

KOTA CINA: ITS CONTEXT AND MEANING IN  
THE TRADE OF SOUTHEAST ASIA IN THE  
TWELFTH TO FOURTEENTH CENTURIES  
VOLUME I OF II

A Thesis

Presented to the Faculty of the Graduate School  
of Cornell University

in Partial Fulfillment of the Requirements for the Degree of  
Doctor of Philosophy

by

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August 1984

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Over the past three-quarters of a century, the search for the lost Malay kingdom of Śrīvijaya has evolved through the study of epigraphy, historical sources, particularly Chinese, and art historical artifacts, to geographical survey and analysis of archaeological materials recovered by excavation. These developments have led to a more complete understanding of both human and natural resources and the environment of the area in which they existed.

Little or nothing was known of Śrīvijayan period archaeological sites in northeastern Sumatra, an area which historical sources suggest played an important role in east-west maritime trade during the first and early second millennium A.D. Excavation undertaken at Kota Cina thus provides data which help to shed light on cultural and economic developments in this area during the twelfth to fourteenth centuries, a period in which the name Śrīvijaya fades from historical sources.

Analysis of ceramic materials, both low fired earthenware and high fired imported stonewares, has proved useful, both as an aid to dating and for establishing physical trading and cultural relationships overseas. The high quality of much of the imported stoneware suggests a high level of prosperity among the ancient inhabitants of the site and infers important connections with the interior, a rich source of natural products such as benzoin, camphor and possibly gold.

Analysis of excavated materials also indicates important connections with both south India and south China and suggests the presence of Tamil and south Chinese communities at the site. The presence of the former may account for the occurrence of Dravidian sept names among the Karo merga Sembiring in the mountainous hinterland. The existence of a Chinese community in northeastern Sumatra occurs at a time that historical sources indicate increased Chinese maritime activity in the area.

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## BIOGRAPHICAL SKETCH

Edmund Edwards McKinnon was born on 12th February 1936 at Strawberry Hill, Twickenham in the County of Middlesex, United Kingdom. He attended Owen's School for Boys, London E.C. 1 from 1947 to 1952, the Kesteven (Lincolnshire) Farm Institute at Caythorpe from 1953 to 1954, where he studied Agricultural Engineering and the Edinburgh and East of Scotland College of Agriculture from 1954 to 1956. In 1956 he was awarded the Scottish and National Diplomas in Agriculture.

From 1956 to 1958, he served in the 1st Battalion Seaforth Highlanders in Gibraltar and Munster, Germany. Released from National Service, he was employed in the Potato Marketing industry until going to Sumatra as Assistant Manager for a British-owned plantation company in November 1960. Between 1962 and 1964 he managed the Langkat Group of rubber estates until the plantations were taken over by the Indonesian Government during the Confrontation with Malaysia. In 1962, he made his first trip to the Padang Lawas area of South Tapanuli to see the Panei complex of brick-built temples investigated by Schnitger in the 1930s. This trip did much to arouse initially his interest in Sumatran art and archaeology.

During 1965, he was employed as Assistant Manager of the Westworth tea estate in the Nilgiri Wynaad area of Madras in South India. During this period he was interested to find many linguistic and cultural affinities between Tamilnadu and northeastern Sumatra.

From 1966 until October 1969, he worked with a firm of Agricultural Business consultants based on Duns, Berwickshire, Scotland. He was then

invited to return to assist in the management of a British-owned plantation company based on Medan in Sumatra. Here he met his wife, Sinta Dermawan. His work entailed visits to plantations in not only North Sumatra, but also West and East Java and South Sulawesi.

During his time in Medan, he became increasingly aware of the rich but little known archaeological heritage of Sumatra. Beginning in 1970, he began an extensive sparetime investigation of archaeological sites in the Deli, Serdang, Langkat and Karo areas of North Sumatra; work which led to the rediscovery of Kota Cina and the identification of numerous previously unrecorded sites such as Kota Bangun, Kota Rentang and Pulau Kompei. He was actively supported in this interest by numerous Indonesian friends, especially Tengku Luckman Sinar S.H., Drs. E. K. Siahaan and Drs. Terbit Sembiring without whom little progress would have been made.

In 1976, he was awarded the Oriental Ceramic Society's George de Menasce Bursary Award and was elected as a Fellow of the Royal Asiatic Society. He came to Cornell University as a special student in September 1977. He then applied to the Department of the History of Art for admission as a Doctoral Candidate and has had support from the Southeast Asia Program and the University during the course of his studies. He has been employed in the Indonesian section of the Olin Library's Echols' Collection, an experience which has proved of great value in widening his bibliographical horizons.

He has written a Ph.D. dissertation based on his work at Kota Cina in Northeastern Sumatra and his experience of archaeological sites in other parts of the island. Utilizing his former experience in tropical agriculture, he is currently employed as a consultant in a Provincial Development Project

post funded by U.S. Aid in Development in West Java. He hopes, however, to be able to continue to take an active interest in Sumatran art and archaeology.

To Sinta

without whom this would not have been accomplished





## ACKNOWLEDGEMENTS

The fieldwork upon which this dissertation is based was carried out whilst I was resident in northeastern Sumatra between 1969 and 1977. This study could not have been accomplished without the help and encouragement of many people both in Indonesia and elsewhere.

I am particularly indebted to the staff of the Pusat Penelitian Arkeologi Nasional, Jakarta, especially to Dra. Satyawati Suleiman, the late Dra. Rumbi Mulia, Dr. R. P. Soejono, Dra. Sri Soejatmi Satari, Drs. Hasan Muarif Ambari and Drs. Pieter Ferdinandus for their interest and support. My thanks must also go to Drs. Uka Tjandrasasmita of the Direktorat Sejarah dan Purbakala and to Bapak Abu Ridho of the Museum Nasional, Jakarta for their interest in the Kota Cina finds.

I am also most indebted to Mr. and Mrs. T. K. Adhyatman and Mr. Mochtar Lubis for their encouragement which stimulated me to persevere with what turned into a long term endeavor and to Drs. E. K. Siahaan of the Bidang Permuseuman, Departemen Pendidikan dan Kebudayaan, Sumatera Utara, Medan and Tengku Luckman Sinar S.H. whose active interest in the potential of the Kota Cina site were a direct and sustaining source of inspiration.

My thanks must go also to Drs. Terbit Sembiring whose friendship and patience sustained me through some trying times and whose own deep interest in Karo culture eventually made me realize the importance of the role played by the Karo people in the development and exploitation of

natural resources in northeastern Sumatra. I am also indebted to Mr. Diam Sembiring of Tuntungan (Terbit's father) whose broad knowledge of Karo culture and geography has been a valuable source of information. I must also express my gratitude to Mr. Muslim Lubis of Medan who introduced me to a number of interesting archaeological sites in the Medan area and to Mr. Abdul Rahman Lubis who led me, eventually, to Kota Cina itself.

I have to express my gratitude for interest and support from many friends in Medan, including Pak Jusuf, Wladimir and Betty Dell, Karl and Liza Schnieder, and Mrs. Lani Dermawan who kindly allowed me to make use of her pavilion to store and sort the Kota Cina material. I have also to thank David and Karen Brameld lately of Penang for their encouragement and ideas and John and Heimun Miksic for their companionship and unstinting assistance in sorting the excavated material during their year in Medan 1976-77.

During my time at Cornell, the staff of the Southeast Asia Program were a constant source of aid and encouragement. This dissertation would not have been completed without the support of the Program.

My appreciation for guidance, friendship and encouragement to a late starter are due to many. In particular I would like to express my appreciation to Professor Stanley J. O'Connor, Professor Milton L. Barnett and Professor Andrew Ramage as Chairman and members of my committee. I must also acknowledge an especial debt to Professor O. W. Wolters whose writings on the early history of Indonesia have been a long sustaining source of interest. I must also express my appreciation to the late Professor John M. Echols for his help in discussing linguistic matters.

My thanks go also to Dr. Anthony C. Milner whose visit to Medan in 1974 did much to channel the subsequent course of events. To Mr. Laszlo I.

Legeza of the University of Durham Oriental Museum I owe much for encouragement and support for my work in northeastern Sumatra. His letters were a constant source of inspiration. Both Mr. Legeza and Mrs. Barbara Harrisson of the Princessehoff Museum, Leeuwarden have been of great assistance in discussing the origins and classification of ceramic materials.

I am indebted also to the Oriental Society, London for their interest in the Kota Cina discoveries. Both the George de Menasce Bursary Award from the Oriental Ceramic Society and a grant from the Southeast Asian Ceramic Society, Singapore did much to facilitate the final stages of the field work.

Finally, to the many other people who have taken an interest in what began, over a decade ago, as an avocation but which has since given me a whole new outlook upon life, my most grateful thanks.

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## ABBREVIATIONS

AA	Artibus Asiae
AI	Ancient India
AP	Asian Perspectives
BEFEO	Bulletin d'École Française d'Extrême-Orient
BKI	Bijdragen tot de Taal-, Land- en Volkenkunde van Nederlandsch-Indië, uitgegeven door het Koninklijk Instituut voor Taal-, Land- en Volkenkunde van Nederlandsch-Indië
BMFEA	Bulletin of the Museum of Far East Antiquities
BMJ	Brunei Museum Journal
BSOAS	Bulletin of the School of Oriental and African Studies
FEQ	Far East Quarterly
IAL	Indian Art and Letters
JAS	Journal of Asian Studies
JEAS	Journal of East Asian Studies
JGIS	Journal of the Greater Indian Society
JGS	Journal of Glass Studies
JMBRAS	Journal of the Malaysian Branch of the Royal Asiatic Society
JRAS	Journal of the Royal Asiatic Society
JSBRAS	Journal of the Straits Branch of the Royal Asiatic Society (now: JMBRAS)
JSS	Journal of the Siam Society
JTS	Journal of Tamil Studies
MNZG	Mededeelingen van het Nederlandsch Zendelings Genootschap
NBG	Notulen van het Bataviaasch Genootschap

OA	Oriental Art
OCS	Oriental Ceramic Society
OV	Oudheidkundig Verslag
SEACS	Southeast Asian Ceramic Society
SMJ	Sarawak Museum Journal
SRB	Sumatra Research Bulletin
TASSI	Transactions of the Archaeological Society of South India
TBG	Tijdschrift voor Indische Taal-, Land- en Volkenkunde, uitgegeven door het Koninklijk Bataviaasch Genootschap van Kunsten en Wetenschappen
TNAG	Tijdschrift van het Koninklijk Nederlandsch aardrijkskundig genootschap
TOCS	Transactions of the Oriental Ceramic Society
VBG	Verhandelingen van het Bataviaasch Genootschap





# CHAPTER 1

## INTRODUCTION

### 1.1 Sumatra

The Indonesian island of Sumatra is the sixth largest island in the world. Extending from about 6°N to almost 6°S, it lies aligned in a north-west-southeasterly direction athwart the Equator. Almost 1700 km in length and varying from approximately 200 km in width in the north to some 350 km at the widest part of the south, its northeastern part forms the western boundary of the Selat Melaka (Strait of Malacca). The total land area of the island is approximately 175,000 km<sup>2</sup>, comprising a central mountain spine, the Bukit Barisan range, with a broad coastal plain on the east, much of it low lying, swampy and fringed by mangrove (rhizophora spp.). On the west coast is a much narrower plain broken here and there at points where the mountains reach almost to the sea coast.

The mountains, generally covered in dense tropical forest, often rise above 3,000 m. There are thirteen active volcanoes, the highest of which is Gunung Kerinci (3805 m). An important and striking geological feature of the Bukit Barisan mountain range is the continuous system of axial valleys down its median line which extend from the most northerly tip of the island at Kota Raja (Banda Aceh) to Semangko Bay, bordering on the narrow Selat Sunda (Sunda Strait) and separating Sumatra from the thickly populated island of Java to the southeast. These linked valleys and their associated river systems mark the outcrop of the main line of the Sumatra fault

system.<sup>1</sup> In earlier times and indeed until quite recently, the long river systems, rising in the valleys of the Bukit Barisan and flowing out across the alluvial east coast plain, played an extremely important part in facilitating access to the interior.

On the narrow west coast plain, which is exposed to the full force of the western monsoon, the rivers are generally shorter and of far less importance to navigation but, as on the east coast, afford access to the interior.

The climate is generally hot and moist, stimulating lush vegetative growth. Temperatures vary little throughout the year but fluctuate seasonally with the arrival of the east and west monsoons. Rainfall in the northeast Sumatran littoral, the area with which I am directly concerned in this study, varies between about 2500 mm per annum to over 4000 mm per annum depending upon local circumstances. Rainfall is generally higher in closer proximity to the central mountain range. The highest rainfall is in the period from August to January and a drier period extends from February to April.

For centuries, human activities made little or no impression upon the ecology of Sumatra. Until very recently the island has been extremely sparsely populated.<sup>2</sup> In the northeast small numbers of human beings eked

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<sup>1</sup>Sumatran geology is far more complicated than had once been thought. For a recent discussion, see: B. G. N. Page, J. D. Bennett, N. R. Cameron, D. McC. Bridge, D. H. Jeffery, W. Keats, and J. Thaib, "A Review of the Main Structural and Magmatic Features of Northern Sumatra," Journal of the Geological Society of London, 136 (1979), pp. 569-79. For an earlier view, see: H. Th. Verstappen, A Geomorphological Reconnaissance of Sumatra and Adjacent Islands (Indonesia) (Gröningen: Verhandelingen of the Royal Dutch Geographical Society [T.N.A.G.] No. 1, 1973).

<sup>2</sup>Sumatra was always much less densely populated than Java. The most recent figures, however, show a total population of almost 28 million

out a simple existence as hunter gatherers along the shores of the Selat Melaka where in recent years accumulations of their domestic rubbish, left high and dry by a retreating coastline and possible tectonic uplift, afforded a few more enterprising and destructive individuals an ephemeral source of income as the mounds of bivalve and other shells were mined and burnt for lime. Here too, in the shell mounds, these early inhabitants buried their dead in both flexed and extended positions, scattering their remains with a dusting of red ochre. In the hinterland, small bands of these same people left their crude stone tools fashioned from andesitic river pebbles on the higher ridges of the lowlands and along the banks of small streams in the foothills where they lived by hunting small game and gathering fruit and perhaps wild rice.<sup>3</sup>

In the mountain valleys and the cool central plateau, groups of people who came to be known collectively as Batak practiced swidden agriculture and established permanent villages. Eventually they appear to have learned the techniques of permanent irrigated rice agriculture. Difficulties of access through broken terrain covered in dense tropical jungle cut them off

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and an annual growth rate of 3.34%. Kompas, January 9, 1981. Much of the increase is due to immigration, especially from Java.

<sup>3</sup>Described as a "Hoabinhian" culture. See: C. F. Gorman, "Hoabinhian: A Pebble Tool Complex with Early Plant Associations in Southeast Asia," Science, 163, no. 3868 (1969), pp. 671-73; R. W. Brandt, "The Hoabinhian of Sumatra: Some Remarks," Modern Quarternary Research in Southeast Asia, 2 (1976), pp. 49-52. For a more recent discussion on the north Sumatra shell middens, see: J. N. Miksic, "Archaeology, Trade and Society in Northeast Sumatra" (Ph.D. thesis, Cornell University, 1979), pp. 117-22. But see also: H. R. van Heekeren, The Stone Age of Indonesia (The Hague: Nijhoff, 1972). For a discussion of the major types of strand landscapes in this region see: D. E. Sopher, The Sea Nomads, 2nd ed. (Singapore: National Museum, 1977), pp. 3-19.

from the calm waters of the Selat Melaka, but did not altogether deter them from seeking essentials such as salt and a few luxuries from settlements which were beginning to develop along the sea route that linked the two major oriental civilizations of India and China. Their isolation from coastal dwellers seems to have been accentuated by ethnic and religious differences beginning with the introduction of Islam about the beginning of the fifteenth century.

When the first tentative attempts at interregional exchange first occurred is not clear, but such movements involving trade between India and Southeast Asia were already taking place by the beginning of the first millennium B.C.<sup>4</sup> By the beginning of the first millennium A.D. inter-regional contacts were well established and merchant shipping, aided by the alternating of the monsoon winds was beginning to move through the Selat Melaka. Tin from the Thai Isthmus, forest resins and spices from Indonesia and perhaps gold from Sumatra and Borneo found their way to emporia such as Arikamedu on the Mabar coast of South India, Mahatiṭṭa on the north coast of Sri Lanka, Barygaza in Gujerat and Tamralipti at the mouth of the Ganges (see map: Figure 1).

Early on in this pattern of exchange, a short cut developed across the Isthmus of Kra which provided an alternative route enabling merchants to avoid the narrow straits with its numerous river estuaries and sandy beached islands where shipping appears to have been continually plagued by local pirates. By the middle of the first millennium A.D., emporia on both sides of the Thai isthmus, the west coast of the Malay peninsula and

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<sup>4</sup>Professor W. G. Solheim has suggested to me that finds of stone beads in eastern Indonesia could relate to early attempts at interregional commerce.

the east coast of Sumatra were acquiring both economic and political importance, developments which provided a stimulus to the peoples of the interior of these lands to produce the harvests of their forest habitat for exchange.<sup>5</sup>

In the low coastal regions virtually all movement was by water. Coastal waters and rivers provided sustenance in the form of fish and molluscs and the rich tropical environment was also a source of readily available and easily procurable material for shelter and other basic necessities. But as the environment provided, it also erased whatever slight, ephemeral traces of human activity were left behind. The high humidity with an attendant rapid growth of moulds and fungi soon rotted away the very gifts of its bounty in an endless cycle of birth, death and rebirth. Only in very exceptional circumstances, where conditions pickled or preserved these same organic materials or where gourds, wood, bones and pollen grains are preserved in peat or where accumulations of strand refuse such as mollusc shells built up over long periods of time have any traces remained to be recognized.

Kota Cina is one such site where these special conditions persist. A wealth of well-preserved cultural remains, including impressive amounts of organic materials have survived to create an impression of an ancient emporium of some importance with close links with South India and South China during the twelfth to fourteenth centuries A.D.

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<sup>5</sup>For a full discussion of early trade routes through these waters see: O. W. Wolters, Early Indonesian Commerce (Ithaca, N.Y.: Cornell University Press, 1977), pp. 31-48.

## 1.2 The Historical Record and the Legend

The name Kota Cina first appears in historical records in the early nineteenth century when John Anderson, an officer of the Honourable East India Company at Penang published his politico-economic survey of the East Coast of Sumatra in 1826. Although Anderson did not personally visit the site, he notes that "at Kota Cina is a stone of a very large size, with an inscription upon it in characters not understood by any of the natives."<sup>6</sup>

Later an excerpt and comment upon Anderson's note were published in Tijdschrift van het Bataviasche Genootschap.<sup>7</sup> In 1882, shortly after the Dutch had established themselves in the Deli area, the Controleur of Labuhan Deli, having been requested to search for the inscription, visited the site but found no trace of it. Another stone, known locally as the lumpang batu (stone mortar), apparently a yoni or statue base with an indented rectangle measuring 45 x 53 cm and 5 cm deep, was, however, removed to the Controleur's compound at Labuhan. At the same time the Controleur recorded a tradition at Kota Cina which related that Chinese had occupied the site many years previously.<sup>8</sup> Thereafter, except for a brief resumé of the literature relating to Kota Cina in the Oudheidkundig Verslag of 1914,<sup>9</sup> the site appears to have been forgotten until 1972.<sup>10</sup>

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<sup>6</sup>J. Anderson, Mission to the East Coast of Sumatra in 1823 (Kuala Lumpur: Oxford in Asia Historical Reprints, 1971), p. 294.

<sup>7</sup>TBG, 12 (1862), p. 231.

<sup>8</sup>NBG (1883), pp. 48-49.

<sup>9</sup>N. J. Krom, "Inventaris der Oudheden: Residentie Oostkust Van Sumatra, Afdeeling Deli en Serdang," OV (1914), p. 133.

<sup>10</sup>Kota Cina was not on the itineraries of Van Stein Callenfels, described in "Rapport over een dienstreis door een deel van Sumatra," OV

In 1972 I was able to record one version of the legend mentioned by the Controleur almost a century earlier. It was related by an old man named Japri, uncle of the Penghulu Usman Ali, and ascribed a long history of settlement to the site.

Originally the village was an Indian settlement by the edge of the sea. It was a time of commerce when everyone was busy with various things. Then Chinese arrived in the harbor and soon fighting broke out between the Indians and the newcomers. The Indians lost and ran away. There is a tale of a silver statue, with eyes made of diamonds which was in the village at that time, but it is now lost.

The outcome of the fighting between the Indians and the Chinese was that the Almighty was angered. The Chinese did not enjoy the fruits of their victory over the Indians for long, as retribution in the form of a plague of shellfish that came up out of the sea was sent by the Almighty and soon the settlement was overrun. The shells swamped the Chinese, getting into everything, into their eyes and ears, filling their cooking pots and rice bowls until they could stand it no longer and they too ran away. Some fled back to China and others scattered to places in Sumatra. The Chinese who live in the village now are all newcomers, having arrived in the past thirty or forty years.

Miksic recorded a slightly different version of the story which indicates that an earlier settlement, occupied by Indians existed nearby at Lubuk Bedena, formerly known as Teluk Belanga. The Indians were driven away by Chinese who in turn were driven out by a plague of shellfish. No trace of this settlement has come to light.<sup>11</sup>

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(1920), Bijlage F, pp. 62-75, or that of Bosch, "Verslag van een reis door Sumatra," OV (1930), Bijlage C, pp. 133-57, 243, 244, though both these scholars visited various other archaeological sites in Sumatra. For more recent brief descriptions of the site, see: E. Edwards McKinnon, "Kota Tjina," SRB, 3, no. 1 (1973), pp. 47-52; E. Edwards McKinnon and Tengku Luckman Sinar, "Notes on Further Developments at Kota China," SRB, 4, no. 1 (1974), pp. 63-86; E. Edwards McKinnon, "Research at Kota Cina," Archipel, 14 (1977), pp. 19-32, and "Oriental Ceramics Excavated in North Sumatra," TOCS, 41 (1975-77), pp. 59-118. On the historical context, see: A. C. Milner, E. Edwards McKinnon, and Tengku Luckman Sinar, "A Note on Aru and Kota Cina," Indonesia, 26 (1978), pp. 1-42.

<sup>11</sup>Miksic, "Archaeology," p. 229.

Place names in this area, no less than many other parts of the world often have an historical significance.<sup>12</sup> The name "Kota Cina" would appear to arise from a folk memory reflecting the presence of Chinese at the site for the name literally translated means "a fortified settlement occupied by Chinese."

Why Chinese, rather than Indians, who also appear to have occupied the site, were remembered is not clear, but at one time it seems that the settlement was surrounded by either a wooden palisade or a bamboo pagar or perhaps even a combination of both. It is unlikely that a wall as such ever existed though there may have been an earthen rampart or benteng to protect the site.<sup>13</sup> No trace of any fortification now remains visible above the ground. Conceivably evidence may come to light through careful excavation.

### 1.3 Location of the Site

The archaeological site of Kota Cina is located at 3°43' north latitude, 98°38' east longitude at the edge of a tongue of land rising to about 1.5

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<sup>12</sup> Professor Wolters considers that many Indonesian place names have great antiquity. See: O. W. Wolters, The Fall of Śrīvijaya in Malay History (Kuala Lumpur: Oxford University Press, 1970), p. 196, n. 17.

<sup>13</sup> Bronson thought that Kota Cina may have been surrounded by a wall of earth or brick in the manner of town and city sites on mainland Southeast Asia. See: B. Bronson and J. Wisseman, "An Archaeological Survey in Sumatra, 1973," SRB, 4, no. 1 (1974), pp. 87-94. Remains of an earthen wall and ditch were still to be seen around the landward side of ancient Tumasik at Singapore when the site was first occupied by Europeans in the early nineteenth century, see: R. Braddell, "Lung-Ya-Men and Tan-Ma-Hsi," JMBRAS, 23, no. 1 (1950), pp. 37-51, and R. J. Wilkinson, "Old Singapore," JMBRAS, 13, no. 2 (1935), pp. 48-52. Apart from the site of Kota Jawa on the Sungei Deli, none of the other early coastal sites in the Kota Cina area have visible signs of any defensive earthworks.



meters above the level of the surrounding tidal swamp lands. It is situated some six to seven kilometers inland from the modern port of Belawan Deli and lies between the confluence of the Sungei Belawan (also known as the Hamperan Perak or Buluh Cina) and the Sungei Deli. The Belawan flows to the west and north and the Deli to the east.<sup>14</sup> (See map: Figure 3.) Much of the surrounding area is extremely swampy and is intersected by numerous small creeks and streams, some of which are very deep. A tidal creek, the Paluh Tangkalan Lajang<sup>15</sup> connects the northern part of the site with a branch of the Belawan/Hamperan Perak river, known locally as the Sungei Besar. This, in turn, flows into the Sungei Deli between Labuhan and Belawan. Parts of the surrounding land have been reclaimed as seasonal rice sawah. Large nipah swamps exist only 300 meters to the north which then merge into mangrove nearer the coast. At one time sea-going ships were apparently able to anchor in close proximity to the site itself.

The site was apparently inhabited in the early nineteenth century<sup>16</sup> and in 1875 Halewijn records that Kota Cina, a small village of ten tangga (houses) was under the direct control of the Sultan of Deli whose seat was at neighboring Labuhan.<sup>17</sup> The villages of Terjun and Hamperan Perak

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<sup>14</sup>The port of Belawan Deli was established as a modern deepwater port for plantation produce only in 1890. In the early nineteenth century the main harbors appear to have been at Buluh Cina on the Belawan river and Labuhan Deli on the Deli river. Anderson, Mission, pp. 202-4.

<sup>15</sup>A second version of this name is given as the Paluh Tangkahan Lajang, which may be a corruption of Pangkalan, Malay: a starting place, where one begins. R. J. Wilkinson, A Malay-English Dictionary (Romanized) (London: Macmillan, 1959), p. 841. Tangkalan is a talisman or amulet, Wilkinson, Dictionary, p. 1167.

<sup>16</sup>The name was known to people questioned by Anderson, Mission, p. 294.

<sup>17</sup>E. A. Halewijn, "Geographische en Ethnographische Gegevens

only a kilometer or two to the west, on the other hand, were part of the Suku Duabelas Kota under the direct control of the Kejuruan Hamperan Perak, a Malayized Karo Batak chief.<sup>18</sup>

At the present time the site is approached by means of an unpaved dirt track leading northwards across a rice sawah from the minor road connecting Titipapan, a village immediately south of Labuhan Deli on the main Medan-Belawan road, and Hamperan Perak.

Following recent administrative reorganization and extension of Medan's city boundary, the village now forms part of the Kepenghuluan Rengas Pulau, Kecamatan Medan-Labuhan, of the Kotamadya Medan.<sup>19</sup> The inhabitants are a mixture of Malays (Orang Kampung), Javanese and Chinese, all grow coconuts, bananas and duku (Lansium domesticum). The Chinese also grow a variety of vegetables and keep pigs and chickens. Although the life of the villagers has remained largely unaffected by the hustle and bustle of both Belawan and Medan, modern development has recently begun to encroach upon the area as a Perusahaan Listrik Negara electrical plant has been constructed nearby at Paya Pasir on the Titipapan/Hamperan Perak road. A line of electric pylons has been erected across the southwestern end of the site, and other land is being alienated for industrial and commercial purposes. These encroachments could before long pose a serious threat to the site.

