.

My identification of selected clusters of drums in Chapter 1 served as a tool to highlight the questions discussed from Chapters 2 to 4. The Region Specific cluster 1 (RS1), comprising the elaborate 'Red River Valley' drums, and representing the peak of Dong Son bronze casting in the third-second century BC, served as a guideline for the analysis of the typical decoration of Dong Son bronzes, comprising not only bronze drums, but also bronze situlas, pediform axes, plaques, bells, weapons and tools, sharing the typical Dong Son decoration. I emphasised that this consistent body of Dong Son bronze material related by decoration is found together in burial and settlement sites or as chance finds, only in the Dong Son region of north Vietnam. Hence, in response to the ongoing debates between Chinese and Vietnamese archaeologists regarding the centres of production of Dong Son drums, identified as 'Shizhaishan' drums in the main Chinese classification (ZGTY 1988), the regional concentration of a large body of Dong Son bronze material along with the evidence for local casting discussed in Chapter 2 strongly point to north Vietnam as the location of the centres of production.

Having located the centres of production of Dong Son drums in north Vietnam, in Chapter 2, I identified a local tradition of bronze drums from the Dian culture of Yunnan, in China, which was contemporary and in contact with Dong Son in north Vietnam. I argue that this local tradition arises from the contact between Dong Son and Dian. I identified this local tradition as the Region Specific cluster 2 (RS2) of 'Dian' drums, based on my analysis of Dian and Dong Son material in Yunnan and north Vietnam in 2004 and 2005. In my view, my identification of 'Dian' drums solves the longstanding question regarding the origins of the bronze drums found in the cemeteries of the Dian culture of Yunnan.

I have argued that the burial inventories of some of the tombs in the Dian cemeteries of Shizhaishan and Lijiashan comprise both imported Dong Son drums and locally cast Dian drums. The two bronze drums found at the Dian cemeteries of Tianzimiao and Yangfutou are imported Dong Son drums. It is this fundamental distinction between two main types of drums which is overlooked by the 'Shizhaishan' typology in the Chinese classification. Evidence of the local casting of Dian drums in Yunnan is given by their close similarity in terms of shape, decoration and casting technique, with bronze containers for cowrie-shells, found exclusively in the Dian cemeteries (sections 2.5a-b). From my study of Dian drums, it appears that the tympanum and the mantle were cast separately. The flat circular tympanum of Dian drums appears to have been laid and sealed over the upper mantle, in the same way as it was done for the lids of the drum-shaped containers for cowrie-shells in the Dian burials. Moreover, based on my analysis of the material from the Dian cemetery of Tianzimiao in the Kunming City Museum, I argue that not only Dong

Son bronze drums were reinterpreted in the Dian context but also Dong Son bronze situlas (section 2.4a). This is shown by material unearthed in tomb 41 at Tianzimia, such as the container for cowrie-shells (M41:103), which I consider to be a Dian version of a Dong Son situla.

The Shizhaishan typology provides an example of how a classification, especially when it is associated with nationalistic debates, can turn into an obstacle to understanding. On the other hand, other typologies of early bronze drums from the Chinese classification, which names types of drums after the main locations of the finds in China, suitably identify the drums highly concentrated in such locations, such as in the case of the Wanjiaba (Chapter 2) and the Lengshuichong typologies (RS4, Chapters 1 and 3). As discussed in the Introduction, I consider classifications to be essentially tools to sort out and understand the material. Such tools are necessary when dealing with such a large quantity of objects such as the early bronze drums examined here. However, tools should function as guidelines and not as ends in themselves. Classifications are not straight-jackets or fixed categories, and in particular, they should not be used as evidence to prove nationalistic arguments, as it frequently happens in the debates between Chinese and Vietnamese scholars. Hence, based on my neutral approach to the distribution, I do not find it necessary to adhere to only one classification or to create a new one. In light of existing classifications, each serving certain purposes but not others, I find it useful to selectively adopt typologies from different classifications such as the Heger (1902), the Vietnamese (Pham et al. 1987), and the Chinese (ZGTY 1988) ones. I select certain typologies from them, and not others, which best illustrate the specific points in question. The clusters which I identified in Chapter 1 provide new insight into specific questions which are not clarified by the present classifications, and point to new clues about specific types of bronze drums. Hence, my clusters contrast in part with both the Chinese and the Vietnamese classifications.

In the second part of Chapter 2, I followed the trails of Dong Son drums along river and maritime routes throughout the Mainland and the western part of Island Southeast Asia. I traced the geographical span of trade networks, early centres and cultural spheres, emphasising the direct link between the drums in the western part of the mainland and the ones in western Indonesia. In order to emphasise the regional divide of the island distribution of Dong son drums, I discussed the distribution in eastern Indonesia separately in Chapter 3.

On the mainland, following Reinecke's research (Reinecke et al. 1999), I further emphasised the importance of the region of north central Vietnam as the starting point of a major exchange route through south Laos, northeast, central and Peninsular Thailand, until the Malay Peninsula, which was the bridge to western Indonesia. As a new approach to the island distribution, I argued that the

distribution of Dong Son drums in Indonesia is best understood as two separate domains. My new conclusion arises from the analysis of 'what is found where' adopting a synoptic view over the distribution and selecting regional clusters. Eastern Indonesia hosts exclusively the Region Specific cluster 3 (RS3), which I identified in Chapter 1.

Based on my identification of the RS3 cluster - from the data which I collected during my fieldwork in south Sulawesi, southeast Maluku, at the Museum Nasional Indonesia in Jakarta, the Museum Tantular, in Surabaya, and the Nam Dinh Museum in north Vietnam - I argued that the distribution of Dong Son drums in Island Southeast Asia is best understood if discussed in terms of a western and an eastern domain, rather than as a whole. This new approach counters the discussion of the island distribution as a whole in previous studies, which overlooked the homogeneity of the cluster in the eastern islands, and envisioned only one main route of transmission for all the Dong Son drums in the islands. In the light of the greatest concentration of the RS3 drums in eastern Indonesia and of their few counterparts on the mainland, I argued that the drums in eastern Indonesia left the mainland directly from their centres of production in north Vietnam or southwest China, without travelling overland across the western part of Mainland Southeast Asia, as the drums found in western Indonesia did. With regard to chronology, the available data indicates that early Dong Son drums were imported to western Indonesia in the early first millennium AD, while the later RS3 cluster of Dong Son drums reached eastern Indonesia sometime in the mid first millennium AD, and the drums were possibly further traded between the islands for an extended period of time. In Chapter 3, I also proposed a model concerning the trade dynamics leading to the eastern distribution, and I inquired into early inter-island trade networks in Indonesia involving the role of ancient seafaring groups. Hence, the new conclusions reached in Chapter 3 further validate the choice to study 'what is where' based on cluster analysis.

The identification of the Region Specific cluster 4 (RS4) of 'Guangxi' drums, corresponding to the Lengshuichong type in the Chinese classification, is based on my fieldwork in Guangxi, in China. It served essentially as a comparative tool for dating the related but earlier RS3 cluster of 'Eastern Indonesia' drums to about the third century AD, and also for locating the possible centres of production of the 'Eastern Indonesia' drums in the region comprising northeast Vietnam and west Guangxi province, in China.

In Chapter 4, based on the data collected during my fieldwork in Bali and Java from 2005 to 2007, I have discussed the local Pejeng type bronze drum casting tradition in Bali and Java, arising from the influence of the Dong Son drums imported to western Indonesia. Evidence of the association of the hourglass-shaped Pejeng drums with the Dong Son drums in western Indonesia is

given by the excavation of Dong Son and Pejeng drums together in sites in east and central Java. Moreover, evidence for dating Pejeng drums to about the late first-second century AD, thus to the period when Dong Son drums reached western Indonesia, is given by the fragments of casting moulds excavated at Sembiran in Bali. These were excavated in association with Indian pottery dated to the first-second century AD (Ardika n.d.; Ardika and Bellwood 1991).

After having traced bronze drums in space and time, in the final Chapter 5, I turned back to focus on the typical 'feathered' environment depicted on Dong Son bronze drums, inquiring into the cultural influences related to it. Drawing together linguistic, ethnographic and archaeological data, I inquired into the possible contact and exchange between the people of Dong Son in north Vietnam, with knowledge of bronze casting, and new settlers from Borneo, who reached central and north central Vietnam in the second half of the first millennium BC.

Adopting an inter-disciplinary approach, I have discussed parallels between the Dong Son decoration and the ethnographic data from Borneo and Vietnam in light of current linguistic and archaeological data pointing to a massive population movement from west Borneo to central Vietnam in the period just prior to, or overlapping with, the Dong Son culture in north Vietnam. I inquired into which traits from the Dong Son decoration may be traceable to the cultural context of the new settlers from Borneo. As pointed out in Chapter 5, I do not argue in favour of the overlay of the cultural traits of one ethnicity over another, but I inquire into the socio-cultural and linguistic scenario of north and north central Vietnam in the second half of the first millennium BC. In this regard, I also tackle the question of which language did the Dong Son people speak. Linguistic evidence indicates that Daic was spoken in north Vietnam during the Dong Son period, thus the hypothesis that they spoke a Daic language - which has recently been proven to be genetically related to the Austronesian macrofamily of languages (Ostapirat 2005) - is just as valid as the more currently adopted view that they spoke an Austroasiatic language. The question remains open pending on further data.

The final point that I wish to make, as discussed in Chapter 5, but also relating to the whole study, is that archaeological cultures should not be assumed to be representative of one single ethnicity. For example, as Peters (1990) points out, one archaeological culture may comprise a multi-ethnic and multi-lingual population, and the same cultural traits may have been shared by different ethnic groups as a result of a common environment. The notion of ethnic identity itself is liable to variations in light of socio-economic and environmental shifts. The pairing of archaeological cultures with one ethnic population, further glorified as the ancestors of the present population of the region in question, is what lies at the base of the numerous ongoing nationalistic

debates revolving around the study of bronze drums, especially between Chinese and Vietnamese scholars, as they have been discussed in detail by Han (1998, 2004). As I frequently pointed out in this study I consider these debates to be obstacles to the understanding of the past. Accordingly, I have adopted a cross-regional approach envisioning the entire distribution in terms of the environmental factors facilitating passage rather than of modern national boundaries.

REFERENCES

- Allan, S. 1991. *The Shape of the Turtle: Myth, Art, and Cosmos in Early China*. Albany: State University of New York.
- Allan, S. 1993. Art and Meaning. In Withfield, R. (ed.), *The Problem of Meaning in Early Chinese Ritual Bronzes*. Colloquies on Art and Archaeology 15: 9-33. Percival David Foundation of Chinese Art. London: SOAS, University of London.
- Ambrose, W.R. 1996-7. Metals and the Melanesian Connection. In Bulbeck, D. F. (ed.), *Ancient Chinese and Southeast Asian Bronze Age Cultures*, Vol. 2: 1077-1091. Taipei: SMC Publishing Inc.
- Anatriello, P. 1976. *Al Ritmo dei Sacri Tamburi – Storia, costumi, credenze dei popoli Kayah dell'Unione Birmana*. Bologna: Editrice Missionaria Italiana.
- Andaya, L. 1990. *The structure of authority in North Maluku in the sixteenth century*. Canberra: Department of Anthropology, Australian National University. Comparative Austronesian Working Paper 4.
- Andaya, L. 1991. Local trade networks in Maluku in the 16th, 17th, and 18th centuries. *Cakalele* 2: 71-96.
- Anderson, R.L. 1989. *Art in Small-Scale Societies*. Second Edition. Englewood Cliffs, NJ: Prentice Hall.
- Anon. 1977. Sichuan Huili chutu de yi mien tonggu [The bronze drum excavated at Huili in Sichuan province]. *Kaogu* 3: 215-217. In Chinese.
- Anon. 1978a. Guangxi Xilin xian Putuo tonggu muzang [The bronze drum burial from Putuo in Xilin xian, Guangxi]. *Wen Wu* 9: 43-51. In Chinese.

Anon. 1978b. Guangxi Guishan Luobowan yihao mu fajue jianbao [Report of the excavation of the Tomb 1 at Luobowan in Guishan, Guangxi]. *Wenwu* 9: 25-42. In Chinese.

Anon. 1985. Chenggong Tianzímiao Dian mu. [Dian tombs at Tianzímiao, Chenggong county]. *Kaogu Xuebao* 4: 507-544. In Chinese.

Anon. 1988. Luobowan Han Dynasty Tombs in Guixian County. Museum of the Guangxi Zhuang Nationality Autonomous Region (ed.). Beijing: Cultural Relics Publishing house. In Chinese.

Anon. 1993. *Zhongguo Qing Tongqi Quanji* 14 [Catalogue of Chinese Ancient Bronzes], Beijing: Wen Wu Publishing House. In Chinese.

Anon. 1995. *Yunnan Lijiashan Qingtongqi* [The Ancient Bronzes of Lijiashan in Yunnan]. Kunming: Yunnan Renmin Chubanshe. In Chinese.

Anon. 1999. Nhung phat hien moi ve khao co hoc nam 1998. Hanoi: Nha Xuat Ban Khoa Hoc Xa Hoi. In Vietnamese.

Anon. 2003. *The Bronze Kettledrums in Thailand*. Bangkok: Office of the National Museum, Fine Arts Department. In Thai and English.

Anon. 2004. *Wenshan Tonggu - Wenshan Bronze Drums*. Kunming: Yunnan People's Publishing House. In Chinese and English.

Aoyagi, Y. 1996. Heger I Type Drum from Borneo Island. *Journal of Southeast Asian Archaeology* 16: 127-131. In Japanese.

Ardika, I W. (n.d.). The Beginnings of Bronze Metallurgy in Bali. Paper presented at The High Bronze Age of Southeast Asia and South China Conference, 14-18 January 1991. Hua Hin, Thailand. Unpublished.

Ardika, I W. and P. Bellwood 1991. Sembiran: the beginnings of Indian contact with Bali. *Antiquity* 65: 221-32.

Ardika, I W. and P. Bellwood (n.d.). The Beginnings of Indian Contact with Bali. Paper presented at the 14th Conference of the Indo-Pacific Prehistory Association, 25 August - 2 September 1990, Yogyakarta, Java, Indonesia.

Arifin, K. and P. Delanghe 2004. *Rock Art in West Papua*. Paris: Unesco Publishing.

Balai Arkeologi Denpasar 1997-1998. Dinamika Masyarakat Desa Manikliyu-Bali Menjelang Datangnya Pengaruh Hindu-Budha. *Forum Arkeologi* II. In Indonesian.

Ballard, C. 1988. Dudumahan: A Rock Art Site on Kai Kecil, Southeast Molukkas. *Bulletin of the Indo-Pacific Prehistory Association* 8: 139-150.

Barchewitz, E.C. 1730. *Allerneueste und wahrhaffte Ost-Indianische Reise-Beschreibung*: 312-313, 315. Chemnitz (7.07).

Barnard, N. 1987. Bronze Casting Technology in the Peripheral 'Barbarian' Regions. *Bulletin of the Metals Museum* 12: 3-37.

Barnard, N. 1996-1997. The entry of cire-perdue investment casting, and certain other metallurgical techniques (mainly metalworking) into south China and their progress northwards. In Bulbeck D. F. (ed.), *Ancient Chinese and Southeast Asian Bronze Age Cultures*, vol. 1: 1-94. Taipei: SMC Publishing.

Barth, F. 1975. *Ritual and knowledge among the Baktaman of New Guinea*. Oslo: Universitetsforlaget.

Bellina, B. and P. Silapanth 2006. Khao Sam Khaeo and the Upper Thai Peninsula: Understanding the Mechanisms of Early Trans-Asiatic Trade and Cultural Exchange. In Bacus, E.A., Glover, I.C., and Piggott, V.C. (eds.), *Uncovering Southeast Asia's Past – Selected Papers from the 10th International Conference of the European Association of Southeast Asian Archaeologists*: 379-392. Singapore: National University Press.

Bellwood, P. 1976. Archaeological research in Minahasa and the Talaud Islands, Northeastern Indonesia. *Asian Perspectives* XIX(2): 240-288.

Bellwood, P. 1985. *Prehistory of the Indo-Malaysian Archipelago*. Sidney: Academic Press.

Bellwood, P. 1987. *The Polynesians – Prehistory of an Island People*. London: Thames and Hudson.

Bellwood, P. 1988. *Archaeological research in Southeastern Sabah*. Sabah Museum Monograph no.2. Kota Kinabalu: Sabah Museum and State Archives.

Bellwood, P. 1989. Archaeological investigations at Bukit Tengkorak and Segarong, south-eastern Sabah. *Bulletin of the Indo-Pacific Prehistory Association* 9:122-162.

Bellwood, P. 1997. *Prehistory of the Indo-Malaysian Archipelago*. Revised edition. Honolulu: University of Hawai'i Press.

Bellwood, P. 2004a. The Origins and Dispersals of Agricultural Communities in Southeast Asia. In Glover, I. and P. Bellwood (eds.), *Southeast Asia – From Prehistory to History*: 21-39. London and New York: Routledge Curzon.

Bellwood, P. 2004b. Aslian, Austronesian, Malayic: Suggestions from the Archaeological Record. In Paz, V. (ed.), *Southeast Asian Archaeology*: 347-365. W. G. Solheim II Festschrift. Manila: University of the Philippines Press.

Benedict, P.K. 1942. Thai, Khadai and Indonesian: a new alignment in Southeastern Asia. *American Anthropologist* 44: 576-601.

Benedict, P.K. 1975. *Austro-Thai: Language and Culture, with a Glossary of Roots*. New Haven: HRAF Press.

Bennett, A. 2005. Lost-Wax or Piece-Mould Casting? *Arts & Cultures* 2006: 268-271.

Bernet Kempers, A.J. 1988. *The Kettledrums of Southeast Asia: A Bronze Age World and its Aftermath*. Modern Quaternary Research in Southeast Asia 10. Rotterdam: A.A. Balkema.

Bernet Kempers, A.J. 1991 [1977]. *Monumental Bali*. Singapore: Periplus Editions.

Bintarti, D.D. 1981. The Bronze Object from Kabila, west Sabu, Lesser Sunda Islands. *Aspek-Aspek Arkeologi Indonesia*, vol. 8. Jakarta: Pusat Penelitian Arkeologi Nasional.

Bintarti, D.D. 1985. Analisis Fungsional Nekara Perunggu dari Lamongan, Jawa Timur. In *Pertemuan Ilmiah Arkeologi III*, pp. 81-91. Proyek Penelitian Purbakala Jakarta. Dept. Pendidikan dan Kebudayaan.

Bintarti D.D. 1987. Urn Burials in Indonesia. In the Final Report of the Seminar in Prehistory of Southeast Asia (T-W11). Bangkok, Surat Thani, Phangnga, Pukhet and Krabi, Thailand, 12 – 25 January 1987. Seameo Project in Archaeology and Fine Arts (SPAFA), Appendix 6a: 175-187.

Bintarti, D.D. 1996. *Nekara Tipe Pejeng: Kajian Banding tentang Bentuk dan Fungsi*. PhD Thesis, Gadjah Mada University, Yogyakarta, Java, Indonesia. Unpublished. In Indonesian.

Bintarti, D.D. 1999. Drawings Addendum to PhD Thesis 1996. Gadjah Mada University, Yogyakarta, Java, Indonesia. Unpublished.

Bintarti, D.D. 2001. Charts Addendum to PhD Thesis 1996. Gadjah Mada University, Yogyakarta, Java, Indonesia. Unpublished.

Blench, R.M. 2004. Archaeology and Language: Methods and Issues. In Bintliff, J. (ed.), *A Companion to Archaeology*: 52-74. Oxford: Blackwell.

Blench, R.M 2005. From the Mountains to the Valleys: Understanding Ethnolinguistic Geography in Southeast Asia. In Sagart, L., Blench, R.M., and Sanchez-Mazas, A. (eds.), *The Peopling of East Asia: putting together Archaeology, Linguistics and Genetics*: 31-50. London and New York: Routledge Curzon.

Blench, R.M. 2006. From Vietnamese Lithophones to Balinese Gamelans: A History of Tuned Percussion in the Indo-Pacific Region. *Bulletin of the Indo-Pacific Prehistory Association* 26: 48-61.

Blench, R.M. (n.d.). Musical Aspects of Austronesian Culture. Paper presented at the 10th International Conference of the European Association of Southeast Asian Archaeologists, 14 – 17 September 2004, British Museum, London.
www.rogerblench.info/Ethnomusicology.

Blench, R.M. and M. Spriggs 1998. General Introduction; Introducing the Papers. In Blench, R.M. and M. Spriggs (eds.), *Archaeology and Language III – Artefacts, Language and Texts*: 1-28. London and New York: Routledge.

Blust, R. 1984-1985. The Austronesian Homeland: a Linguistic Perspective. *Asian Perspectives* 1988, 26(1): 45-67.

Blust, R. 1994. The Austronesian settlement of Mainland Southeast Asia. In Adams, K. L. and T. Hendak (eds.), *Papers from the 2nd annual meeting of the Southeast Asian Linguistic Society*: 25-83. Program for Southeast Asian Studies, Arizona State University.

Blust, R. 1995. The Prehistory of the Austronesian-Speaking Peoples: A View from Language. *Journal of World Prehistory* 9(4): 453-510.

Blust, R. 1996. Beyond the Austronesian homeland: the Austric hypothesis and its implications for archaeology. In Goodenough, W. H. (ed.) *Prehistoric Settlement of the Pacific*: 117-40. Transactions of the American Philosophical Society 86, Philadelphia.

Bonatz, D., Neidel, J.D., and Tjoa-Bonatz, M-L. 2006. The megalithic complex of highland Jambi: An archaeological perspective. *Bijdragen tot de Taal-, Land- en Volkenkunde* (BKI) 162-4 (2006): 490-522.

Bronson, B. 1977. Exchange at the upstream and downstream ends; notes toward a functional model of the coastal state in Southeast Asia. In Hutterer, K.L. (ed.), *Economic exchange and social interaction in Southeast Asia; Perspectives from prehistory, history, and ethnography*: 39-52.

Michigan Papers on Southeast Asia 13. Ann Arbor, Michigan: Center for South and Southeast Asian Studies, University of Michigan.

Bui, C.H. 2004. Khu di tích Phu Chan (Binh Duong) - tư liệu và nhận thức [The Phu Chan site complex (Binh Duong) – documents and considerations]. In Anon. (ed.), *Một số vấn đề khảo cổ học ở miền nam Việt Nam – Some Archaeological Achievements in Southern Viet Nam*: 163-197. Ho Chi Minh City: Social Sciences Publishing House. In Vietnamese.

Bui C.H. (in press). The Phu Chan Site: Heger I bronze drum burials excavated in southern Vietnam. Paper presented at the 18th Congress of the Indo-Pacific Prehistory Association (IPPA), 20 – 26 March 2006, Manila.

Bulbeck, F.D. and M.A. Fadillah 2000. The context of the carnelian beads from Bonto-Bontoa, Bantaeng, South Sulawesi. *Walemmae* 4: 43-8.

Bunker, E. 1972. The Tien culture and some aspects of its relationship to the Dong-son culture. In Barnard, N. (ed.), *Early Chinese Art and its Possible Influence in the Pacific Basin*, vol. II: 291-328. New York: Intercultural Arts Press.

Caldwell, I. and W.A. Bougas 2004. The early history of Binamu and Bangkala, South Sulawesi: 456-510. *Koninklijk Instituut voor Taal-, Land- en Volkerkunde*.

Caldwell, I., Budiarto, H., and Bulbeck, D. (in press). Metal phase Bugis settlement and landscape transformation in the western Cenrana valley, South Sulawesi. Paper presented at the 18th Congress of the Indo-Pacific Prehistory Association (IPPA), 20 – 26 March 2006, Manila.

Calo', A. (in press a). Heger I Bronze Drums and the Dian-Dong Son Question. In Bacus, E.A., Glover, I.C., and Sharrock, P.D. (eds., with the editorial assistance of J. Guy and V.C. Piggott), *Interpreting Southeast Asia's Past: Monument, Image and Text*. Singapore: National University of Singapore Press.

Calo', A. (in press b). The Distribution of Bronze Drums in Eastern Indonesia. Paper presented at the 18th Congress of the Indo-Pacific Prehistory Association (IPPA), 20 – 26 March 2006, Manila.

Calo', A. 2007. An Island Bronze Casting Tradition. In Benitez-Johannot, P. (ed.), *Paths of Origins: Austronesia in the Collections of the National Museum of the Philippines, the Museum Nasional Indonesia, and the Netherlands Rijksmuseum voor Volkenkunde*: 42-51. Manila: Art Post Asia.

Cameron, J. 2006. New Research into Dongson Cloth from Waterlogged Sites in Vietnam. In Bacus, E.A., Glover, I.C., and Piggott, V.C. (eds.), *Uncovering Southeast Asia's Past- Uncovering Southeast Asia's Past – Selected Papers from the 10th International Conference of the European Association of Southeast Asian Archaeologists*: 196-202. Singapore: National University Press.

Campbell, S. 2001. The captivating agency of art: many ways of seeing. In Pinney, C. and N. Thomas (eds.), *Beyond Aesthetics: Art and the Technologies of Enchantment*: 117-135. Oxford and New York: Berg.

Chamberlain, J.R. (n.d.). Mene: a Tai Dialect Originally Spoken in Nghe An (Nghe Tinh), Vietnam – Preliminary Linguistic Observations and Historical Implications. Paper presented at the Conference on the High Bronze Age of Southeast Asia and South China, 14-18 January 1991, Hua Hin, Thailand. Unpublished.

Chavannes, E. 1909 – 1913. *Mission Archeologique dans la Chine Septentrionale*. Paris.

Chen, J.C.Y. 2002. Sea Nomads in Prehistory on the Southeast Coast of China. *Bulletin of the Indo-Pacific Prehistory Association* 22(6): 51-54.

Chu, V.T. 1970. Bao cao khai quat Dong Son [Report of the excavations at Dong Son]. Hanoi: Phong tu lieu Vien Khao co Hoc. In Vietnamese.

Chu, V.T. 1976. Dao Dong Son dot I-1976. *Trong Nung phat hien moi ve khao co hoc*: 150-151. In Vietnamese.

Coedès, G. 1968. *The Indianized States of Southeast Asia*. Vella, W. F. (ed.). Brown Cowing, S. (transl.). Kuala Lumpur: University of Malaya Press.

Colani, M. 1936. Essai d'Ethnographie Comparée. *Bulletin de l'Ecole Française d'Extrême-Orient* XXXVI: 197-280.

Cooler, R.M. 1994. *The Karen Bronze Drums of Burma: Types, Iconography, Manufacture and Use*. Leiden and New York: Brill.

Cortese, A. (transl. and ed.) 1944. *The Summa Oriental of Tomé Pires*. Hakluyt Society, 2nd series LXXXIX, Vol. 1, London.

Davidson, J.H.C. S. 1975. Recent Archaeological Activity in Viet-Nam. *Journal of the Hong Kong Archaeological Society* VI: 80-99.

Dewall, M. von 1984. New evidence on the ancient bronze kettle-drums of South East Asia from recent Chinese finds. In Allchin, B. (ed.) *South Asian Archaeology 1981*: 334-40. Cambridge University Press.

Dewall, M. von 1998. Chinas sudregion als schauplatz fruhgeschichtlicher kulturbegegnung. In Pruch M. editor, *Schatze fur Konig Zhao Mo Das Grab von Nan Yue*: 96-108. Heidelberg: Umschau/Braus Verlag.

Dewall, M. von 2003. Towards an Archaeological Discourse on Bronze and the Social Life of Things. In Karlstrom, A. and A. Kallen (eds.), *Fishbones and Glittering Emblems – Southeast Asian Archaeology 2002*: 89-96. Stockholm: Museum of Far Eastern Antiquities.

Diep, D. H. 1976. To what period belong burial place at Lang Vac ?. *Khao co Hoc* 19: 58-63. In Vietnamese.

Dinh, B. H. 1998. Dong Son drums discovered in Binh Dinh province. *Khao co Hoc* 4: 52-65. In Vietnamese.

Du Bois, C. 1944. *The People of Alor – A Social-Psychological Study of an East Indian Island*. Minneapolis: University of Minnesota Press.

Eck, D. L. 1981. *Darśan – Seeing the Divine Image in India*. Chambersburg, Pa.; Anima Books.

- Egami, N. 1985. Foreword. *Bulletin of the Ancient Orient Museum* VII: I-XII.
- Elmberg, J.E. 1959. Further notes on the Northern Mejbrats (Vogelkopf, Western New Guinea). *Ethnos* 24: 70-80.
- Fadillah, M. A. 1999. Survei dan ekskavasi Bonto-Bontoa, Bantaeng Timur; Investigasi Awal. *Walennae* 3: 13-38.
- Frame, E.M. 1982. The Musical Instruments of Sabah, Malaysia. *Ethnomusicology* 26(2) : 247-274.
- Fontaine, H. 1972. Deuxième note sur le “néolithique” du bassin inferieur du Dong-Nai. *Archives géologiques du Viêt-Nam* 15 : 123-9.
- Foster, P. 1974. Cloves. *Irian* 3(1): 55-61.
- Fox, R. 1970. *The Tabon Caves*. Manila: The National Museum of the Philippines.
- Fraser-Lu, S. 1983. Frogs drums and their importance in Karen Culture. *Arts of Asia* Sept-Oct. 1983.
- Gell, A. 1992. The Technology of Enchantment and the Enchantment of Technology. In Coote J. and A. Shelton (eds.), *Anthropology Art and Aesthetics*: 40-63. Oxford: Claredon Press.
- Gell, A. 1998. *Art and Agency: an Anthropological Theory*. Oxford: Claredon Press.
- Glover, I. C. 1979. The Late Prehistoric Period in Indonesia. In Smith, R. B. and W. Watson (eds.), *Early Southeast Asia – Essays in Archaeology, History and Historical Geography*: 167-184. New York and Kuala Lumpur: Oxford University Press.
- Glover, I.C. 1990. Ban Don Ta Phet: the 1984-85 excavation. In Glover, I. C. and E. Glover (eds.), *Southeast Asian Archaeology 1986*: 139-83. Oxford: BAR.
- Glover, I.C. 1992. Large Bronze Urns in Southeast Asia: Some New Finds and a Reappraisal. In Glover, I.C. (ed.), *Southeast Asian Archaeology 1990 – Proceedings of the Third Conference of the*

European Association of Southeast Asian Archaeologists: 209-225. Centre for Southeast Asian Studies, University of Hull.

Glover, I.C. 2004. Splendid Enigmas from Southeast Asian Later Prehistory. *Arts & Cultures* 2004: 174-193.

Glover, I.C. and B. Syme 1993. The Bronze Age in Southeast Asia: its recognition, dating and recent research. *Man and Environment* 18(2): 41-74.

Glover, I.C., Hughes Brock, H., and Henderson, J. 2003. *Ornaments from the Past – Bead Studies after Beck*. London: The Bead Study Trust.

Goloubew, V. 1929. L'Age du Bronze au Tonkin et dans le Nord-Annam. *Bulletin de l'Ecole Française d'Extrême Orient* 29: 1-46.

Goloubew, V. 1932. Excavations at Dong-Son (province Thanh-hoa, Annam). *Annual Bibliography of Indian Archaeology*. Leiden: Kern Institute (1930).

Goloubew, V. 1940. Le Tambour Metallique de Hoang Ha. *Bulletin de l'Ecole Française d'Extrême-Orient* 40[2 (1941)]: 383-409.

Guermonprez, J. F. 1987. *Les Pandé de Bali: la formation d'une 'caste' et la valeur d'un titre*. Paris: Ecole Française d'Extrême-Orient.

Ha, V.T. 1980. Nouvelles recherches préhistoriques et protohistoriques au Vietnam. *Bulletin de l'École Française d'Extrême-Orient* 68: 113-54.

Ha, V.T. 1994. *Van Hoa Dong Son o Viet Nam* [The Dong Son Culture in Vietnam]. Hanoi: Social Science Publishing House. In Vietnamese.

Ha, V.P. 1995. The find from Hop Minh, Yen Bai, a valuable assemblage of the Dong Son culture. *Khao Co Hoc* 26-36. In Vietnamese.

Hadimulyono, A.M. (ed.) 1982. *Studi kelayakantentang nekara perunggu Selayar*. Proyek Pemugaran dan Pemiharaan Sejarah dan Purbakala Sulawesi Selatan. Dept. Pendidikan dan Kebudayaan. In Indonesian.

Haji Taha, A. 1983. Recent archaeological Discoveries in Peninsular Malaysia. 1976-1982. *Journal of the Malay Branch of the Royal Asiatic Society* LVI(1): 47-63.

Hall, K.R. 1999. Economic History of Early Southeast Asia. In Tarling, N. (ed.), *The Cambridge History of Southeast Asia*, Vol. 1. From early times to c. 1500: 183-275. Cambridge: Cambridge University Press.

Han, X. 1998. The Present Echoes of the Ancient Bronze Drum: Nationalism and Archaeology in Modern Vietnam and China. *Explorations in Southeast Asian Studies* 2(2).

Han, X. 2004. Who Invented the Bronze Drums? Nationalism, Politics, and Sino-Vietnamese Archaeological Debate of the 1970's and 1980's. *Asian Perspectives* 43(1): 7-33.

Harner, M.J. 1972. *The Jivaro*. Garden City, N.Y.: Anchor Press-Doubleday.

Harrison, B. 1968. A Niah Stone-Age jar burial C14 dated. *Sarawak Museum Journal* 16: 64-66.

Harrisson, T. 1973-4. The Bajaus: Their Origins and Wide Importance. *Sabah Society Journal* VI(1): 38-41.

Harrisson, T. 1976. Ngaju-Bajau - Significant early term usage in Southeast Asia. *Journal of the Malaysian Branch of the Royal Asiatic Society* 49(1): 1-14.

Harrisson, T. and B. 1971. *The Prehistory of Sabah*. Sabah Society Journal Monograph. Vol. IV. Hong Kong: Cathay Press Limited.

Headley, R.K. 1976. Some sources of Chamic vocabulary. Austroasiatic Studies, Part I. *Oceanic Linguistics*, Special Publication No. 13: 453-476.

Heekeren, H.R. van 1958. *The Bronze-Iron Age of Indonesia*. 'S-Gravenhage: M. Nijhoff.

Heekeren, M.R. van 1970. A metal kettle-drum recently discovered in North-Western Thailand. *Bijdragen tot de Taal-, Land- en Volkenkunde. Koninklijk Instituut voor Taal-, Land-en Volkenkunde* 126: 455-458.

Heekeren, H.R. van 1992 [1955]. *Proto-Historic Sarcophagi on Bali*. Bulletin of the Archaeological Service of the Republic of Indonesia, no. 2. Jakarta: Berita Dinas Purbakala.

Heger, F. 1902. *Alte Metalltrommeln aus Südost-Asien*. Leipzig: K. von Hiersemann.

Heine-Geldern, R. von 1947. The drum named Makalamau. *India Antiqua* (presented to J.Ph. Vogel): 167-179. Leiden: Brill.

Helliwell, C. 1993. Good walls make bad neighbours: the Dayak longhouse as a community of voices. In Fox, J. J. (ed.), *Inside Austronesian Houses – Perspectives on Domestic Designs for Living*. Comparative Austronesian Project, Australian National University, Canberra.

Hicks, D. 1988. Art and Religion in Timor. In Babier, J.P. and D. Newton (eds.), *Islands and Ancestors – Indigenous Styles of Southeast Asia*: 138-151. Munich: Prestel-Verlag.

Higham, C.F.W. 1996. *The Bronze Age of Southeast Asia*. Cambridge: Cambridge University Press.

Higham, C.F.W. 2002. *Early Cultures of Mainland Southeast Asia*. Bangkok: River Books.

Higham, C.F.W. 2004. Mainland Southeast Asia from the Neolithic to the Iron Age. In Glover, I. and P. Bellwood (eds.), *Southeast Asia – From Prehistory to History*: 41-67. London and New York: Routledge Curzon.

Higham, C.F.W. 2006. Crossing National Boundaries: Southern China and Southeast Asia in Prehistory. In Bacus, E.A., Glover, I.C., and Piggott, V.C. (eds.), *Uncovering Southeast Asia's Past – Selected Papers from the 10th International Conference of the European Association of Southeast Asian Archaeologists*: 13-21. Singapore: National University of Singapore.

Higham, C.F.W. and A. Kijngam 1984. *Prehistoric Investigations in Northeast Thailand*. British Archaeological Reports (International Series) 231(1-3), Oxford.

Ho, T.T. and Nguyen, T.H. 2004. Considerations on the Dong Son drums discovered in Binh Dinh. In Anon. (ed.), *Mot so van de khao co hoc o mien nam Viet Nam - Some Archaeological Achievements in Southern Vietnam*: 137-161. Ho Chi Minh City: Nha Xuat Ban Khoa Hoc Xa Hoi. In Vietnamese with English summary.

Hobart, A., Ramseyer, U., and Leeman, A. 1996. *The Peoples of Bali*. Oxford: Blackwell.

Hoëvell, G.W.W.C. van 1890a. De Kei-eilanden. *Tijdschrift v. Indische Taal-, Land- en Volkenkunde Bataviaasch Genootschap v. Kunsten en Wetenschappen* 33: 102-159.

Hoëvell, G.W.W.C. van 1890b. Leti-eilanden. *Tijdschrift v. Indische Taal-, Land- en Volkenkunde Bataviaasch Genootschap v. Kunsten en Wetenschappen* 33: 200-232.

Hoëvell, G.W.W.C. van 1904. Mitteilungen über die Kesseltrommel zu Bontobangun, Insel Saleyer. *Internationales Archiv für Ethnographie* 16: 155-61.

Hollmann, D. and D.H.R. Spennemann 1985. A note on the metallurgy of Southeast Asian kettle-drums: proportions of lead and tin and implications for chronology. *Bulletin of the Indo-Pacific Prehistory Association* 6: 89-97.

Hoop, A.N.J.Th. a T. Van der 1932. *Megalithic Remains in South Sumatra*. Shirlaw, W. (transl.). Zutphen, Netherlands: W.J. Thieme & Cie.

Hoop, A.N.J.Th. a T. Van der 1935. Steenkistgraven in Goenoeng Kidoel. *Tijdschrift voor Indische Taal-, Land- en Volkerkunde* 75: 83 – 100.

Hoop, A.N.J.Th. a T. Van der 1941. *Catalogus der Praehistorische Verzameling van het Koninklijk Bataviaasch Genootschap van Kunsten en Wetenschappen*. Bandung. Hull, G. 1998. The Basic Lexical Affinities of Timor's Austronesian Languages; a Preliminary Investigation. *Studies in Languages and Cultures of East Timor* 1: 97-198. Language Acquisition Research Centre Series, University of Western Sydney Macarthur.

Hung, H-C., Iizuka, Y., and Bellwood, P. 2006. Taiwan Jade in the Context of Southeast Asian Archaeology. In Bacus, E.A., Glover, I.C., and Piggott, V.C. (eds.), *Uncovering Southeast Asia's Past - Selected Papers from the 10th International Conference of the European Association of Southeast Asian Archaeologists*: 203-215. Singapore: National University Press.

Iizuka, Y. and H-C. Hung 2005. Archaeomineralogy of Taiwan nephrite: sourcing study of nephrite artefacts from the Philippines. *Journal of Austronesian Studies* 1: 35-82.

Iizuka, Y., Bellwood, P., Datan, I., and Hung, H-C. 2005. Mineralogical studies of the Niah West Mouth jade lingling-o. *Sarawak Museum Journal* LXI: 19-29.

Imamura, K. 1973. The Sequence and the Origin of Early Bronze Drums. *Journal of the Archaeological Society of Nippon* 59 (3): 35-62. In Japanese.

Imamura, K. 1979. Pre-Heger I Type Drums. *Archaeological Note* 1: 11-22. In Japanese.

Imamura, K. 1993. The two traditions of the Heger I type bronze drums. *Journal of Southeast Asian Archaeology* 13: 113-130.

Imamura, K. and V.T. Chu 2004. *The Lang Vac Sites, Vol. 1 – Basic Report on the Vietnam-Japan Joint Archaeological Research in Nghia Dan district, Nghe An Province, 1990-1991*. Tokyo: University of Tokyo.

Jacq-Hergoualc'h, M. 2002. *The Malay Peninsula – Crossroads of the Maritime Silk Road (100 BC – 1300 AD)*. Hobson, V. (transl.). Leiden: Brill.

Jang, Z. 2003. Important New Excavations at the Site of Yangputou. In Karlstrom A. and A. Kallen (eds.), *Fishbones and Glittering Emblems – Southeast Asian Archaeology 2002*: 75-80. Stockholm: Museum of Far Eastern Antiquities.

Janse, O. 1947-1951. *Archaeological Research in Indo-China*. 2 Vols. Cambridge, Ma.: Harvard University Press.

Jiang, T. 1982. Tombs with bronze drums at Xilin and the Juding Kingdom during the Han Dynasty. *Kaogu* 2: 198-203. In Chinese.

Jonge, N. de, and T. van Dijk 1995. *Forgotten Islands of Indonesia – The Art & Culture of the Southeast Moluccas*. Singapore: Periplus.

Kan, Y. 1985. The Bronze Culture of West Yunnan. *Bulletin of the ancient Orient Museum* VII: 47-92.

Katalog und Ausstellung 1975. *Musik Instrumente der Volker*. Museum für Volkerkunde. Vienna: Janata.

King, V.T. 1993. *The Peoples of Borneo*. Oxford: Blackwell.

Kohl, G. and H. Quitta 1978. Berlin Radiocarbon Dates V. *Radiocarbon* 20(3): 386-397.

Kompiang Gede, I D. 2002. Ragam Hias Beberapa Nekara di Bali. *Forum Arkeologi* II: 44-58. In Indonesian.

Kompiang Gede, I D. 1997-1998. Penelitian situs Uluran, Kecamatan Seririt, Kabupaten Buleleng, Bali. *Berita Penelitian Arkeologi* 1: 17-47. In Indonesian.

Kompiang Gede, I D. 1997-1998. Nekara Sebagai Wadah Kubur Situs Manikliyu, Kintamani. *Forum Arkeologi* II: 39-53. In Indonesian.

Kosasih, E.A. 1983. *Laporan Penelitian di Kabupaten Bima dan Dompu*. Pusat Penelitian Arkeologi Nasional, Jakarta. In Indonesian.

Kusumawati, A. and H. Sukendar 1999/2000. *Megalitik Bumi Pasemah – Pranatan Serta Fungsinya*. Dept. Pendidikan Nasional Republik Indonesia, Jakarta. In Indonesian.

Lai, V.T. 1999. The initial inhabitants of Co Loa. *Khao Co Hoc* 1998(3): 39-54. In Vietnamese.

Lape, P.V. 2000a. *Contact and Conflict in the Banda Islands, Eastern Indonesia, 11th – 17th Centuries*. Ph.D. Thesis, Brown University.

Lape, P.V. 2000b. Political dynamics and religious change in the late pre-colonial Banda Islands, Eastern Indonesia. *World Archaeology* 32(1): 138-155.

Lape, P.V. 2002. Historic Maps and Archaeology as a Means of Understanding Late Precolonial Settlement in the Banda Islands, Indonesia. *Asian Perspectives* 41(1): 43-70.

Lape, P.V., O'Connor, S., and Burningham, N. 2007. Rock Art: A Potential Source of Information About Past Maritime Technology in the South-East Asia-Pacific Region. *The International Journal of Nautical Archaeology* 36(2): 238-253.

Lee, E.W. 1966. *Proto-Chamic phonologic word and vocabulary*. Ph.D Thesis. Indiana University 67-3690.

Leong, S.H.1990. Collecting Centres, Feeder Points and Entrepôts in the Malay Peninsula 1000 BC – AD 1400. In Kathirithamby-Wells, J. and J. Villiers (eds.), *The Southeast Asian Port and Polity – Rise and Demise*: 17-38. Singapore: Singapore University Press.

Leong, S.H. 1993. Ancient Trading Centres in the Malay Peninsula. *Jurnal Arkeologi Malaysia* 6: 1-9.

Levi-Strauss, C. 1962. *La Pensee Sauvage*. Paris: Plon.

Levi-Strauss, C. 1964. *Le Cru et le Cuit*. Paris: Plon.

Li, W. 1979. Zhongguo Nanfang tonggu di fenlei he duandai (Classification and chronology of bronze drums from South China). *Kaogu* 1: 66-78. In Chinese.

Linehan, W. 1951. Traces of a Bronze Age culture associated with Iron Age implements in the region of Klang and the Tembeling, Malaya. *Journal of the Malayan Branch of the Royal Asiatic Society* 24 (3): 1-59.

Loewenstein, J. 1956. The Origin of the Malayan Metal Age. *Journal of the Malayan Branch of the Royal Asiatic Society* 174 (part 2 of vol. 29): 5-84.

Luu, T.T. 1977. *Khu Mo Co Chau Can* [The Chau Can burials]. Hanoi: Institute of Archaeology.

Mahaviranata, P. 1997-1998. Sarkophagus Manikliyu suatu Problema Sistem Kubur pada Akhir Masa Prasejarah di Bali. *Forum Arkeologi* II: 19-38. In Indonesian.

Malinowski, B. 1922. *Argonauts of the Western Pacific*. London: Routledge and Kegan Paul.

Malleret, L. 1956. Objets de Bronze Communs au Cambodge, a la Malaisie et a l'Indonesie. *Artibus Asiae* 19: 308-327.

Manguin, P.Y. 1986. Shipshape societies: boat symbolism and political systems in Insular Southeast Asia. In Marr, D.G. and A. C. Milner (eds.), *Southeast Asia in the 9th to 14th Centuries*: 187-213. Singapore: Institute of Southeast Asian Studies.

Manguin, P.Y. 1993. Palembang and Srivijaya: an Early Malay Harbour-City Rediscovered. *Journal of the Malaysian Branch of the Royal Asiatic Society* 66(1): 23-46.

Manguin, P.Y. 2000. Les cités-États de l'Asie du Sud-est côtière; de l'ancienneté et de la permanence des formes urbaines. *Bulletin de l'École Française d'Extrême-Orient* 87:151-82.

McConnell J. and I. Glover 1990. A newly found bronze drum from Bali, Indonesia: some technical considerations. *Modern Quaternary Research in Southeast Asia* 11: 1-38. Rotterdam: Balkema.

McKinnon, E.E. 1993. A Note on the finds of Early Chinese Ceramics Associated with Megalithic Remains in Northwest Lampung. *Journal of Southeast Asian studies* 24(2): 227-238.

McKinnon, E.E. 1994. The Sambas Hoard: Bronze Drums, and Gold Ornaments found in Kalimantan in 1991. *Journal of the Malaysian Branch of the Royal Asiatic Society* 67(1): 9-28.

McKinnon, S. 1988. Tanimbar boats. In Babier J. P. and D. Newton (eds.), *Island and Ancestors: Indigenous Styles of Southeast Asia*: 152-69. Munich: Prestel-Verlag.

Meyer, A.B. and W. Foy 1897. *Bronzepauken aus Südost-Asien*. Alterthümer aus dem Ostindischen Archipel und Angrenzenden Gebieten, vol.II. Dresden: Konigl. Ethnogr. Museum.

Meyers, P. 2005. A Commentary on the Technology of Dong Son Vessels. *Arts & Cultures* 2006: 264-267.

Miksic, J. 1985. Traditional Sumatran trade. *Bulletin de l'École Française d'Extrême-Orient* 74:423-67.

Mills, J.V. 1984 (1979). Chinese Navigators in Insulinde about A.D. 1500. In *Trade and Shipping in the Southern Seas: 37-63* - Selected readings from *Archipel* 18 (1979) for the SPAFA Consultative Workshop on Research on Maritime Shipping and Trade Networks in Southeast Asia (I-W7). November 20-27, Cisarua, west Java, Indonesia.

Morphy, H. 1991. *Ancestral Connections – Art and an Aboriginal System of Knowledge*. Chicago and London: The University of Chicago Press.

Murowchick, R.E. 1989. *The Ancient Bronze Metallurgy of Yunnan and its Environs: Development and Implications*. PhD Thesis, Harvard University.

Musées Royaux d'Art et d'Histoire 2003. *Vietnam. Art et Cultures de la préhistoire à nos jours*. Exhibition Catalogue. Bruxelles: Snoeck.

Natapintu, S. 1988. Current research on ancient copper-base metallurgy in Thailand. In Charoenwongsa, P. and Bronson, B. (eds.), *Prehistoric Studies: the Stone Age and Metal Ages in Thailand*: 107-24. Bangkok: Thai Antiquity Working Group.

Newton, D. 1988. Reflections in Bronze – Lapita and Dong Son Art in the Western Pacific. In Babier, J.P. and D. Newton (eds.), *Islands and Ancestors – Indigenous Styles of Southeast Asia*: 10-23. Munich: Prestel-Verlag.

Ngo, S.H. 1983. New excavation campaign at Lang Vac (Nghe Tinh). *Khao Co Hoc* 2: 37-54. In Vietnamese.

Ngo, S.H. 1984. Nha Trang Bronze Drum. In *New Archaeological Discoveries in 1984*: 136-37. Hanoi: Institute of Archaeology. In Vietnamese.

Ngo, S.H. (n.d.). Sa Huynh – An Indigenous Cultural Tradition in Southern Vietnam. Paper presented at the International Conference of the High Bronze Age of Southeast Asia and South China. 14 – 18 January 1991, Hua Hin, Thailand. Unpublished.

Nguyen, K.D. 1998. Nephrite and jadeite manufacturing tradition in prehistoric Vietnam. *Khao Co Hoc* 4: 15-22. In Vietnamese.

Nguyen, L.C. 1995. On the skeleton found inside the Hop Minh (Yen Bai) Situla. In *Nhung phat hien moi Khao co hoc* [New discoveries in Vietnamese Archaeology]. Hanoi: Vietnam Institute of Archaeology. In Vietnamese.

Nguyen, G.H. and V.H. Nguyen 1983. Bronze items just unearthed at Co Loa (Ha Noi). *Khao Co Hoc* 47: 21-32. In Vietnamese.

Nguyen, V.V. 1989. Die Radiocarbon - Chronologie für die Ur - und Frühgeschichte Nordvietnam. PhD Thesis, Akademie der Wissenschaften der DDR, Berlin. Unpublished.

Nguyen, V.V. 2005. Bronze Situlas of Dong Son. *Arts & Cultures* 2006: 234-263.

Nishimura, M. 2005. Two mold fragments of Heger I bronze drum from Lung Khe citadel site, Northern Viet Nam. Cultural Department of Wenshan Zhuang Miao Autonomous District (ed.), *The International Conference on Bronze Drums & National History and Culture of Wenshan*: 436-439. Kunming: Yunnan People's Publishing House.

Nishimura, M. (in press). Bronze drums and centralized power with special reference to Co Loa and Lung Khe citadels in the early history of Vietnam. Paper presented at the 18th Congress of the Indo-Pacific Prehistory Association (IPPA), 20 – 26 March 2006, Manila.

Nitta, E. (n.d.). Bronze Drums of Pre-Heger I Type Unearthed in Yunnan, North Vietnam and Thailand. Paper presented at the Research Conference on Early Southeast Asia, 8-13 April 1985, Bangkok and Nakhon Pathom, Thailand. Unpublished.

Nitta, E. 1991. Archaeological study on the ancient iron-smelting and salt-making industries in the northeast of Thailand: Preliminary report on the excavations of Non Yang and Ban Don Phlong. *Journal of Southeast Asian Archaeology* 11: 1-46.

Nitta, E. 1994. Archaeological Meanings of Heger I Drums newly found in the Mekong Basin. *Historical Science Reports* 41: 9-23. Kagoshima University. In Japanese.

Nitta, E. 1995. Heger I Type Drum from Don Sane, Champassac, Laos and the Mekong Transportation. *Historical Science Reports* 42: 19-33. Kagoshima University. In Japanese.

Nitta, E. 2000. Heger I bronze drums in the Mekong Basin and its neighbouring region. In Nitta, E. (ed.), *Archaeological Study on the Mekong Civilization*. Report of International Scientific Research Program. Kagoshima University. In Japanese.

Nitta, E. 2005. Heger I drums, Bronze Halberds and Ranked Societies in the Mekong Basin. *Bulletin of the Indo-Pacific Prehistory Association* 25(3): 125-128.

O'Connor, S. 2003. Nine New Painted Rock-Art Sites from East Timor in the Context of the Western Pacific Region. *Asian Perspectives* 42(1): 96-128.

O'Connor, S. and Oliveira, N.V. 2007. Inter- and Intra Regional Variation in the Austronesian Painting Tradition: a View from east Timor. *Asian Perspectives* 46(2): 389-403.

Oka Astawa, A.A.G. 2005. Dinamika Agama Buddha di Kabupaten Gianyar Kalian Artefak. *Forum Arkeologi* I: 133-159.

Ostapirat, W. 2005. Kra-dai and Austronesian: notes on phonological correspondences and vocabulary distribution. In Sagart, L., Blench, R.M., and Sanchez-Mazas, A. (eds.), *The Peopling of East Asia: putting together Archaeology, Linguistics and Genetics*: 109-133. London and New York: Routledge Curzon.

Pallesen, A.K. 1985. *Culture Contact and Language Convergence*. Manila: Linguistic Society of the Philippines.

Parmentier, H. 1932. Notes d'Archéologie Indochinoise. *Bulletin de l'École Française d'Extrême-Orient* 32: 171-182.

Peacock, B.A.V. 1967. Two Dong-so'n drums from Kuala Trengganu. *Malaysia in History* 10(2): 26-31.

Peacock, B.A.V. 1979. The Later Prehistory of the Malay Peninsula. In Smith, R.B. and W. Watson (eds.), *Early Southeast Asia – Essays in Archaeology, History and Historical Geography*: 199-214. New York and London: Oxford University Press.

Pejros, I. 1996. *Katuic Comparative Dictionary*. Canberra: Pacific Linguistics, Series C-132.

Pelras, C. 1996. *The Bugis*. London: Blackwell.

Peters, H. 1990. Tattooed Faces and Stilt Houses: Who Were the Ancient Yue? *Sino-Platonic Papers* 17, April 1990. Philadelphia: University of Pennsylvania.

Pham, M.H. 1996. *Van Hoa Dong Son* [The Dong Son Culture]. Hanoi: Nha Xuat Ban Khoa Hoc Xa Hoi. In Vietnamese.

Pham, M.H. 1997. Dong Son drums discovered in Lao Cai town in 1993. *Journal of Southeast Asian Archaeology* (Japan) 17: 45-59.

Pham, M.H. 2003. The Metal Age in North Vietnam. In Glover, I. C. and P. Bellwood (eds.) *Southeast Asia- From Prehistory to History*, pp. 189-201. London: Routledge.

Pham, M.H. (in press). Dong Son Drums Discovered in Vietnam from 1988 to 2005. Paper presented at the 18th Congress of the Indo-Pacific Prehistory Association (IPPA), 20 – 26 March 2006, Manila.

Pham, M.H., Ngo, S.H., and Nguyen, T.T. 1981. Bao Cao khai quat Lang Vac to thang 12 nam 1980 den thang 4 nam 1981 [Report of the 1980-1981 excavations at Lang Vac]. Hanoi: Vien Khao co Hoc [Institute of Archaeology]. In Vietnamese.

Pham, M.H., Nguyen, V.H., and Trinh, S. 1987. *Trong Dong Son* [Dong Son Drums]. Hanoi: Nha Xuat Ban Khoa Hoc Xa Hoi. In Vietnamese.

Piggott, V.C. 1998. Prehistoric Copper Mining in the Context of Emerging Community Craft Specialization in Northeast Thailand. In Knapp, A. B., Piggott, V. C., and Herbert, E. W. (eds.), *Social Approaches to an Industrial Past. The Archaeology and anthropology of Mining*: 205-25. London: Routledge.

Piggott, V.C. and G. Weisgerber 1998. Mining archaeology in geological context. The prehistoric copper mining complex at Phu Lon, Nong Khai Province, northeast Thailand. In Rehren, T., Hauptmann, A., and Muhly, J. D. (eds.), *Metallurgica Antiqua. In Honor of Hans-Bert Bachmann and Robert Maddin*: 135-62. Bochum: Deutsches-Bergbau Museum.

Pirazzoli-t'Serstevens, M. 1996-97. A Reassessment of the dating of two important cemeteries in the Tien culture. In Bulbeck, d. F. (ed.), *Ancient Chinese and Southeast Asian Bronze Age Cultures*, vol. I: 273-288. Taipei: SMC Publishing Inc.

Pirazzoli-t'Serstevens, M. 1974. *La Civilization du Royaume de Dian à l'Époque Han*. Paris: École Française d'Extrême-Orient.

Prasetyo, B. 1994/1995. Laporan Penelitian Situs Plawangan, Rembang, Jawa Tengah (1980 – 1993). *Berita Penelitian Arkeologi* 43. In Indonesian.

Prasetyo, B. and D.Y. Yuniawati 2004-2005. *Religi pada Masyarakat Prasejarah di Indonesia*. Asisten Deputi Urusan Arkeologi Nasional. Proyek Penelitian dan Pengembangan Arkeologi, Jakarta. In Indonesian.

Preziosi, D. 1989. *Rethinking Art History*. New Haven and London: Yale University Press.

Ptak, R. 1998. From Quanzhou to the Sulu Zone and Beyond: Questions Related to the Early Fourteenth Century. *Journal of Southeast Asian Studies* 29(2): 269.

Ptak, R. 1992. The Northern Trade Route to the Spice Islands: South China Sea – Sulu Zone – NorthMoluccas, (14th to early 16th century). *Archipel* 43: 27-56.

Quaritch Wales, H.G. 1949. The Sambas Finds in Relation to the problem of Indo-Malaysian Art Development. *Journal of the Malaysian Branch of the Royal Asiatic Society* 22(4): 23-31.

Qiu, X., Wang D., Huang D., and Wang H. 1983. Chuxiong Wanjiaba gu mu qun fajue baogao [Report of the excavation of the ancient cemetery at Wanjiaba], Chuxiong. *Kaogu Xuebao* 3: 347-82. In Chinese.

Ramusio, G.B. 1559. *Delle Navigazioni et Viaggi*. Vol. II. Venice: Stamperia De Giunti.

Rappaport, R.A. 1968. *Pigs for the Ancestors*. Second Edition. New Haven, Conn.: Yale University Press.

Rawson, J. 1983. *The Chinese Bronzes of Yunnan*. London: Sidgwick and Jackson.

Reid, A. 1983. The rise of Makassar. *Review of Indonesian and Malay Studies* 17: 117-160.

Reid, A. 1990a. Selayar Island; Beaches and an Ancient Drum. In Volkman, T. and I. Caldwell (eds.), *Sulawesi; The Celebes*: 100-101. Singapore: Periplus.

Reid, A. 1990b. Makassarese Maritime Kingdoms. In Volkman, T. and I. Caldwell (eds.), *Sulawesi; The Celebes*: 94-99. Singapore: Periplus.

Reid, A. 1992. The rise and fall of Sino-Javanese shipping. In Houben, V.J.H., Maier, H.M.J., and Molen, W. van der (eds.), *Looking in Odd Mirrors; The Java Sea*: 177-211. Leiden: Vakgroep Talen en Culturen van Zuidoost-Azië en Oceanië, Rijksuniversiteit te Leiden.

Reid, L.A. 1984-85. Benedict's Austro-Tai Hypothesis – An Evaluation. *Asian Perspectives* 1988, 26(1): 19-34.

- Reid, L.A. 1994. Morphological evidence for Austric. *Oceanic Linguistics* 33-2: 323-344.
- Reinecke, A. 1994. The Metal Age Sa-Huynh Culture in Vietnam and their jar burials - Die metallzeitliche Sa-Huynh-Kultur in Vietnam und ihr Gefässgräber. *Beiträge zur Allgemeinen und Vergleichenden Archäologie* 13 (for 1993): 95-125.
- Reinecke, A. 1998. *Einführung in die Archäologie Vietnams*. KAVA. Cologne: Linden Soft.
- Reinecke, A. 1996a. Ohrringe mit tierkopfförmigen in Südostasien. *Beiträge zur Allgemeinen und Vergleichenden Archäologie* 16: 5-51.
- Reinecke, A. 1996b. Bi-cephalous animal-shaped ear pendants in Vietnam. *Bead Studies Trust Newsletter* 28: 5-7.
- Reinecke, A. and D.S. Le 2000. A newly discovered burial site of the Sa Huynh culture at Go Mun in central Viet Nam. *Khao Co Hoc* 1: 54-75. In Vietnamese.
- Reinecke, A. and D.S. Le, 2002. Ve mot suu tap do dong moi phat hien o tinh Quang Tri - A newly discovered collection of bronze artefacts in Quang Tri Province. *Khao Ko Hoc* 4: 20-30. In Vietnamese.
- Reinecke, A., Le D.S., and Le D.P. 1999. *Zur Vorgeschichte im Nördlichen Mittelvietnam – Ve tien su Binh-Tri-Thien (Bac Trung Bo Viet Nam)*. KAVA, Mainz: Verlag. In German and Vietnamese with English summary.
- Ririmasse, M. and G.M. Sudarmika 2006. *Situs Lingat Selaru, Maluku Tenggara Barat*. Laporan Penelitian Arkeologi, Balai Arkeologi Ambon. In Indonesian.
- Rothpletz, W. 1951. Alte Siedlungsplätze bei Bandung (Java) und die Entdeckung Bronzezeitlicher Gussformen. *Südseestudien*: 79-126.
- Rumphius (Rumpf, G.E.) 1705. *D'Amboinsche Rariteitkamer*. Amsterdam: François Halma.

Sagart, L. 2005. Tai-Kadai as a Subgroup of Austronesian. In Sagart, L., Blench, R.M., and Sanchez-Mazas, A. (eds.), *The Peopling of East Asia: putting together Archaeology, Linguistics and Genetics*: 177-181. London and New York: Routledge Curzon.

Salmond, A. 1984. Nga Huarahi Te Ao Maori; Pathways to the Maori World. In Moko Mead, S. (ed.), *Te Maori*: 109-137. Auckland: Hijiemann.

Sastri, K.A.N. 1949. A Note on the Sambas Finds. *Journal of the Malaysian Branch of the Royal Asiatic Society* 22(4): 16-19.

Saurin, E. 1963. Station préhistorique a Hang-Gon pres Xuan Loc. *Bulletin de l'École Française d'Extrême-Orient* 51: 433-52.

Schärer, H. 1963. *Ngaju Religion: the Conception of God among a South Borneo People*. The Hague: Nijhoff.

Scheurleer, P.L. and M.J. Klokke 1988. *Ancient Indonesian bronzes; A catalogue of the exhibition in the Rijksmuseum Amsterdam with a general introduction*. Robson, R. (transl.). Leiden: Brill.

Schröder, E.E.W.G. 1912. *Notulen Bataviaasch Genootschap*: 107-8.

Scoditti, G.M.G. 1996. Kitawa Oral Poetry: an Example from Melanesia. *Pacific Linguistics*, Series D-87. Australian National University, Canberra.

Sellato, B. 2001. High Status Markers in Low Relief: Carved Doors and Panels of Borneo. *Arts & Cultures* 2001(2): 137-155.

Sellato, B. 1992. *Hornbill and Dragon. Arts and Cultures of Borneo*. Singapore: Sun Tree.

Shanks, M. and C. Tilley 1992. *Re-constructing Archaeology*. London and New York: Routledge.

Silva, N. de 1992. The Analysis and Conservation of a Newly-Found Bronze Drum from Lumajang, Java. In Glover, I.C. (ed.), *Southeast Asian Archaeology 1990: Proceedings of the*

Third Conference of the European Association of Southeast Asian Archaeologists: 227-232.
University of Hull, Centre for Southeast Asian Studies.

Skeat, W.W. 1900. *Malay Magic: an introduction to the folklore and popular religion of the Malay Peninsula.* New York: Barnes & Noble.

Skog, I. 1998. North Borneo gongs and the Javanese gamelan: a new historical perspective. In Buckley, A. (ed.), *Hearing the Past: Essays in Ethnomusicology and the Archaeology of Sound: 65-101.* Liege: Université de Liege.

Soejono, R.P. 1957. Nekara Perunggu Kataloka. *Masa Dunia* 82(1): 2-4. In Indonesian.

Soejono, R.P. 1969. On Prehistoric Burial Methods in Indonesia. *Bulletin of the Archaeological Institute of the Republic of Indonesia* 7.

Soejono, R.P. 1972. *The Distribution of Types of Bronze Axes in Indonesia.* *Bulletin of the Archaeological Institute of the Republic of Indonesia* 9. Jakarta: Berita Lembaga Purbakala dan Peninggalan Nasional.

Soejono, R.P. 1977. *Sarkofagus Bali dan Nekropolis Gilimanuk.* Seri Penerbitan Bergambar – Proyek Pelita Pengembangan Media Kebudayaan 1. Jakarta: Proyek Pelita Pengembangan Media Kebudayaan, Dept. P&K. In Indonesian.

Soejono, R.P. (n.d.). Prehistoric Development in Indonesia. Paper presented at the Research Conference on Early Southeast Asia, 8-13 April 1985. Bangkok and Nakhon Pathom, Thailand. Unpublished.

Solheim II, W.G. 1957. The Kalanai pottery complex in the Philippines. *Artibus Asiae* 20: 279-88.

Solheim II, W.G. 1967. Further relationships of the Sa-huynh-Kalanai Pottery tradition. *Asian Perspectives* VIII(1): 196-210.

Sopher, D.E. 1965. *The Sea Nomads – A study based on the literature of the maritime boat people of Southeast Asia.* Singapore: National Museum.

Sørensen, P. 1976. The Kettledrum from Ban Gaw, Chiang Mai. In Egerod, S. and P. Sørensen (eds.), *The Lampang Field Station – A Scandinavian Research Center in Thailand*: 43-53. The Scandinavian Institute of Asian Studies, Special Publication No. 5.

Sørensen, P. 1979. The Ongbah cave and its fifth drum. In Smith, R.B. and W. Watson (eds.) *Early Southeast Asia- Essays in Archaeology, History and Historical Geography*: 78-97. New York and Kuala Lumpur: Oxford University Press.

Sørensen, P. 1988. *Archaeological Excavations in Thailand*. London: Curzon Press.

Sørensen, P. 1990. Kettledrums of Heger Type I: some observations. In Glover I.C. and E.A. (eds.), *Southeast Asian Archaeology 1986*: 195-200. Oxford: B.A.R.

Sørensen, P. 1997. A newly discovered Heger I drum from Laos. In Ciarla R. and F. Rispoli (eds.), *Southeast Asian Archaeology 1992*: 191-197. Rome: Istituto Italiano per l’Africa e l’Oriente.

Southworth, W.A. 2004. The Coastal States of Champa. In Glover, I. and P. Bellwood (eds.), *Southeast Asia – From Prehistory to History*: 209-233. New York and London: Routledge Curzon.

Spennemann, D.R. 1984. Some critical remarks on the boats depicted on the South East Asian kettledrums: an assessment of the daggerboards. *The International Journal of Nautical Archaeology and Underwater Exploration* 13(2): 137-43.

Spriggs, M. 1990. Archaeological and Ethnoarchaeological Research in Maluku 1975 and 1977: an Unfinished Story. *Cakalele* 1(1/2): 47-60.

Spriggs, M. 2000. Out of Asia: The Spread of Southeast Asian Pleistocene and Neolithic Maritime Cultures in Island Southeast Asia and the Western Pacific. In O’Connor, S. and P. Veth (eds.), *East of the Wallace’s Line: Studies of Past and Present Maritime Cultures of the Indo-Pacific Region*: 51-75. *Modern Quaternary Research in Southeast Asia* 16 (V-VII). Rotterdam and Brookfield, VT: Balkema.

Spriggs, M. and D. Miller 1988. A Previously Unreported Bronze Kettledrum from the Kei Islands, Eastern Indonesia. *Bulletin of the Indo-Pacific Prehistory Association* 8: 79-89.

Srisuchat, T. 1989. Beads reflecting foreign influence. *The Silpakorn Journal* 33(1): 4-19.

Srisuchat, T. 1993. Ancient Community of Khao Sam Khaeo. Masayuki Y (transl.), *Journal of Souteast Asian Archaeology* 13: 131-143.

Steinmann, A. 1941. Een fragment van een keteltrom van het eiland Koer. *Cult. Indië* 3: 157-61.

Stevenson, E.L. (trans. and ed.) 1932. *The Geography*. New York: New York Public Library.

Suleiman, S. 1984. Maritime Routes in the Classical Period. Final Report of the *Consultative Workshop on Research on Maritime Shipping and Trade Networks in Southeast Asia* (I-W7). Seameo Project in Archaeology and Fine Arts (SPAFA). Appendix 4a: 53-70. Cisarua, west Java, Indonesia, November 20-27 1984.

Sukendar, H. 1981. Laporan Penelitian Terjan dan Plawangan, Jawa Tengah Tahap I & II, *Berita Penelitian Arkeologi* 27. In Indonesian.

Sun, T. 1956. Yunnan Jinning Shizhaishan gu yizhi ji muzang [The ancient site and graves at Shizhaishan, Jinning, Yunnan]. *Kaogu Xuebao* 1: 43-63. In Chinese.

Suárez, T. 1999. *Early Mapping of Southeast Asia*. Singapore: Periplus.

Sutayasa, I M. 1979. Prehistoric research in west Java, Indonesia. *The Artifact* 16: 61-75.

Swadling, P. 1996. *Plumes from Paradise*. Hong Kong: Papua New Guinea National Museum.

Swastika, I M. 1999-2000. Nekara Batu Carangsari Bermuatan Religi. *Forum Arkeologi* 1: 12-23. In Indonesian.

Ta, D. 1999. Dong Son. Hanoi: Hoi Dan Toc Hoc Viet Nam.

- Ta, D. 2002. *Understanding Katu Culture*. Hue: Thuan Hoa Publishing House.
- Tan, Y.S. 1948. Preliminary Report on the discovery of the Hoard of Hindu Religious Objects, near Sambas, West Borneo. *Journal of the South Seas Society* 5(1): 31-42.
- Tan, Y.S. 1949. The Incense Burner from the Sambas Treasure. *Journal of the Malaysian Branch of the Royal Asiatic Society* 22(4): 19-22.
- Tan, H.V. 1980. Nouvelles recherches préhistoriques et protohistoriques au Vietnam. *Bulletin de l'École Française d'Extrême-Orient* 68: 113-54.
- Tan, H.V. 1994. *Van Hoa Dong Son o Viet Nam* (The Dong Son Culture in Vietnam). Hanoi: Social Science Publishing House.
- Taylor, K.W. (n.d.). Encountering Southeast Asia in *Shui Ching Chu* 37. Paper presented at the Conference on the High Bronze Age of Southeast Asia and South China, 14-18 January 1991, Hua Hin, Thailand. Unpublished.
- Thomas, D.D. 1971. Chrau grammar. *Oceanic Linguistics*. Special Publication No. 7. Honolulu: University of Hawai'i Press.
- Thurgood, G. 1996. Language contact and the directionality of internal drift: the development of tones and registers in Chamic. *Language* 71(1):1-31.
- Thurgood, G. 1998. The Austronesian and Mon-Khmer components in the proto-Chamic vowel system. *Papers in Southeast Asian Linguistics No. 15: Further Chamic Studies*.
- Thurgood, G. 1999. *From Ancient Cham to Modern Dialects: Two Thousand Years of Language Contact and Change*. Pacific Linguistics Special Publication No. 28. Honolulu: University of Hawai'i Press.
- Thurgood, G. 2000. Learnability and direction of convergence in Cham: the effects of long-term contact on linguistic structures. *Proceedings of the Western Conference On Linguistics*: 507-527. *WECOL 2000*. Fresno: California State University.