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betreffende het rijk van Deli (Oostkust van Sumatra)," TBG, 23 (1876), pp. 149-58.

<sup>18</sup>P. J. Veth, "Het Landschap Deli op Sumatra," TNAG, 2 (1877), pp. 152-70. See also: Halewijn, "Geographische Gegevens," p. 152.

<sup>19</sup>Medan city limits were redrawn to include the Belawan area in 1975.

But long before Medan was of any economic significance and before the establishment of vast plantations of crops such as tobacco, coffee, rubber, oil palm, and cocoa, Kota Cina derived its importance as an anchorage on the main east-west sailing route, where sailors could obtain a supply of fresh water and merchants could find produce from its forest hinterland. The Kota Cina area has long been a focus of a number of inland routes, which linked the east coast with the Karo plateau and the resin rich areas of the Bukit Barisan mountain range.

Although the East Coast littoral is traditionally the home of the Sumatran Malays, in actual fact the effects of Malay culture did not penetrate very far from the coast until quite recent times. The acculturation of non-Malay peoples accelerated rapidly during the nineteenth century when Malay Sultans gained economic and political power from a Dutch presence in the region.<sup>20</sup> In the early nineteenth century, Anderson notes that the first Karo Batak villages were, at most, two days march from the coast and, as noted above, the neighboring villages of Hamperan Perak and Terjun were under the direct control of the Kejuruan Hamperan Perak, who was of Karo Batak origin. It is of interest, therefore, to consider the possible role of the Karo Batak who occupied much of the immediate hinterland of the Kota Cina region in the development of the site as a trading port of some significance.

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<sup>20</sup>On the process of Malay acculturation in this area, see: A. C. Milner, "The Malay Raja" (Ph.D. thesis, Cornell University, 1977), especially Chapter 6. For a comparison with similar processes in Sarawak see: E. R. Leach, Social Science Research in Sarawak (London: H.M.S.O., 1950), especially pp. 78-80, "Para-Malay." See also: T. Harrisson, The Malays of South-West Sarawak before Malaysia (London: Macmillan, 1970), pp. 154-59.

#### 1.4 The Karo Factor

The Karo are one of a group of linguistically and culturally related "Batak" peoples who occupy an extensive area of northern Sumatra lying roughly between 0°30' N. and 3°45' N. The Batak are situated between the Minangkabau in the south and the Alas and Gayo peoples on the southern borders of Aceh to the north. There are different subdivisions of the "Batak": the Angkola and the Mandailing, who were forcibly converted to Islam during the nineteenth century and who are perhaps the least "Batak" of the group; the Toba who, as their name implies, live around the shores of Lake Toba; the Pardembanan and the Timur or Simelungun living in what is now Asahan and Simelungun, the Pakpak and the Karo.<sup>21</sup> Predominantly an upland people the Batak remained relatively isolated from the mainstream of Southeast Asian cultural exchange until the nineteenth century, but even then external influences were slight compared to the more recent and dramatic impact of Indonesian independence. In the past forty years major social and economic changes have brought many people of Batak origin to the forefront of Indonesian society.<sup>22</sup>

The name "Batak" was an appellation with highly offensive connotations. The Batak were described as "pig eaters"; they also had a

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<sup>21</sup>Although Toba Batak creation myth suggests a single ancestor and origin for all the Batak peoples, it is more likely that they have developed a unifying ethnic identity over time. For a recent discussion of the Batak, see: A. C. Viner, "The Changing Batak," *JMBRAS*, 52, no. 2 (1979), pp. 84-112, in which he notes that Loeb's data on the Batak is both incomplete and undependable. E. M. Loeb, *Sumatra, Its History and People* (Wien: Institut für Volkerkunde, 1935). See also: "Bataklanden" and "Bataks," *ENI*, pp. 175-82.

<sup>22</sup>M. Singarimbun, Kinship, Descent and Alliance among the Karo Batak (Berkeley: University of California, 1975), especially Chapter 1.

reputation for anthropophagy.<sup>23</sup> The Karo, however, unlike their neighbors the Timor and the Toba, deny that they ever indulged in cannibalism.<sup>24</sup>

Known among themselves as the m̄rga si lima, the people of the five clans, their Karo homeland extended between 3° and approximately 3°45' north and 1°30' to 2°30' west. Geographically, Karo settlements were divided into two main groups, those of the upland plateau known as Taneh Karo (Karo land) and those of the lowland areas between the foothills and the coast, the hinterland of the erstwhile Malay Sultanates of Serdang, Deli and Langkat, known as the dusun.<sup>25</sup> Those who lived near the coast became increasingly exposed to "Malay" as opposed to "Batak" culture that over time may have led to a yet further differentiation which was already apparent by the fifteenth century.

The Deli area has been identified with the toponym Aru or Haru, a name which in all likelihood derives from the word Karo.<sup>26</sup> First mentioned

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<sup>23</sup>Loeb, Sumatra, pp. 34-36. Anderson remarks: "The prevailing race, in the interior, is the Battaks, a singular people who, to a considerable knowledge of letters and arts, and a tolerable share of industry, add, rather whimsically, a taste for human flesh, being well ascertained to indulge in occasional anthropophagy." J. Anderson, Acheen and the Ports on the North and East Coasts of Sumatra (Kuala Lumpur: Oxford in Asia Historical Reprints, 1971), p. 176.

<sup>24</sup>Loeb, Sumatra, p. 34. See also: C. J. Westenberg, "Aanteekeningen Omtrent De Godsdienstige Begrippen der Karo Bataks," BKI, 41 (1892), pp. 208-53, who found the Karo to be much milder and more humane than their Timor and Toba neighbors.

<sup>25</sup>Singrimbun, Kinship, p. 1; ENI, p. 177.

<sup>26</sup>I now think this a more likely origin than the word Aru, the "casuarina tree" (*Casuarina equisetifolia*). The letters H and K appear to be interchangeable in Batak (the letter K in Karo Batak is related to the H sound in Toba) and are reflexes of earlier stages in the history of the languages. The suggestion that the name Haru originated from Karo was first made by a Mr. Obdeyn, Secretary to the Gouvernement Sumatra's Oostkust to Dr. Van Stein Callenfels in 1920. Van Stein Callenfels, "Rapport," p. 75.

in the Yuan Shi (A History of the Yuan Dynasty), a state of this name was ordered to submit to Kubilai Khan in 1282.<sup>27</sup> A passage in the Sejarah Melayu refers to "the Raja of Haru in the time of the Sultan Ala'u'd-din of Malacca (1477-1488) who was Maharaja 'diraja, a son of Sultan Sajak who traced his descent from the Rock."<sup>28</sup> The Rock, it was explained, which seemed to be upstream if one was descending the stream and downstream if one was going up.<sup>29</sup> Milner has suggested that a second, and to my mind, more likely rendition is possible for the term batu (rock) which may also be rendered bata or bata' (Batak).<sup>30</sup> Thus the Malay "daripada bata' hilir di-kata hulu, bata' hulu dikata hilir" may be translated as "from the Batak who were considered downstream people by the upstream people and upstream by the downstream people."<sup>31</sup> Should this refer to a Malayo-Batak ruler who had his seat at the former Karo stronghold of Deli Tua, a site reputedly associated with the ruler of Haru, it would make considerable sense.

The process of "Malay" acculturation of the coastal or lowland Karo (and other Batak peoples), perhaps initiated by the arrival of Islam or even earlier external influences, and strengthened by the Acehnese incursions of the sixteenth and seventeenth centuries, thus appears to have been a long one. It accelerated rapidly during the nineteenth century when improved

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<sup>27</sup>Wolters, The Fall of Srivijaya, p. 44.

<sup>28</sup>C. C. Brown, Sejarah Melayu or Malay Annals (Kuala Lumpur: Oxford in Asia Historical Reprints, 1970), p. 112, n. 589.

<sup>29</sup>Shellabear, "Sejarah Melayu," quoted in Brown, Sejarah, p. 239, n. 589.

<sup>30</sup>Milner et al., "Aru and Kota Cina," p. 13.

<sup>31</sup>Ibid., p. 14.

social and economic circumstances, together with the then stigmatic connotations of the name Batak, led to an increasing adoption of Malay cultural traits by the lowland people.<sup>32</sup> Ethnically, however, the inhabitants of the Kota Cina hinterland remained predominantly Karo.<sup>33</sup>

The mĕrga si lima, the five clans who share a common language and culture, are said to have originated from the five sons of a mythical grandmother named Nini Karo, thus the Karo Karo, the Ginting, the Tarigan, the Perangin-angin and the Sembiring all acknowledge the same mythical ancestor. The term mĕrga, or clan, originally appears to have had a territorial connotation. Each clan had its own land rights (hak taneh) in certain areas. Other folk, not members of the clan but who lived in the clan areas, had no rights to land in that area and appear to have been regarded much as tenants. The land rights have persisted in the upland areas but have long since gone in the dusun areas where the various Malay Sultans in the nineteenth century alienated the rights of land over which they initially had no jurisdiction.<sup>34</sup> Evidence for a Karo presence in the Malay coastal areas

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<sup>32</sup>Milner, "The Malay Raja," pp. 181-87.

<sup>33</sup>This point tends to have been obscured by the dramatic changes which have taken place in northeastern Sumatra since 1870. Vast plantations have replaced the indigenous forest and the few original inhabitants have been lost among the influx of people from Java, China and India, and more recently by the arrival of Toba Batak people. On the earlier, pre-plantation situation see: Halewijn, "Geographische en Ethnographische Gegevens," pp. 149-58; Veth, "Het Landschap Deli," pp. 152-70; E. Netscher, "Togtjes in het Gebeid van Riouw en Onderhoorigen," TBG, 13, no. 4 (1864), pp. 340-51. On the recent large scale migration of the Toba Bataks, see C. E. Cunningham, The Postwar Migration of the Toba-Bataks to East Sumatra, Cultural Report No. 5 (New Haven, Connecticut: Yale University Southeast Asian Studies, 1958).

<sup>34</sup>A similar case for a long standing Pardembanan Batak presence in the Asahan area can also be made. Although Bartlett states that "within historic times the highland Batak have more or less overflowed into the lowlands" and that there is a legend of "foreign" (jau) colonization

of northeastern Sumatra is corroborated by both historical and ethnographic data and also in a number of place names which suggest a derivation from a Karo, as distinct from a Malay, origin. Folk memories and legends also support this view.

One of the most striking examples of a place name of Karo origin is that of the modern port of Belawan Deli which appears to take its name from the Karo word erbulawan, meaning "to make an agreement on oath."<sup>35</sup>

Here, according to legend, there was once a kĕramat (shrine) at which Karo traders made a binding oath not to cheat their fellows who were afraid to cross the sea and stayed behind when they took their horses to be sold in Penang. A second version of the story associates the same shrine with the legendary Karo heroine Puteri Ijo, the Green Princess, for it was here that she is said to have sworn not to forsake her brothers the snake and the cannon, and to outwit the Sultan of Aceh who had abducted her.<sup>36</sup> It

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in the Asahan and Simelungun areas, a Pardembanan presence may, in fact, be of very long standing. There may have been, as he points out, a local aboriginal group who were subsumed into the Toba type prior to or concurrently with the colonization of the lowlands by the jau (possibly Hindu) people. The occurrence of Kota Cina phase artifacts at Simpang Ampat near Tanjong Balei in Asahan leads me to believe that a similar, contemporary, harbor site may exist in the Sungei Silau Mati area. The Asahan route would have offered an attractive outlet for benzoin and other forest products from the southern end of Lake Toba. At least one Batak mĕrga in this area has a name of Hindu origin, the Sinaga. For a discussion of a Batak presence in Asahan and pre-Islamic non-Batak influences, see: H. H. Bartlett, "A Batak and Malay Chant on Rice Cultivation, with Introductory Notes on Bilingualism and Acculturation in Indonesia," in Labors of the Datoe (Ann Arbor: University of Michigan Center for South and Southeast Asian Studies, 1973), pp. 317-40. On Bataks in the Asahan area in the nineteenth century, see: Anderson, Mission, pp. 123-56.

<sup>35</sup>J. H. Neumann, Karo-Bataks-Nederlands Woordenboek (Jakarta: Lembaga Kebudajaan Indonesia, 1951), p. 58.

<sup>36</sup>Drs. Terbit Sembiring, personal communication.



seems, however, that the name may have a much earlier origin and may reflect a folk memory of a long forgotten agreement between foreign merchants and Karo traders who brought down forest produce from the mountain hinterland.<sup>37</sup>

Other place names in the Deli area which appear to have a conspicuous Karo connotation are those of Kota Bangun, on the west bank of the Sungei Deli upstream from Labuhan Deli, reputedly founded by a member of the Bangun suku (sept) of the Perangin-angin clan,<sup>38</sup> Mabar on the east bank of the Deli, opposite Kota Bangun, which was founded by a Sembiring Kembaren,<sup>39</sup> and Pulau Berayan, lying between Kota Bangun and Medan, which takes its name from a Karo water spirit, the Hantu Salabayan.<sup>40</sup> According to legend, a village named Alé Deli was reputedly founded by a member of the Tarigan clan who later conquered Siak and became Sultan there.<sup>41</sup> There is a village of Alai lying between Labuhan Deli and Kota Cina. Both Kota Bangun and Mabar are among sites which have yielded Sung or Yuan period stonewares, a fact which indicates the possibility of settlement here at least as early as the thirteenth or fourteenth centuries.<sup>42</sup>

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<sup>37</sup>Miksic has suggested that exchange between foreign traders and the inhabitants of the hinterland may have become ritualized. See: Miksic, "Archaeology," p. 108.

<sup>38</sup>Pak Diam Sembiring, Tuntungan, personal communication.

<sup>39</sup>On Karo folk law, see: J. H. Neumann, "Bijdrage tot de Geschiedenis der Karo Batakstammen," 1, BKI, 82 (1926), pp. 1-26; 2, BKI, 83 (1927), pp. 162-80. Both these articles are now available in Indonesian translation: Sejarah Batak Karo, Sebuah Sumbangan (Jakarta: Bhratara, 1972).

<sup>40</sup>Drs. Terbit Sembiring, personal communication.

<sup>41</sup>Neumann, "Bijdrage," 1, p. 33.

<sup>42</sup>Milner et al., "Aru and Kota Cina," p. 29.

Long before there were any roads into the hinterland and the upland plateau, there were trails leading across the mountains which appear to have been of considerable economic importance. Dutch descriptions of the nineteenth and early twentieth centuries give some vivid impressions both of the conditions experienced in traversing these routes and of the time involved in making journeys into the hinterland.<sup>43</sup> Historical records attest to the importance of transinsular portages.

On the west coast, commercial establishments such as Labu Tua and, later, Barus tapped the rich natural resources of their mountainous hinterland. Historical sources, both Arab and Chinese, attest to the importance of aromatic resins in ancient trade and archaeological evidence indicates a South Indian involvement in the resin trade of Sumatra's west coast.<sup>44</sup> At Labu Tua a Tamil stele bearing a date equivalent to 1088 A.D. was discovered in the mid-nineteenth century. The inscription, in Grantha script, testifies the involvement of a guild of merchants, the "guild of the five hundred of the four quarters" in the trade of the Barus area.<sup>45</sup> The west

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<sup>43</sup>For example, see: J. A. M. Van Cats, "Reize in de Battaklanden in Desember 1866 en Januarij 1867," TBG, 22 (1875), pp. 164-219; C. De Haan, "Verslag van eene reis in de Battaklanden," VBG, 38 (1875), pp. 1-57; J. Von Brenner, Besuch bei den Kannibalen auf Sumatra (Wurzburg: Woerl, 1891), who first published a map of the Karo area, later criticized as inaccurate by Kruijt; see below. K. T. E. Van Bevervoorde, "Een bezoek aan de Bataksche Hoogvlakte," BKI, 41 (1892), pp. 609-21; H. C. Kruijt, "Berichten," MNZG, 34 (1890), pp. 325-31, and his "Bezoekreis op het Plateau van Deli (Karloand)," MNZG, 35 (1891), pp. 309-411; M. Joustra, "Verslag van een bezoek aan het onafhankelijk Karo Batak gebeid," MNZG, 43 (1899), pp. 123-51.

<sup>44</sup>G. J. J. Deutz, "Baros," TBG, 22 (1875), pp. 156-63; L. Van Vuuren, "De Handel van Baroes, als oudste haven op Sumatra's Westkust verklaard; en voor de toekomst beschouwd," TNAG, 25 no. 2 (1908), pp. 1389-1402. Also: J. Tideman, Hindoe-invloed in Noordelijk Batakland (Amsterdam: Uitgaven v.h. Bataksch Instituut No. 23, 1936).

<sup>45</sup>K. A. N. Sastri, "A Tamil Merchant Guild in Sumatra," TBG, 72 (1932), pp. 314-27.

coast is exposed to the full force of the west monsoon; the waves of the Indian ocean no doubt made sailing in these waters exceedingly dangerous at certain times of the year, limiting access to the area. Logically, therefore, despite a relatively long and arduous transinsular journey, the valuable products of the western Bukit Barisan might be expected to appear at strategic points on the east coast which afforded direct access to the major east-west maritime route developed by the early first millennium A.D.<sup>46</sup>

Tomé Pires, the Portuguese writer in the early sixteenth century, says Sumatra produced gold in great quantities, gold came "through the interior" to Pedir [modern Pidië] on the east coast of Aceh.<sup>47</sup> In the early nineteenth century Anderson notes instances of people from the interior and the western side of the island trading on the east coast:

At Balu China [Bulu Cina, on the estuary of the Sungei Belawan] the internal commerce of the country is very considerable. Traders, from Alas, Gaion [Gayo], and Singkel, and other places on the opposite side of the island, come over with various commodities, and carry back a variety of [the] manufactures . . . and the traders from Soonghal [Sunggal] carry up supplies to the numerous Batta states inland six or seven days journey.<sup>48</sup>

At Sirdang [Serdang, south of the Belawan estuary] he observed that:

The Battas, from a place called Dollok, come down in large parties to trade, and the Alas people come across the mountains, bringing camphor, benjamin, gold, &c. which they barter for cloth and other useful articles.<sup>49</sup>

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<sup>46</sup>A. Manning, E. Edwards McKinnon, and F. E. Treloar, "Analysis of Gold Artifacts from the Kota Cina site near Medan, Sumatra," *JMBRAS*, 52, no. 2 (1980), pp. 102-16.

<sup>47</sup>A. Cortesao, ed., Tomé Pires: The Suma Oriental (London: Hakluyt Society, 1944), p. 140.

<sup>48</sup>Anderson, Acheen, p. 202.

<sup>49</sup>*Ibid.*, p. 204.

The trade at this time was in response to stimulation from the Honourable East India Company's establishment at Penang (Pulau Pinang) which supplied a large variety of goods in return. Imports at Bulu China comprised "chinaware, consisting of plates, cups, and basins, seree stands, kincobs,<sup>50</sup> gold thread, opium, white cotton cloths, coarse country cloths, broad cloth, salt, ironmongery, tin, sabres, blunderbusses, swivels, gunpowder, looking glasses, brass plates" and other materials including "silks and gold wrought cloth from Trengano, Palembang, Siack and Batu Bara."<sup>51</sup>

The products of Bulu Cina included "gambier (of a particularly excellent quality) . . . much prized by the Malays in adjoining countries" which sold for "more than double the price of Rhio gambier," and "bees wax, slaves, tobacco, elephants teeth, rice, horses, green peas and bijan [wijan, sesame]. At Deli the list was similar, but with the addition of brimstone (sulphur, presumably from the volcano Sibayak known to the Malays as Gunung Belerang [Sulphur mountain], where it is still collected up to the present time). At Langkat the list of imports and exports is much the same and again there is mention of "traders from the other side of the island."<sup>52</sup>

In the early fifteenth century, at a time when Haru's fortunes had apparently declined, Ma Huan notes that the commodities used in Deli were but few, "a form of cotton cloth called k'ao ni, rice and grain, oxen, goats, fowls and ducks' were all plentiful. Two types of aromatic resins, yellow su incense and chin-yu incense were available here."<sup>53</sup>

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<sup>50</sup> Kincob: a rich Indian fabric embroidered with gold or silver, Urdu, Persian: kamkâb.

<sup>51</sup> Anderson, Acheen, p. 202.

<sup>52</sup> Ibid., p. 200.

<sup>53</sup> J. V. G. Mills, Ma Huan: Ying-yai Sheng-lan; The Overall Survey

In the latter part of the nineteenth century, Netscher also noted a recession in Deli's commerce, occasioned by constant wars between the clans of the interior. The pepper trade which had so impressed Anderson had declined but "gambier, tobacco, pinang nuts, wax, elephant ivory, a little cane, gum (getah percah) and resins, and very handsome and good horses" came to his attention, as did nutmeg and mace and also wijen (sesame). Imports were opium, salt, linen, iron work and military supplies. All the salt, he noted, had to be brought in from elsewhere.<sup>54</sup>

Only a few years earlier in 1870, De Haan observed trading conditions in the Karo highlands. The most important trade was with Deli and the lowlands whence came salt, dried fish, European linen, trinkets, earthenware (presumably European and Chinese "china" wares), iron and iron mongery (iron cauldrons, etc.), seasonings, lead, fire flints, camphor (used as a medicine) and also condiments for preserving food. In return, horses, kerbau, a few cattle, goats, pigs, chickens, a little cloth and yarn were sent down to Deli. Also brought in from the lowlands were cloth, sirih, gambier, pinang nuts, tobacco, coconuts and other tree fruits, palm sugar, linen, red yarn, lime (for betel), young horses, kerbau, cows, chickens and goats. From Toba came horses (where they were to be found in great numbers) which were taken down to Deli where they fetched high prices, gold and fresh fish from the Lake, Toba cloth (of poor quality), iron, gongs; muskets and camphor (these both from Baros); sirih, lime, and also special small ingots of metal; iron, copper and tin.<sup>55</sup>

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of the Ocean's Shores (1433) (Cambridge: Cambridge University Press for the Hakluyt Society, 1970), pp. 114-15.

<sup>54</sup>Netscher, "Togtjes," pp. 345-46.

<sup>55</sup>De Haan, "Verslag," p. 38.

Admittedly it is dangerous to make analogies from later periods as representing the conditions of earlier times. By and large, however, there was a constant, if fluctuating demand for items such as salt, iron and other metals and cloth.<sup>56</sup> Clearly, both internal and external forces exerted an effect on the availability of hinterland produce at the coast and that of imports into the hinterland. The export of inland products was a response to external stimuli and economic necessity. It is interesting to note that, in De Haan's time, despite internal disruption, produce from the hinterland still found its way down to the east coast, though apparently in lesser quantities than some fifty years earlier. For the purpose of this study, however, it is the presence of resins, unfortunately unspecified, gold, ivory and perhaps also pepper and horses from Samosir in the trade of Deli which are of importance. Certainly, by the nineteenth century, the emphasis of demand for the products of the interior may have changed, but the impact of tropical plantation agriculture had not yet all but obliterated any lowland sources for items of forest produce or upset the ancient patterns of internal and transinsular commerce.

The presence of parties of upland peoples at the small harbors of the east coast in the early nineteenth century has already been noted. They came by what were long established trails over the mountains. In what may be considered Kota Cina's immediate hinterland there are no less than seven important passes through the Bukit Barisan which were still in use at the beginning of the present century.<sup>57</sup> From east to west, these are:

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<sup>56</sup>F. L. Dunn, Rain-Forest Collectors and Traders: A Study of Resource Utilization in Modern and Ancient Malaya (Kuala Lumpur: Malaysian Branch of the Royal Asiatic Society Monograph No. 5, 1975), pp. 110-14.

<sup>57</sup>M. Joustra, Batakspiegel (Leiden: Van Doesburgh, 1926), p. 55.

1) the Buaya pass, a route which followed the upper course of the Sungei Ular, known as the Lau Buaya in Karo which gave access to the area of Seribudolok on the border between Karo and Timor Batak territory (Simelungun);

2) the Liang pass;

3) the Negeri pass;

4) the Cingkem pass, accessible from both the Sungei Serdang/Lau Tawang and the Sungei Deli/Lau Petani via Limau Mungkur from which the trail led to Bukum and the plateau;

5) the Sepuluh dua Kuta pass;

6) the Bekancan pass; and finally

7) the Wampu pass, along the upper middle reaches of the Lau Biang (the Dog River), called the Sungei Wampu in its middle and lower courses. This last route would bring the traveler to Bohorok and eventually to Binjei. (See map: Figure 5.)

The easiest route was the Buaya pass. The shortest, for access to the central Karo plateau and for the passage of horses and buffalo was, however, the Cingkam pass. The modern main road linking Medan with Berastagi and Kabanjahe on the Karo plateau runs over the Sepuluh dua Kuta pass, but up until 1906 goods were still carried on men's backs from Arnhemia (the present-day Pancur Batu) up to the mountains.

From the Karo plateau numerous footpaths ran southward to the northern edge of Lake Toba, where the village of Tengging was still Karo territory and west to what is now Sidikalang, the Pakpak area. To the northwest they linked Taneh Karo with the lands of Alas and Gayo which

bordered on Aceh.<sup>58</sup> The village of Siberaya was an important focus for some of these ancient routes.

The Karo were thus strategically situated between the camphor and benzoin producing areas of the western Bukit Barisan and the Kota Cina area of the east coast. Added to this is the fact that they controlled the gold producing areas of the eastern edge of the mountains. They would thus appear to be of particular importance when one is attempting to reconstruct a picture of the ancient commerce of this part of Sumatra.

An examination of Karo folk tales and ancient memories can perhaps help to bring a little clarity into what is still an extremely indistinct and confused picture, complicated by migrations, hostilities and, more recently, the impact of ecological change.<sup>59</sup> Also, the disposition of the Karo clans and their relationship to the age-old network of transinsular trails may offer some indication of their involvement in a trading pattern that has evidently existed since at least the end of the first millennium A.D. and possibly even longer.

Of all the Karo měrga, the tales associated with the Sembiring měrga offer the most in the way of clues. Joustra was the first to ascertain a South Indian "connection" with the Sembiring. Their name comes from the word mbiring, to be black.<sup>60</sup> Whereas evidence of "Indian" influence among

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<sup>58</sup>L. Van Vuuren, Eerste Maatregelen in Pas Geannexeed Gebied (Zalt-Bommel: Van de Garde, 1910), pp. 21-39.

<sup>59</sup>Over fifty years ago, H. H. Bartlett drew attention to the horrendous and destructive impact of plantation agriculture upon the indigenous flora of this region. This ruthless destruction of unrecorded and unstudied forest continues unabated today. For Bartlett's observations, see: H. H. Bartlett, "The Fast Disappearing Flora of Sumatra," Exploration and Field Work of the Smithsonian Institution (1928), pp. 93-100.