Thurgood, G. 2005. Phan Rang Cham. In Adelaar, A. and P. Nikolaus (eds.), *The Austronesian Languages of Asia and Madagascar*: 489-512. Himmelman Routledge Language Family Series. London and New York: Routledge.

Tillema, H. F. 1989. *A Journey Among the Peoples of Central Borneo in Word and Picture*. King, V. (ed.). Singapore: Oxford University Press.

Tilley, C. 1991. *Material Culture and Text: The Art of Ambiguity*. London: Routledge.

Tilley, C. 1999. *Metaphor and Material Culture*. Oxford: Blackwell.

Tilley, C. 2004. Time History and Memory. Lecture held on March 23rd at University College London (UCL), Department of Anthropology.

Tran, Q.V., Tap T.S., and Vien C. 1978. Ban khao co 1978 Co Loa mua dien da 77. NPH nam 1977: 124-126. In Vietnamese.

Trinh, M.H., Pham, M.H., and Trinh, S. 1974. Bao cao khai quat khu mo tang Lang Vac [Report of the excavation of Lang Vac]. Hanoi: Vien Khao Co Hoc [Institute of Archaeology]. In Vietnamese.

Trinh, S. and Ngo, S.H. 1980. Some remarks about Lang Ca site (Vinh Phu province). *Khao Co Hoc* 36: 15-30. In Vietnamese.

Vallibhotma, S. (n.d.). The Bronze Age foundations for the state of Chenla. Paper presented at the Conference on the High Bronze Age of Southeast Asia and South China, 14-18 January 1991, Hua Hin, Thailand. Unpublished.

Vietnam Museum of History 1965. *Ngoi Mo Co Viet-Khe* (The Viet Khe Burial). Xuet Ban, Hanoi.

Vietnam Museum of Ethnology 1998. Catalogue. Hanoi.

Villiers, J. 1990a. The Cash-crop Economy and State Formation in the Spice Islands in the Fifteenth and Sixteenth Centuries. In Kathirithamby-Wells, J. and J. Villiers (eds.), *The Southeast Asian Port and Polity – Rise and Demise*: 83-105. Singapore: Singapore University Press.

Villiers, J. 1990b. Makassar: The Rise and Fall of an East Indonesia Maritime Trading State, 1512-1669. In Kathirithamby-Wells, J. and J. Villiers (eds.), *The Southeast Asian Port and Polity – Rise and Demise*: 143-159. Singapore: Singapore University Press.

Vroklage, B.A.G. 1953. *Ethnographie der Belu in Zentral Timor*. Leiden: Brill.

Walker M.J. and S. Santoso 1980. *Romano-Indian Rouletted Pottery in Indonesia*. *Asian Perspectives* 20(ii): 228-235.

Wang, D. 1985. A Reconsideration of the Wanjiaba Tombs in the Light of Dating and Periodization. *Bulletin of the Ancient Orient Museum* VII: 113-33.

Wang, D. 1986. *Yunnan Tonggu* [The Bronze Drums of Yunnan]. Kunming: Yunnan Jiaoyu Publishing House.

Wang, N. 1994. Ancient ethnic groups as represented on bronze drums from Yunnan, China. In Shennan, S. (ed.) *Archaeological Approaches to Cultural Identity*: 195-206. London: Routledge.

Waterson, R. [1990] 1997. *The Living House: an Anthropology of Architecture in Southeast Asia*. Singapore: Thames and Hudson.

Watson, B. 1968. *Records of the Grand Historian of China* – Translated from the *Shi chi* of Ssu Ma Ch'ien, by Watson, B. Vol. II. New York and London: Columbia University Press.

Watson, W. 1970. Dongson and the Kingdom of Tien. In *Readings on Asian Topics*. Scandinavian Institute of Asian Studies Monograph Series 1: 45-71. Copenhagen.

Watson, W. 1992. Pre-Han communication from West China to Thailand. In Glover, I.C., Suchitta, P., and Villiers, J. (eds.), *Early Metallurgy, Trade and Urban Centres in Thailand and Southeast Asia*: 175-180. Bangkok: White Lotus.

Wheatley, P. 1954. The Malay Peninsula as known to the Chinese of the Third Century AD. *Journal of the Malayan branch of the Royal Asiatic Society* 28(1): 1-14.

Wheatley, P. 1965. Lochac Revisited. Center for South and Southeast Asian Studies. Reprint no. 351, with permission from *Oriens Extremus*, 16 Jahrgang, Heft 1.

Widia, IW. 1981. Temuan Nekara Perunggu Desa Pacung, Kecamatan Tejakula, Buleleng. *Saraswati, Karia Widia Tak Berkala Museum Bali* 17, Denpasar. In Indonesian.

Win, M.U. 2001. The Descendants of King Binnaka. Paper presented at the Memorial Meeting in memory of U Maung Maung Tin. 24 December 2001, Mandalay.

Wisserman Christie, J. 1990. Trade and State Formation in the Malay Peninsula and Sumatra 300 BC – AD 700. In J. Kathirithamby-Wells and J. Villiers (eds.), *The Southeast Asian Port and Polity – Rise and Demise*: 39-60. Singapore: Singapore University Press.

Woods, M. and S. Perry 1993. An archaeological assessment at don Dong Muang, northeast Thailand. *Spafa Journal* 1993: 10-17.

Wolters, O.W. 1967. *Early Indonesia Commerce: A Study of the Origins of Srivijaya*. Ithaca: Cornell University Press.

Wolters, O.W. 1979. Studying Srivijaya. *Journal of the Malaysian Branch of the Royal Asiatic Society* 52-2:1-52.

Xiong, Y. and T. Sun 1964. Yunnan Xiangyun Dabona muguo tongguan mu qingli baogao [Report on the excavation of a grave with a wooden coffin and bronze casket at Dabona, Xiangyun, Yunnan]. *Kaogu* 12: 607-14. In Chinese.

Yamagata, M., Pham, D.M., and Bui, C.H. 2001. Western Han bronze mirrors recently discovered in central Vietnam. *Bulletin of the Indo-Pacific Prehistory Association* 21: 99-106.

Yang, F. 2003. Kunming Yangfutou mudi gaikuang. In Kunmingshi Guanduqu Bowuguan (ed.), *Kunming Yangfutou Jincui*. Kunming: Yunnan People's Publishing House. In Chinese.

Yoshikai, M. 1998. Bronze drums in the age of reorganization. *Toya Bunka* 7878: 199-218. In Japanese.

Yunnan Sheng Bowuguan ed. [Yunnan Provincial Museum] 1959. *Yunnan Jinning Shizhaishan gumu qun fajue baogao* [Excavation of the ancient cemetery of Shizhaishan in Jinning county, Yunnan province], 2 vols. Beijing: Wenwu Publishing House. In Chinese.

Yunnan Sheng Bowuguan and Sichuan Daxue [Yunnan Provincial Museum and Sichuan University] 1978. Yunnana sheng Quxiong xian Wangjiaba gu muqun fajue jianbao [Report of the excavation of the cemetery of Wanjiaba in Quxiong county, Yunnan]. *Wenwu* 10:1-16. In Chinese.

Zhang, Z. (ed.) 2000. *Bronze Arts of the Dian Kingdom*. Kunming: Yunnan People's Publishing House. In Chinese and English.

Zhang, X., Wang, G. R., Dai, Z. P., Yang, F., and Kang, L. H. 1993. Jiangchuan Lijiashan gu muqun dierci fajue jianquan [Second excavation of the cemetery of Lijiashan in Jiangchuan county]. *Yunnan Wen Wu* 6: 1-3. In Chinese.

Zhang, Z. 1998. *Jinning Shizhaishan*. Kunming: Yunnan Fine Arts Publishing House. In Chinese.

Zhang, Z. and Wang, D. 1975. Yunnan Jiangchuan Lijiashan gu mu qun fajue baogao [Report on the excavation of the ancient cemetery at Lijiashan, Jiangchuan, Yunnan]. *Kaogu Xuebao* 2: 97-156. In Chinese.

Zhongguo Gudai Tonggu Yanjiuhui (ZGTY) 1988 [Chinese Association for the Study of Ancient Bronze Drums]. *Zhongguo Gudai Tonggu* [Ancient Chinese Bronze Drums]. Beijing: Wen Wu Publishing House. In Chinese.



VOLUME II
LIST OF FIGURES

All the photographs, maps, and drawings are the author's own unless it is indicated otherwise

Chapter 1

- | | | |
|-----|--|----|
| 1.1 | Co Loa I bronze drum. Detail of the main pictorial band on the tympanum. | 20 |
| 1.2 | Co Loa I bronze drum. Details of the pictorial scene on the tympanum. Pair of house motifs, feathered-men and figures beating bronze drums. | 21 |
| 1.3 | Ngoc Lu I bronze drum. Details of the boat with feathered-men motifs on the upper mantle. Above: Details of the pictorial scene on the tympanum. The finials of the gable roof of the house parallel the stern of the boat. After Bernet Kempers 1988: 545 | 22 |
| 1.4 | Ngoc Lu I bronze drum. H. 63 cm, D. 79 cm. After Anon. 1990: 4. History Museum, Hanoi. | 23 |
| 1.5 | Hoang Ha bronze drum. H. 61.5 cm, D. 79 cm. After Musées Royaux 2003: 24, fig. 7. History Museum, Hanoi. | 24 |
| 1.6 | Co Loa I bronze drum. H. 57 cm, D. 73.6 cm. Hanoi Culture Dept.. | 25 |
| 1.7 | Song Da bronze drum. H. 61 cm, D. 78 cm. After Anon. 1990: 10. Guimet Museum, Paris. | 26 |
| 1.8 | Kai Hua bronze drum. H. 53.3 cm, d. 65 cm. After Bernet Kempers 1988: 548. Museum of Ethnology, Vienna. | 27 |



1.9	Kabunan bronze drum. H. 48.5 cm. D. 64 cm. Museum Nasional Indonesia, Jakarta.	28
1.10	Details of the decoration of the lower mantle occurring only on the Sangeang (MNI 3364) bronze drum (first two above), and on the Selayar bronze drum (below).	29
1.11	Yamdena bronze drum. Remaining H. 52 cm, D.c. 78 cm. In situ.	30
1.12	Ngoc Lu I drum. Detail of the prow of the boat motif composed of three bird motifs. Modified drawings after Bernet Kempers 1988: 545 (below), and Spennemann 1984: 139 (above).	31
1.13	Map of the five selected clusters – RS (4) and SO (1).	32
1.14	Map of the Region Specific cluster 1 (RS1) – Red River Valley drums.	33
1.15	Dao Thinh bronze situla. H. 97 cm, D. 65 cm. History Museum Hanoi.	34
1.16	Dao Thinh situla. Detail of the boat with feathered-men motif. Left: drawing after Ha V.T. 1994: 468.	35
1.17	Hop Minh bronze situla. H. 47.4 cm. Yen Bai Culture Dept.	36
1.18	Hop Minh situla. Detail of the house and boat motifs. Below: drawing after <i>Khao co Hoc</i> 1995(4): 33.	37
1.19	Map of the Region Specific cluster 2 (RS2) – Dian drums.	38
1.20	Dong Xa bronze drum. H. 42 cm, D. 49 cm. Hung Yen Museum.	39
1.21	Dong Xa drum. Detail of the boat motif with identical ends.	40
1.22	Dong Xa drum. Detail showing that the tympanum was cast separately and sealed on the mantle.	41

1.23	Lao Cai I bronze drum. The portion of the mid and lower mantle is severed from the upper mantle by a neat circular cut. Mid-low man. H. 23 cm. Total H. 36 cm, D. 44 cm.	42
1.24	Map of the Region Specific cluster 3 (RS3) – Eastern Indonesia drums.	43
1.25	Hoa Binh-Nam Dinh bronze drum. H. 83 cm, D. 106.5 cm. Nam Dinh Museum.	44
1.26	Selayar bronze drum. H. 95 cm, D. 126 cm. In situ.	45
1.27	Details of the parallel patterns of feathered-men motifs of the drums in the RS3 cluster.	46
1.28	Leti bronze drum. Detail of the boat with feathered-men motif with bird/naga-like prow. Museum Nasional Indonesia, Jakarta (MNI 3578).	47
1.29	Kur bronze drum. Detail of the Chinese inscription under one of the missing toad motifs. Museum Nasional Indonesia, Jakarta (MNI 1907).	48
1.30	Kei Kecil bronze drum. Remaining H. 62 cm, D. 113 cm. In situ.	49
1.31	Lengshuichong type (LSC) bronze drum. H. 59 cm, d. 52.4 cm. Guangxi Provincial Museum, Nanning (GPM 103).	50
1.32	Decoration of the drums in the RS4 cluster (RS4). Above: LSC (GPM 111) bronze drum. Detail of the typical double opposite boat motifs on the upper mantle and of the patterns on the mid mantle. Below: Details of the decoration of early drums in the RS4 cluster.	51
1.33	Map of the Spread Out (SO) cluster.	52
1.34	Tympanum of the Xilin 280 bronze drum. Detail of the bird motifs typical of the SO cluster. Below: bird motif on the Lang Vac III drum (M14:12).	53
1.35	Xilin 280 bronze drum. H. 52 cm, D. 77.5 cm. Drawing after Anon. 1978a. Guangxi Provincial Museum.	54

- 1.36 Pha Long bronze drum and detail of the bird motifs. D. 75 cm. Lao Cai Culture Dept. 55
- 1.37 Laos bronze drum. H. 58 cm, D. 86.5 cm. Rubbings of the decoration of the tympanum and of the boat with feathered-men motifs on the upper mantle. After Bernet Kempers 1988: 552. 56
- 1.38 Selindung I bronze drum. H. 50 cm, D. 68.5 cm. Above: rubbing of the bird motifs on the tympanum. After McKinnon 1994. Museum Negeri Pontianak. 57
- 1.39 Babakan bronze drum. H. 48 cm, D. 67 cm. Museum Nasional Indonesia, Jakarta. 58
- 1.40 Reconstruction of the assemblage of the three Xilin drums in the burial. Guangxi Provincial Museum, Nanning. 59

Chapter 2

- 2.1 Regional concentrations of early Dong Son bronze drums and main river routes on the mainland and in western Indonesia. 60
- 2.2 Map of the Red River course and bronze drum finds in Yunnan, China. After Murowchick 1989: 405. 61
- 2.3 Map of the main Dong Son sites in north Vietnam. After Murowchick 1989: 406. 62
- 2.4 Wanjiaba bronze drums (M23: 159, 160, 161). Below: reconstruction of the coffin in tomb 23 with four drums placed upside down underneath. Yunnan Provincial Museum. 63
- 2.5 Guangnan bronze drum. H. 46 cm, D. 67 cm. Yunnan Provincial Museum. 64
- 2.6 Luobowan bronze drum M1:10. H. 56.3 cm, D. 36.8 cm. Guangxi Provincial Museum. 65
- 2.7 Dong Son I bronze drum. H. 28 cm, D. 31.5 cm. History Museum, Hanoi. 66

- 2.8 Above: Dong Son II bronze drum. H. 24.5 cm, D. 29 cm. Below: Dong Son III bronze drum. H. 21 cm, D. 23 cm. After Anon. 1990: 144, 146. History Museum, Hanoi. 67
- 2.9 Left: Dong Son V bronze drum. H. 27 cm, D. 35.5cm. Right: Dong Son VI bronze drum. H. 31.5 cm, D. 44 cm. After Anon. 1990: 84, 86. Chernuschi Museum, Paris (MC 8006, MC 8644). 68
- 2.10 Dong son IV bronze drum. H. 24 cm, D. 29 cm. Thanh Hoa Museum. 69
- 2.11 Lang Vac I bronze drum. H. 27.8 cm. D. 37.7 cm. Nghe An Culture Dept. 70
- 2.12 Lang Vac II bronze drum. H. 25.6 cm, d. 34.5cm. Nghe An Culture Dept. 71
- 2.13 Lang Vac III bronze drum. H. 48.5 cm, D. 56 cm. Nghe An Culture Dept. 72
- 2.14 Above: Tympanum of the Lang Vac V bronze drum. Remaining D. 26.5 cm. After Anon. 1990: 194. Below: Tympanum of the Lao Cai VII bronze drum. Remaining D. 36.5 cm. 73
- 2.15 Viet Khe bronze drum. D. 23 cm. History Museum, Hanoi. 74
- 2.16 Content of the Viet Khe coffin. Detail of the bronze cup with handle showing a seated figurine playing a gourd mouth organ (*khene*). 75
- 2.17 Lang Ca casting moulds. After Pham 1996: 405. 76
- 2.18 Dong Son tiles in the second moated wall of the Co Loa citadel. 77
- 2.19 Bronze plowshares, arrowheads, and pediform axes (reproduction) found inside the Co Loa I drum at Ma Tre. History Museum, Hanoi, and Co Loa exhibition hall. 78
- 2.20 Two fragments of the outer casting mould for a Dong Son drum found at the Lung Khe citadel. After Nishimura 2005. 79

- 2.21 Bronze pediform axe with feathered-men motifs and pair of reptile motifs excavated at Dong Son. H. 11.9. Upper left: detail of the pair of reptile motifs on the Dao Thinh bronze situla. 80
- 2.22 Xuan Lap bronze situla. H. 43.5 cm. Above detail of the boat with feathered-men motif. Thanh Hoa Museum. 81
- 2.23 Filled in marks from casting spacers. Above: upper mantle of the Selayar bronze drum. Below: Mid mantle of the Hoang Ha bronze drum. 82
- 2.24 Two opposite vertical seams run over the body of bronze situlas and of bronze drums, including undecorated areas. Details of the Dao Thinh situla. 83
- 2.25 Dong Son bronze spears with anthropomorphic handles. Thanh Hoa Museum. 84
- 2.26 Bronze container from Tianzimidiao (M41:103). H. 49.5 cm. Drawing after Anon. 1985. Top left photograph after Anon.1993(14): 38. Kunming City Museum. 85
- 2.27 Dian cask-shaped bronze containers for cowrie-shells. The scenes on the lids parallel closely the bronze container M41:103 from Tianzimidiao. 86
- 2.28 Tianzimidiao bronze drum M41:117. H. 30 cm, D. 37 cm. Kunming City Museum. 87
- 2.29 Dong Son bronze situla filled with cowrie-shells at Tianzimidiao (M41:100). H. 35 cm. Kunming City Museum. 88
- 2.30 Top Left: Shaman motif on a bronze ding at Tianzimidiao (M41:132). After Anon. 1985. Top right and below: the same motif engraved over the scraped off decoration of a Dong Son drum at Shizhaishan (M13:3), Yunnan Provincial Museum. 89
- 2.31 Dong Son bronze drum at Shizhaishan (M14:1). H. 31.2 cm, D. 40.7 cm. Drawing after Wang 1986: 99. Yunnan Provincial Museum. 90

- 2.32 Dong Son bronze drum at Lijiashan (M24:42). H. 33 cm, D. 39 cm. Yunnan Provincial Museum. 91
- 2.33 Drum-shaped bronze container for cowrie-shells at Shizhaishan (M12:2). D. 41 cm. Below: details of the decoration of the upper and mid mantle. After Zhang 1998: 14, fig. 30. 92
- 2.34 Cask-shaped bronze container for cowrie-shells at Shizhaishan (M12:26). H. 53 cm. Detail of the lid. After Rawson 1983: 27-fig 1, 31-fig. 8. Yunnan Provincial Museum. 93
- 2.35 Shizhaishan (M1:58) bronze drum. H. 30 cm, D. 36 cm. Yunnan Provincial Museum. 94
- 2.36 Shizhaishan (M10:3) bronze drum. H. 19 cm, D. 21.2 cm. Yunnan Provincial Museum. 95
- 2.37 Shizhaishan (M20:1). Dian bronze drum turned into a container by adding a base with rivets and a lid. Below: detail of the added base and of the boat with a Dian feathered-men motif. Yunnan Provincial Museum. 96
- 2.38 Shizhaishan (M6:1) bronze drums container. Total H. 53.9 cm. After Rawson 1983: 27, fig. 27. Yunnan Provincial Museum. 97
- 2.39 Lijiashan (M69:171) bronze drum. H. 23.5 cm, D. 28 cm. Lijiashan Museum. 98
- 2.40 Above: Lijiashan (M50:89) bronze drum. H. 23 cm, D. 29 cm. Below: Lijiashan (M57:84) bronze drum. H. 21 cm, D. 25cm. No surface decoration. Lijiashan Museum. 99
- 2.41 Lijiashan bronze container (M69:163-164). Total H. 49 cm. Above: bronze drum (M69:163). H. 22 cm, D. 32.1 cm. Lijiashan Museum. 100
- 2.42 Huili bronze drum. H. 30.4 cm, D. 41 cm. After Anon. 1977. 101
- 2.43 Lao Cai VII bronze drum. Mid-low mantle H. 23 cm. Lao Cai Culture Dept. 102
- 2.44 Beelaerts bronze drum. H. 29.3 cm, D. 44 cm. After Bernet Kempers 1988: 553. 103

- 2.45 Dong Son bronze drum engraved at Shizhaishan (M13:3). H.c. 30 cm, base D.c. 50 cm. Yunnan Provincial Museum. 104
- 2.46 Shizhaishan (M13:3) drum. Details of the Dian figures engraved over the scraped off Dong son motifs of feathered-men motifs. the engraved bird motifs parallel the ones cast on the Dian drum found at Huili (Figure 2.42). 105
- 2.47 Shizhaishan (M13:3) drum. Detail of the horseman motif engraved on one of the panels of the mid mantle. 106
- 2.48 Shizhaishan (M13:3) drum. Detail of the tiger motif engraved on the lower mantle. Upper corner: similar tiger motif on a Dian bronze sword in the same tomb (M13:219). Drawing after Pirazzoli t'Serstevens 1996-1997. 107
- 2.49 Shizhaishan (M12:1). Bronze lid placed over the first lid of a cask-shaped container for cowrie-shells. D. 52 cm. After Anon. 1993:177. Yunnan Provincial Museum. 108
- 2.50 Shizhaishan (M12:1) cask-shaped bronze container. Above: first lid. Below: fragments of the upper section. Yunnan Provincial Museum. 109
- 2.51 Lijiashan (M69:157). Drum-shaped bronze container for cowrie-shells. H. 40 cm, D. 28.8 cm. After Anon. 1993: 1. 110
- 2.52 Map of the main finds of early bronze drums on the mainland and related sites discussed in the text. 111
- 2.53 Report drawing of bronze drums in the Xilin burial. Above: assemblage of three drums. Below: Xilin 282 drum. After Anon. 1978a. This drawing does not match the reconstruction of the assemblage in the Guangxi Provincial Museum (Figure 1.39). 112
- 2.54 Xilin 282 bronze drum. H. 41 cm, D. 52 cm. Guangxi Provincial Museum. 113
- 2.55 Bagan Museum Dian bronze drum. Courtesy of U Win Maung. 114

2.56	Fragmentary Dian drum from Burma. Unknown provenance. Drawing by U Win Maung.	115
2.57	Sin Bo bronze drum. Courtesy of U Win Maung. Drawing by U Win Maung.	116
2.58	Myauk Mi Kon bronze objects. Courtesy of Elizabeth Moore.	117
2.59	Uttaradit I bronze drum. H. 53 cm, D. 65 cm. National Museum, Bangkok.	118
2.60	Uttaradit II bronze drum. H. 53.5 cm, D. 69.5 cm. National Museum, Bangkok.	119
2.61	Uttaradit III bronze drum. H. 42 cm, D. 61.5 cm. National Museum, Bangkok.	120
2.62	Xilin burial. Han bronze statue. Guangxi Provincial Museum.	121
2.63	Above: Gio Son bronze drum. H. 26.8 cm, D. 30 cm. Below: Tra Loc bronze drum. H. 27.4 cm, D. 33.4 cm. After Reinecke and Le 2002: 24-25, figs. 5-6.	122
2.64	Above: bronze bracelets from Ban Vang, Quang Tri. Below left: bronze bracelets from the Khorat Plateau (1-2); and from Quang Tri (3-4). Below right: bronze bracelets from Ban Kan Luang. After Reinecke et al. 1999: 32, fig. 12; 34, fig. 14; 35, fig. 15.	123
2.65	Bangkinang bronze bracelets (MNI 6016, 6017) and bronze figurine (MNI 6000), H. 9.4 cm.	124
2.66	Don Tan bronze drum. H. 65 cm, D. 86 cm. After Anon. 2003: 124, 129.	125
2.67	Nephrite double-headed animal earrings <i>ling ling</i> , and circular earrings with lugs <i>ling ling o</i> . History Museum, Hanoi.	126
2.68	One of the ca. ninety dug out coffins from the Ongbah cave. National Museum, Bangkok.	127

- 2.69 Ongbah 86 bronze drum. H. 53.5 cm, D. 67 cm. After Sørensen 1988: 137-138, pl. 38.6, 39.7. National Museum, Bangkok. 128
- 2.70 Ongbah 87 bronze drum. Remaining H. 35.4 cm, D.c. 60 cm. After Sørensen 1988: 143, pl. 44.16. National Museum, Copenhagen. 129
- 2.71 Ongbah 88 bronze drum. H.c. 40.3 cm, D.c. 58.5 cm. After Sørensen 1988: 145, pl. 46.19. National Museum, Copenhagen. 130
- 2.72 Ongbah 89 bronze drum. H.c. 59.5 cm, D.c. 74 cm. Mantle after Sørensen 1988: 148-149. tympanum after Anon. 1993: 296. Fine Arts Dept. 131
- 2.73 Tympanum of the Ongbah 89 drum. After Sørensen 1988: 150. Below: drawing after Anon. 2003: 296. National Museum of His Majesty the King's Golden Jubilee. 132
- 2.74 Khao Sam Kaeo I bronze drum. H. 56 cm, D. 72 cm. After Anon. 2003: 171, 175. 133
- 2.75 Above: Cat Tai bronze drum. D. 60 cm. Below: An Truong (An Lao) bronze drum. D. 45 cm. Binh Dinh Museum. 134
- 2.76 Vinh Thinh I bronze drum (above): H.c. 38 cm, D. 45 cm; VTII bronze drum (below): H. 35 cm, D. 45 cm. Binh Dinh Museum. 135
- 2.77 Phu Chanh II-1998 bronze drum. H. 40 cm, D. 47.5 cm. Nam Duong Museum. 136
- 2.78 Phu Chanh II-1998 drum used as the cover of a wooden burial container. 137
- 2.79 Phu Chanh IV-2000 bronze drum. H. 40 cm, D. 47.2 cm. Nam Duong Museum. 138
- 2.80 Tympani of the Battambang (D. 62 cm), Klang (D.c. 50 cm), and Tembeling (D. 61 cm) bronze drums. After Bernet Kempers 1988: 555. 139
- 2.81 Terengganu bronze drum. D.c. 65 cm. After Bernet Kempers 1988: 557. National Museum, Kuala Lumpur. 140

- 2.82 Sungai Lang bronze drum. D. 45.5 cm. After Bernet Kempers 1988: 556. National Museum, Kuala Lumpur. 141
- 2.83 Klang bronze bell. H.c. 53 cm. British Museum. After Loewenstein 1956, pl. 1.4. Right: bronze bell from Dong Son. H.c. 25 cm. History Museum, Hanoi. 142
- 2.84 Map of the finds of Dong Son bronze drums in western Indonesia and Sabah, Malaysia. 143
- 2.85 Batugadja. Carved monolith (length: 2.7 m) with human figures carrying a bronze drum. Pasemah Plateau. Below: detail of the drum. After Bernet Kempers 1988: 473. 144
- 2.86 Airpurah carved monolith. Pasemah Plateau. After Van Heekeren 1958, pl. 31. 145
- 2.87 Above: Painting on the inside wall of a cist grave showing a Dong Son drum. Below: drawing on a monolith showing a human figure holding one drum and carrying another on his back. Pasemah Plateau. After Kusumawati and Sukendar 1999-2000: 188, fig. 33; 49, fig. 42. 146
- 2.88 Above: Kerinchi bronze flask. H. 50.8 cm. Below: Madura bronze flask. H. 76 cm. Museum Nasional Indonesia. 147
- 2.89 Lanjung bronze drum. H. 45 cm, D. 55.5 cm. Museum Nasional Indonesia (MNI 3372). 148
- 2.90 Above: Labuan Meringgai bronze drum. H. 39 cm, D. 39 cm. Below: Panca Tunggal Jaya bronze drum. H. 50 cm, D. 60 cm. After McKinnon 1993. Museum Negeri Lampung. 149
- 2.91 Above: Tulangbawang bronze drum (MNI 6193). Fragment of the tympanum. Width. 21 cm. Below: Lake Ranau bronze drum (MNI 5368), two of eight fragments. Museum Nasional Indonesia. 150

- 2.92 Plawangan jar burial with a Dong Son bronze drum placed upside down over a child burial, and containing child bones and other burial goods. After Bintarti 1999: fig. 99. 151
- 2.93 Lamongan bronze drums forming a burial container. Dong Son drum (H. 42 cm, D. 49 cm, above) and Pejeng drum (D. 52 cm, below). Drawing after Bintarti: 1999: fig. 20. Museum Tantular, Surabaya. 152
- 2.94 Tuban bronze drum (H.c. 70 cm, D.c. 90 cm) found upside down containing a bronze elephant (H. 32 cm), a bronze axe, and iron tools. Museum Tantular, Surabaya. 153
- 2.95 Selindung I and II bronze drums forming a container with beads and ornaments which are likely to be burial goods. After Bintarti 1999: fig. 18. 154

Chapter 3

- 3.1 Map of the finds of Dong Son bronze drums in eastern Indonesia. 155
- 3.2 Details of the Selayar bronze drum. Above: protruding star/sun motif at the centre of the tympanum. Below: one of the four equidistant toad motifs decorated with geometric motifs. 156
- 3.3 Many equidistant filled in marks from casting spacers over the whole mantle. Selayar drum above; Leti (MNI 3578) below. 157
- 3.4 Huu Chung bronze drum. H. 76 cm, D. 82 cm. After anon. 1990. 154. Hai Hung Culture Dept. 158
- 3.5 Map modified after Ptak 1992: 30, map. 1. Red arrows added by the present author. 159
- 3.6 Drawing by Duperrey (1825-30) showing a festivity in Kaieli on Buru Island. After Spriggs and Miller 1988, fig. 2. 160

- 3.7 Sangeang bronze drum (MNI 3364). H. 85 cm, D. 116 cm. Museum Nasional Indonesia. 161
- 3.8 Sangeang drum (MNI 3364). Details of three out of the four house motifs on the tympanum. 162
- 3.9 Sangeang drum (MNI 3364). Detail of the human figure fighting with a tiger between the boat motifs on the upper mantle. 163
- 3.10 Roti bronze drum (MNI 1828). H.c. 59 cm, D. 72.8 cm. After Nernet Kempers 1988: 520. Museum Nasional Indonesia. 164
- 3.11 Alor bronze drum. H. 67.5 c, D. 92 cm. After Bernet Kempers 1988: 524, pl. 6.02c-d. In situ. 165
- 3.12 Leti bronze drum (MNI 3578). H.c. 69 cm, D. 98.5 cm. Museum Nasional Indonesia. 166
- 3.13 Kei Kecil tympanum in its ceremonial ground. Below: the wife of the head of the village sitting on the circular flat stone (*batu pemali*) of the same size of the tympanum. 167
- 3.14 Kur bronze drum (MNI 1907). H. 87 cm, D. 113.5 cm. Museum Nasional Indonesia. 168

Chapter 4

- 4.1 Moon of Pejeng bronze drum. H. 198 cm, D. 160 cm. Mantle after McConnell and Glover 1990. Tympanum after Bintarti 1999. 169
- 4.2 Above: Pejeng bronze drum. Asian Civilizations Museum, Singapore. Below: Dong Son bronze drum, Kabunan. Museum Nasional Indonesia. 170
- 4.3 Fragment of stone printing mould for the casting of a Pejeng bronze drum found at Manuaba, Bali. After Bernet Kempers 1988. Right: the mould fragments are kept in the shrine of the local temple. 171

4.4	Map of the finds of Pejeng bronze drums in Bali and Java.	172
4.5	Moon of Pejeng in its shrine in the temple Penataran Sasih in Pejeng, Bali.	173
4.6	Manikliyu bronze drum. Four sections which were cast separately and the joined together horizontally. Institute of Archaeology, Denpasar.	174
4.7	Manikliyu drum. Detail of the tympanum and a section of the upper mantle cast as one piece and joined to the remaining upper mantle.	175
4.8	Manikliyu drum. Detail of the joining point between the upper and mid mantle.	176
4.9	Manikliyu drum. Detail of the joining point between the mid and lower mantle.	177
4.10	Manikliyu drum. Detail of the evidence that the handles were cast separately and inserted into the drum.	178
4.11	Joining of the section comprising the tympanum and a portion of the upper mantle with the remaining upper mantle (case). After McConnell and Glover 1990: 29, fig. 12.	179
4.12	Manikliyu bronze drum used as a inhumation container and found next to a stone sarcophagus in the burial site. Above: after Kompiang Gede 1997-1998: 50, fig. 2; Below: After <i>Forum Arkeologi</i> 1997-1998: journal cover.	180
4.13	Stone sarcophagus from Taman Bali. H. 140 m. Museum Arkaeologi, Pejeng, Bali.	181
4.14	Bebitra bronze tympanum. D. 65.2 cm. National Institute of Archaeology, Jakarta.	182
4.15	Besangbe bronze drum. H. 48.5 cm, remaining D. 28 c. Pura Batur Besangbe, Bali.	183
4.16	Detail of one of the four pairs of face motifs on the Moon of Pejeng drum. Courtesy of Roger Blench.	184

- 4.17 Details of one of the four pairs of face motifs on Pejeng drums. Above: Manikliyu drum. Below: Pejeng drum in the Asian Civilizations Museum, Singapore (Figure 4.2). 185
- 4.18 Details of the decoration of the tympanum. Above: Manikliyu drum. Below: Pejeng drum in the Asian Civilizations Museum, Singapore (Figure 4.2). 186
- 4.19 Makassar bronze axe. Length 70.5 cm. Blade Width 45 cm. Museum Nasional Indonesia (MNI 1839). 187
- 4.20 Roti bronze axes. Above: (MNI 1441), Length 81 cm. Below: (MNI 1442), Length 74 cm. 188
- 4.21 Roti axe (MNI 1442). Detail of the human figure depicted on the blade. 189
- 4.22 Human figure depicted on fragments of Lapita pottery from the Santa Cruz Islands in Melanesia. After Bellwood 1987: 50, fig. 18. 190
- 4.23 Sawu bronze axe. Length 150 cm. Detail of the face motif and spiral bands. Museum Tantular, Surabaya. 191
- 4.24 Makassar axe. Detail of the face motif and spiral bands. 192
- 4.25 Tympanum of the Pejeng drum in the Asian Civilization Museum, Singapore. 193
- 4.26 Roti axe (MNI 1441). Detail of the spiral motifs. 194
- 4.27 Roti axe (MNI 1442). Detail of fish motifs. 195
- 4.28 Reconstructed tympanum of the Pacung drum. After McConnell and Glover 1990: 17, fig. 7. 196
- 4.29 Makassar axe. Detail of fishbone-like motif. 197

4.30	Map of northeast Bali showing locations associated with the earliest royal line in Pejeng to the south. After Hobart et al. 1996 : 74, map 5.	198
4.31	Traditional three-piece rice steamer.	199
4.32	Representation of <i>Dewi Sri</i> , female spirit of rice. After Hobart et al. 1996 : 49, pl. 7.	200
4.33	Three pieces: brass pot (<i>daeng daeng</i>), straw cone (<i>kokusan</i>), and brass cover (<i>kekep</i>).	201
4.34	<i>Daeng daeng</i> and <i>kekep</i> .	202
4.35	Stone sculpture showing a <i>daeng daeng</i> -like Pejeng drum as the pedestal of a seated figure. Carangsari, Pra Puseh Kangin, Bali.	203
4.36	<i>Sampian</i> (above) and <i>Pajagang</i> (below).	204
4.37	Map of the finds of Pejeng bronze drums and of <i>moko</i> bronze drums.	205
4.38	Moko drum with kala face motif. Daeng Eskandar gallery, Bali.	206
4.39	Moko with European emblem motif. Daeng Eskandar gallery, Bali.	207
4.40	Moko from Alor, repaired with a fragment from the upper mantle of another moko with face motif. H. 55.5 cm. Museum Nasional Indonesia.	208
4.41	Cement printing moulds for casting a small replica of the Moon of Pejeng. Mojokerto workshop.	209
4.42	The making of the inner clay core. Mojokerto workshop.	210
4.43	Above: the clay investment for a bronze statuette is heated to melt the wax. Below: detail of the holes in the clay investment to let the wax come out and then pour in the molten metal. Mojokerto workshop.	211

- 4.44 Brick furnace to melt the metal to be poured into the clay investment. Mojokerto workshop. 212
- 4.45 Moko drum with Pejeng-like motifs and showing a horizontal joning mark in the middle of the mid mantle. Local dealer, Bali. 213

Chapter 5

- 5.1 Map of the expansion of Austronesian speakers. After Bellwood 1997: 118, fig. 4.5. 214
- 5.2 The Zhuang people on southwest China use Heger IV type bronze drums as part of their ceremonial objects. Courtesy of Roger Blench. 215
- 5.3 Map of Dayak groups in Borneo. Museum Nasional Indonesia. 216
- 5.4 Map of ethno-linguistic groups in central and south Vietnam. After www.lib.utexas.edu/maps/thematic.html. From Map No. 5008741972. 217
- 5.5 Ngadju or Ot Danum Dayak incised bamboo container showing the *tiwah* ceremony. H. 39 cm. Museum Nasional Indonesia (18090). 218
- 5.6 Above: Painted wooden funerary board showing boat and house motifs. Ngadju or Ot Danum Dayak. After Sellato 1992: fig. 468. Below: Painted wooden board from Kalimantan showing a naga-like boat motif. After Steinmann 1946: 1876. 219
- 5.7 Naga motifs. above: knife for cutting rice grass. Middle: tattooing tool and wooden stamp with the naga motif. Below: wooden coffin in the shape of a naga. Tita's Gallery, Bali. 220
- 5.8 Kenyah Dayak rice granary showing pairs of opposite naga motifs painted on the walls and pairs of hornbill motifs as roof finials. East Kalimantan. After Tillema 1989: 99, fig. 78. 221

- 5.9 Kenyah people of high rank with headdress of hornbill feathers and shields decorated with naga motifs. After Tillema 1989: 112-fig. 95, 109-fig. 92. Below Right: Kenyah dance. After Sellato 1992: fig. 308. 222
- 5.10 Above: mouth organ with gourd resonator and bamboo sticks (*khene*) used by the Ma people of Lam Dong, Vietnam. Vietnam Museum of Ethnology. Middle: Kenyha Dayak woman playing the gourd mouth organ (*kediri*). After Tillema 1989: 225, fig. 229. Below: Kai Hua bronze drum. Motif showing a feathered-men playing the same instrument. Katalog und Ausstellung 1975. 223
- 5.11 Gourd mouth organ (above) and jew's harp (below) played by the Mon-Khmer Ma people of Lam Dong province. Photographs after Vietnam Museum of Ethnology. 224
- 5.12 Anthropomorphic spear handles. A. Moi wooden spear. C. Dayak wooden spear. E: Dong Son bronze spear. After Colani 1936: 201, fig. 25. 225
- 5.13 Left: wooden spears with anthropomorphic handles from Kalimantan. H. 45-50 cm. Gucci Gallery, Bali. Right: Dong Son bronze spear with similar handles. H. 50 cm. Thanh Hoa Museum. 226
- 5.14 Kenyah Dayak. Practice of extending the ear lobes with heavy earrings. After Tillema 1989: 124, figs, 110-111. 227
- 5.15 A: Dong Son bronze situla. B: Dayak rattan basket. After Goloubew 1929: 22, fig. 10. 228
- 5.16 Giarai tomb. Vietnam Museum of Ethnology. 229
- 5.17 Giarai funerary pole with crouching seated figure. Sa Thay, Kon Tum province. After Vietnam Museum of Ethnology 1998: 110. 230
- 5.18 Dayak medicine box with crouching figures. Central Kalimantan. Tita's Gallery. Bali. 231
- 5.19 Front interior (*gah*) of the Ede longhouse with heirlooms and carved beams. Vietnam Museum of Ethnology reconstruction. 232

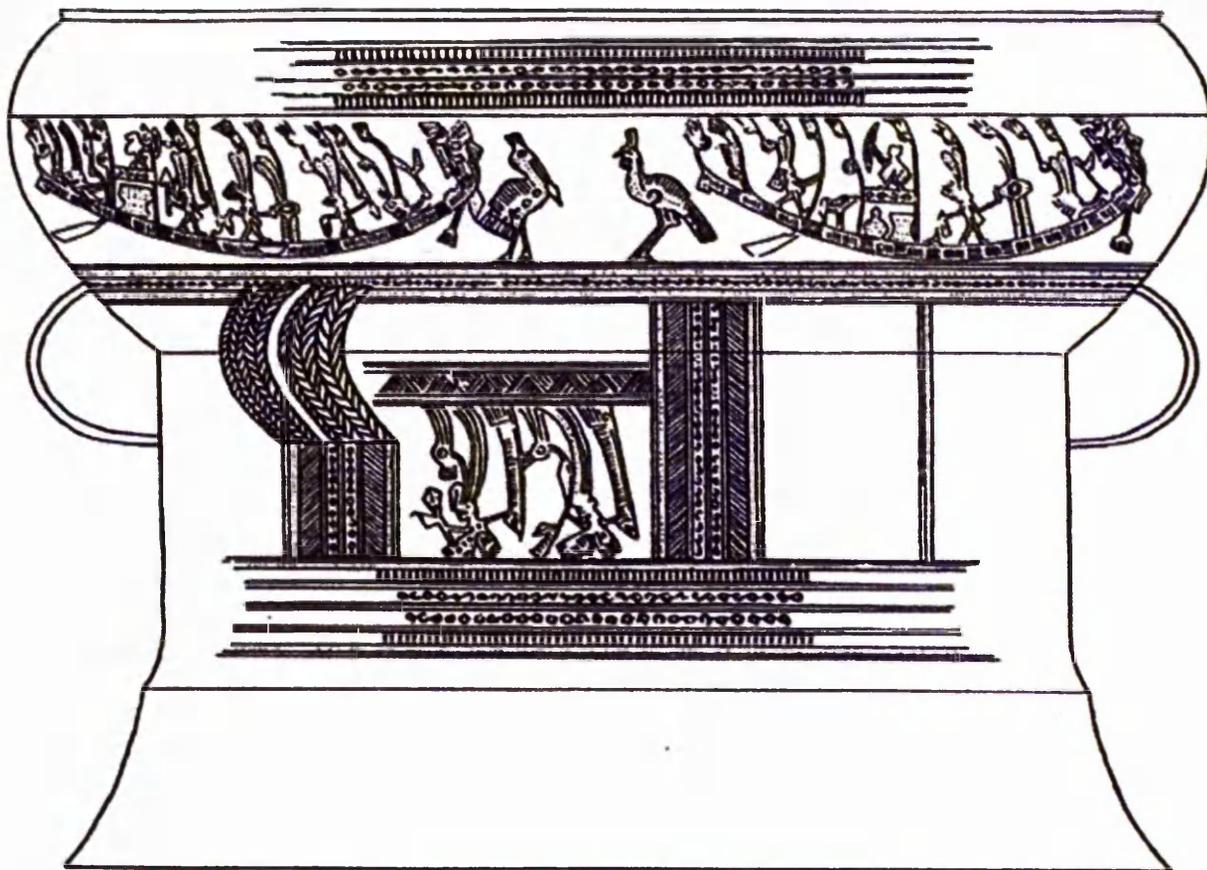
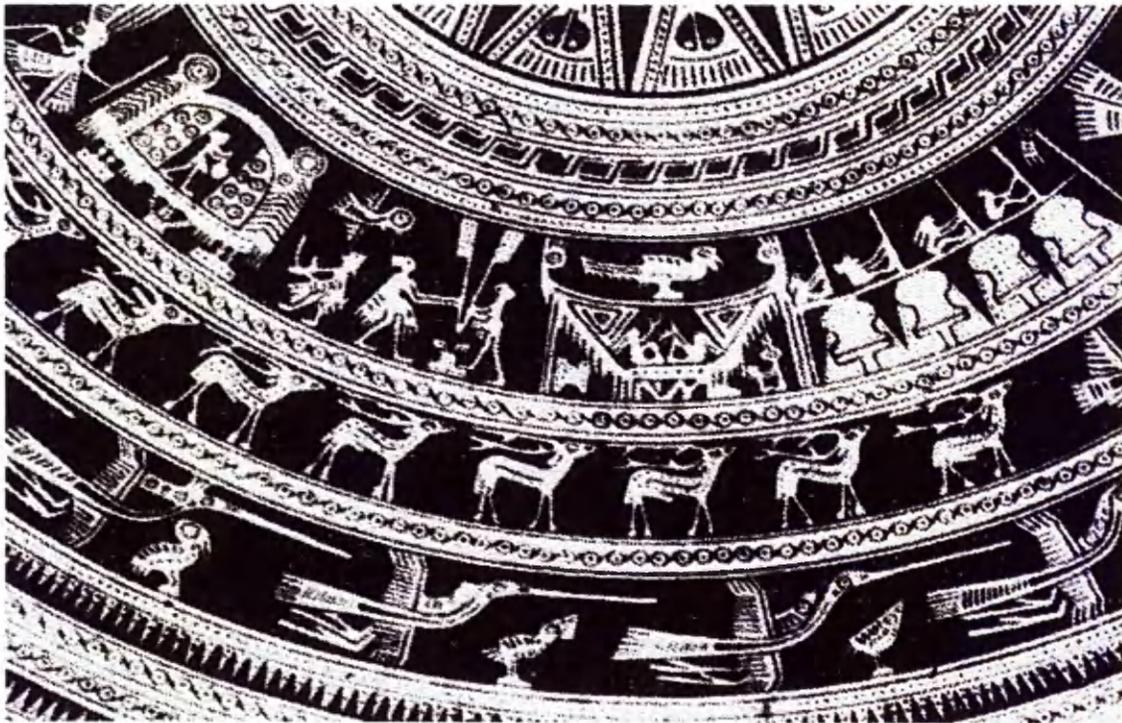
- 5.20 Ede longhouse entrance with pair of 'pot'-shaped wooden sculptures. The motif is also carved on beams and columns. Vietnam Museum of Ethnology reconstruction. 233
- 5.21 Ede longhouse. Details of the pot-shaped motifs carved on the supporting beams and columns. Right: detail of the breasts and half moon motifs. Vietnam Museum of Ethnology reconstruction. 234
- 5.22 Wooden door panel carved with half moon, breasts, and square geometric pattern. Belu region, Timor. Local dealer, Bali. 235
- 5.23 Wooden pole with pot-shaped motifs and seated figure. Belu region, Timor. Local dealer, Bali. 236
- 5.24 Raglai tomb. Vietnam Museum of Ethnology photograph. 237
- 5.25 Bahnar house. Vietnam Museum of Ethnology reconstruction. 238
- 5.26 Ede ceremonial pole. Buon don, Dac Lac province 239



1.1. Co Loa I bronze drum. Detail of the decoration of the tympanum with pictorial scene on the main band.



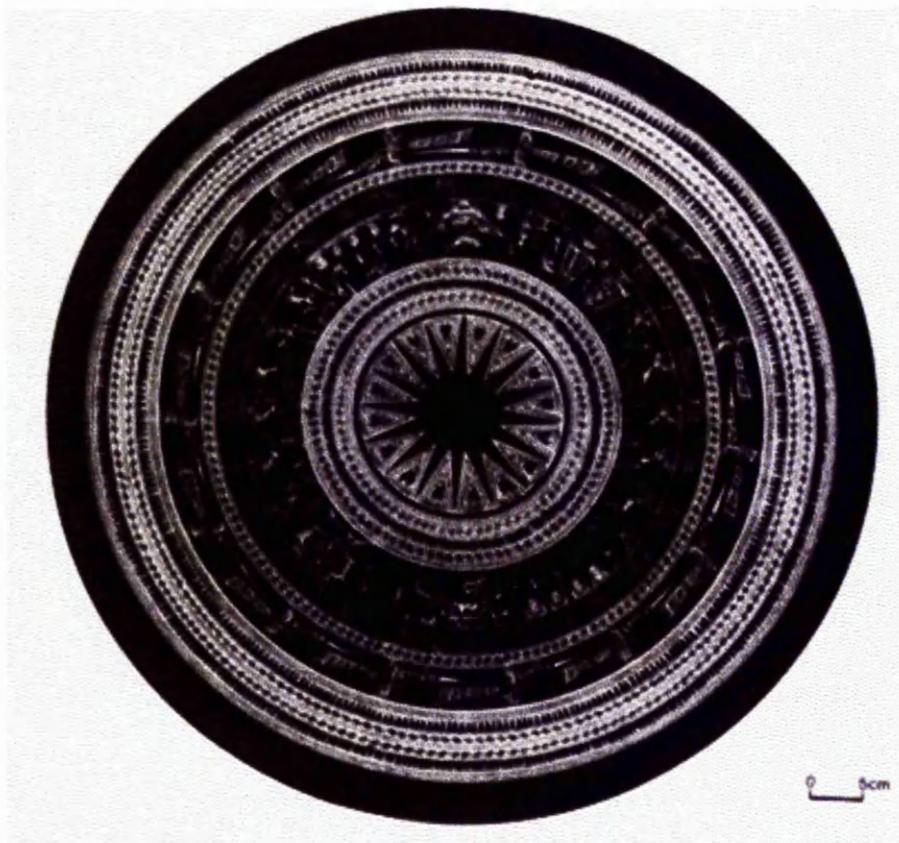
1.2. Co Loa I drum. Details of main pictorial scene on tympanum. Pair of house motifs, feathered-men, and figures beating bronze drums



1.3. Ngoc Lu I bronze drum. Boat with feathered-men motifs and feathered-men motifs. Above: Detail of the pictorial scene on the tympanum. The finials of the gable house parallel the stern of the boat. After Bernet Kempers 1988: 545.



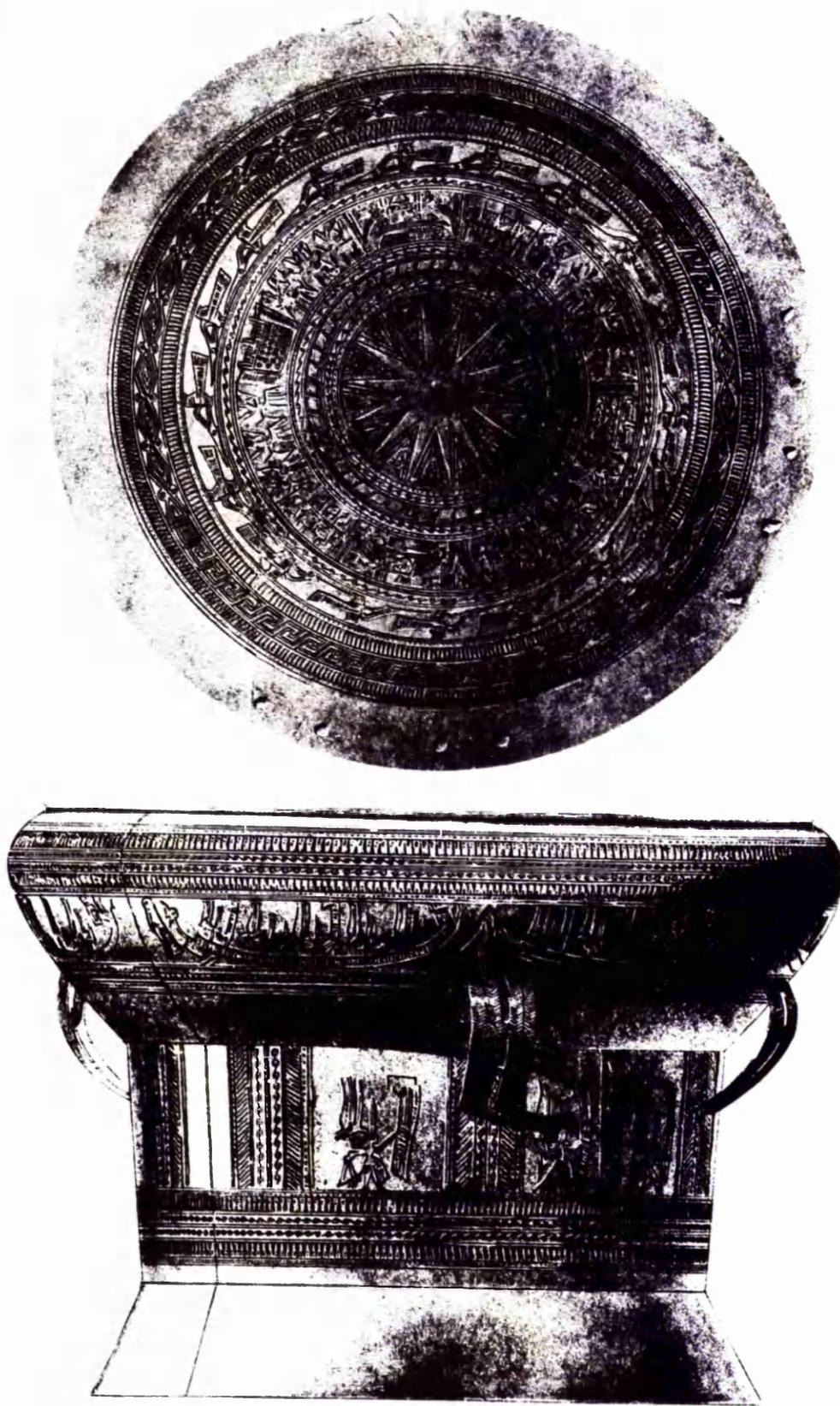
1.4. Ngoc Lu I bronze drum. H. 63 cm, D. 79 cm. After Anon. 1990: 4. History Museum, Hanoi.



1.5. Hoang Ha bronze drum. H. 61.5 cm, D.79 cm. After Musées Royaux 2003: 24, fig. 7. History Museum, Hanoi.



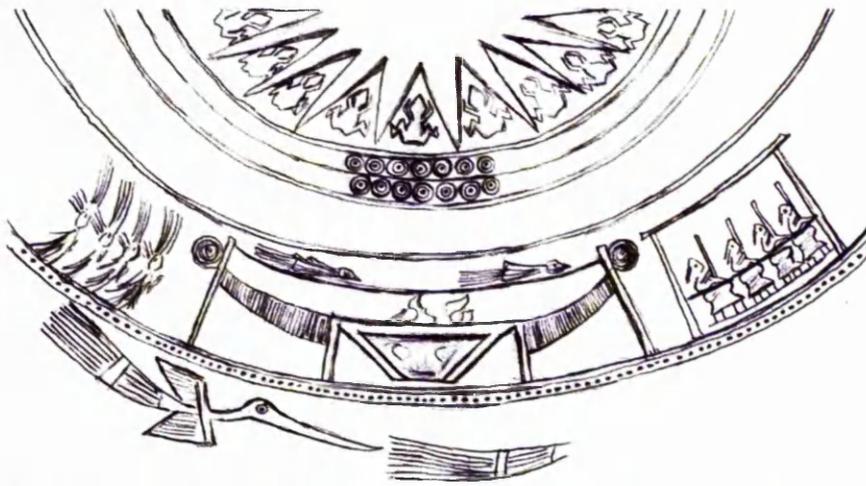
1.6. Co Loa I bronze drum. H. 57 cm, D. 73.6 cm. Hanoi Culture Dept.



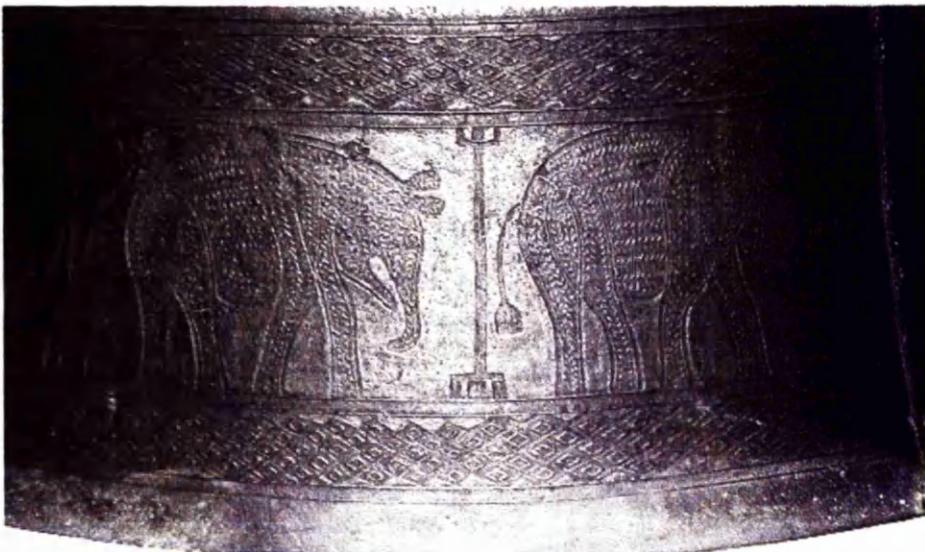
1.7. Song Da bronze drum. H. 61 cm, D. 78 cm. After Anon. 1990: 10. Guimet Museum, Paris.



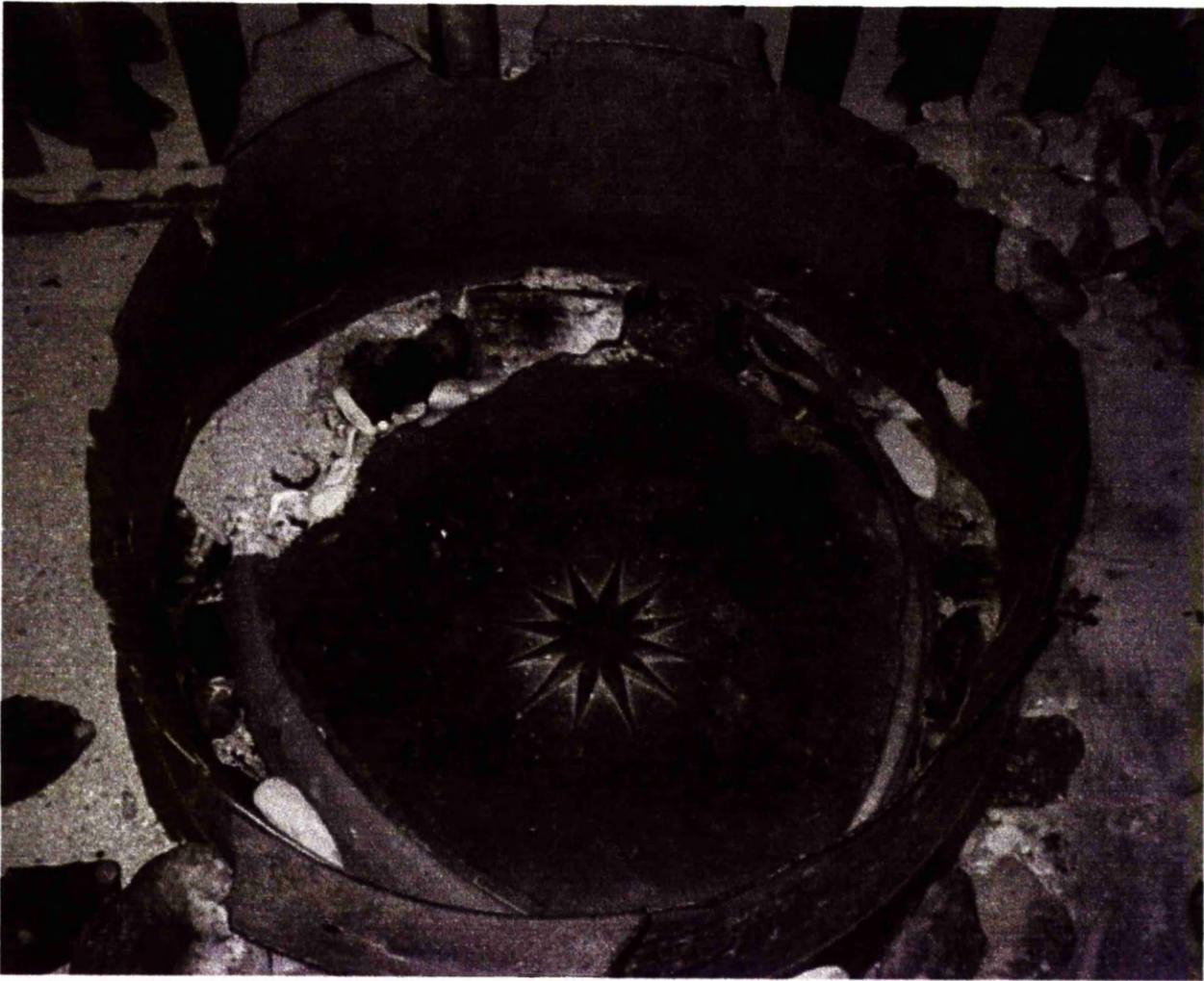
1.8. Kai Hua bronze drum. H 53.3 cm, D. 65 cm. After Bernet Kempers 1988:548. Ethnology Museum, Vienna.



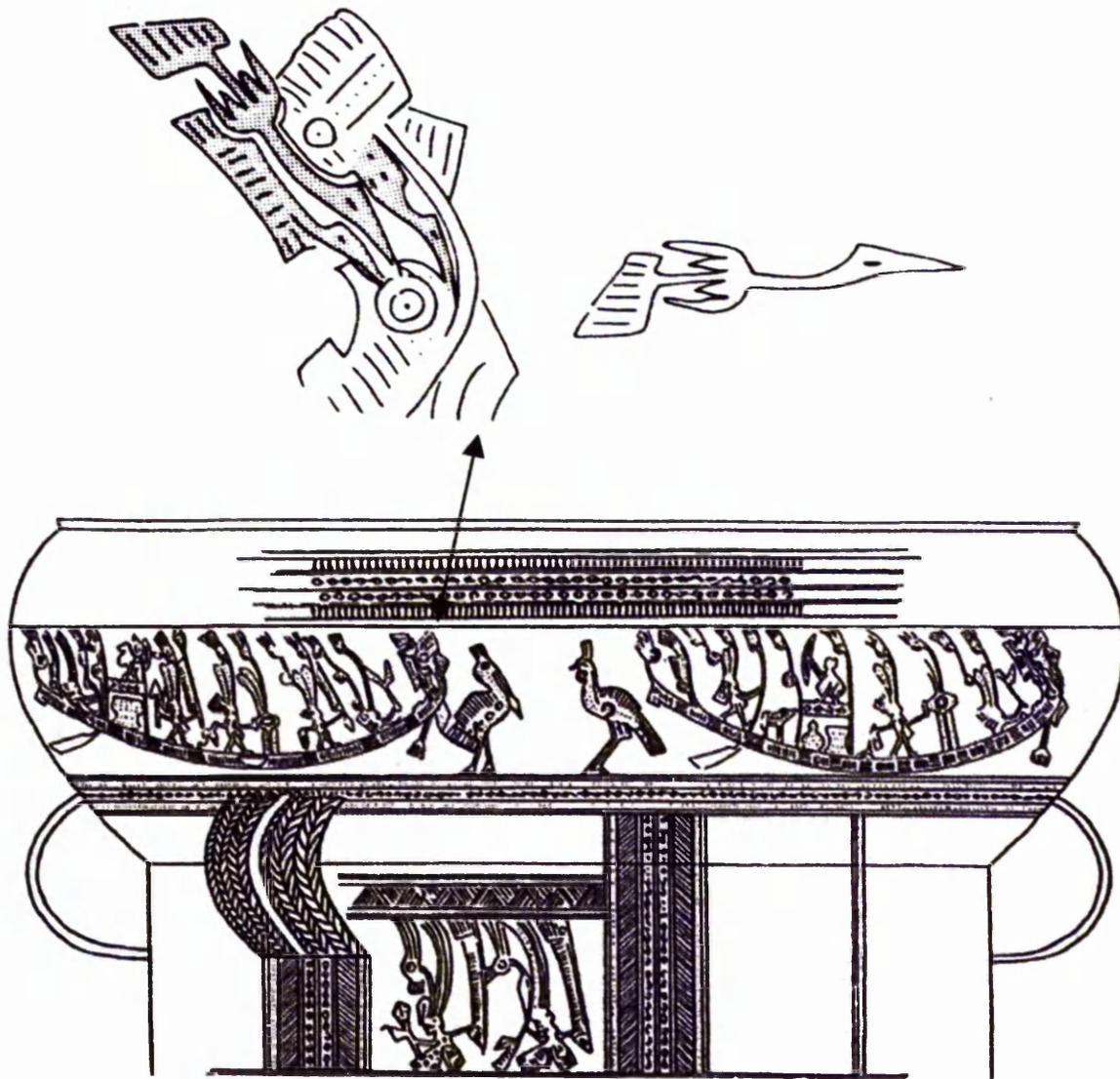
1.9. Kabunan bronze drum. H. 48.5 cm. D. 64 cm. Museum Nasional Indonesia, Jakarta.



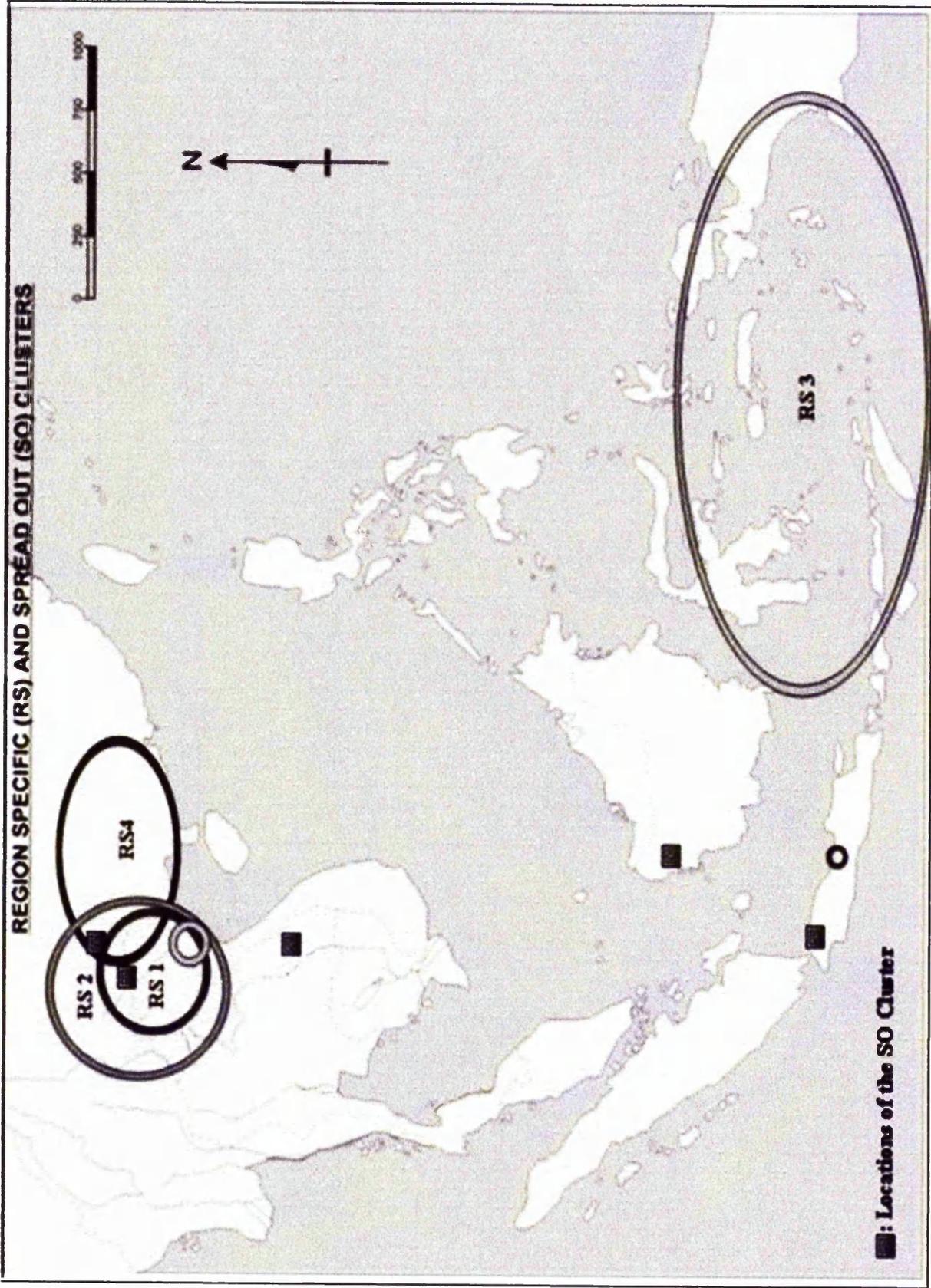
1.10. Details of the decoration of the lower mantle occurring only on the Sanggeang (MNI 3364 above) and the Selayar (below) drums.



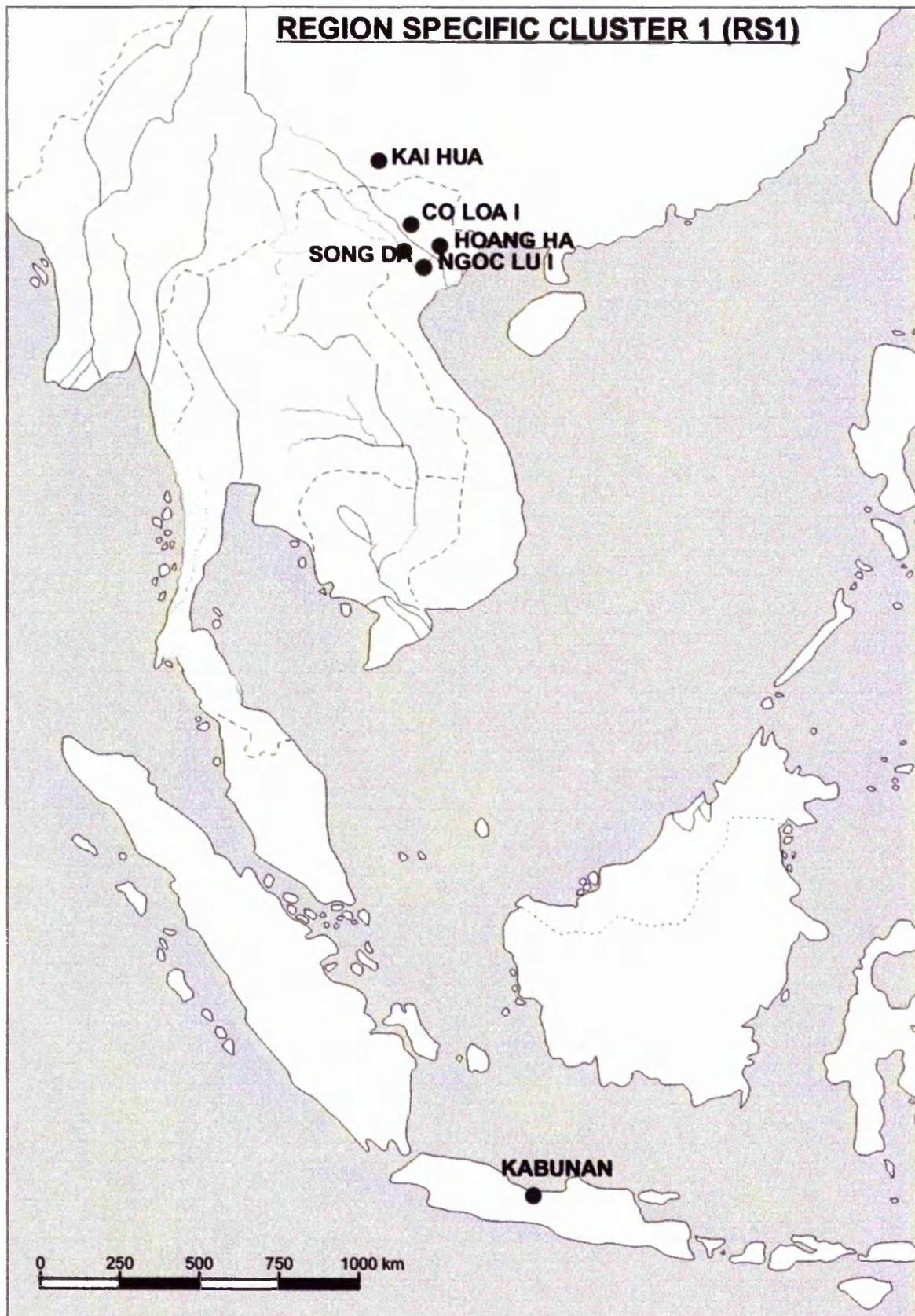
1.11. Yamdena bronze drum. Remain. H. 52 cm, D.c. 78 cm.