<sup>60</sup>Neumann, "Bijdrage," 1, p. 16. Sembiring derives from Si mbiring,



other Batak people is limited almost entirely to magic and to the script,<sup>61</sup> examination of the customs and folktales of the merge Sembiring may reveal something of the "Indian" attributes in their cultural life.

The měrga Sembiring is divided into two major subgroups, the Sembiring Keloko or Kembaren,<sup>62</sup> those who in the past burnt and buried their dead and the Sembiring Singombak. The Singombak formerly buried their dead but practiced a unique form of secondary burial not found among the other Karo. The remains were eventually disinterred and at a special ceremony were placed first into earthenware pots and then upon small ships decorated with effigies of the deceased which were set adrift on the Lau Biang (the headwaters of the Sungei Wampu) at the village of Siberaya in Taneh Karo. This ceremony, which formerly involved a great feast lasting many days, was known as the Pekualuh.<sup>63</sup>

The sub měrga of the Singombak are also distinguished by having Dravidian or "Indianized" names such as Colia or Culia, Berahmana, Meliala, Pelawi and also Depari and Muham.<sup>64</sup> The Singombak lived in the Sarinembah country and in scattered villages along the upper course of the Lau

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"the black one," i.e., he who is noticeably darker than his fellows, presumably due to an admixture of Dravidian blood.

<sup>61</sup>H. Parkin, Batak Fruit of Hindu Thought (Madras: Christian Literature Society, 1978), pp. 106-34.

<sup>62</sup>Neumann, "Bijdrage," 1, p. 16.

<sup>63</sup>De Haan appears to have been the first European to witness this ceremony, "Verslag," pp. 41-43. See also: M. Joustra, "Mededeelingen omtrent en opmerkingen naar aanleiding van het 'Pek oeloe' of het doodenfeest der merga Sembiring," TBG, 45 (1902), pp. 541-56, "Eene Verklaring van den naam v.h. Sembiringsche doodenfeest," TBG, 46 (1903), pp. 472-75.

<sup>64</sup>H. Kern, "Drawidische volksnamen op Sumatra," BKI, 55 (1903), pp. 358-62; P. S. Van Ronkel, "Drawidische volksnamen op Sumatra," BKI, 74 (1918), pp. 263-66.

Biang including Siberaya, Kabanjahe, Perbesi, Susuk and others. They were also found in small numbers in the dusun areas.

The Kembaren on the other hand were found mainly in the area of the Karo plateau, around Bohorok in Langkat Ulu and also in Liang Melas to the west on the borders of Pakpak land.

The origin myths of the Sembiring, as of other Karo měrga, suggest that they originated in the west in the region of the Pakpak lands and that they were involved in considerable migrations over a long period of time. Their origins remain obscure. Neumann, who discusses the origin of the Karo in great detail, suggests that on the basis of měrga genealogies, these migrations may have taken place in the seventeenth century.<sup>65</sup> It seems, however, that the "folk" memories as recorded in the genealogies have "telescoped" the time span involved and at the same time woven in a host of other events which occurred in more recent times.<sup>66</sup> Even so, these tales may provide one or two clues regarding the nature of the měrga's involvement with "Indian" traders and the origin of the Dravidian sept names of the Sembiring Singombak.

One such tale that touches on the origin of the Sembiring relates that a Keling<sup>67</sup> who had cheated the Sultan of Aceh fled to Karoland. There he

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<sup>65</sup>Neumann, "Bijdrage," 1, p. 33.

<sup>66</sup>Telescoping of genealogies in Southeast Asia is not uncommon. See: Harrison, Malays of Souty-West Sarawak, pp. 126-27. Such tales and genealogies should not be taken too literally as factual history, they are often an amalgam of fantasy, magic and myth woven around a kernel of historic fact. Even so, they may present valuable clues to the past history of the Karo.

<sup>67</sup>Keling: a Malay term of Sanskrit origin, South Indian "kling," originally a native of Kalinga, a Telegu district, now used rather of Tamils, it is at present regarded as a term of abuse. Wilkinson, Malay-English Dictionary, p. 542.

established himself in a village known as Kampong Keling, the location of which is no longer known. During his flight from the Sultan of Aceh who was pursuing him, the Keling was obliged to cross the Lau Biang but was only able to do so by clinging to the tail of his dog who pulled him to safety. His followers were also similarly saved. Consequent to his delivery by his dog, the Keling swore that neither he, nor his descendents, would ever again eat dog meat.<sup>68</sup> Apparently, the ruler of Aceh had decreed that the Keling should be put to death and his ashes strewn in the river, but no one in Karoland dared to attack him as he was rich and well armed. The měrga Sembiring, as distinct from the other Karo clans, married among themselves in a select group and the Raja Karo commanded that their death effigies should be borne away on the river.<sup>69</sup> Failure to observe this command would lead to a plague of mice which would eat up their rice crops.

Neumann observed that in this tale which concerns the Sembiring Meliala there were two reasons why the remains of their dead should be set adrift on the river. The first, he considered was due to the Sultan of Aceh, because a Sembiring ancestor had cheated him. The second reason was the command of the Karo chiefs due to the "incest" of the Sembiring by marrying within a select group of their own měrga.<sup>70</sup> Neumann did not think that the Singombak were a měrga driven from their own territory as

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<sup>68</sup>Dog meat is considered a delicacy by the Batak. Avoidance of dog meat, as Neumann comments, would be noticed by the other Karo měrga. On dogs in Indonesia, see: A. C. Kruyt, "De Hond in de Geestenwereld der Indonesiers," TBG, 77 (1939), pp. 535-89.

<sup>69</sup>Marriage within the same lineage was considered incestuous by the other Karo clans. For a full discussion of these relationships, see: Singarimbun, Kinship.

<sup>70</sup>Neumann, "Bijdrage," 1, p. 20. But see: Singarimbun, Kinship, the relationships are actually far from simple.

they were rich and adequately provided with arms. He does, however, appear influenced by the presence of the Sultan of Aceh in this tale, but I submit that originally the Sultan really has no part in it. His presence is actually a later embellishment. What is important is the arrival of a wealthy and well armed group of Keling in Karo territory. As we shall see, archaeological evidence at Kota Cina suggests the established presence of a prosperous South Indian (probably Tamil) merchant community on the very borders of the Karo region. In common with other such trading settlements in Southeast Asia, the merchants would have been protected by well-armed mercenaries. The realization that Kota Cina was, initially at least, a Sumatran settlement into which came a group of Indians imparts a sense of realism to the events recalled in this tale.

Neumann remarks also on the pantangen or taboo regarding the eating of dog meat, a point in which he sees the Sembiring differing strongly from the other Karo mĕrga who have no such reservation. Were they Mohammedan, he wonders? Unlikely, but Hindu Buddhist Indians would not likely relish eating dog flesh.<sup>71</sup>

In other tales, an enigmatic figure occurs again and again. This is the Guru Pakpak pitu si dalanen who in one instance is a Sembiring. He was a great magician and had knowledge of medical matters. He was also a gold and silver smith who gathered around himself pupils but who gave up the art of goldsmithing when the gold would no longer melt and the iron would no longer become red hot.<sup>72</sup> He had three magical attributes, a

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<sup>71</sup>Neumann, "Bijdrage," 1, p. 20. Dogs are not usually eaten in India.

<sup>72</sup>Ibid., p. 23.

përminaken (a magic oil pot), si badak na bolon; a tungkat malékat (a magic staff) which bore an equestrian statue upon its pommel and a pustaka na jati (a magic text).<sup>73</sup> The magic craft of the përminaken was later lost to a Sembiring maiden who had obtained her own përminaken from the mouth of a cobra. Neumann thought it significant that the girl in this tale was a Sembiring and that the Guru was a teacher in gold and silver working. Originally the gold was in the possession of the god of the middleworld, Tuan Banua Koling, the Lord of the Land of the Kalinga.<sup>74</sup> A third point of significance regarding Indian connotations according to Neumann is the use of the Tungkat Malékat with an equestrian carving on its pommel. In some cases the carving is that of an elephant, which is also connected with the Guru Pakpak.

There are other tales and other versions of the tales discussed here, but the thread which holds them together is the presence of an "Indian" with supernatural powers, suggesting that at one time the Karo were in direct contact with Hindu religious practices. Gonda, commenting upon the Karo language, noted that there were one hundred and fifty-five terms of Indian origin in Karo compared with about one hundred and seventy-five in Toba Batak, most of which are directly connected with magic, cult, astrology, chronology and mythology.<sup>75</sup> More recently, Parkin has discussed this in greater detail and confirmed Gonda's impression, but opining that

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<sup>73</sup>On the përminaken, see: J. H. Neumann, "De Perminaken," MNZG, 47 (1903), pp. 214-21.

<sup>74</sup>A Telugu district in southeastern India.

<sup>75</sup>J. Gonda, Sanskrit in Indonesia, 2nd ed. (New Delhi: International Academy of Indian Culture, 1973), pp. 118-24.

the Indianized Batak script was progressively adopted from the south.<sup>76</sup> Dutch sources also imply that "Indianizing" influences entered the Batak lands from the south<sup>77</sup> and yet another Karo legend affirms a vague connection with pre-Islamic Minangkabau.

In this particular tale which concerns the Sembiring Kembaren, the Pustaka Kembaren, their ancestry is traced to the Minangkabau kingdom of Pagaruyung. The founders of the villages of Ketangkuhen in Tanah Alas, Martogan in Toba, Mabar on the Lau Petani/Sungei Deli and Pěrtibi on the Lau Biang/Sungei Wampu are all said to be descendents of a younger son of a Pagaruyung family.<sup>78</sup> The Sembiring Kembaren established themselves in the Liang Melas area on the borders of Pakpak and the Bohorok area of Langkat Ulu after arriving in the Alas valley by way of the Singkel river. This area is close by the camphor-producing area of the Cinendang river, a tributary of the Sungei Simpang Kanan (Sungei Singkel).

Also in the Pustaka Kembaren is an interesting remark regarding the founding of the village named Pěrtibi. Allegedly founded by the youngest of the four sons of the Raja of Ketangkuhen from Tanah Alas, the village was situated on the lower left bank of the Lau Biang/Sungei Wampu. The site is now abandoned and the name no longer known in the Karo region, but the story relates that the village was named "Pěrtibi" to show that the founder was raja and it was thus the seat of royal power.

This statement is suggestive that although social organization among the Karo appears never to have evolved beyond the stage of

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<sup>76</sup>Parkin, Batak Fruit, pp. 100-101.

<sup>77</sup>Tideman, Hindoe-invloed, pp. 8-9.

<sup>78</sup>Neumann, "Bijdrage," 2, p. 169.

chieftainships<sup>79</sup> and chiefs who controlled a group of villages called urung, the Indianizing concepts of "royal" power and of the mandala do appear to have been familiar. The presence of certain words of Tamil and Sanskrit origin in the Karo language has already been noted. These words, as both Gonda and Parkin have pointed out, have strong connections with magic, cult, astrology and so on. The word Pertibi is one of these, deriving from the Sanskrit pertiwi which in Karo may mean the "sublunary world," or perhaps refer to a center of power.<sup>80</sup> A reference of this nature is, in turn, suggestive of a development parallel to that which may have occurred among the Hindu Buddhist inhabitants of the Padang Lawas of South Tapanuli. Here there are two villages, Portibi Jae and Portibi Julu which may once have been associated with "royal" centers of power in an extensive complex of brickbuilt temples or candi<sup>81</sup> between the tenth and fourteenth or fifteenth centuries.<sup>82</sup>

The importance of the Padang Lawas or Panei temple complex appears to have arisen due to the area's strategic position on ancient trade routes.<sup>83</sup> These routes linked the camphor and benzoin producing areas south and west of lake Toba with the east coast by means of the Panei/Barumun river

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<sup>79</sup>Singarimbun, Kinship, p. 8.

<sup>80</sup>Neumann, Karo-Bataks Nederlands Woordenboek, p. 232.

<sup>81</sup>Properly a funeral monument, but often used indiscriminately for any former Hindu or Buddhist religious remains.

<sup>82</sup>F. M. Schnitger, The Archaeology of Hindoo Sumatra (Leiden: Brill, 1937), published as Internationales Archiv für Ethnographie, Supplementum Bank XXXV, p. 37.

<sup>83</sup>Miksic, "Archaeology," p. 97, notes that this area is a meeting point for a number of important routes.

valley and linked the Padang Lawas with Rao, Minangkabau and the headwaters of the Batanghari river to the south.

Indian architectural influence is strong in the temples of the Padang Lawas but Javanese influence may also be discerned. Recently, Parkin has refuted Schnitger's theory of an indigenous Hindu Buddhist-Batak society developing here. He has suggested instead, that the temples were the work of a group of immigrant Javanese, "Malays" or Minangkabau.<sup>84</sup> The evidence, such as it is, is complex, confusing and incomplete. One group of Batak who live in the Padang Lawas area are named Daulay, a name which may be related to Dhauli in Orissa.<sup>85</sup> Indeed, certain elements of the sculpture found here, such as a bronze female figurine and the gaja simha from Candis Bahal 1 and 2, at Portibi, relate very closely to South Indian or Orissan prototypes.<sup>86</sup> On the other hand, a bronze Boddhisatva Lokanatha and Tara, bearing an inscription with a date equivalent to the year 1024 A.D. strongly reflects Javanese influence. But the inscription is in a Malay form which suggests that the bronze was made locally.<sup>87</sup>

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<sup>84</sup>Parkin, Batak Fruit, p. 87.

<sup>85</sup>This may be no more than a coincidence, but on the other hand it may be of significance indicating an Orissan presence or direct connection with the Panei area.

<sup>86</sup>On the bronze, see: K. A. N. Sastri, "A South Indian Portrait Bronze from Sumatra," JGIS, 3, no. 1 (1936), pp. 104-7. Schnitger, Archaeology, p. 27, describes the two images as two sitting elephants with penis erectus and lion's paws. They are more properly identified as gaja simha a variety of the sardula, a mythical beast of Indian origin. The elephant faced sardula appears in Orissan art during the ninth to thirteenth centuries. See: S. Kramrisch, "Early Indian Ivory Carving," Philadelphia Museum of Art Bulletin, 54, no. 261 (1959), pp. 55-66.

<sup>87</sup>F. K. D. Bosch, "Verslag," p. 144.



Despite the tantalizing lack of clear-cut evidence regarding the development of the Panei-Barumun complex, possible parallels do exist between that area and developments in the Karo dusun areas. The presence of a village named Pěrtibi or Portibi may be no more than a coincidence, but both areas, the dusun and the Padang Lawas appear to have been affected by the trade in resins at roughly the same period. In both areas the remains of brick built structures suggest that ritual may have played an important part in the lives of the inhabitants and perhaps in exchange processes. At Kota Cina, ritual appears to have taken the form of Mahayana Buddhist and Saivite practices, whereas in the Padang Lawas, Tantrayana was predominant.<sup>88</sup>

South of the Padang Lawas a line of candi marks the route which runs from Tapanuli to Minangkabau; others are situated on rivers which give access to the east coast. Little or no interpretation has been given to the positioning of these monuments or their context in the trade and society of the late first or early second millennium, perhaps because they were largely destroyed before any interested person was able to examine them. But sufficient clues may remain for a new examination of the evidence.

Similarly, one other factor which may have played a part in the development of commercial and cultural links between the coast and the mountainous hinterland to the south of Kota Cina remains to be mentioned. This is a number of rock-cut chambers and ossuaries excavated in the soft tufaceous rock of several different river banks and cliff faces. At least two of these chambers resemble primitive versions of the first millennium rock-cut Buddhist caitya halls of southern and western India. At both Limau Mungkur

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<sup>88</sup>Schnitger, Archaeology, pp. 16-37; Parkin, Batak Fruit, pp. 83-90.

on the Sungei Serdang/Lau Tawang and at Sukaluwai on the Sungei Buaya the architectural treatment of the interior of the chambers mirrors the interior of wooden buildings in much the same way as their Indian counterparts.<sup>89</sup> Little is yet known of them as they have only been very superficially studied,<sup>90</sup> yet they may be of considerable importance in tracing ancient commercial routes between the east coast littoral and its mountainous hinterland.

The Limau Mungkur chamber is situated on the right bank<sup>91</sup> of the Lau Tawang near to the point where the inland route left the river and struck off towards Bukum and the Cingkem pass. The Sukaluwai chamber is situated on the right bank of the Sungei Buaya and is close to the route which crossed the Buaya pass which links the lowlands of Serdang with the Seribudolok area at the northern end of Lake Toba.

A number of other such chambers are known in the Simelungun area, in the dusun areas of Deli and on the Karo plateau itself. Some, such as the well known Batu Kemang are clearly greten (ossuaries), as is that associated with relief carvings of ships recently discovered which overlooks the

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<sup>89</sup>On early rock cut caitya halls, see: M. Neff, "The Origins of the Indian Cave Temples," OA, 4 (N.S.) (1958), pp. 23-27; Vidya Deheija, Early Buddhist Rock Temples (London: Thames and Hudson, 1972); J. C. Huntington, "The Lomas Rsi: Another Look," Archives of Asian Art, 28 (1974-75), pp. 34-56.

<sup>90</sup>For a survey of these rock-cut chambers see: G. L. Tichelman, "Felsengänge an Sumatra's Ostküste," Paiduma, 114 (1939), pp. 179-91. Also: E. J. Van den Berg and J. H. Neumann, "De Batoe Kemang, nabij Medan," BKI (1906), pp. 89-92; P. V. Van Stein-Callenfels, "De Batu Kemang, OV (1924), pp. 134-38; G. L. Tichelman, "Rotsteekeningen ter Oostkust van Sumatra," TBG, 74 (1934), pp. 621-23; G. L. Tichelman, "Dr. P. Voorhoeve over rotsgraven in Simeloengoen," Cultureel Indië, 1 (1939), pp. 261-64; and P. Voorhoeve, "Simaloengoense steenplástiek en rotskamers," Cultureel Indië, 1-2 (1940), pp. 88-92.

<sup>91</sup>The right bank as observed from the downstream end of the river.

Lau Garut, a tributary of the Lau Biang, near Kampong Tanjung in Taneh Karo.<sup>92</sup> The relief depicts two ships, one of which may be an outrigger with a lateen sail and a side rudder and the second, a canoe-like craft with a high stern or prow. This relief, high in the mountains and at least 70 km from the coast, vividly reflects the mountain peoples' knowledge of ships and the sea.

From the memories contained in the folk tales, it appears that the merga Sembiring were well spread out through the Karo lands and that they may have had some close, but still obscure connection with "Indians." Perhaps it would be wrong to infer more than this. But Kota Cina, conveniently situated in relation to the Karo hinterland, as we shall see, now provides definitive evidence of an established South Indian presence in the Karo area. The disposition of Sembiring settlements, from the borders of the camphor producing region of Cinendang in the southwest, across the Karo plateau to the upper reaches of the Lau Biang, where alluvial gold is still to be found and to Mabar only a short distance upstream on the Sungei Deli/Lau Petani from Kota Cina, may suggest that the Sembiring relationship with the foreigners was a special one.

Although this may have been the case, nineteenth century records indicate that it was not only the Karo who had contacts with maritime traders at the small harbors of the east coast. Other highland people from Alas and Gayo crossed the mountains to trade directly at these ports, suggesting

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<sup>92</sup>In early 1977, John Miksic and I, led by Drs. Terbit Sembiring and Pak Salam Tarigan visited Kampong Tanjung to investigate a report of "writing on the rock" discovered some years earlier when a road was being constructed from Tanjung to Perbesi on the Lau Biang. The "writing" turned out to be the relief sculptures of ships described briefly here. See: Miksic, "Archaeology," p. 235.

that in earlier times these other Batak groups may have moved through Karo territory to bring down camphor and benzoin to points on the east coast.

Even so, the Karo in former times may conceivably have acted as important middlemen as well as a primary element in the collection and re-distribution of forest products and materials brought in from the coast. In later times they dealt in horses from Samosir and kerbau from Tanah Alas. Although most of the resin trade in more recent years was carried on through the west coast ports of Baros and Sibolga, a vestige of what may have been an important earlier trade in benzoin through Sidikalang and Silalahi on Lake Toba was still in existence at the beginning of the present century.<sup>93</sup> The Karo certainly had knowledge of numerous types of useful resins; I was able to obtain samples of no less than seven different types from a Karo man who had collected them from an area on the slopes of the Deleng Baros, east of Deleng Sibayak in 1976. These samples included one aromatic type, known as Kemenyan endelip (Styrax serrulatus Roxb.).

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<sup>93</sup> See: H. Loos, "Iets over benzoë in Tapanoeli," Teysmannia, 32 (1921), pp. 398-408.

## CHAPTER 2

### ARCHAEOLOGICAL EVIDENCE: I

#### 2.1 Objects of the Excavation

The objects of the work undertaken at Kota Cina were to appraise the nature of the site, to establish a chronology and to gather data regarding its temporal and spatial relationships. Work undertaken in south Thailand and in Malaysia had revealed the existence of important middle to late first millennium and second millennium A.D. emporia on both the eastern and western coasts of the peninsula,<sup>1</sup> but nothing was known of any similar sites in Sumatra.<sup>2</sup> It was also necessary to establish the importance of the

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<sup>1</sup>On the Thai and Peninsular Malaysian sites see: H. G. Quaritch Wales, "A Newly Explored Route to Indian Cultural Expansion," *IAL*, 11, no. 1 (1935), pp. 1-30; also, "Archaeological Researches on Ancient Indian Colonization in Malaya," *JMBRAS*, 18, no. 1 (1940), pp. 1-85 (whole issue); D. C. and H. G. Quaritch Wales, "Further Work on Indian Sites in Malaya," *JMBRAS*, 20, no. 1 (1947), pp. 1-11; H. G. Quaritch Wales, "Malayan Archaeology of the Hindu Period, Some Reconsiderations," *JMBRAS*, 43, no. 1 (1970), pp. 1-34, also: "Langkasuka and Tambralinga: Some Archaeological Notes," *JMBRAS*, 47, no. 1 (1974), pp. 15-40; *The Malay Peninsula in Hindu Times* (London: Quaritch, 1976); and "The Extent of Sri Vijaya's Influence Abroad," *JMBRAS*, 51, no. 1 (1978), pp. 5-11. For a rather different interpretation of Wales' discoveries, see A. Lamb, "Kedah and Takuapa: Some Tentative Historical Conclusions," *FMJ*, 6 (1961), pp. 69-88, and "Takuapa: The Probable Site of a Pre-Malaccan Entrepot in the Malayan Peninsula," in *Malayan and Indonesian Studies*, ed. J. Bastin and R. Roolvink (Oxford: Oxford University Press, 1964), pp. 76-86. Also: "Notes on Satingphra," *JMBRAS*, 37, no. 1 (1964), pp. 74-87; S. J. O'Connor, "Si Chon: An Early Settlement in the Peninsula," *JSS*, 56, no. 1 (1968), pp. 1-18, and "Tambralinga and the Khmer Empire," *JSS*, 63, no. 1 (1975), pp. 161-76. For a summary of the problems encountered, see J. Stargardt, "The Extent and Limitations of Indian Influences on the Proto-historic Civilizations of the Malay Peninsula," in *South Asian Archaeology*, ed. N. Hammond (London: Duckworth, 1973), pp. 279-303.

<sup>2</sup>Many of the late first and early second millennium sites known in Sumatra were visited by F. M. Schnitger in the mid to late 1930s and are

site to Sumatran archaeology generally so that the Pusat P3N and the local Museums Department headed by Drs. E. K. Siahaan could ensure the preservation of the site from ever present threats of destruction and despoliation.

As far as these limited objectives are concerned, the work can be considered successful, though by no means complete. Much more remains to be done to gather a full picture of Kota Cina's place in the web of medieval maritime commerce and its relations with a hinterland that remains virtually unexplored from an archaeological point of view. So little has been excavated in relation to the total area of the site that discoveries of importance still remain to be made.

## 2.2 Methodology

Work relating to the discovery and evaluation of the Kota Cina site was carried out in two stages. Initially, we followed up reports between late 1969 and October 1972, of the discovery of caches and single ceramic items, mainly Chinese pieces of the Song (960-1279 A.D.) and Yuan (1280-1368 A.D.) dynasties in the Medan area. It was at this time that Kota Cina was eventually discovered. The site itself was subsequently surveyed and limited excavation was undertaken to obtain stratified materials at what appeared to be strategic points indicated by the discovery on the surface of brick remains and ceramics.

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mentioned in his monograph The Archaeology of Hindoo Sumatra. Prior to the last decade, however, Sumatra had had little attention from professional archaeologists. For a brief summary of the situation prior to 1973, see B. Bronson and J. Wisseman, "An Archaeological Survey." More recently, Miksic has summarized the situation on sites of major importance; see J. N. Miksic, "Classical Archaeology in Sumatra," Indonesia, 30 (1980), pp. 43-66.

Field work, essential in understanding the relationship between habitation sites, topography and the environment generally, was greatly facilitated by my experience as a plantation manager in the Serdang and Langkat districts of northeastern Sumatra in the early 1960s. By walking through numerous kampong (villages) and underdeveloped areas of scattered houses, I obtained a sense of terrain, observing where present-day indigenous inhabitants erected their houses. I also often saw how little was left behind when such folk decided to move on. The simple wooden houses of wood or bamboo thatched with atap or ijuk<sup>3</sup> were raised on upright posts which, in turn, were set upon stones to protect them from the damp of the earth. All that one would find in such circumstances would be a roughly rectangular arrangement of six or more flat stones, some rotting timber and perhaps a few sherds of china ware or rapidly corroding scrap iron material. More recently, the remains of plastic utensils and the like often mark such sites.

In coastal or riverine areas, houses are normally built on piles at the water's edge or actually in the water itself. Any debris or household waste would naturally sink into the mud below the house. It is this type of accumulation, rich in potsherds, which is particularly apparent at tidal sites such as Pulau Kompei in Aru Bay or at Sungsang or Upang on the lower reaches of the Musi river in south Sumatra, where large accumulations of ceramic and other material are exposed at low tide.

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<sup>3</sup>Malay houses were normally thatched with leaves of the rumbia or nipa palm. Fiber from palms of the Arenga spp. also provided an extremely durable form of thatch and is also suitable for ropes. See I. H. Burkhill, A Dictionary of the Economic Products of the Malay Peninsula, 2 vols. (Kuala Lumpur: Ministry of Agriculture and Cooperatives, 1966), Arenga, pp. 231-38, Rumbia, Metroxylon, p. 1487, Nipa, Nipa, p. 1584.

The lack of large scale or accurate maps of the Kota Cina area and indeed of Sumatra generally was a great handicap to field survey work. It often proved extremely difficult to relate one site to another especially in low-lying, swampy areas. Even so, it became evident that most, if not all sites were originally closely associated with water courses. Some of these had either dried up naturally in the course of time or, in some instances, were diverted or drained due to late nineteenth or early twentieth century plantation improvements. Personal experience of the difficulty of travel by land (compared to that by water) in these coastal regions indicates that archaeological survey for which limited time and resources are available can be profitably concentrated in areas with certain topographic characteristics related to ease of access by water. The whole littoral between Tamiang and the Panei estuary was once, however, much more swampy than it is today;<sup>4</sup> it was also relatively sparsely populated. It was obviously too great an area to survey systematically with the limited resources at my disposal.