1.12. Ngoc Lu I drum. Prow of the boat motif formed by three bird motifs. Modified drawings after Bernet Kempers 1988: 545 (below), and Spennemann 1984:139 (above).



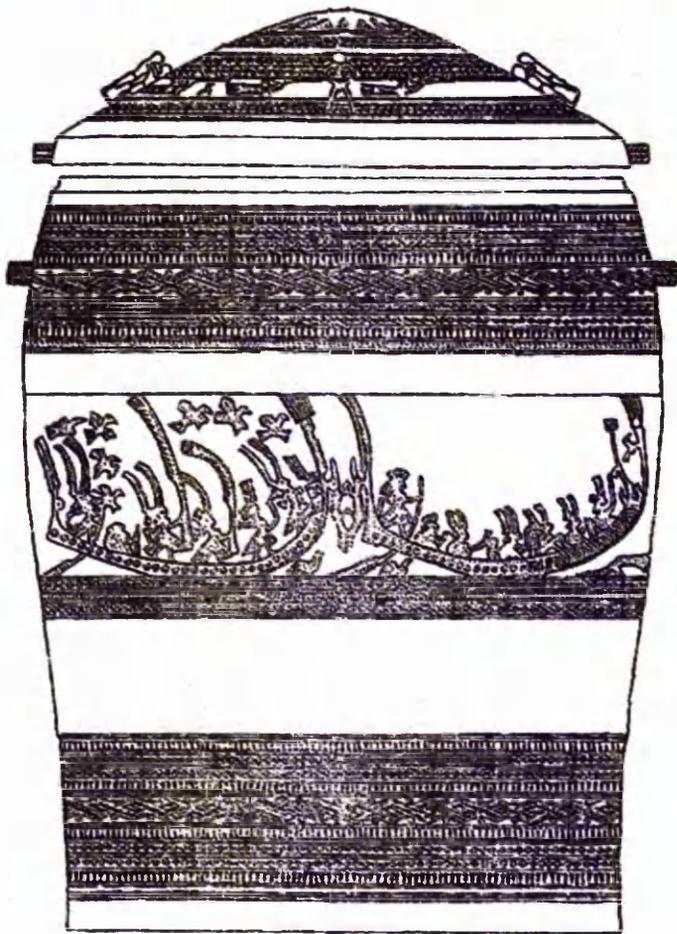
1.13. Map of the five selected clusters – RS (4) and SO (1).



1.14. Map of the Region Specific cluster 1 (RS1) – Red River Valley drums

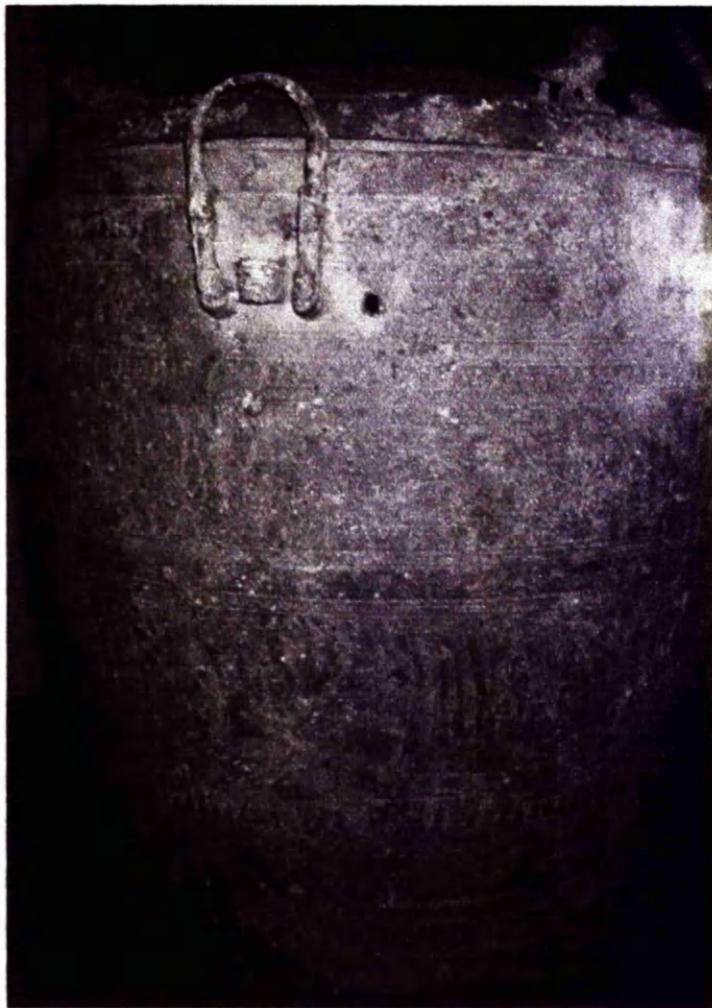


1.15. Dao Thinh bronze situla. H. 97 cm, D. 65 cm. History Museum, Hanoi.

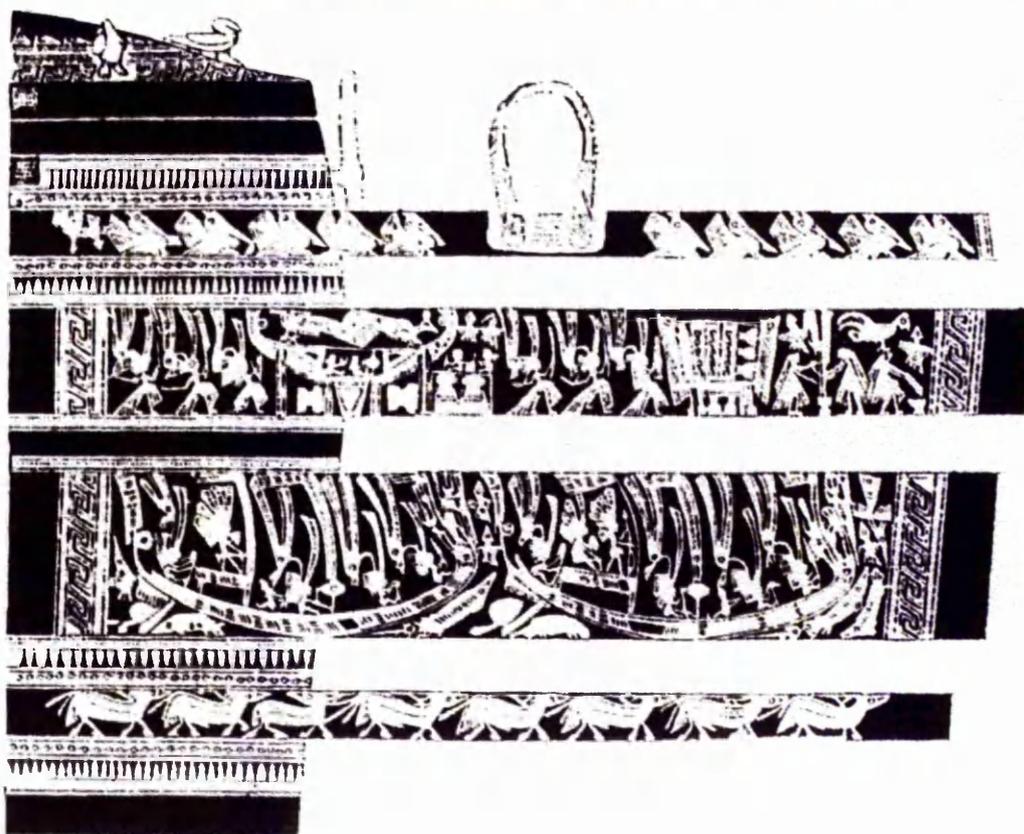


1.16. Dao Thinh situla. Detail of the boat with feathered-men motif.

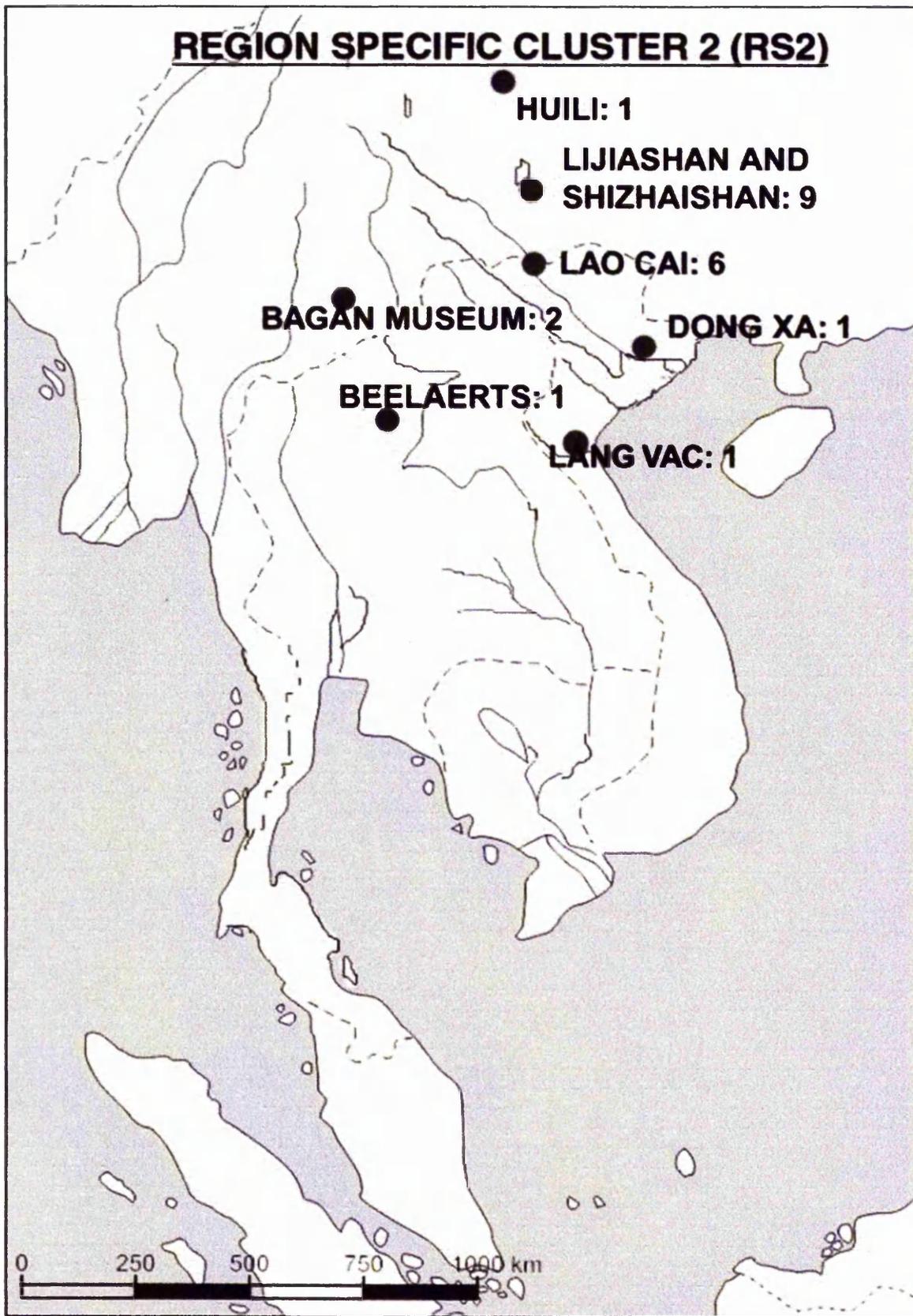
Left: drawing after Ha Van Tan 1994: 468.



1.17. Hop Minh bronze situla. H. 47.4 cm. Yen Bai Culture Dept.



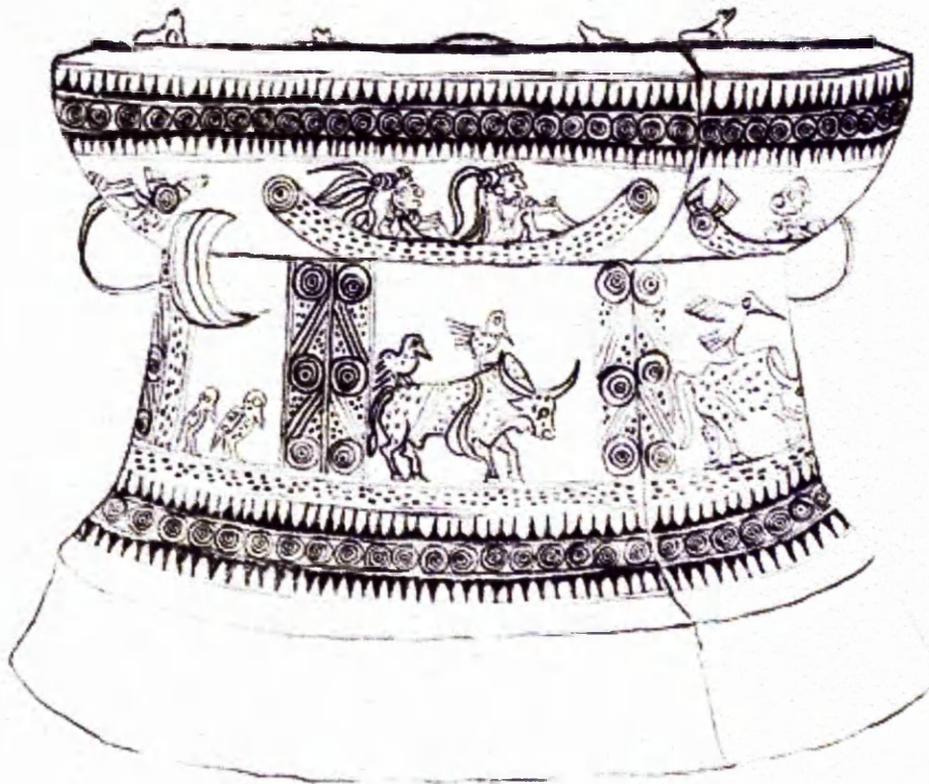
1.18. Hop Minh situla. Detail of house (above) and boat (below) motifs.
Drawing after *Khao Co Hoc* 1995(4): 33.



1.19. Map of the Region Specific cluster 2 – Dian drums.



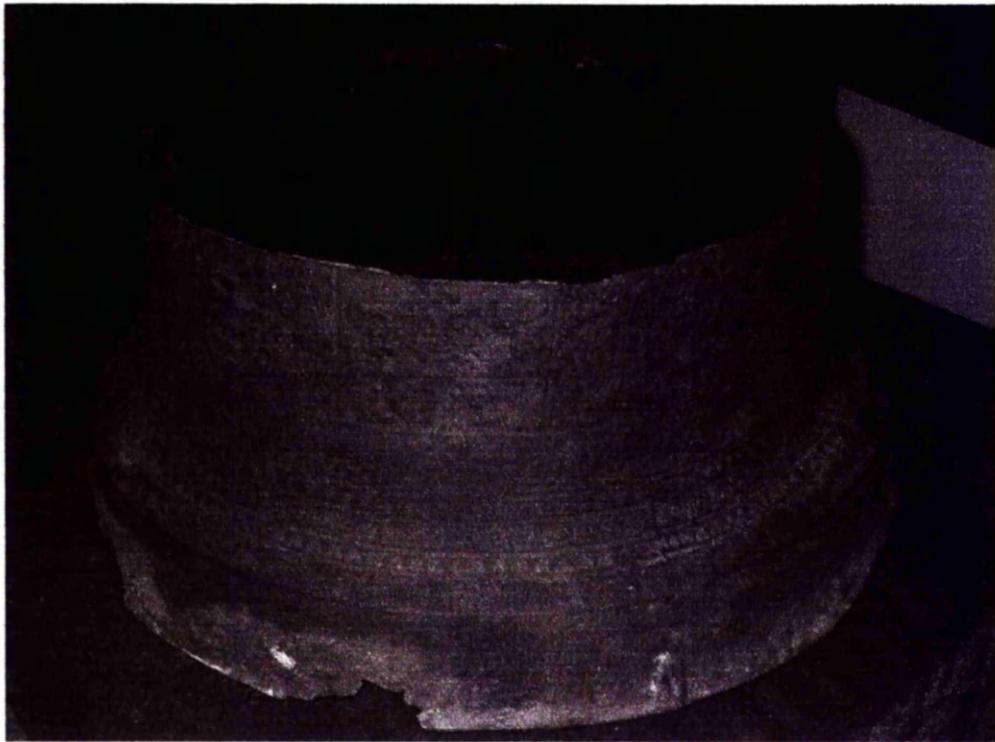
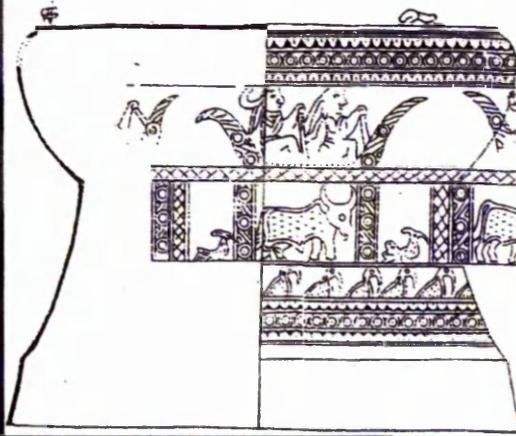
1.20. Dong Xa bronze drum. H. 42 cm, D. 49 cm. Hung Yen Museum.



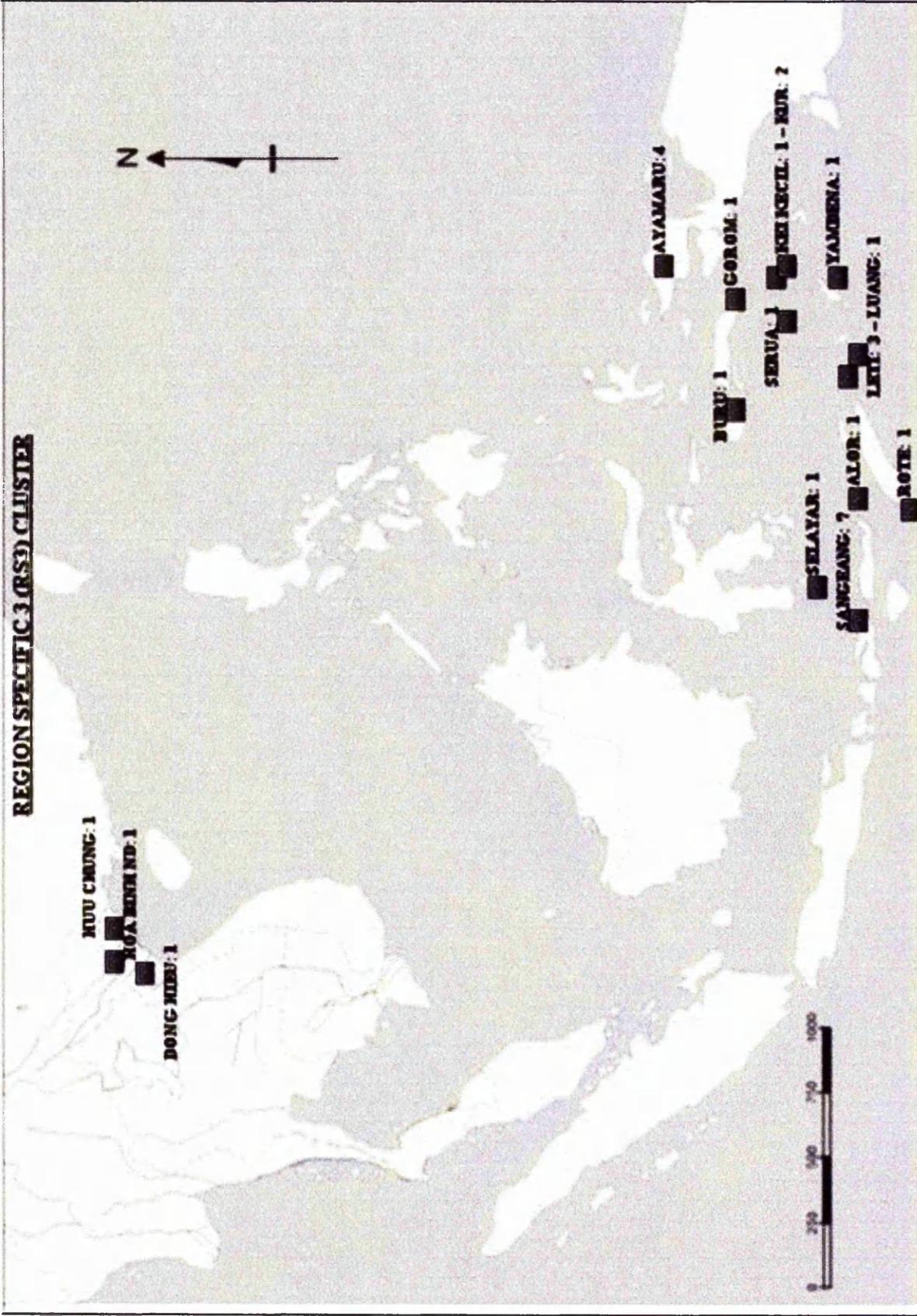
1.21. Dong Xa drum. Detail of the boat motif with identical ends



1.22. Dong Xa drum. Detail showing that the tympanum was cast separately and sealed on the mantle



1.23. Lao Cai I drum (Dian RS2). Mid and lower mantle severed from the upper mantle by a neat circular cut. Mid-low m. H. 23 cm. Total H. 36 cm, D. 44 cm. Lao Cai Culture Dept.



1.24. Map of the Region Specific cluster 3 (RS3) – Eastern Indonesia drums.



PROW OF BOAT MOTIF



SANGEANG 3368. PROW OF BOAT MOTIF

1.25. Hoa Binh-Nam Dinh drum. H. 83 cm, D. 106.5 cm. Nam Dinh Musum.

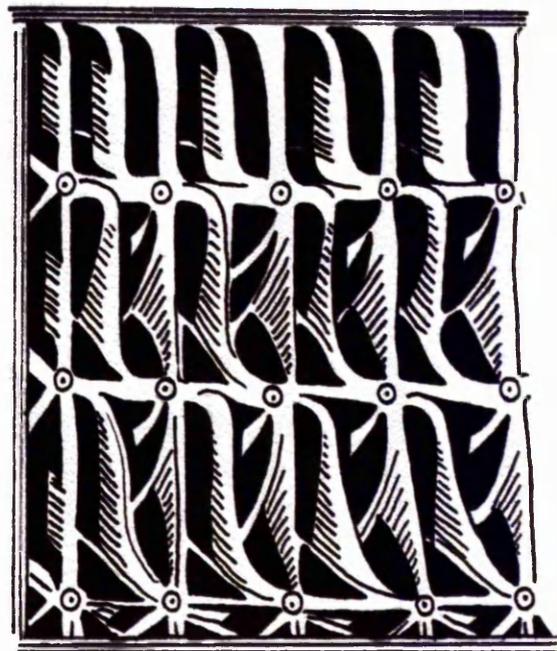


1.26. Selayar bronze drum. H. 95 cm, D. 126 cm.

**ON THE TYMPANUM.
SANGEANG 3364 DRUM**

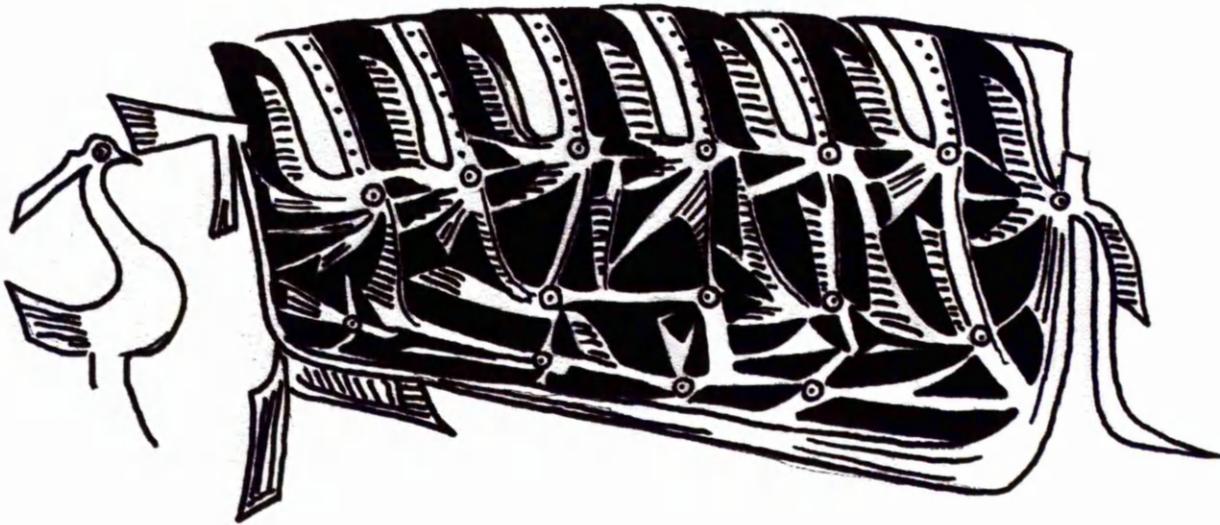


ON THE BOAT MOTIFS ON THE UPPER MANTLE. SANGEANG 3364 DRUM

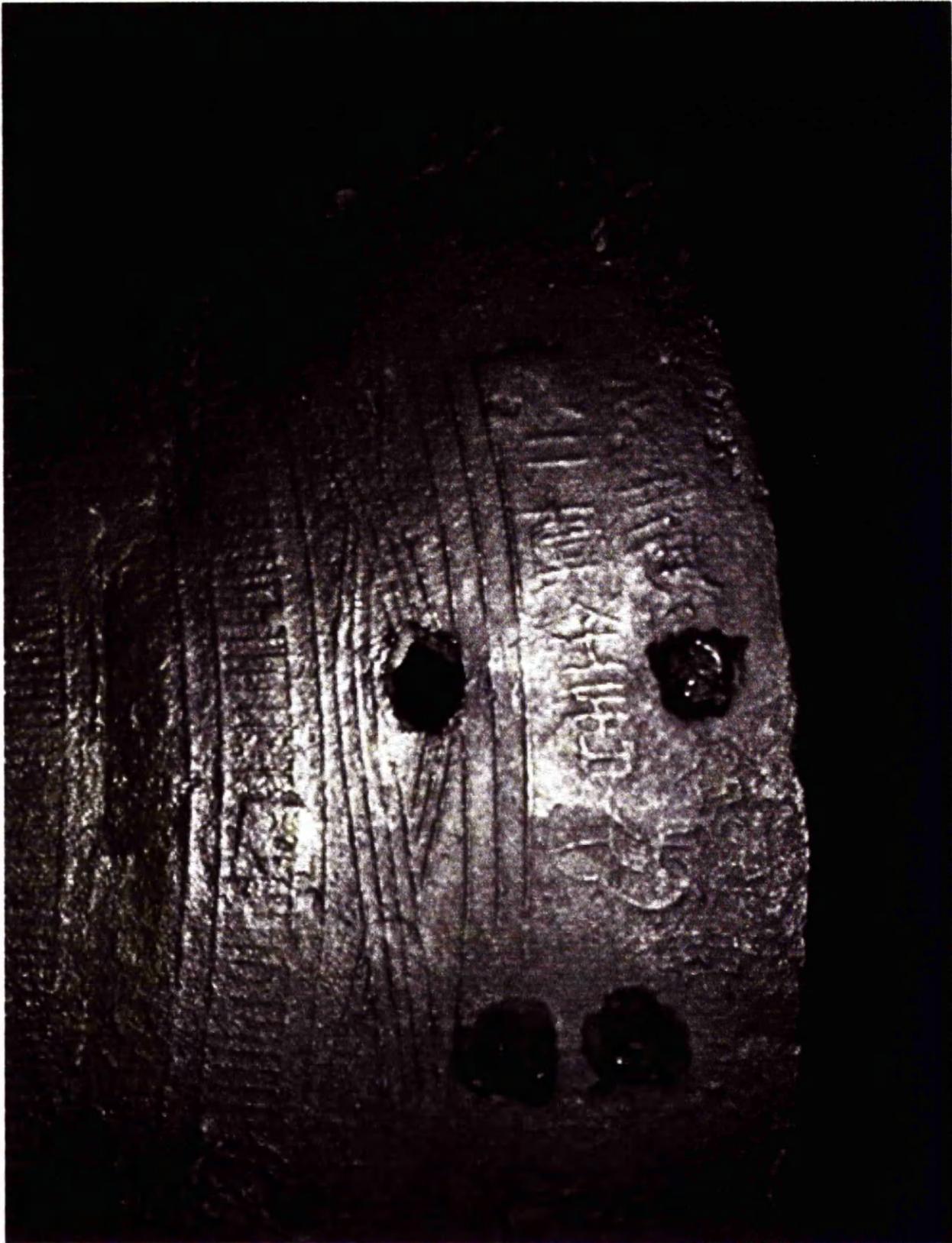


ON THE PANELS OF THE MID MANTLE: LETI 3578 DRUM

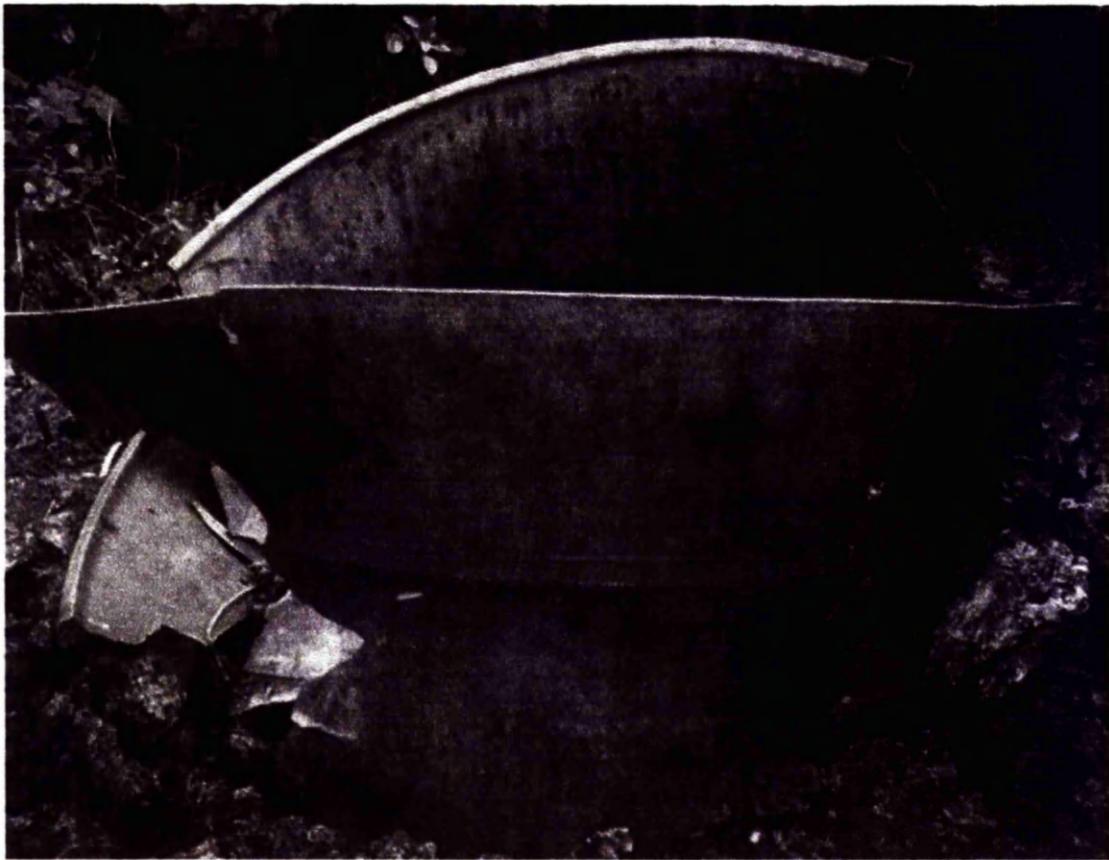
1.27. Details of the parallel patterns of feathered-men motifs (RS3).



1.28. Leti bronze drum. Detail of the boat with feathered-men motif with bird-naga like prow. Museum Nasional Indonesia, Jakarta (MNI 3578).



1.29. Kur bronze drum. Detail of Chinese inscription under a missing toad motif. Museum Nasional Indonesia, Jakarta (MNI 1907).



1.30. Kei Kecil bronze drum. Remain. H. 62 cm, D. 113 cm.





1.31. Lengshuichong type bronze drum (RS4). H. 59 cm, D. 52.4 cm.
Guangxi Provincial Museum (GPM 103).



GPM 111 (typical RS4)



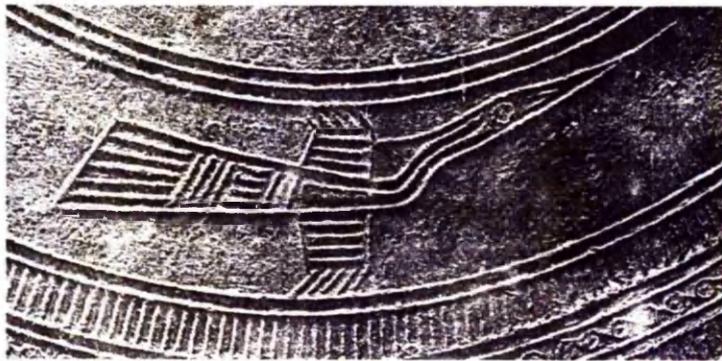
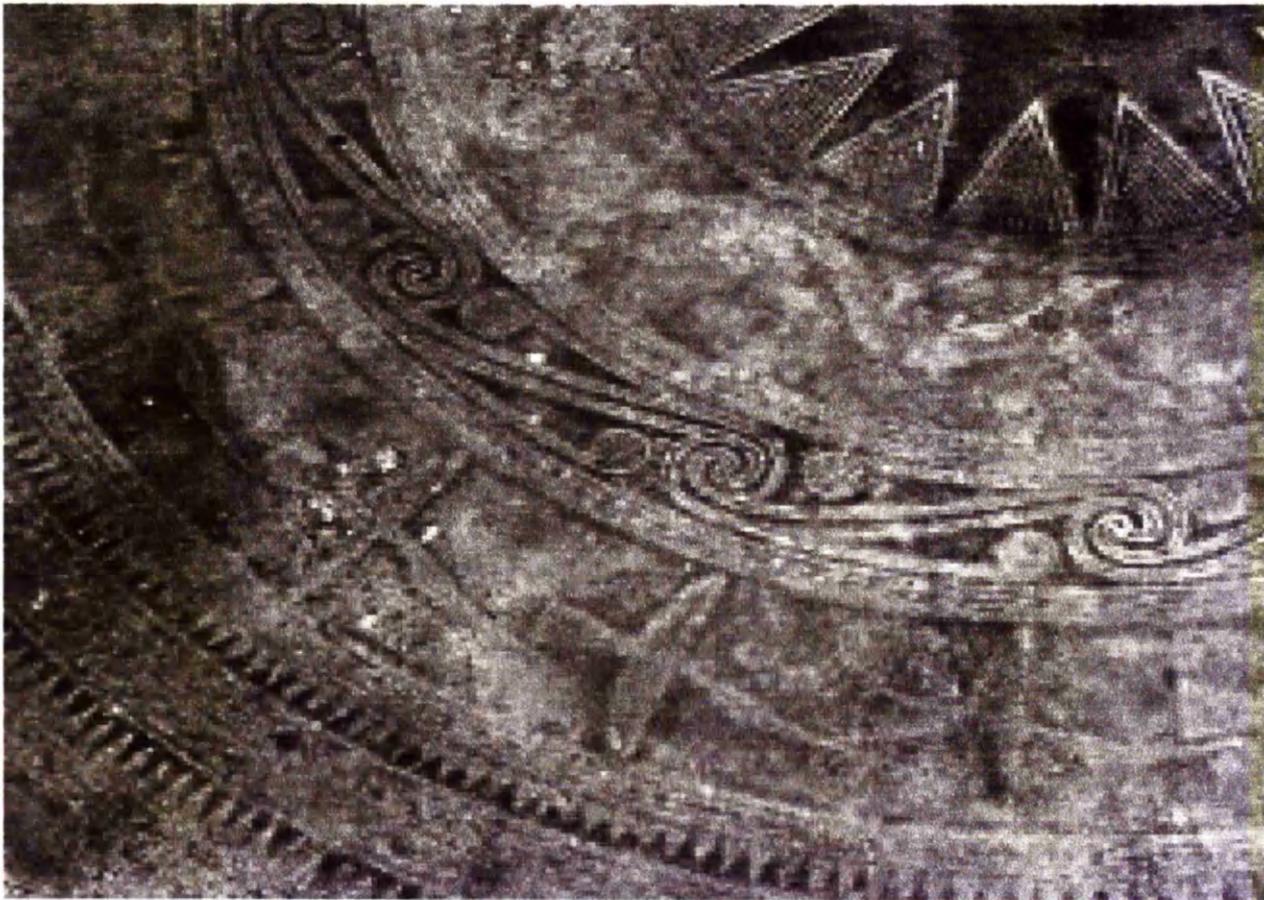
GPM 337 (early RS4)

GPM 38 (early RS4)

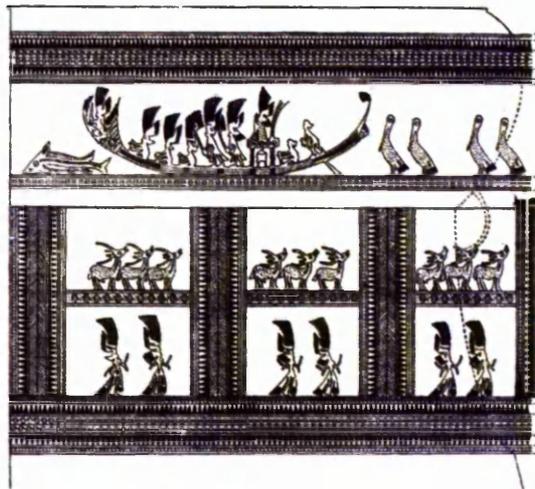
1.32. Above: GPM 111 bronze drum (RS4). Detail of the typical double opposite boat motifs and the pattern on the mid mantle. Below: Details of the decoration of early drums in the RS4 cluster. Guangxi Provincial Museum.



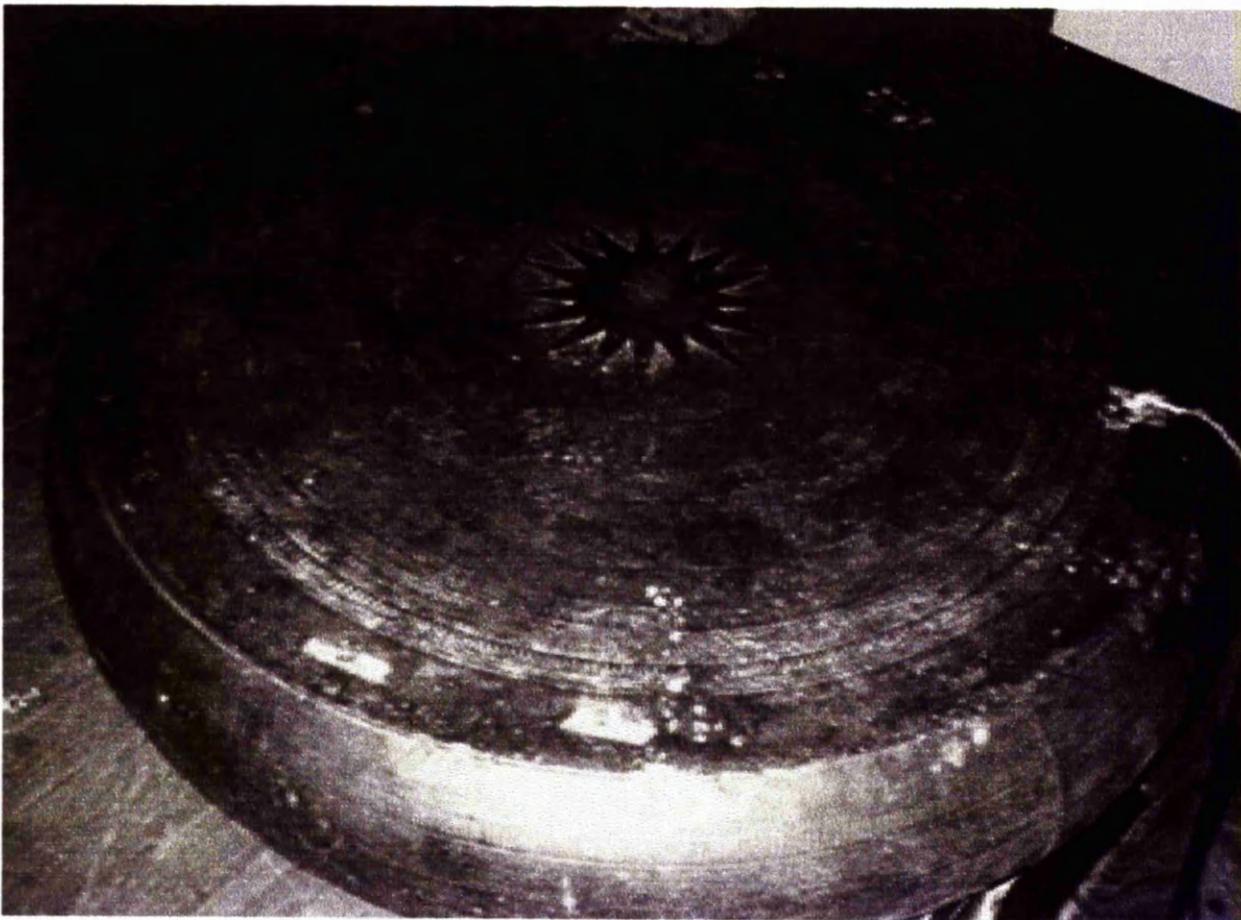
1.33. Map of the Spread Out cluster (SO).



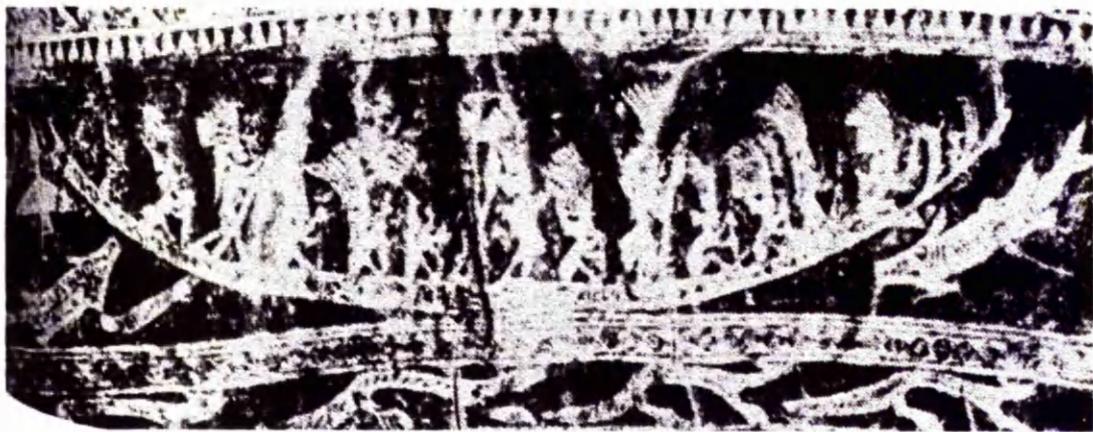
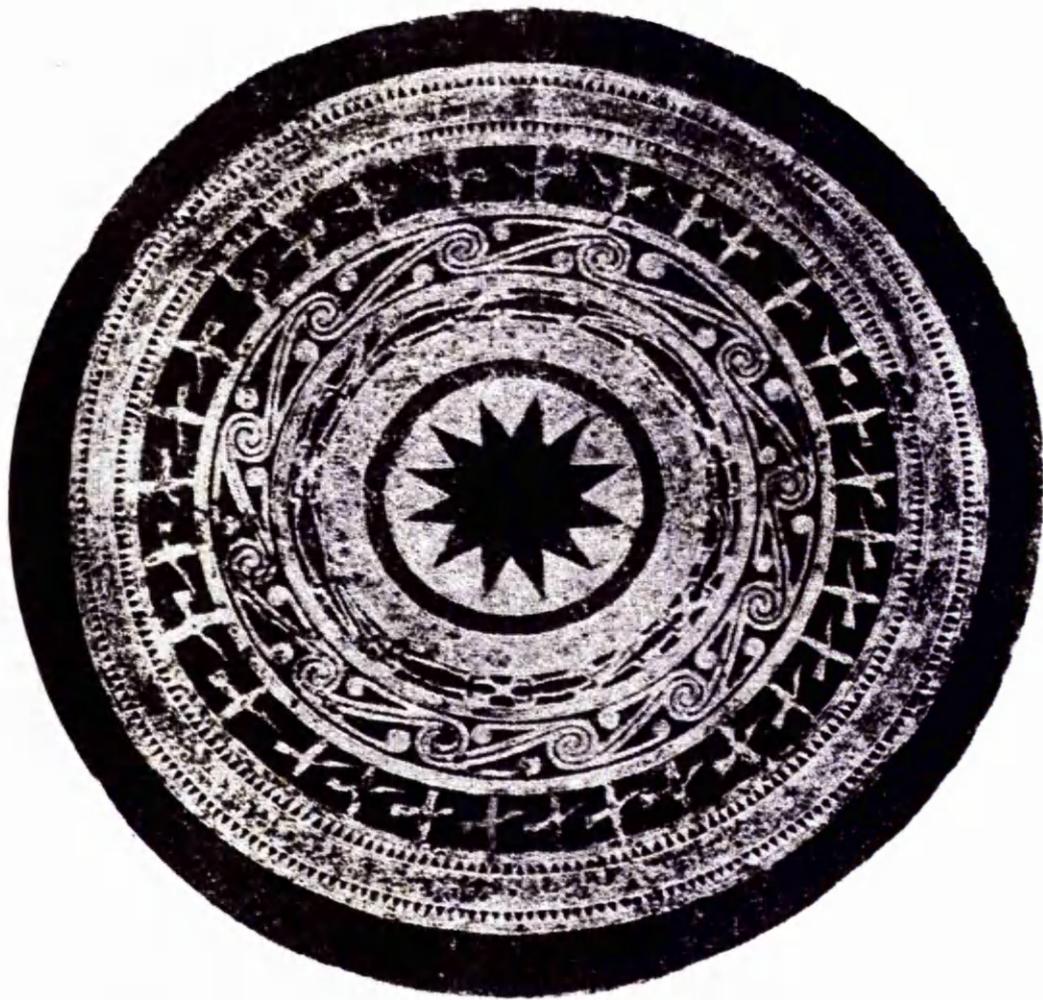
1.34. Tympanum of Xilin 280 drum (SO). Detail of the bird motif.
Below: typical bird motif on the Lang Vac III (M14:12) drum.



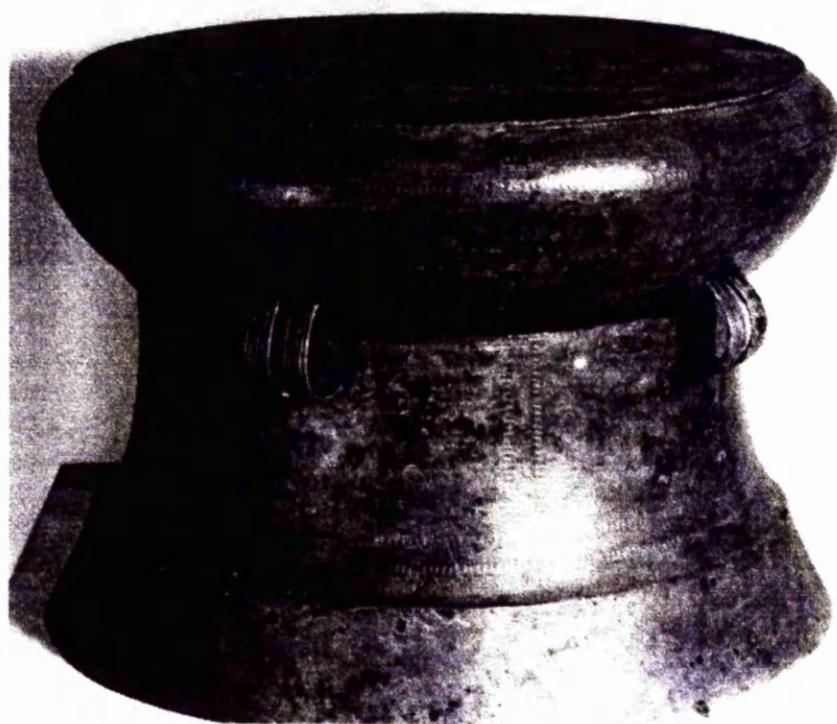
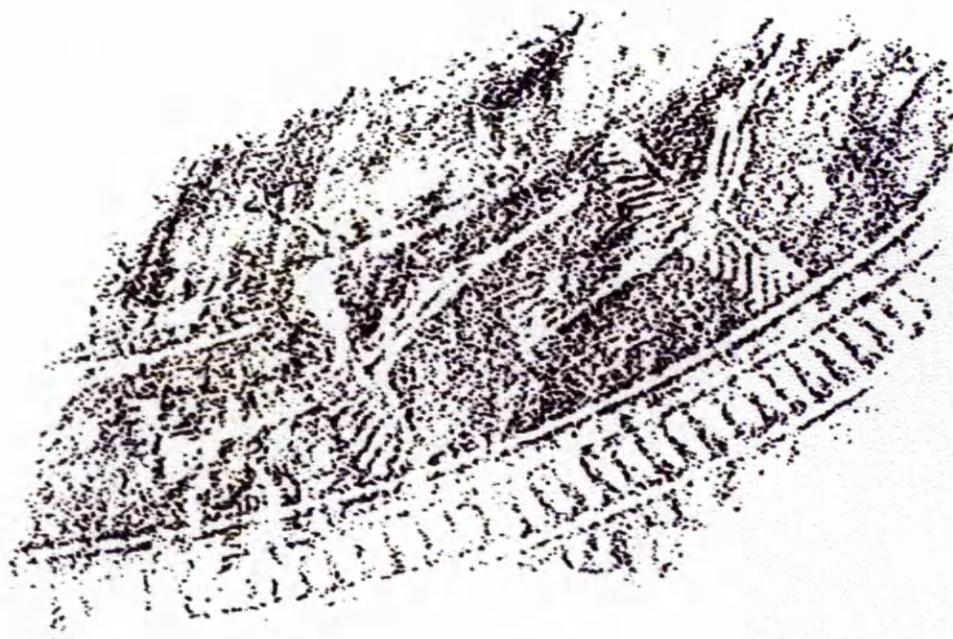
1.35. Xilin 280 bronze drum. H. 52 cm, D. 77.5 cm. Drawing after Anon. 1978a. Guangxi Provincial Museum.



1.36. Pha Long bronze drum and detail of the bird motifs. D. 75 cm. Lao Cai Culture Dept.



1.37. Laos bronze drum. H. 58 cm, D. 86.5 cm. Rubbings of the tympanum and the boat with feathred-men motif on the upper mantle. After Bernet Kempers 1988: 552. National Museum, Phnom Phen.



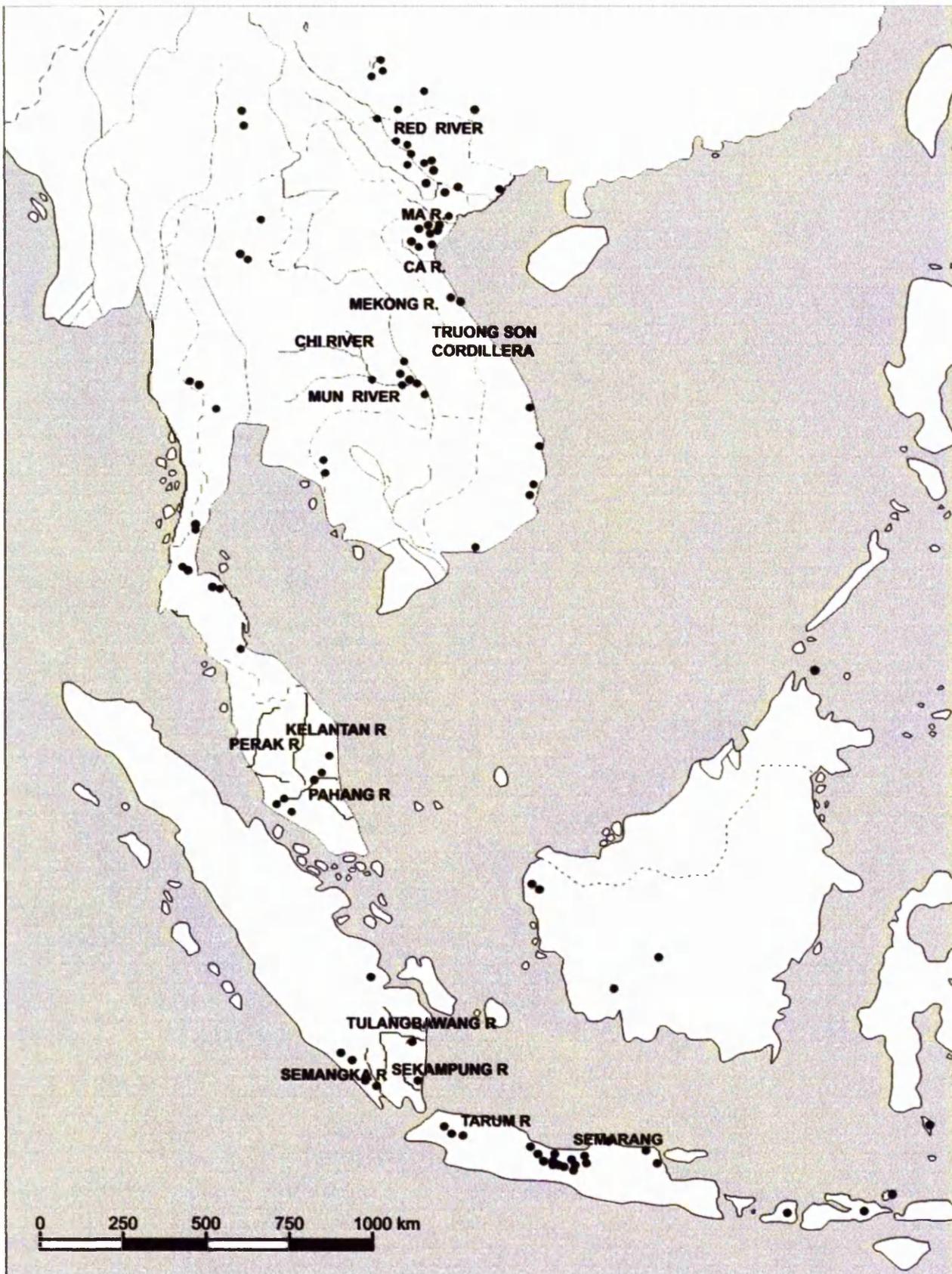
1.38. Selindung I bronze drum. H. 50 cm, D. 68.5 cm. Above: rubbing of the bird motifs on the tympanum. After McKinnon 1994. Museum Negeri Pontianak.



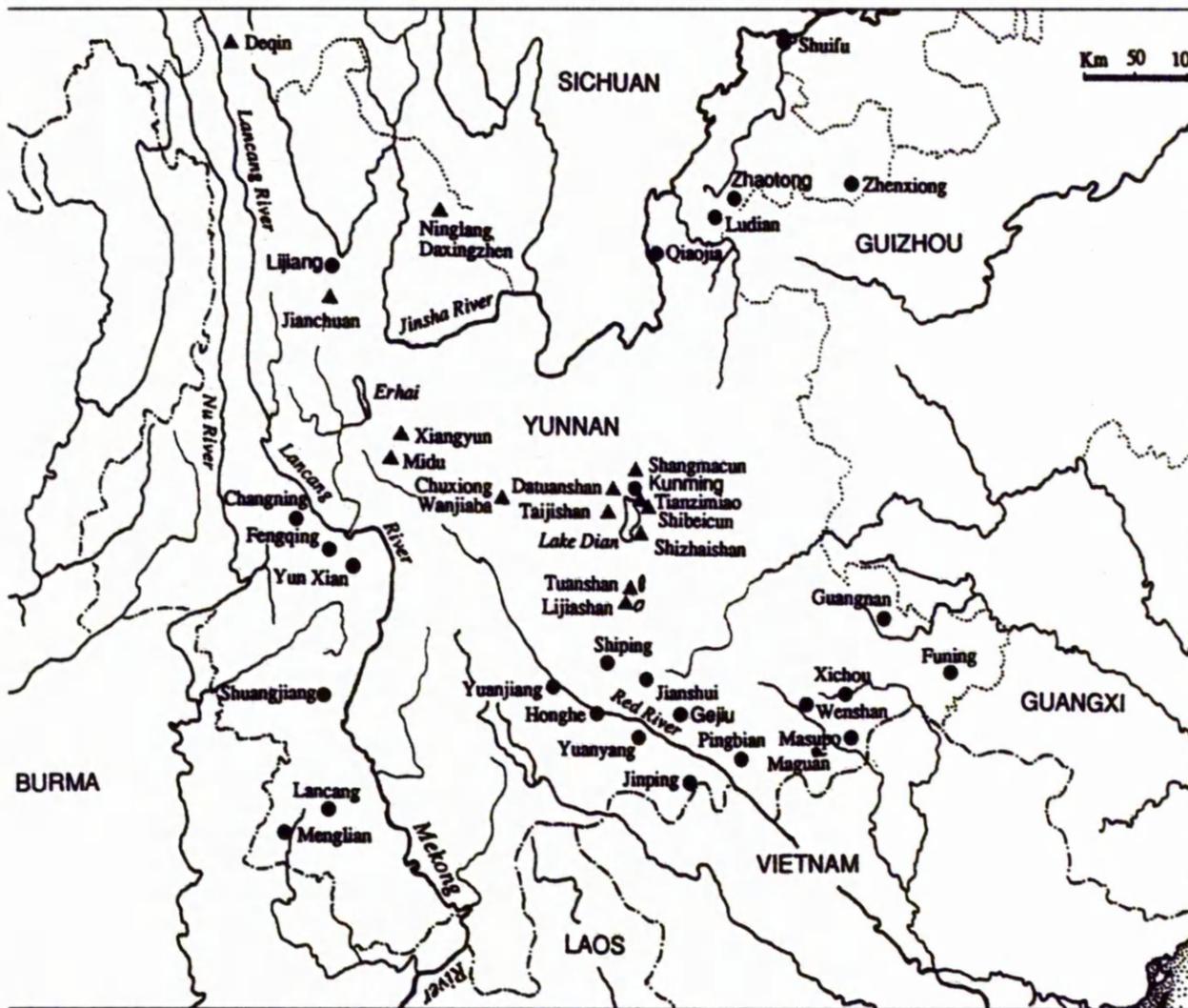
1.39. Babakan bronze drum. H. 48 cm, D. 67 cm. Museum Nasional Indonesia (MNI 1829).



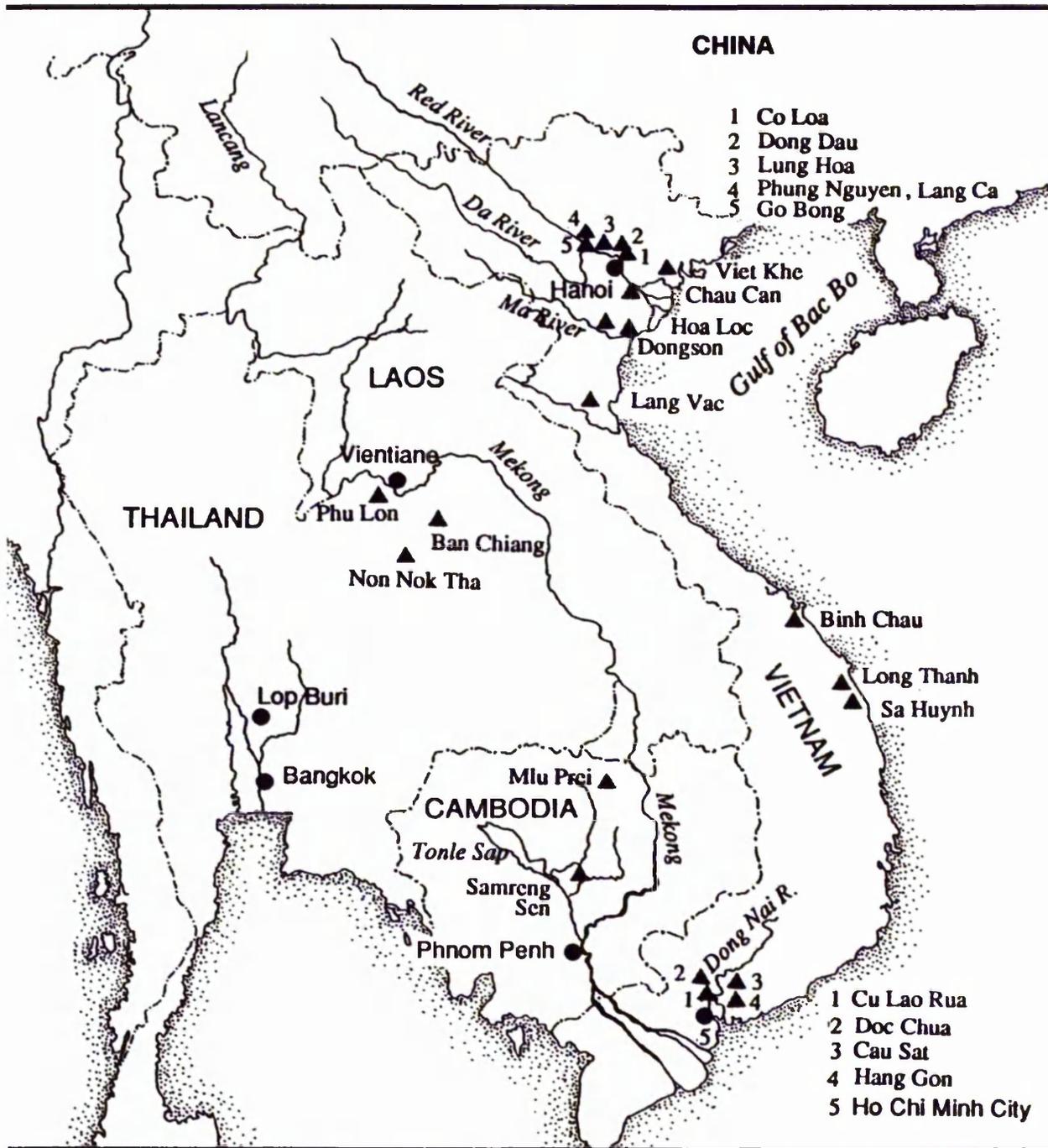
1.40. Reconstruction of the assemblage of the three bronze drums from the Xilin burial. Guangxi Provincial Museum.



2.1. Regional concentrations of early Dong Son bronze drums and main river routes on the mainland and in western Indonesia.



2.2. Map of the Red River course and bronze drum finds in Yunnan. After Murowchick 1989: 405.



2.3. Map of the main Dong Son sites in north Vietnam.
After Murowchick 1989: 406.



M23:159.
H. 36 cm, D. 30 cm.



M23:160.
H. 36cm, D. 43 cm



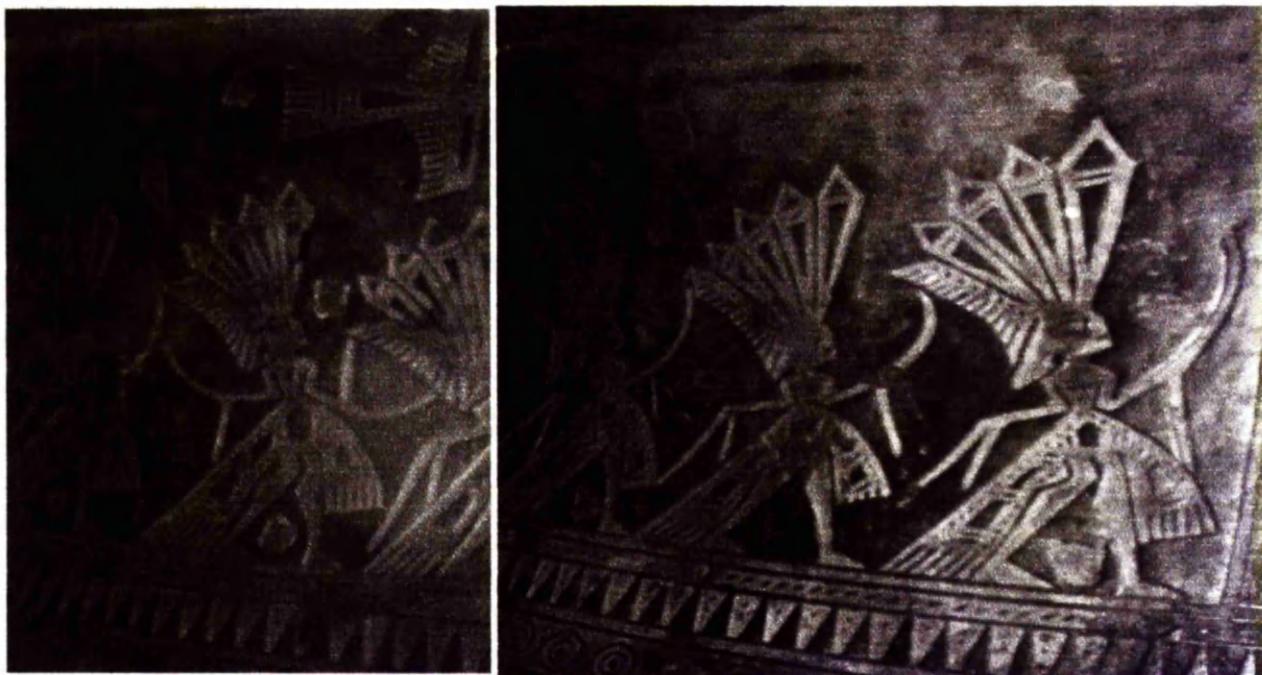
M23:161.
H. 42 cm, D. 50 cm



2.4. Wanjiaba bronze drums (M23:159,160,161). Below: reconstruction of the coffin in tomb 23 with four drums placed upside down underneath. Yunnan Provincial Museum.



2.5. Guangnan bronze drum. H. 46 cm, D. 67 cm. Yunnan Provincial Museum.



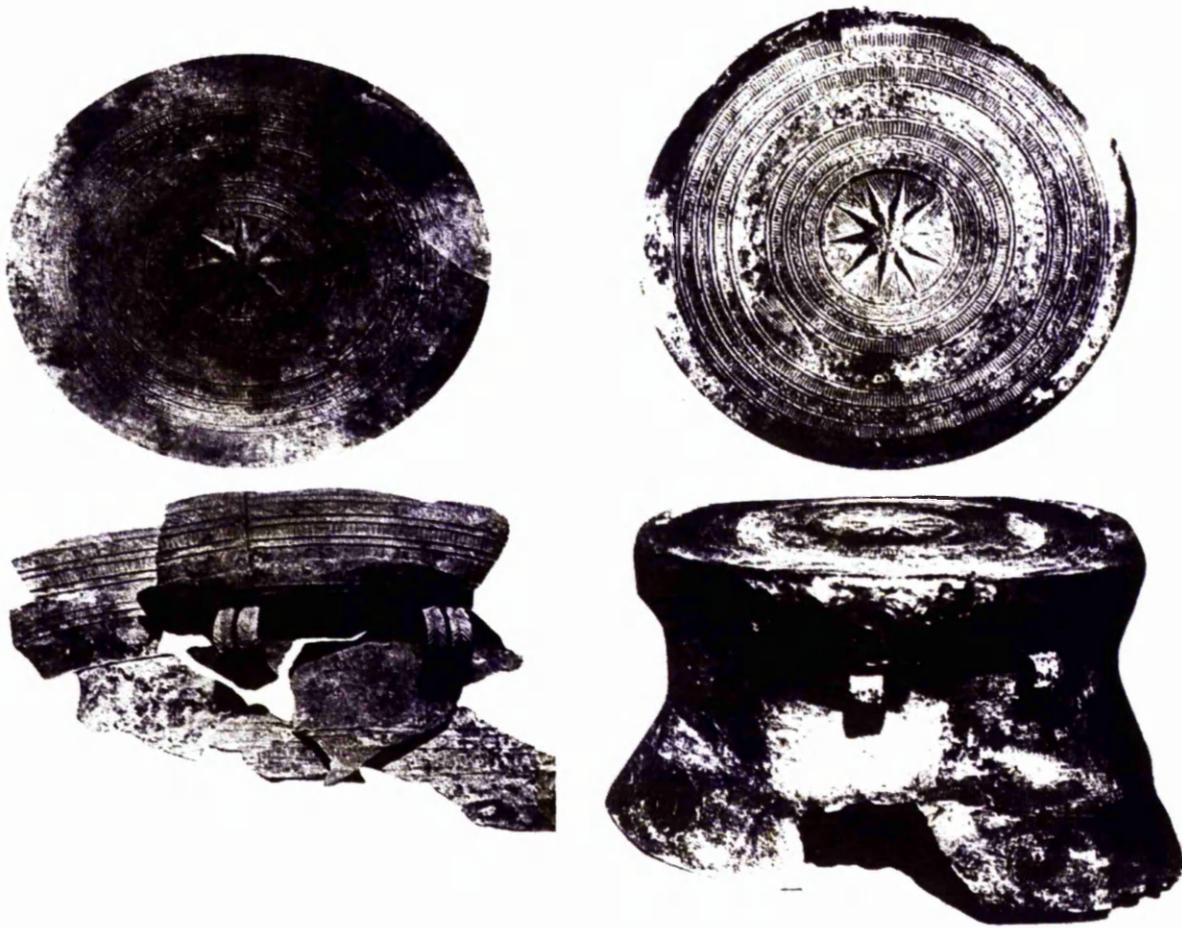
2.6. Luobowan bronze drum M1:10. H. 56.3 cm, D. 36.8 cm. Guangxi Provincial Museum.