The strategy adopted was therefore to maintain good relationships with a number of "antique" dealers in Medan to try to learn about the areas or spots from which any particular ceramic item had originated. I came to know of several sites in this way. Full utilization of local knowledge can therefore be of great benefit in such work.

The location of caches of ceramics thus gave useful clues for the identification of habitation sites. Even so, with the exception of a single secondary jar burial at Percut, I did not discover any ceramics directly associated with burials. It is possible that in normal circumstances any

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<sup>4</sup>See Miksic, "Archaeology," pp. 115-26.



bones may long since have been dissolved by a relatively high soil acidity.<sup>5</sup> Another possible explanation for the occurrence of caches of ceramics is the desire to safeguard valuables by burying them during times of instability.

From observations made in the stratigraphy of numerous wells cut by villagers at different parts of the site, it became apparent that the early occupation of Kota Cina consisted of a single "phase"<sup>6</sup> prior to the site being reoccupied about the beginning of the nineteenth century. Other coastal sites in this region of northeast Sumatra also appear to have been occupied for only a limited period of time. With the exception of the large shell middens at Hinai and Sukajadi on the lower Wampu,<sup>7</sup> I did not come across any sites where debris had built up vertically in strata over a long period of time. Habitation sites appear to have diffused laterally instead of forming stratified deposits of cultural debris in any one spot, perhaps due to the silting up of access channels or to a change of course of a river following flooding. Such changes may have caused inhabitants to abandon a site and move elsewhere to more navigable water. This does not mean that stratified sites may not exist but habitation patterns in lower or coastal regions appear to be strongly influenced by changes in river courses or other fluvial conditions.

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<sup>5</sup> Acid tropical soils tend to dissolve human and other bones very rapidly.

<sup>6</sup> Phase may be defined as "an archaeological unit possessing traits sufficiently characteristic to distinguish it from all other units similarly conceived whether of the same or other cultures, or civilizations, spatially limited to the order of magnitude of a locality or region and chronologically limited to a relatively brief interval of time." See G. R. Willey and P. Phillips, Method and Theory in American Archaeology (Chicago: University of Chicago, 1958), p. 22.

<sup>7</sup> E. Edwards McKinnon, "A Brief Note on the Current State of Certain of the Kitchen Middens of East Sumatra," SRB, 4, no. 2 (1975), pp. 45-50.

### 2.3 The Site: Survey and Excavation

Survey of the site established the location of a number of concentrations of archaeological debris. In particular, three concentrations of brick rubble were noticed where the ground level appeared to be raised significantly higher than the surrounding areas and where, in two instances, villages had been removing whole bricks for domestic purposes.

A datum point was established at the confluence of a ditch which formed the western boundary of the higher ground of the site and the tidal creek which linked the northern end of the site with the Sungei Besar. The various major concentrations of debris were then numbered in sequence from north to south commencing with the one which appeared to be the most northerly. These are shown on the site map (Figure 3) as numbered locations.

#### 2.3.1 Location 1

This is situated immediately to the south and east of where a drainage ditch (Plate 1), reportedly dug in 1952 to link a former tobacco estate boundary ditch with the tidal creek, cuts through a compacted layer of domestic debris not otherwise visible on the surface. The tidal creek, known as the Paluh Tangkalan Lajang, connects with the so-called Sungei Besar through an area of nipa swamp. At high tide, the water in the ditch rises approximately 0.80 m above the low water level.

Here a number of stumps of wooden posts of various diameters have been preserved, running in a diagonal line across the bottom of the ditch (Plate 2). The type of wood has not been identified, but sufficient remains in situ for future examination and identification to be made. Also exposed

at this point is a compacted layer of shells, pottery and other debris.<sup>8</sup>

Immediately south of this concentration on the western side of the ditch, my attention was attracted to fragments of very fine Chinese qingbai and Longquan green glazed porcelain which had been exposed by well-digging operations some years earlier. The partially filled sites of two wells concealed by a rank growth of lalang grass (Imperata cylindrica) enabled me to make a quick appraisal of the stratigraphy. The surface area appeared undisturbed. Below a ten centimeter layer of humus which was thickly matted with lalang roots, it was possible to discern a layer of loamy soil in which relatively few sherds were imbedded. At approximately 60 to 70 cm below the surface there was a compacted layer of shells, sherds and other debris. The layers were similar to those exposed at the edge of the ditch some thirty meters further north. No house stood at this location when I decided to dig here in 1975, but fragments of European china ware, glass bottles and old bicycle parts were still to be found in the lalang which grew to a height of about one meter over the entire area. A young mango tree stood in the middle of the area and it was agreed with the owner, the late Pak Tete, that this should remain undisturbed while an area measuring 11 X 10 meters around it could be completely excavated. An additional area to the south of 2 X 5 meters was ultimately included. The total area excavated during the period early 1975 until early 1977 was 120 square meters. Work was not continuous but intermittent, depending upon the pressure of other duties as well as the seasons.

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<sup>8</sup>The subsoil in the area immediately adjacent to the creek is, in effect, permanently waterlogged and has never had the opportunity to dry out. These conditions provide an ideal situation for the preservation of organic materials.

No bricks were found at this locality, but it soon became apparent that a pile built dwelling or dwellings had once stood on this spot. Circular impressions, left by rotted wooden posts approximately 12 to 14 cm in diameter, had filled with friable soil and roots. These post holes appeared anywhere from about 40 to 50 cm below the surface, penetrating the compacted layer of debris. At depths ranging from 90 to 110 cm, the nature of the soil changed completely to reveal an undisturbed level of yellowish clayey subsoil.

Completion of the excavation at this point revealed an irregular pattern of post holes in the underlying and often waterlogged clayey subsoil. In three of these holes, fragments of the original timber were still preserved. Due to the extremely irregular positioning of the posts it has not been possible to establish an outline of the building or succession of buildings which once stood at this spot.

Almost one ton of artifactual material was recovered from this locality. A considerable amount of mollusc remains was concentrated around the remains of a domestic hearth, the position of which was characterized by an oval shaped patch of carbonized material over 1.5 meters in diameter. Local ethnological evidence would suggest that the hearth was once positioned at the rear of the building. The ceramics excavated at this locality provided all of the earthenware pottery and the bulk of the high fired ceramic material utilized in the following analysis.

### 2.3.2 Location 2

Here the drainage ditch linking the former tobacco estate boundary ditch with the tidal creek cuts through an eight meter wide bank of coarse sand to the east of Location 1 and exposes another deposit of cultural debris.

The accumulation of sand marks the site of a former water course identified by Miksic in his geomorphological survey of the site.<sup>9</sup> No excavations or collections were made at this point but inspection of the stratigraphy revealed sherds of Kota Cina phase ceramic materials similar to those at Location 1.

Shells and sherds were also found in an area to the north of the ditch where two old well cuttings revealed a thick layer of cultural debris just below the surface. A few meters west of the estate boundary ditch and south of the footpath leading to Paya Pasir, an eighty centimeter high truncated pyramidal block of stone was found in the undergrowth. This stone block may have been moved to this area by villagers in recent years.

### 2.3.3 Location 3

Immediately to the rear of the house of the late Pak Tete is a low, rectangular mound of brick rubble. During 1974, six 1 X 1 meter pits and a trial trench measuring 10 X 1 meter revealed the existence of a roughly square brick built foundation beneath the surface. Two smaller brick structures were also found in association with this building. Work on this complex was curtailed by the onset of wet weather and was not resumed.

Immediately to the southwest of the dwelling house, a large deep well revealed an undisturbed and virtually undifferentiated soil profile down to water level at approximately 1.40 m. below the surface. It was clear from this profile that there had not been an accumulation of cultural material at this point.

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<sup>9</sup>Miksic, "Archaeology," pp. 139-53, and Map 7.

Villagers clearing a vegetable patch to the south of the mound discovered a small polished stone Śiva linga, approximately 40 cm in height, hidden in the undergrowth.

The brick structures and associated ceramics will be discussed in detail in the section dealing with architectural remains (see below).

#### 2.3.4 Location 4

Situated some 180 meters south of Location 3, this is probably the highest point in Kota Cina. It consists of a badly disturbed mound of rubble which villagers have long found a convenient source of fire brick and paving material. Here is a keramat or sacred spot known locally as the Keramat Pahlawan, the shrine of the hero, at which villagers regularly make small offerings of food and flowers and where the family of A Po, a Chinese farmer, burn sticks of incense. According to A Po, whose home and pig pens occupy the western side of the mound, large numbers of well-made bricks were systematically dug out from and around the mound some years ago. Behind the house of A Po a ditch runs northward to join the tidal creek near Location 1.

A cache of Chinese coins, reportedly enclosed in the remains of a copper box and stuck together in sausage-like strings, was dug out of a rice sawah a short distance to the west of the mound. Also from the same general area is one-half of a soapstone pendant or talisman inscribed with Chinese characters.

#### 2.3.5 Location 5

Just under 200 meters southeast of Location 4, the house of a villager named Pak Ali is surrounded by a surface scatter of shells and sherds

brought up by agricultural operations. Here, in 1974, a small bronze figurine was found. It disappeared before it could be studied. Following the discovery of the image it was decided to dig a 1 X 1 meter pit in the vegetable plot west of Pak Ali's house. At a depth of 0.80 m. a layer of cultural remains 20 cm thick was encountered. Below this was sterile subsoil. This pit appears to have touched the periphery of an accumulation of cultural materials containing sherds of earthenware and stoneware all attributable to the Kota Cina phase.

From the layer of cultural remains came a corroded, but nevertheless recognizable iron spearhead, 33 cm in length. The tip of the blade was missing but it was otherwise complete. From the disturbed soil of the vegetable plot a 18 cm high stoneware "mercury" jar complete except for a small fragment missing from its lower part was also recovered.<sup>10</sup>

#### 2.3.6 Locations 6 and 7

These represent a contiguous area where intermittent agricultural operations, well and ditch digging have exposed compacted layers of sherds, meretrix shells and other cultural remains. The layer of debris varies in thickness at different points indicating that there may be several "centers" within the area. No excavation has been carried out in this area.

#### 2.3.7 Location 8

Some 400 meters south of the Keramat Pahlawan at Location 4 is yet a third complex of brick structures where the most important art historical evidence of South Indian activity at Kota Cina has come to light accidentally.

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<sup>10</sup>See F. E. Treloar, "Stoneware Bottles in the Sarawak Museum: Vessels for the Mercury Trade?" SMJ, 20 (40-41 N.S.) (1972), pp. 377-84.

Observations over the period 1972 to 1977 have allowed me to conclude that an extensive Buddhist aśrama or religious foundation may once have existed here.

Although virtually no sherds have been found in this area, four stone images, all in late Cōḷa style, have been discovered here. Two small rectangular brick foundations were formerly situated just to the north of the junction of paths linking Paya Pasir with Pasar Kambing. Attempts to prevent the despoilation of these brick structures were only temporarily successful and by mid-1980, apparently all of the buried brickwork had been removed. In 1974, however, it was still possible to discern the outline of a rectangular brick shell with up to twelve courses of bricks still in situ. Running due south from the rectangular structures, the buried remains of a low brick wall appeared to extend for at least thirty meters and then turn eastwards. Thereafter, it was not possible to trace it further.

South and east of Location 8 the site extends for almost another 1,000 meters through vegetable gardens and a few seasonal sawah, where areas of former habitation are marked by a surface scatter of meretrix shells and sherds. In this area, indications of cultural remains are generally much thinner and more sporadic than at the northern end of the site, with relatively small patches of shells and earthenware and far less imported stoneware. This change in the pattern of cultural remains may indicate that the area was either occupied later than the northern part of the site or that it was occupied by people who differed from those who inhabited the more intensively settled seaward end. Careful survey and excavation of this area, although perhaps less rewarding in cultural recoveries than the northern end of the site, may yield important information related to "indigenous" inhabitants as opposed to those who occupied the northern, seaward, part.



It seems reasonable to expect that a settlement as developed and prosperous as Kota Cina might have attracted indigenous people in a manner similar to the small commercial settlements that frequently sprang up outside the walls of Roman military outposts in many parts of Europe in the early first millennium A.D. Although Kota Cina may never have become the nucleus for a later town or city in the way some European sites may have done, the discovery of imported Song and Yuan period Chinese stoneware at points along the road between Kota Cina, Terjun and Hamperan Perak indicate that it may have become the nucleus of scattered, indigenous, contemporary settlement in the area when the Teluk Belanga bay was still accessible from the open sea.

Forest dwellers who came to exchange their produce at Kota Cina would have required somewhere to stay in the vicinity whilst their transactions were being settled. They may have conceivably established themselves on the higher land at the southern end of the site forming, if not a separate settlement, their own distinctive part of Kota Cina. In this way, a small, scattered, indigenous settlement may have grown up as an adjunct to the main site but quite distinct from the latter in the same way as a pangkalan or point of exchange for forest and imported produce grew up at points at or near the head of navigation on many west coast rivers.<sup>11</sup> Observations of other sites roughly contemporary with Kota Cina, at Tanjong Enom, Kota Rentang and Kota Datar, suggest that any settlement might have been quite scattered, utilizing small islands or areas of higher ground in what was, and still is to some degree, tidal swamp land.<sup>12</sup>

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<sup>11</sup>On pangkalan, see L. Van Vuuren, Eerste Maatregelen, pp. 21-39.

<sup>12</sup>Miksic has established that the swampland surrounding Kota Cina gradually retreated towards the north. The area to the west of the site,

## 2.4 Architectural Remains and Statuary

### 2.4.1 Location 3

The presence of a roughly rectangular mound of brick rubble immediately to the rear of the house of the late Pak Tete at Lorong 17 of Kota Cina was one of the significant ground features that first attracted my attention during an initial investigation of the site.<sup>13</sup> The northwest corner of Tete's wooden house, raised on stilts in the traditional Malay manner, was actually positioned above the northeastern edge of the mound. The western and southern sides of the mound of rubble appeared noticeably higher than the surrounding ground surface.

A large well, which served as the family's water supply, had been dug only a few meters south of the house. Its surrounds were paved with numerous well-preserved wafer-like bricks. On examination, the soil profile revealed by the well was found not to have penetrated any significant deposit of cultural remains. The soil had been considerably leached by the action of ground water. Between 1972 and 1977 a second well was dug in this area. This also failed to reveal any trace of cultural deposits. On my last visit to the site in 1980, a new well had been dug directly behind the house within the limits of the mound itself.

#### 2.4.1.1 Architectural Remains

Initially, I decided to try to establish the dimensions of the structure which had formerly existed at this spot. This was done by means of two

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now under padi fields was originally a mangrove area for even in the twelfth century the site was not directly on the coast but separated from it by a screen of mangrove. See Miksic, "Archaeology," pp. 147-54.

<sup>13</sup> Although located early on in the investigations at Kota Cina, the brick mound at Location 3 was not investigated until 1974.

one-meter wide trenches, set to run at right angles to one another, the first from south to north, positioned at approximately the mid-point of the mound and the second from east to west. Work at the southern end of the mound quickly revealed the top courses of a brick wall only 20 to 30 cm below the surface. Between four to five meters north of this wall, a large, roughly rectangular flat stone measuring 32 X 19 X 13 cm was uncovered only 15 cm beneath the surface. Into the upper surface of this stone a circular hole, 6 cm in diameter had been cut to serve as a pivot for a door.

Excavation proved that the northern wall of the structure had been badly robbed though its line was still traceable by three layers of brickwork still in position. Examination of the ground immediately to the east of the point at which the trench crossed the line of the wall revealed that the wall at that point had been virtually destroyed by a modern rubbish pit replete with empty and broken bottles, tins, bicycle parts and other trash.

The second trench, dug at right angles to the first, was positioned opposite the point where the first had uncovered the pivot stone. This trench located the west and east walls of the building. The west side, like that of the north, appeared to have been badly robbed (Plate 3). The east wall, positioned virtually under the rear of the house, however, was found to be in a reasonable state of preservation. Work here revealed a second large flat pivot stone less than two and a half meters west of the first. These stones indicate the position of a doorway measuring 3.06 m between centers (Plate 4). The main floor of the building appears to have been at this level, although no discernible floor was visible in the excavation. It seems that the floor stood some 70 to 75 cm above the level of the surrounding ground surface at the time the structure was built.

Having ascertained the dimensions of the building, some 12.5 X 13 meters overall, it was then possible to locate the corners. Both the northwest and southwest corners were found to be badly damaged with only the lowest two or three courses of brickwork still in place. The southeast corner was badly penetrated by the roots of a coconut palm growing less than one meter from the external surface of the wall. Although the northeast corner of the structure was actually under the house, a portion of the wall between the rubbish pit and the corner was found to be intact to a height of sixteen courses (64 cm).

The bricks used in the construction of this basement measure an extremely uniform 22 X 14 X 4 cm.<sup>14</sup> They were found to be laid in four parallel courses with no crossties to an overall width of 56 cm. There was no trace of any lime mortar<sup>15</sup> (Plate 5). A number of larger bricks, measuring 25 X 14 X 4 cm, however, were found to the south of the basement and two smaller bricks with curved, cut-away portions were found to the west of the building. The brickwork appears to have been laid directly upon the ground without any form of foundation though the ground would, no doubt, have been levelled initially. The maximum height of wall found to be still intact was uncovered on the south side where it rises to eighteen courses or 72 cm.

A compacted layer of sand and gravel had apparently been laid to provide a firm surround to the basement. The brickwork formed a shell

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<sup>14</sup>The dimensions of the Kota Cina bricks are similar to those included in Quaritch Wales' Class 2 from Kedah, i.e., those having a breadth of less than 7" (18 cm). Bricks from Kedah Sites 16A and 25 appear to bear the closest relationship in size to the Kota Cina bricks. See Quaritch Wales, "Archaeological Researches," p. 45.

<sup>15</sup>Although no mortar was used, it is possible that some form of adhesive was applied to bind the bricks together.

which had been filled in stages up to the level of the floor. A Pusat Penelitian Arkeologi Nasional excavation under the direction of Drs. Hasan Muarif Ambari in 1977 discovered traces of brick flooring on the interior of the structure near the southwest corner, suggesting that the building may have originally been paved over with brick on the inside.

Extension of the first trench to the north and south of the brick basement brought further interesting finds. To the north, considerable amounts of domestic rubbish including sherds of reddish earthenware and Chinese stoneware were found impacted into the gravel layer. To the south, an extension of this trench revealed the existence of another brick-built basement, rectangular in shape, measuring 14 X 6.8 meters overall. This structure was divided by cross-walls into three separate sections with brickwork surviving to a height of eight courses, 0.35 m high and 0.70 m in width. The bricks were laid in a manner similar to the main structure. The onset of wet weather precluded any further investigation of this basement and excavation was not resumed.

Between the southwest corner of the rectangular basement and the northwest corner of the square structure, a low, rectangular, pyramidal basement was uncovered measuring 2.80 m in length, 1.50 m in width and 0.60 m in height and comprising fourteen courses of brickwork formed into six moldings. The top of this basement had sunk and partially collapsed inward. On clearing the brickwork it was discovered that the northern end of the basement had been broken open and virtually destroyed. During the course of clearing rubble from the base, however, fragments of gold leaf and other gold scrap were discovered concealed between the lowest courses of the brickwork.

In 1979, Drs. Hasan Ambari uncovered a further small brick basement in the form of a circular stupa-like structure, situated immediately to the west of the square basement and roughly in line with the two pivot stones uncovered in 1974. No other details or dimensions of this structure are yet available.<sup>16</sup>

The square brick built basement appears to have supported a light timber frame superstructure possibly thatched with atap or ijuk.<sup>17</sup> Although no trace of timbers or other organic material now remains, the discovery of a single small, granite pillar base in close proximity to the complex supports this conjecture and links the basement structurally to the "pillar base" architecture of Kedah and the Padang Lawas area of Tapanuli. The single pillar base recovered at Location 3 measures approximately 20 cm square and has a small square mortise cut into its upper surface. Due to the amount of disturbance which has occurred, however, it was quite impossible to relate this pillar base to any particular position within the confines of the basement walls.<sup>18</sup>

The presence of two flat pivot stones within the area of square basement indicates that it was divided into two sections with swing doors opening along the axis of the complex, i. e., from north to south, and shielding the interior from the pendopo.

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<sup>16</sup>I am indebted to Tengku Luckman Sinar for this information.

<sup>17</sup>I have assumed this from negative evidence. No trace of any tiles has been found in the vicinity of the remains.

<sup>18</sup>On remains in Kedah and the Padang Lawas using a similar structural technique, see A. Lamb, "Further Research at Matang Pasir, Central Kedah," FMJ, 6 (1961), pp. 10-17, and B. A. V. Peacock, "Pillar Base Architecture in Ancient Kedah," JMBRAS, 47, no. 1 (1974), pp. 66-86. Lamb noted that the pillar bases at Biaro Sitopayan in the Padang Lawas varied in design according to their location within the structure.

The square plan of this structure suggests that it may have served as the sanctuary or central shrine of a small Śiva temple,<sup>19</sup> a supposition which is supported by the discovery of a 40 cm high black stone Śiva linga in the undergrowth some 25 meters to the south of the sanctuary. No other identifiable iconographic features were discovered in connection with the complex.

The rectangular pendopo basement situated immediately to the south of the sanctuary is divided into three distinct sections suggesting that it may have supported a tripartite timber superstructure. The small rectangular pyramidal basement situated between the sanctuary and the pendopo and slightly to the northwest of the latter would appear to have served as a base for a cult object. Assuming that the complex is indeed a Śiva temple, this would have possibly supported a nandi. The function of the small circular basement to the west of the sanctuary is not clear.

#### 2.4.1.2 Associated Finds

The extension of the north-south trench to the north of the north wall of the square basement disclosed an accumulation of domestic rubbish comprising sherds of reddish earthenware, Chinese stoneware and animal bones imbedded into a layer of gravel. The reddish earthenware subsequently proved to have South Indian affinities. The stoneware, all of Chinese origin, comprised heavy, coarsely made utilitarian gray glazed bowls all with a bare unglazed ring on the interior corresponding to the footrim and fragments of large green glazed Longquan basins with both appliqué and incised

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<sup>19</sup>The central shrines of Śiva temples are square in plan. T. A. G. Rao, Elements of Hindu Iconography, 1.1 (Madras: Law Publishing House, 1914), p. 21.

designs on their interior surfaces. Both the sherds of the gray glazed bowls and the Longquan basins may be safely attributed to the Yuan period, late thirteenth to fourteenth centuries A.D.

A polished circular segment of black stone, possibly part of a small Śiva linga or the limb of a statue together with other fragments of yellow gray stone which fitted together to form the shoulder of an image were found in the same vicinity.

During the course of clearing the first pivot stone within the area of the square basement, a well-preserved L-shaped iron nail was discovered lying against the lower eastern edge of the stone. In the northeast corner of the basement, a plain, circular bronze mirror was discovered adjacent to the brickwork on the inner side of the wall at a depth of 0.60 m.

Removal of the rubble lying immediately against the south wall revealed remains of two finely made Longquan bowls of Yuan period date. The first, a green glazed deep bowl with heavy footring and molded lotus petals lay inverted at the foot of the wall. The second, the base and part of the rim of a shallow bowl with two appliqué fish covered in a clear golden honey-colored glaze full of small bubbles was only 0.50 m away.

The most dramatic find came, however, during the examination of the small pyramidal basement lying between the southwest corner of the square basement and the northwest corner of the rectangular tripartite foundation. Here, two fragments of gold leaf and some gold scrap were recovered from the base of the pedestal. The two fragments of gold leaf were found to be impressed with Chinese characters. One bears the impression   (fên jīn) and the other   (shí fēn). The legend fên jīn affirms that the gold is pure and not alloyed with silver or copper, a fact confirmed by



laboratory analysis.<sup>20</sup> These fragments from the base of the pyramidal basement presumably represent a votive offering of some kind and, together with the Śiva linga and remains of stone images, imply a Brahmanical affiliation for the complex. There was no sign of any receptacle or reliquary commonly associated with such deposits.<sup>21</sup> The fact that Chinese characters would be impressed on gold leaf in a votive deposit that has such a markedly South Indian association is quite unexpected.

#### 2.4.1.3 Dating

The dating of this complex is complicated by a disparity between indications given by ceramic stylistic analysis which is, in any case, open to doubt and a C14 date from a fragment of a wooden post recovered from beneath the sanctuary basement during the Pusat Penelitian Arkeologi Nasional excavation of 1977. Ceramics excavated in association with the basement and presumably contemporary with the abandonment or destruction of the site suggest a mid to late fourteenth century date. On the other hand, a C14 analysis of a wooden fragment recovered some 0.30 m beneath the base of the sanctuary yielded a date of  $\pm$  1080 A.D.<sup>22</sup> The wood was

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<sup>20</sup>For the analysis of gold artifacts recovered at Kota Cina, see Manning et al., "Analysis." Gold working will be discussed separately below.

<sup>21</sup>Votive offerings secreted in the foundations of religious structures often appear to have been deposited in specially prepared reliquaries, usually of stone but occasionally of metal. See, for example, H. G. Quaritch Wales, "A Stone Casket from Satingpra," JSS, 52, no. 2 (1964), pp. 217-21; S. J. O'Connor, "Ritual Deposit Boxes in Southeast Asian Sanctuaries," AA, 28 (1966), pp. 53-60; and A. Lamb, "A Stone Casket from Satingpra: Some Further Observations," JSS, 53, no. 2 (1965), pp. 191-96. But see also T. Harrisson and S. J. O'Connor, "The 'Tantric Shrine' Excavated at Santubong," SMJ, 15 (1967), pp. 197-218.

<sup>22</sup>The analysis was undertaken at Harwell with a grant from the University of Durham.

identified as kayu dungun (Heritiera littoralis Dryand), a species considered to be one of the toughest of Malayan timbers.<sup>23</sup> The post itself was well preserved due to the waterlogged nature of the subsoil.

It would appear that the sanctuary was erected on a site previously occupied in part either by a dwelling house which had been abandoned or cleared away before the brick foundation was laid down<sup>24</sup> or by an earlier timber-frame religious structure which was later replaced by a permanent brick and timber building on the same spot. As neither my own limited work nor the excavations of the Pusat Penelitian Arkeologi Nasional have uncovered the whole of the complex, additional evidence for use in dating the structure may yet be forthcoming.

#### 2.4.1.4 Conclusions

This group of four brick basements appears as the remains of a form of religious complex. The use of brick and stone during this period in Southeast Asia and indeed, in South India, was reserved for the Gods.<sup>25</sup> The structures at Kota Cina are surely no exception.

The square basement appears to form the base of a sanctuary with a smaller open hall or pendopo to the south.<sup>26</sup> The smaller pyramidal rectangular basement no doubt served as a base for an image and the circular basement either as a stupa or other ancilliary shrine. Due to the greatly

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<sup>23</sup>Burkhill, Economic Products, 1, p. 1159.

<sup>24</sup>Miksic, "Archaeology," p. 136.

<sup>25</sup>G. Coedes, Angkor: An Introduction (Hong Kong: Oxford University Press, 1963), p. 102.