2.7. Dong Son I bronze drum. H. 28 cm, D. 31.5 cm. History Museum, Hanoi.



2.8. Above: Dong Son II bronze drum. H. 24.5 cm, D. 29 cm. Below: Dong Son III bronze drum. H. 21 cm, D. 23 cm. After Anon 1990: 144, 146. History Museum, Hanoi.



2.9. Left: Dong Son V bronze drum: H. 27 cm, D. 35.5 cm. Right: Dong Son VI bronze drum: H. 31.5 cm, D. 44 cm. After Anon. 1990: 84, 86. Cernuschi Museum, Paris (MC 8006, MC 8644).



2.10. Dong Son IV drum. H. 24 cm, D. 29 cm. Thanh Hoa Museum.



2.11. Lang Vac I drum. H. 27.8 cm, D. 37.7 cm. Nghe An Culture Dept.



2.12. Lang Vac II bronze drum. H. 25.6 cm, D. 34.5 cm. Nghe An Cult. Dept.



2.13. Lang Vac III drum. H. 48.5 cm, D. 56 cm. Nghe An Culture Dept.



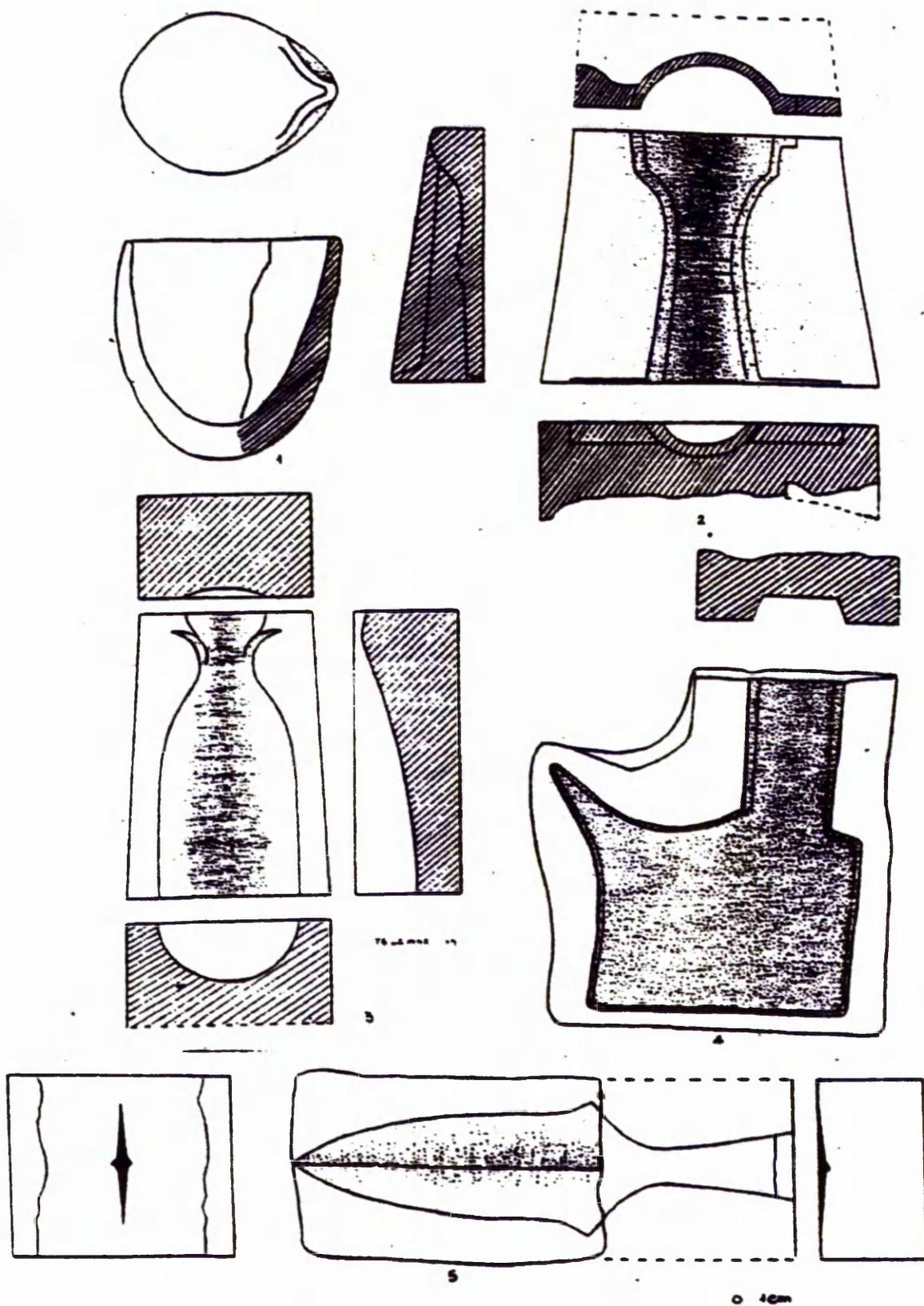
2.14. Above: Lang Vac V bronze drum. Rem. D. 26.5 cm. After Anon 1990: 194. Below: Tympanum of the Lao Cai VII drum. Rem. D. 36.5 cm.



2.15. Viet Khe bronze drum. D. 23 cm. History Museum, Hanoi.



2.16. Viet Khe coffin. Bronze cup with figurine playing gourd mouth organ (*khene*)



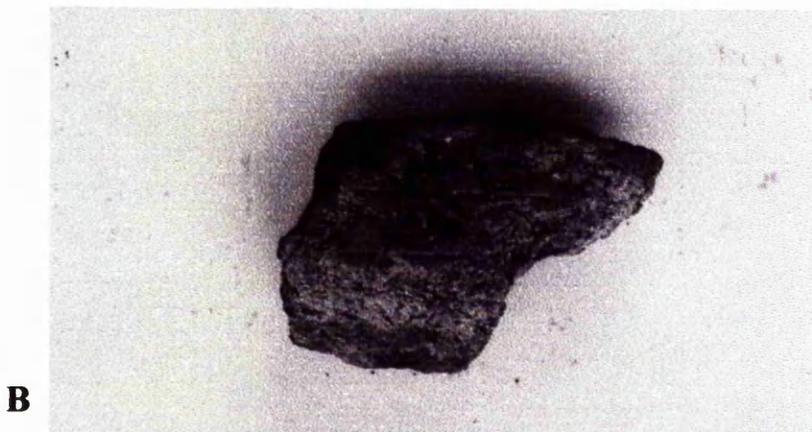
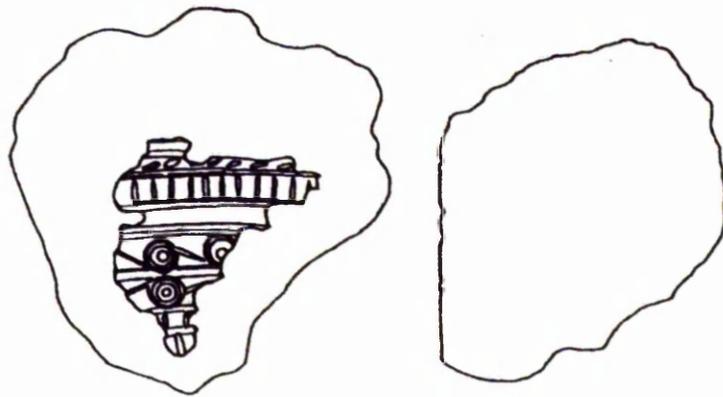
2.17. Lang Ca casting moulds. After Pham 1996: 405.



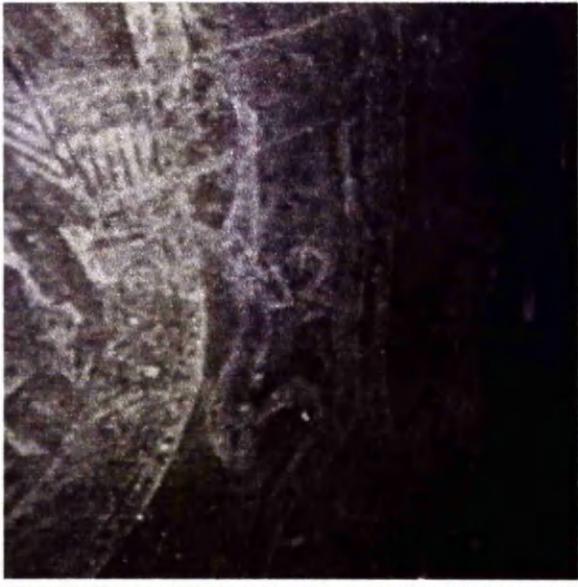
2.18. Dong Son tiles in the second moated wall of the Co Loa citadel.



2.19. Bronze plowshares, arrowheads, and reproduction of pediform axes found inside the Co Loa I drum found at Ma tre.



2.20. Fragments of casting moulds for a Dong Son drum found at the Lung Khe citadel. After Nishimura 2005.



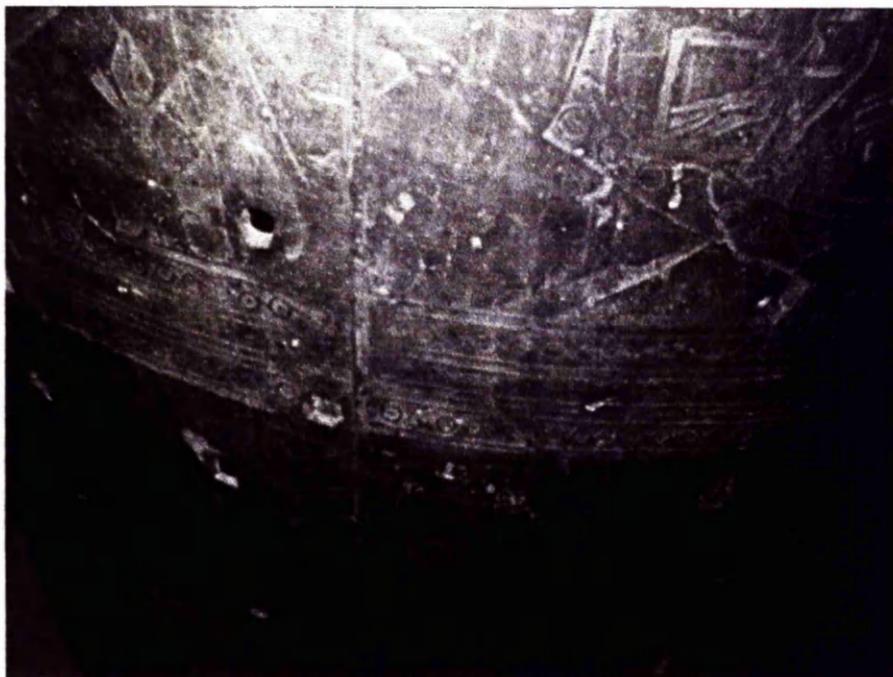
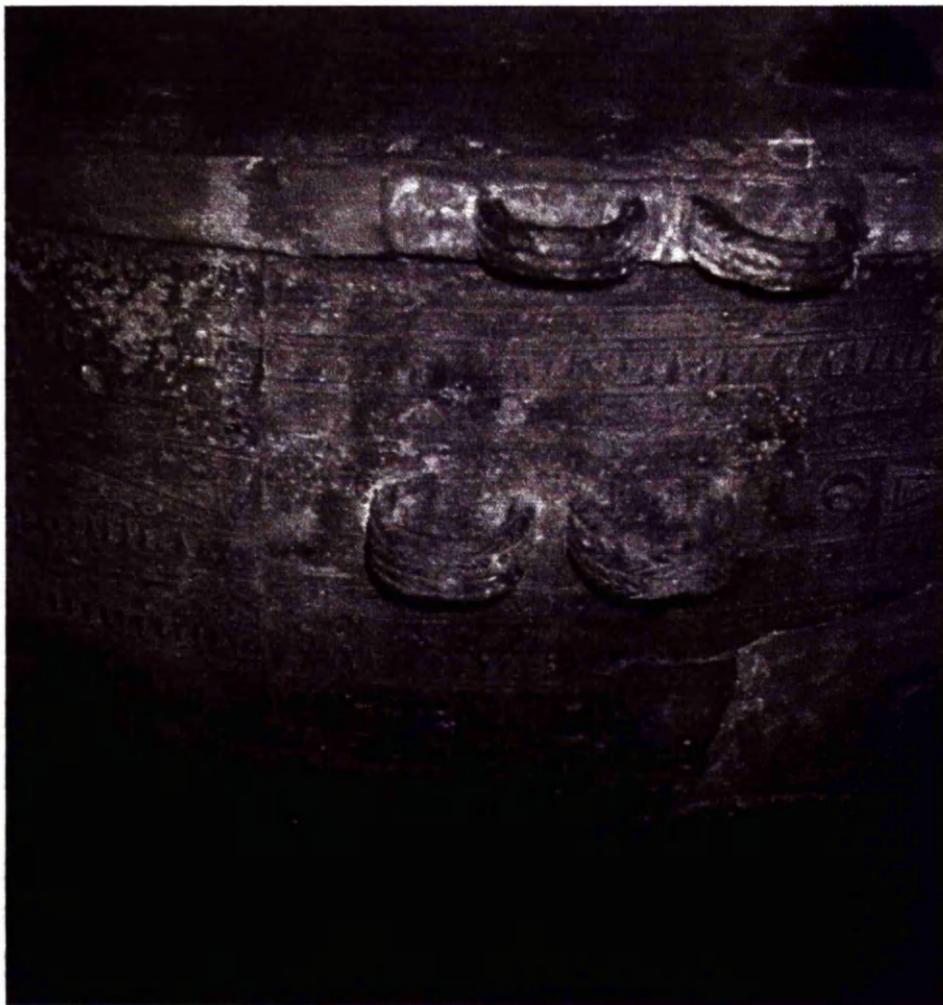
2.21. Bronze pediform axe excavated at Dong Son. H. 11.9 cm. Upper left: detail of the pair of reptile motifs on the Dao Thinh situla. History Museum, Hanoi.



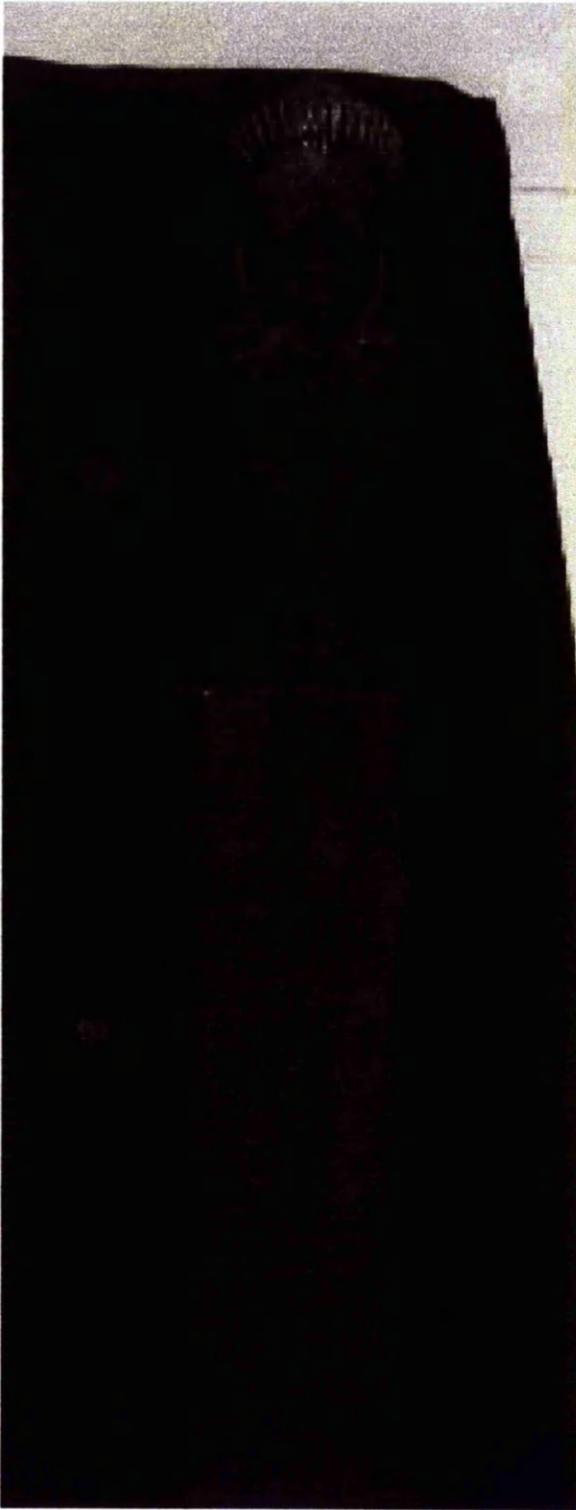
2.22. Xuan Lap bronze situla. H. 43.5 cm. Above: detail of the boat with feathered-men motif. Thanh Hoa Museum.



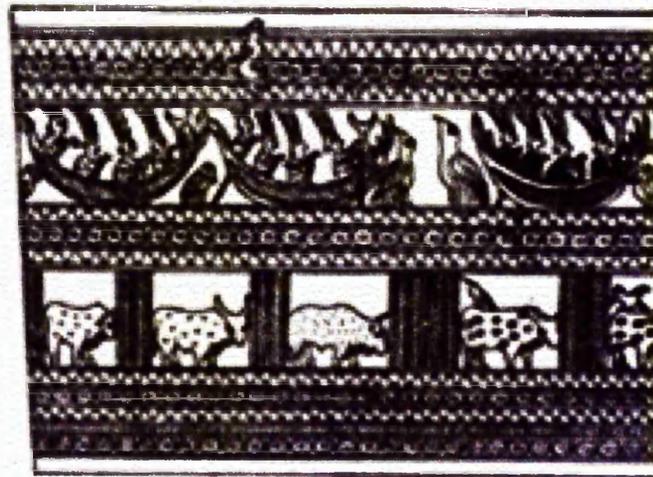
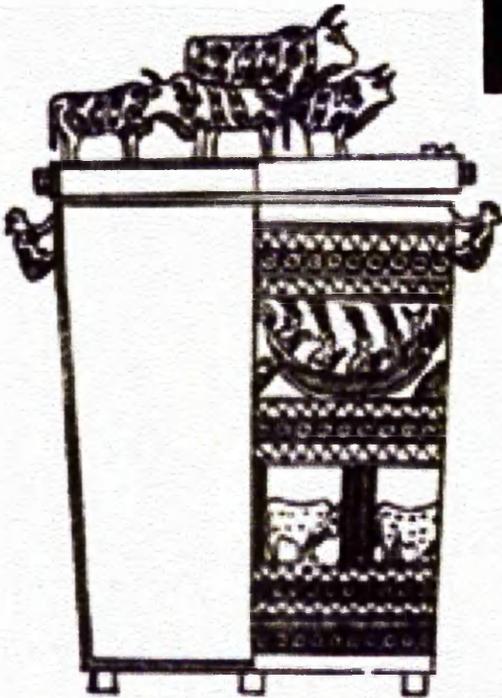
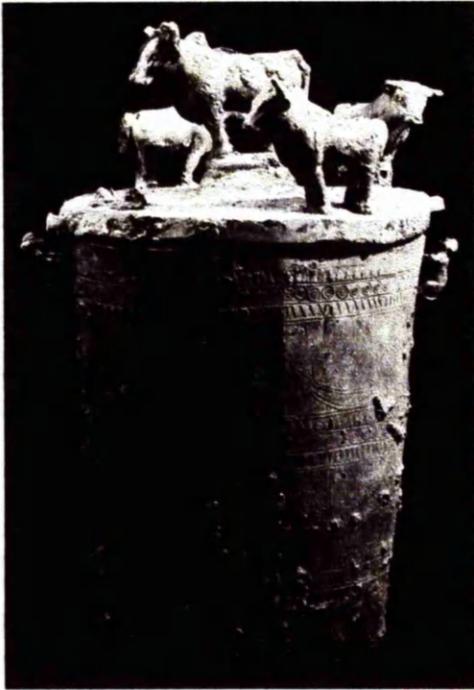
2.23. Filled in marks from the casting spacers. Above: Upper mantle of the Selayar bronze drum. Below: Mid mantle of the Hoang Ha bronze drum.



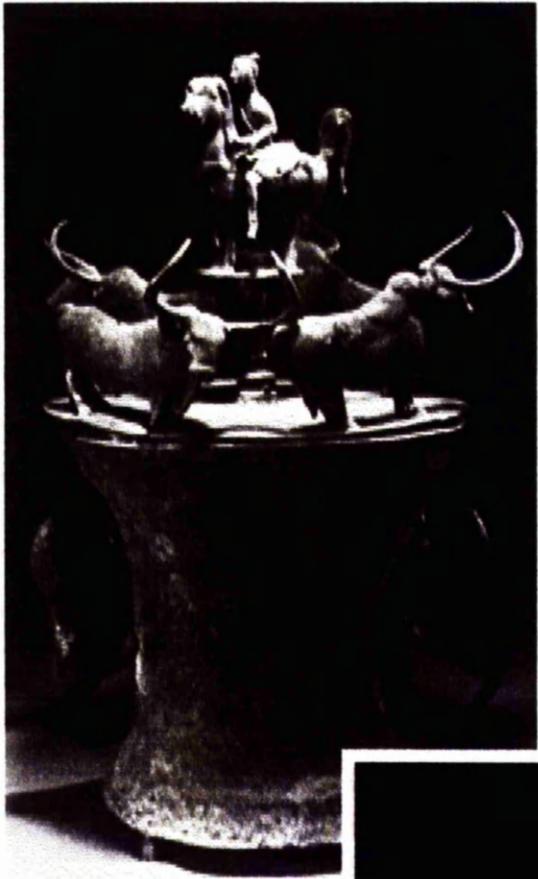
2.24. Two opposite vertical seams run over the whole body of bronze situlas and bronze drums, including undecorated areas. Details on the Dao Thinh situla



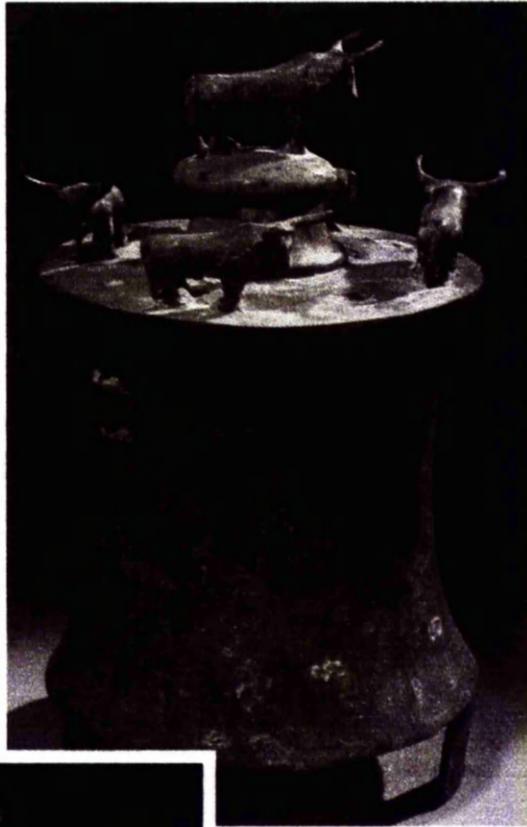
2.25. Dong Son bronze spears with anthropomorphic handle. Thanh Hoa Museum.



2.26. Bronze container M41:103 from Tianzিমiao. H. 49.5 cm. Drawing below after Anon. 1985.
Top left photograph after Anon. 1993(14): 38. Kunming City Museum.



SZS (M10:53). H. 50 cm.
After Rawson 1983: 88,
fig. 82.



LJS (M17:2). H. 31.2
cm. After Rawson
1983: 83, fig. 77.



TZM (M33:1). H. 48.5 cm.

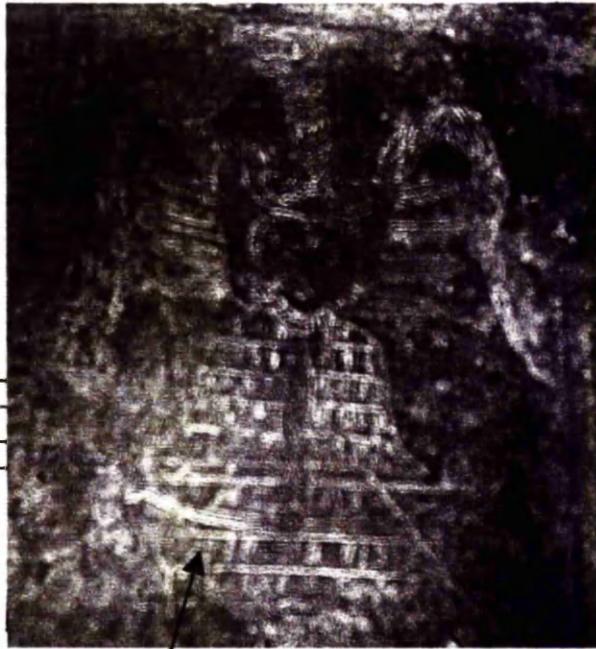
2.27. Dian cask-shaped cowrie-shell containers. The scenes on the lids parallel closely the bronze container (M41:103) from Tianzimidiao (Figure 2.26).



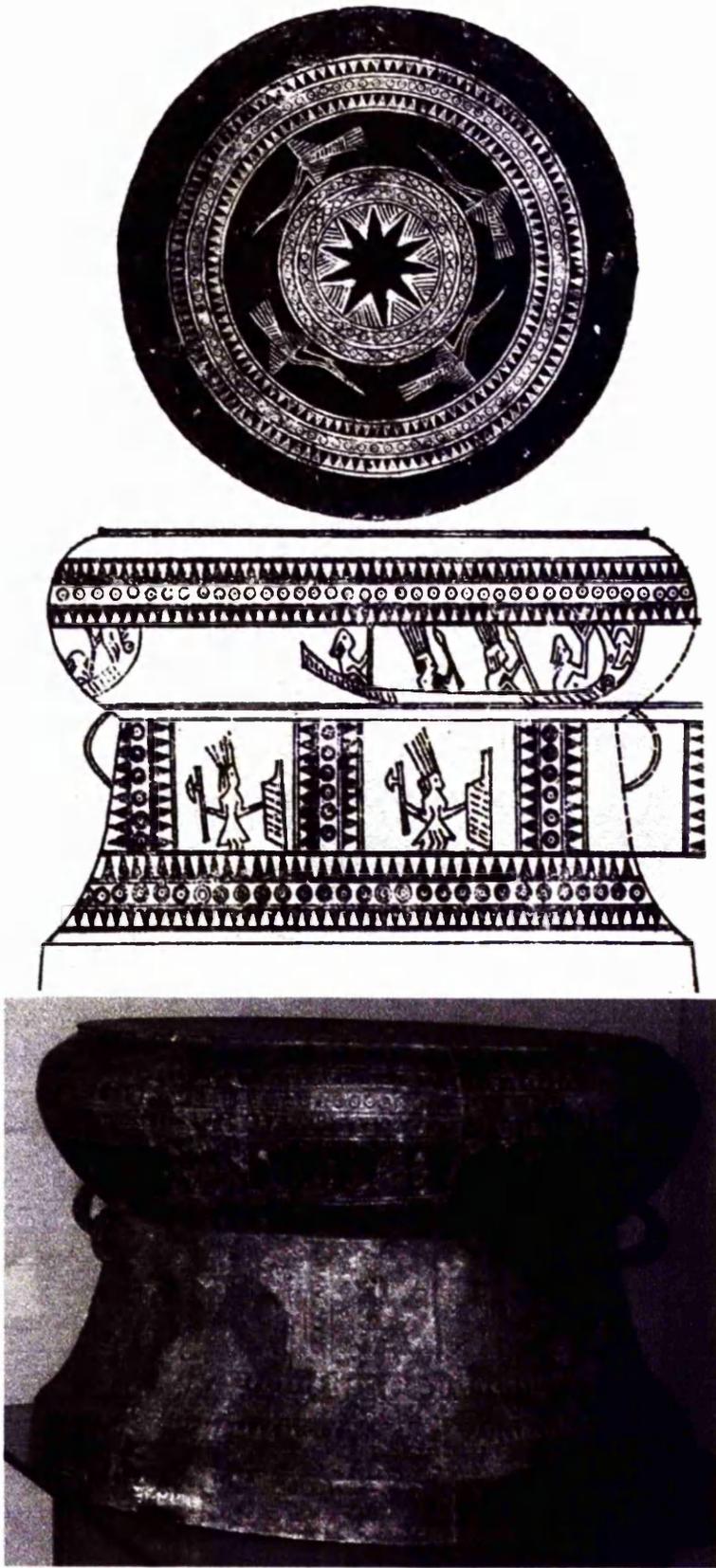
2.28. Tianzimidiao (M41:117) bronze drum. H. 30 cm, D. 37 cm. Kunming City Museum.



2.29. Dong Son bronze situla filled with cowrie-shells at Tianzimiao (M41:100). H. 35 cm. Kunming City Museum.



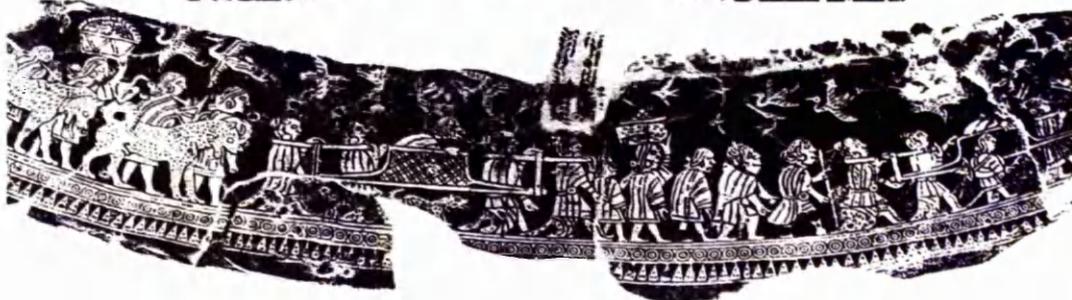
2.30. Top Left: Shaman motif on a bronze ding at Tianzimiao (M41:132). After Anon. 1985. Top right and below: the same motif engraved over the scraped off decoration of a Dong Son drum at Shizhaishan (M13:3), Yunnan Provincial Museum.



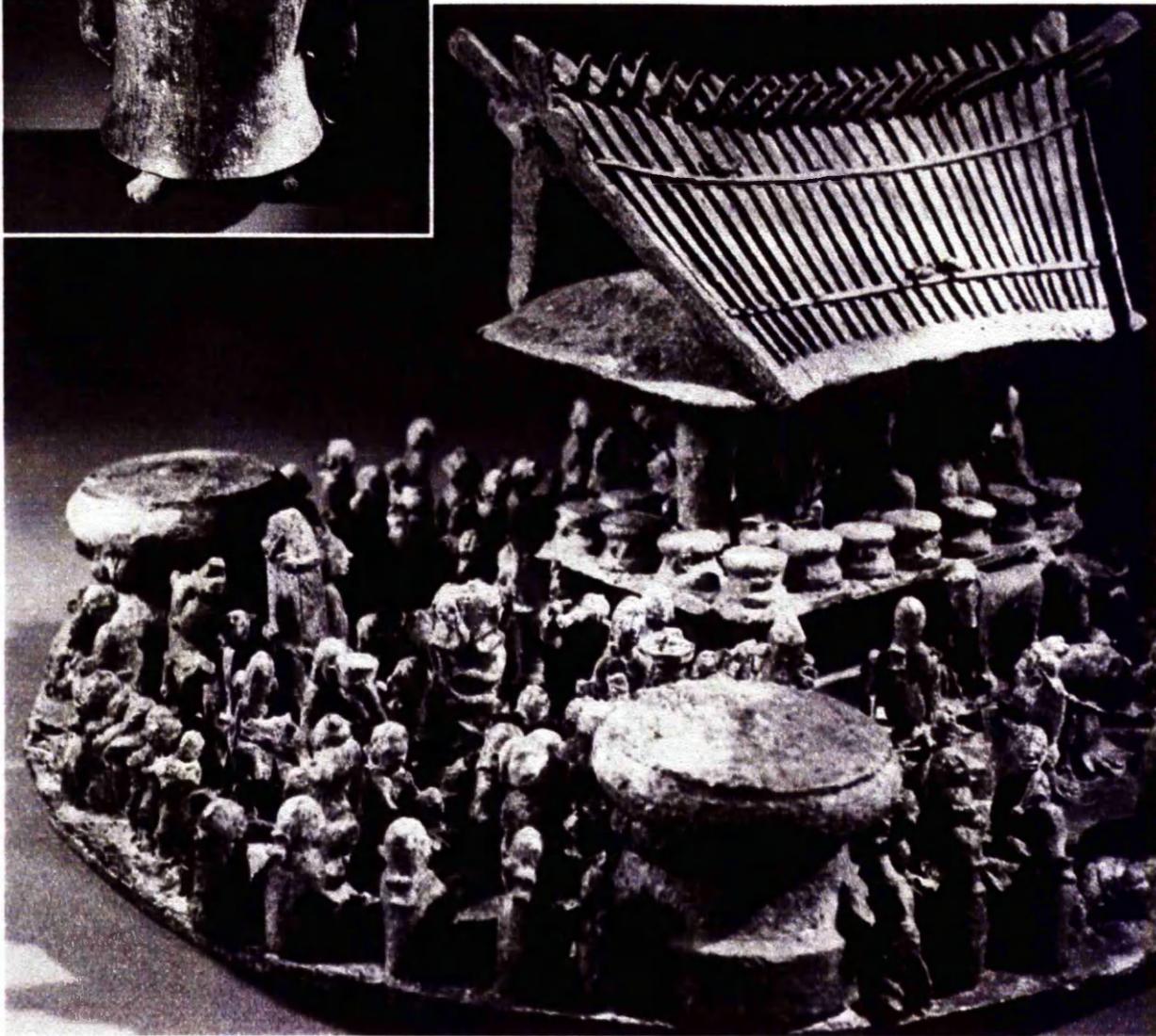
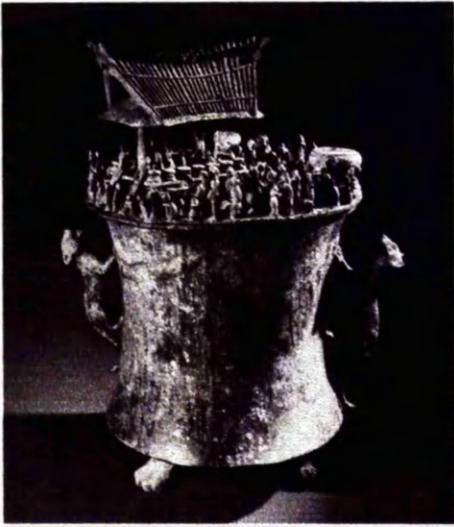
2.31. Dong Son bronze drum at Shizhaishan (M14:1). H. 31.2 cm, D. 40.7 cm.
Drawing after Wang 1986: 99. Yunnan Provincial Museum.



2.32. Dong Son bronze drum at Lijiashan (M24:42). H. 33 cm, D. 39 cm. Yunnan Prov.Mus.



2.33. Drum-shaped bronze container for cowrie-shells at Shizhaishan (M12:2). D. 41 cm. Below: details of the decoration of the upper and mid mantle. After Zhang 1998: 14, fig. 30.



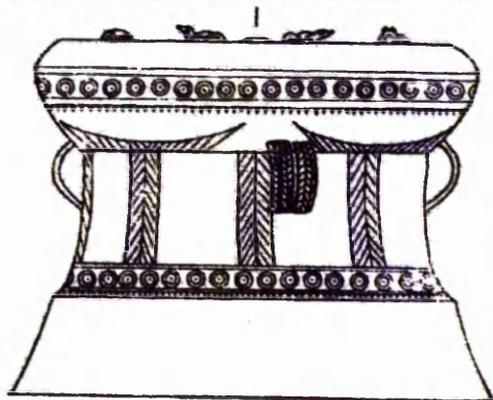
2.34. Cask-shaped bronze container for cowrie-shells at Shizhaishan (M12:26). H. 53 cm. Detail of the lid. After Rawson 1983: 27- fig. 1, 31- fig. 8. Yunnan Provincial Museum.

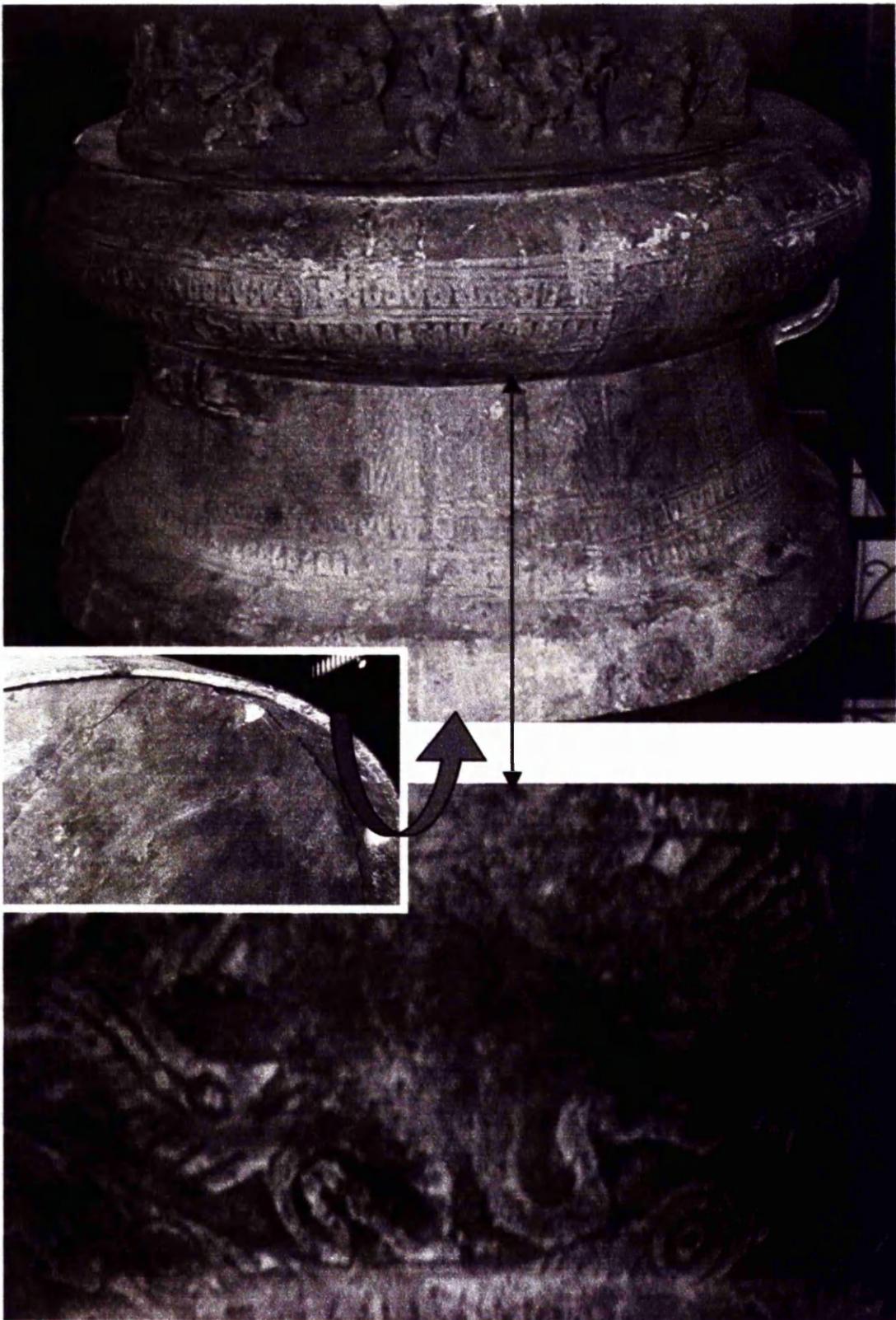


2.35. Shizhaishan (M1:58) bronze drum. H. 30 cm, D. 36 cm. Yunnan Prov. Museum.

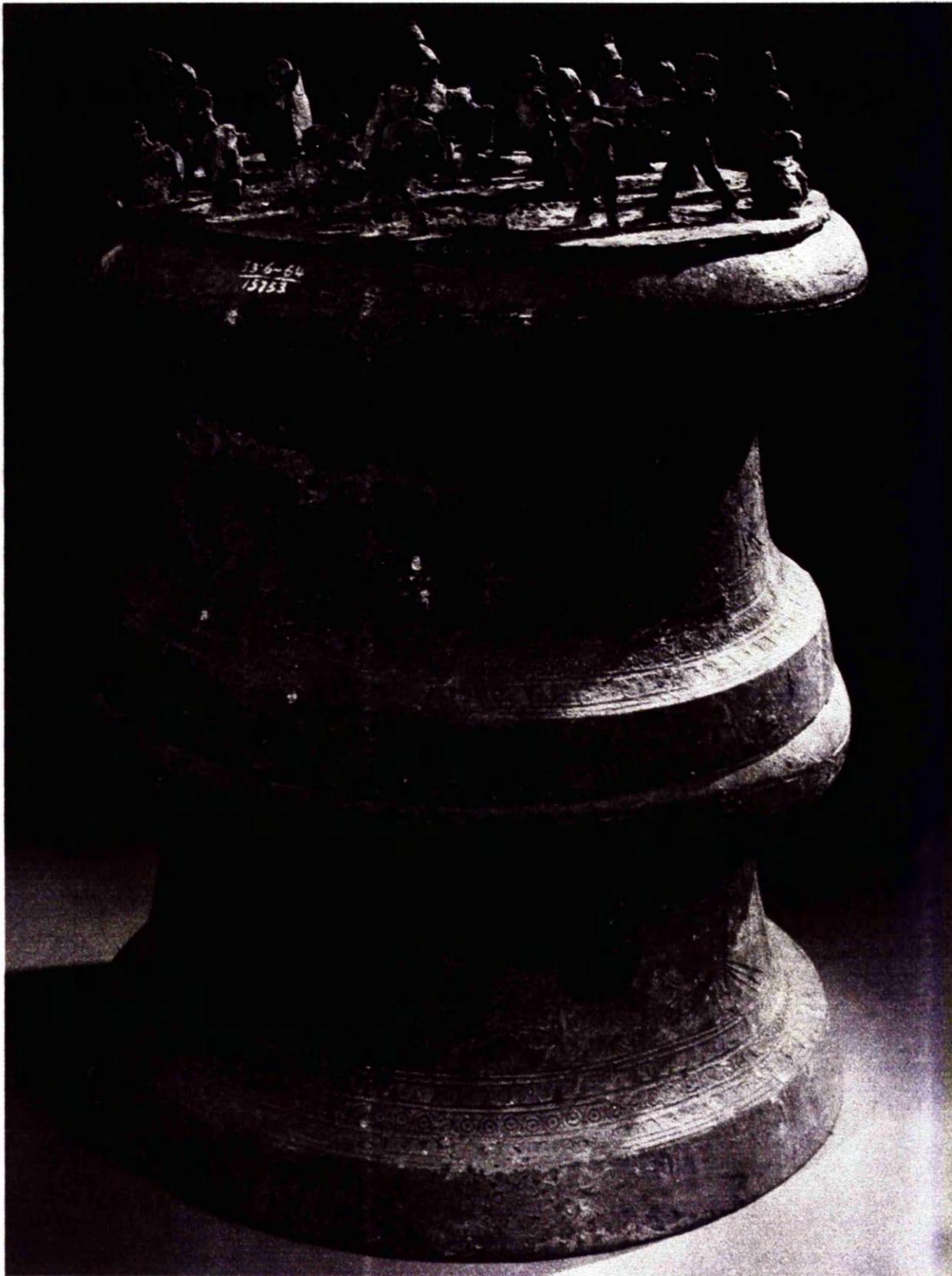


2.36. Shizhaishan (M10:3) bronze drum. H. 19 cm,
D. 21.2 cm. Yunnan Provincial Museum.

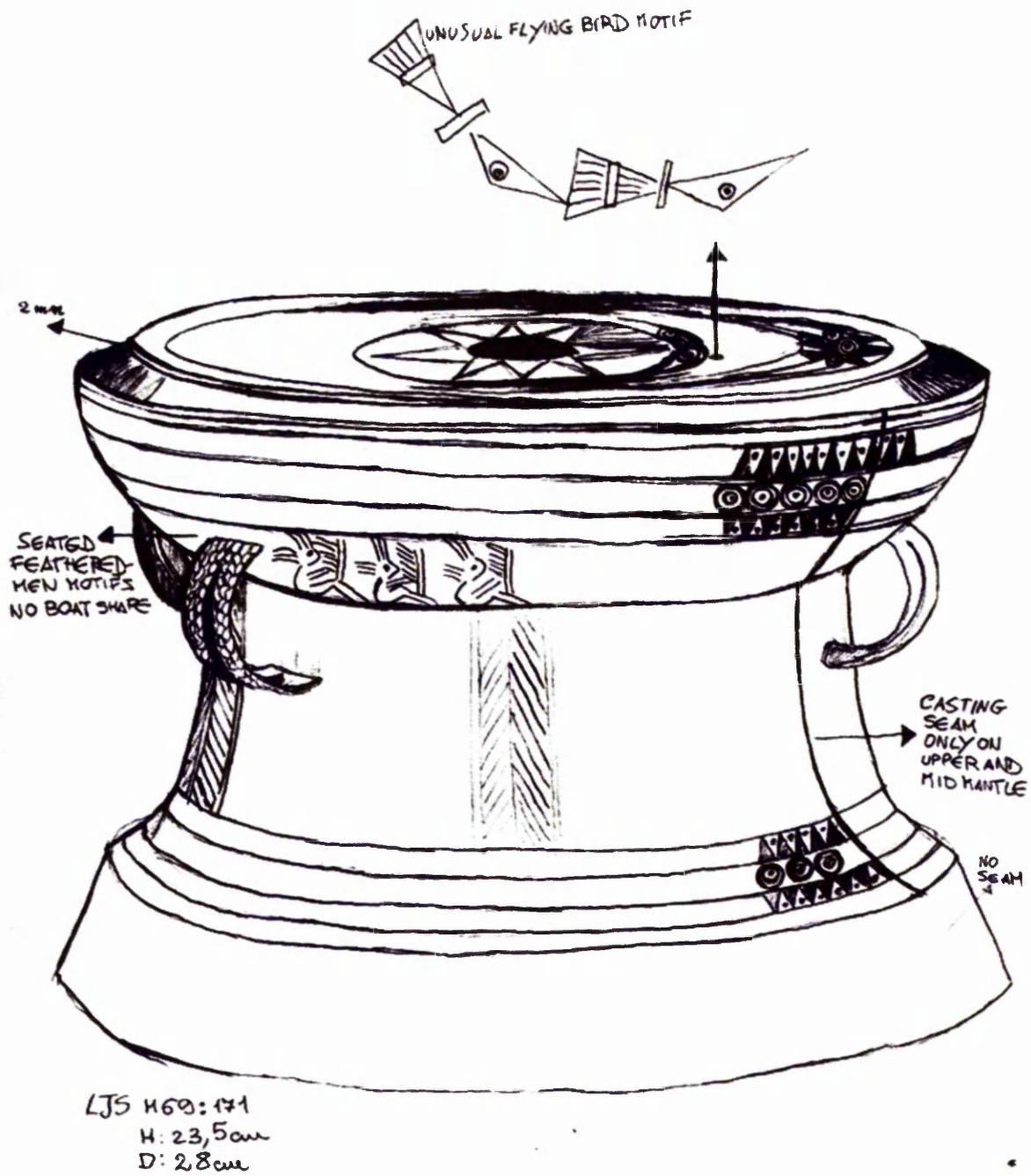




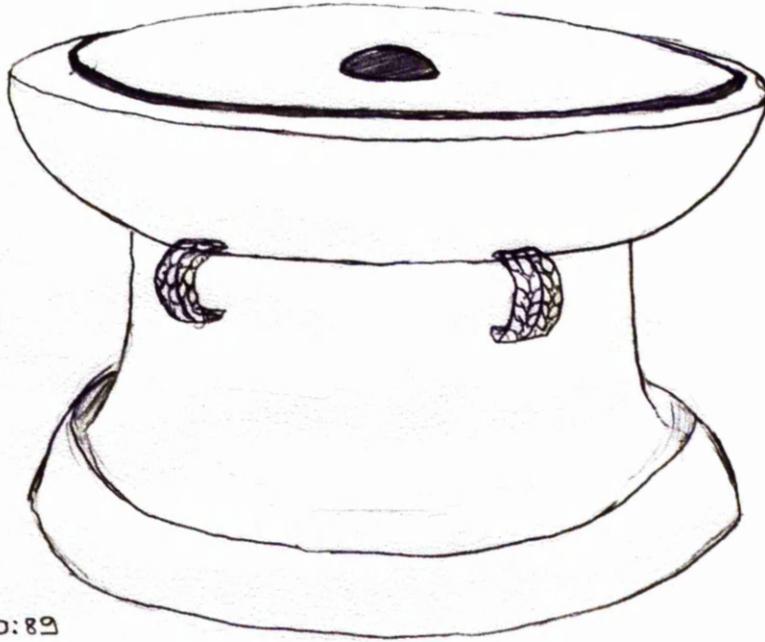
2.37. Shizhaishan (M20:1). Dian bronze drum turned into a container by adding a base with rivets and a lid. Below: detail of the added base and of the boat with a Dian feathered-men motif.



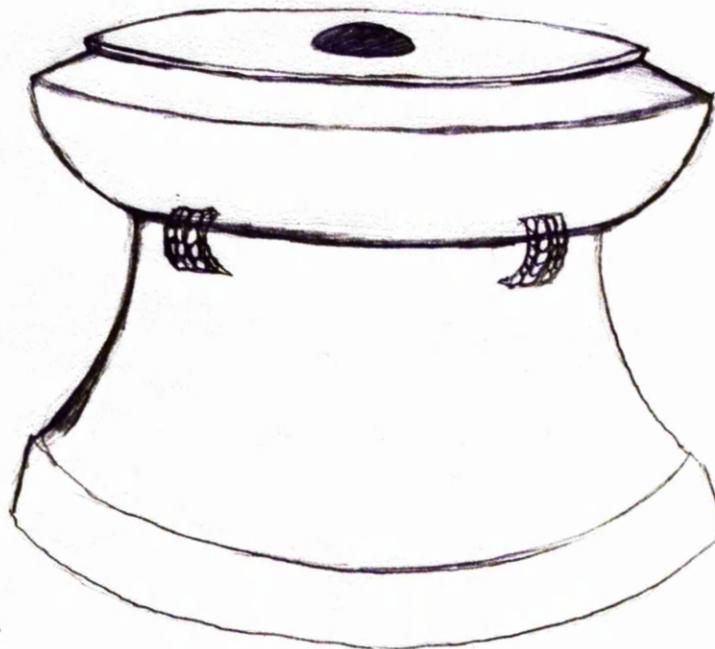
2.38. Shizhaishan (M6:1) bronze drums container. Total H. 53.9 cm. After Rawson 1983: 27, fig. 27. Yunnan Provincial Museum.



2.39. Lijiashan (M69:171) Dian bronze drum. H. 23.5 cm, D. 28 cm. Lijiashan Museum.

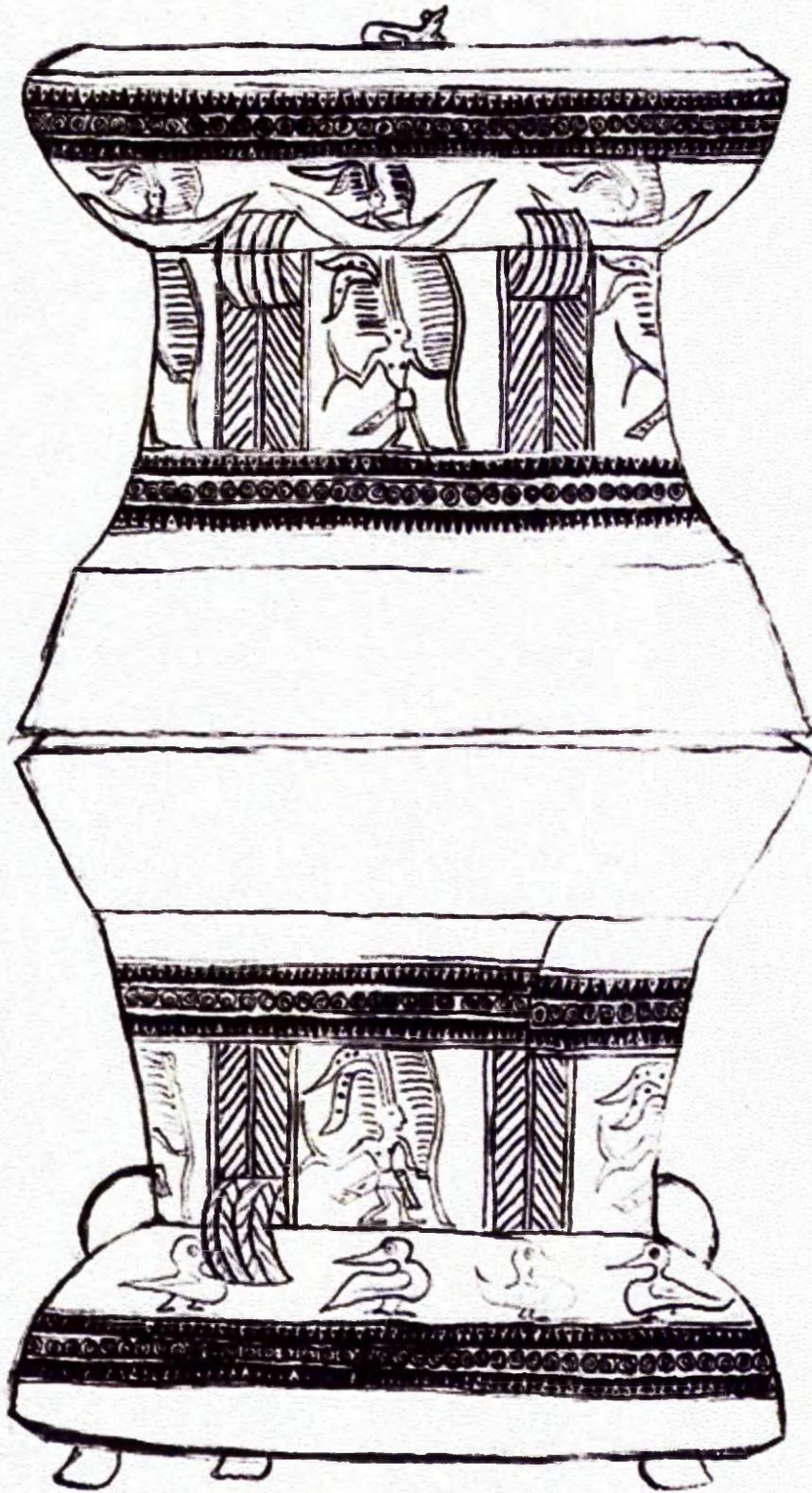


LJS M50:89

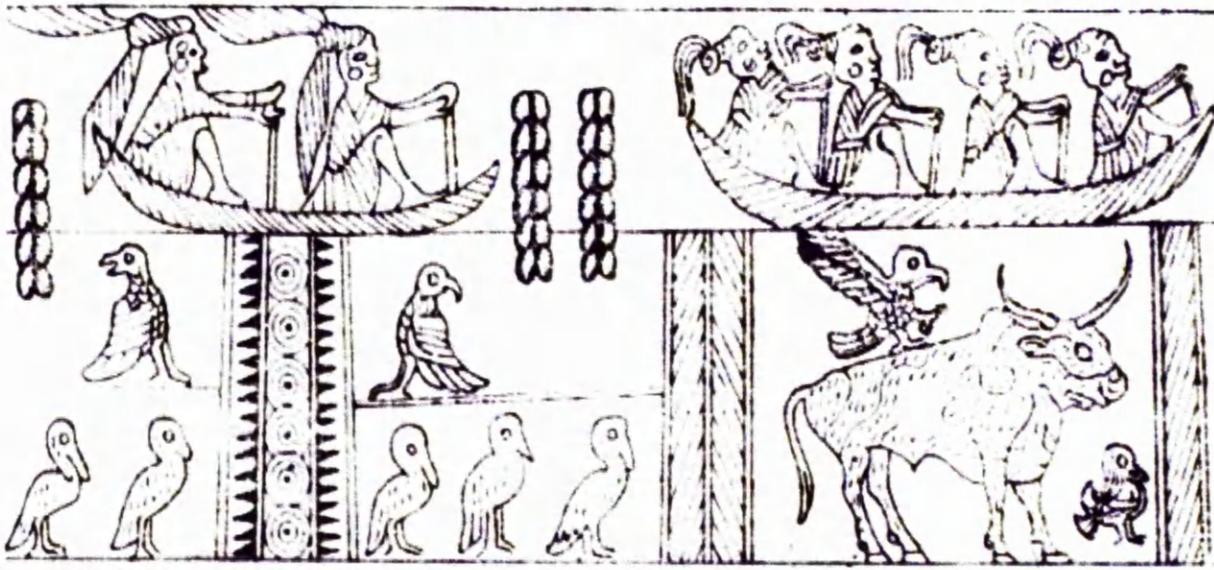


LJS M57:84

2.40. Above: Lijiashan (M50:89) bronze drum. H. 23 cm, D. 29 cm; Below: Lijiashan (M57:84) bronze drum. H. 21 cm, D. 25 cm. No surface decoration. Lijiashan Museum.



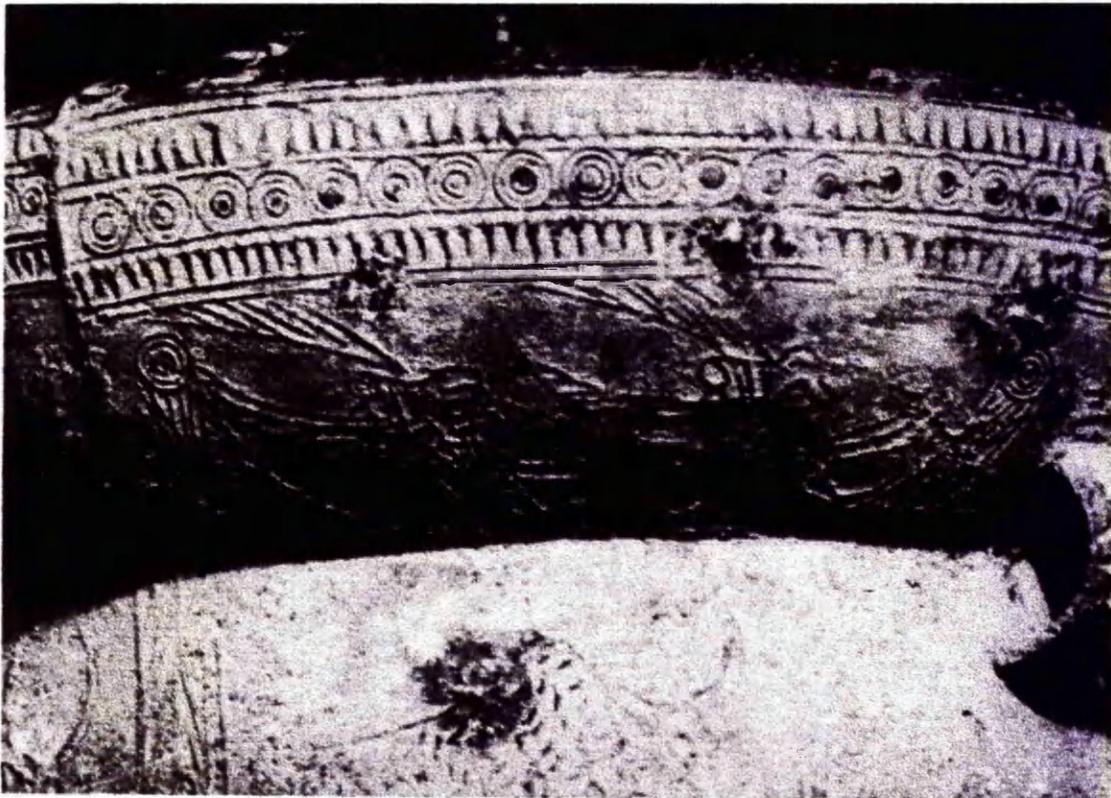
2.41. Lijiashan bronze container (M69:163-164). Total H. 49 cm. Above: Dian drum (M69:163). H. 22 cm, D. 32.1 cm. Lijiashan Museum.



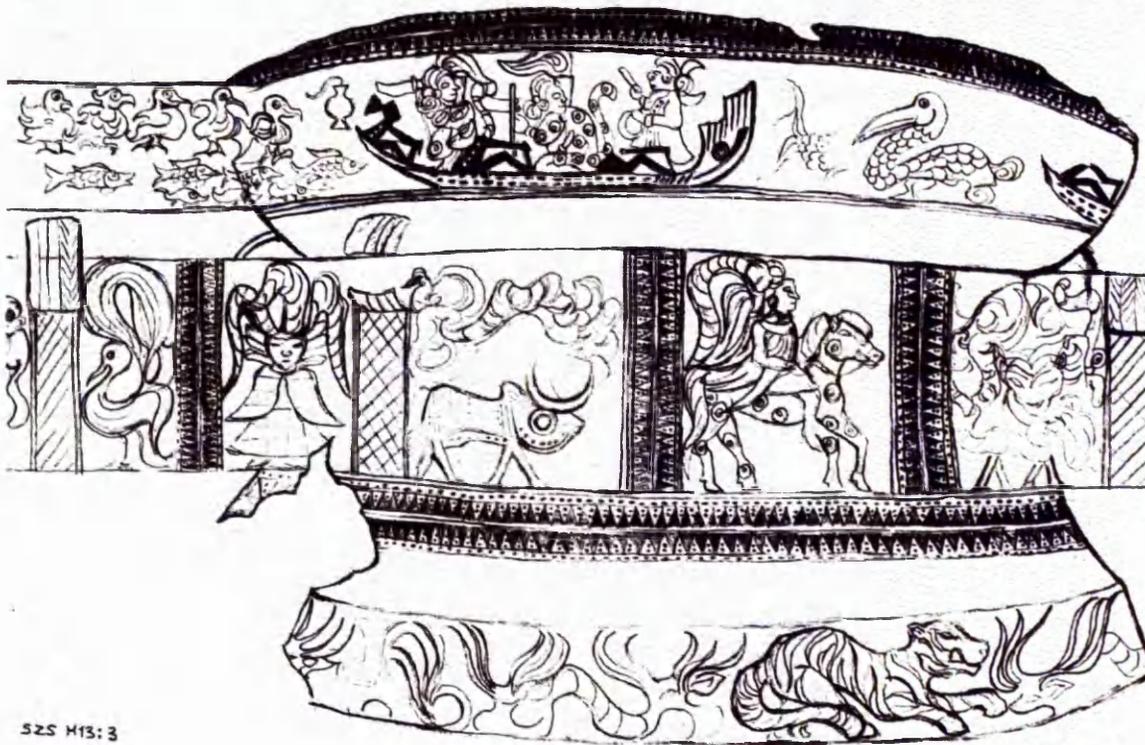
2.42. Huili bronze drum. H. 30.4 cm, D. 41 cm. After Anon. 1977.



2.43. Lao Cai VII bronze drum. Mid-low mantle H. 23 cm. Lao Cai Culture Dept.



2.44. Beelaerts bronze drum. H. 29.3 cm, D. 44 cm. After Bernet Kempers 1988: 553.



525 M13:3

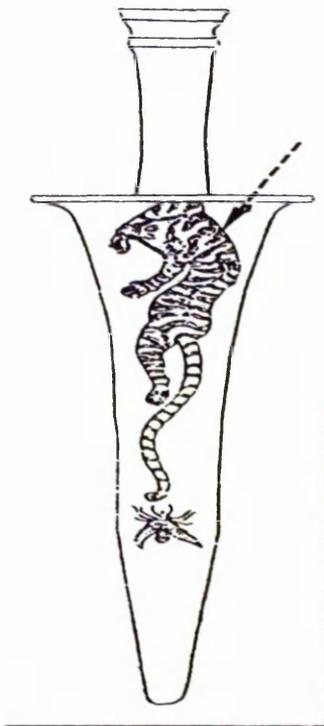
2.45. Dong Son bronze drum engraved at Shizhaishan (M13:3).
H.c. 30 cm, base D.c. 50 cm. Yunnan Provincial Museum.



2.46. Shizhaishan (M13:3) drum. Details of the Dian figures engraved over the scraped off Dong son motifs of feathered-men motifs. The engraved bird motifs parallel the ones cast on the Dian drum found at Huili (Figure 2.42).



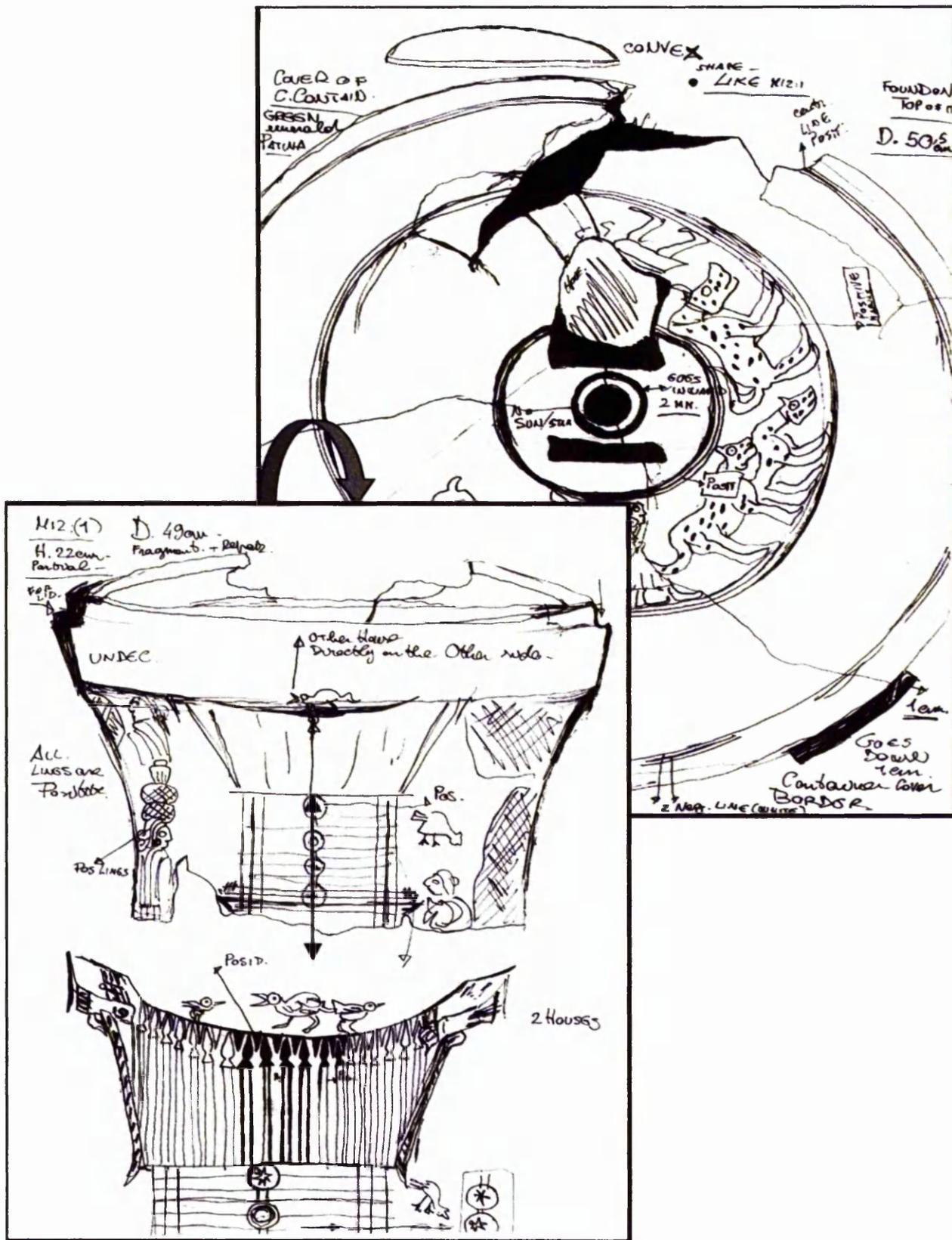
2.47. Shizhaishan (M13:3) drum. Detail of the horseman motif engraved over a panel of the mid mantle.



2.48. Shizhaishan (M13:3) drum. Detail of the Dian tiger motif engraved on the lower mantle.
Upper corner: similar tiger motif on a Dian bronze sword (M13:219) in the same tomb.
Drawing of the sword after Pirazzoli t'Serstevens 1996-1997.



2.49. Shizhaishan (M12:1). Bronze outer lid of a cask-shaped container for cowrie-shells. D. 52.5 cm. After Anon. 1993: 177. Yunnan Provincial Museum.



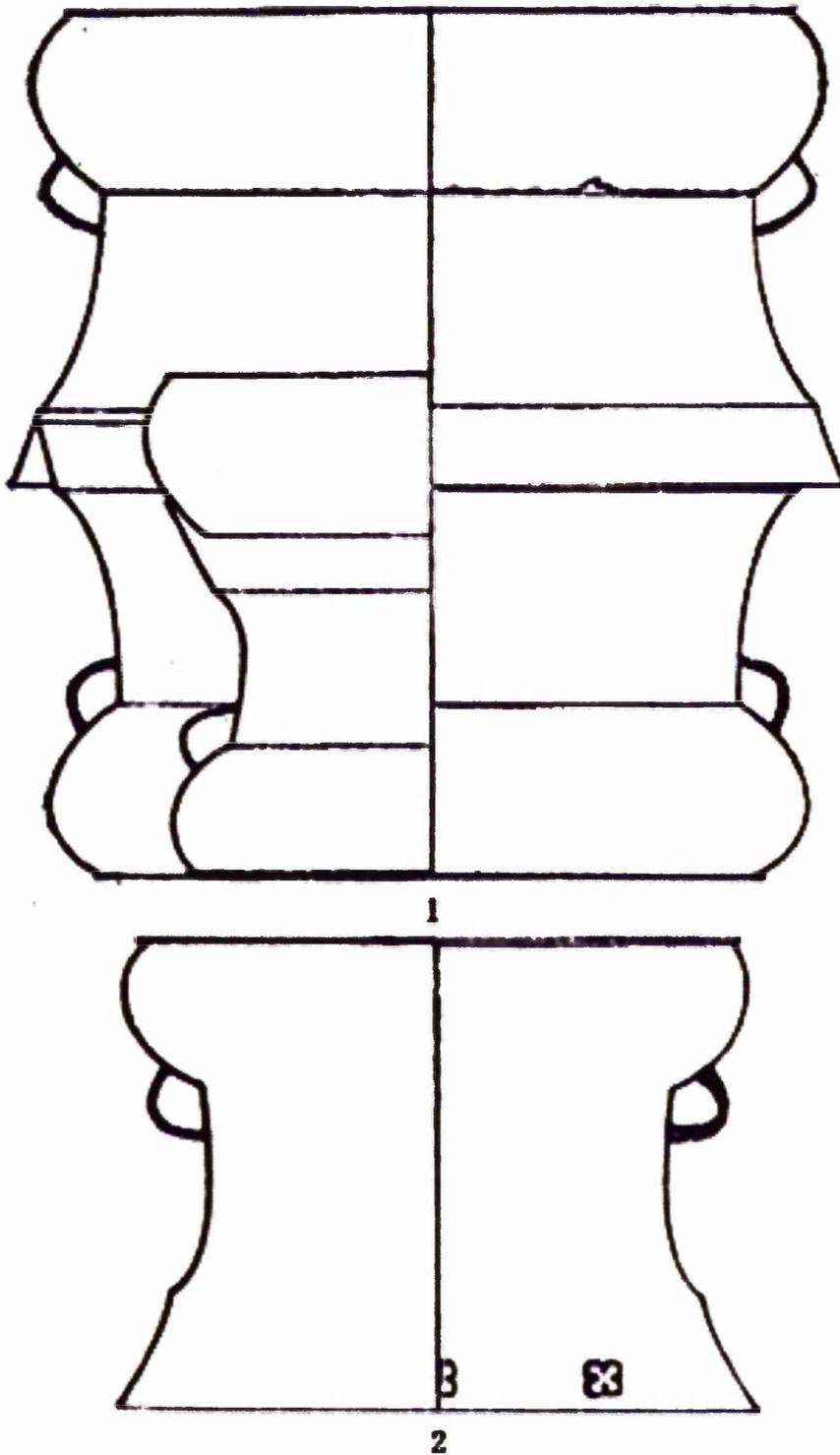
2.50. Shaizhaishan (M12:1) cask-shaped bronze container. Above: first lid. Below: fragment of the upper section. Yunnan Provincial Museum.



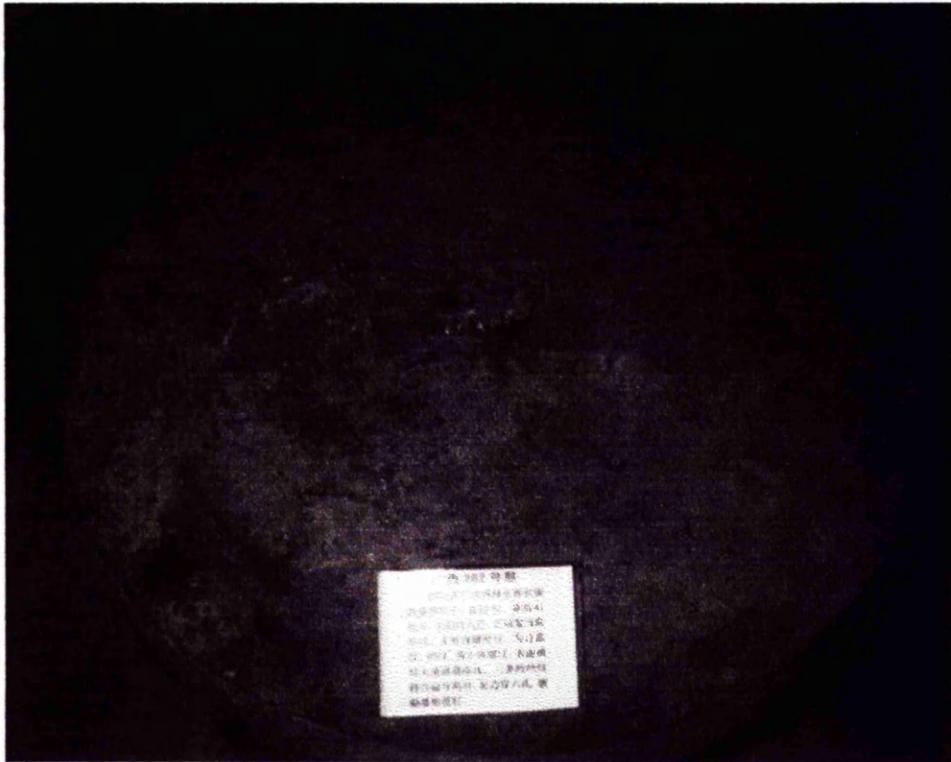
2.51. Lijiashan (M69:157). Drum-shaped bronze container for cowrie-shells.
H. 40 cm, D. 28.8 cm. After Anon. 1993: 1.



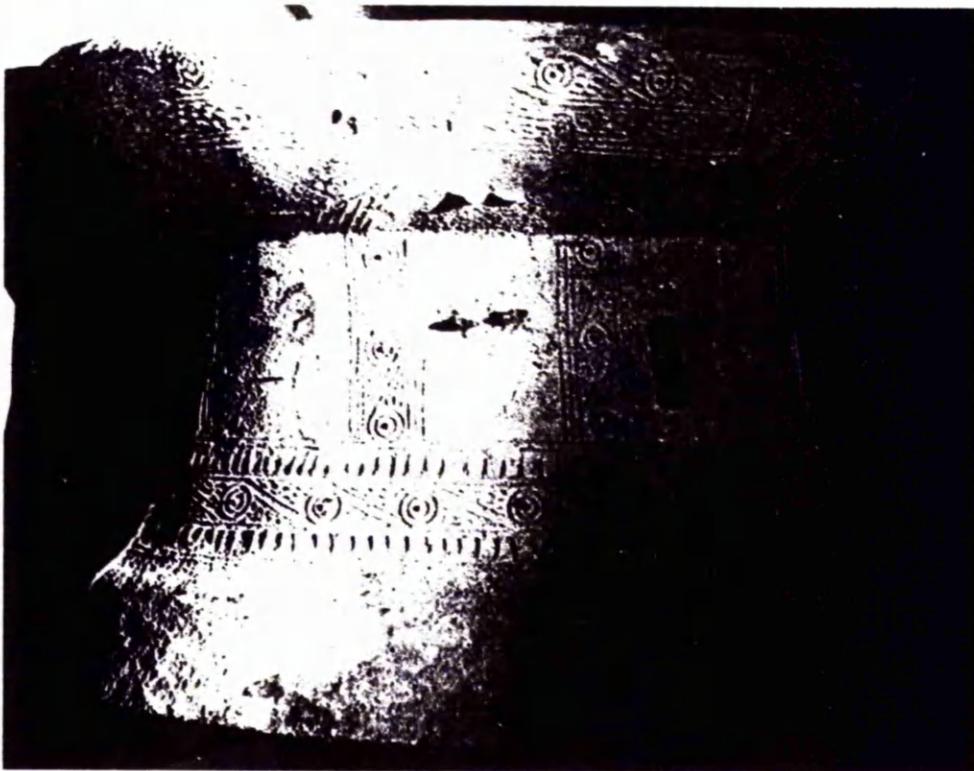
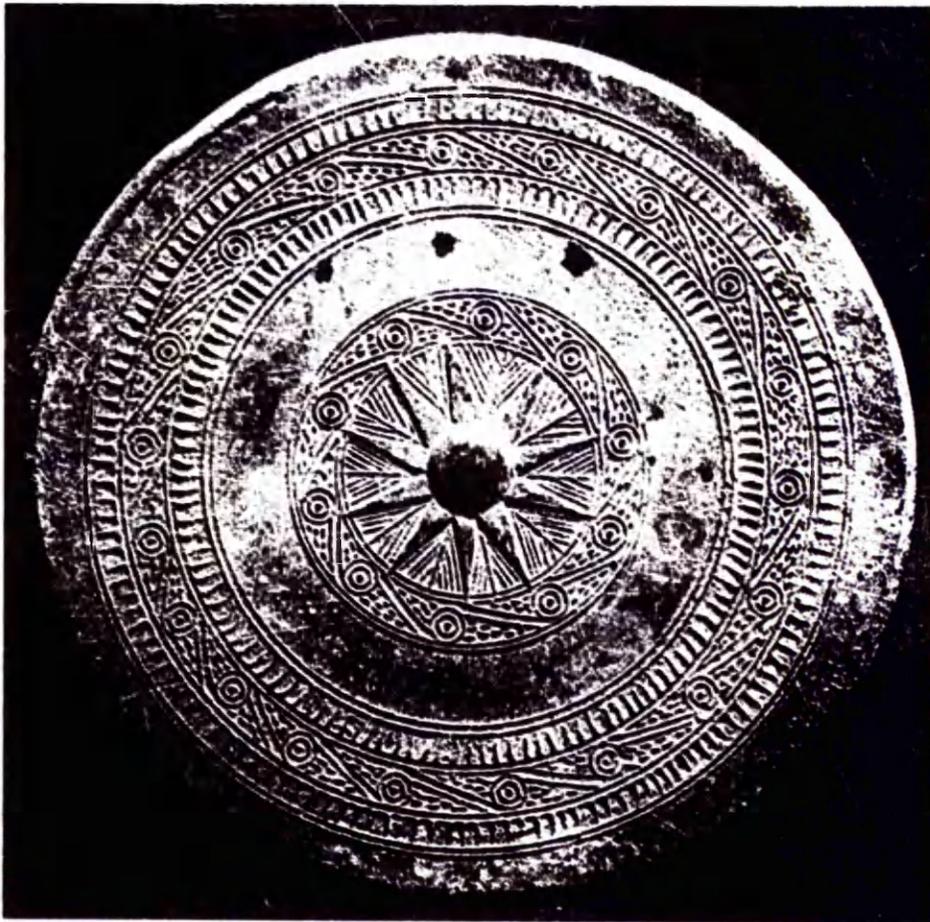
2.52. Map of the main locations of early bronze drums on the mainland and of related sites discussed in the text



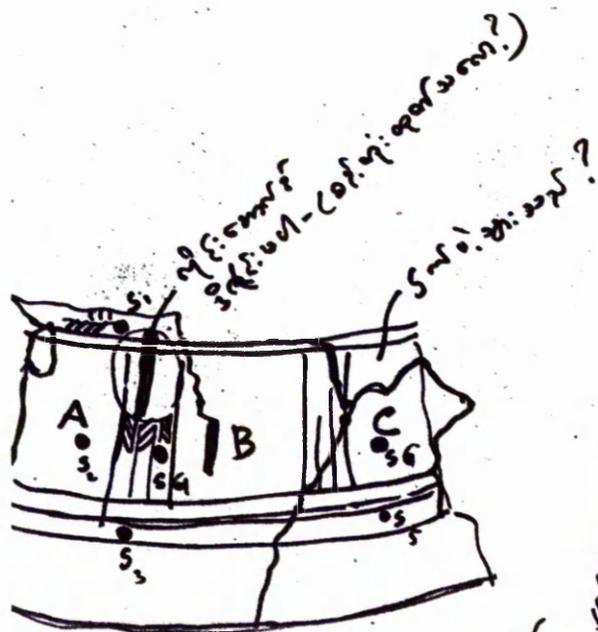
2.53. Report drawing bronze drums in the Xilin burial. Above: assemblage of three drums. Below: Xilin 282 drum. After Anon. 1978a. This drawing does not match the reconstruction of the assemblage in the GPM (Figure 1.39)



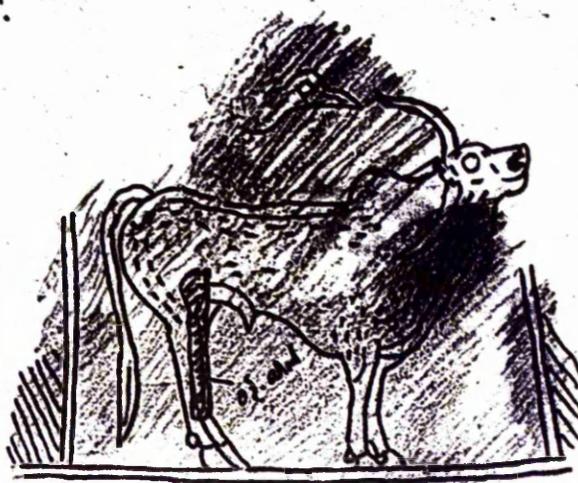
2.54. Xilin 282 bronze drum. H. 41 cm, D. 52 cm. Guangxi Provincial Museum.



2.55. Bagan Museum Dian bronze drum. Courtesy of U Win Maung.



place - UN. KNOWN ?
only broken pieces

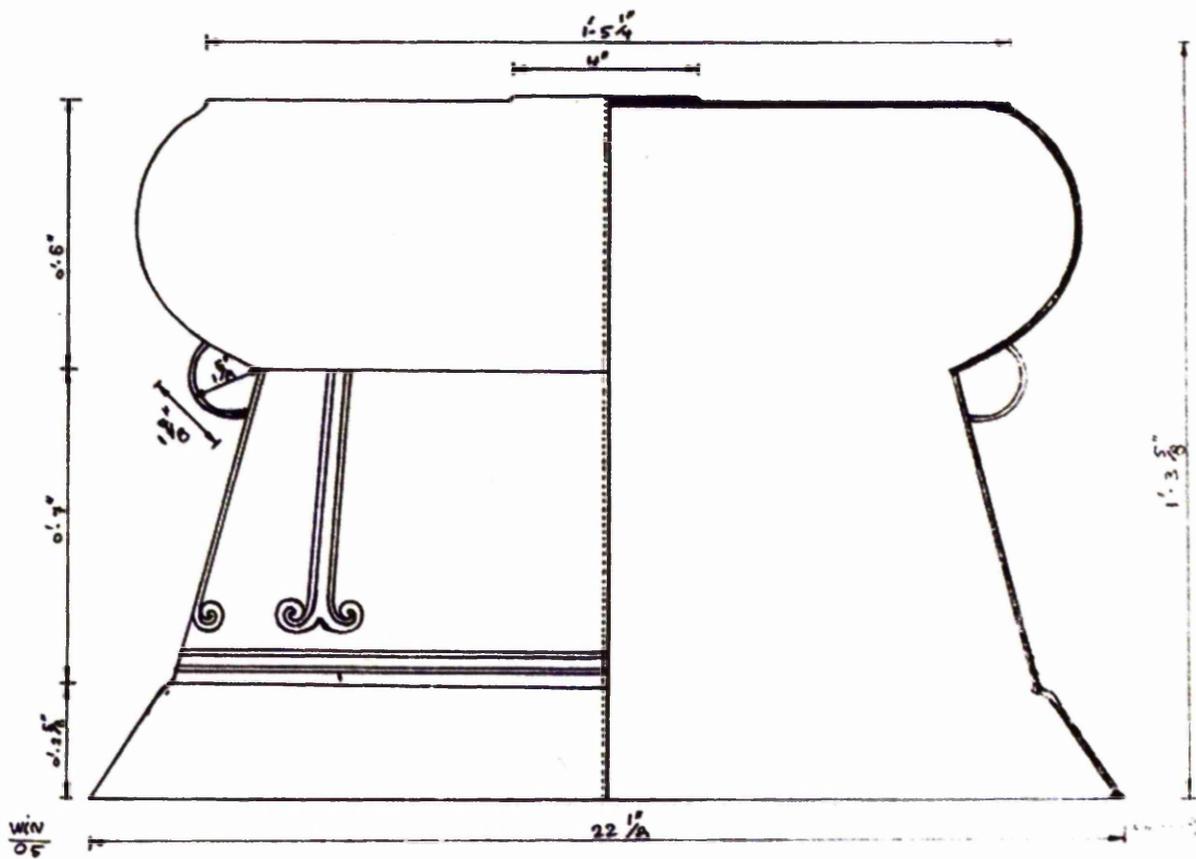


B

PIECES OF BRONZE DRUM
ရန်ကင်းမြို့ (ရန်ကင်းမြို့အနီး?)

ရန်ကင်းမြို့ 3/1/02

2.56. Burma fragmentary Dian drum. Unknown provenance.
Drawing by U Win Maung.



2.57. Sin Bo bronze drum. Courtesy of U Win Maung.



2.58. Myauk Mi Kon bronze objects. Courtesy of Elizabeth Moore.



2.59. Uttaradit I bronze drum. H. 53 cm, D. 65 cm. National Museum, Bangkok.



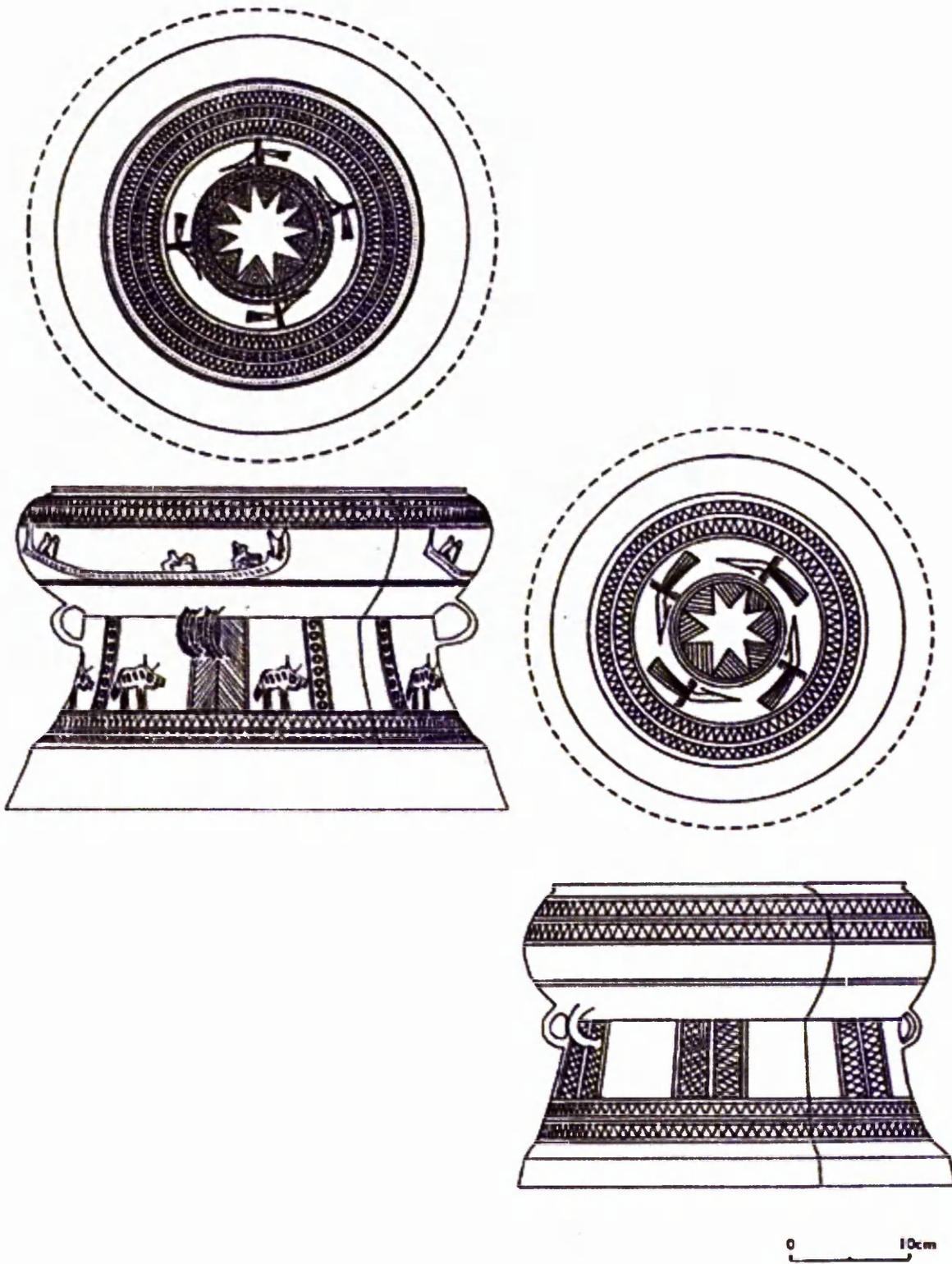
2.60. Uttaradit II bronze drum. H. 53.5 cm, D. 69.5 cm. National Museum Bangkok.



2.61. Uttaradit III bronze drum. H. 42 cm, D. 61.5 cm. National Museum, Bangkok.



2.62. Xilin burial. Han bronze statue. Guangxi Provincial Museum.



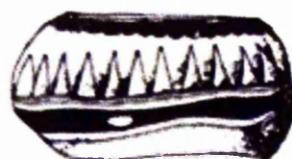
2.63. Above: Gio Son bronze drum. H. 26.8 cm, D. 30 cm. Below: Tra Loc bronze drum. H. 27.4 cm, D. 33.4 cm. After Reinecke and Le 2002: 24-25, figs. 5-6.



1



2



3

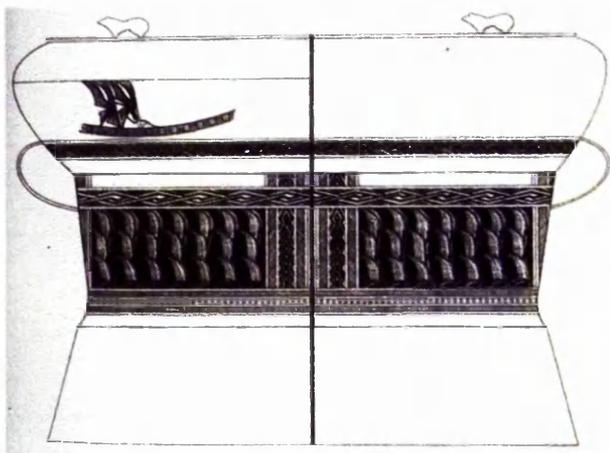


4

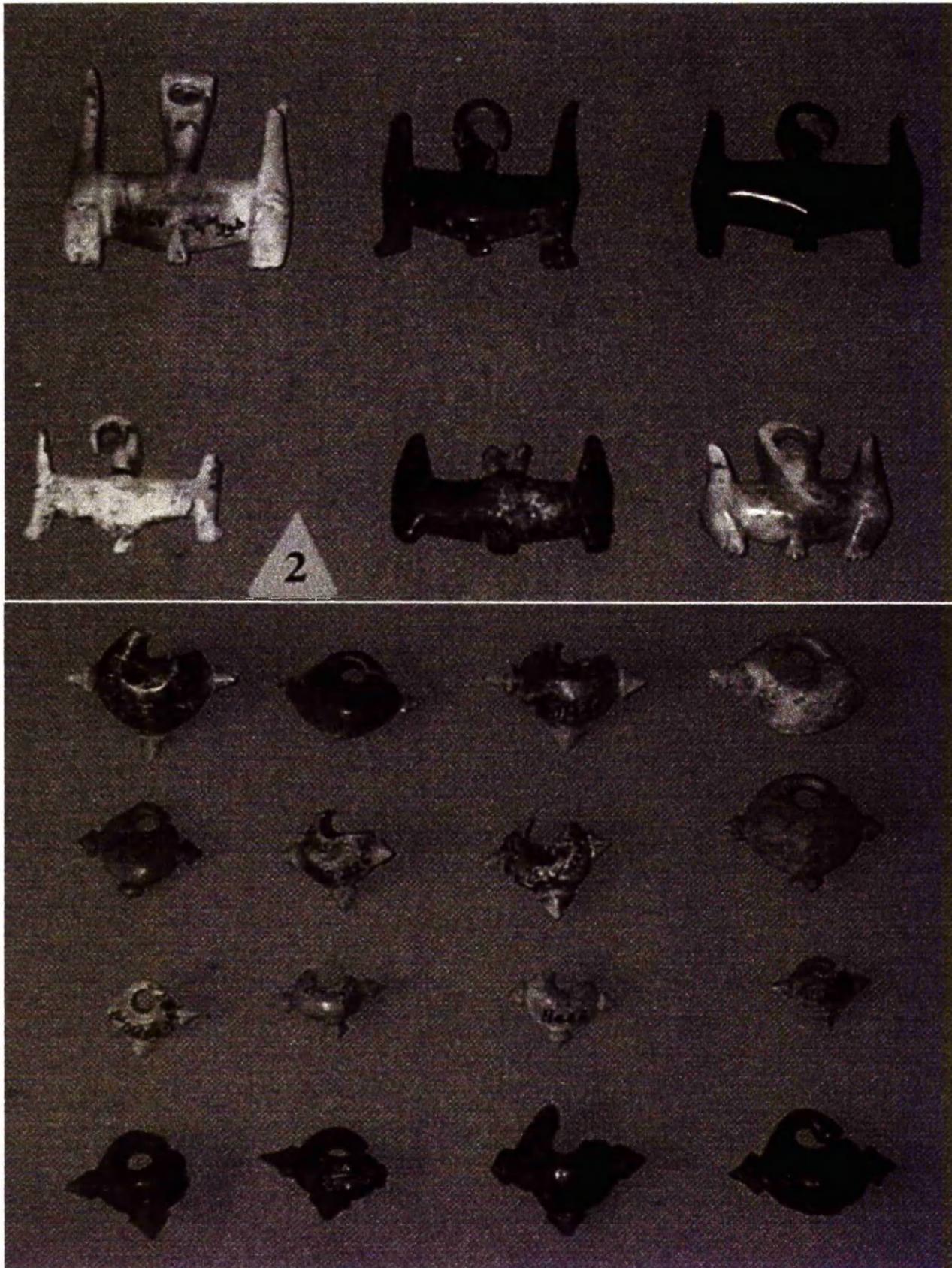
2.64. Above: bronze bracelets from Ban Vang, Quang Tri. Below left: 1-2: bronze bracelets from the Khorat Plateau; 3-4 from Quang Tri. Below right: bronze bracelet from Ban Kan Luang. After Reinecke et al. 1999: 32, fig. 12; 34, fig.14; 35, fig. 15.



2.65. Bangkinang bronze bracelets (MNI 6016, 6017) and bronze figurine (MNI 6000. H. 9.4 cm).



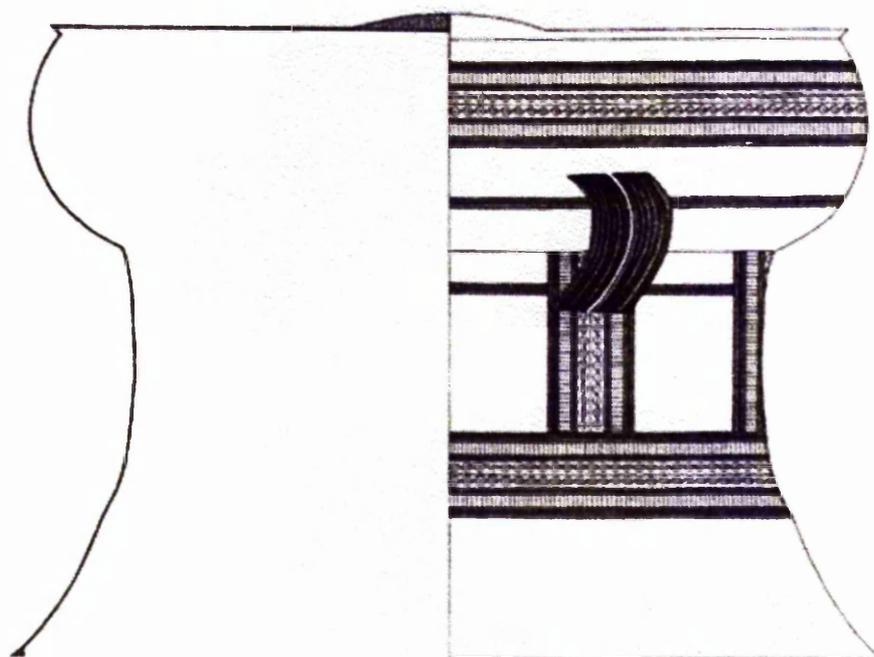
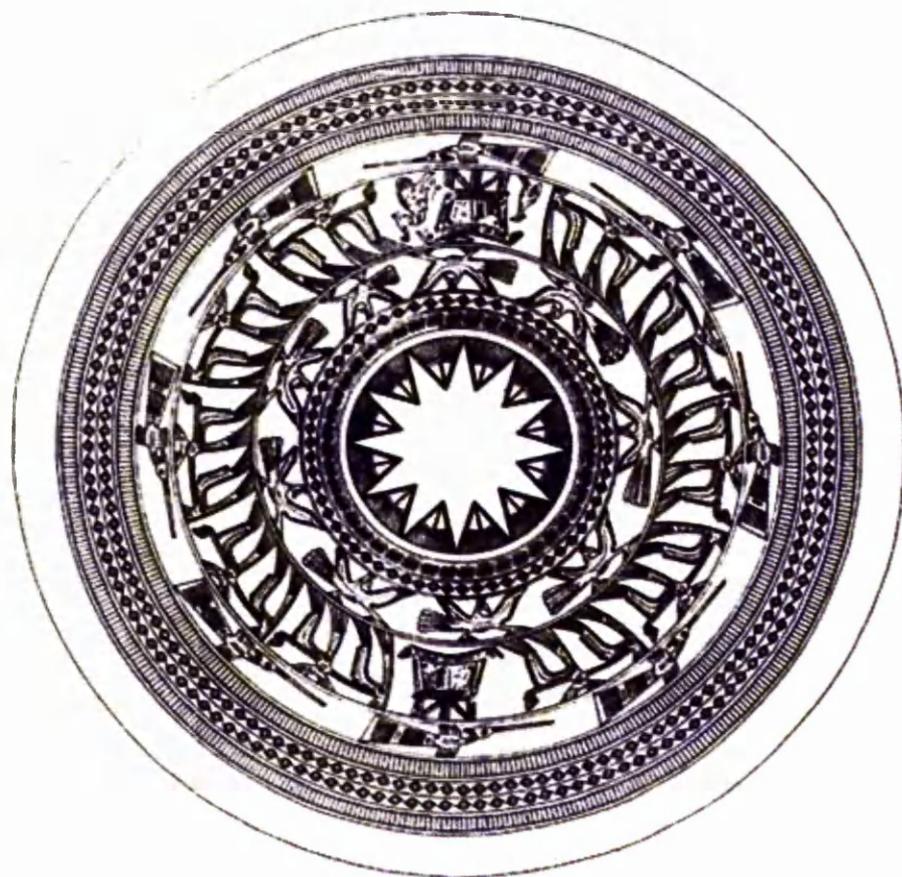
2.66. Don Tan bronze drum. H. 65 cm, D. 86 cm. After Anon. 2003: 124,129.



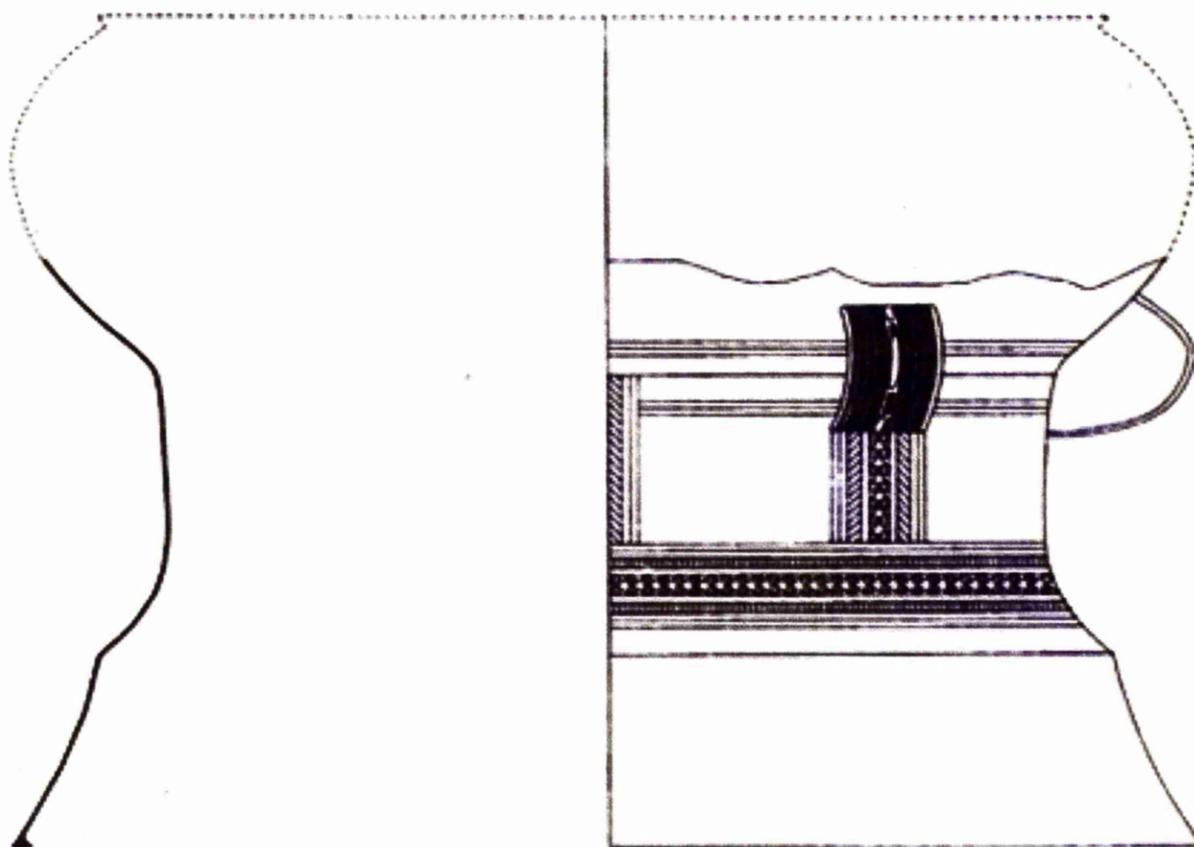
2.67. Nephrite double-headed animal earrings *ling ling*, and circular earrings with lugs *ling ling o*. History Museum, Hanoi.



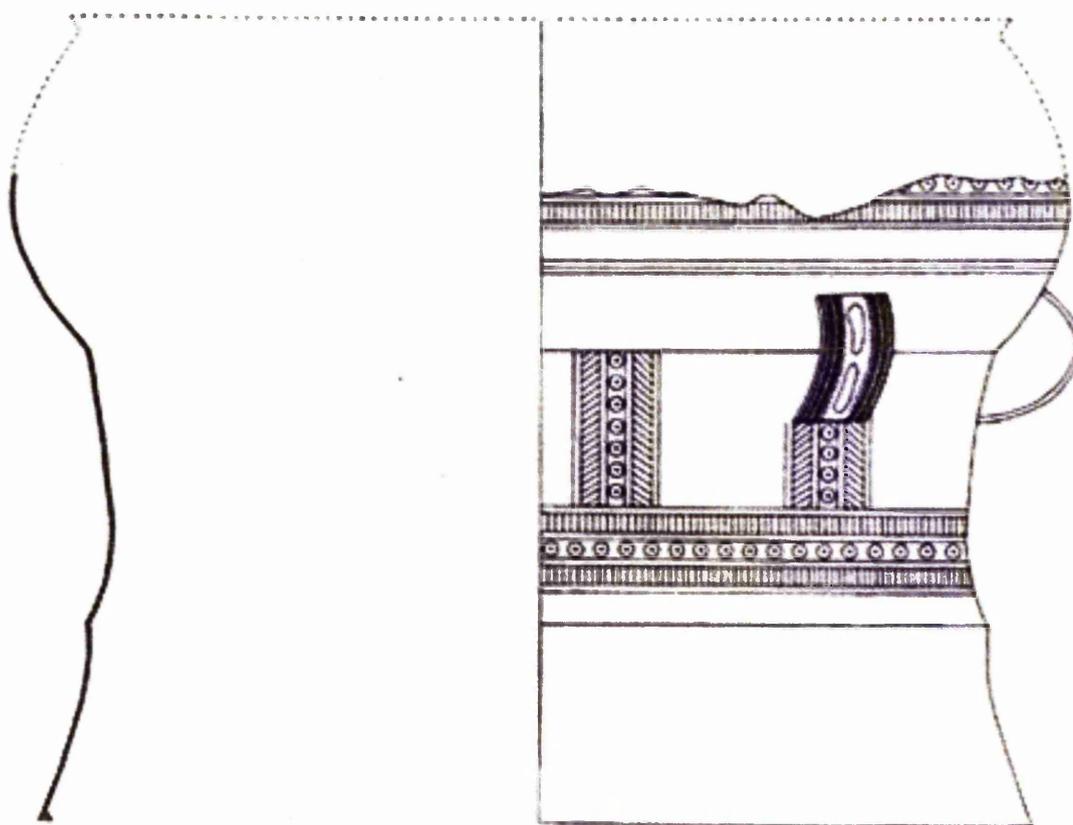
2.68. One of ca. ninety dug out coffins from the Ongbah cave.
National Museum, Bangkok.



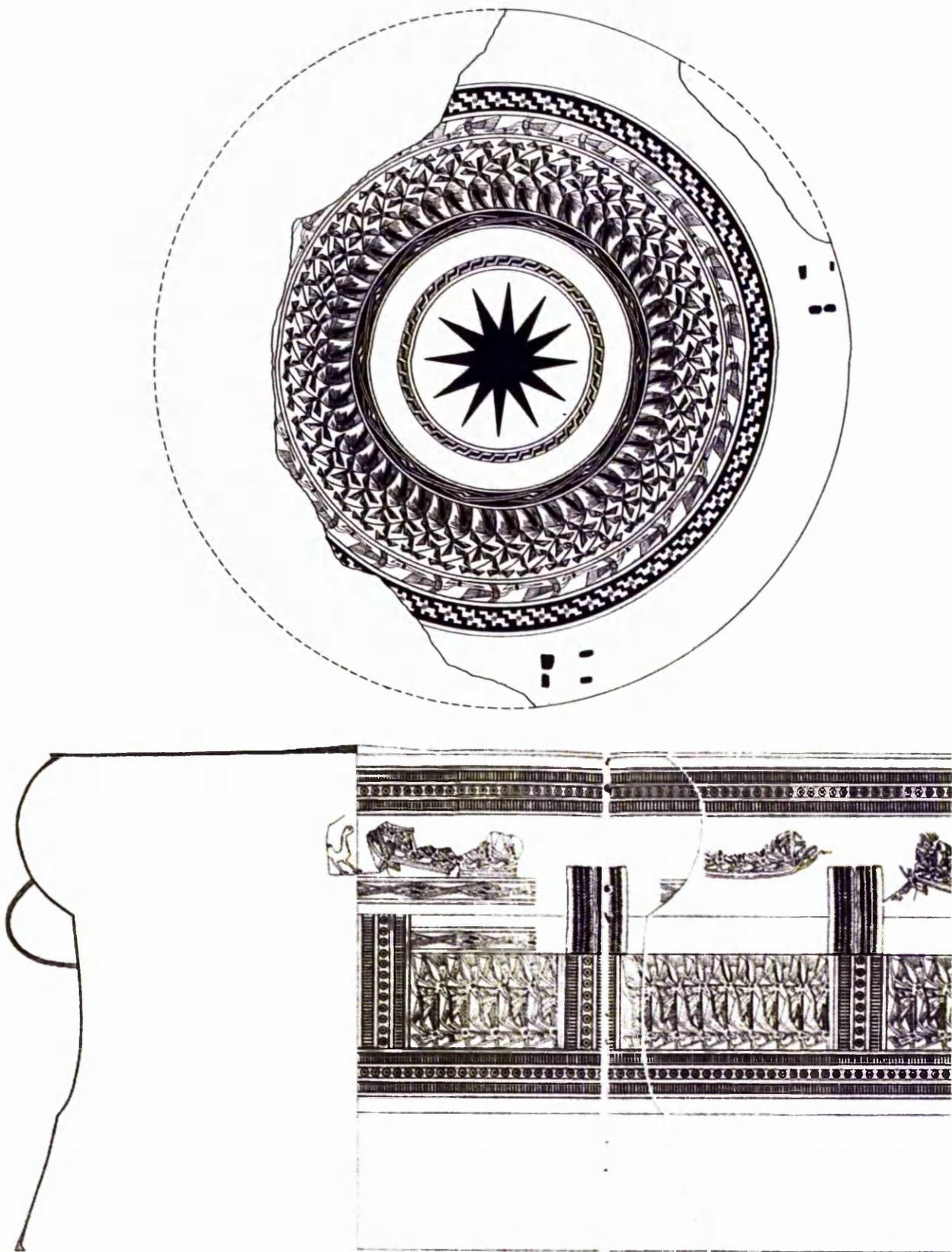
2.69. Ongbah 86 bronze drum. H. 53.5 cm, D. 67 cm. After Sørensen 1988: 137-138, pls. 38.6, 39.7.



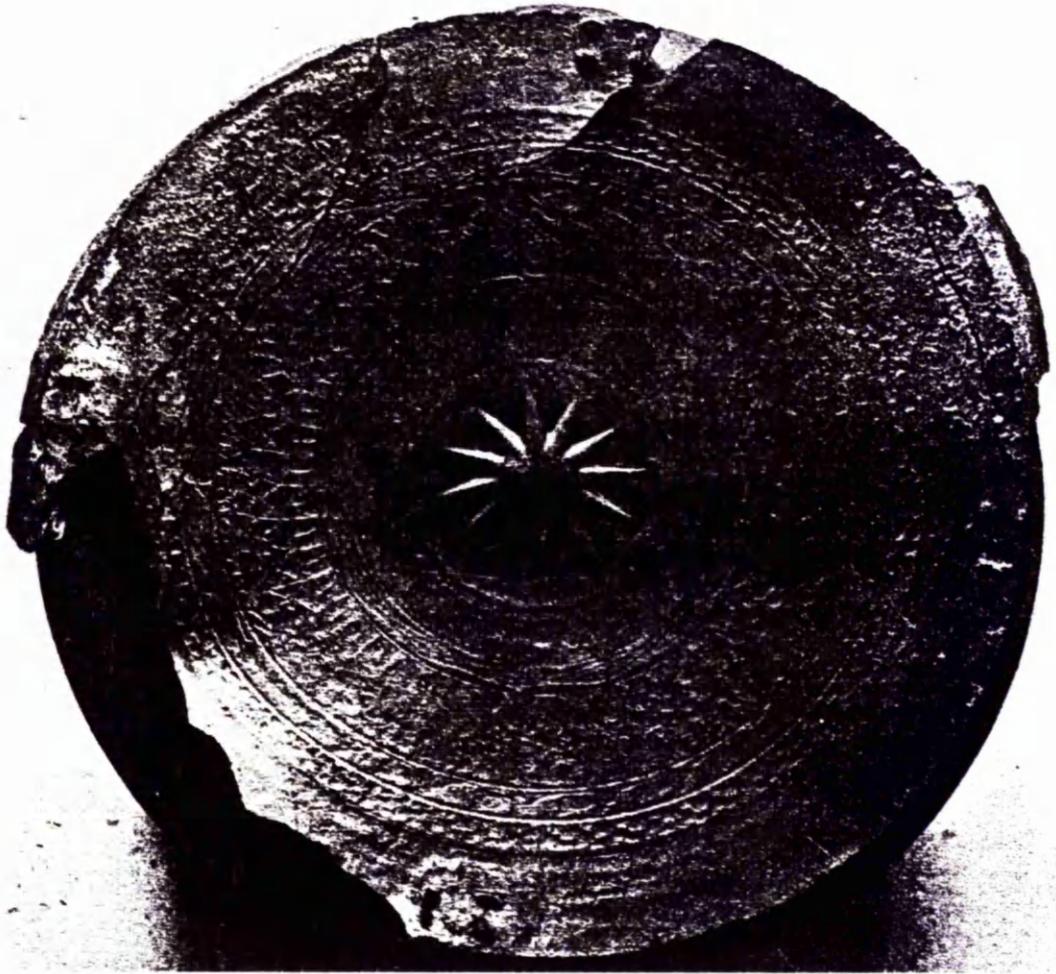
2.70. Ongbah 87 bronze drum. Rem. H. 35.4 cm, D.c. 60 cm. After Sørensen 1988: 143, pl. 44.16. National Museum, Copenhagen.



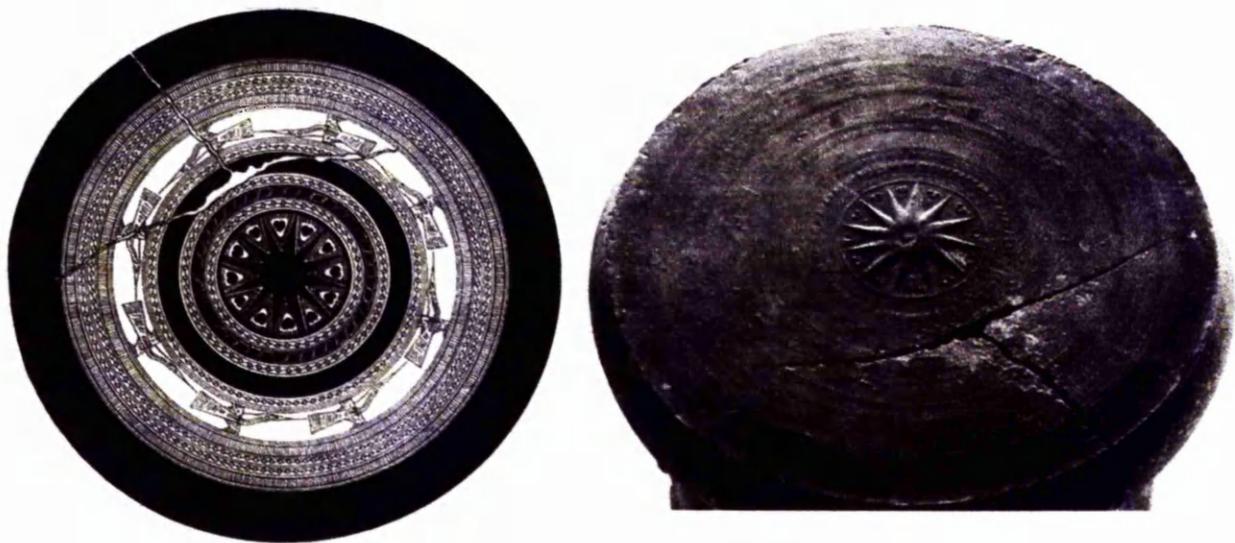
2.71. Ongbah 88 bronze drum. H.c. 40.3 cm, D.c. 58.5 cm. After Sørensen 1988: 145, pl. 46.19. National Museum, Copenhagen.



2.72. Ongbah 89 bronze drum. H.c. 59.5 cm, D.c. 74 cm. Mantle after Sørensen 1988: 148-9.
Tympanum after Anon. 1993: 296.



2.73. Tympanum of the Ongbah 89 drum. After Sorensen 1988: 150. Below: after Anon .2003: 296. National Museum of His Majesty the King's Golden Jubilee.



2.74. Khao Sam Kaeo I bronze drum. H. 56 cm, D. 72 cm.
After Anon. 2003: 171, 175.



2.75. Above: Cat Tai bronze drum. D. 60 cm. Below: An Truong (An Lao) bronze drum D. 45 cm. Binh Dinh Museum.



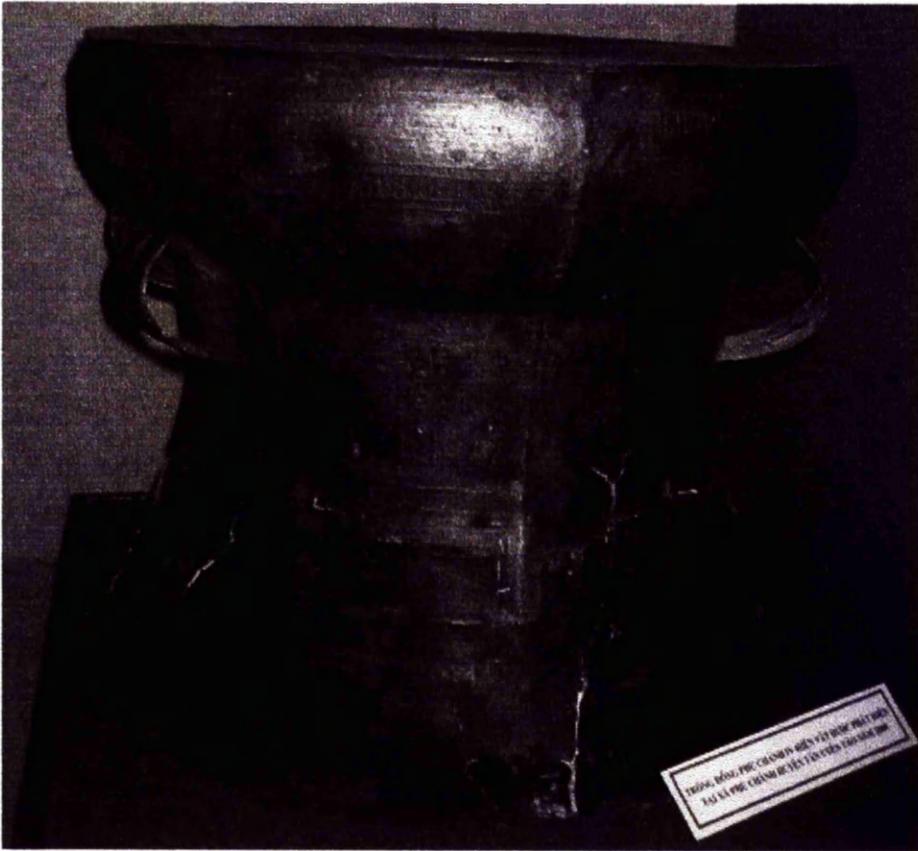
2.76. Vinh Thinh I bronze drum (above): H.c. 38 cm, D. 45 cm; VTII bronze drum (below): H. 35 cm, D. 45 cm. Binh Dinh Museum.



2.77. Phu Chanh II-1998 bronze drum. H. 40 cm, D. 47.5 cm. Nam Duong Museum.



2.78. Phu Chanh II-1998 drum used as the cover of a wooden burial container.



2.79. Phu Chanh IV-2000 bronze drum. H. 40 cm, D. 47.2 cm. Nam Duong Museum.

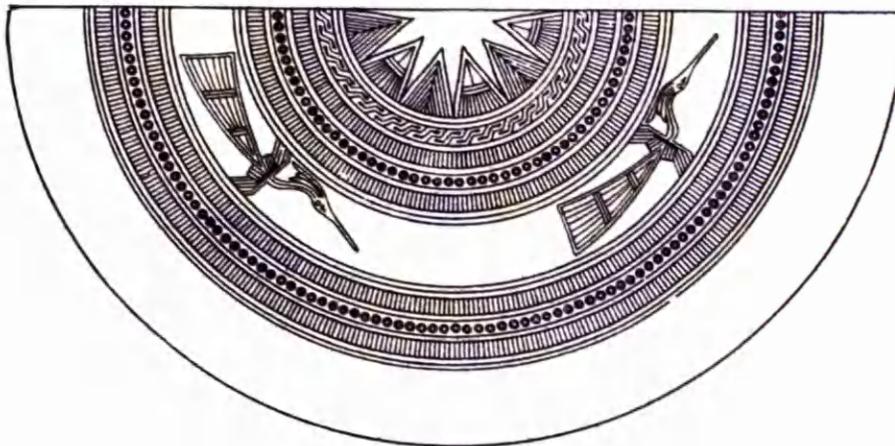


Plate 14.01. Battambang

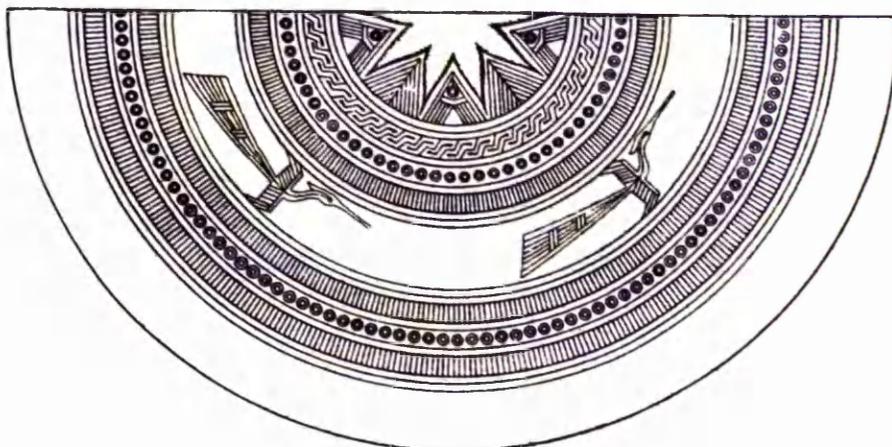


Plate 15.01. Klang

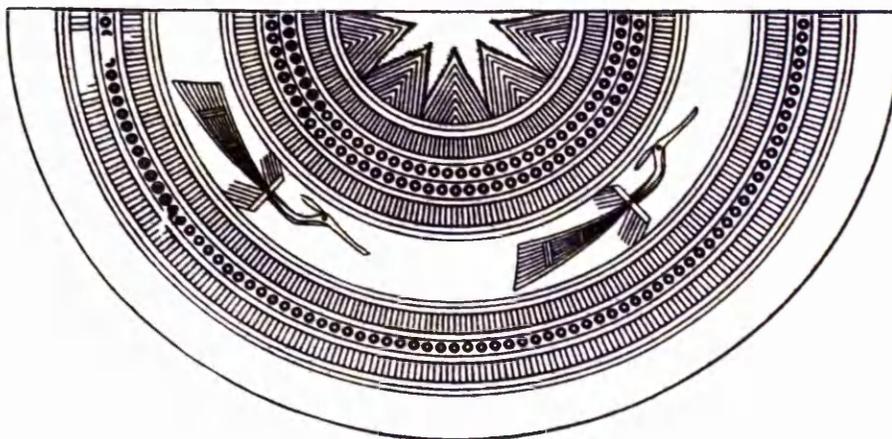
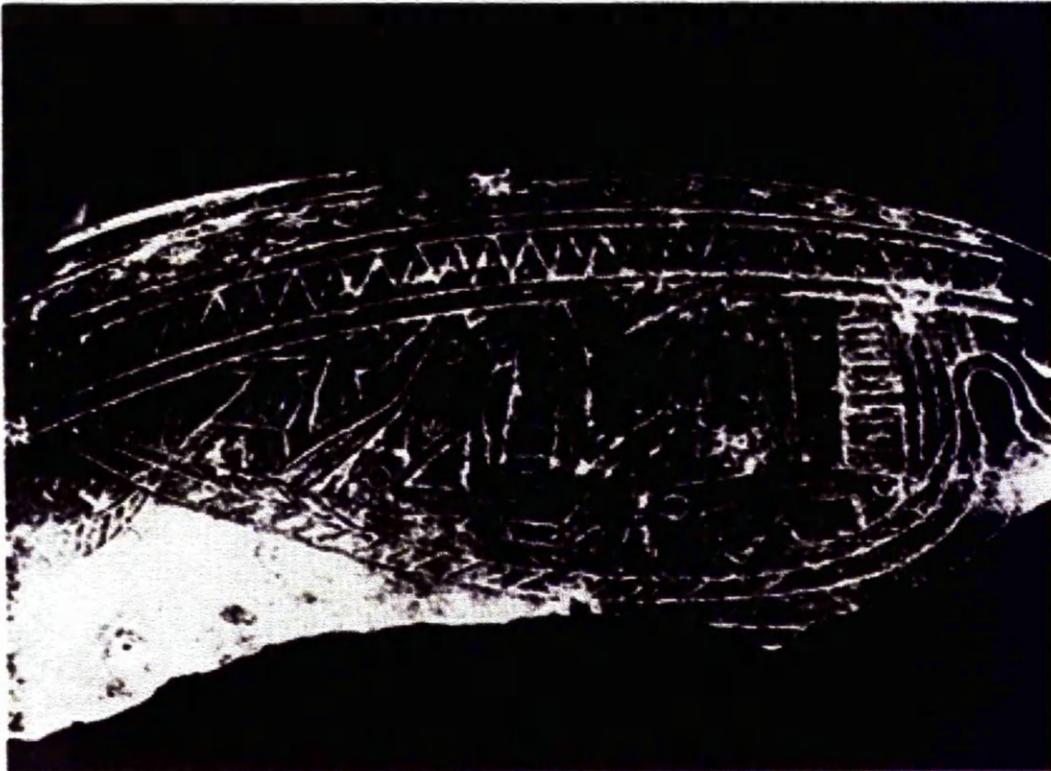
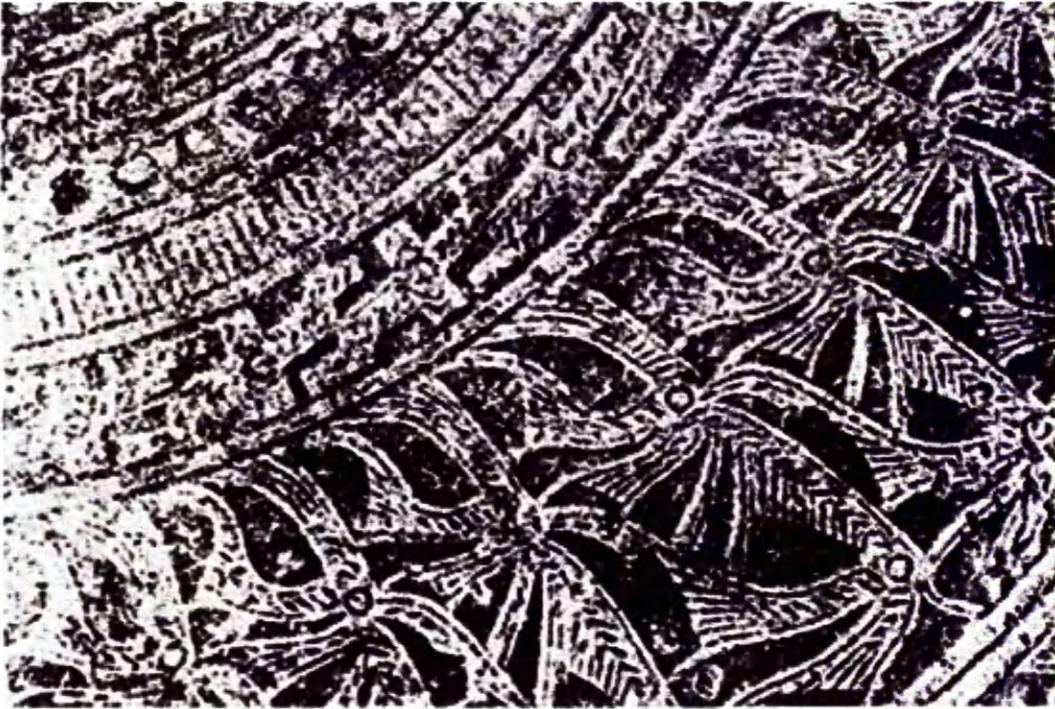
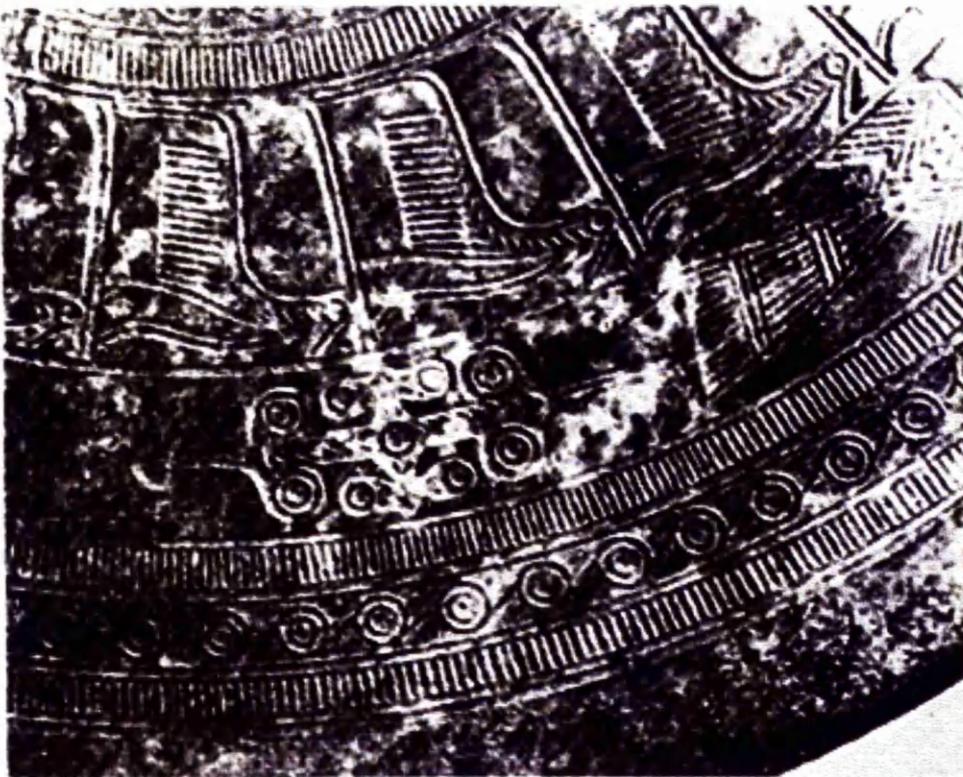
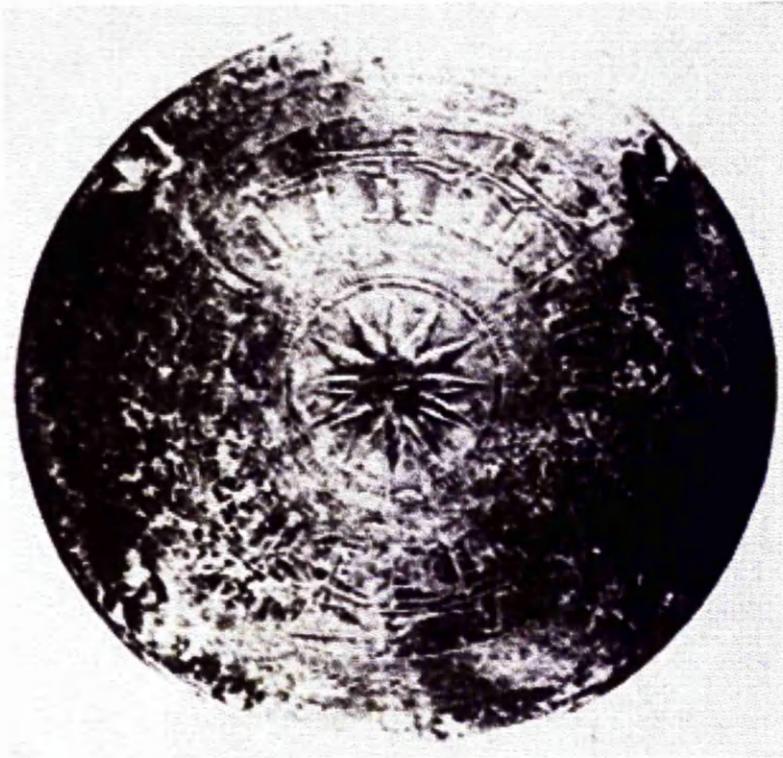


Plate 15.06. Tembeling

2.80. Tympani of the Battambang (D. 62 cm), Klang (D. c. 50 cm), and Tembeling (D. 61 cm) bronze drums. After Bernet Kempers 1988: 555.



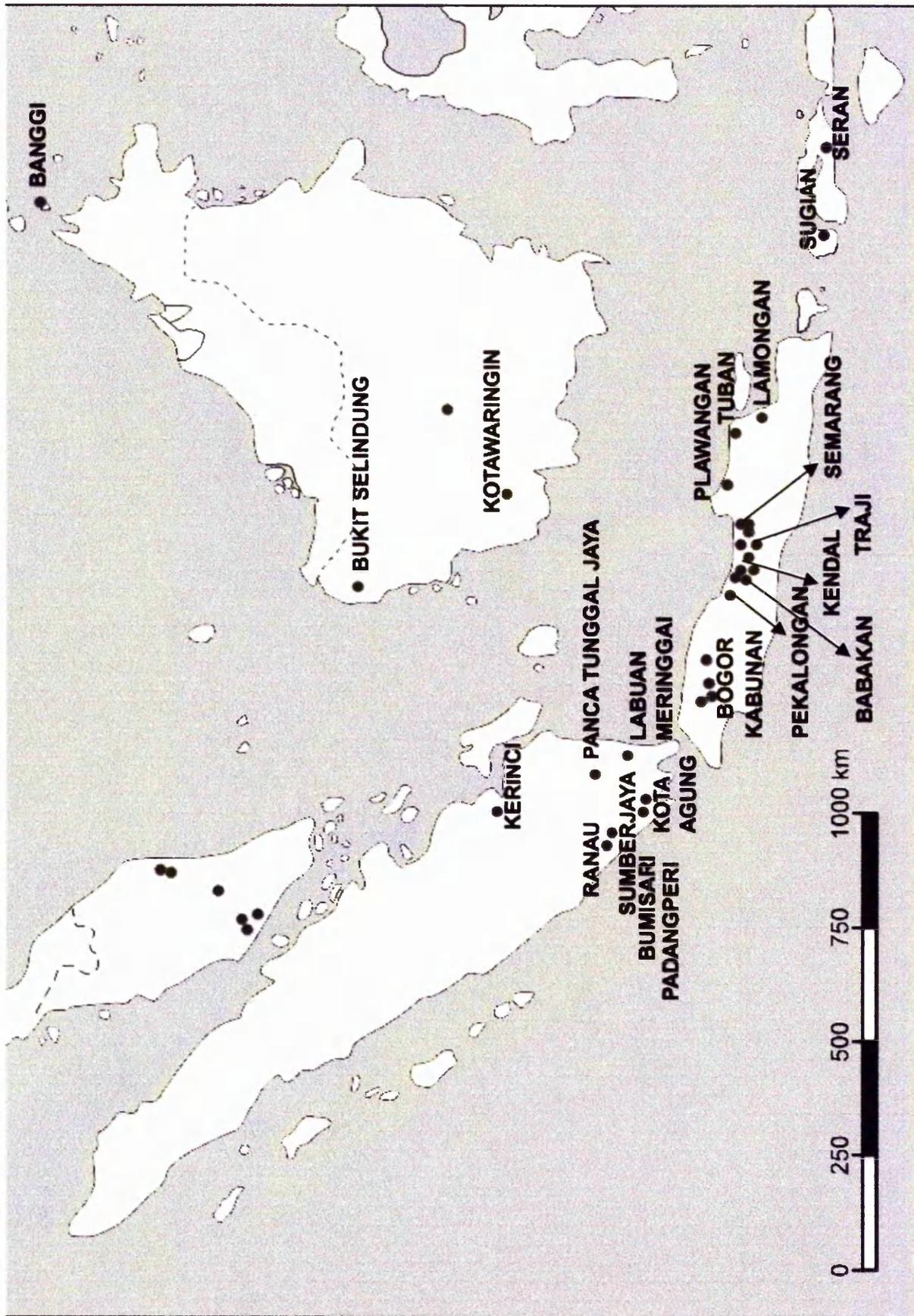
2.81. Terengganu bronze drum. D. c. 65 cm. After Bernet Kempers 1988: 557. National Museum, Kuala Lumpur.



2.82. Sungai Lang bronze drum. D.c. 45.5 cm. After Bernet Kempers 1988: 556. National Museum, Kuala Lumpur.



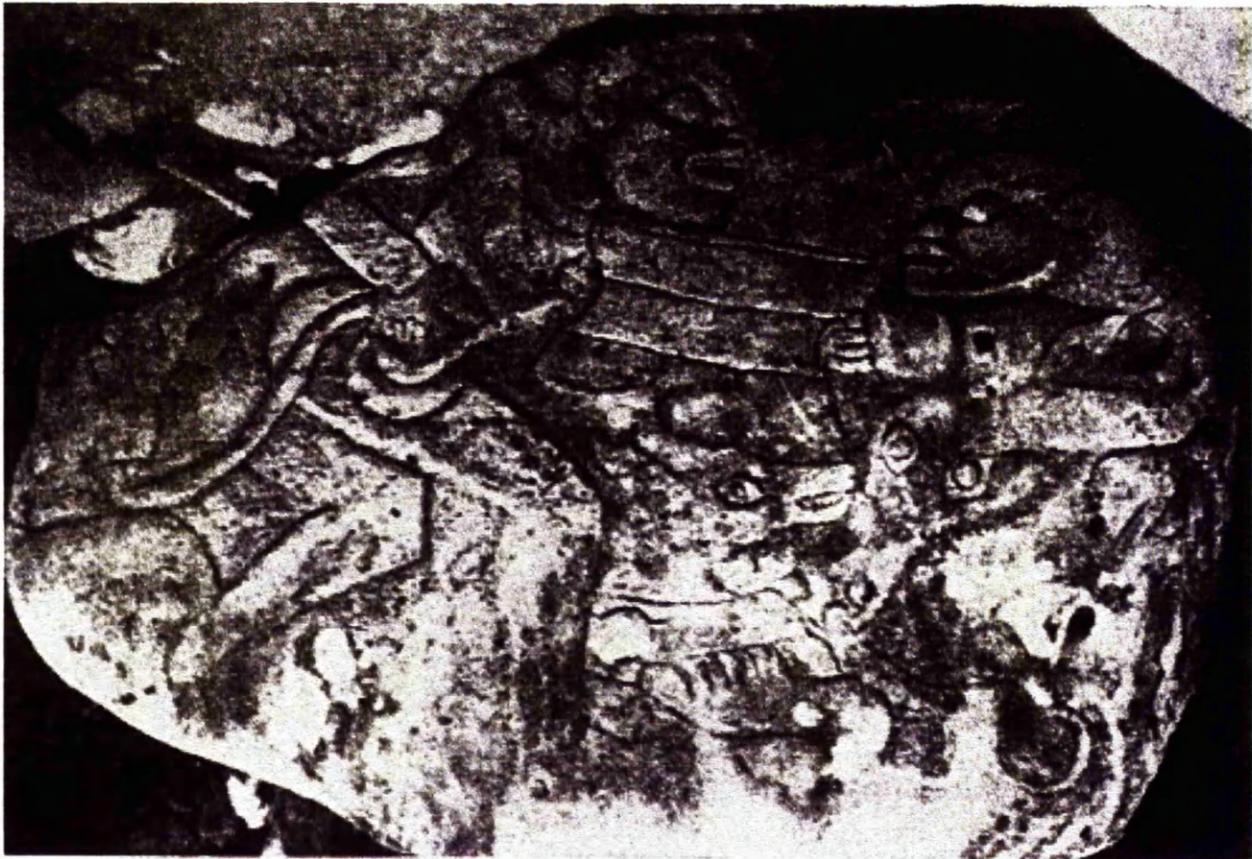
2.83. Klang bronze bell in the British Museum. H.c. 50 cm. After Loewenstein 1956, pl.4.
Right: Bronze bell from Dong Son. H.c. 25 cm. History Museum, Hanoi.