<sup>26</sup>I first described this smaller structure as a mandapa, a hall for worshipers or a pavilion. In this case it appears to have served as a pavilion housing deities set apart from the main sanctuary.

disturbed nature of the site none of the temple images or other religious paraphernalia have been recovered in situ. One is thus faced with patently inconclusive evidence regarding the nature of the shrine from within the complex itself.

The square basement relates in form to other structures excavated in Southeast Asia, notably a laterite foundation at Matang Pasir in Kedah and a brick built biaro at Sitopayan in the Padang Lawas area of Tapanuli some 300 km to the south of Kota Cina. The layout of the complex, construction techniques employed and other Cōḷa associations at Kota Cina suggest, however, that there may be a direct relationship with Śaivite practice and that for a prototype for this complex one should look to South India. The square sanctuary is suggestive of the linga temples of Drāvida architecture.<sup>27</sup> The relationship of the various elements of the whole indicates that there is, however, a deviation from the norm for the construction of a Śiva temple. The complex is oriented north to south rather than east-west in normal practice but is a circumstance which may have been influenced by local topography. The complex appears to be situated on what was, at one time, a narrow tongue of dry land raised slightly above the level of the surrounding tidal swamp, a factor which restricted the area available and thus obliged an unusual adaptation to local circumstances. The discovery of a Śiva linga in close proximity to the site weighs heavily towards an undisputable Śaivite connection. If this is so, the rectangular basement to the southwest of the sanctuary may have served as a base for nandi the bull, the vahana or mount of Śiva who normally faced directly towards the linga.

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<sup>27</sup> See S. Kramrisch, Dravida and Kerala in the Art of Travancore (Ascona: Artibus Asiae, 1961).

There are exceptions to this rule, however, as in the Great Temple at Thanjavur (Tanjore), where nandi is at a perceptible angle to the main axis of the temple.

Other alternatives do, however, present themselves for consideration. The temple may have been dedicated to the Trimurti (Brahma, Śiva and Viṣṇu) or alternatively dedicated to Viṣṇu himself, a possibility which arises from the presence of the circular basement to the rear of the nandi on the western side of the sanctuary. This last would be the padmapoola or table of offerings.<sup>28</sup>

One final point which may provide further evidence for suggesting that the complex was built according to Indian prescriptions and possibly dedicated to Śiva is its relation to the rest of the settlement. Śiva temples were normally constructed at the northeast, north northeast or east northeast corner of a village whereas Viṣṇu temples were erected to the west.<sup>29</sup> The complex at Location 3 may be considered as being positioned roughly north northeast in relation to the main settlement at Kota Cina and thus generally fulfilling the prescription for the siting of a Śiva temple.

#### 2.4.2 Location 4

About one hundred and eighty meters south of the brick complex at Location 3 is a considerable mound of brick rubble planted with banana and other fruit trees. It forms the highest point in all Kota Cina. Situated here

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<sup>28</sup>I am greatly indebted to M. Jaques Dumarcay for discussing the significance of the structures at Location 3 and for bringing these points to my attention.

<sup>29</sup>Rao, Elements, 1.1, p. 21. Southeast Asian builders did not necessarily follow the original Indian prescriptions for such foundations. In this case, however, an attempt appears to have been made to fit in with the prescription.

is the shrine of a local saint known as the Keramat Pahlawan, the shrine of the Hero.<sup>30</sup> The western part of the mound is occupied by the house and pigpens of a Chinese farmer named A Po whose family have lived here since the mid-1930s. A Po and his family cultivate the extensive vegetable garden which is situated directly to the east of the mound. Two small bronze images of a standing Buddha and a female deity are said to have been found in it. From the surface of this intensively cultivated area numerous fragments of Song and Yuan period Chinese stonewares and Chinese coins also have been recovered.

A yni base now in the Medan Museum was discovered in 1972 being used as a draining board in A Po's kitchen. It consists of a circular block of dark gray stone, approximately 60 cm in diameter and 40 cm high with a square mortise cut into the central part of the upper surface. A raised rim, about 4 cm wide and 2 cm in height surrounds the cut-away central portion but the projecting portion has been broken off (Plate 6). A panel of lightly incised lotus leaves decorates the upper and lower portions of the stone. The yni base and two other roughly hewn blocks of stone about 90 cm in height had been found on the mound when the house was first built (Plate 7).

Also in this same area in 1972, a second large stone, square in shape was found lying at the edge of a padi field some one hundred and fifty meters southwest of the Keramat Pahlawan where it is still to be seen. This block is roughly square, measuring 90 X 90 cm along the upper edges into which a circular depression 70 cm in diameter has been cut out to a depth of 4 cm. The stone cutting was not quite true as an inner ridge has been left

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<sup>30</sup> Pahlawan: the man foremost in the fight, champions or soldiers of renown. Wilkinson, A Malay-English Dictionary, p. 829.

on the side of the cut. A small lip has been cut through the outer rim to allow the egress of liquids. The lower part of the block has been only very roughly finished, suggesting that it may originally have been sunk into a floor or foundation (Plate 8).

This block appears to have served as a base for a cult image over which libations were poured and the liquid allowed to drain away. The image may have been quite large, possibly well over a meter in height. It seems likely that the block was once part of the remains at Location 4 but was moved for some unknown reason to a position in a sawah some distance away.

The nature and dimensions of the building or buildings which once stood at Location 4 are not yet known. In 1974, a villager digging a rubbish pit in close proximity to the Keramat Pahlawan uncovered a carefully hewn, truncated, pyramidal granite block from among the brick rubble. This, together with the other blocks which have been found in the vicinity, suggest that the structure may have been built of both brick and stone in a manner of construction used in medieval South India and Sri Lanka. This combination of stone and brick is typical of Dravidan architecture.<sup>31</sup> It is a type of construction known also from other archaeological sites in Sumatra.<sup>32</sup>

On the east side of the mound, a large lump of fallen masonry over one meter in length and comprising seven courses of brickwork, was

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<sup>31</sup>For a discussion on this type of construction, see Kramrisch, Dravida, pp. 6-10.

<sup>32</sup>In this connection, Schnitger makes specific reference to Candi Bungsu at Muara Takus and the sanctuary at Si Mangambat near Si Abu in Tapanuli. See F. M. Schnitger, Oudheidkundige Vondsten in Palembang, Bijlage C. (Leiden: Brill, 1936), pp. 7-8. See also Schnitger, Archaeology, p. 14; and F. M. Schnitger, "De Tempel van Simangambat, Zuid-Tapanoeli," TBG, 76 (1936), pp. 334-36.

uncovered. Its position gave the impression that it had fallen from some height, suggesting that the structure from whence it came may have been in the nature of a brick tower rather than simply a basement such as the structure at Location 3. This is, for the present, purely speculation, as a much larger scale excavation would have to be undertaken to establish exactly what remains. Tower-like brick structures are, however, not uncommon in Sumatra.<sup>33</sup> The mass of bricks scattered around the area, together with the blocks of hewn granite certainly suggest the existence of a structure of some size.

Although the religious associations of this structure are not absolutely clear, the presence of a yoní base implies, once again, a Śaivite connection. The square block with its circular inset is undecorated and gives no indication of the type of cult for which it was once used. The two small bronze images found to the east of the mound may have no direct association with the structure and cannot, therefore, be used to infer either Buddhist or Hindu connections. All that can be said at present is that Śaivite emblems have been recovered in close association with both the structures at Locations 3 and 4. It is worth noting, however, that Śaivite remains are comparatively rare in Sumatra, where most brick-built religious remains appear to be of a Buddhist nature.

During the twelfth to fourteenth centuries a syncretic Hindu-Buddhist creed developed in the archipelago. It has left its traces in Kedah<sup>34</sup>

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<sup>33</sup>There are several examples in the Padang Lawas. The ruin at Tanjung Medan, south of Rao on the borders of Minangkabau was also a tower or stupa-like form, probably related architecturally to the Padang Lawas ruins. Candi Mahligai at Muara Takus is also a simple stupa-like tower.

<sup>34</sup>A Śiva linga was recovered at Kedah Site 24. See Quaritch Wales, "Further Work," pp. 8-10, and "Archaeological Researches," pp. 84-85.

and in the Panei area south of Kota Cina, where the brick-built candi of Bara together with the Ganeśa and pillar at Porlak Dolok appear to be roughly contemporary with Kota Cina.<sup>35</sup> Other Śaivite remains which may be contemporary with the Kota Cina structures are also known from Palembang,<sup>36</sup> Tanah Abang on the Lematang, a tributary of the Musi river,<sup>37</sup> Sarolangun in the south of Jambi province,<sup>38</sup> Muara Jambi<sup>39</sup> and Aurkuning

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<sup>35</sup> Schnitger, Oudheidkundige Vondsten, p. 5, and Archaeology, p. 30.

<sup>36</sup> Three Śaivite "death images" representing Śiva, Brahma and Viṣṇu were recovered only a short distance away from the site where the Sarangwati Avalokiteśvara was discovered in recent years, not far from the modern water supply plant. See Schnitger, Oudheidkundige Vondsten, p. 5 and Plate 9. These bronzes are now in the Museum Nasional, accession numbers 6032-6034, Jaarboek v. h. Bataviaasch Genootschap (1933). A 77 cm high bronze Śiva image was also discovered in the same area, see Schnitger, Archaeology, Plate 6; Museum Nasional, accession number 6031. A Ganeśa image, 68 cm in height in the Museum Nasional, accession number 180, is also from the Palembang area but its exact provenance is unknown. The four-armed image is seated in the Javanese manner with the soles of the feet placed together upon a lotus cushion. The upper left arm is broken off. A half moon and a skull may be discerned in the headdress and there are rosettes above each ear.

<sup>37</sup> In 1930, Bosch found an ornamental stone corner piece with a gana figure and the beginning of a spiral, a linga-form top-piece, an antefix and a bust of a human figure with a rosary in the right hand in association with building foundations at Tanah Abang: Bosch, "Verslag," pp. 151-52. Schnitger visited the site in 1936 to find that only a natural stone foundation still survived and that the three brick ruins had been completely destroyed. The remaining fragments of sculpture, including a Śiva bust, were removed to the Palembang museum. Schnitger, Oudheidkundige Vondsten, p. 6.

<sup>38</sup> An unfinished Ganeśa image, 1.73 m in height, was discovered at Sarolangun. It is now in the Palembang museum. Schnitger, Archaeology, p. 7.

<sup>39</sup> A nandi image measuring 1.05 m in length and 0.80 m in height was discovered at Muara Jambi. The candi at Muara Jambi are predominantly Buddhist. Candi Kedaton, however, appears to have been a Śaivite foundation. See T. Adam, "Oudheden te Djambi 1," OV, Bijlage U (1921), pp. 194-97, and Schnitger, Archaeology, p. 7.



on the Sibayang, a tributary of the Kampar Kiri.<sup>40</sup> The disposition of these sites is, of course, predominantly in southern Sumatra.

Earlier Śaivite remains are known, however, from Simangambat and Bonan Dolok in South Tapanuli. If Schnitger's dating on the basis of iconographic associations proves to be correct, these two sites may date from the eighth to tenth centuries. Simangambat, in particular, is thought to have Javanese affiliations.<sup>41</sup>

In discussing religious developments during this period in Sumatra, Parkin has discerned three strands of Indian influence which parallel those in other parts of the archipelago, viz.:

- 1) Mahayana Buddhism which culminated in Left-handed Tantrism of the Kalacakra, or more accurately, the Vajrayana.
- 2) Śaivism of a Tantrik character developing into the worship of Śiva-Bhairava as a syncretism with the Vajrayana in which Śiva-Buddha was revered as the Batara Guru.

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<sup>40</sup>An undescribed Ganeśa image which, in 1936, had been removed to Bengkalis. Schnitger, Archaeology, p. 12.

<sup>41</sup>Schnitger accepted Bosch's dating based on ornamental devices which appeared to exhibit "a pure and unmistakable Central Javanese style" relating especially to that found at Candi Kelasan. Bosch, "Verslag," p. 134; Schnitger, "De Tempel," pp. 334-36. A crude Ganeśa image, 56 cm in height, sitting in the Javanese style on a high pedestal was discovered within the confines of the candi. It is now in the Museum Nasional, accession number 180a/3413.

Schnitger considered it strange that such an unsophisticated image should be found in association with sculptural decoration of a much higher order such as that of the relief work on the temple friezes. The image is not unlike a Ganeśa discovered in Sarawak which has been dated to the thirteenth century or a little earlier.

On the Ganeśa found in Sarawak, see J. C. Moulton, "Hindu Image from Sarawak," JSBRAS, 85 (1922), pp. 210-11. Simangambat is obviously of great importance and despite its ruinous condition may well reward further investigation by carefully controlled excavation both in and around the site itself. On the discovery of the candi, see C. A. Van Ophysen, "Oudheden te Simangambat en Bonan Dolok," NBG (1888), Bijlage VIII, pp. 48-49. It is perhaps pertinent to add that the candi is sited on the west bank of a small stream which flows through Si Abu. The site has been badly robbed of its bricks in recent years.

- 3) The redemption and deification of souls of the dead which produced an ancestor cult.<sup>42</sup>

I do not propose to go into a detailed description of these influences here. As far as I can ascertain, however, the Śaivite remains at Kota Cina have no obvious syncretic or Tantrik characteristics. The presence of what might be termed a "puristic" form of Śaivism may, therefore, be of some significance. The presence of Śaivite remains at Kota Cina appears to be due to "external influences," a point which is underlined dramatically when one comes to examine the iconographical evidence from Location 8.

#### 2.4.3 Location 8

Approximately four hundred meters south of the Keramat Pahlawan chance finds by villagers have brought to light the most dramatic art historical evidence of ancient religious activity at the Kota Cina site. Four stone statues, including two seated Buddha images, a standing Viṣṇu image and the lower part of a richly ornamented female deity have been recovered. They have all come from within an area encompassed by a completely buried low wall of brick. Portions of it have been exposed here and there by uncontrolled excavation. There were also traces here of two small masonry foundations of a type similar to the rectangular basement at Location 3. They have now been completely robbed of their bricks. One of these structures consisted of a rectangular brick shell 56 cm in height rising to fourteen courses.<sup>43</sup> On the topmost course, a congealed lump of bronze was

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<sup>42</sup>Parkin, Batak Fruit, p. 54.

<sup>43</sup>Although most of the bricks had already been removed before I was aware of the existence of this structure, I was able to discover a small, intact portion of walling preserved in the roots of a small tree.

exposed where it had evidently collected after having been subjected to intense heat.<sup>44</sup>

The first Buddha image, sculpted from a dark gray, fine grained granitic rock, was located in the house of a Chinese villager near Location 7 in 1972. The villager later moved to another house in Paya Pasir and took the statue with him. Apparently complete when first discovered, the image had been set up in a small wooden pendopo in front of the house. As the statue was apparently of Indian origin, a dispute arose between a man of Tamil origin from a nearby neighborhood and the finder, with the Tamil claiming it due to its cultural associations and the Chinese who is a Buddhist, claiming it was his by right of discovery. One night the Tamil came along, knocked the head off the image and ran away with his prize which has never been seen since. After this, the image was, for safety, moved into the house itself where it was still to be seen when I first visited Kota Cina in 1972. A replacement head was made from clay and placed upon the broken neck.<sup>45</sup>

The image was said to have been discovered during the Japanese occupation, buried in a vegetable plot a few meters east of the brick basements beside the path at Location 8. In 1973, a second image, fortunately intact, was exposed by villagers digging a rubbish pit for a newly erected

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<sup>44</sup>Copper melts at 1083°C, copper alloyed with tin or lead at a slightly lower temperature. It would be possible for a fire to generate sufficient heat, if burning in a breeze, to cause a small bronze artifact such as a statue or lamp to melt. Fires in domestic wooden buildings usually generate a temperature of about 950-1000°C.

<sup>45</sup>I have refrained from publishing a print of the whole image as it now is, as the head is completely out of proportion to the rest of the image. See Edwards McKinnon, "Kota Tjina," p. 46; Milner et al., "Aru," Plate 1.

house only thirty meters to the south of the spot where the first Buddha had been found some thirty years earlier.<sup>46</sup>

In 1979, both the Viṣṇu image and the lower part of the female deity were discovered buried a few meters north of the path leading to Location 6 and the Titipapan-Hamperan Perak road, some fifty meters to the east of the first two finds. This area had been left uncultivated until recently and has generally been heavily overgrown. Very few sherds have come to light in the vicinity.

Observations in this area had led me to believe that Location 8 was the site of a Buddhist aśrama, a conclusion which is borne out by the presence of the Buddha and Viṣṇu images in the same immediate area. At the present time, the cult of Viṣṇu is closely associated with Buddhism in Sri Lanka, where a black statue of the god is to be found in most Buddhist viharas.<sup>47</sup>

#### 2.4.3.1 The Buddhas

Both the two seated stone Buddha images display workmanship which is characteristic of the late Cōḷa school of Buddhist sculpture, subsuming influences from Nalanda, Sri Lanka and a "primitive" tradition that Srini-vasan ascribes to foreign influence<sup>48</sup> (Plate 9). The lines are simple, with

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<sup>46</sup>Edwards McKinnon and Luckman Sinar, "Further Developments," p. 73.

<sup>47</sup>P. B. J. Hevavasam, "How the Images of Hindu Gods Found an Abode in Buddhist Temples in the Southern and Western Coasts of Ceylon," Ancient Ceylon, 3 (1979), pp. 145-48.

<sup>48</sup>Dra. Satyawati Suleiman has recently drawn attention to the Cōḷa stylistic affinities of the Kota Cina images. See S. Suleiman, Sculptures of Ancient Sumatra (Jakarta: Proyek Penelitian Purbakala Jakarta, 1981), pp. 17-18, 22-23. I am indebted to Dra. Satyawati Suleiman, Professor Dr. J. E. Van Lohuizen-de Leeuw and Professor S. J. O'Connor for discussing

the robe displayed in the open mode and the end of the flap brought forward to the left side of the chest in the reverse of the post-Gupta style. The lower edges of the robe are prominently marked around the ankles, appearing almost as if to emphasize an analogy to the anklets of Cōḷa royalty. The images are seated in padmāsana, the lotus posture, with the hands in dhyānamudrā. A four pointed star is carved into the palm of the upper hand of the decapitated image (Plate 10).

The second image (Plate 11) which has survived intact except for a small chip off of the side of the nose and one knee, has a large, regularly shaped oval head with wide open almond-shaped eyes, prominent eyebrows, a low forehead and the hair in regular flattened curls. The usnīsa is small and flame-like, reminiscent of the siraspoti of Sri Lan̄ka. There is a marked trivali on the neck (Plate 12).

The bases of both images are rectangular, with simple moldings reminiscent of metallic prototypes. They are otherwise undecorated. The rear of the images has been given a minimum of attention by the sculptor.

These images, like their surviving counterparts still to be found in Brahmanical temples in Tamilnadu, may have been intended as a meditating Sakyamuni. In the Mahayana period of South Indian Buddhism, the dhyānamudrā became typical of Amitabha.<sup>49</sup>

The striking stylistic similarities between the two Kota Cina Buddhas and an eleventh or twelfth century Amitābha from Śiva Kancipuram in

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the origins of these images. For a survey of Cōḷa Buddhist imagery, see P. R. Srinivasan, "Buddhist Images of South India," in The Story of Buddhism with Special Reference to South India (Madras: Madras Museum[?], 1960), pp. 62-101.

<sup>49</sup>D. L. Snelgrove, The Image of the Buddha (Tokyo: Kodansha, 1978), p. 289.

Tamilnadu are immediately apparent.<sup>50</sup> Close affinities to the decapitated image may also be found with similar images from Tijaganur, Attur Taluk, Salem District,<sup>51</sup> Arikamedu<sup>52</sup> and Karadikkuppam, Pondichery.<sup>53</sup> Furthermore, the complete image may also be compared with an eleventh or twelfth century image from Tiruvetti, in South Arcot District<sup>54</sup> and one from the Kamakshidevi Temple at Kancipuram.<sup>55</sup>

All of these images exhibit what are essentially similar stylistic characteristics with little variation in sculptural technique. All are treated in a similar stiff pose, with broad square shoulders and slim waists. The hands and feet tend to be disproportionately large compared with the limbs. These characteristics strongly suggest that the Kota Cina images are of South Indian origin, a supposition which is largely confirmed by geological analysis of a fragment of finely grained black rock from a smashed statue recovered at Location 3.<sup>56</sup> This conclusion is further strengthened by evidence

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<sup>50</sup>Snelgrove, *The Image*, Plate 219; Srinivasan, "Buddhist Images," p. 93, Figure 20. Srinivasan's dates would appear to be slightly on the early side for most of this statuary.

<sup>51</sup>Srinivasan, "Buddhist Images," p. 93, Figure 22.

<sup>52</sup>Ibid., p. 97, Figure 28, from Kakayan Tope, south of Pondichery.

<sup>53</sup>Ibid., p. 98, Figure 28, from Karadikkuppam, north of Pondichery.

<sup>54</sup>Ibid., p. 93, Figure 21.

<sup>55</sup>T. A. G. Rao, "Bauddha Vestiges in Kanchipura," *IA*, 44 (1915), pp. 127-29, especially Figure 3. Rao considers that the Kamakshidevi temple was originally dedicated to Tara and converted into a Hindu temple in later times. For other images of this type, see also T. A. G. Rao, "Bauddha and Jaina Vestiges in Travancore," *Travancore Archaeological Series*, 2 (1920), pp. 115-30, especially Plate 2.

<sup>56</sup>The iconographical evidence is dramatically borne out by geological evidence. Part of the arm of a statue from near Location 3 has been identified as pyroxene granulite, a fine-grained, deep-seated igneous rock which is found in South India, but not, as far as is known, in Sumatra. I am indebted to Professor Dan Karig for this identification and information.

of other artifacts with "Indian" affiliations such as pottery, carnelian and agate beads and a golden Hindu ornament of Islamic inspiration.<sup>57</sup>

A further item of evidence for a South Indian origin for the Kota Cina images is their close association with the Viṣṇu statue, also in Cōḷa style, which was discovered in 1979. At the present time, images of this Hindu deity are to be found in every Buddhist temple on the southern and western coasts of Sri Lan̄ka, often housed in the same building as that of the Buddha image, or sometimes accommodated in a smaller separate building close to the Bodhi tree within the temple compound. It is customary for Buddhists to worship Viṣṇu after having made their obeisance to the Buddha.<sup>58</sup>

Hevavasam opines that it is most probable that this arrangement was not found in Buddhist temples in Sri Lan̄ka prior to the sixteenth century when many shrines were pillaged by the Portuguese.<sup>59</sup> It would appear, however, from the evidence at Kota Cina that the presence of Viṣṇu in Buddhist temples is actually of greater antiquity, dating from at least the fourteenth century and possibly rather earlier. Little is known of the history of Buddhism in South India and although it eventually succumbed to Hinduism, it survived, fertilized by a suffusion of the spirit from Sri Lan̄ka, Burma and Thailand until at least the seventeenth century.<sup>60</sup>

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<sup>57</sup> See below.

<sup>58</sup> Hevavasam, "Images of Hindu Gods," p. 145; see also A. Aiyappan, "Decline of Buddhism in India," in Story of Buddhism, pp. 150-57, especially p. 155.

<sup>59</sup> Hevavasam, "Images of Hindu Gods," p. 145.

<sup>60</sup> Snelgrove, The Image, pp. 288-89. Extensive commercial intercourse between the Mabar coast of Southeast India (Tamilnadu) and Sri Lan̄ka, Burma and Thailand where Theravada Buddhism had continued to flourish, helped to maintain the Sangha in port communities such as Nega-paṭṭinam and Kancipuram. South Indian Buddhism appears to have passed

By extrapolation, the presence of a Viṣṇu image in a Buddhist shrine at Kota Cina may thus reflect a stage in the weakening of the Buddhist faith in South India, and is analogous to the current practice of juxtaposing Viṣṇu with the Buddha in Sri Lanka. This practice apparently arose due to the presence of Hindu temples on the south and west coasts of Sri Lanka as late as the fifteenth century when Tamil mercenaries were still employed by the royal Sinhalese court.<sup>61</sup>

#### 2.4.3.2 The Viṣṇu Image and a Female Deity

In 1979, a headless image of Viṣṇu and the lower part of an unidentified female deity were discovered by villagers lying together some eighty meters east of the findspots of the two Buddha images at Location 8. The Viṣṇu, a four-armed figure, is represented as a sthana-murti or standing figure, approximately 1.40 m in height (Plate 13). The right upper hand displays a frontally placed cakra with the lower right hand raised in abhaya mudrā. The upper left hand holds a broken but still recognizable śankha while the lower left hand is placed on the left thigh rather than on the left hip,<sup>62</sup> the latter being a form which is common in Tamil districts.<sup>63</sup> As with

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through a Mahāyana stage between about the seventh and fourteenth centuries but thereafter became more under the influence of the Theravada. For a discussion of Buddhism in Tamilnadu, see T. N. Ramachandran, Nagapattinam and Other Buddhist Bronzes in the Madras Museum (Madras: Bulletin of the Government Museum [New Series], General Section 7, 1, 1954).

<sup>61</sup>Hevavasam, "Images of Hindu Gods," p. 146.

<sup>62</sup>For a full discussion of the development of the Viṣṇu image in both India and the Thai peninsula, see S. J. O'Connor, Hindu Gods of Peninsular Siam (Ascona: Artibus Asiae, 1972).

<sup>63</sup>C. Sivaramamurti, "Geographical and Chronological Factors in Indian Iconography," AI, 6 (1950), pp. 21-63, especially the section on Viṣṇu, p. 40.



the Buddha images, the hands appear to be out of proportion to the size of the limbs and the rest of the body. The arms are joined at the elbow, a practice common in pre-Cōḷa art and continued through until late Cōḷa times.<sup>64</sup> The torso is flat, as the sculptor, in line with the tenets of Pallava sculpture, has disregarded the normal planes of the human anatomy.<sup>65</sup> The waist is slim and wasp-like, giving the impression that the sculptor worked under the same stylistic influences which dictated the form of the Buddha images resulting in a similar frontal perception and stiffness of posture.

The main difference between the Buddhas and the Viṣṇu image is the highly intricate and essentially superficial overall linear treatment of the pattern of the garment, an effect which contrasts markedly with the simple, plain surface of the robes of the Buddha images.<sup>66</sup> This decoration is similar in concept to that on late thirteenth or fourteenth century images from East Java and a recently discovered image from Muara Jambi on which the garments have been treated in a somewhat similar fashion.<sup>67</sup> The decoration has been divided into vertical registers by bands of small studs or dots, a

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<sup>64</sup>A practice that O'Connor relates to the Indian sculptor's concern for adequate support and stability of the projecting parts; see O'Connor, Hindu Gods, p. 43.

<sup>65</sup>Ibid., pp. 43-44.

<sup>66</sup>For example, compare the surface treatment of the Viṣṇu image with that of the standing Buddha from Tiruvalanjali, Tanjore District. This image appears to be unique in Tamilnadu, for although standing bronze images are known, this is the only stone statue which has come to light. It stands 2.40 m in height and is dated to the middle of the eleventh century or slightly later. Except for the treatment of the edge of the robe, the surface appears to be smooth and completely free of any decoration. This is precisely in keeping with other Buddha images of this type. See Srinivasan, "Buddhist Images," p. 94, Figure 23.