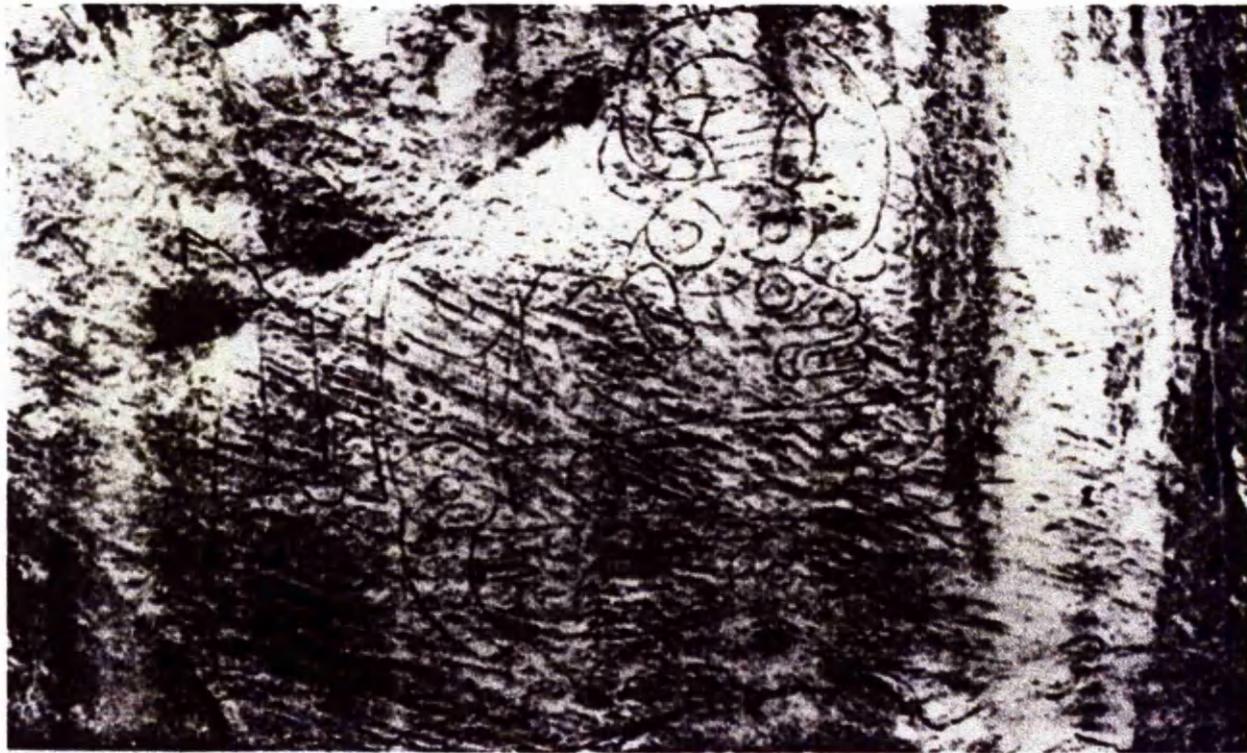
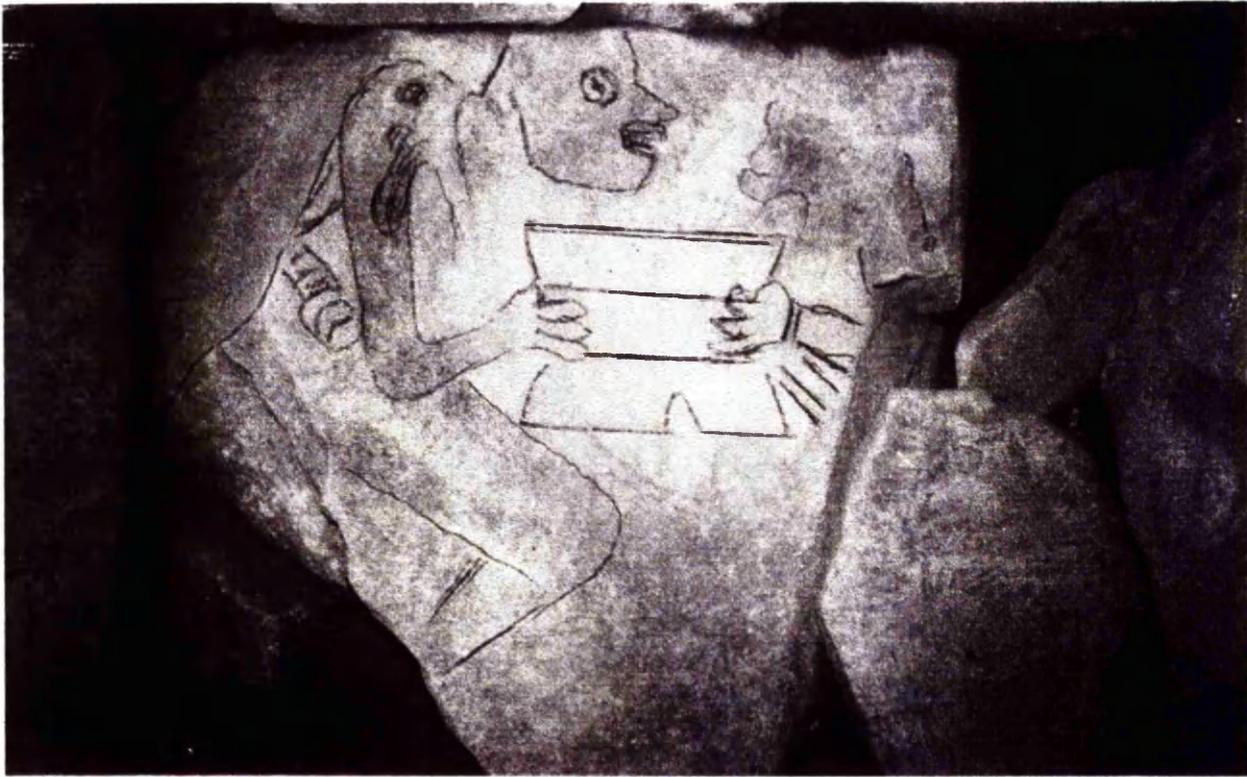
2.84. Map of the finds of Dong Son bronze drums in western Indonesia and Malaysian Borneo.



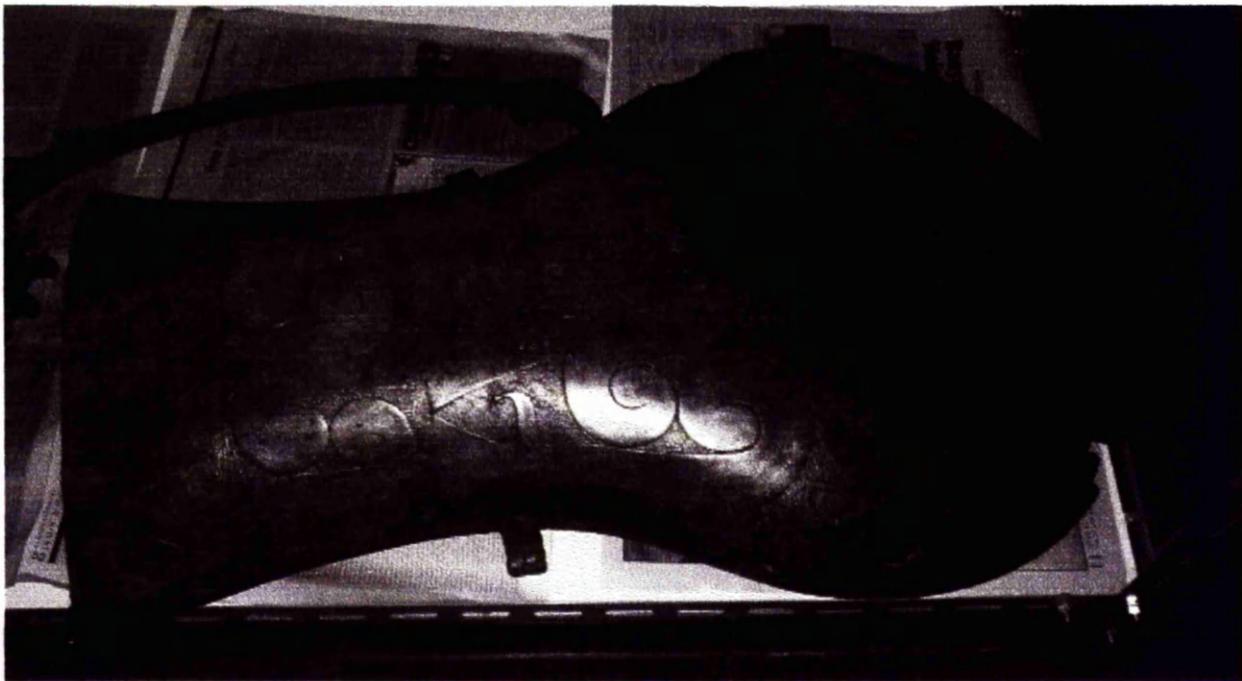
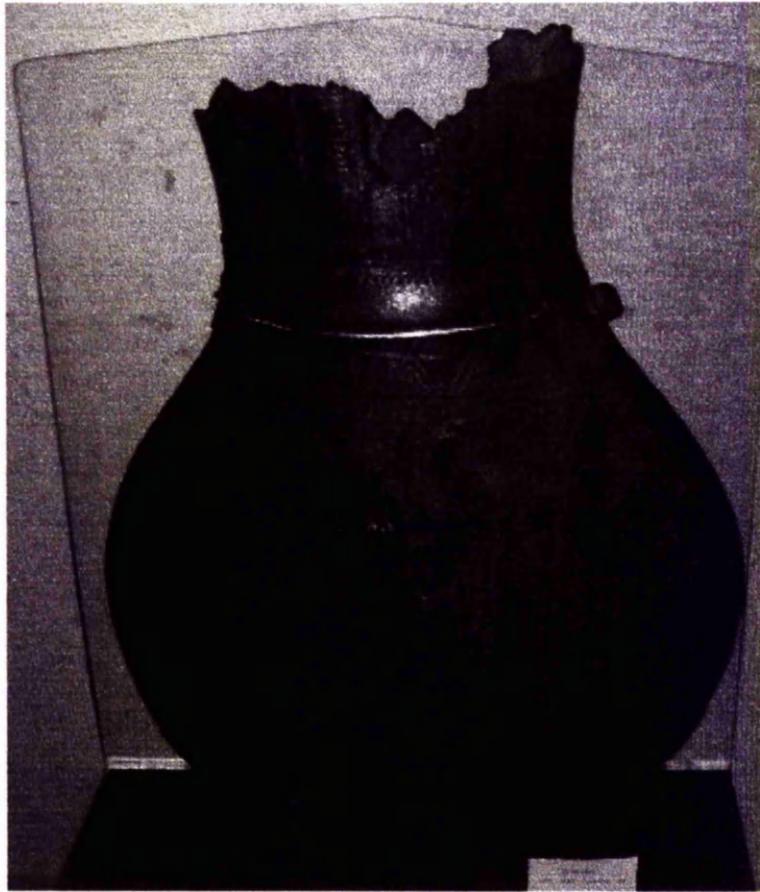
2.85. Batugadja. Monolith (length: 2.7 m) carved with human figure carrying a bronze drum. Pasemah Plateau. Below: detail of the drum. After Bernet Kempers 1988: 473-4.



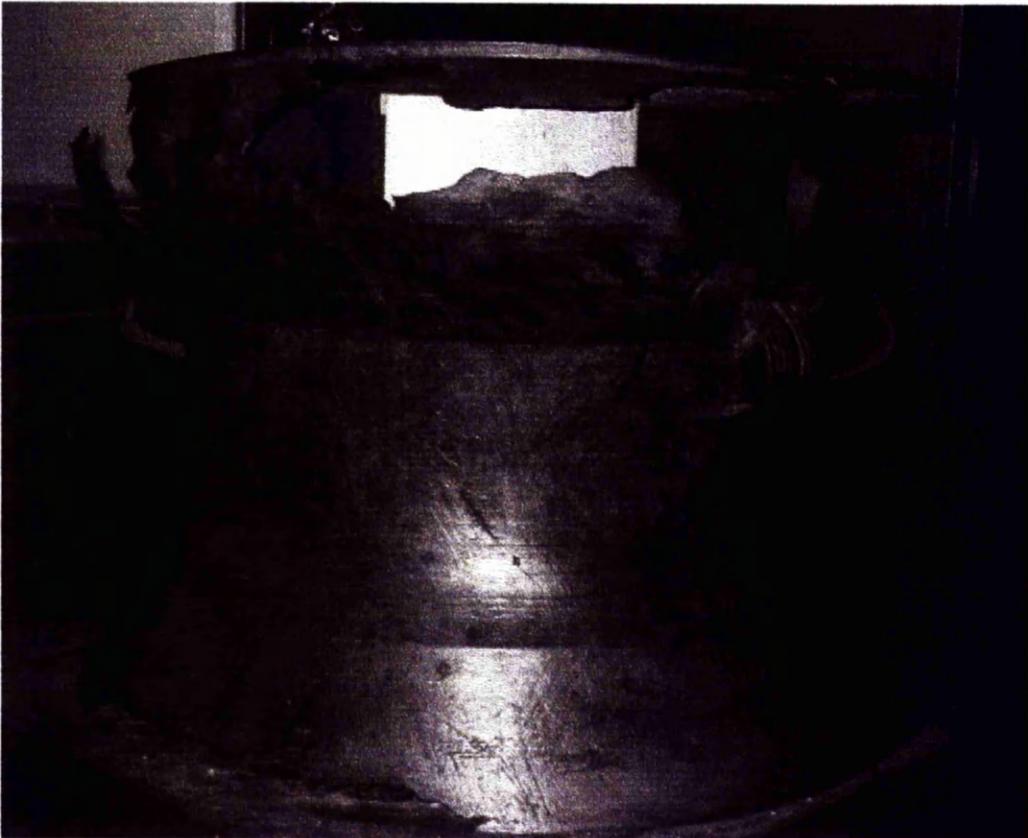
2.86. Airpurah carved monolith. Pasemah Plateau.
After Van Heekeren 1958, pl. 31.



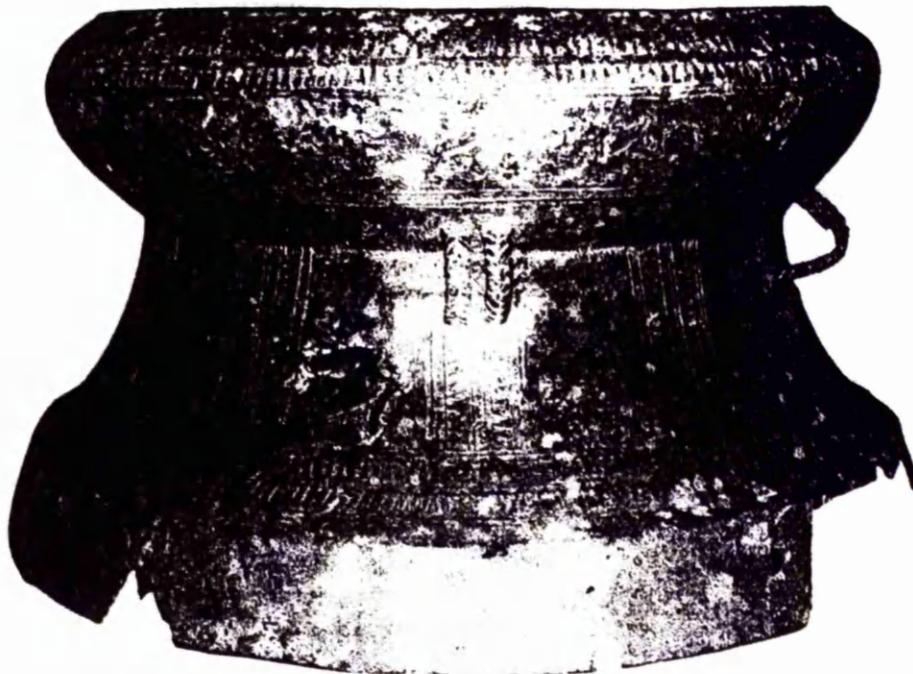
2.87. Above: Painting on the inside wall of a cist grave showing a Dong Son drum. Below: Drawing on a monolith showing a human figure holding one drum and carrying another. Pasemah Plateau. After Kusumawati and Sukendar 1999-2000: 188, fig.33; 49, fig. 42.



2.88. Above: Kerinchi bronze flask. H. 50.8 cm. Below: Madura bronze flask. H. 76 cm. Museum Nasional Indonesia.



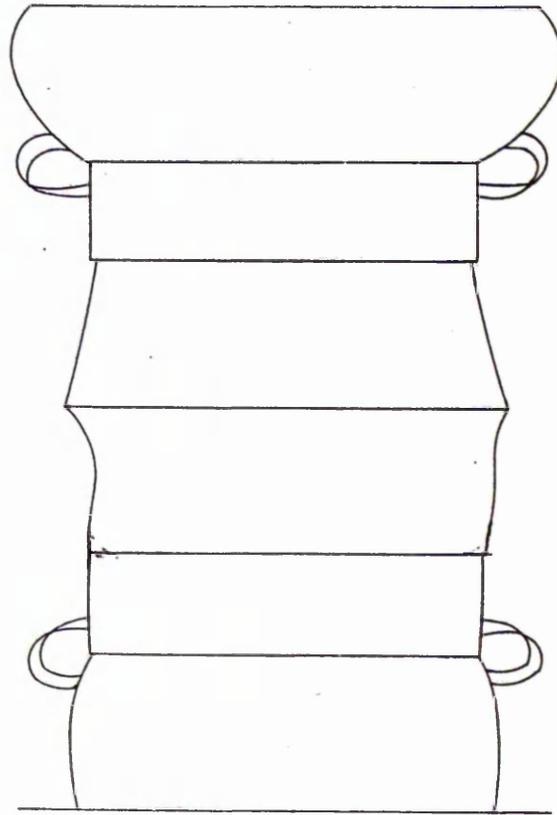
2.89. Lampung bronze drum. H. 45 cm, D. 55.5 cm. Museum Nasional Indonesia (MNI 3372).



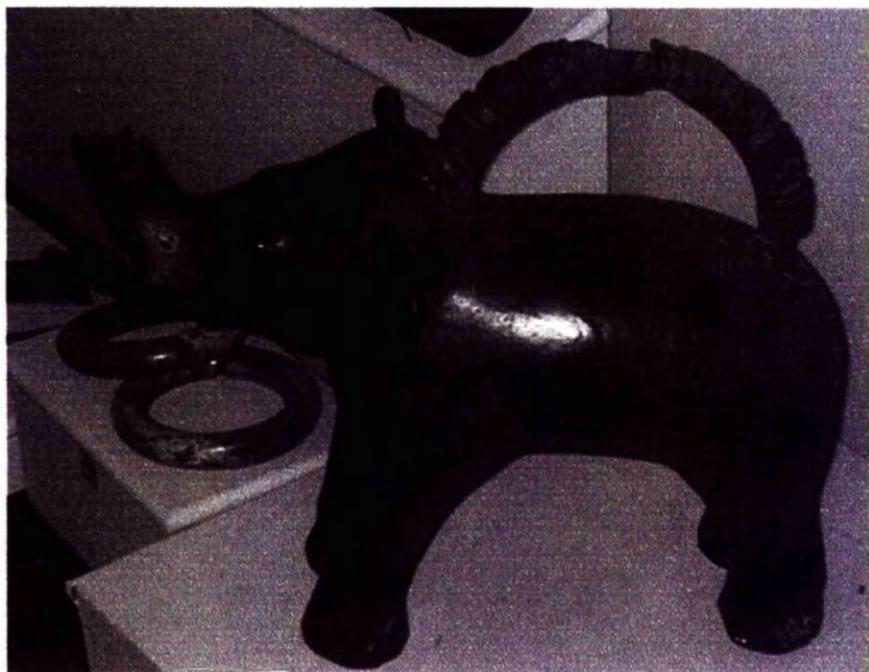
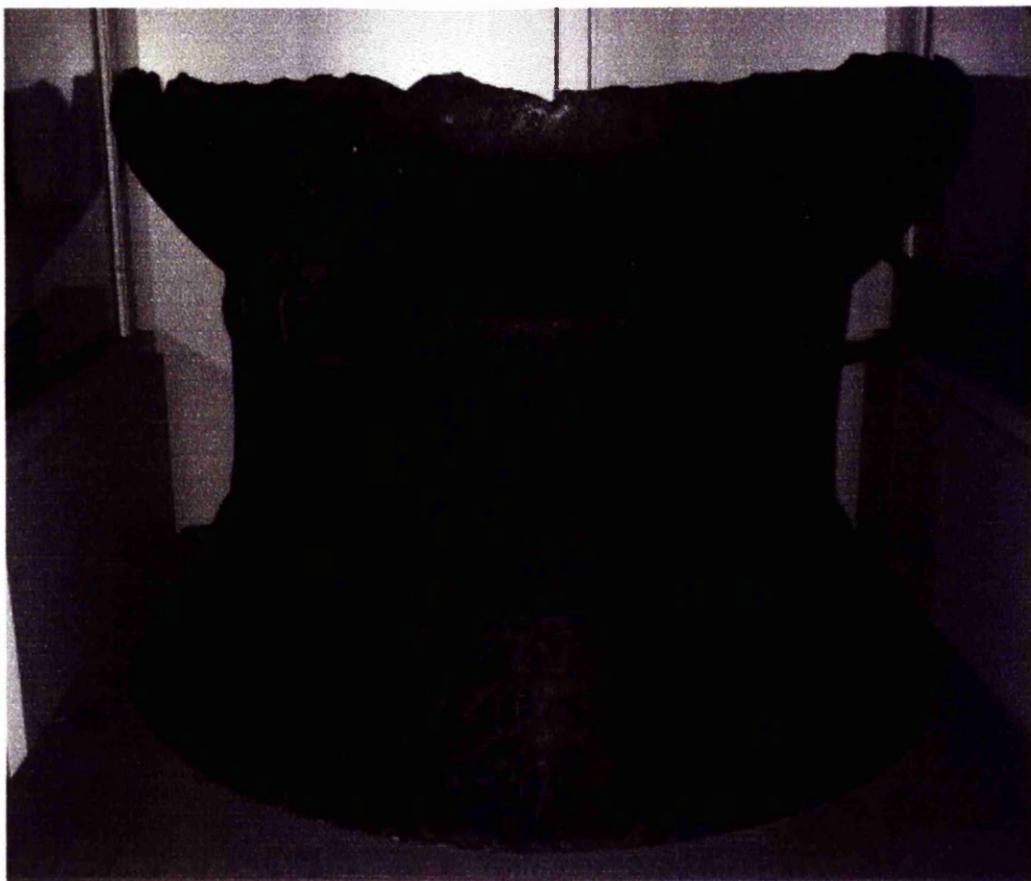
2.90. Above: Labuan Meringgai bronze drum. H. 39 cm, D. 39 cm. Below: Panca Tunggal Jaya bronze drum. H. 50 cm, D. 60 cm. After McKinnon 1993. Museum Negeri Lampung.



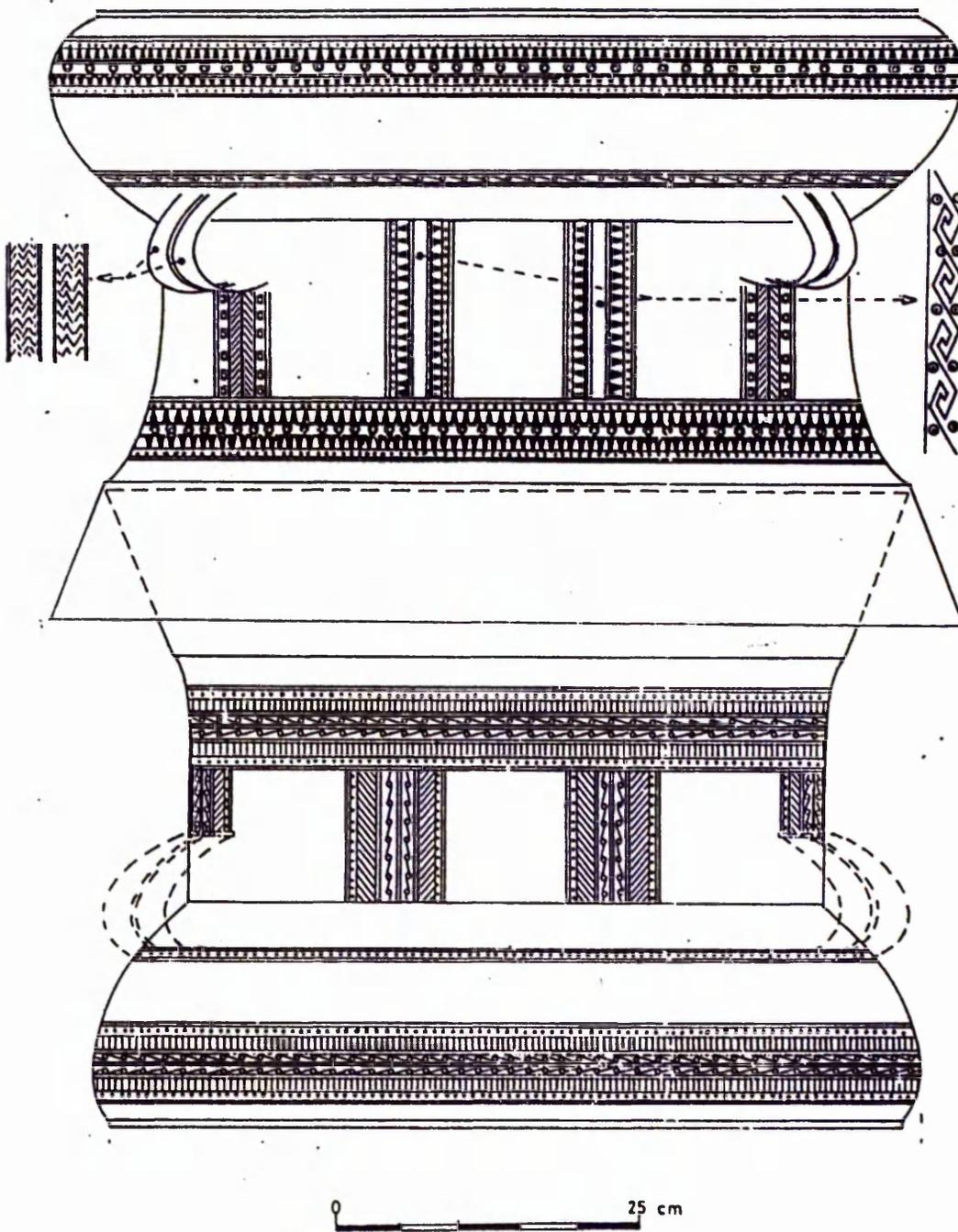
2.91. Above: Tulangbawang bronze drum (MNI 6193). Fragment of the tympanum. W. 21 cm.
Below: Lake Ranau bronze drum (MNI 5368). Museum Nasional Indonesia.



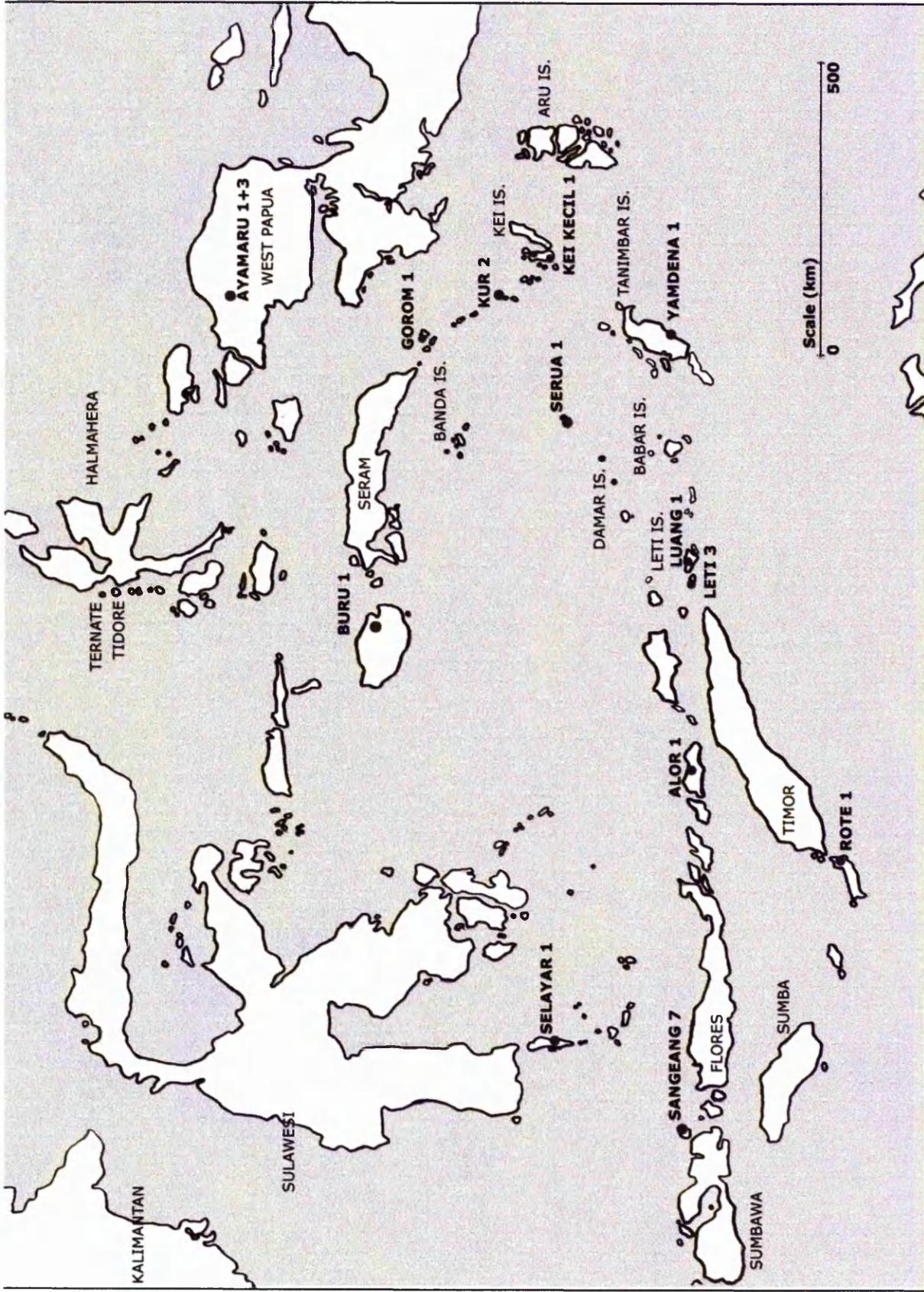
2.93. Lamongan bronze drums forming a child burial container. Dong Son drum (H. 42 cm, D. 49 cm, above) and Pejeng drum (D. 52 cm, below). Drawing after Bintarti 1999, fig. 20. Museum Tantular, Surabaya.



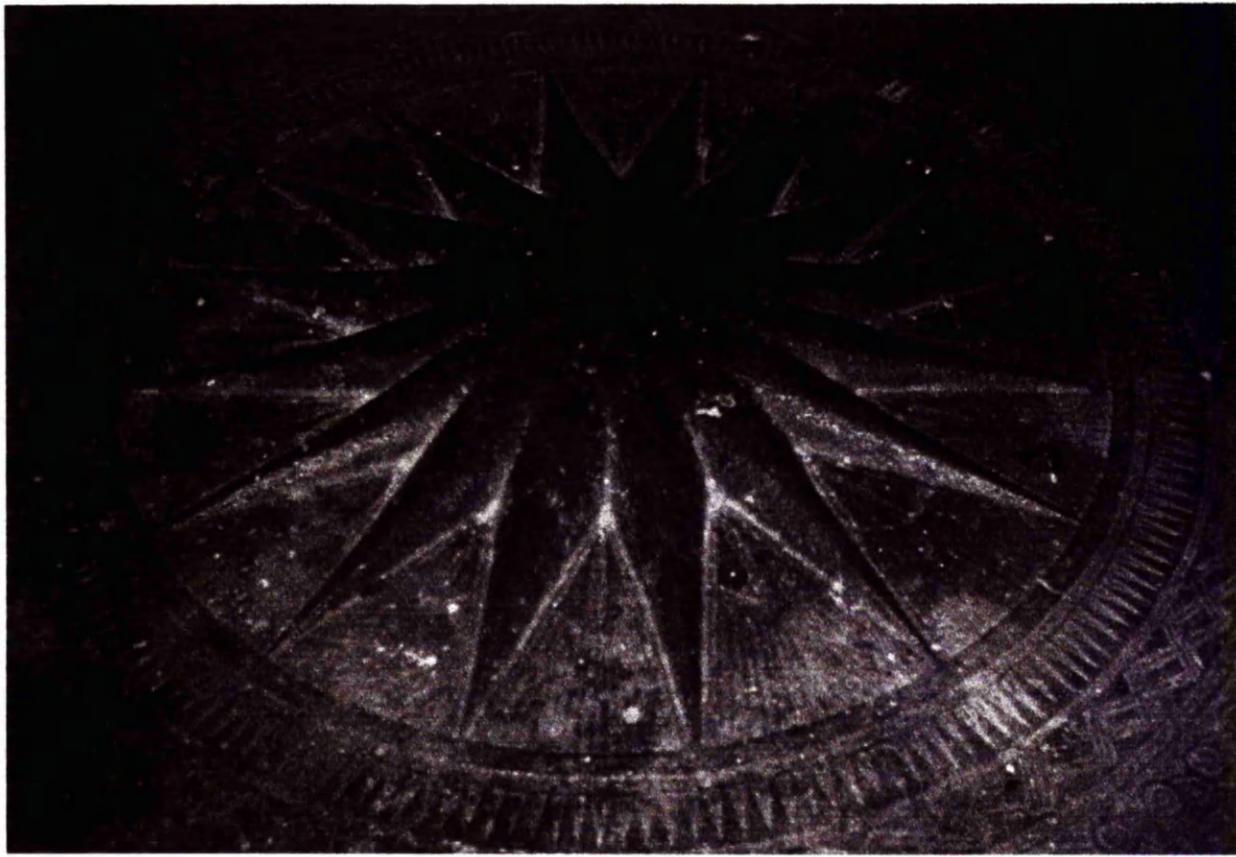
2.94. Tuban bronze drum (H.c. 70 cm, D.c. 90 cm) found upside down containing a bronze elephant (H. 32 cm), a bronze axe, and iron tools. Museum Tantular, Surabaya.



2.95. Selindung I and II bronze drums forming a container with beads and ornaments which appear to be burial goods. After Bintarti 1999, fig. 18.



3.1. Map of the finds of Dong Son bronze drums in eastern Indonesia.



3.2. Details of the Selayar bronze drum. Above: protruding star-sun motif at the centre of the tympanum. Below: one of four equidistant toad motifs decorated with geometric bands.



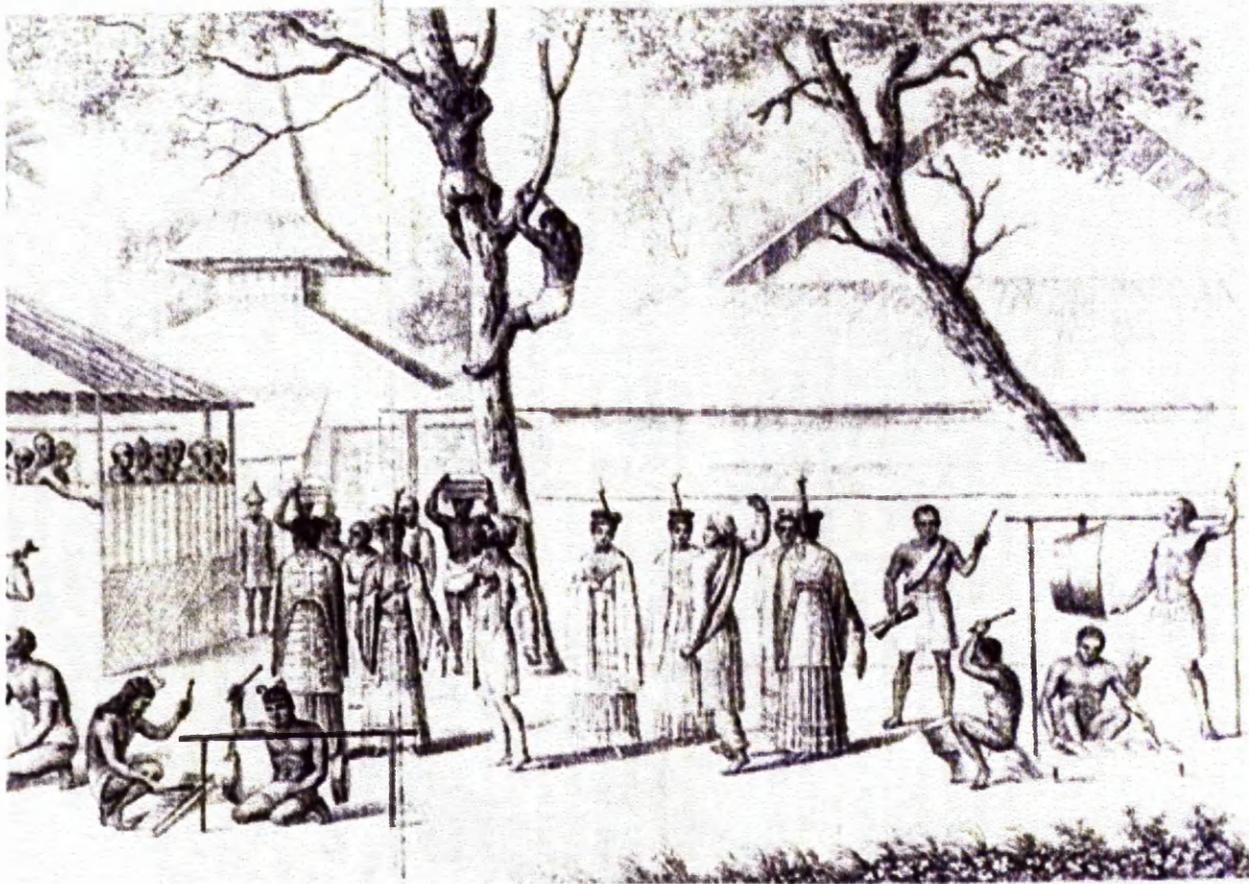
3.3. Many equidistant filled in marks from casting spacers over the whole mantle. Selayar drum above; Leti drum (MNI 3578) below.



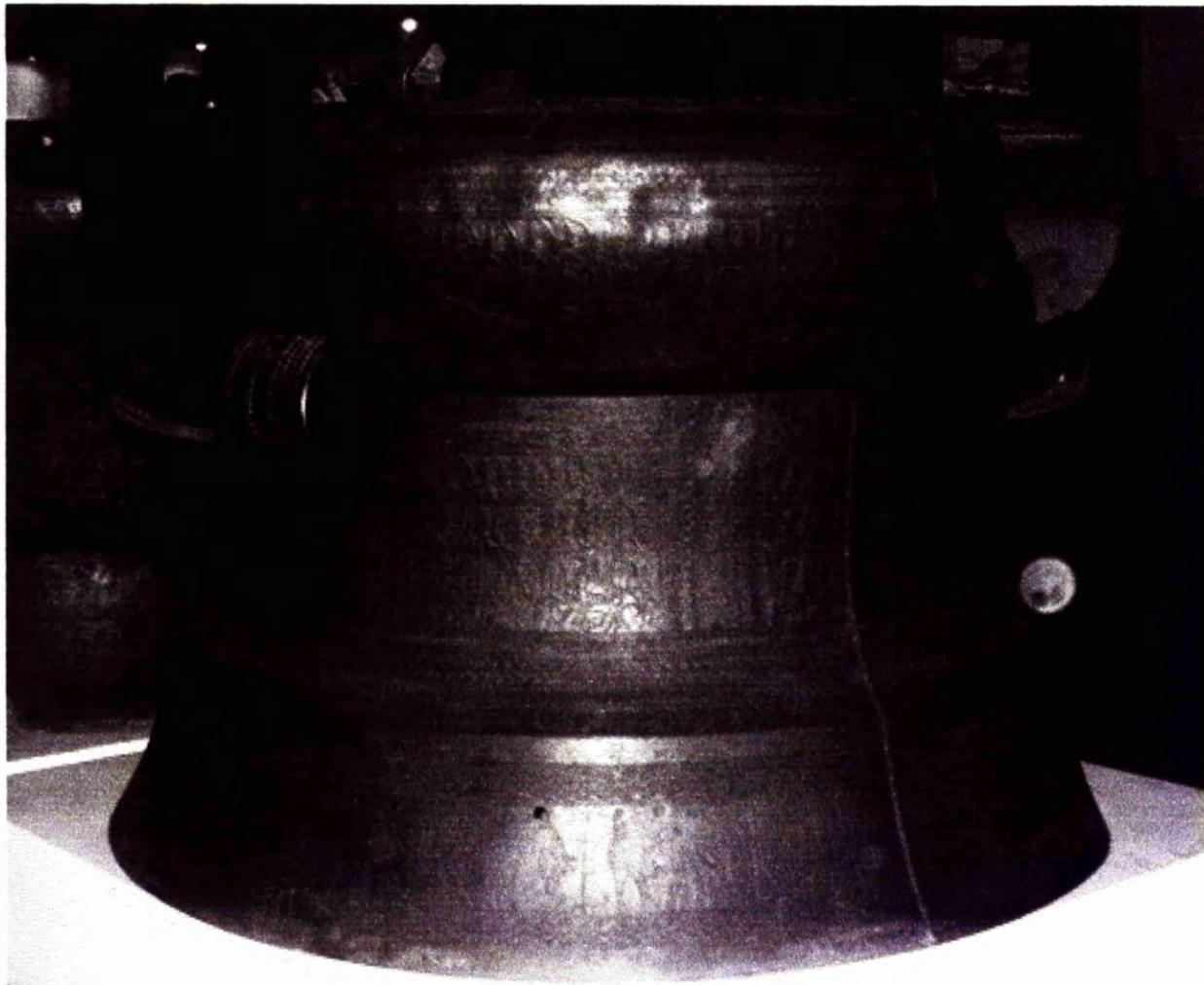
3.4. Huu Chung bronze drum. H. 76 cm, D. 82 cm. After Anon. 1990: 154. Hai Hung Cult Dpt.



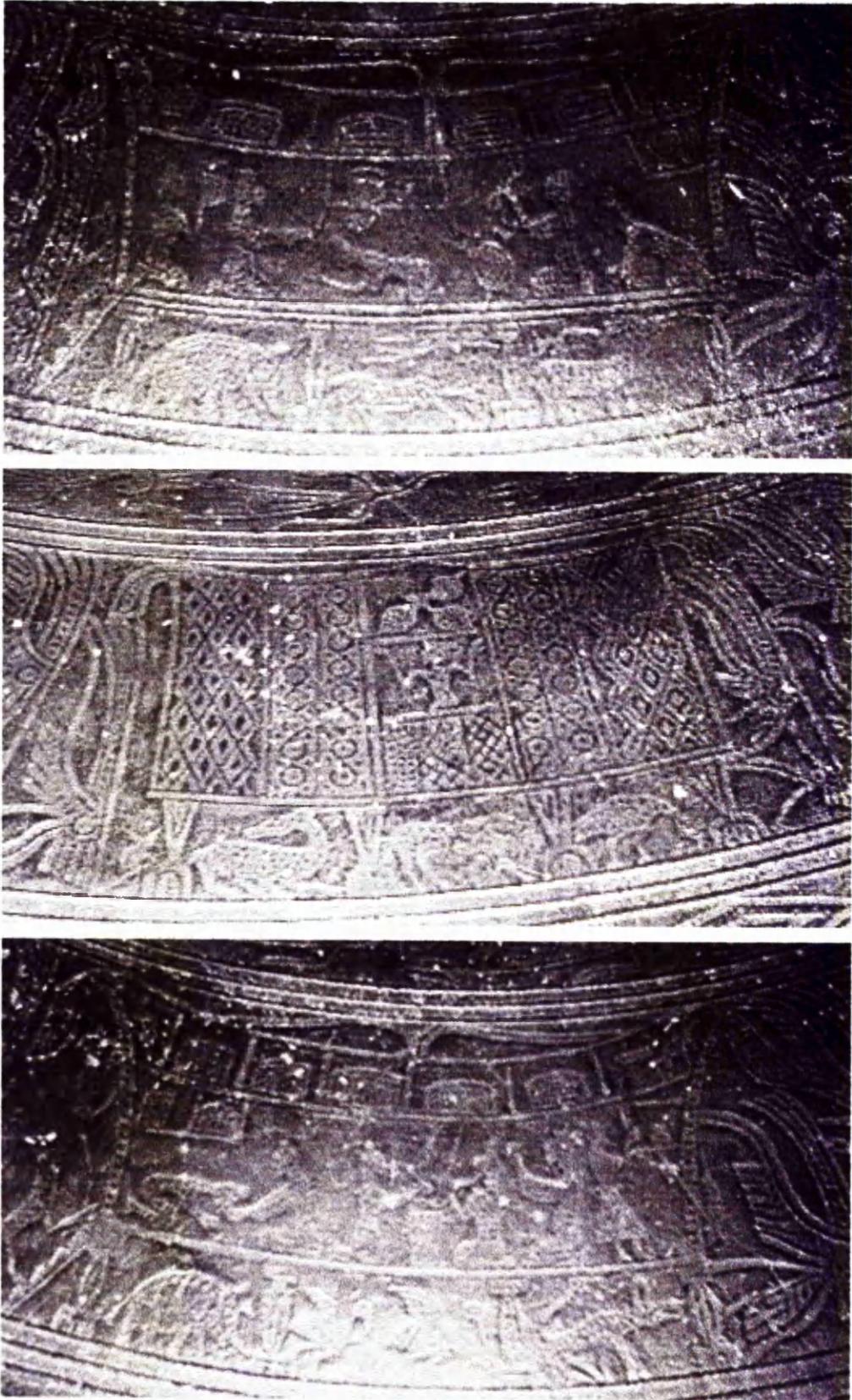
3.5. Map modified from Ptak 1992:30, map 1.



3.6. Drawing by Duperrey (1825-30) showing a festivity in Kaieli, on Buru Island. After Spriggs and Miller 1988, fig. 2.



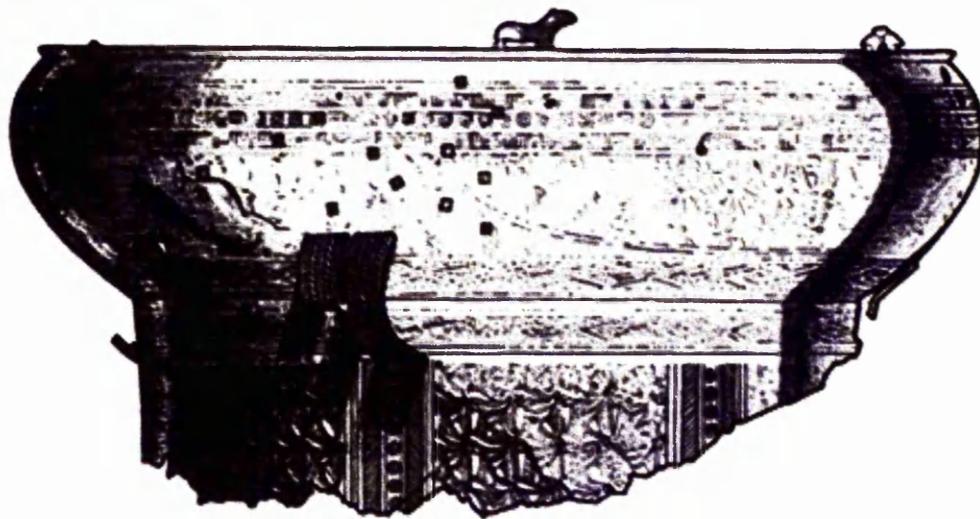
3.7. Sangeang bronze drum. H. 85 cm, D. 116 cm. Museum Nasional Indonesia (MNI 3364).



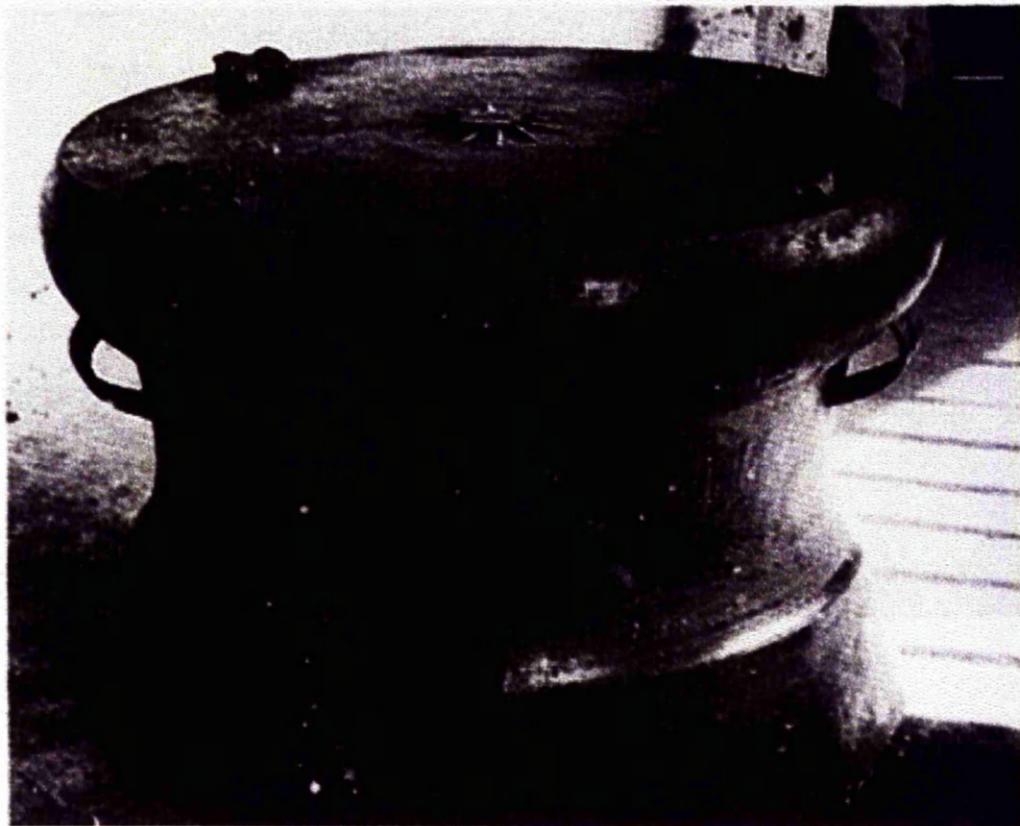
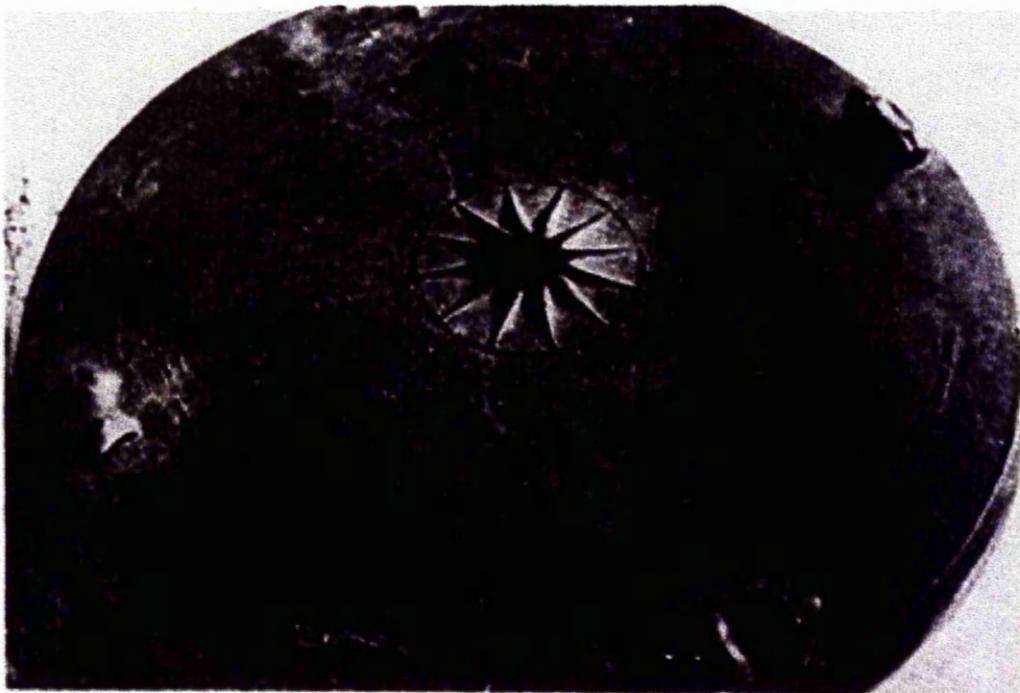
3.8. Sangeang drum (MNI 3364). Details of three out of four house motifs on the tympanum.



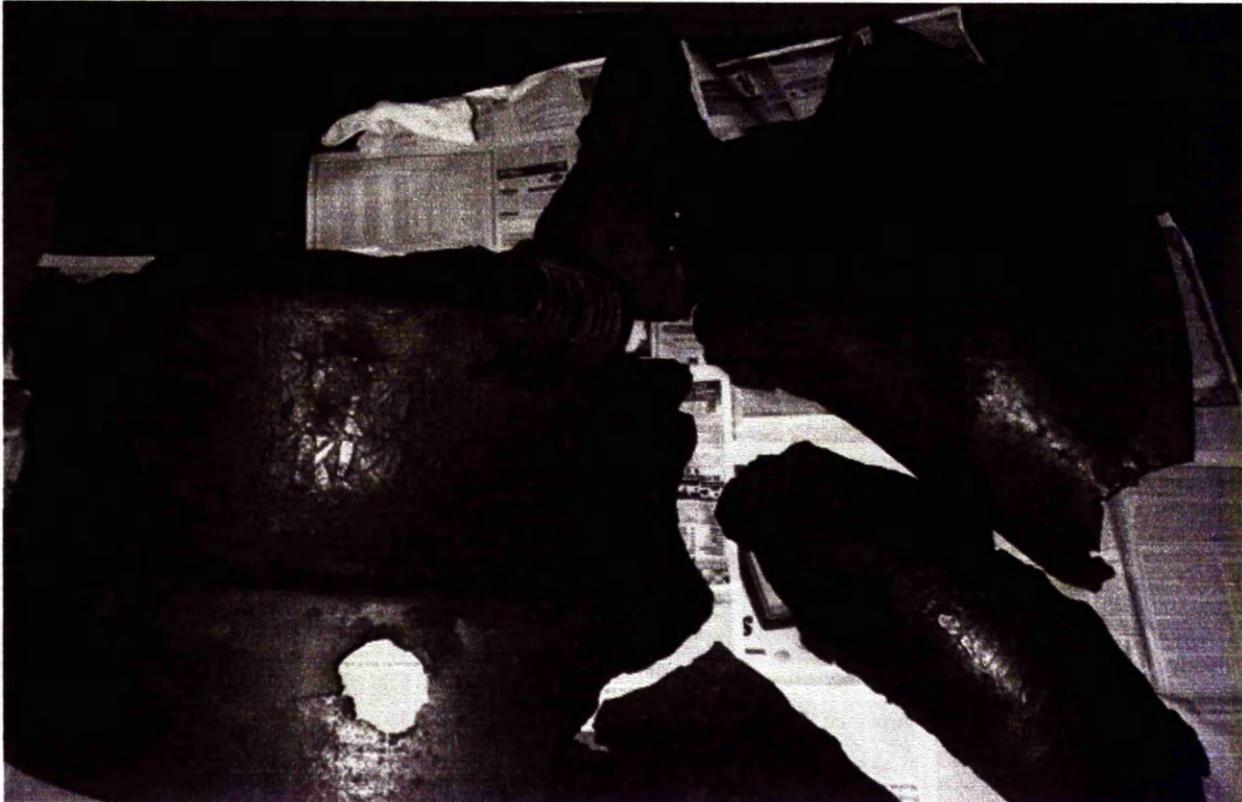
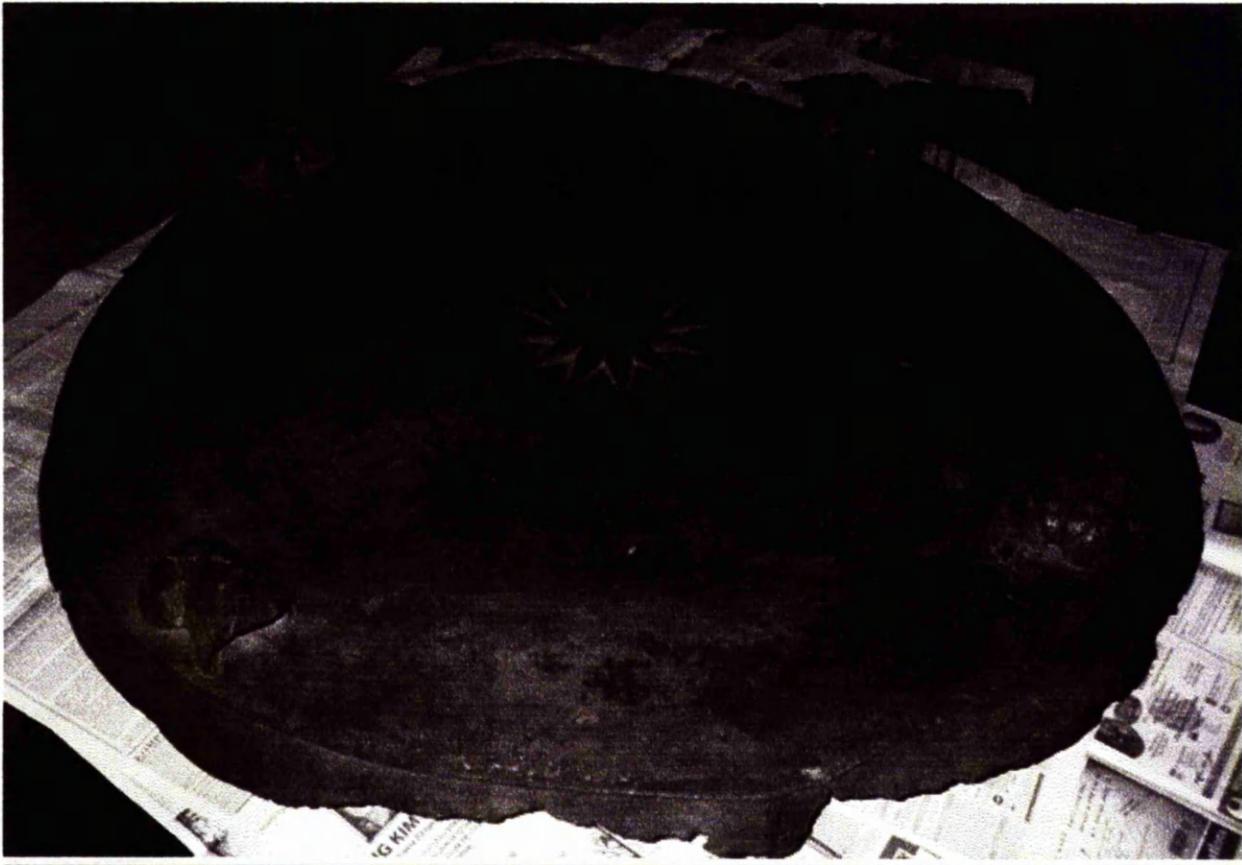
3.9. Sangeang drum (MNI 3364). Detail of human figure fighting with tiger motif between the boat motifs on the upper mantle.



3.10. Roti bronze drum (MNI 1828). H.c. 59 cm, D. 72.8 cm. After Bernet Kempers 1988: 520.



3.11. Alor bronze drum. H. 67.5 cm, D. 92 cm. After Bernet Kempers 1988: 524, pl. 6.02c-d. In situ.



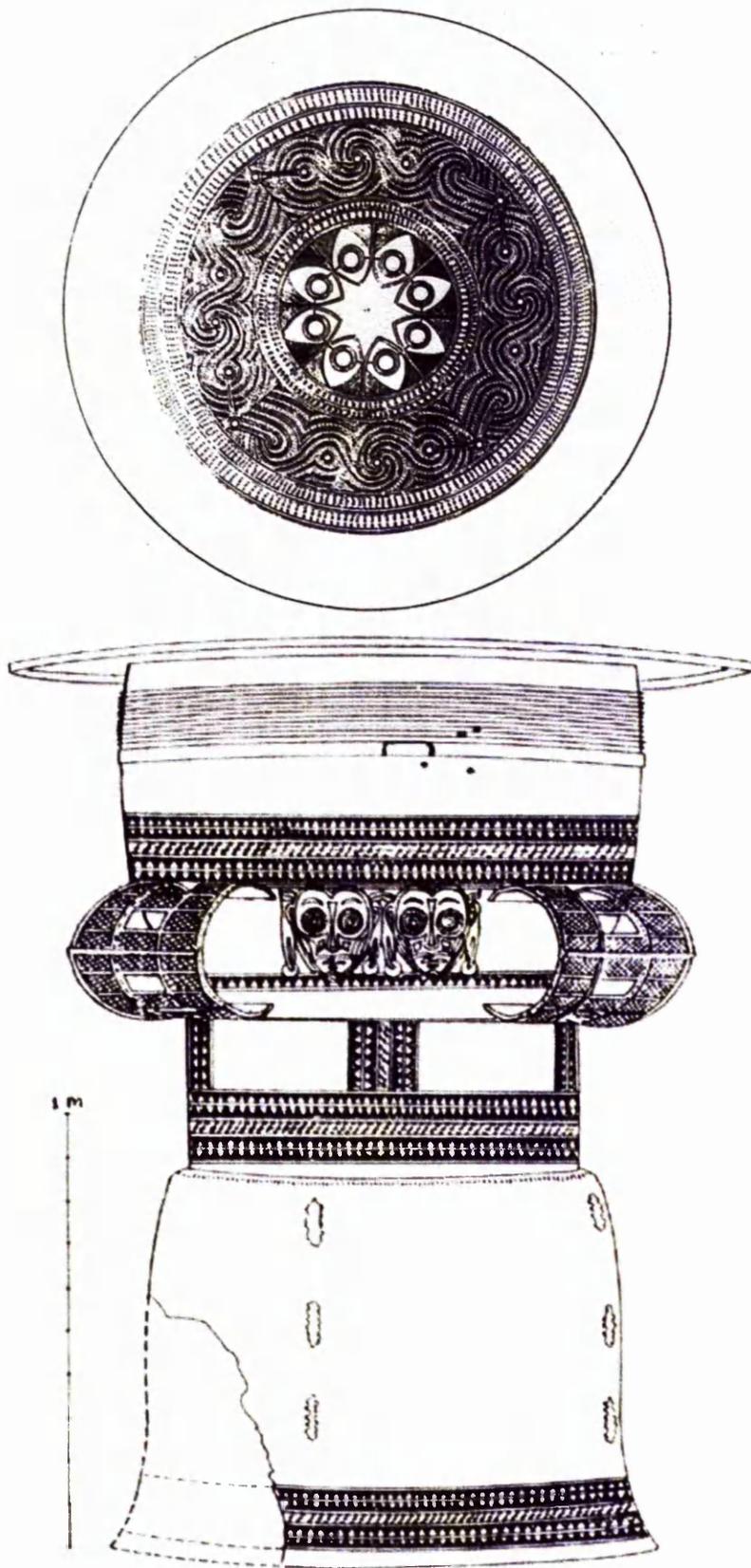
3.12. Leti bronze drum. H. c. 69 cm, D. 98.5 cm. Museum Nasional Indonesia (MNI 3578).



3.13. Kei Kecil tympanum in its ceremonial ground. Below: the wife of the head of the village, sitting on the circular flat stone (*batu pemali*) of the same size of the tympanum



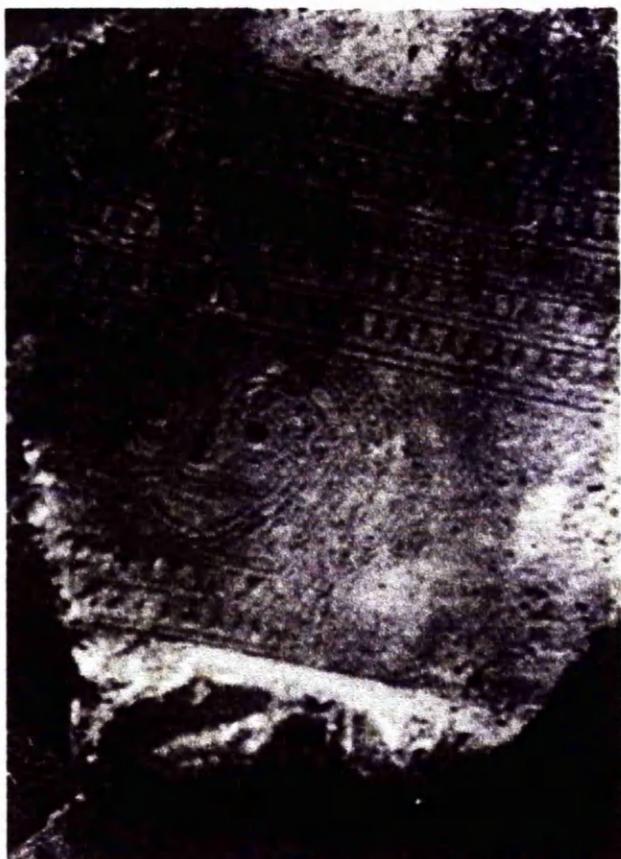
3.14. Kur bronze drum. H. 87 cm, D. 113.5 cm. Museum Nasional Indonesia (MNI 1907).



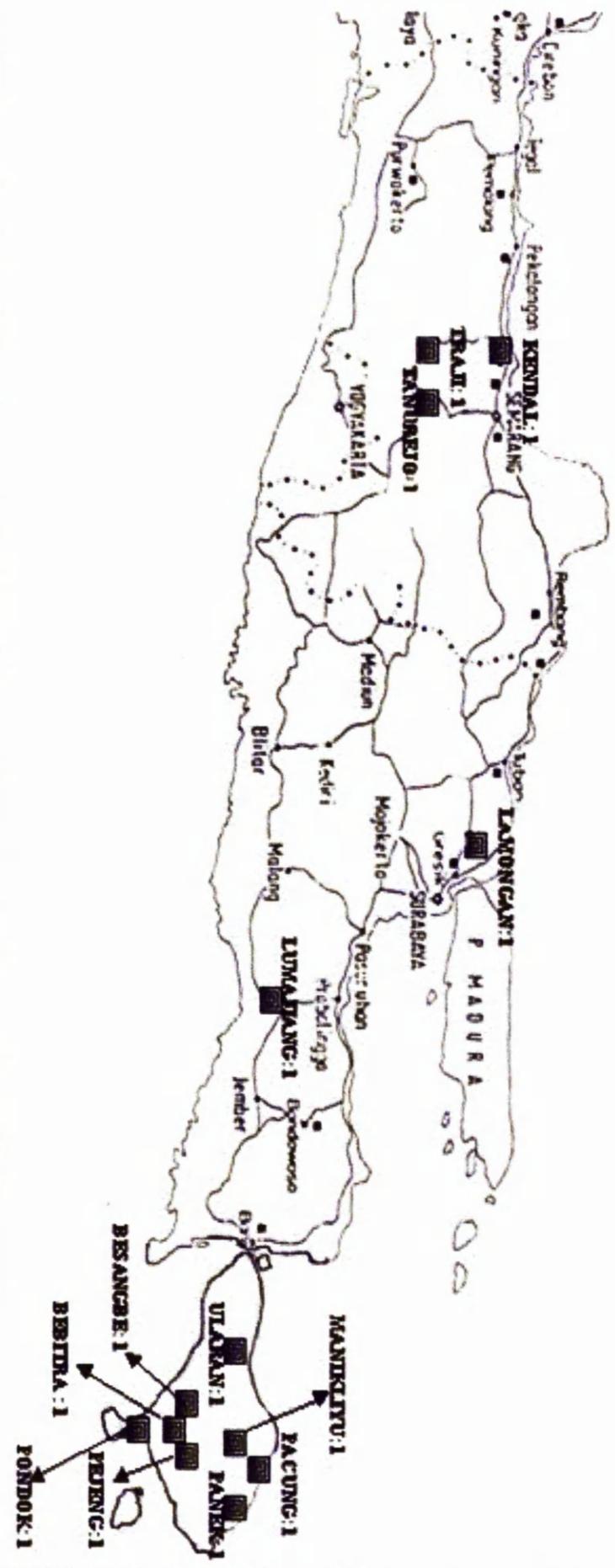
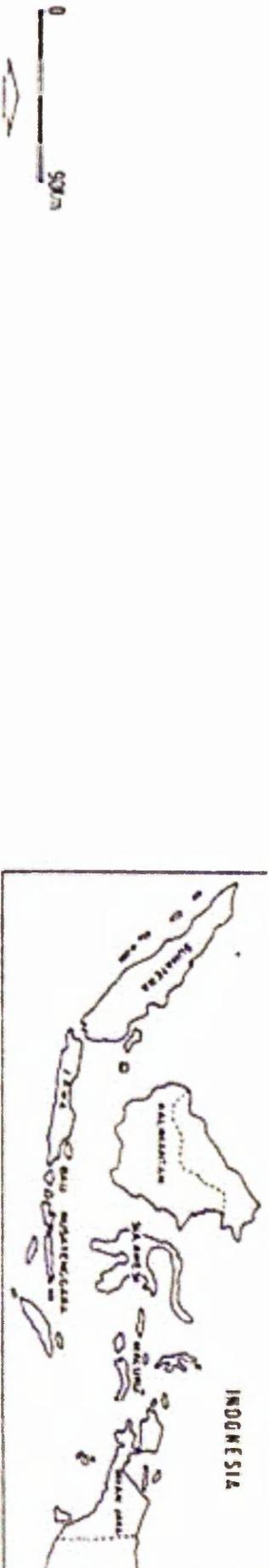
4.1. Moon of Pejeng bronze drum. H. 198 cm, D. 160 cm. Mantle after McConnell and Glover 1990. Tympanum after Bintarti 1999.