<sup>67</sup>On the East Javanese images, see A. J. Bernet Kempers, Ancient Indonesian Art (Amsterdam: v. d. Peet, 1954), Plates 222, 237, where the design takes the form of various Batik motifs.

form of decoration also employed in the necklace (hāra), the bracelets (kaṅkana) and the anklets (natuna).

The garment hangs in two folds at the bottom, almost a more simple version of the scalloped robe of a standing Buddha image from Tiruvalanjali.<sup>68</sup> The garment is, however, not a robe but a dhōti secured below the waist by a waistband (katisūtra) with a stylized feline mask, presumably intended as a sinhamukha, an attribute of Viṣṇu as narasiṅha, a form of the God which is very popular in South India (Plate 14).<sup>69</sup>

A sinuously curving yajñopavitā, composed of three strands, is similar to that portrayed on a small limestone Viṣṇu of Cōḷa origin from Vieng Sra on the Thai peninsula, an image which has been tentatively dated to the tenth or eleventh centuries.<sup>70</sup> The image also exhibits a Śrīvatsa mark on the right breast above the nipple,<sup>71</sup> a symbol which distinguishes Viṣṇu as

<sup>68</sup>Srinivasan, "Buddhist Images," p. 94.

<sup>69</sup>Narasinha: the fourth avatar of Viṣṇu. Sinhamukha is also the name of a knot on the katisūtra or katibandha, i.e., "lion face." This also presents a more logical case for the appearance of similar masks on Buddhist images found in Southeast Asia. See A. Lamb, "A Note on the Tiger Symbol in Some South East Asian Representations of Avalokiteśvara," FMJ, 6 (1961), pp. 89-90. Although the mask on the right thigh of an eight-armed Avalokiteśvara from Bidor in Perak closely resembles that of a tiger head symbol on the Śiva half of a Khmer Harihara, the mask may be intended as a lion mask, a mark of Sinhanāda-Lokeśvara, which often shows influence from Śiva although it is in fact Buddhist. See G. Liebert, Iconographic Dictionary of the Indian Religions (Leiden: Brill, 1976), p. 270. It is of interest to note that a similar "feline" mask is to be seen in the girdle of the great statue of the Minangkabau king Adityavarman, in which this fourteenth century monarch is portrayed as a bhairava. See Schnitger, Archaeology, Plates 14, 16.

<sup>70</sup>O'Connor, Hindu Gods, pp. 60-61, Plates 32a, b.

<sup>71</sup>Sivaramamurti, "Geographical and Chronological Factors," p. 44. In this situation it is sometimes said to represent Lakṣmi. Liebert, Dictionary, p. 280.

one possessing a special mark of beauty and fortune and which is the symbol of Śrī, the goddess of fortune.<sup>72</sup>

The lower part of a female deity, some 40 cm in height was found at the same spot as the Viṣṇu image (Plate 15). As the upper part is missing from just above the navel, it is not possible to make more than a tentative attribution for this image. It is, however, in essentially the same general style as the Viṣṇu and the Buddha images. It is therefore, presumably, of common origin.

The garment is treated in a series of hanging folds secured by a richly ornamented jeweled waistband or katisūtra typical of Cōḷa dress. The large right hand, with its heavily ringed fingers extended down the side of the image is yet again out of proportion to the rest of the remaining part of the arm and the lower limbs which are adorned with heavily jeweled anklets.

This image probably formed part of a group of three deities comprising Viṣṇu and his two consorts, Śrī Lakṣmi and Bhu-devi. The position of the extended right arm suggests that this particular image stood to the left of the main icon and therefore represents Bhu-devi, Viṣṇu's second consort.<sup>73</sup>

There is, perhaps, a second possibility. The image may be that of Pattini, a South Indian deity sometimes found in Buddhist shrines.<sup>74</sup> Pattini

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<sup>72</sup> Śrīdevī, also named Śrī Lakṣmi, consort of Viṣṇu. For a discussion of the role of Śrī in Vaisnaism, see J. Gonda, Aspects of Early Viṣṇuism (Utrecht: Oosthoek's Uitgevers Mij, 1954), pp. 212-31.

<sup>73</sup> Bhu-devi, the earth goddess, is normally depicted with a blue lotus in her left hand and her right hand hanging freely at her side. She stands to the left of Viṣṇu. Śrīdevī or Śrī Lakṣmi, Viṣṇu's first consort stands to his right. Rao, Hindu Iconography, 1.1, p. 82.

<sup>74</sup> Hevavasam, "Images of Hindu Gods," p. 145.

is a goddess representing the apotheosis of Kannaki, wife of Kovilan or Palanga, a goldsmith unjustly accused of stealing the anklet of the Queen of Mathura. She is regarded as a manifestation of Śakti.<sup>75</sup> Her special attributes are jewelled anklets and the mango. She is the goddess of chastity and controller of diseases such as smallpox, measles and murrain in cattle. In Sri Lanka she is the central figure of an elaborate and varied cult whose rites include the playing of the game of ankeluja and firewalking.<sup>76</sup>

#### 2.4.3.3 The Śiva Linga

Although a number of Śaivite images, including statues of the elephant-faced God Ganeśa, the overcomer of obstacles,<sup>77</sup> are known from sites in Sumatra, discoveries of Śiva linga are rare. Other than a fragment of a linga from one of the shrines at Tanah Abang on the Lematang river in South Sumatra,<sup>78</sup> no other finds are on record. A fair number have been reported, however, from sites on the peninsula.<sup>79</sup>

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<sup>75</sup> Śakti: the all-pervading energy of a god in its personified form and in this sense comprehended as the female counterpart of any god. In Buddhism it represents the creative form in its feminine aspect and relates especially to the bodhisatvas and also the Buddhas. See Liebert, Dictionary, p. 246.

<sup>76</sup> A. K. Commaraswamy, Bronzes from Ceylon, Chiefly in the Colombo Museum (Colombo: Memoirs of the Colombo Museum, Series A, No. 1, 1914), p. 12. See also Liebert, Dictionary, p. 219. For a brief general discussion of the Pattini cult, see L. R. Hiatt, "The Pattini Cult of Ceylon: A Tamil Perspective," Social Compass, 20, no. 2 (1973), pp. 231-49. I am indebted to Professor Gananath Obeyesekere for bringing this to my attention.

<sup>77</sup> For a full discussion of Ganeśa, see A. Getty, Ganeśa (Oxford: Oxford University Press, 1936).

<sup>78</sup> Bosch, "Verslag," p. 151; Schnitger, Oudheidkundige Vondsten, p. 6.

<sup>79</sup> O'Connor, Hindu Gods, p. 23.

Indian religious prescriptions required the size of any linga erected in a Śiva sanctuary to be proportional to the dimensions of the shrine itself.<sup>80</sup> It follows that the sanctuary which housed the linga recovered in close proximity to Location 3 was of only moderate proportions.

The linga, carefully fashioned from close grained highly polished dark gray stone, measures approximately 40 cm in height (Plate 16). It comprises two parts, a Rudrabhāga, representing an elongated glans with a raised ridge on one side forming the frenum and a cubical base or Bramabhāga which fits into a square mortise cut into the upper surface of a yoni base.<sup>81</sup> The cubical base measures approximately 12 cm on each side. The octagonal section or Viṣṇubhāga, found on many Indian and Southeast Asian linga, is completely absent. It would appear to fit into a class of linga known as tripuṣākāra, which take their name from the cucumber-shaped apex or glans.<sup>82</sup> It appears similar in outline to a linga fashioned from quartzite, height 60 cm, discovered by Quaritch Wales at his Kedah Site 24, which he described as "late Hindu."<sup>83</sup>

#### 2.4.3.4 The Elusive Inscription

Writing in 1826, John Anderson reported that "at Kota Cina is a stone of a very large size, with an inscription upon it, in characters not under-

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<sup>80</sup>Rao, Elements, 2.1, pp. 75-102.

<sup>81</sup>J. N. Banerjea, The Development of Hindu Iconography (Calcutta: University of Calcutta, 1956), p. 458. The yoni portion of the emblem is also known as a pindikā.

<sup>82</sup>Liebert, Dictionary, p. 305.

<sup>83</sup>Quaritch Wales, "Archaeological Researches," p. 41; "Further Work," p. 9.

stood by any of the natives."<sup>84</sup> This stone has since disappeared.

In 1972, I gave credence to an erroneous report that the inscription had been rolled into a nearby creek to prevent it being taken away by a group of Chinese from Medan. This event allegedly had taken place some time in the 1930s.<sup>85</sup> We now know, however, that the stone reported to exist by Anderson had already disappeared by 1882. When the Controleur of Labuhan Deli visited the site at the request of the Bataviaasch Genootschap van Kunsten en Wetenschappen, the inscription was no longer to be found.<sup>86</sup>

John Miksic has raised a doubt as to whether the stone ever existed.<sup>87</sup> Certainly no one in the village at the present time has any idea of its whereabouts and there is no circumstantial evidence to clarify the matter. It seems possible, however, that there may be a connection between the local account and the situation relating to the Controleur's visit of 1882. It is feasible that the Controleur may have made enquiries about the stone before he visited the site. Correspondence relating to the Controleur's investigation began in 1882, some time before he actually appears to have visited Kota Cina.<sup>88</sup> In the meantime, news of the intention to remove the stone

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<sup>84</sup>Anderson, Mission, p. 294.

<sup>85</sup>Edwards McKinnon and Luckman Sinar, "Further Developments," p. 85.

<sup>86</sup>NBG (1883), pp. 48-49.

<sup>87</sup>Miksic, "Archaeology," p. 113.

<sup>88</sup>Kota Cina first came to the attention of the Bataviaasche Genootschap in 1862, when an extract from Anderson's Mission was reprinted in English in TBG, 12 (1862), pp. 231-33. Seventeen years later the existence of the stone was again noted by the Dutch who had recently established themselves in the Deli area, see NBG (1879), p. 97. In October 1882, the Bataviaasche Genootschap contacted the Assistant Resident of Deli, who was

may have traveled and for some reason the villagers decided to hide the stone in the mud of a nearby creek.

#### 2.4.3.5 Conclusion

Examination of the architectural remains at Kota Cina suggests similarities with remains in Kedah and also other parts of Sumatra, in particular with the Panei area. In both Kedah and Panei, Indianizing influences may be discerned dating from the late first millennium to about the fourteenth or fifteenth centuries.

One of the Kota Cina brick complexes appears to have been a Śiva temple and another a Buddhist vihāra. Syncretic Hindu Tantrik Buddhist artifacts have not appeared at this site. The brick shrines, however, were built to serve an established community and suggest that the site was a permanent settlement of considerable importance.

South Indian influence is dramatically revealed by the presence of four stone images, two Buddhas, a Viṣṇu and the lower part of a female deity, all in late Cōḷa style. These images are datable on stylistic grounds

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asked to recover the inscription. See NBG (1882), p. 159. The result of this correspondence is noted in NBG (1883), pp. 48-49.

The Controleur reported in March 1883 that he had made a search for the inscription; he wrote: "I have actually found a large stone at Kota Cina which I have brought to Labuhan Deli. There is no sign of any inscription on it. The stone lay in a ditch at the edge of a nutmeg grove to where it had apparently been removed by the proprietor. According to the headmen, Chinese lived at Kota Cina many years ago, but there is no longer any trace of their habitations. No one has been able to tell me anything about it or to estimate the time that the Chinese abandoned the settlement. Other stones were not to be found in the vicinity [my italics]. The above mentioned stone is square cut, 76 cm in length and breadth, 28 cm high. There is a square hole in the center, 45 cm long and 43 cm wide, about 5 cm deep. Due to the hole, it is known by the villagers as the lumpang batu."

The stone appeared to be the upper part of a yonī but as it was then considered to be of no archaeological value, the Controleur was not requested to send it to Batavia. Enquiries in Labuhan Deli in 1977 regarding the whereabouts of the stone were fruitless.

to about the twelfth century or slightly later. The close association of the Viṣṇu image and the female deity with the two Buddha images suggests that they may all have been housed in the same shrine, a feature of modern Buddhist shrines in Sri Lanka. The association of Buddha with Viṣṇu is conceivably a practice which arose in South India at a time when Buddhism was under considerable pressure and its influence was diminishing. The community at Kota Cina included both Buddhists and Hindus.

This evidence places Kota Cina firmly in a class of Southeast Asian sites such as that at Labu Tua in West Sumatra, Takua pa on the west coast of the Thai Isthmus and Pagan in Burma where vestiges of Indian commercial interests and permanent settlement have come to light.<sup>89</sup> It seems likely that Kota Cina was occupied, at least initially, by representatives of one of the Tamil merchant builds such as the Maṇigrāmam or the Nanadesis, also known as the Aiññuruvar who were often styled the Five Hundred Svāmis of Ayyavolepura.<sup>90</sup>

This last group left an inscription in Tamil Grantha script dated in the Śaka year 1010 (1088 A.D.) at Labu Tua near Baros on the west coast of

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<sup>89</sup>On Labu Tua, see Deutz, "Baros," pp. 156-63; J. Tideman, Hindoe-invloed, pp. 30-54. For a recent summary of archaeological notices on Baros, see Miksic, "Classical Archaeology," pp. 59-62. On Takua pa, see O'Connor, Hindu Gods, pp. 52-58. There is an extensive literature on these sites, ranging from Bourke's discovery of the inscription and statuary in 1905, see W. W. Bourke, "Some Archaeological Notes on Monthon Puket," JSS, 2 (1905), pp. 55-57. The bibliography is covered by O'Connor. On Pagan, see Sastri, "A Tamil Merchant-guild," p. 325.

<sup>90</sup>K. A. N. Sastri, A History of South India (Madras: Oxford University Press, 1976), 4th ed., p. 331. On Tamil guilds, see also K. Indrapala, "Some Medieval Mercantile Communities of South India and Ceylon," JTS, 2, no. 1 (1970), pp. 25-39, and "South Indian Merchant Communities in Ceylon, 950-1200," Ceylon Journal of Historical and Social Studies, n.s. 1, no. 2 (1971), pp. 101-13.



Sumatra.<sup>91</sup> The Labu Tua site appears to have been abandoned by the early twelfth century though external contact with the Baros area did not cease altogether.<sup>92</sup> The establishment of a Tamil community at Kota Cina some time after the Labu Tua site appears to have been abandoned may suggest that the same group of merchants were again attempting to gain access to the valuable products of the western Bukit Barisan, but from the east rather than from the west coast. The reasons for this could be manifold and complex. With the weakening of Śrīvijayan power in the Selat Melaka following the Cōḷa raids of the early eleventh century and increasing disturbance in southern Sumatra due to Javanese pressures, the Tamils may have found it expedient to establish themselves at a suitable point on the east coast. A further factor in this situation may have been the arrival of Chinese shipping.<sup>93</sup> Whatever the reasons for this shift in emphasis from the west to the east coast, the Tamils appear to have been prepared for a long stay.

The presence of an overseas Tamil community with its own religious sanctuaries throws some interesting light on the process of Indianization of Southeast Asia. Although Van Leur saw a separation between trade and religious influences in the region, it appears that in later years, at least,

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<sup>91</sup>Sastri, "A Tamil Merchant-guild."

<sup>92</sup>Archaeological investigation in the Baros area, as with other parts of Sumatra, is still at an embryonic stage. There are no obvious indications why the Labu Tua site was abandoned. The absence of Longquan green glazed ware at Labu Tua may indicate that the site was already given up by the early twelfth century, rather earlier than Miksic has indicated. See Miksic, "Classical Archaeology," p. 61.

<sup>93</sup>Wolters, The Fall of Śrīvijaya, p. 42.

such a separation need not have existed.<sup>94</sup> The temple plays an essential role in every Hindu community.<sup>95</sup> It is logical to assume, therefore, that the merchants who settled in Kota Cina would have been no less concerned about their spiritual and social welfare than had they been living in India. The sacral remains identified at Kota Cina were permanent buildings and would, of necessity have been serviced by Brahman priests as demanded by custom.<sup>96</sup> It is interesting to note, however, that Brahman priests, although indispensable to the religious function, are of low caste.<sup>97</sup> It seems likely, therefore, that any restrictions imposed upon high-class Brahmans did not necessarily extend to the priesthood. There is no restriction on the spread of Hindu religion. In fact the opposite would seem to be the case as only priests who legitimately hold rights granted by the patrons of a temple can perform public worship.<sup>98</sup> Not only would it appear that the Indian community at Kota Cina brought its priests with it from their homeland, but normally such priests are expected to be married.<sup>99</sup> This point raises some interesting questions about the community. Did they

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<sup>94</sup>J. C. Van Leur, Indonesian Trade and Society (The Hague: Van Hoeve, 1955), p. 99.

<sup>95</sup>A. Appadurai and C. A. Breckenridge, "The South Indian Temple: Authority, Honour and Redistribution," Contributions to Indian Sociology, N.S. 10, no. 2 (1976), pp. 187-211. See also B. Stein, "The Economic Function of a Medieval South Indian Temple," JAS, 19, no. 2 (1960), pp. 163-76.

<sup>96</sup>C. J. Fuller, "Gods, Priests and Purity: On the Relation between Hinduism and the Caste System," Man, 14, no. 3 (1979), pp. 459-76.

<sup>97</sup>Ibid., p. 462.

<sup>98</sup>Ibid., p. 464.

<sup>99</sup>Ibid., p. 463.

bring women with them from India? Or did they perhaps marry women from indigenous peoples in the neighborhood? Such questions might never be answered, though it is logical to expect that both these possibilities are correct. It is worth noting, however, that modern sociological studies of South Indian culture can perhaps bring us to a greater understanding of the processes involved in "Indianization."

## CHAPTER 3

### ARCHAEOLOGICAL EVIDENCE: II. SMALL FINDS

#### 3.1 Metal Working

Artifactual evidence suggests that there was metal working on an industrial scale at Kota Cina. Gold, copper bronze and iron may have been of economic importance. Initial inspection of the site in 1972 produced a number of surface finds which included numerous pieces of iron slag and a tuyère (not a crucible as was originally thought) (Plate 17) located to the west of the brick remains at Location 3.<sup>1</sup> Between 1972 and 1977 a number of artifacts of gold, bronze and iron were discovered by villagers in the course of agricultural operations and in excavations at Locations 1 and 3. Excavation in particular revealed indications of industrial activity.

##### 3.1.1 Gold and Silver Working

The area around Location 3 yielded several items which present themselves as indications of metal working activity. These include several fragments of gold leaf or foil, four lengths of fine drawn gold wire (one less than 1 mm diameter) and crushed beads (Plate 18) and part of a small filigree ornament (Plate 19). The discovery of a trapezoidal polished stone measuring 40 X 50 mm, which has subsequently been identified as a touchstone gives added weight to the hypothesis that gold working was of importance.<sup>2</sup>

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<sup>1</sup>E. Edwards McKinnon, "Kota Tjina," SRB, 3, no. 1 (1973), p. 51.

<sup>2</sup>Miksic, "Archaeology," p. 208. On touchstones in Borneo, see T.

Also of importance are the fragments of foil (Plate 20) and "scrap" jewelry excavated from the base of a truncated rectangular pyramidal structure situated six meters to the southwest of the main structure at Location 3. Among the fragments of foil is a piece, roughly 14 mm square and 0.21 mm average thickness (0.20269), with two Chinese characters impressed upon it one above the other (Plate 21). The lower character reads 金 jin, gold. The upper one appears to read 分 fên, a "piece" or "measure." A second fragment of foil, roughly 18 mm square (0.185 g) has the characters shi fên impressed upon it (Plate 22). Shi fên means literally "ten measures" or "one hundred percent."

The presence of these characters implies that the foil was prepared, or at least handled by Chinese merchants or goldsmiths. They would appear to be either a form of assay mark, indicating the purity of the gold or an indicator of weight.<sup>3</sup> The fragment bearing the characters 分金 fên jin has been subjected to scientific analysis and found to be pure. Five sheets of unmarked foil from the same source were also analyzed and found to be pure.<sup>4</sup>

The occurrence of Chinese characters on gold foil from such an archaeological context raises important questions about the scale and nature of Chinese involvement in the gold trade, not only at Kota Cina but in

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Harrisson and S. J. O'Connor, Gold and Megalithic Activity in Prehistoric and Recent West Borneo, Data Paper no. 77 (Ithaca: Cornell University Southeast Asia Program, 1970), p. 128.

<sup>3</sup>I am grateful to Professor Liao Shaolian for discussing the possible meanings of these characters in this context. No combinations of the characters appears in Needham's list of the common Chinese names for gold. See J. Needham, Science and Civilization (Cambridge: Cambridge University Press, 1974), 5, 2, sec. 33, pp. 274-75.

<sup>4</sup>See Manning et al., "Analysis," pp. 110-13.

Southeast Asia generally during the twelfth to fourteenth centuries. Historical accounts attest to an extensive Chinese barter trade in 赤金 chi jin, pure gold in Southeast Asia at this time.<sup>5</sup> Gerini, in fact, suggests a Chinese involvement in the gold trade of Śrīvijaya.<sup>6</sup> Dr. Chên Tê-k'un, writing on the archaeology of Sarawak perceived a major Chinese role in the development of the iron (and gold) producing site of Santubong in Western Borneo.<sup>7</sup> So little is known about south Chinese goldworking at this period that it is difficult to ascertain what may be of Chinese craftsmanship and what may have been produced by Indian, Malay or Javanese goldworkers. Considering the adaptability of Chinese entrepreneurs, it is quite feasible to expect that Chinese craftsmen could have produced jewelry suited to local taste, or at least in a "local" style, a course of events which would make it extremely difficult to differentiate such work from "local," Indian or even Majapahit Javanese workmanship.

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<sup>5</sup>See W. W. Rockhill, "Notes on the Relations and Trade of China with the Eastern Archipelago and the Coast of the Indian Ocean during the Fourteenth Century," T'oung Pao, 16 (1915), pp. 61-159. Rockhill, however, gives "red gold" for the characters 赤金 chi jin. The character 赤 chi may mean either red or pure. In this context it should be taken to indicate pure gold. In ancient times 赤 referred to copper. The Han Shu notes that "gold has three grades, yellow 黃 is the first, white 白 the second, red 赤 the third." By Song times it would appear that 赤 already referred to pure gold. See Encyclopedic Dictionary of the Chinese Language (Taipei: Zhonghua Wenhua Yanjui Suo, 1968), 32, pp. 80, 85-86. I am indebted to both Professor Liao and to James Coyle for clarifying this matter for me.

<sup>6</sup>G. E. Gerini, Researches on Ptolemy's Geography of Eastern Asia, Further India and the Indo-Malay Archipelago (London: Royal Asiatic Society and the Royal Geographical Society, 1909), p. 628. An examination of Zhao ruqua's text, from which Gerini apparently took his information, gives no indication of any Chinese involvement. See Milner et al., "Aru," p. 37, n. 192.

<sup>7</sup>Chên Tê-K'un, Archaeology in Sarawak (Cambridge: Heffer, 1969), p. 16.

There is no suggestion of Chinese influence in the gold finds of Western Borneo, in particular those of the Sambas and Limbang treasures which portray external (Javanese) influences or of Jaong, where the artifacts are seen to be of indigenous inspiration. Only in later times, after the middle of the eighteenth century, when Chinese incomers initiated an organized search for gold, are the Chinese seen to have become involved in the gold trade of Borneo.<sup>8</sup> Is the evidence for Chinese involvement in the gold trade of Kota Cina perhaps an isolated instance of such activity datable to the thirteenth or fourteenth centuries, or is it perhaps a clue which may lead to the reappraisal of much of what has been written on this subject?

Evidence from elsewhere in Southeast Asia indicates considerable "Hindu" or Indianizing influence on goldworking, a relationship between gold artifacts and a ruling aristocracy in Indonesia.<sup>9</sup> Indeed, at Kota Cina there is indication of Indian involvement in the gold trade as evidenced by the discovery of a gold tāli in the excavation at Location 1<sup>10</sup> (Plates 23, 24). A filigree bead or a pendant recovered as a surface find near Location 3 has a distinctly Indian or even Javanese "look" about it (Plate 19). Gold working was already well established in Indonesia by the end of the first millennium A.D. and it seems that a syncretic style of craftsmanship eventually developed in the Malay world.<sup>11</sup>

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<sup>8</sup>See Harrisson and O'Connor, "Gold," pp. 58-66, 79.

<sup>9</sup>W. Marschall, "Metallurgie und fruhe Beseidlungsgeschichte Indonesians," Ethnologica (Köln), 4 (1968), pp. 29-263, quoted in Harrisson and O'Connor, Gold, p. 69.

<sup>10</sup>E. Edwards McKinnon, "A Note on a Gold 'Tāli' from Kota Cina," JMBRAS, 53, no. 2 (1980), p. 117. Tāli (Tamil, a pendant) is an amulet or ornament suspended around the neck worn by married women.

<sup>11</sup>Marschall, "Metallurgie," quoted above, n. 9.

Among the Karo Batak, it is interesting to note that all learning, including the art of metal working (and therefore presumably goldworking) was learnt from a shadowy Indian ancestor known as Si Benua Koling. All metal working was surrounded by considerable ritual and the smith's tools were alluded to by special names.<sup>12</sup>

Other possible evidence for gold working appears in the form of several fragments of quartz recovered from the excavation at Location 1, where one small (3 mm diameter) fragment of gold foil was also discovered from beneath the level of the hearth at the same point. Ceramic artifacts may, however, suggest more direct evidence of goldworking activity. The plentiful remains of tall, small mouthed stoneware jars, identified by Treloar as "mercury jars" (see Chapter 5), may be associated with the preparation of gold. Numerous small, simply made earthenware saucers, usually no more than 40 to 50 mm in diameter and initially thought to be small lamps, have been identified as possible receptacles for melting gold (or silver). One of these miniature saucers has a green stain on the interior surface thought to be the residue of borax used as a flux during the process of melting gold, a process described by Miksic as a "traditional Chinese practice."<sup>13</sup>

Mercury was required for separating gold from impurities. It may have been used as part of the purification process in which the mercury evaporates leaving behind a residue of gold. Analysis of six samples of gold from Kota Cina indicate that the metal may have originated from alluvial sources. In all cases the copper content is extremely low, a characteristic of alluvial gold. Such gold is rather soft and easily worn which may indicate

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<sup>12</sup>J. H. Neumann, "De Smid," MNZG, 47 (1903), pp. 15-20.

<sup>13</sup>Miksic, "Archaeology," p. 208.



that its use was confined to ritual or sacred purposes. It is possible, however, that the users may simply have had a cultural preference for "pure" gold.<sup>14</sup>

### 3.1.1.1 Gold Sources in the Hinterland

Gold is to be found in at least two or three locations in the Kota Cina hinterland. Anderson noted that it was obtainable at Bohorok in upper Langkat.<sup>15</sup> There may once have been a source of alluvial gold immediately above Bohorok near the so-called Pintu Angin, where, in 1963, I found traces of a stone revettment in a narrow river valley in the foothills of the Bukit Barisan. Another source in this area is the Sungei Pengkuruan, a tributary of the Bohorok river (Sungei Landat), mentioned by Hengeveld.<sup>16</sup> There were other sources in the broken country along the upper reaches of the Sungei Wampu (Lau Biang). Near Kuta Buluh in the Karo plateau, gold was washed from a stream known as Si rencah.<sup>17</sup>

<sup>14</sup>Manning et al., "Analysis," p. 112, n. 68.

<sup>15</sup>Anderson, Mission, p. 248. "The mines, if they may be so called, belong to Wang Pangei Lakkawa, a Malay chief" (my italics). Bohorok was perhaps the upper limit of "Malay" influence on the upper course of the Lau Biang/Sungei Wampu river in Langkat Ulu, an area which was, and is, essentially Karo dusun.

<sup>16</sup>G. J. N. Hengeveld, Geologische onderzoekingen verricht ten behoeve van de afdeling Havenwezen, 4 (1921), "Nuttige mineralen en bouwmaterialen in Deli, Langkat en Serdang (Oostkust van Sumatra)," pp. 126-69. The name Pengkuruan comes from the Karo kuruk, ngkuruk, to dig, as of a well or hole but may also refer to something dug out of somewhere by meticulous work, i.e., the recovery of grains of gold from among river sand; see Neumann, Karo-Bataks-Nederlands Woordenboek, p. 161.

<sup>17</sup>On gold sources generally in this area, see C. Lekkerkerker, Land en Volk van Sumatra (Leiden: Brill, 1916), p. 51; Joustra, Batakspiegel, pp. 261, 315; Neumann, Karo-Bataks-Nederlands Woordenboek, p. 253.

In the dusun area of Langkat Hulu, alluvial gold was also found near a Karo village known as Kaperas.<sup>18</sup> Gold is still worked occasionally near Gunung Meriah, where old workings are to be found in the jungle.

Alluvial deposits tend to get worked out, which could account for the apparent paucity of gold production in this area in more recent times.<sup>19</sup> Even so, the precious metal may have been brought from further afield in ancient times. Historical records show that gold, collected on the west coast, found its way across the island to harbors on the mainstream of East-West trade.<sup>20</sup> Writing on trade between the Toba Batak areas and Tanah Karo in 1875, De Haan notes that there was "goud van het eiland," presumably brought from or through the Samosir area.<sup>21</sup> Gold, it seems, would find its way to wherever there was a demand for it.

#### 3.1.1.2 Silver and Suasa

No silver has been found at Kota Cina. In historical times, however, the Karo Batak of Kota Cina's immediate hinterland made extensive use of silver ornaments, in particular, a form of heavy polished silver "ear ring" known as padung padung, silver necklaces and great numbers of silver finger rings.<sup>22</sup> Anderson remarks that great quantities of silver coinage

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<sup>18</sup>The name is variously given as Kaperas or Kupras. Lekkerkerker, Land, p. 51; Joustra, Batakspiegel, pp. 261, 315.

<sup>19</sup>Van Bemmelen, Geology of Indonesia, 2, pp. 131-35.



<sup>20</sup>Manning et al., "Analysis," p. 109. See also C. Dobbin, "Economic Change in Minangkabau as a Factor in the Rise of the Padri Movement 1784-1830," Indonesia, 23 (1977), pp. 1-38, especially pp. 2-17 concerning the gold trade.

<sup>21</sup>De Haan, "Verslag," p. 38.

<sup>22</sup>Neumann, "De Smid," p. 16. For a discussion on Karo Batak jewelry see J. E. Jasper and Mas Pirngadie, De Inlandsche Kunstnijverheid in

"disappeared" into the Bataklands where it was used to make ornaments or was simply secreted away causing a continuous drain on the monetary situation.<sup>23</sup> As with gold, much of the old silver has been melted down and re-used for modern jewelry.

At Kota Cina, one-half of a triangular shaped mold, 81 mm in length carved from a fine grained reddish colored stone, was recovered as a surface find near Location 3 (Plate 25). The mold was probably used to cast caping, the pubic cover for small girls once used extensively throughout the Malay world.<sup>24</sup> Caping were normally cast from silver but sometimes inlaid with other metals. A second small mold, carved from dark green shale and probably designed for making small rings was excavated at Location 1.<sup>25</sup>

Also recovered as surface finds were two small, broad shouldered rings of suasa,<sup>26</sup> each with an unidentified incised motif on the flat bezel. The rings are roughly finished and appear to have been virtually mass-produced. The incised motif which may be read as  or  may have been intended as a seal or as a form of good luck token (Plate 26).

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Nederlandsch Indie, vol. 4: De Goud-en Zilvermeedkunst ('s Gravenhage: Mouton, 1927), pp. 68, 133, 185.

<sup>23</sup>Anderson, Acheen, pp. 188-189.

<sup>24</sup>Miksic, "Archaeology," p. 208. On caping, see Jasper, Goud-en Zilvermeedkunst, pp. 217-18. Pubic covers were known as caping in Malaya and Borneo, cəping in Central Sumatra and cupeng in Aceh, but jimpang or jəmpang in South Sulawesi.

<sup>25</sup>Miksic, "Archaeology," p. 208.

<sup>26</sup>An alloy of gold and pinchbeck (a yellow alloy of five parts copper to one of zinc).

Inscriptions such as Om or Śrī are common on pre-Islamic Javanese rings,<sup>27</sup> but no exact parallels are known for this particular motif.

### 3.1.2 Copper-Bronze Working

Dramatic evidence for bronze casting at Kota Cina is provided by spillage from casting work recovered by excavation in a trial pit adjacent to the main brick structure at Location 3. Numerous globules of bronze were found embedded in a layer of compacted sand (Plate 27). A sample of the spillage has been sent to the Institute of Archaeology, London, for analysis.

Over the years a variety of bronze artifacts have been recovered in chance finds from different parts of the site. Findspots are unfortunately undocumented.

#### 3.1.2.1 Statuary

At least four small bronze images have been found in the Kota Cina area. The most recent was recovered near Location 5 in 1973. It disappeared without trace almost immediately after its discovery. I was, however, able to examine the three other images, none of which are of any particular artistic merit. They are a poorly cast and rather corroded Buddha image in bumisparamudrā, 7 cm in height (Plates 28-30); a second standing Buddha image, damaged, 12 cm in height, and a diminutive 3 cm high bronze, probably representing Parvati. All of them are in the possession of villagers. Two of these images adorn the family altar of a Chinese vegetable farmer and it has not been possible to make detailed inspections (Plate 31).

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<sup>27</sup>On pre-Islamic rings in Java, see F. K. D. Bosch, "Gouden Vinger-  
ringen uit het Hindoe-Javaansche Tijdperk," Djawa, 7 (1927), pp. 305-20.  
Modern Indonesian rings are discussed in Jasper, De Goud-en Zilver-  
smeedkunst.

The standing robed image is similar to one recovered from Bukit Seguntang near Palembang.<sup>28</sup> It has the remains of an aureola behind the shoulders; the right hand is raised in what appears to be vijakhyana mudrā, the gesture of explanation or argumentation. The left hand is missing at the wrist. The left foot is also missing. The image is so encrusted with dirt that finer points of detail are not visible. The robe appears to be in the closed mode with the free end hanging down over the left arm.

So few examples of bronze images of the twelfth to fourteenth century from elsewhere in Sumatra and island Southeast Asia have been published that it is difficult to make useful stylistic comparisons. The published examples of images from Kedah and the southern Thai peninsula do not cast much light on the subject. As Bronson and Wisseman have noted, "most reliefs and statues in Sumatra cannot be easily dated through stylistic comparisons with objects from other areas."<sup>29</sup>

#### 3.1.2.2 Bronze Vessels

A fragment of a heavily made, wide mouthed bronze vessel was recovered near Location 5 in an area where two plain bronze covers and a third with a three tiered knob were also found. Parts of two small bronze handles, both presumably from the same vessel, were recovered from Location 1.

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<sup>28</sup>Schnitger, Archaeology, Plate 6. A bronze Sakyamuni, H. 16.5 cm, from Bukit Seguntang, which is, however, in the open mode, and standing upon a circular lotus cushion.

<sup>29</sup>B. Bronson and J. Wisseman, "An Archaeological Survey, pp. 90-91.

### 3.1.2.3 Lamp with Attached Suspension Chain

A triangular shaped bronze lamp, 127 mm in length, 93 mm wide and 77 mm high, with a suspension in the form of a stylized naga (Plate 32) to which is attached a length of double link (8-form) bronze chain (Plate 33) was recovered by a farmer in a vegetable plot west of Location 1. It is of interest to note that such lamps were often presented to Hindu temples as acts of piety by worshipers.<sup>30</sup>

### 3.1.2.4 Bronze Ring

A small square shouldered ring set with a moonstone gem was recovered by excavation at Location 1 (Plate 34). Rings are among the most common archaeological artifacts found in Southeast Asia but documented discoveries are rare.<sup>31</sup>

### 3.1.2.5 Fish Hooks

Two small, carefully made fish hooks, one measuring 40 mm, the second 30 mm, were recovered by excavation from the northeast segment of the excavation at Location 1. They cast an interesting light upon the fishing activities of Kota Cina's former inhabitants who may be seen as using line fishing to augment their food supply in addition to the traditional jala or net fishing used in this area.<sup>32</sup>

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<sup>30</sup>Bronze lamps, sometimes quite elaborate and with dedicatory inscriptions on them were common temple paraphernalia.

<sup>31</sup>Bosch, "Gouden Vingerringen."

<sup>32</sup>Lamb, "Pengkalan Bujang," pp. 35-36.

### 3.1.2.6 Bronze Pommel

A heavy bronze pommel from either a sword or ceremonial staff was recovered as a surface find near Location 5.

### 3.1.2.7 Bronze Mirrors

The remains of a number of circular bronze discs, in all probability bronze mirrors, have been recovered from various locations at Kota Cina. Most are corroded and require special treatment before it can be ascertained whether they were originally plain polished discs or had some form of decoration.<sup>33</sup>

Two discs, both 83 mm in diameter, were recovered by excavation (Plate 35). At Location 3, one was discovered among fallen rubble at a depth of 1.20 m at the northeast corner of the rectangular brick structure, and at Location 1, a second was found at 0.60 m among the deposit of domestic debris. One disc from Location 3 has a small hole at the perimeter, presumably for a pin to attach it to some form of handle. A third disc, 80 mm diameter, from Location 1 has a small rectangular protruberance at one point which may have served as a flange for attachment to a handle.

Other fragments were recovered as surface finds adjacent to Locations 3 and 5. One of these fragments has what appears to be incised concentric circles around the perimeter on one surface. A mirror handle, 43 mm in length, was recovered at a depth of 0.80 m in the northwest quadrant of the dig at Location 1.

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<sup>33</sup> These mirror discs are unlike ornate Chinese bronze mirrors and may be of Indian or Javanese inspiration. Similar mirrors were found in the burial complex excavated at Pila, Laguna in the Philippines. See R. C. P. Tenazas, A Report on the Archaeology of the Locsin-University of San Carlos Excavations in Pila, Laguna [s.l.: s.n., n.d.], Plate 8.

### 3.1.2.8 A Fragmentary Bronze Bell

Part of a small, spherical bell 26 mm in diameter, decorated with an unidentified Indian script, was recovered as a surface find near Location 3 (Plate 36). A number of similar bells were found at Oc eo in Vietnam. Malleret discusses the distribution of similar bells in Southeast Asia and notes that Dayak women wear necklaces adorned with small round bells and stitch them to the edges of their garments. Similar bells were once used also in Java and the Minangkabau area of Sumatra.<sup>34</sup> Bells were used as a type of pubic cover in Riau.<sup>35</sup>

### 3.1.2.9 Congeaed Bronze

Whilst investigating a point where villagers were removing bricks from the foundations of a small rectangular structure at Location 8, I recovered an amorphous piece of bronze approximately ten centimeters in length which had apparently fallen onto the edge of the upper course of bricks. This is a solid piece of metal, quite unlike the globules of spillage recovered at Location 3. It had apparently melted and been left to lie where it had fallen, suggesting that it may once have been a small bronze artifact subjected to great heat (Plate 37). This is one of two artifacts recovered at Kota Cina which suggest that the settlement may have been sacked and burnt.<sup>36</sup>

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<sup>34</sup>L. Malleret, L'Archaeologie du Delta du Mekong (Paris: Ecole Francais d'Extreme Orient, 1960), 2, pp. 219-27, especially pp. 220-21.

<sup>35</sup>Jasper and Pirngadie, De Goud-en Zilvermedkunst, p. 217.

<sup>36</sup>There are one or two items of evidence which suggest that Kota Cina may have been burnt. Among these, is this concealed piece of bronze recovered from what may have been a pendopo at Location 8, and the remains of a collapsed glass bottle from the ditch at Location 1. The high rainfall and acute leaching which takes place in soils of this region may have



### 3.1.2.10 Bronze Pendant or Lamp Chain Decoration

A remarkable chance discovery by a Malay farmer preparing a rice nursery on the eastern bank of the Sungei Mati (Sungei Sempali) at Mertubong north of Kampong Bahri, some four kilometers southeast of Kota Cina, brought to light a bronze of considerable art historical interest. According to the farmer, the figurine had been concealed in a stoneware jar at the river bank.<sup>37</sup>

The bronze, approximately eight centimeters in height, consists of a double figurine placed back to back. The male figure is that of a drummer wearing a short kain or dhoti, with his knees bent and his feet pointing outwards in a dance pose, the right in front of the left. He is wearing arm-bands on his upper arms, round earrings and his drum appears to be suspended by a strap over his left shoulder (Plate 38). The female figure is naked to the waist and also wears a short kain secured by a sash. Her legs are in the same dance pose as that of the drummer. She also has arm-bands on her upper arms and her hands are held above her waist in a mudra.<sup>38</sup> She has large round earrings (Plate 39).

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removed all but the most dense traces of carbon from the soil. That the site was burnt may be difficult to prove, but may not be ruled out as it was not an uncommon fate of many such settlements in former times. The Karo village at Deli Tua had been burnt just before it was visited by Van Cats in 1866.

<sup>37</sup>The Sungei Mati (Sungei Sempali) is no more than four meters wide at this point and is now choked with water hyacinth (Eichhornia crassipes, Solnis). The river is, as the name implies, a dead or dying water course but at one time would have been navigable by small prahus.

<sup>38</sup>Possibly Kataka muda, the "ring hand-gesture" in which the tips of the fingers are loosely applied to the thumb so as to form a ring, indicating the holding of a flower.

Decorations for the chains of temple lamps in the form of human figures are not uncommon, though normally they appear as a single figure in the round. An elaborate hanging lamp in the form of an elephant excavated from the uppermost relic chamber of the Cetiya Kotavehera (Sutighara Cetiya) at Dedigama in Sri Lanka is suspended by a chain embellished with three similar figures, a male drummer which is strikingly like the Mertubong figure, a cymbalist and a female dancer. The Cetiya is thought to be no older than the time of Parakramabahu the Great (1153-1186). A number of coins dating from the reigns of Parakramabahu, Sahasa Malla (1200-1202) and the Cōla king Rajaraja III (1216-1246) together with sherds of Chinese porcellaneous stonewares of the Sung period were also recovered in the excavation.<sup>39</sup>

A less elaborate, but nevertheless interesting, bronze lamp with an ornamental chain was recovered together with a bronze stand from the Aek Si Sangkap near Portibi Jae (Luhut Portibi) in the Padang Lawas area of south Tapanuli. The lamp is described as a Sumatran type having a plain, round oil reservoir with a lotus petal border decoration and a circular central upright portion which terminates in a large lotusform knob. Attached to it is a chain with three human figures, each nine centimeters in height. The uppermost is a dancing man wearing a short kain and large circular earrings with his hands apparently bound together with a length of twine, the central figure is a bearded musician playing a small type of drum suspended on his right hip and the lowest is a dancing woman wearing a

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<sup>39</sup>See C. E. Godakumbura, The Kotavehera at Dedigama. Memoirs of the Archaeological Survey of Ceylon (Colombo: Department of Archaeology, 1969). Also S. Paranavitana, "The Art and Architecture of the Polonaruva Period," Ceylon Historical Journal, 4, nos. 1-4 (1955), pp. 69-90.

kain which reaches to just below her knees and is secured by a tasseled belt. Her left arm is outstretched, her right arm uplifted in an indistinct mudra. Her hair is swept back in a bouffant hair style.<sup>40</sup>

Comparison may be made with an early Western Chalukya lamp chain which also incorporates three human figures, a male drummer, a female dancer and a cymbalist used to suspend an elephant with a rider prince with a chamaradharini behind him which comes from the Jogeswara Cave. It is dated to the eighth century A.D. Sivaramamurti comments that it is a fine example of typical early Chalukyan ornamental metal work reminiscent of both early Cōla metal sculpture and Javanese bronze dance and musical figures.<sup>41</sup>

The Mertubong figure would appear to relate to a form of lamp chain decoration known from India, Sri Lanka, Java and the Panai area of Sumatra from the eighth to the twelfth or thirteenth centuries. As such, it is probably directly related to the Kota Cina settlement and may originally have come from it. Sherds of Chinese stonewares of the Yuan and early Ming periods were also found in the Mertubong area, indicating that a small indigenous settlement may also have existed here.<sup>42</sup>

### 3.1.3 Iron Working

Lumps of iron slag and pieces of what appear to be an ore were discovered at two levels in the excavation at Location 1.<sup>43</sup> Lumps of iron

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<sup>40</sup>"De Archaeologische Verzameling," Jaarboek, 7 (1940), pp. 93-94, Plates 5-8 (Accession Numbers 6971, 6972).

<sup>41</sup>C. Sivaramamurti, Indian Bronzes (Bombay: Marg, 1962), pp. 36-37.

<sup>42</sup>Milner et al., "A Note on Aru," p. 29.

<sup>43</sup>Edwards McKinnon and Luckman Sinar, "Further Developments," p. 80.

concretion have also been found at the southern end of the Kota Cina site. Fragments of iron artifacts have been recovered by excavation at Location 1. They are apparently knife blades. At Location 3, a heavy, L-shaped nail or bolt was excavated from beside a door support. An iron spear head, 33 cm in length, was recovered at Location 5.

Other than the tuyère recovered as a surface find adjacent to Location 3, no other smelting or iron working apparatus was recovered. This is in marked contrast to the enormous volume of clay crucibles or tuyères excavated at Santubong, the industrial and trading station in the Sarawak River delta.<sup>44</sup> The forging of iron tools and weapons, as distinct from primary smelting of iron may, however, have been undertaken with relatively simple apparatus such as may still be seen in use among Karo iron smiths who fabricate small knives and parang from old car springs and other scraps of hardened steel.

A traditional form of bellows is still in use by the pande besi (iron smith) of the Karo Batak. The bellows consist of a pair of upright wooden cylinders, often no more than a pair of large bamboos, linked to the heat source by a bamboo tube. All joints are sealed by mud plaster. Air is forced from the cylinders into the base of the fire by the rapid manipulation of a pair of specially made feather dusters by the smith's assistant, thus providing a continuous flow of air and sufficient heat to work the iron<sup>45</sup>

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<sup>44</sup>Miksic, "Archaeology," p. 209. For a full discussion on iron and early iron working in Southeast Asia, see T. Harrisson and S. J. O'Connor, Excavations of the Prehistoric Iron Industry in West Borneo, 2 vols., Data Paper no. 72 (Ithaca: Cornell University Southeast Asia Program, 1969).

<sup>45</sup>The Karo smiths were said to have acquired their knowledge of metal working from a shadowy Indian ancestor, Tuan Benua Koling. Ritual names were used for smith's implements and ritual was an integral part of metal working. See Neumann, "De Smid," pp. 15-20. For an ethnographic

(Plate 40). This device is simple and efficient, though it does require a considerable amount of energy and some skill to maintain a smooth current of air.

Further research is required before any final conclusions may be drawn regarding the degree of development of iron working and its place in the economy of Kota Cina. It could have played an important part in the business of exchange with the people of the interior since iron and iron-mongery were among the commonest commodities shipped from China to Southeast Asia. Iron, presumably in bar form, was bartered by Chinese traders in Śrīvijaya.<sup>46</sup> Iron cauldrons were bartered in Java and the Philippines.<sup>47</sup> But iron comes also from India, where a high grade steel, known as wootz, was produced and exported in quantity from at least the beginning of the first millennium A.D.<sup>48</sup> As already noted, Karo tradition acknowledges an Indian source for all metal working skills. With an established Cōla presence at Kota Cina, Indian influence in metal working techniques would be entirely plausible. The evidence is, however, still far from complete.

#### 3.1.4 Lead

Two items of lead have been recovered as surface finds. One, a cylindrical object 45 mm in length and 25 mm diameter, has an indentation at

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description of indigenous Philippine iron working, see Harrisson and O'Connor, Excavations, pp. 315-18, on Sarawak, pp. 341-53.

<sup>46</sup>Hirth and Rockhill, Chau Ju-kua, p. 61.

<sup>47</sup>P. Wheatley, "Geographical Notes on Some Commodities Involved in Sung Maritime Trade," JMBRAS, 32, no. 2 (1959), Whole issue, p. 117.

<sup>48</sup>Harrisson and O'Connor, Excavations, pp. 319-30.

one end as though it may have been attached to a suspension and thus used as a weight for some purpose. The second is a truncated pyramidal ingot, of a type known from the Malay peninsula, and measures 65 X 68 X 55 mm. It is undecorated. Two similar ingots with molded foliar designs on their top surfaces were said to have been recovered in association with Song and Yuan period ceramics at Kota Bangun on the west bank of the Sungei Deli in 1972.<sup>49</sup>

The truncated pyramidal ingot, described as timah hitam by a Malay informant at Kota Cina, has been identified as galena, a lead sulphide ore.<sup>50</sup> Forbes notes that practically every deposit of galena is argentiferous but that the silver content of the ore is normally minute.<sup>51</sup> It is not known if silver was extracted from lead in Sumatra in former times, but lead was once required for ritual purposes among the Toba Batak.<sup>52</sup>

Deposits of galena ore are known from at least two places in the Kota Cina hinterland; from Pasir Putih, 62 km north of Kotacane in the Gayo Luos area and Bulu Laga, 27 km northwest of Sidikalang on the west side of Lake Toba.<sup>53</sup> De Haan, writing in 1875, however, notes that although small

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<sup>49</sup>On lead ingots of this type, see G. de G. Sieveking, "Recent Archaeological Discoveries in Malaya (1955)," JMBRAS, 29, no. 1 (1956), pp. 200-211; B. A. V. Peacock, "Recent Archaeological Discoveries in Malaya (1957)," JMBRAS, 31, no. 1 (1958), pp. 180-87, Plates 12, 13.

<sup>50</sup>Stephen Pierce, personal communication.

<sup>51</sup>R. J. Forbes, Studies in Ancient Technology, 8 (Leiden: Brill, 1971), p. 207.

<sup>52</sup>Loeb, Sumatra, p. 88; boiling lead was used to kill sacrificial victims for the preparation of a magical substance known as pupuk.

<sup>53</sup>Van Bemmelen, Geology of Indonesia, pp. 161-72, "Lead."

ingots of tin, iron and copper were brought in to Tanah Karo from the Toba Batak area, lead was brought in from Deli.<sup>54</sup>

### 3.2 Miscellaneous Small Artifacts

#### 3.2.1 Carved Stones with Pointed Ends

One of the most enigmatic groups of artifacts recovered by Lamb at Pengkalan Bujang in Kedah was a number of small carved stones with pointed ends. At Kota Cina these pointed fragments appear in the excavations where they relate to a series of peg-like artifacts carved from shale, the latter ranging in color from a light brick red to gray-buff and dark gray<sup>55</sup> (Plate 41).

Two of these peg-like objects were excavated from among brick rubble at Location 4. The first is in the shape of a fish with its tail held upright. It measures 75 mm in height. The plain, tapering peg-like lower part is oval in section and measures 23 mm from the tip to the lower part of the carved portion. A second similar object of which the pointed end is missing, measures 48 mm and has a rectangular upper portion with a simple cross incised on either side and a single straight incision bisecting the flat upper surface. A third specimen, excavated at Location 1 is 64 mm in height and carved to represent the neck of a goose or hamsa. The tapering, oval lower section is 26 mm in length. Two other similar objects were recovered as unspecified surface finds; one, complete, is 76 mm in length with a square upper part decorated with incised bands, a cross and semi-circles. The lower peg-like portion is 50 mm in length. The second is

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<sup>54</sup>De Haan, "Verslag," p. 38.

<sup>55</sup>Lamb, "Research," p. 28, which he described as "a few bits of stone of sharply conical shape. These might have been the pointed ends of sharpening stones." Also: Plate 67.

66 mm in length, but has the upper part of the top broken off. The remaining part of the decorated portion is elaborately carved and ends in a band of beading between two parallel lines. The lower, peg-like portion is 47 mm in length. Three fragments of lower portions of these objects were also found as surface finds at other parts of the site.

Miksic reports finding the upper part of a similar object 37 mm long, carved in the form of a stylized human head which he relates to the form of "statues of stone and wood which are frequently found in and near old villages in north Sumatra." It is the only artifact recovered at Kota Cina which shows a direct link with recent Batak art.<sup>56</sup> Stylistically, as Miksic has pointed out, it is certainly related to indigenous Batak art forms, in particular to the pengulubalang erected by the datu or guru of the Timur or Karo Batak to protect their villages and fields from evil influences.<sup>57</sup> The top knot or hairpiece of this specimen may indicate that it is intended to represent a female figure, though female images are usually portrayed with a bun or hairpiece behind the head.

No precise parallels from archaeological sites other than Kedah are known and their function remains a mystery. I have suggested elsewhere that they might be gaming pieces of some kind.<sup>58</sup> Their shape suggests that they could have been stuck into a board or plank but it has not yet been possible to discover any precise ethnographic parallels.

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<sup>56</sup>Miksic, "Archaeology," p. 158, Figure 122.

<sup>57</sup>Bartlett, The Labors of the Datoe, p. 121, Figure 24.

<sup>58</sup>Edwards McKinnon and Luckman Sinar, "Further Developments," p. 81.



### 3.2.2 Nephrite Die

A badly weathered elongated rectangular block of nephrite, 90 mm in length and 18 mm square, was found on the surface after lalang (*imperata cylindrica*) had been burnt off to prepare a plot for cultivation to the west of Location 1 in 1975. The stone is marked with a series of seven holes bored into each flat surface and arranged in multiples of one to four and with sevens on each of the two ends. The number seven was of mystical significance both in India and among the various Batak peoples.<sup>59</sup> What it was used for is uncertain but it may represent a form of die, or it may even have had some ritual or mystical significance as a fetish. No published parallels for this type of artifact exist.

### 3.2.3 Stone Pendant or Seal

One-half of an oval soapstone pendant, 23 mm in width and 24 mm in height, inscribed with Chinese characters upon both surfaces was recovered as a surface find near Location 4. Unfortunately, as the inscription is incomplete, it has proved impossible to make a comprehensible reading of the legend which includes the character 平 ping (peace). This object may have been a talisman or charm intended to protect the wearer from harm or alternatively, may have been used as a seal for a container of some kind.