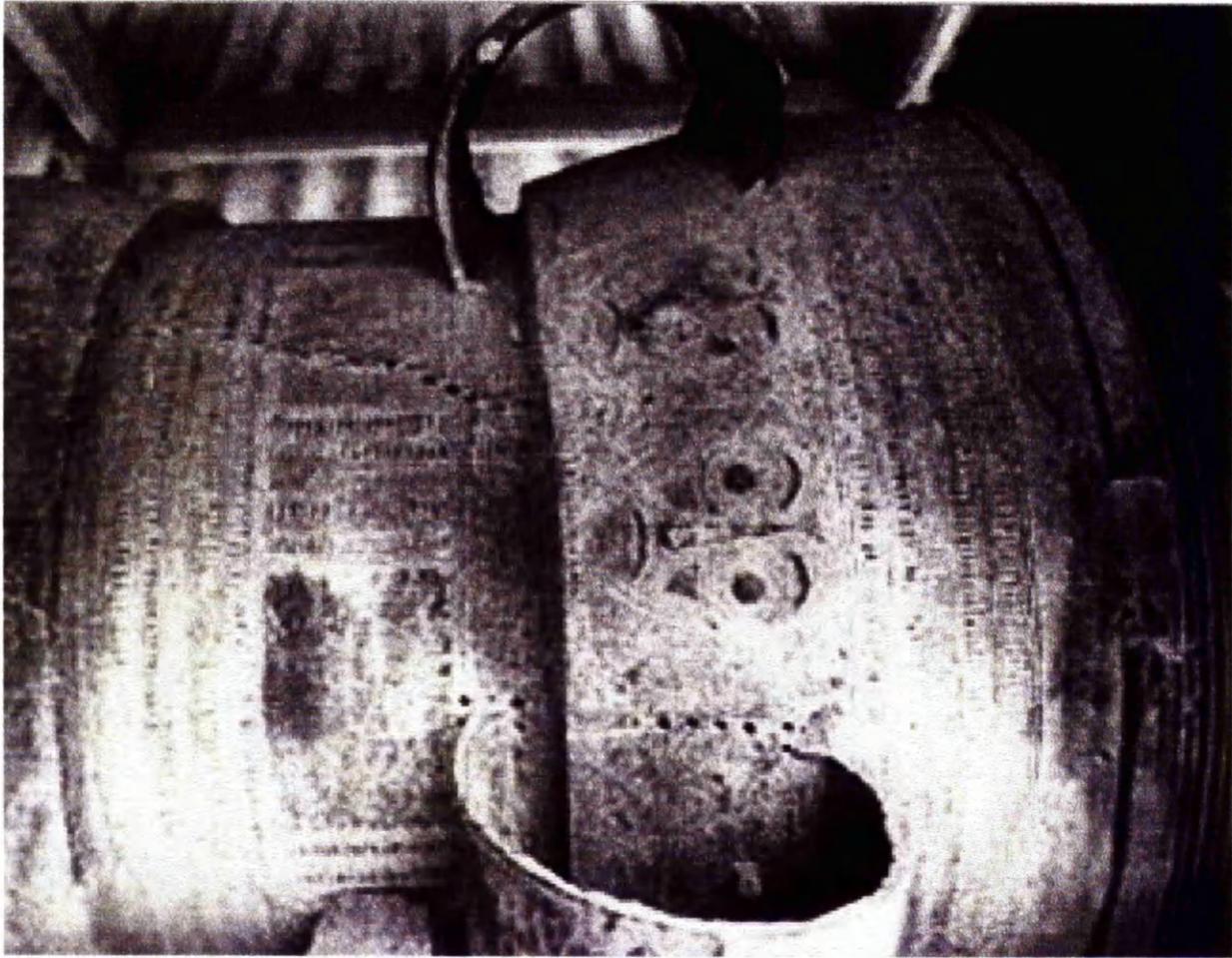
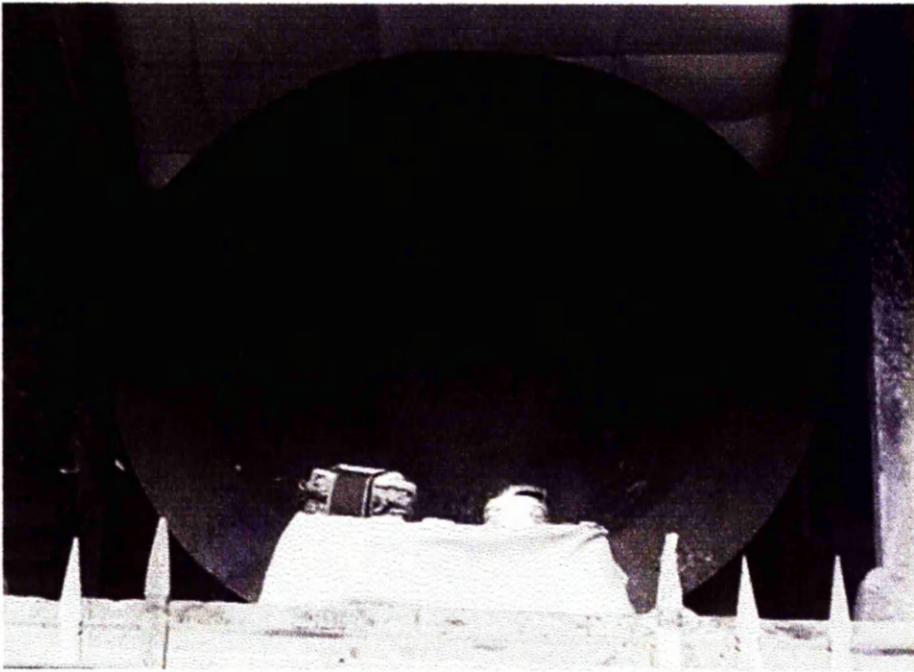
4.2. Above: Pejeng bronze drum. Asian Civilizations Museum, Singapore.
Below: Dong Son bronze drum, Kabunan. Museum Nasional Indonesia



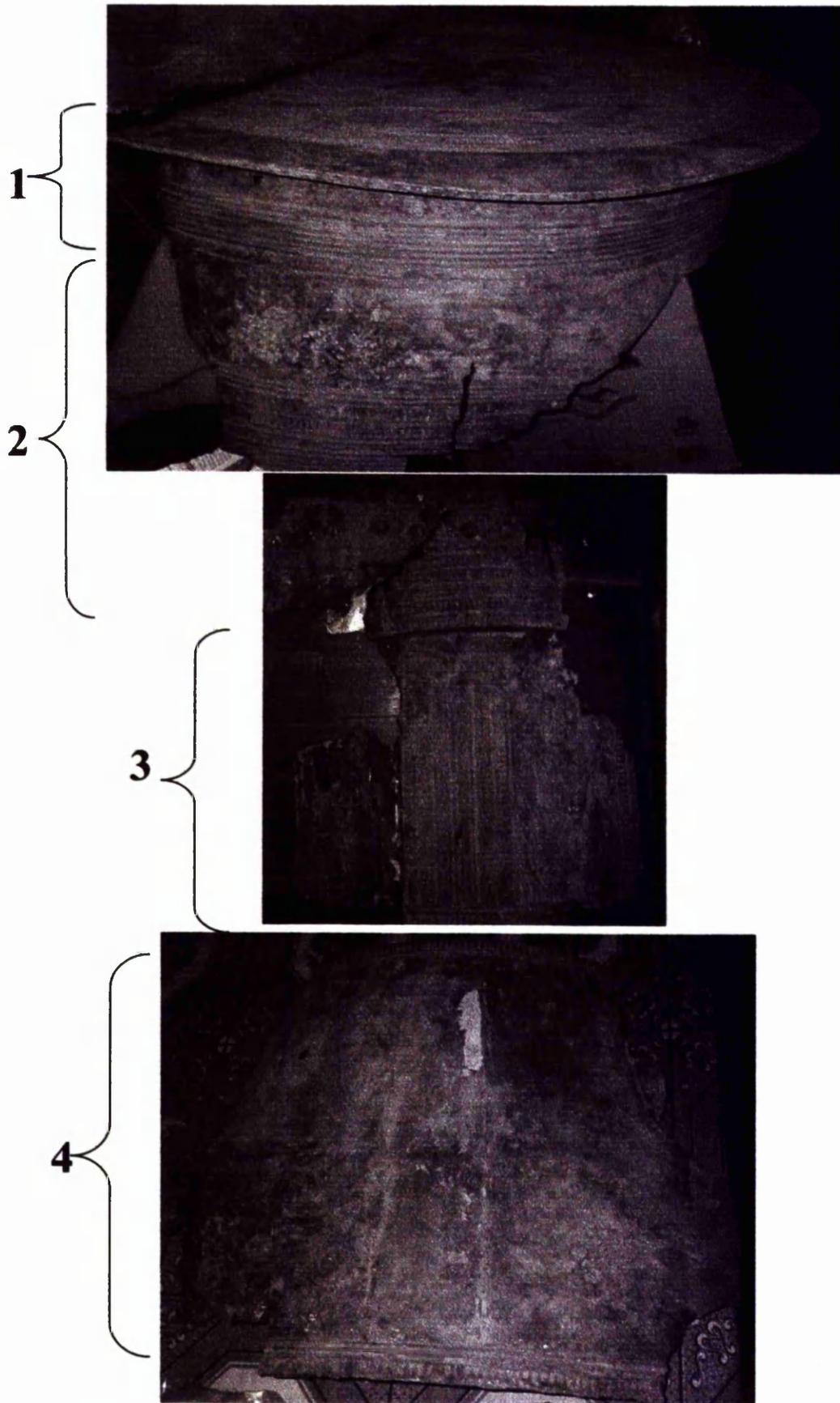
4.3. Fragment of stone printing mould for the casting of a Pejeng bronze drum found at Manuaba, Bali. After Benet Kempers 1988. Right: the mould fragments kept in a shrine of the local temple at Manuaba.



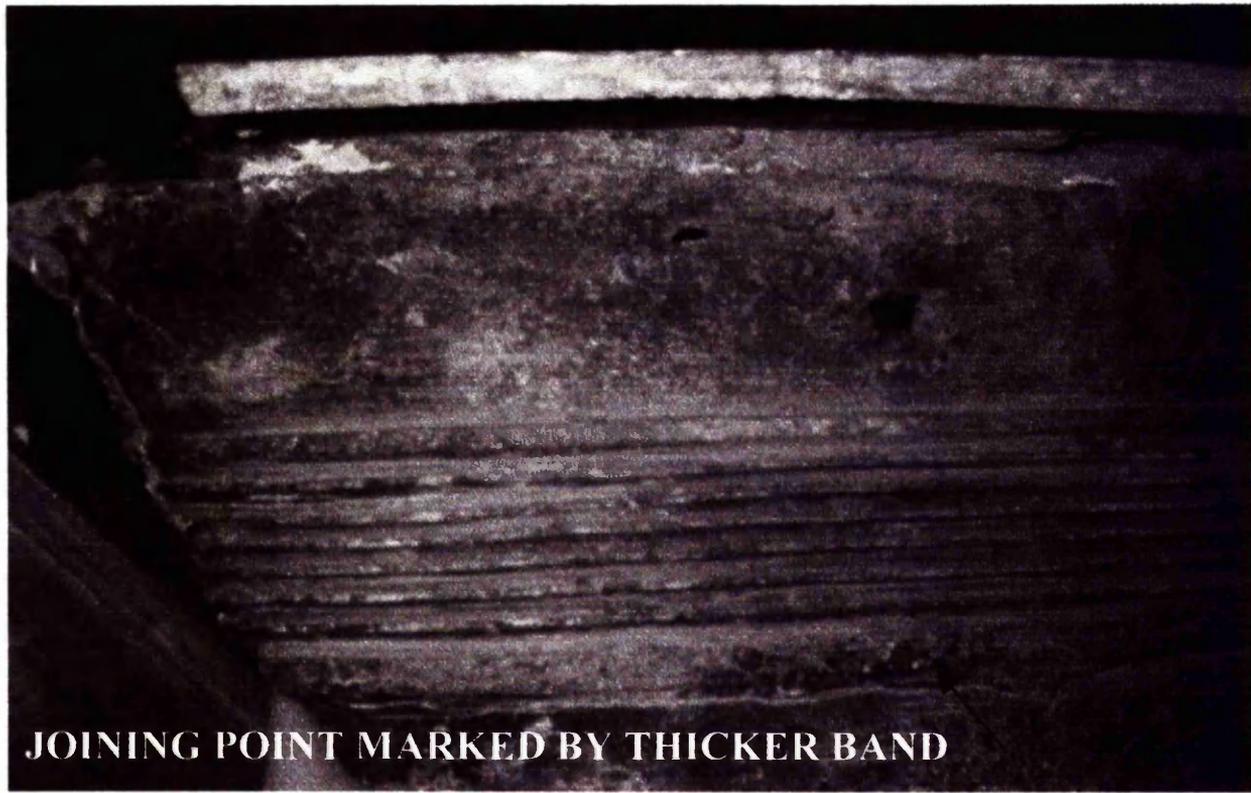
4.4. Map of the finds of Pejeng bronze drums in Bali and Java.



4.5. Moon of Pejeng drum in its shrine in the temple Penataran Sasih in Pejeng, Bali



4.6. Maniklyu bronze drum. Four sections which were cast separately and joined together horizontally

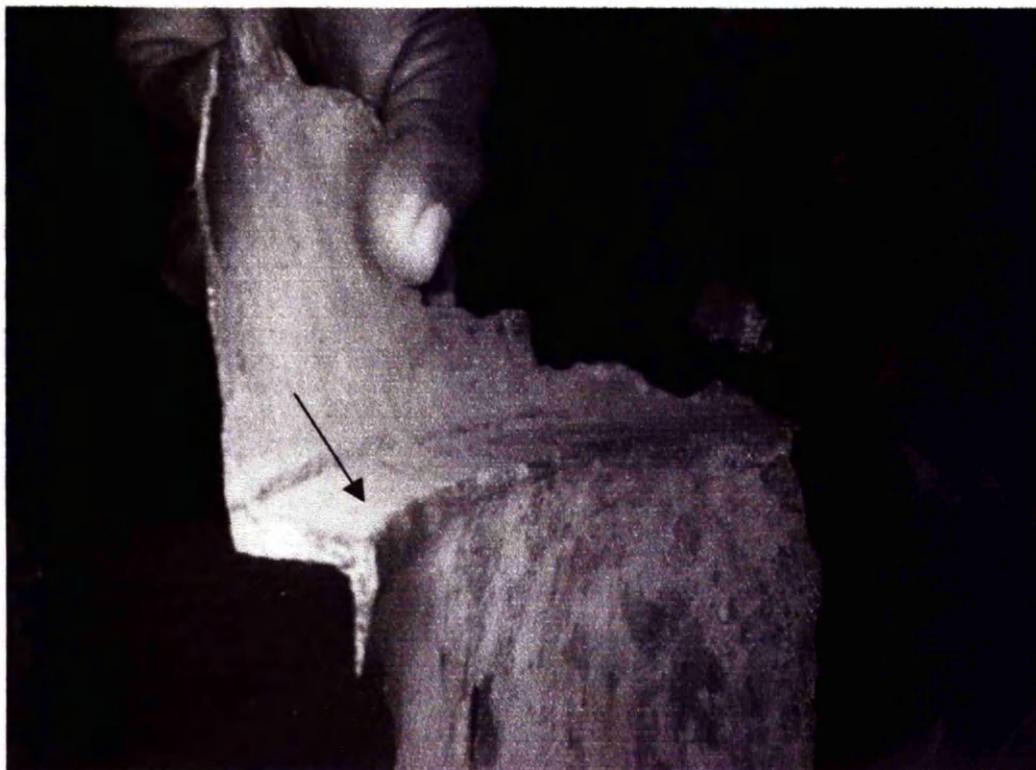
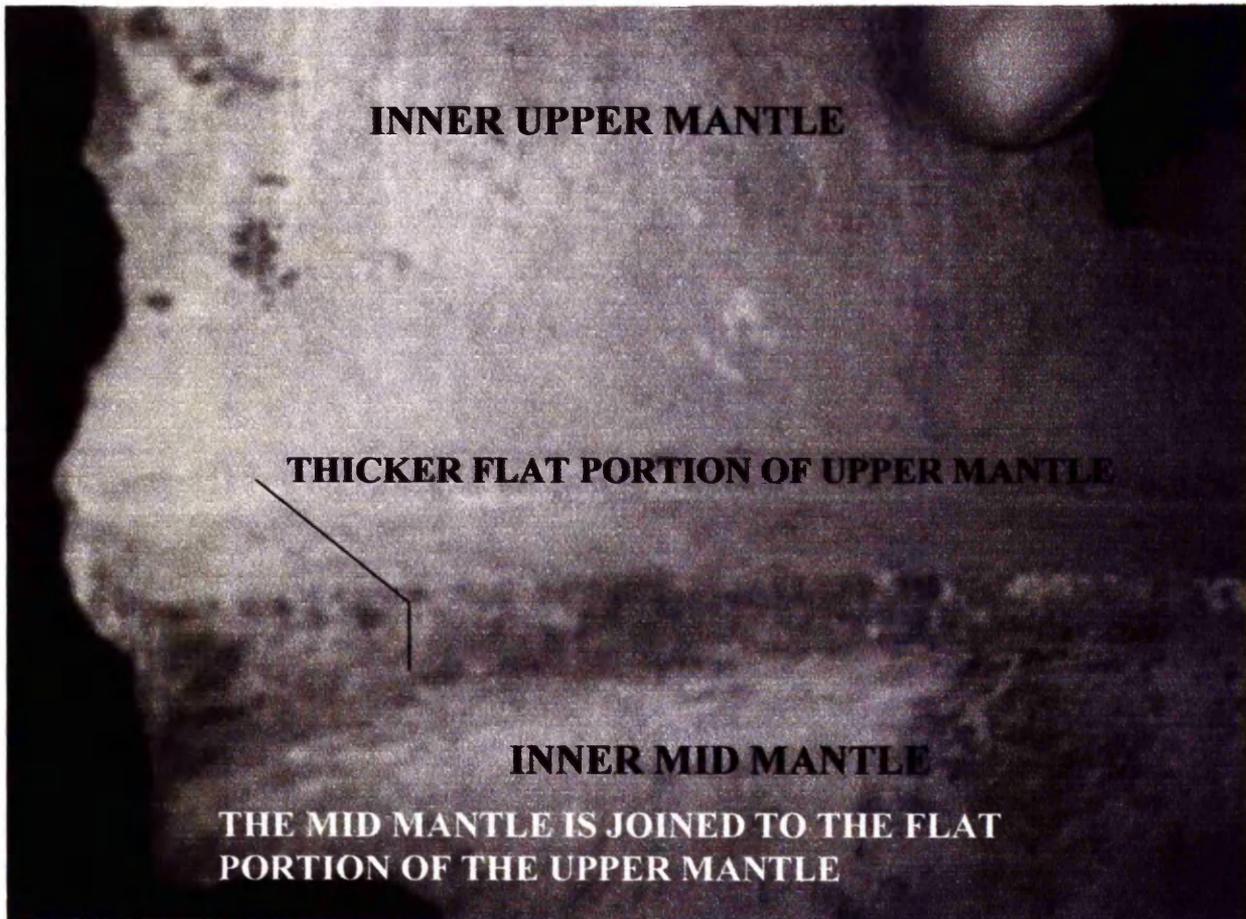


JOINING POINT MARKED BY THICKER BAND

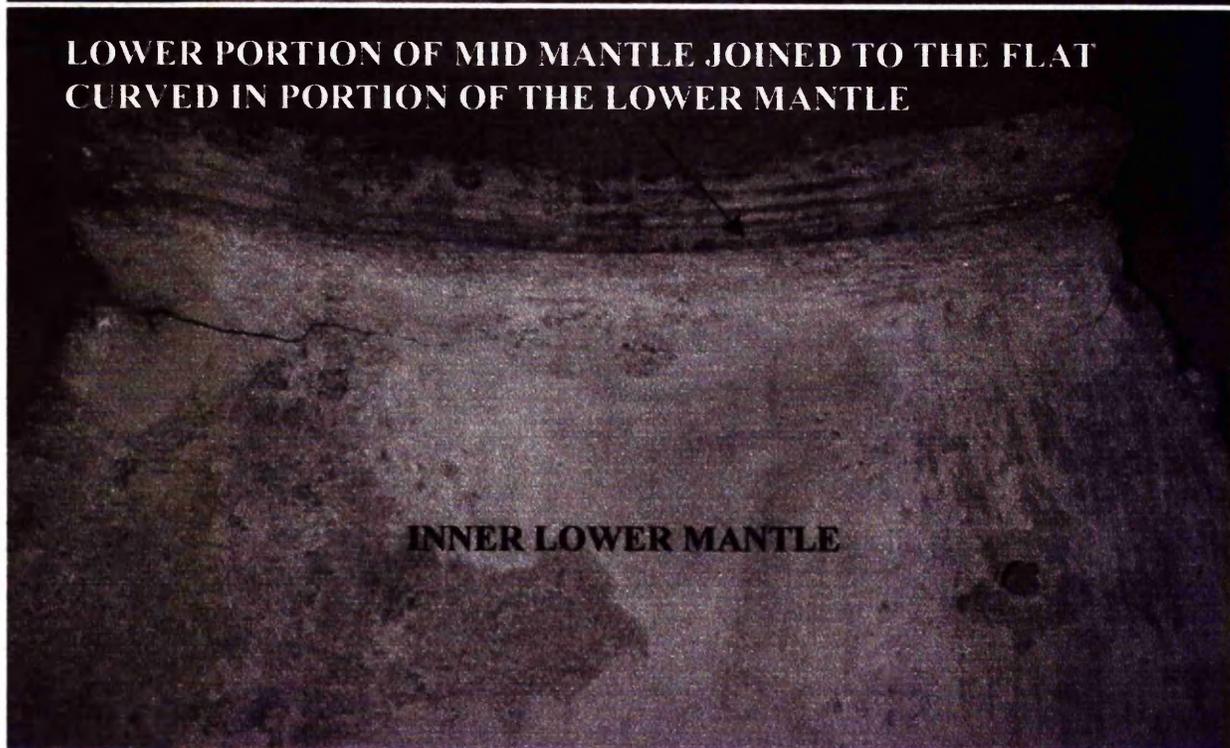


INNER SURFACE

4.7. Maniklyu bronze drum. Detail of the tympanum and a section of the mantle cast as one piece and joined to the remaining upper mantle



4.8. Manikliyu drum. Detail of the joining point between the upper and mid mantle



4.9. Maniklyu drum. Detail of the joining point between the mid and lower mantle

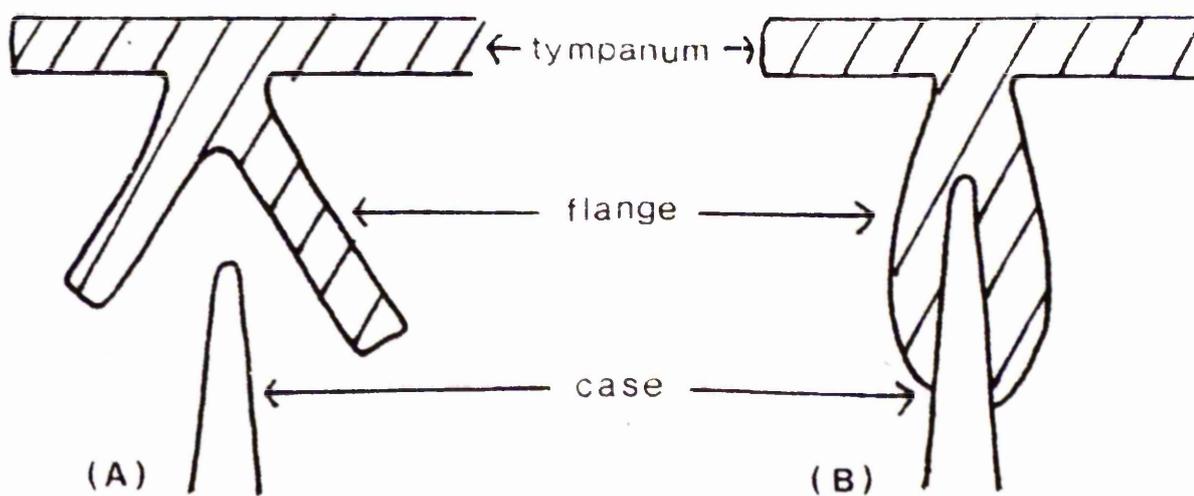
INNER



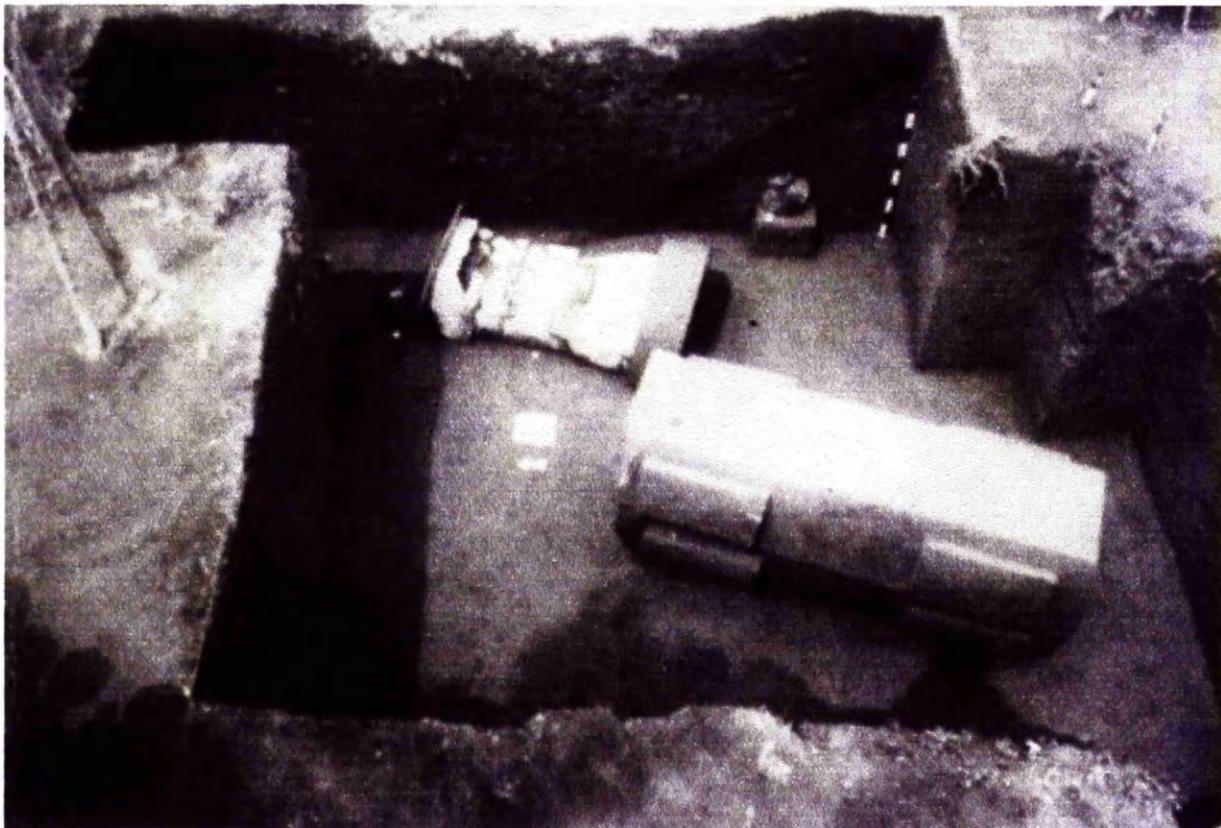
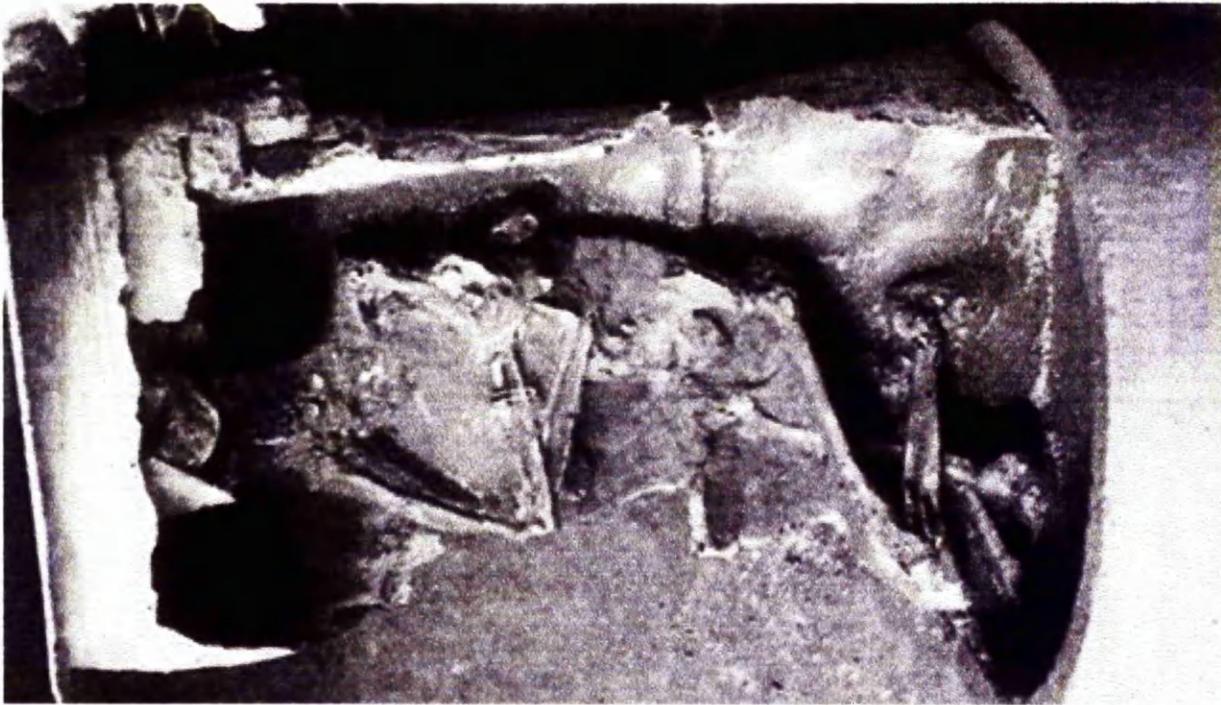
OUTER



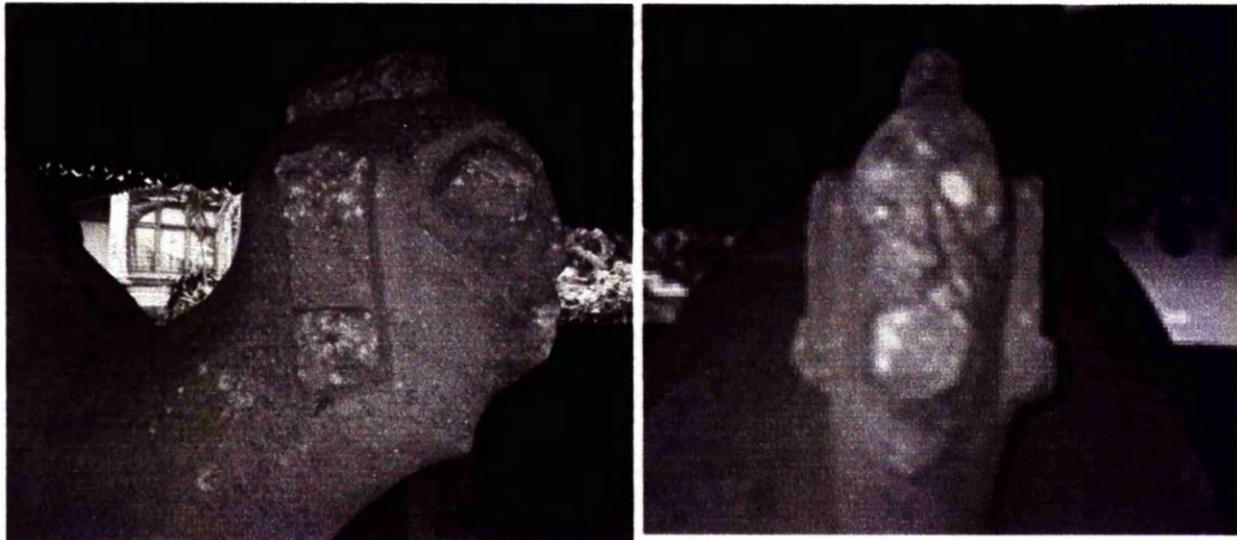
4.10. Manikliyu drum. Detail of the evidence that the handles were cast separately and inserted into the drum



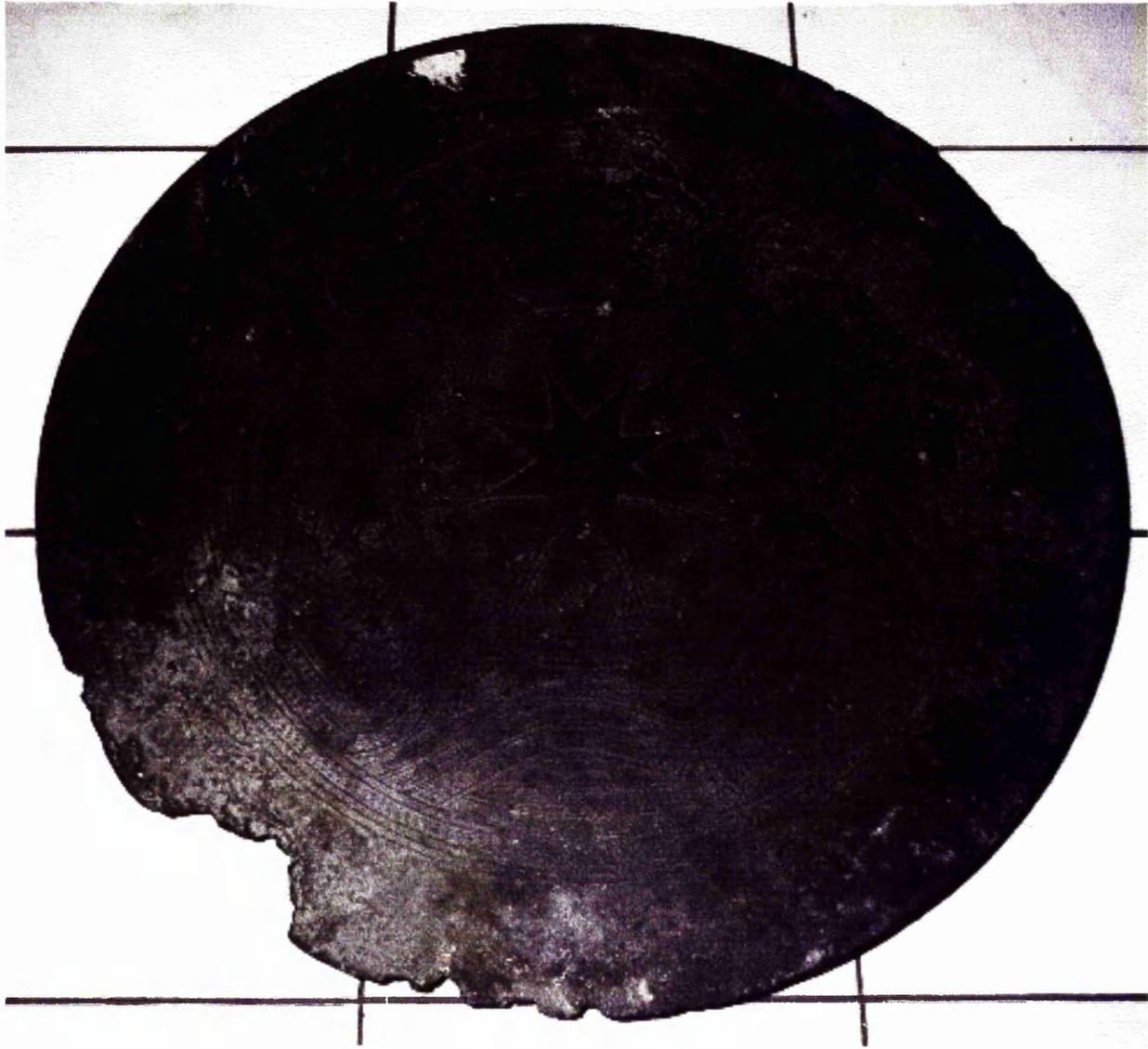
4.11. Joining of the section comprising the tympanum and a portion of the mantle with the remaining upper mantle (case). After McConnell and Glover 1990: 29, fig. 12.



4.12. Manikliyu bronze drum used as a inhumation container in burial site next to stone sarcophagus. Above: after Kompiang Gede 1997-1998: 50, fig.2; below: After *Forum Arkeologi* 1997-1998: cover



4.13. Stone sarcophagus from Taman Bali. H. 140 cm. Museum Arkeologi, Pejeng, Bali.



4.14. Bebitra bronze tympanum. D.65.2 cm. National Institute of Archaeology, Jakarta.



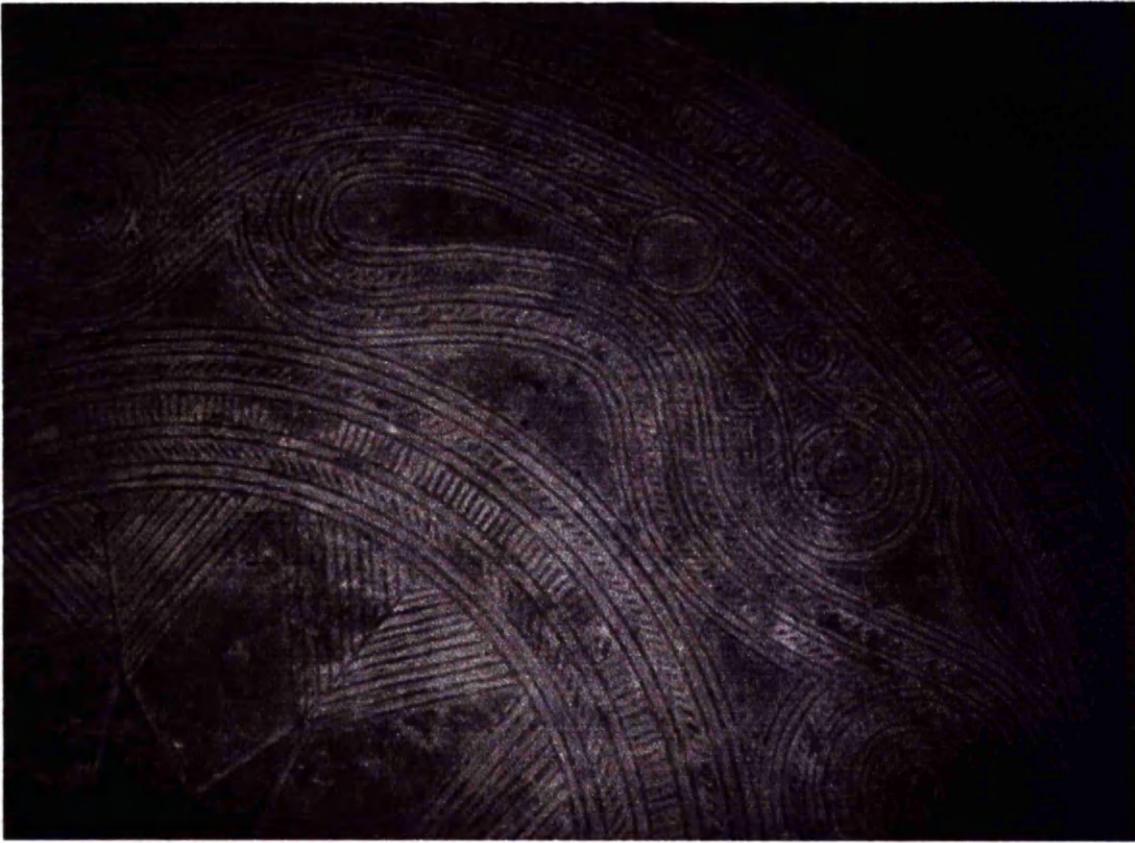
4.15. Besangbe bronze drum. H. 48.5 cm, rem. D. 28 cm. Pura Batur Besangbe, Bali.



4.16. Detail of one of the four pairs of face motifs on the Moon of Pejeng drum.
Courtesy of Roger Blench.



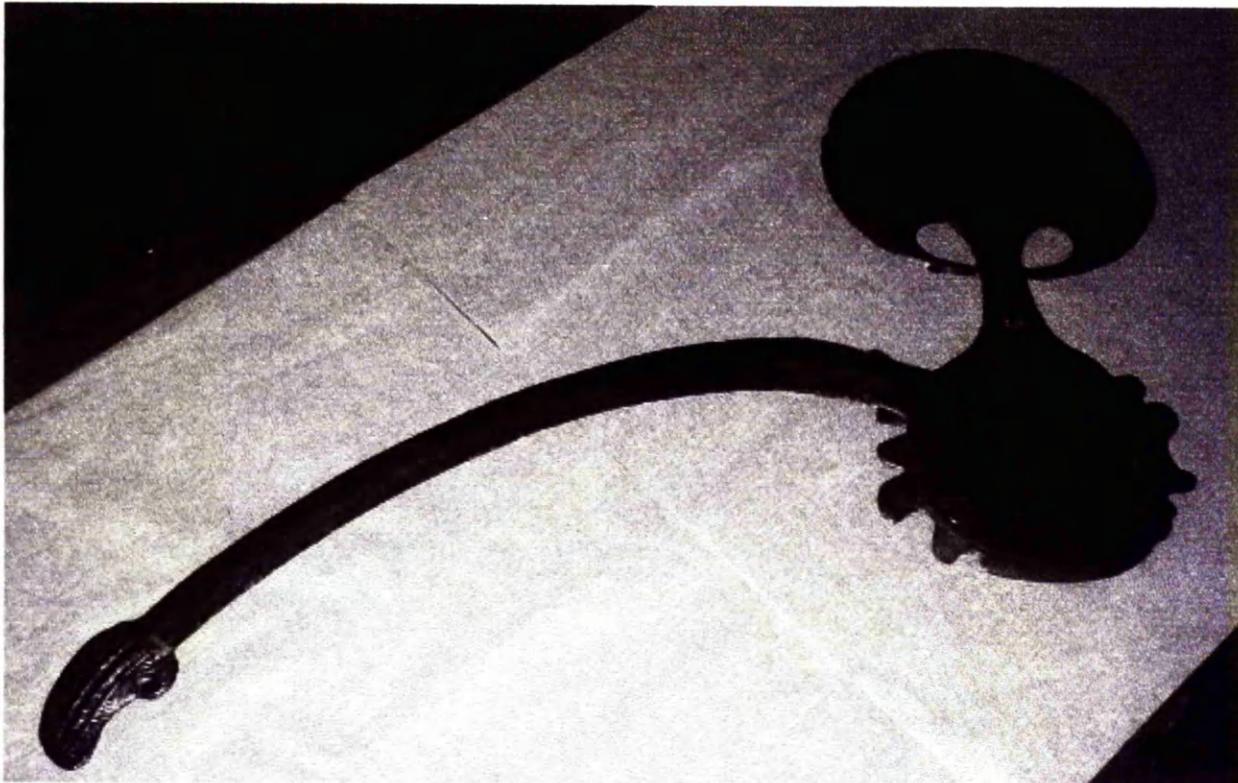
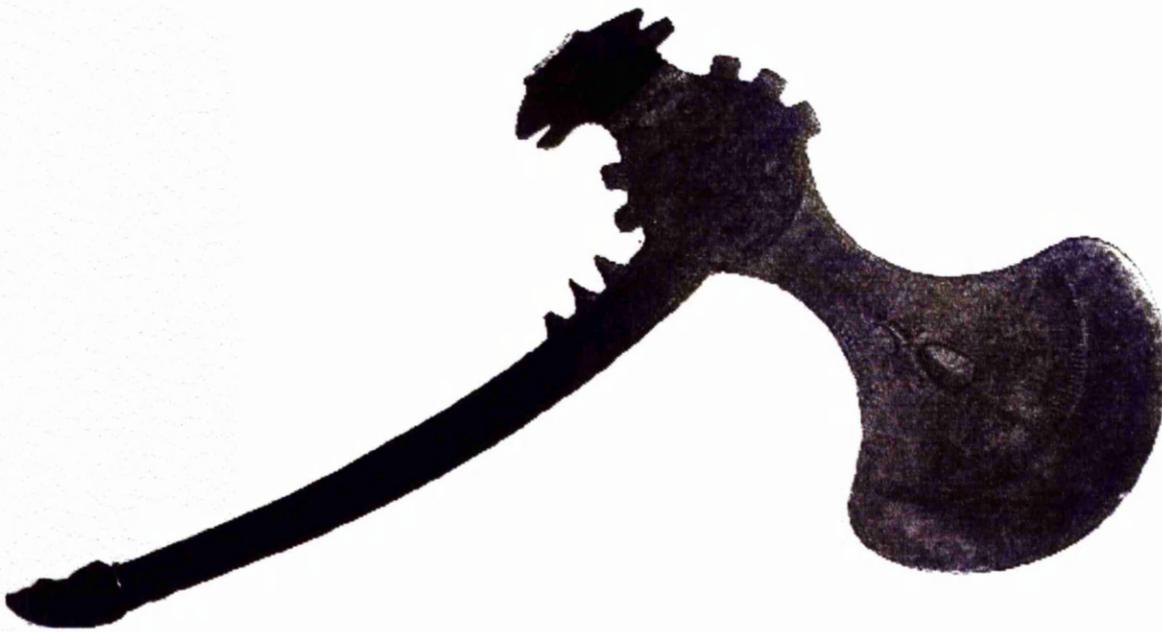
4.17. Details of one of the four pairs of face motifs on Pejeng drums.
Above: Manikliyu drum. Below: Asian Civilizations Museum Pejeng drum



4.18. Details of the decoration on the tympanum. Above: Manikliyu drum.
Below: Pejeng drum in the Asian Civilizations Museum, Singapore.



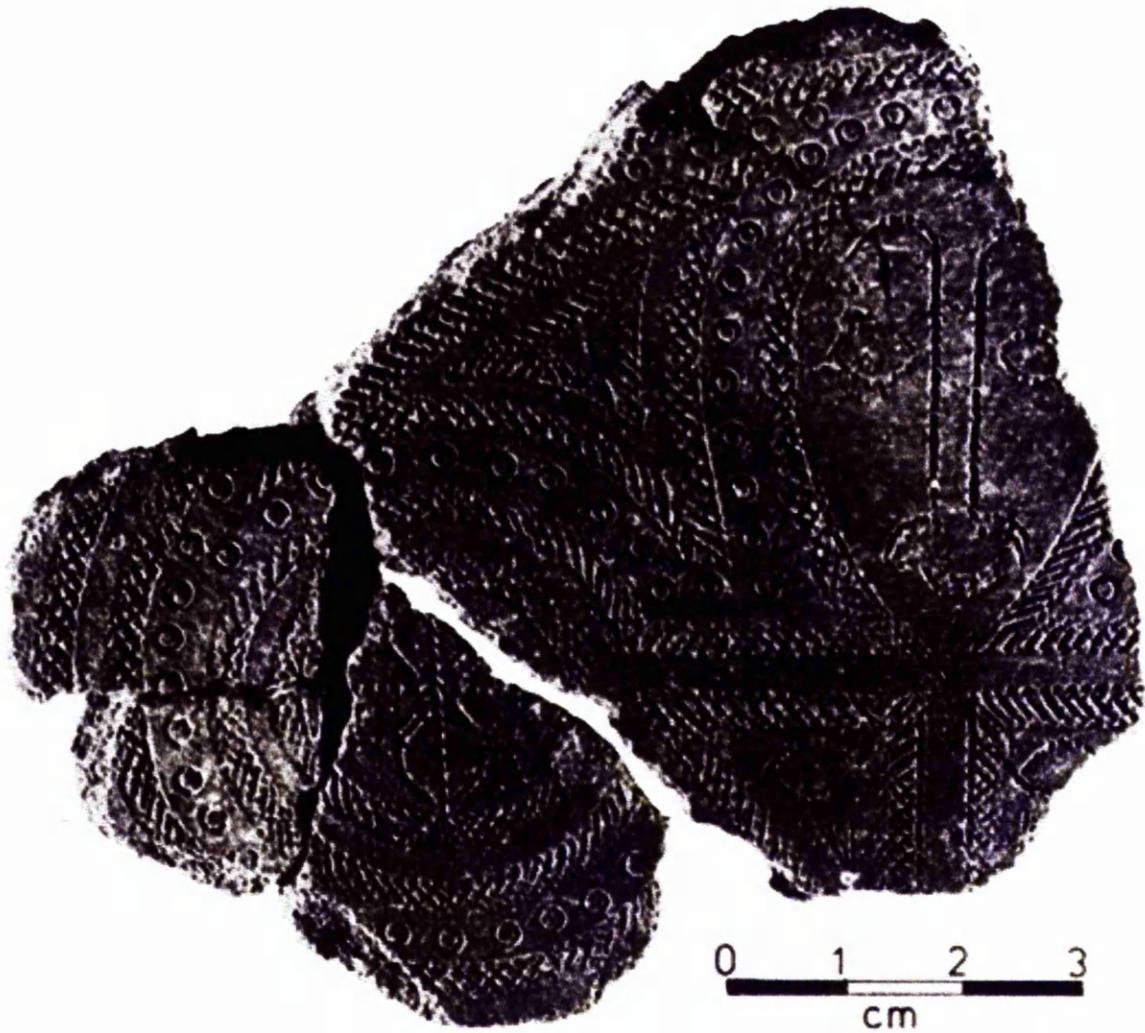
4.19. Makassar bronze axe. L. 70.5 cm. Blade W. 45 cm. MNI 1839.



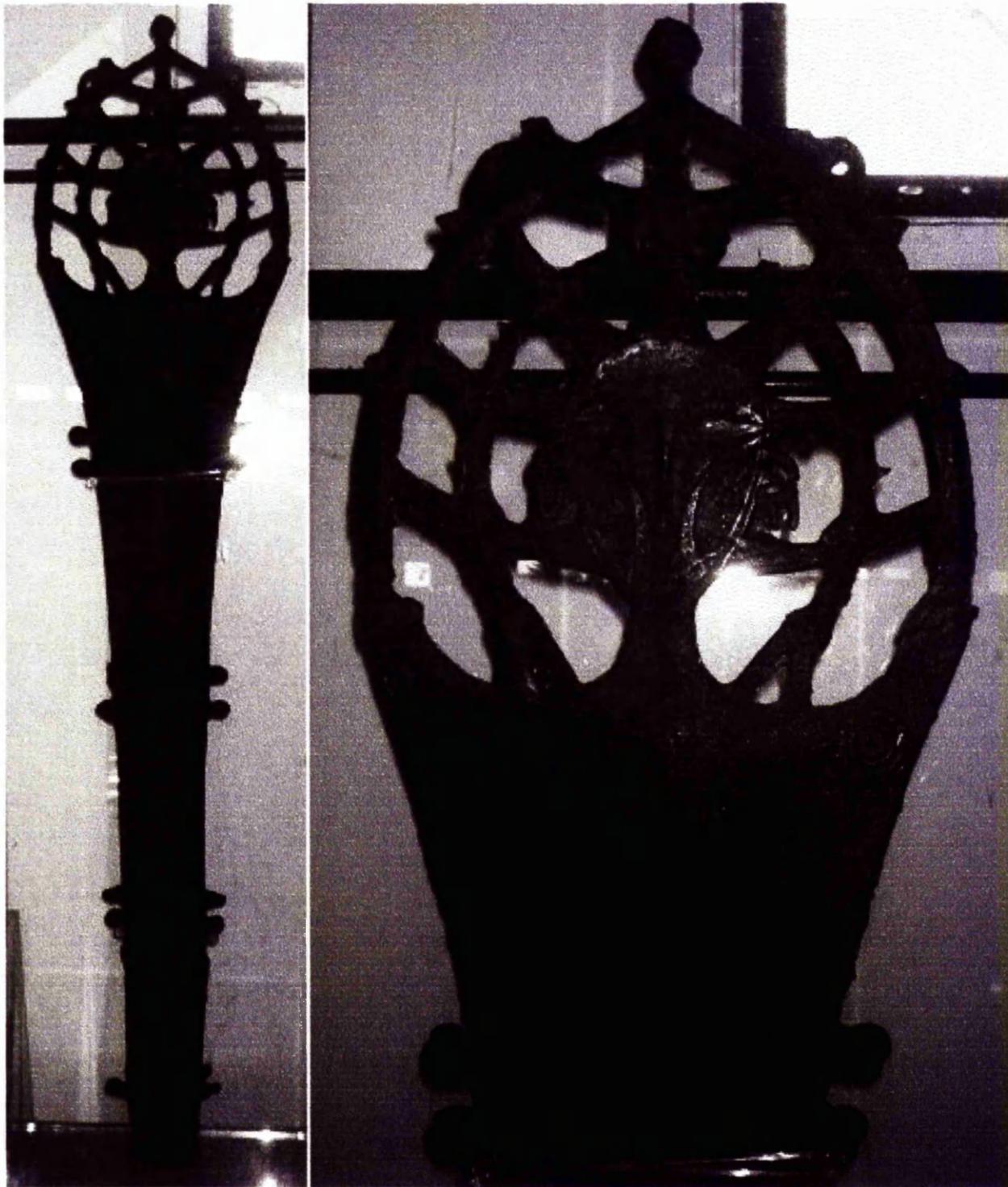
4.20. Roti bronze axes. Above: MNI 1441: L. 81 cm. Below: MNI 1442. L. 74 cm.



4.21. Roti axe (MNI 1442). Detail of the human figure depicted on the blade.



4.22. Human figure depicted on fragments of Lapita pottery from the Santa Cruz Islands in Melanesia. After Bellwood 1987: 50, fig. 18.



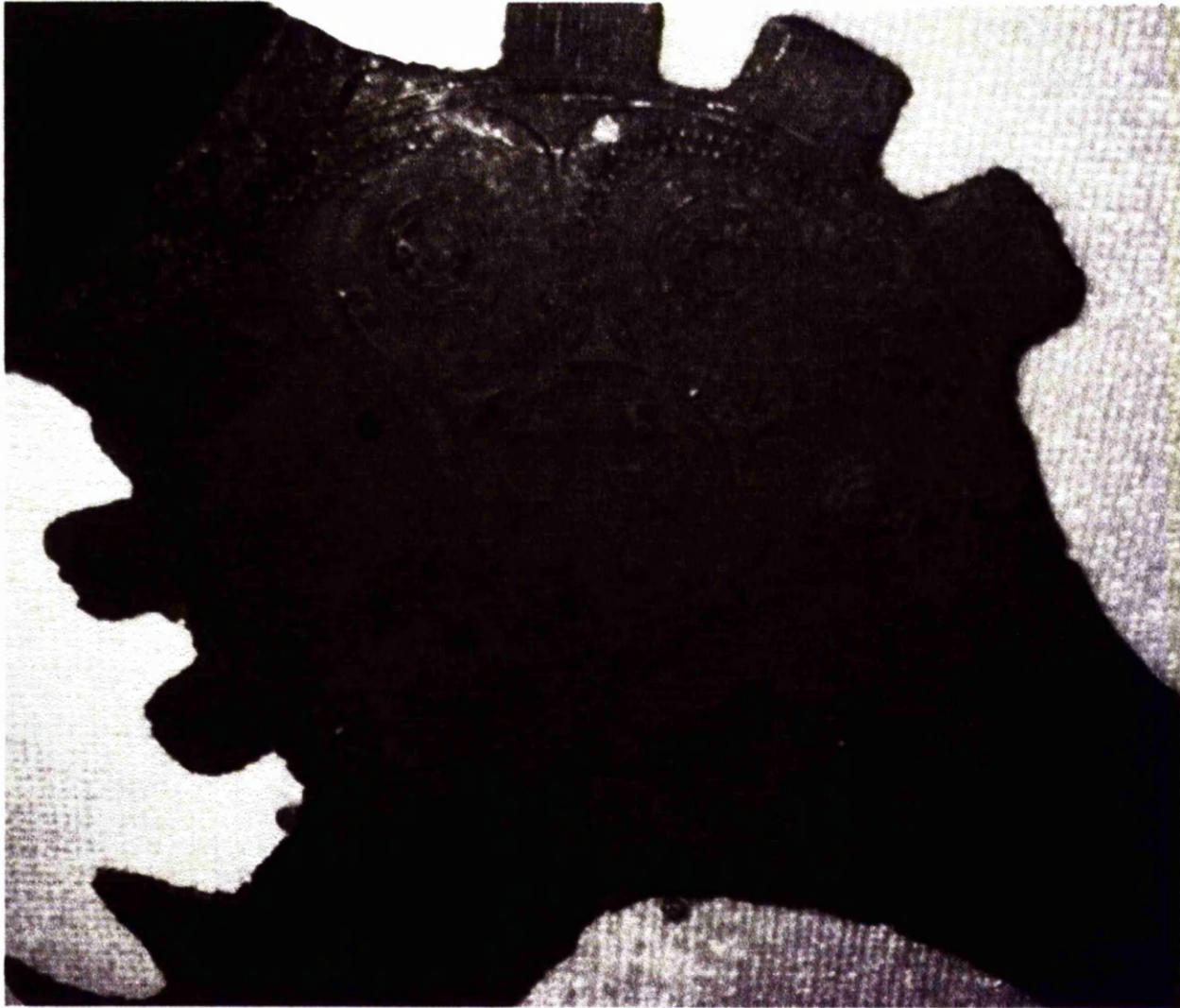
4.23. Sawu bronze axe or sceptre. L. 150 cm. Detail of the face motif and spiral bands. Museum Tantular, Surabaya



4.24. Makassar axe. Detail of the face and spiral motifs



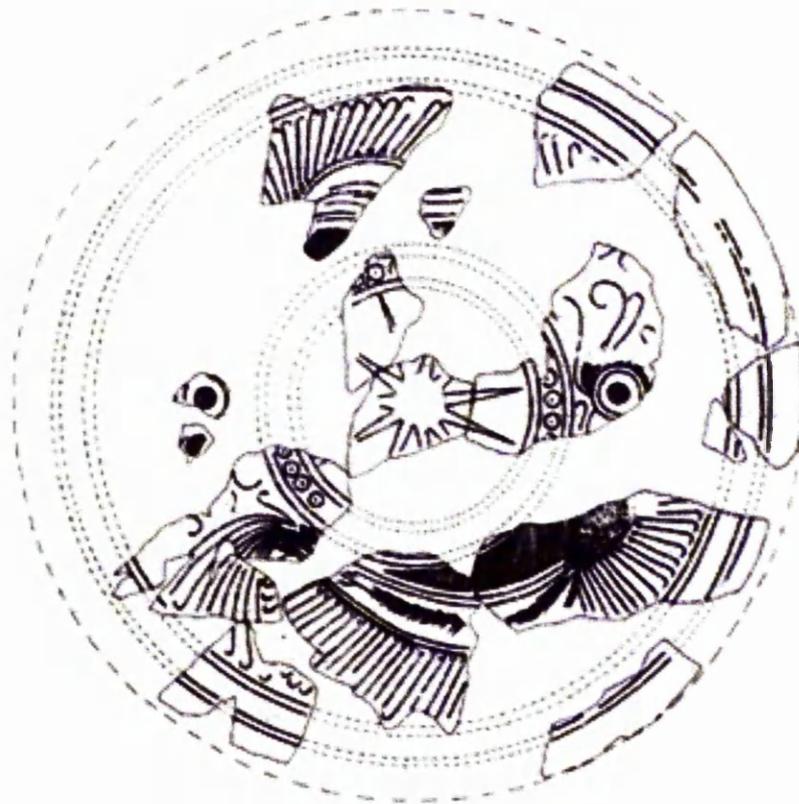
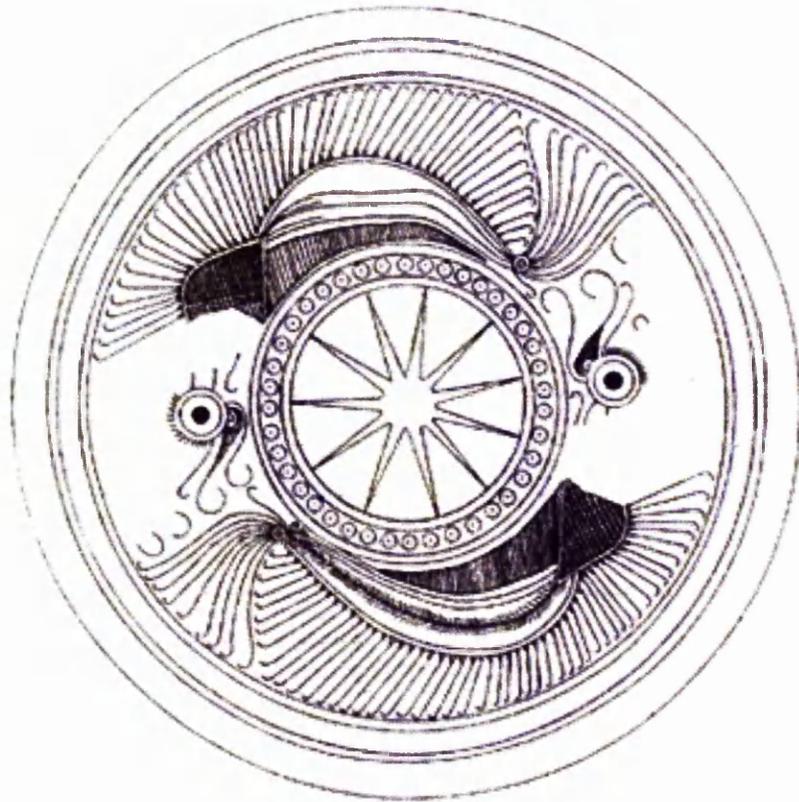
4.25. Tympanum of the Pejeng drum in the Asian Civilizations Museum, Singapore.



2.26. Roti axe (MNI 1441). Detail of spiral motifs



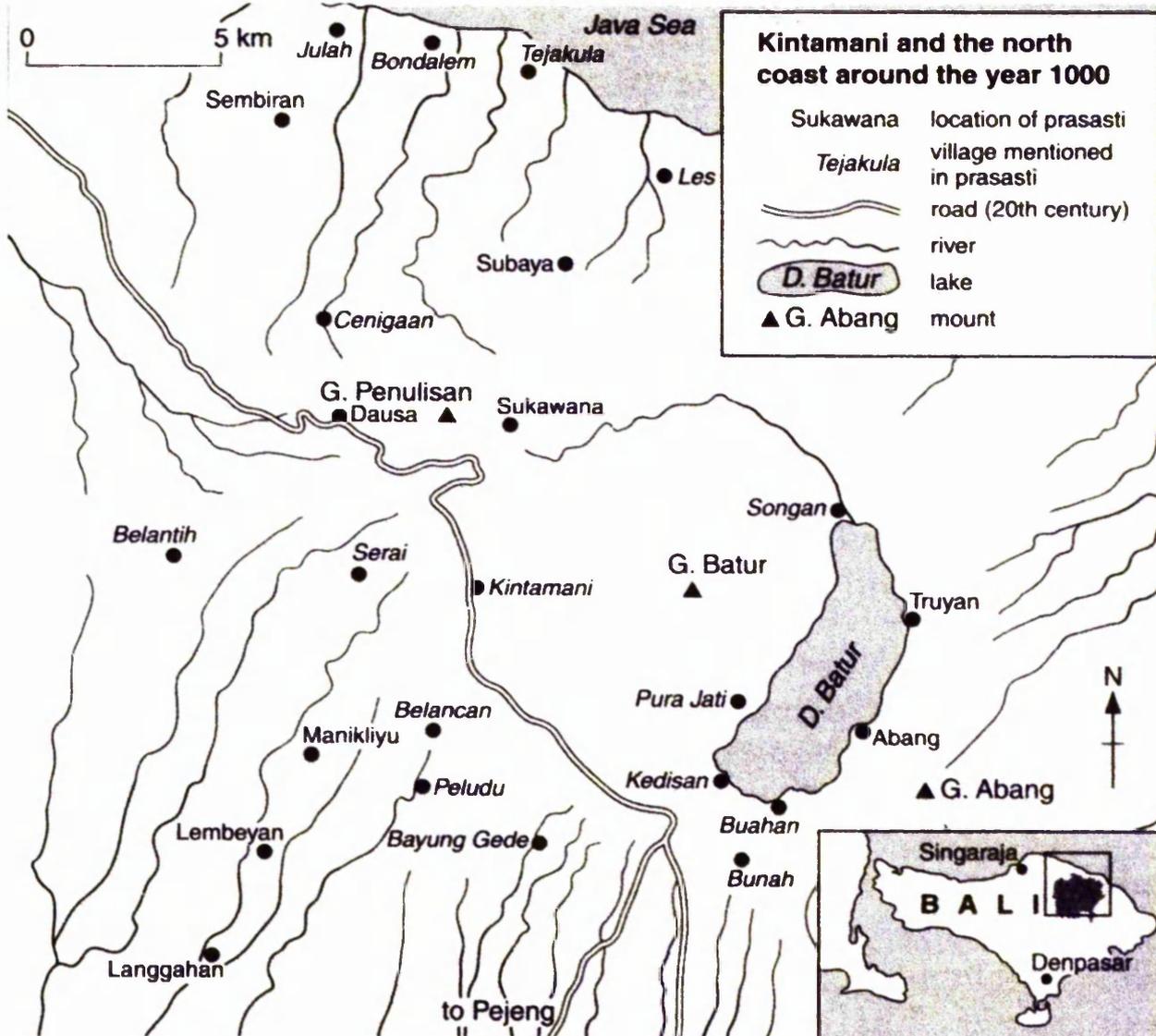
2.27. Roti axe (MNI 1442). Detail of fish motifs



4.28. Reconstructed tympanum of the Pacung drum.
After McConnell and Glover 1900: 17, fig. 7.



4.29. Makassar axe. Detail of fish-bone motif



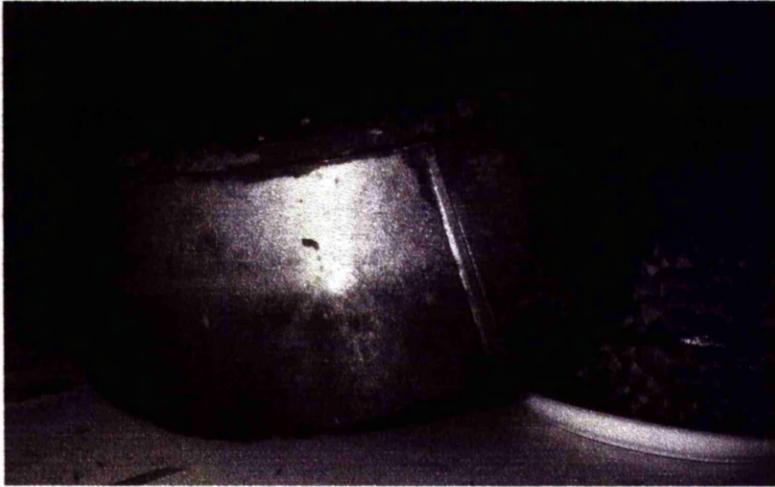
2.30. Map of northeast Bali showing locations associated with the earliest royal line based in Pejeng. After Hobart et al. 1996: 74, map 5.



4.31. Traditional three-piece rice steamer



4.32. Dewi Sri, female spirit of rice. After Hobart et al. 1996: 49, pl. 7.



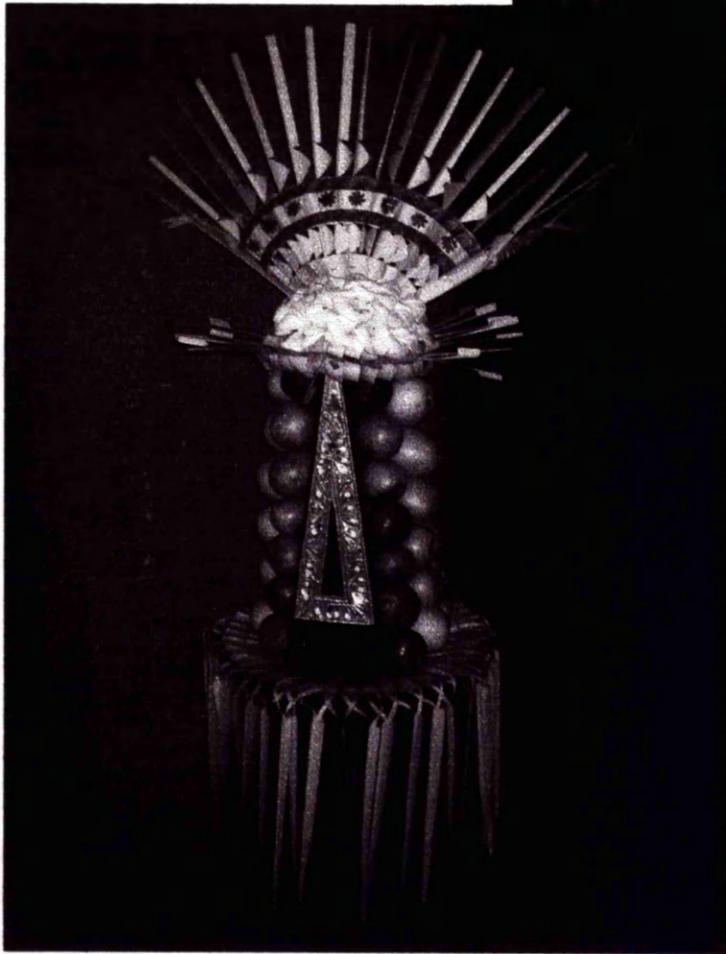
4.33. Three pieces: brass pot (daeng daeng), straw cone (kokusan) and brass cover (kekep)



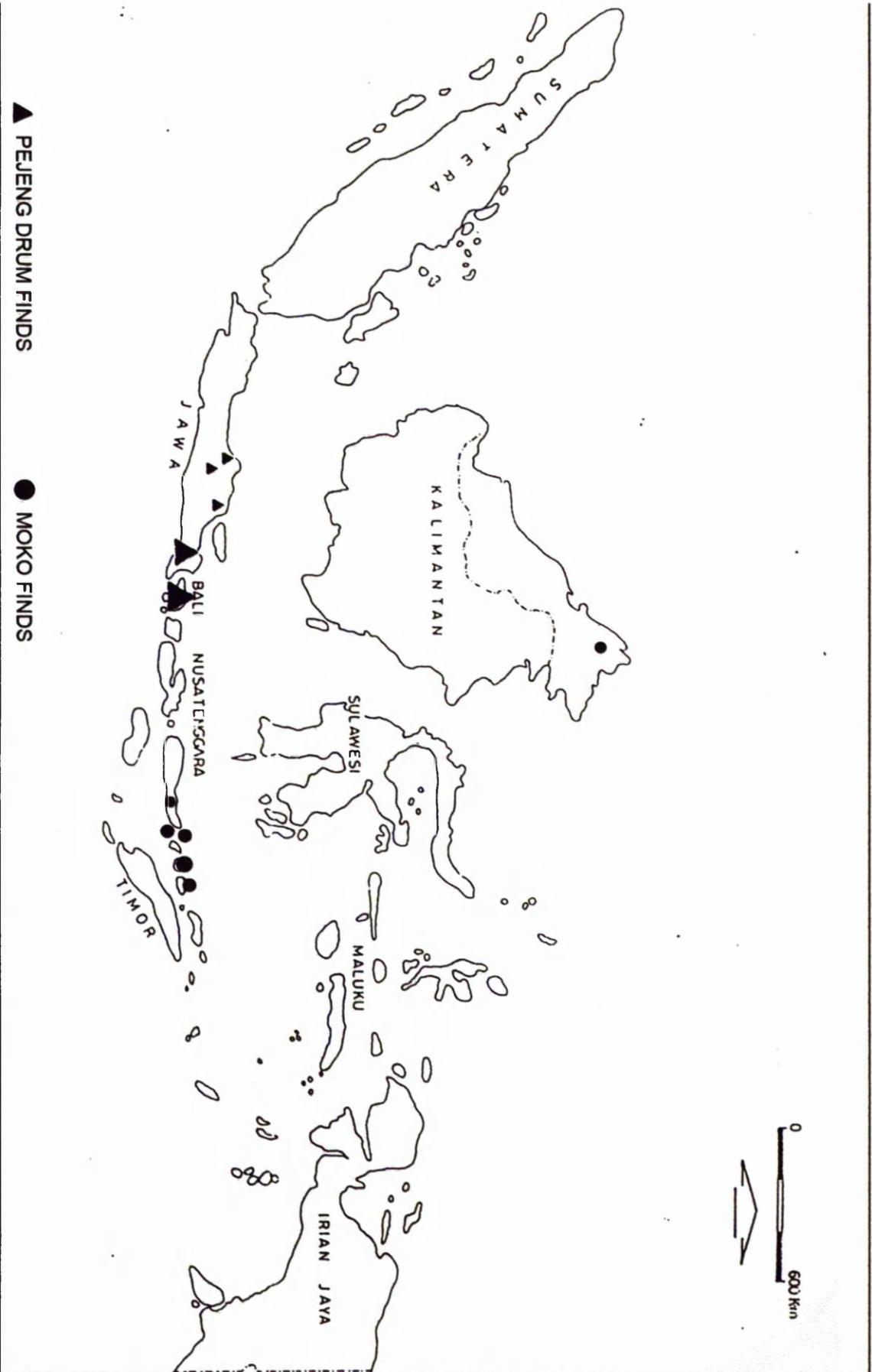
4.34. Daeng daeng and cover



4.35. Stone sculpture showing a *daeng daeng*-like Pejeng drum as the pedestal of a seated figure. Carangsari, Pura Puseh Kangin, Bali.



4.36. *Sampian* (above) and *Pajagang* (below)



4.37. Map of the finds of Pejeng bronze drums and of *moko* bronze drums.



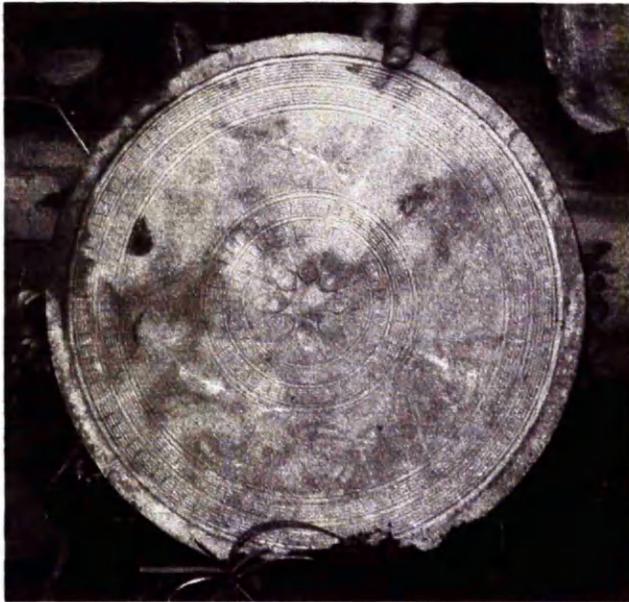
4.38. Moko with *kala* face motif. Daeng Eskandar gallery, Bali.



4.39. Moko with European emblem motif. Daeng Eskandar gallery, Bali.



4.40. Moko from Alor repaired with a fragment from the upper mantle of another moko.
H. 55.5 cm. Museum Nasional Indonesia.



4.41. Cement printing moulds for casting a small replica of the Moon of Pejeng. Mojokerto workshop.



4.42. The making the inner clay cores. Mojokerto workshop.



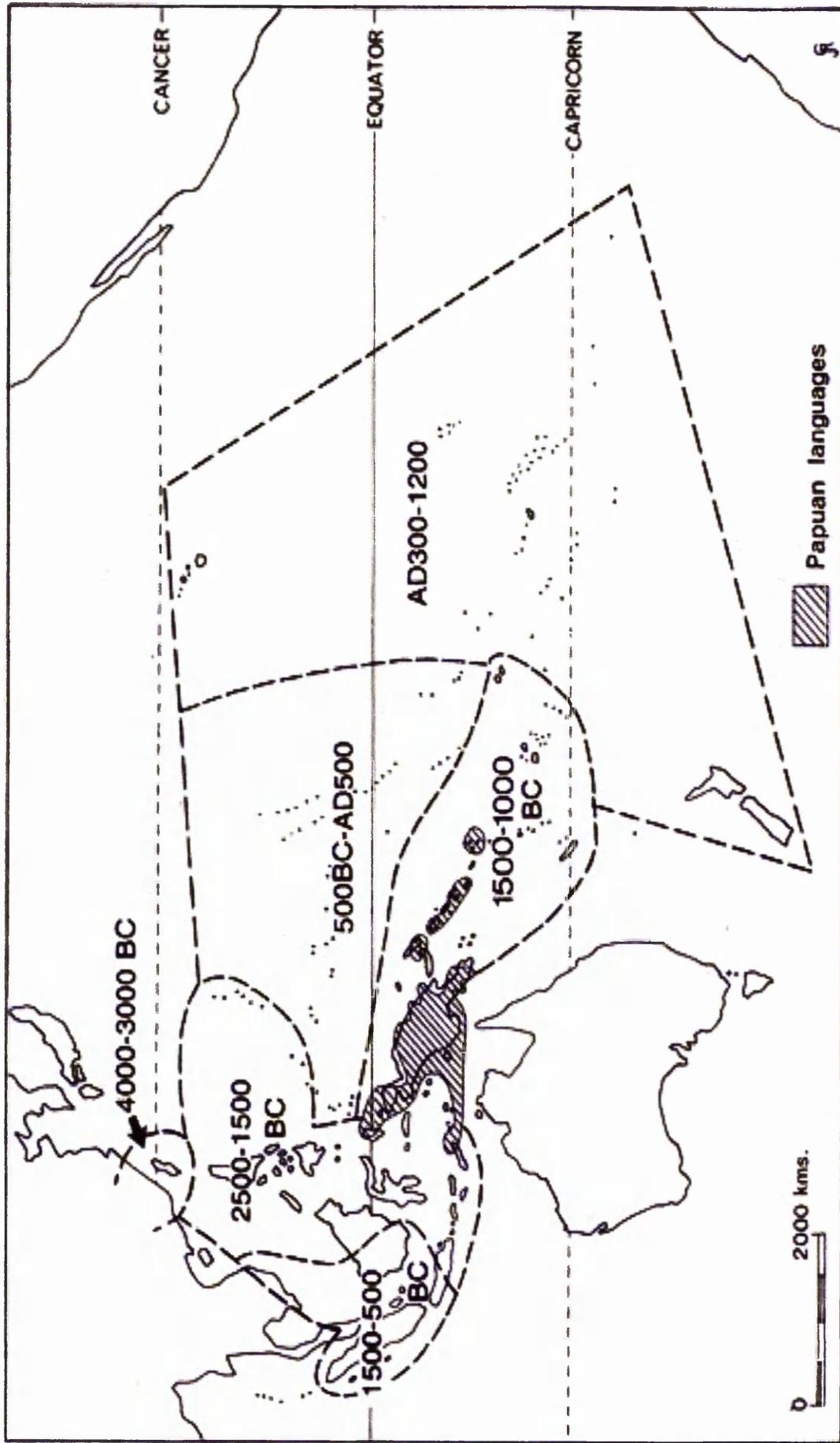
4.43. Above: the clay investment for a bronze statuette is heated to melt the wax. Below: detail of the holes in the clay investment to let the wax come out and then pour in the molten metal. Mojokerto workshop.



4.44. Brick furnace to melt the metal to be poured into the clay investment. Mojokerto workshop.



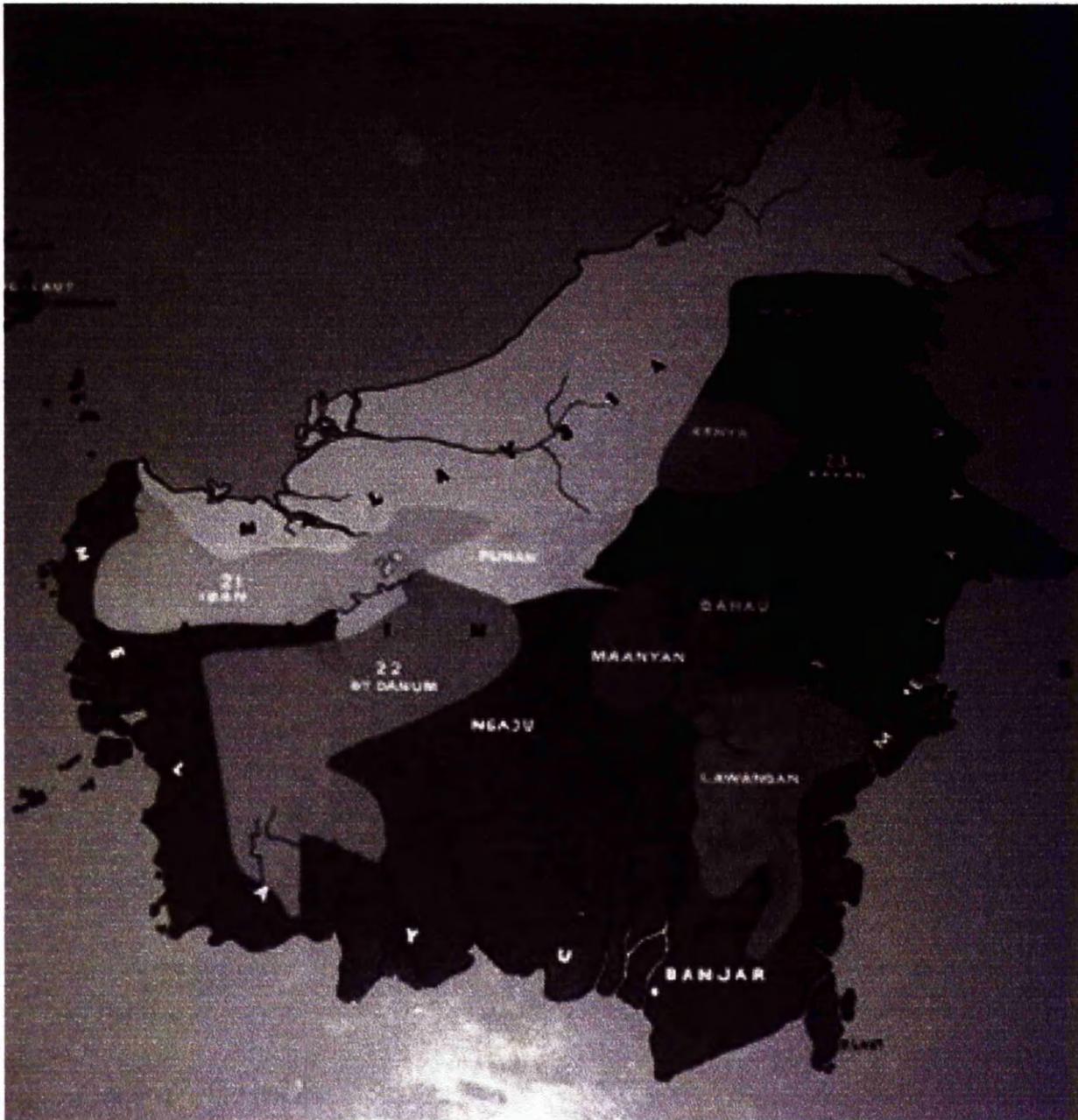
4.45. Moko with Pejeng-like motifs and evidence of sealing horizontal marks at the centre of the mid mantle and on the upper mantle. Daeng Eskandar Gallery, Bali.



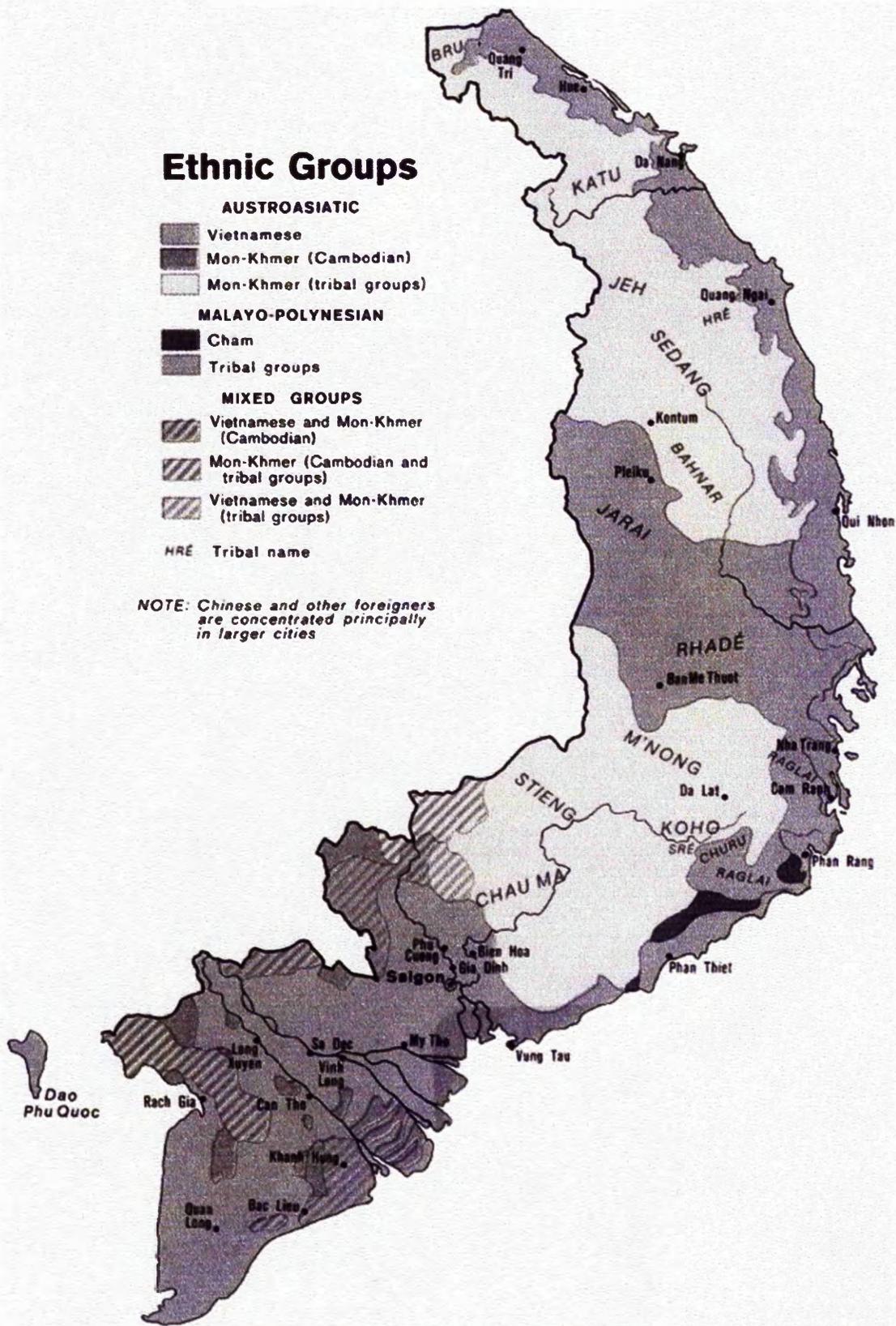
5.1. Map of the expansion of Austronesian speakers. After Bellwood 1997: 118, fig. 4.5.



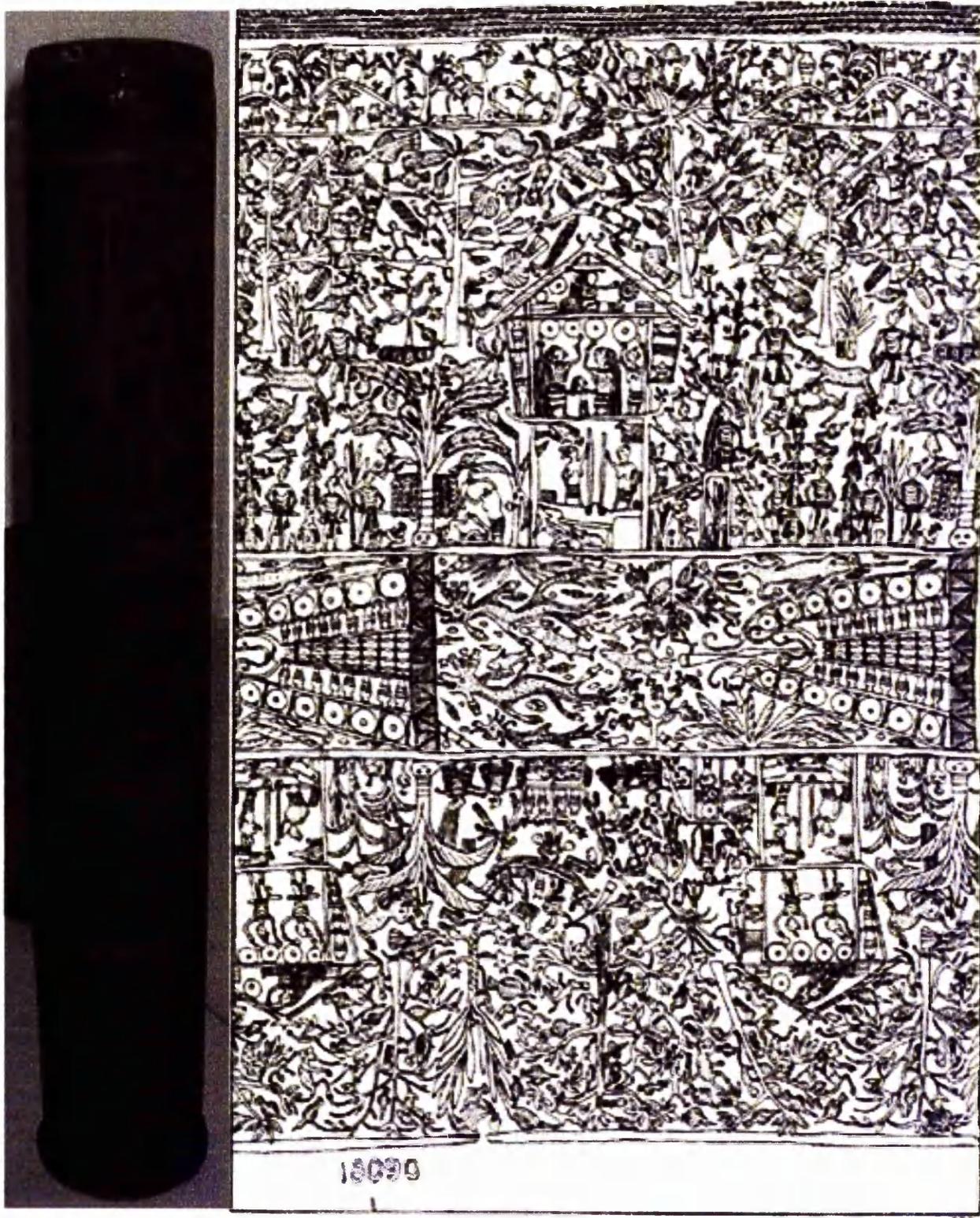
5.2. The Zhuang people in southwest China use Heger IV type bronze drums as part of their ceremonial objects. Courtesy of Roger Blench.



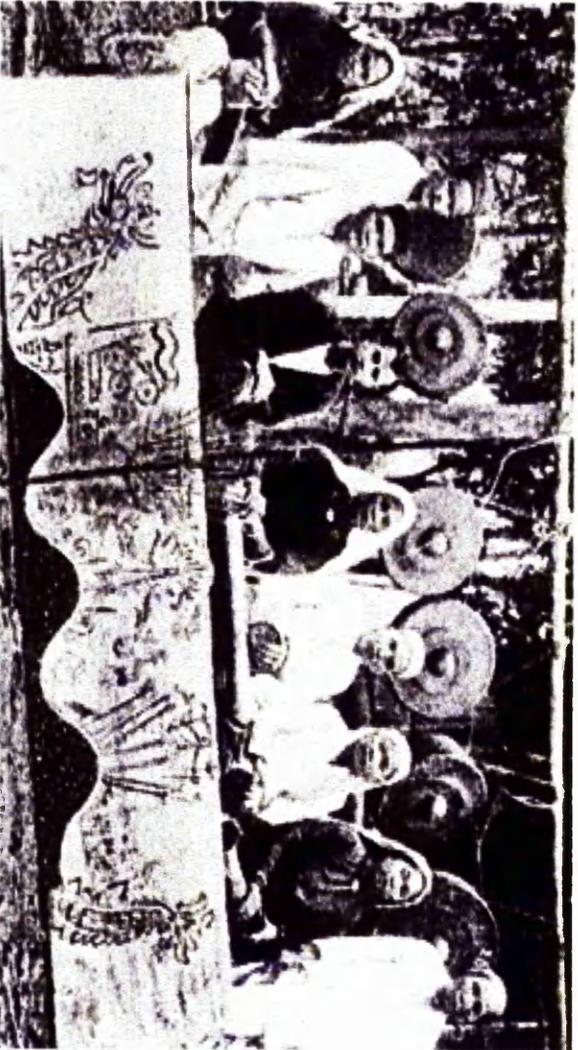
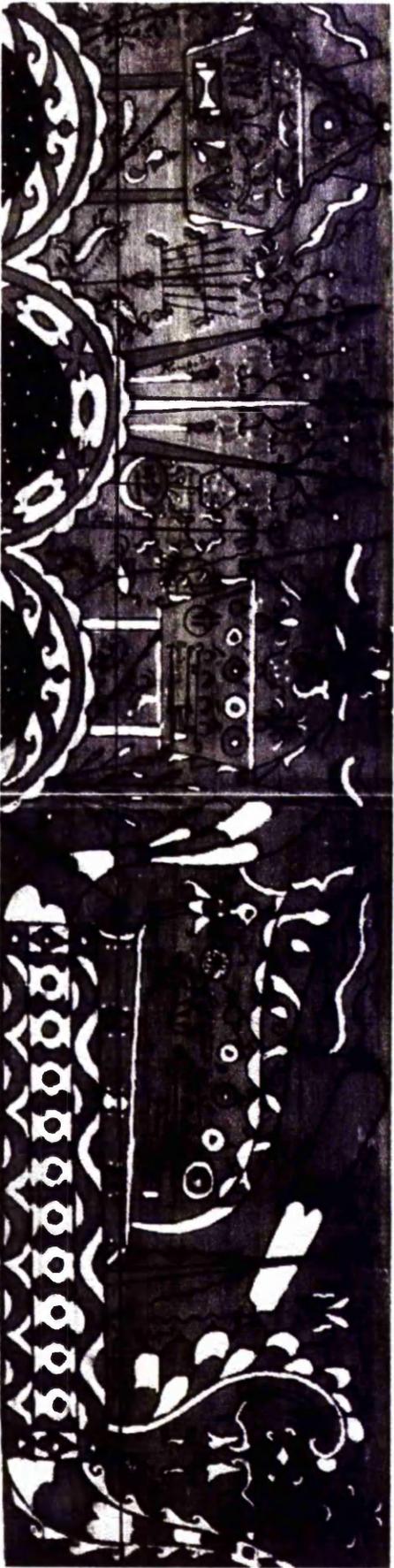
5.3. Map of Dayak groups in Borneo.
Museum Nasional Indonesia



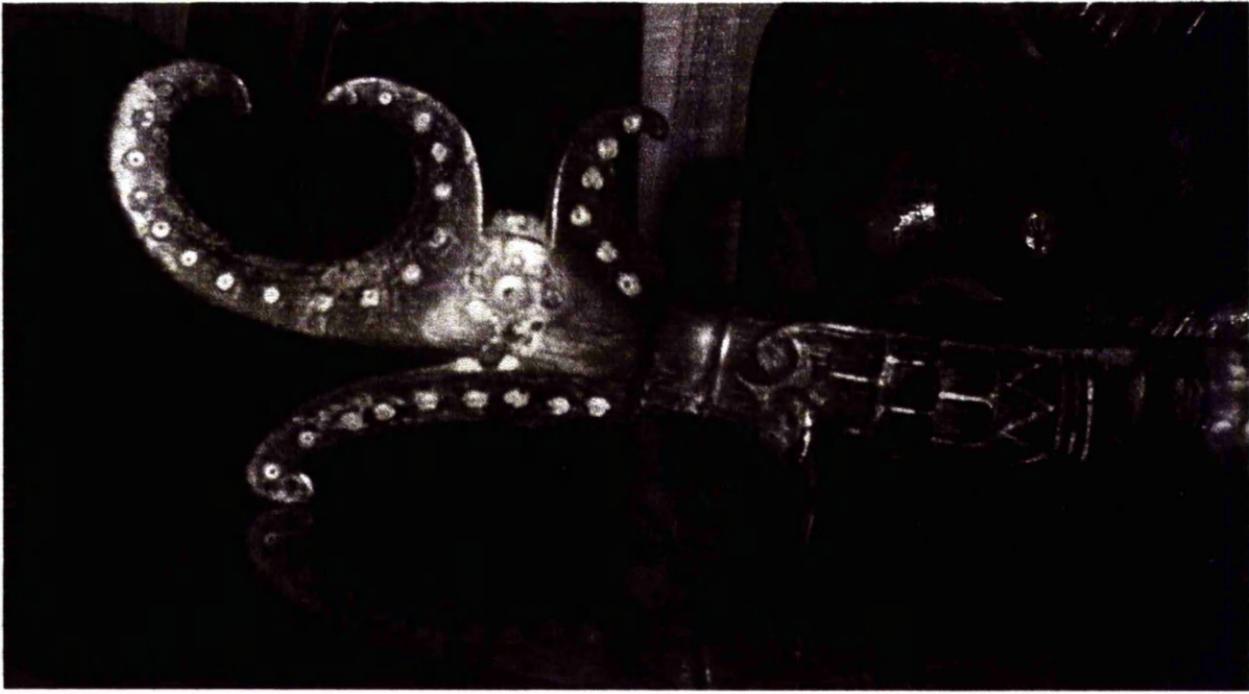
5.4. Map of ethno-linguistic groups in central and south Vietnam. After [www.lib.texas.edu/maps/thematic.html](http://lib.texas.edu/maps/thematic.html), from Map No. 500874 1972



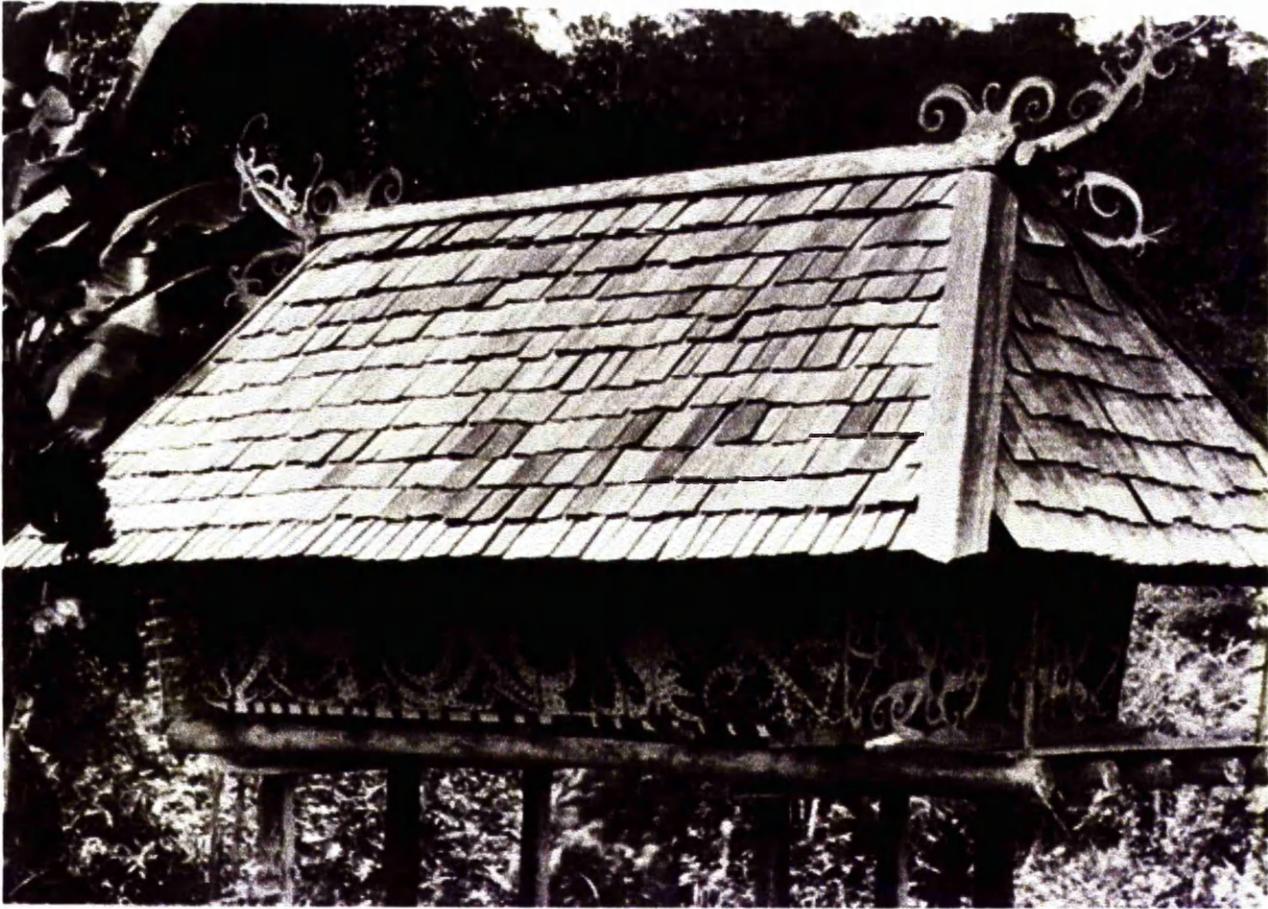
5.5. Ngadju or Ot Danum Dayak incised bamboo container showing the *tiwah* ceremony. H. 39 cm. Museum Nasional Indonesia (18090).



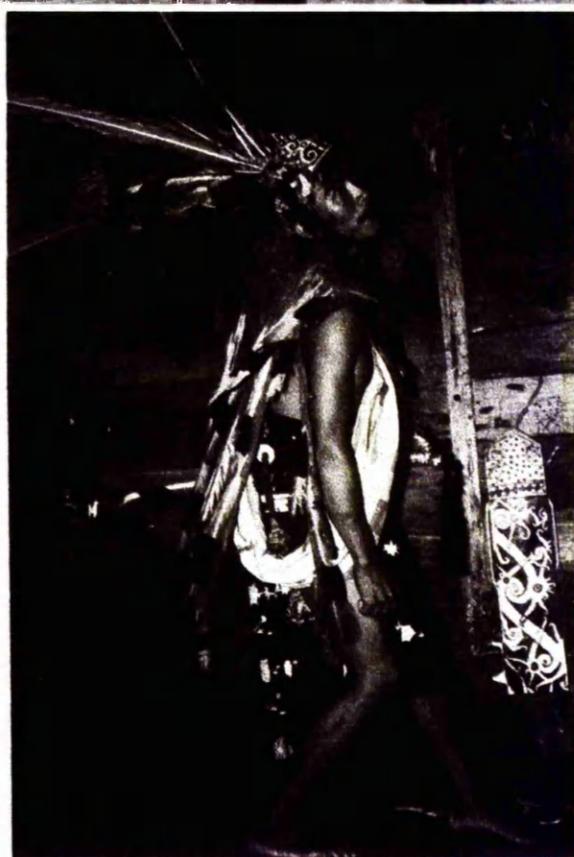
5.6. Above: Painted wooden funeary board showing boat and house motifs. Ngadju or Ot Danum Dayak. After Sellato 1992:
fig. 468. Below: Painted wooden board with naga boat from Kalimantan. After Steinmann 1946: 1876.



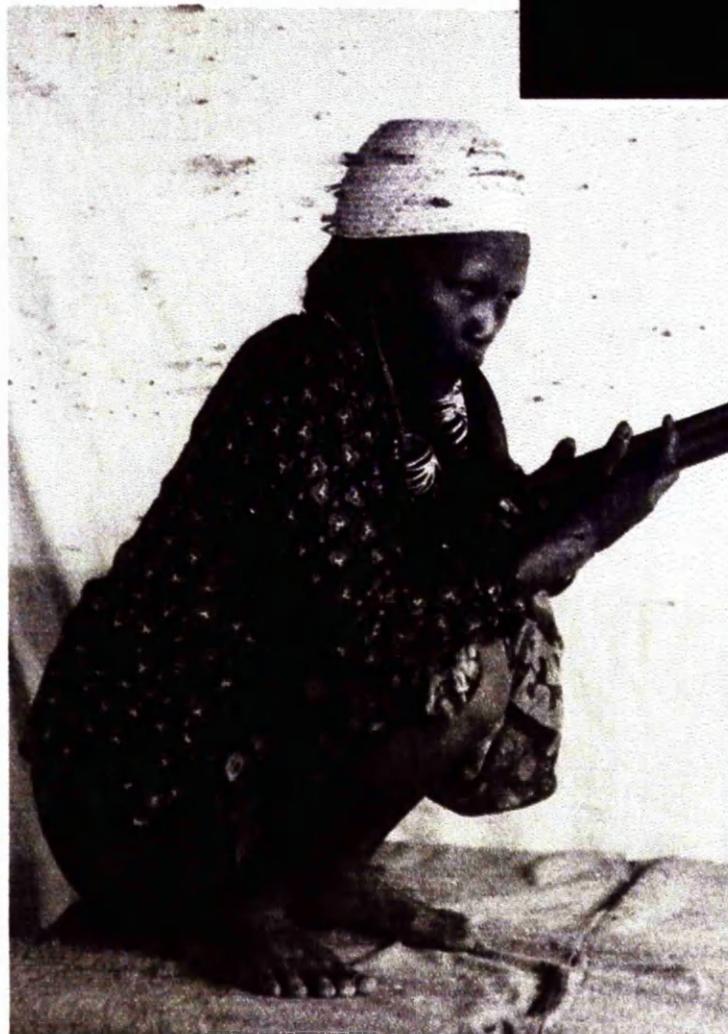
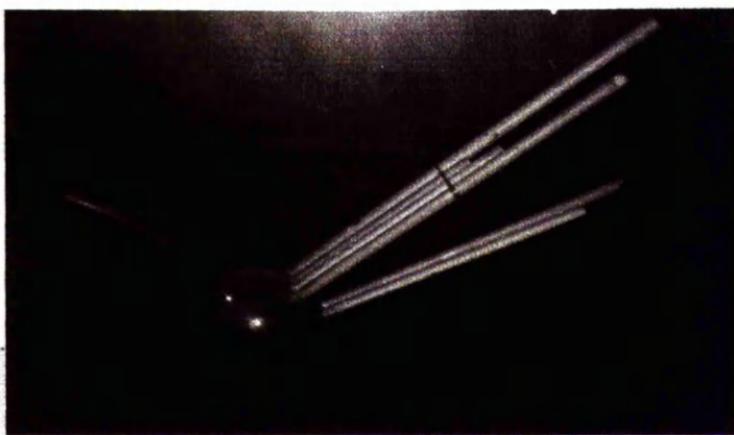
5.7. Naga motifs. Above: knife for cutting rice grass. Middle: tattooing tool and wooden stamp with naga motif. Below: wooden coffin in the shape of a naga. East Kalimantan. Tita's Gallery, Bali.



5.8. Kenyah Dayak rice granary with pairs of opposite naga motifs on the walls and pairs of hornbill motifs as roof finials. East Kalimantan. After Tillema 1989: 99, fig. 78.



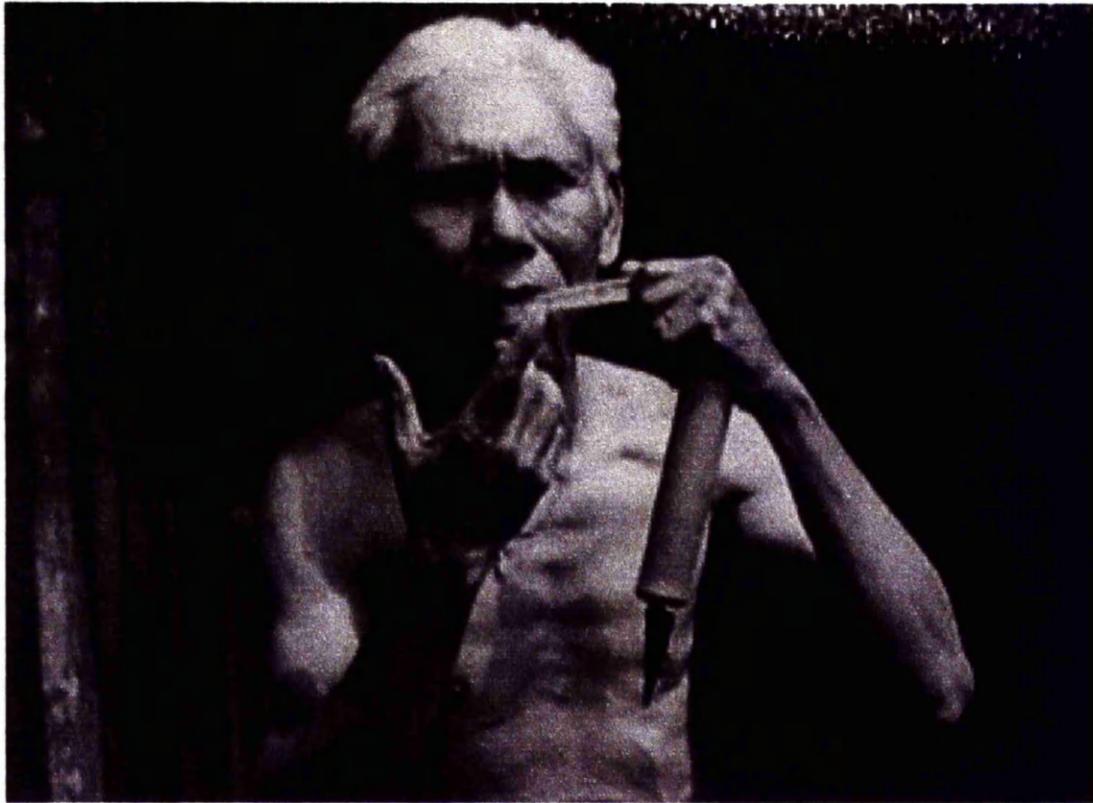
5.9. Kenyah people of high rank with headdress of hornbill feathers and shield decorated with naga motif. After Tillema 1989: 112-fig. 95, 109-fig 92. Below right: Kenyah dance. After Sellato 1992: fig. 308.



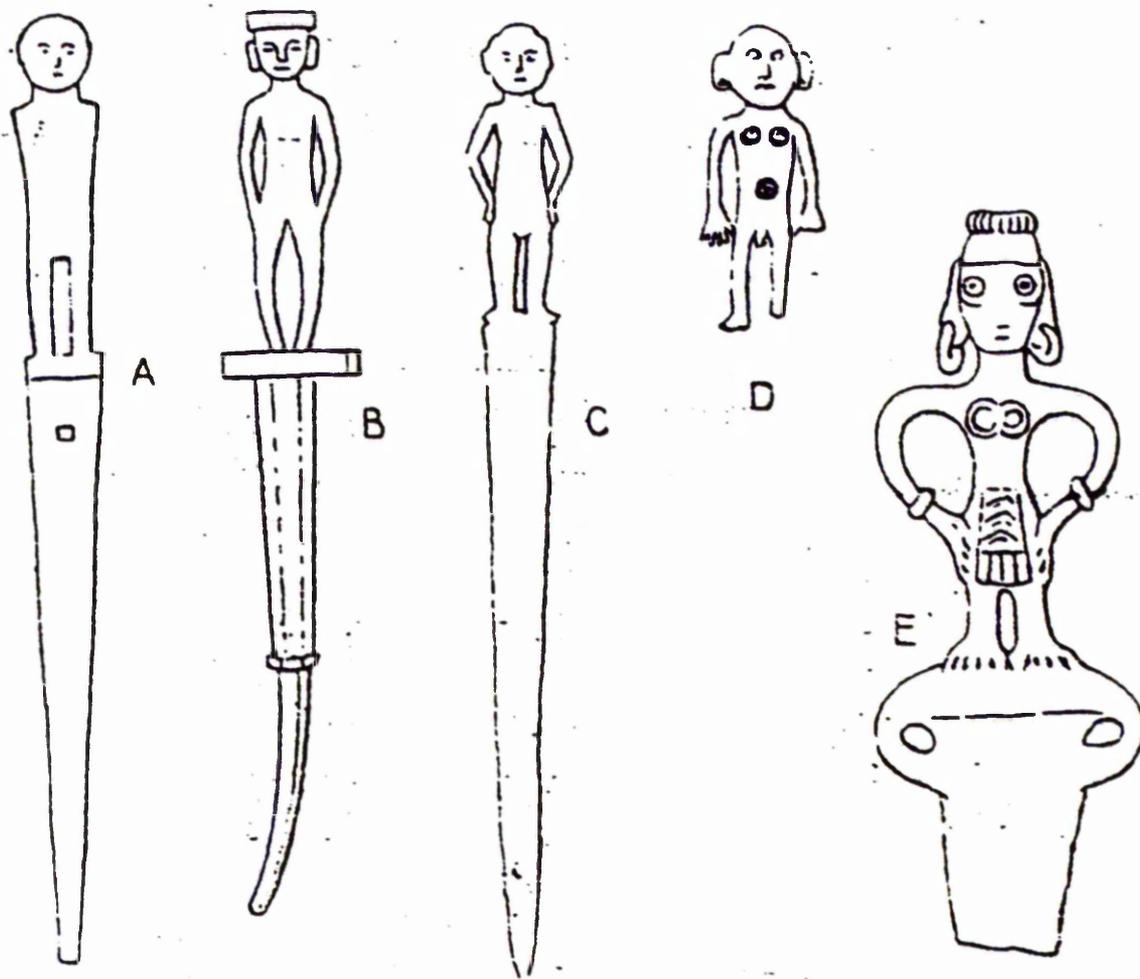
5.10. Above: mouth organ with gourd resonator and bamboo sticks (*khene*) used by the Ma people of Lam Dong. VME.

Middle: Kenyah Dayak woman playing the gourd mouth organ (*kediri*). After Tillema 1989: 225 fig. 229.

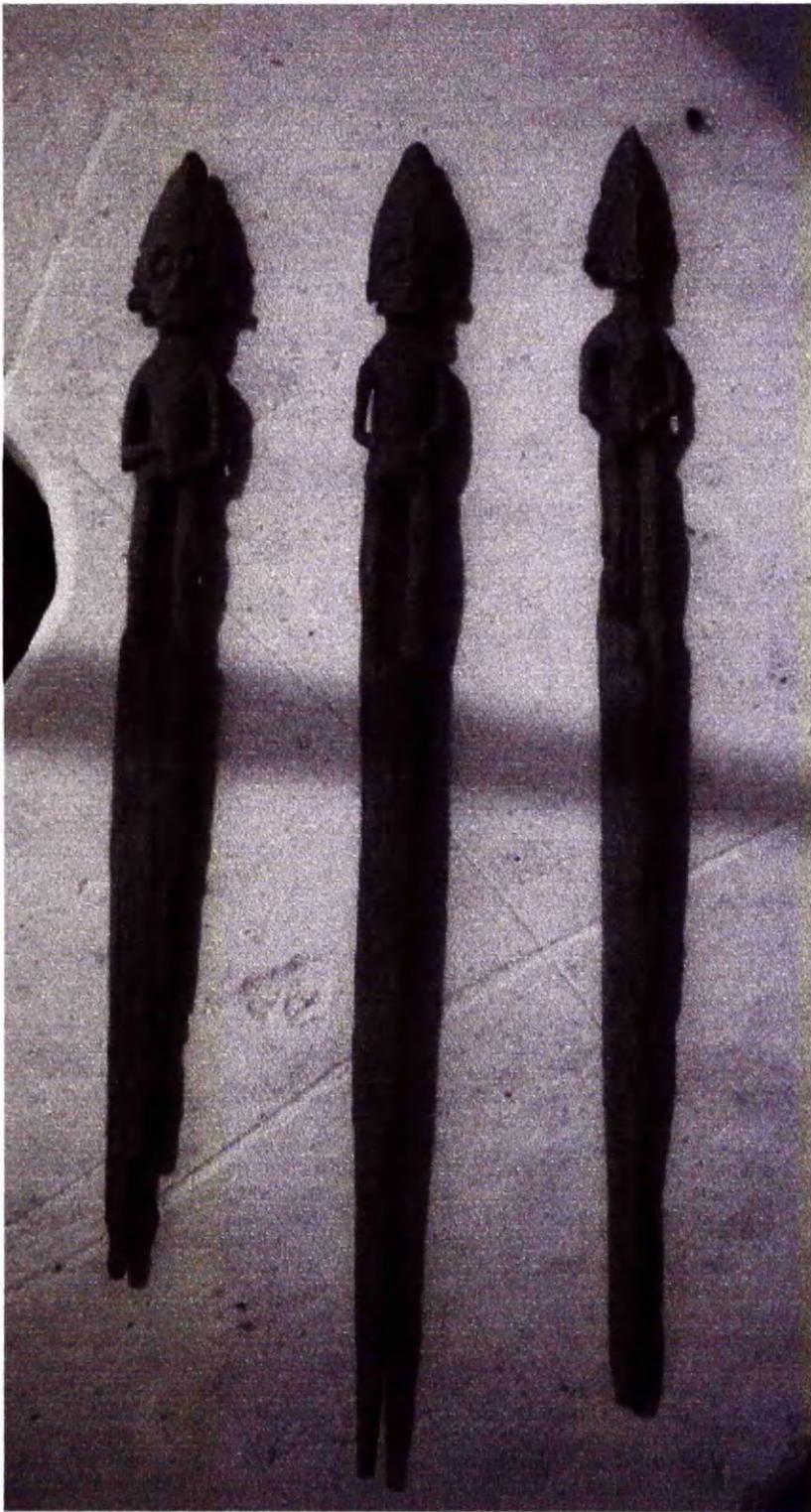
Below: Kai Hua bronze drum. Feathered-men motif playing the same instrument. After Katalog und Ausstellung 1975.



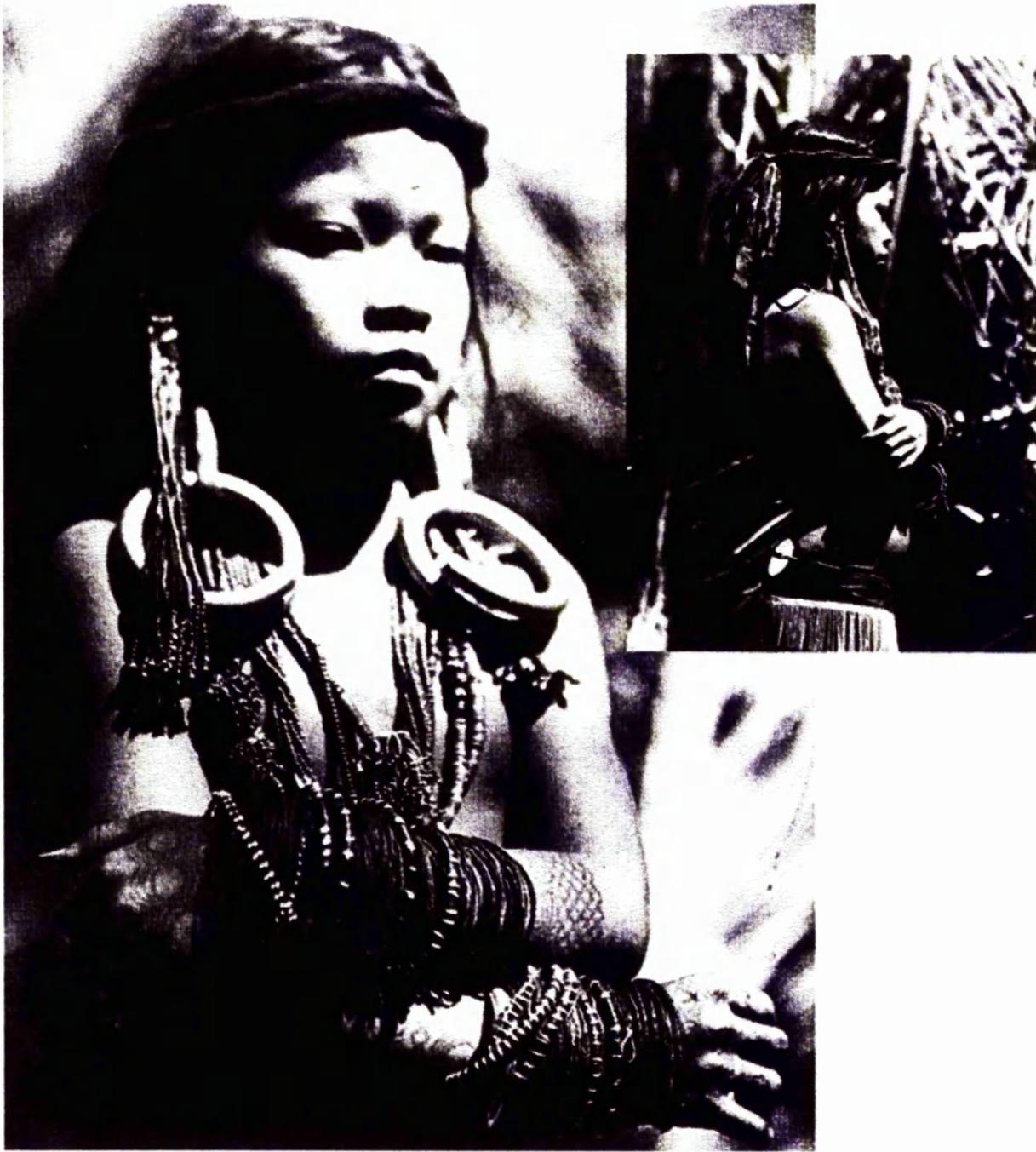
5.11. Gourd mouth organ (above) and jew's harp (below) played by the Mon-Khmer sepaking Ma people of Lam Dong province. VME photographs.



5.12. Anthropomorphic spear handles. A: Moi wooden spear. C: Dayak wooden spear. E: Dong Son bronze spear. After Colani 1936: 201, fig. 25.



5.13. Left: wooden spears with anthropomorphic handles from Kalimantan. H. 45-49 cm. Gucci Gallery, Bali. Right: Dong Son bronze spear with similar handle. H. 50 cm. Thanh Hoa Museum.



5.14. Kenyah Dayak. Practice of extending the ear lobes with heavy earrings. After Tillema 1989: 124, figs. 110-111.

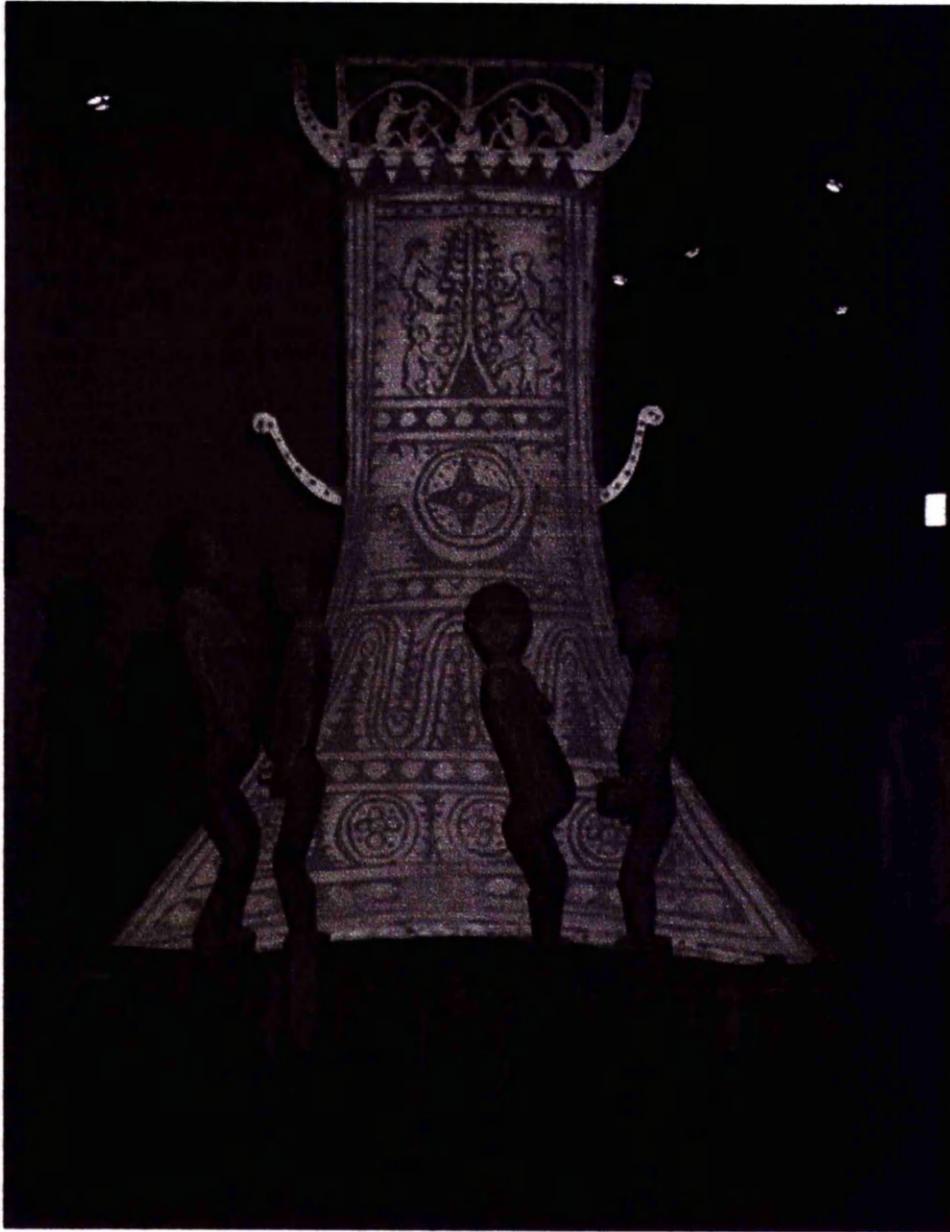


A



B

5.15. A: Dong Son bronze situla. B: Dayak rattan basket.
After Goloubew 1929: 22, fig. 10.



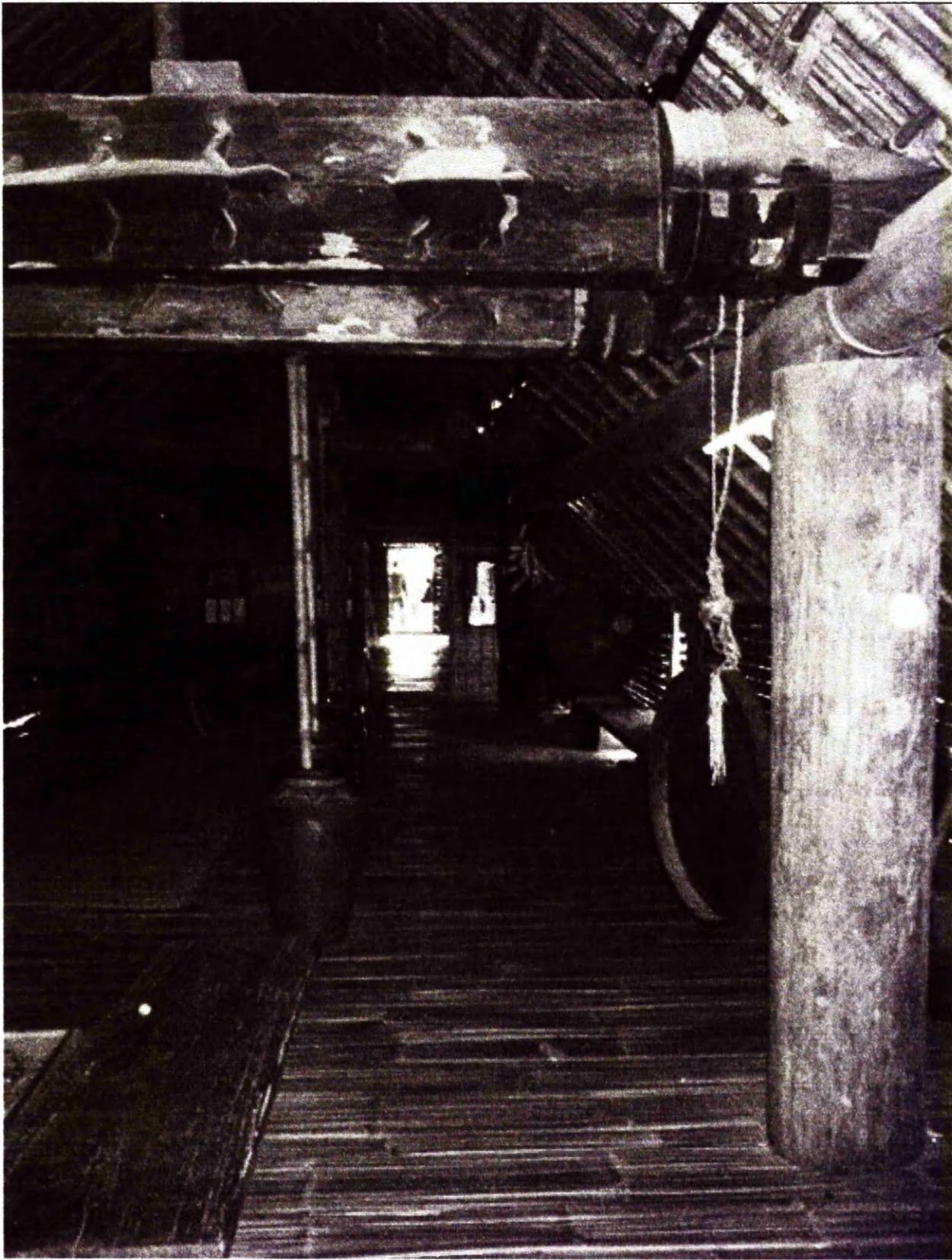
5.16. Giarai tomb. Vietnam Museum of Ethnology.



5.17. Giarai funerary pole with crouching seated figure. Sa Thay, Kon Tum province. After Vietnam Museum of Ethnology 1998: 110.



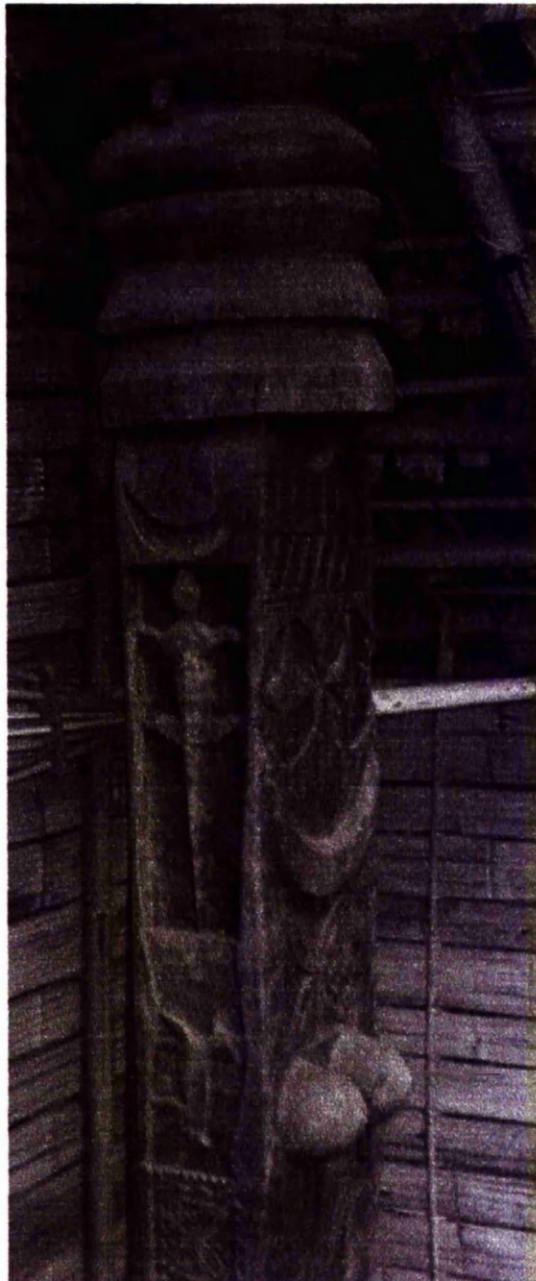
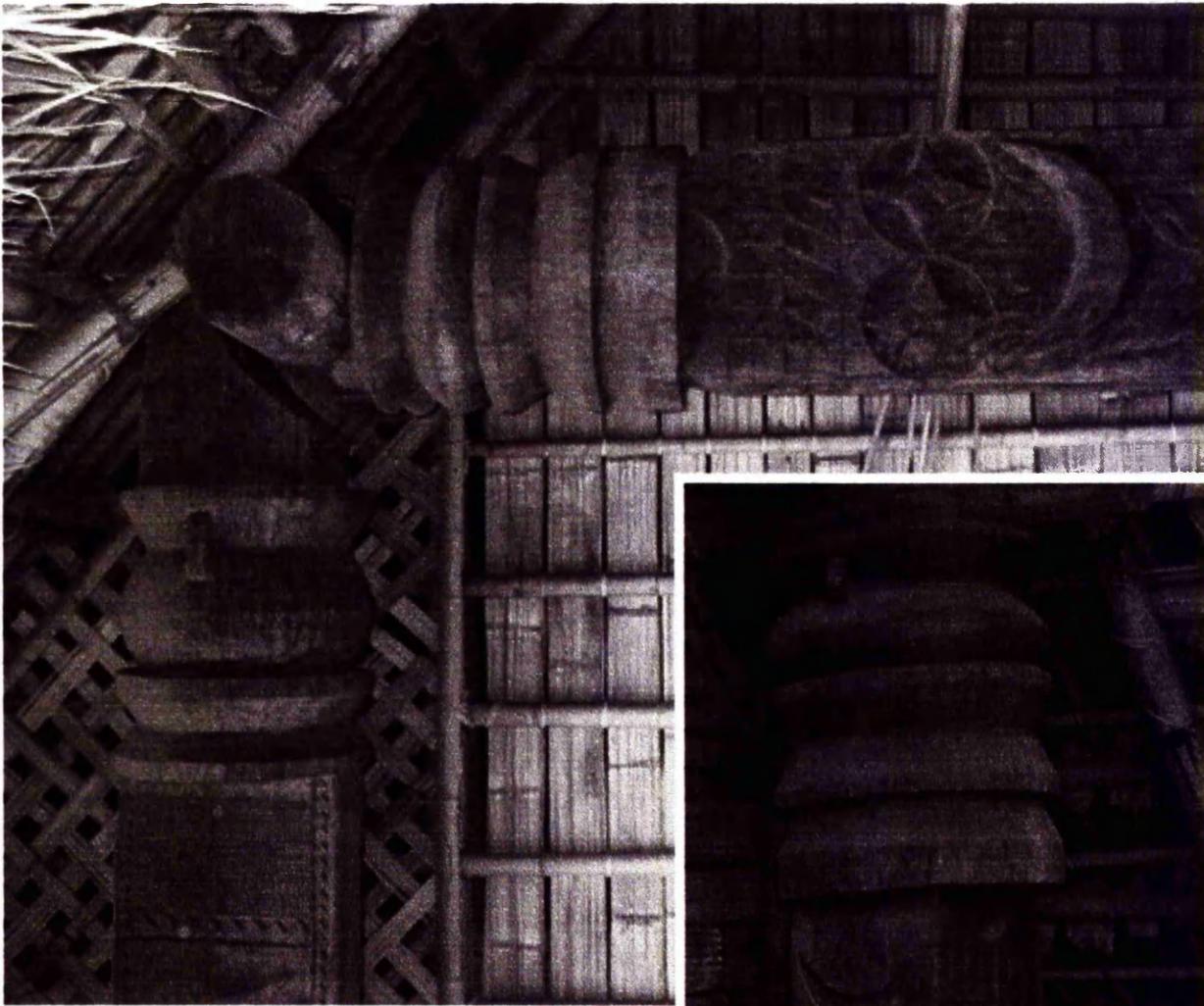
5.18. Dayak medicine box with crouching figure.
Central Kalimantan. Tita's Gallery. Bali.



5.19. Front interior (*gah*) of the Ede longhouse with heirlooms and carved beams. Vietnam Museum of Ethnology reconstruction.

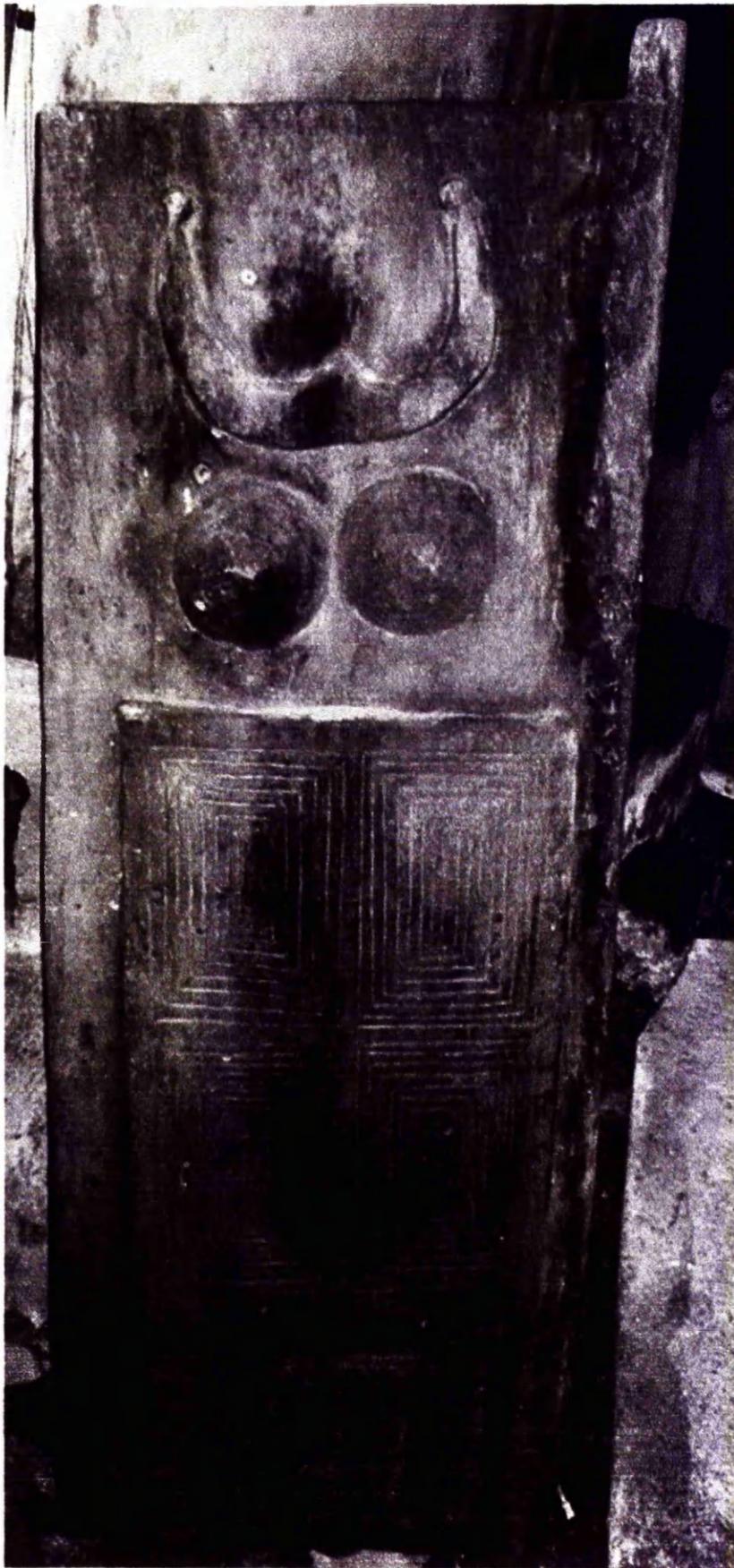


5.20. Ede longhouse entrance with pair of pot-shaped wooden sculptures, also carved on the beams and columns. Vietnam Museum of Ethnology reconstruction.



5.21. Ede longhouse. Details of the pot-shaped motifs carved on the supporting beams and columns.

Right: detail of the breasts and half moon motifs. Vietnam Museum of Ethnology reconstruction



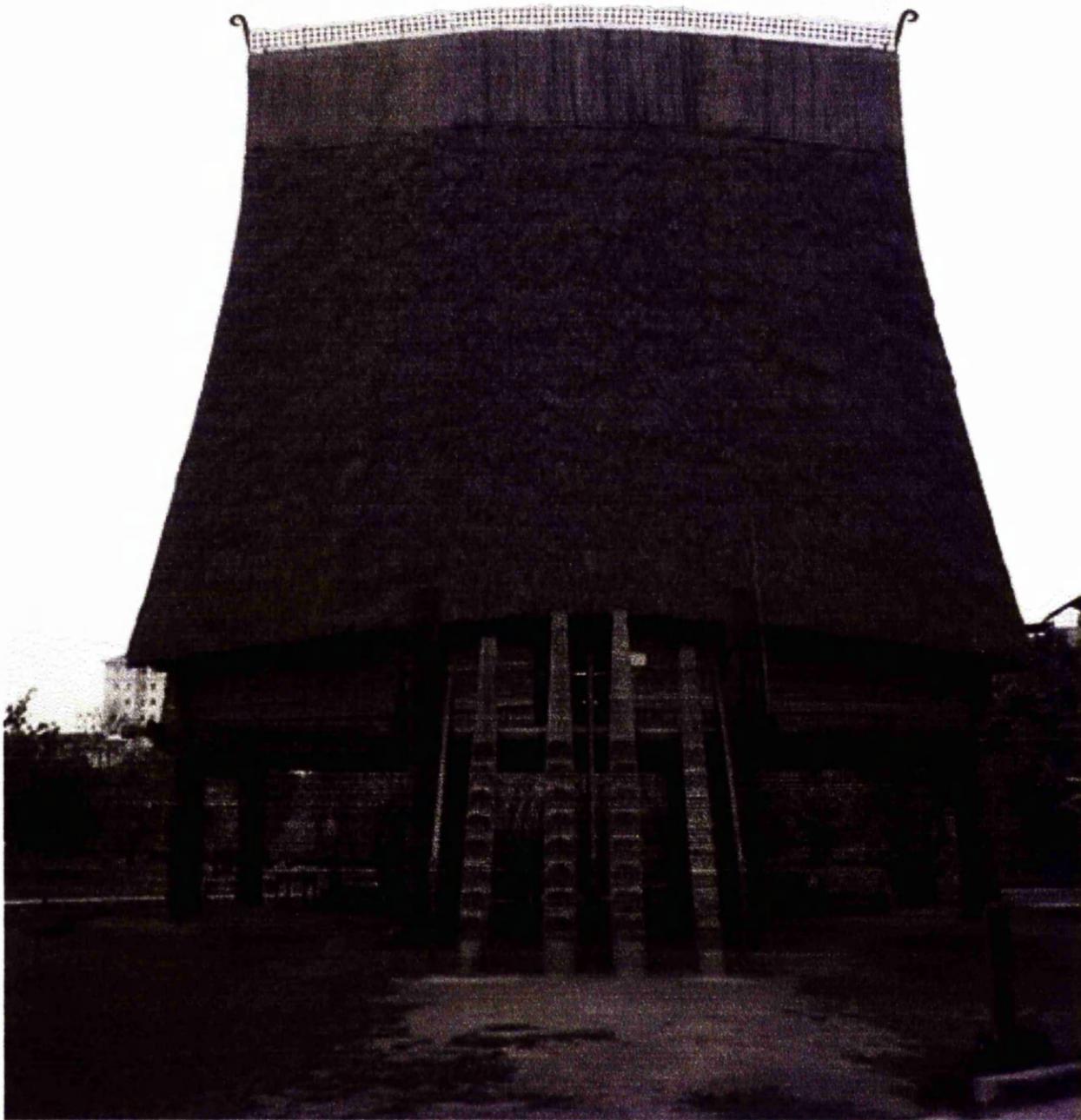
5.22. Wooden door covered with half moon, brasts and square pattern. Belo region, Timor. Dealer, Bali.



5.23. Wooden pole with pot-shaped motifs and seated figure.
Belu region, Timor. Local dealer, Bali.



5.24. Raglai tomb. Vietnam Museum of Ethnology photograph.



5.25. Bahnar house. Vietnam Museum of Ethnology reconstruction.



5.26. Ede ceremonial pole. Buon Don, Dac Lac province.