### 3.2.4 Bone Fetish

Two fragments of mineralized animal bone carved into the form of a rectangular sectioned wand (46 and 44 mm long respectively) was found to be incised with a series of small circles, each with a minute hole at the

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<sup>59</sup>Loeb, Sumatra, p. 96.

center. This may represent the remains of some kind of fetish required for mystical purposes. It was excavated from the deposit of domestic rubbish at Location 1.<sup>60</sup>

### 3.2.5 Callous Rubber

An anvil-shaped artifact made from black shale, and apparently used for removing the callouses from one's feet was recovered as a surface find from an unspecified locality. It measures 50 X 32 mm and is 27 to 32 mm in height. Ethnographic parallels are known from India.<sup>61</sup>

### 3.3 Coins

One of the most striking aspects of Kota Cina's former commercial importance presents itself in the form of an abundance of copper coins, mostly Chinese, which litter the surface of the site. A total of 1,064 Chinese cash have been cataloged from the site. This number is, however, only a fraction of the total recovered mainly as surface finds. Historical accounts indicate that the export of copper cash, evidently a handy and ready source of metallic copper, created a great strain on the Chinese economy and as early as the Tang period action was taken to prohibit the outflow of specie. Despite repeated prohibition, cash continue to leave Chinese borders in great quantities.<sup>62</sup>

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<sup>60</sup>I am grateful to Professor K. A. R. Kennedy for examining these fragments and for suggesting a possible usage for them.

<sup>61</sup>I am grateful to Dr. Phillip Rawson for this suggestion.

<sup>62</sup>On the troubles which plagued the Chinese administration, see J. Kuwabara, "On P'u Shou-keng, a Man of the Western Regions, Who Was the Superintendent of the Trading Ships' Office in Ch'uan-chou towards the End of the Sung Dynasty," Toyo Bunko Research Department, Memoirs No. 2 (1928), pp. 1-79, especially pp. 25-27. See also F. Hirth and W. W. Rockhill, Chau Ju-kua: His Work on the Chinese and Arab Trade in the Twelfth

For a period during the eleventh century, however, presents of strings of cash<sup>63</sup> were given to returning foreign envoys. In 1022, for example, 2,000 guan in cash were presented to envoys from Nam Viet;<sup>64</sup> in 1073, 2,900 strings of cash were given to envoys from Da-se (Arabia);<sup>65</sup> and in 1077, 81,899 strings of cash and 52,000 taels of silver were presented to envoys from Coromandel.<sup>66</sup> In 1079, 64,000 strings of cash were presented to a Śrīvijayan mission<sup>67</sup> but later a request for 30,000 copper tiles was refused.<sup>68</sup> Once again an attempt was being made to enforce the ban on the export of metals and substitute a "barter" trade for tribute goods.

In the thirteenth century, Zhao ruqua noted, however, that in Śrīvijaya (Jambi), "they have no strings of copper cash but use chopped off lumps of silver."<sup>69</sup> Nor does Wang Dayuan, writing in 1330 make any mention of Chinese currency in Palembang, Jambi, Brunei or Sulu.<sup>70</sup> But by

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and Thirteenth Centuries, Entitled Chu-fan-chi (St. Petersburg: Imperial Academy of Sciences, 1911), p. 81, n. 16.

<sup>63</sup>A string of cash consisted nominally of 1,000 pieces, but in practice were often slightly less in number.

<sup>64</sup>G. Wong, "A Comment on the Tributary Trade between China and Southeast Asia, and the Place of Porcelain in This Trade, during the Period of the Song Dynasty in China," in Southeast Asian Ceramic Society, Chinese Celadons and Other Related Wares in Southeast Asia (Singapore: Arts Orientalis, 1979), pp. 73-100, p. 74.

<sup>65</sup>Ibid., p. 85.

<sup>66</sup>Ibid.

<sup>67</sup>Hirth and Rockhill, Chau Ju-kua, p. 81, n. 16.

<sup>68</sup>Wheatley, "Sung Maritime Trade," p. 115, quoting Song Shi, chapter 400, p. 17.

<sup>69</sup>Hirth and Rockhill, Chau Ju-kua, p. 60.

<sup>70</sup>Mill, Ma Huan, pp. 45-46.

the early fifteenth century Ma Huan was able to comment that cash were in regular use in Java and Palembang and that copper coins, albeit unspecified, were used in Lambri. In both Java and Palembang the use of copper cash may be associated with the establishment of Chinese communities.<sup>71</sup> Whether this was also the case at Lambri is not clear, but by the thirteenth century Lambri had become a regular port of call for ships from Guangdong. They spent the winter waiting there for the monsoon to carry them over the Bay of Bengal to Sri Lanka and South India.<sup>72</sup>

Finds of Chinese coins, mainly of the Song period, have been reported from a number of archaeological sites in Southeast Asia and as far west as the Mabar coast of South India, Sri Lanka and Zanzibar and Mogadishu in East Africa,<sup>73</sup> but none of these reports indicate recoveries on the scale of the finds at Kota Cina.<sup>74</sup>

An abundance of pottery and an unspecified number of Chinese coins appear to have come to light at the site of ancient Tumasik in Singapore which occasioned John Crawford to comment in 1822:

"In the same situation have been found Chinese brass coins of the tenth and eleventh centuries. The earliest is of the Emperor Ching Chung, of the dynasty Sung Chao who died in the year 967. Another is of the reign of Jin Chung, of the same dynasty, who died in 1067; and a third of that of Shin Chung, his successor, who died in 1085. The discovery of these coins affords some confirmation of

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<sup>71</sup>Ibid.

<sup>72</sup>A. Netolitzky, Das Ling Wai Tai-ta von Chou Ch'u-fei: eine landeskunde Südchinas aus dem 12 jahrhundert (Wiesbaden: Heiner, 1977), p. 40. See also Wolters, Fall of Srivijaya, p. 42.

<sup>73</sup>For a discussion of finds of Chinese coins and ceramics on the East Coast of Africa, see T. Filesi, China and Africa in the Middle Ages (London: Cass, 1972), especially Chapter 7, pp. 41-51.

<sup>74</sup>Miksic, "Archaeology," pp. 210-13.

the relations which fix the establishment of the Malays at Singapore, in the twelfth century. It should be remarked, in reference to this subject, that the coins of China were in circulation among all the nations of the Indian islands before they adopted the Mohammedan religion, or had any intercourse with Europeans. They are dug up in numbers in Java, and are still the only money used by the unconverted natives of Bali."<sup>75</sup>

Commenting on Tumasik, which he calls Lung Ya Men, Wang Dayuan notes the presence of Chinese immigrants who dressed in the same manner as the indigenous people.<sup>76</sup>

The inference from these scraps of information is that the introduction and use of Chinese cash in Southeast Asia may be due to the establishment of communities of immigrant Chinese and for the need for a medium of exchange, albeit small change, in their day-to-day transactions. The significant quantity of copper cash recovered at Kota Cina thus appears as a reflection of their use as a medium of exchange rather than a source of metal for industrial purposes.

An analysis of the 1,064 identifiable specimens of cash shows that they are made up of coins from an extensive period of time (Table 1). Coins of earlier periods obviously remained in circulation with those of later date.<sup>77</sup> But another point may also be inferred from the range of dates given in Table 1. The high incidence of coins of the Northern Song in relation to those of the Southern Song tends to suggest that the Imperial decree

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<sup>75</sup>Comment dated February 3, 1822. Excerpt from Journal of an Embassy to the Courts of Siam and Cochin China (1830), quoted in Braddell, "Lung-Ya-Men," pp. 37-51.

<sup>76</sup>See Hsu Yun-Ts'iao, "Singapore in the Remote Past," JMBRAS, 45, no. 1 (1972), pp. 1-9.

<sup>77</sup>See F. Schj oth, Chinese Currency, rev. and ed. V. Hancock (Iola, Wis.: Krause, 1965). Schj oth commented upon the phenomenon of ancient coinage appearing in change in the late nineteenth century which enabled him to build up an extensive collection of early Chinese coinage during his stay in Swatow in 1896.

TABLE 1

## Coins

Dynasty	Dates		Number	Percentage
Sui	(589-618)		4	0.3
Tang	(618-906)		84	7.9
Five Dynasties	(907-960)		11	1.0
Northern Song	(960-1126)			
Taizu	(960-976)	14		
Taizong	(976-997)	46		
Zhenzong	(998-1022)	100		
Renzong	(1023-1063)	241		
Yingzong	(1064-1067)	42		
Shenzong	(1068-1085)	220		
Zhezong	(1067-1101)	134		
Huizong	(1101-1125)	129	926	87.0
Jin Tartar				
Hailing Wang	(1156-1160)	4	4	0.3
Southern Song	(1127-1279)			
Xiaozong	(1163-1189)	2		
Guangzong	(1190-1194)	3		
Ningzong	(1195-1224)	7		
Lizong	(1225-1264)	16		
Duzong	(1265-1274)	7	35	3.3
Total			1,064	100.0

of 1147 banning the export of coinage was at least temporarily effective. The decree required all ships leaving the ports of Guangdong and Fujian to pass an official inspection in an attempt to stem the outflow of specie. Although Kuwabara considered that this and later measures were ineffective, the ban may have had a temporary effect on the export of cash to at least this part of the archipelago.<sup>78</sup> Recoveries of cash from the Sinan wreck show that restrictive measures were later circumvented or relaxed

<sup>78</sup>Kuwabara, "On P'u Shou-keng," p. 27.

and that the outflow of specie to Japan continued. The absence of later coinage may also be explained by the fact that the Yuan introduced paper money.

In addition to the Chinese cash, seven coins of the Sri Lankan monarch Sahasa Malla (1200-1202) and one of Queen Lilavati (1197-1200, 1209) were recovered as surface finds near Location 5. A single, badly corroded, unidentifiable heavy copper piece with traces of a curvilinear Indian script was also recovered as a surface find.<sup>79</sup>

In contrast to Kota Cina, other archaeological sites in the Deli region have yielded relatively few coins. At Pulau Kompei in Aru Bay, thirty-five coins of the Tang and Northern Song have been recovered as surface finds.<sup>80</sup> At Deli Tua, on the middle reaches of the Sungei Deli/Lau Petani, south of Kota Cina, a single coin of the Huizong emperor bearing the legend Zhonghe Tongbao, datable to the years 1111-1118, was recovered in association with a fragment of qingbai porcelain immediately to the north of the southernmost earthwork. At Kota Rentang I recovered a solitary coin of the Yongle emperor (1403-1424) in association with local earthenware, Chinese stonewares of the Ming period and a variety of Southeast Asian stonewares including both Sawankhalok and Vietnamese wares.<sup>81</sup> Sporadic finds of Acehnese gold coins of the sixteenth and seventeenth centuries have been made in the Deli Tua area.

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<sup>79</sup>I am much indebted to Bob Wicks for assistance in the identification of the Chinese coinage and to both Dr. Mitchiner and Professor David MacDowall for the identification of the Sinhalese coinage.

<sup>80</sup>E. Edwards McKinnon and Tengku Luckman Sinar, "A Note on Pulau Kompei in Aru Bay, Northeastern Sumatra," Indonesia, 32 (1981), pp. 49-73.

<sup>81</sup>Milner et al., "A Note on Aru," pp. 29-30.

### 3.3.1 Coins as an Aid to Dating

Four value one and two value two cash were excavated from specific levels at Location 1. The two value two coins, represented by one coin of the Shenzong emperor (1068-1085) and one of the Zhezong emperor (1086-1101), were recovered at a depth of 1.00 meter below datum at the junction of the cultural layer and sterile subsoil. These finds would indicate a terminus ante quem of not earlier than the beginning of the twelfth century. Probably a few decades would elapse before the coins found their way into the soil at Kota Cina. Three value one coins of the Shenzong emperor and one specimen too corroded to be identified were recovered at the 0.80 meter level, also at Location 1.

### 3.4 Beads

Beads appear to be relatively scarce in the Kota Cina phase excavation levels. Unlike the slightly earlier phase site at Pulau Kompei in Aru Bay, surface finds of beads are also scarce.<sup>82</sup> There is little published material on beads from Sumatra. Pre-independence Dutch reports refer to stone, mutisalah (an opaque form of red glass) and other glass beads found either in open sites<sup>83</sup> or in association with stone cist burials in south Sumatra. These finds are not, as yet, satisfactorily dated.<sup>84</sup> The

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<sup>82</sup>Over two thousand stone and glass beads were recovered as surface finds at Pulau Kompei. See Edwards McKinnon and Luckman Sinar, "A Note on Pulau Kompei."

<sup>83</sup>On finds of beads from open sites in the Lampong area of South Sumatra, see J. Van Tuijn, "De Batoe-manik van Oost Palembang en de Noordelijke Lamoengsche Districten," De Mijningenieur, 1 (1932), pp. 20-22.

<sup>84</sup>See A. N. J. Th. a. Th. Van der Hoop, Megalithische Oudheden in Zuid-Sumatra (Zutphen: Thieme, 1932).



closest comparisons to the Kota Cina recoveries come from Pulau Kompei and a number of Malayan sites including Pengkalan Bujang in Kedah. Lamb, writing on his Kedah finds, related these to a wide range of recoveries throughout both mainland and island Southeast Asia and as far afield as Taiwan, South India, Africa and the Mediterranean.<sup>85</sup>

Glass beads are relatively simple to make. It is quite probable that production may have developed along similar lines in a variety of places. Stone beads on the other hand, such as those made of carnelian and agate, may be traced to specific sources. Lamb has suggested that beads, generally, have much to commend them as a means for dating and for tracing ancient trading patterns.<sup>86</sup> Pitfalls for the unwary are, however, innumerable. Because of the copying of ancient types in modern times and due to the reuse of ancient scrap glass or cullet, "the possibilities for confusion seem almost to be without end."<sup>87</sup> Visual classification of beads is unsatisfactory by itself. Laboratory analysis can go a long way to ascertaining the differences between visually similar specimens but even then it cannot give all the answers regarding origin and date.

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<sup>85</sup>For a useful survey of beads in Southeast Asia, generally, see A. Lamb, "Some Observations on Stone and Glass Beads in Early South-East Asia," JMBRAS, 38, no. 2 (1965), pp. 87-124, and "A Note on Glass Beads from the Malay Peninsula," JGS, 8 (1966), pp. 80-94. See also T. Harrison, "Monochrome Glass Beads from Borneo and Elsewhere," Man, 64 (1964), pp. 37-41, and "New Analyses of Excavated Prehistoric Glass from Borneo," AP, 11 (1968), pp. 125-33.

<sup>86</sup>Lamb, "Some Observations," p. 88. On beads generally, see W. G. N. Van der Sleen, A Handbook on Beads (Liege: Librairie Halbart, 1973).

<sup>87</sup>A. Lamb, "Old Middle Eastern Glass in the Malay Peninsula," in Essays Offered to G. H. Luce, II, ed. A. B. Griswold et al. (Ascona: Artibus Asiae, 1966), pp. 74-88.

The stone beads recovered at Kota Cina probably originate from the Mabar coast of South India. At Arikamedu, south of Pondicherry, traces of stone bead manufacture go back to at least the beginning of the Christian era.<sup>88</sup> At Cambay, north of Bombay, an age-old carnelian bead industry is still producing stone beads by much the same techniques as those which were used almost two thousand years ago.<sup>89</sup> India appears as the source of most of the semiprecious stone beads that are found in Southeast Asia.

On the basis of scientific analysis, Harrisson argued that there are two possible overseas sources of glass (including beads) in Southeast Asia, one from the west and a second from the north or northwest.<sup>90</sup> Historical records attest that Chinese traders bartered colored glass beads in both Borneo and the Philippines in the twelfth century.<sup>91</sup> There is not, unfortunately, any indication of where these beads originated. Glass was made in China at this time but could easily have been obtained through trade with Arab or Indian merchants. Opaque glass was being made in South India and Sri Lanka and may also have been made in Southeast Asia.<sup>92</sup>

Beads excavated in association with Kota Cina phase ceramics may be confidently related to a relatively short space of time and can therefore be more satisfactorily dated than those previously reported from sites in South Sumatra. A total of 279 beads was recovered at Kota Cina, of which 145

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<sup>88</sup>Lamb, "Some Observations," pp. 91-92.

<sup>89</sup>Ibid., p. 91, but see also A. J. Arkell, "Cambay and the Bead Trade," Antiquity, 10 (1936), pp. 299-305.

<sup>90</sup>Harrisson, "Prehistoric Glass," p. 125.

<sup>91</sup>Wheatley, "Geographical Notes," pp. 80-81.

<sup>92</sup>See M. G. Dikshit, A History of Indian Glass (Bombay: University of Bombay, 1968); Lamb, "Some Observations," p. 95, and "Old Middle Eastern Glass," p. 78.

were found in excavations and the balance picked up as surface finds throughout the site (see Table 2). There is a wide range of shape, form and size among these recoveries which may be grouped into three major categories:

Stone (including semiprecious gemstones such as agate, carnelian, garnet and moonstones).

Glass (including mutisalah and other kinds of opaque glass).

Metal (gold).

With few exceptions, most of the glass beads are of the small, monochrome "seed" bead variety. There is one exception: a large yellow ellipsoid bead, 22 mm in length which is far bigger than any of the other glass beads (Plate 42). It was recovered as a surface find in a vegetable patch. The "seed" beads measure only 1 to 2 mm in diameter.

TABLE 2

## Beads

	Excavation	Surface
Stone: Agate		1
Carnelian	5	25
Garnet	1	1
Moonstone		5
Total	6	32
Glass: Mutisalah	116	74
Black		11
Blue	3	3
Buff		3
Green	4	
Yellow	12	10
Total	135	101
Metal: Gold	4	1
Total	145	134

An interesting surface find in the vicinity of Location 4 yielded two small fragments of dark blue glass between 10 and 15 mm in diameter in which are fused two or three small beads. Whether these fragments represent cullet intended for further bead making at the site, or whether they are simply scrap brought to the site accidentally is not at all clear. No other possible indications of bead making such as the large quantities of cullet recovered from the Sungei Bujang in Kedah have been found at Kota Cina.

### 3.5 Glass

Remains of small, blown glass vessels have been recorded at numerous proto-historical archaeological sites in Southeast Asia. Little is known, however, about the origins of this glass. Glassmaking requires no highly sophisticated equipment. Providing that the proper ingredients are available, a glassmaker could set up his workshop almost anywhere.<sup>93</sup>

The excavation at Location 1 yielded over two hundred glass fragments, most of which were found to be covered with a flakey, silvery iridescence or scum which tended to flake off easily on exposure to the air. Of these recoveries, significant larger fragments such as bases and mouth-rims indicate the existence of no less than fifteen different vessels of at least six various shapes (Plates 43-48). A number of significant fragments were also recovered as surface finds from other parts of the site. All of

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<sup>93</sup>Provided "cullet" or glass scrap is available to boost the process, glass is not difficult to make or at least re-form. Production from first elements is rather more difficult. Much of the glass that Lamb found in a deposit on the river bank at Pengkalan Bujang had been melted or distorted by fire, perhaps indicating that it was cullet intended for reworking. See Lamb, "Research," p. 26.

these surface finds relate in size, shape and material to the excavated examples.

There appear to be three distinct categories of vessel:

- 1) small, simple bottles or flasks of pale yellowish to darker yellowish-green glass with rounded bases having a central concave dimple rising up into the interior of the vessel and with a punty mark placed centrally on the exterior base. These bottles relate both in shape and size to classical balsamarium of the early first millennium A.D.<sup>94</sup> (See Figure 8, a and g).
- 2) round or cylindrical vessels of yellowish-green or reddish to reddish-brown glass with a rounded footrim made of a single fold in the glass, also with a central concave dimple and a small punty mark placed centrally on the exterior base. (See Figure 8, c and d). In one instance the punty mark is obscured by a small disc of glass which adheres to the base. (See Figure 8, e).
- 3) small amphorae or flask-like vessels of reddish-brown glass with ribbed sides and a solid foot with traces of a punty mark on the base. They have broad, rounded shoulders and a constricted neck below an everted mouth rim. (See Figure 8, b).

Of these three categories, two relate to those recorded by Lamb at Pengkalan Bujang which he considered to be of Middle Eastern or Indian origin and which he dated to the twelfth to fourteenth centuries.<sup>95</sup> The

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<sup>94</sup>On early glass generally, see F. Neuberg, Ancient Glass (London: Barre and Rockliff, 1962), and the Corning publication JGS.

<sup>95</sup>See A. Lamb, "The Bases of Glass Vessels from Kedah and Takuapa Compared," FMJ, n.s., 6 (1961), pp. 56-63. See also A. Lamb, "A Note on Glass Fragments from Pengkalan Bujang, Malaya," JGS, 7 (1965), pp. 35-40.

Pengkalan Bujang glass is therefore directly contemporary with that of Kota Cina.

In addition to the remains of glass vessels, two fragments of an opaque, plain white glass bangle of a type known from South India were also recovered by excavation at Location 1.<sup>96</sup> At location 3, a fragmentary disc of dark blue glass 18 mm in diameter displaying upon its upper surface the impression of a hamṣa or goose was recovered as a surface find by a local farmer (Plate 49). Small discs of this type were once used as standard weights for gold in the Middle East and India as they were not easily altered once they were made.<sup>97</sup>

### 3.6 Plant Remains

The waterlogged condition of the soil which has preserved numerous faunal remains has also resulted in the preservation of significant quantities of other organic matter. Miksic identified two species of timber from waterlogged levels, a fragment of kayu dungun (Heritiera littoralis Dryand), described as a tree which normally grows along river banks but can endure immersion in tidal water and possibly the toughest of Malayan timber,<sup>98</sup> and kayu nyireh (Xylocarpus spp.), which is found at the inland fringe of mangrove belts, near tidal rivers. It is of great durability in contact with the ground.<sup>99</sup>

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<sup>96</sup>On bangles of this type, see Dikshit, Indian Glass. Lamb illustrates fragments of this type from Pengkalan Bujang: Miscellaneous Papers, Fig. 66.

<sup>97</sup>These are known technically as münzegewicht (German), a coin weight. They appear to have been in common use in the late first and early second millennium A.D.

<sup>98</sup>Miksic, "Archaeology," p. 136; Burkhill, Economic Products, p. 1159.

<sup>99</sup>Miksic, "Archaeology," p. 148; Burkhill, Economic Products, pp. 457-58.

No identifiable timber remains were found in the numerous post holes uncovered at Location 1 as whatever wood had been used had almost entirely rotted away. Here, however, twenty liters of damar, a generic Indonesian and Malay term for tree resin, was excavated from the occupation layer.<sup>100</sup> Much of the outer surface of the individual fragments of damar had decomposed into a yellowish powdery substance though in many cases the inner portion appeared to be physically intact. Most of the lumps of damar were small and weighed only one or two grams,<sup>101</sup> the largest, however, was over ten cm in length and weighed over one kilogram. It has not yet been possible to relate the Kota Cina damar to any specific tree species,<sup>102</sup> nor were the village people able to offer any useful suggestions regarding possible origins. It would appear that damar now plays a far less important part in modern village life than it once did when it may have been used for caulking boats, varnishing, glazing pots, lighting and possibly many other uses. Well preserved fragments of damar were found to burn well and give off a substantial amount of light, though a small piece would last only a few minutes.

Fragments of forest resins have been found in Malaysian archaeological sites relating to the neolithic period and later and were also present at Oc eo.<sup>103</sup> Historical records attest the importance of forest resins which

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<sup>100</sup>Miksic, "Archaeology," p. 205.

<sup>101</sup>Ibid.

<sup>102</sup>Dr. J. S. Mills kindly arranged to undertake the analysis of a number of resin samples from Kota Cina at the National Gallery Laboratories, London. He informs me that they all appear to be similar and are probably from the same botanical source. They contain triterpenoids and are most likely from Dipterocarpaceae or Burseraceae.

<sup>103</sup>See Dunn, Rain-forest Collectors, p. 126; Lamb, "Pengkalan Bujang," p. 36; Malleret, L'archeologie, 2, pp. 85-87.

formed an important part of the trade between Indonesia and both Arabia and China.<sup>104</sup> The Kota Cina region, which has been equated with the former Malayo-Batak polity of Aru or Haru played an important role in the early resin trade.<sup>105</sup> In the early fifteenth century, Ma Huan, in particular, mentions yellow su incense and chin-yin incense as products of the Kota Cina area.<sup>106</sup> Miksic found quantities of damar at the Tanjong Enom site, south of the Sungei Wampu near Stabat to the northwest of Kota Cina.<sup>107</sup>

Analysis of organic material found adhering to a sherd excavated at Location 1 produced evidence of a substance containing myristic acid, a fatty acid found in the genus myristicaceae (nutmeg).<sup>108</sup> The buah pala (nutmeg) has been cultivated in Indonesia for centuries, specifically in the Nusa Tenggara region. It will grow in the rich soil of the Deli Serdang area but may be a fairly recent introduction to the area.<sup>109</sup> Other noncommercial alternatives may once have been available locally such as the pala rimbo which is known from Tapanuli.<sup>110</sup> Burkhill indicates that in the East, in

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<sup>104</sup>For a discussion of the early resin trade, see Wolters, Early Indonesian Commerce, especially chapter 8.

<sup>105</sup>Milner et al., "Aru and Kota Cina," p. 4.

<sup>106</sup>Mills, Ma Huan, pp. 114-15.

<sup>107</sup>Miksic, "Archaeology," p. 241.

<sup>108</sup>I am indebted to Dr. J. S. Mills of the National Gallery Laboratories, London for the analysis of this substance.

<sup>109</sup>K. Heyne, De nuttige planten van Nederlandsch Indië (Batavia: Ruygrok & Cie., 1927).

<sup>110</sup>Ibid., p. 637. Pala rimbo is a forest nutmeg (Horsfieldia macrothyrsa Warb.) (Myristica maerothyrsa Miq.). In the late nineteenth century, Netscher noted that "more nutmegs than before of an inferior sort were planted in the Deli lowlands." Netscher, "Togtjes," p. 344. The



contrast to its uses as a condiment in the West, nutmeg appears to have been used mainly as a drug and has many medicinal uses, as a stimulant digestive and as a tonic particularly after childbirth.<sup>111</sup>

A carbonized grain of rice (Oryza spp.) was discovered adhering to the rim of a sherd of a broad mouthed vessel of Red Slipped ware, excavated from the edge of the ditch which runs close by Location 1. This suggests that careful examination of excavated material may yield much more evidence of food and other organic remains. Little is known of rice cultivation in Sumatra at the time of Kota Cina's occupation, but rice appears to have been plentiful in the Deli area in the early fifteenth century.<sup>112</sup>

### 3.7 Faunal Remains

The systematic analysis of animal and plant remains from archaeological sites is an all important aspect of both ecological and economic importance. It can indicate any selectivity of species, suggesting in turn, hunting methods and human behavioral patterns.<sup>113</sup> Unfortunately, it has not been possible to undertake more than a superficial study of the 207 kilograms of well preserved animal bones excavated from the domestic site at

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nutmeg had been successfully introduced into Penang in 1812. Burkhill, Economic Products, p. 1552.

<sup>111</sup>Burkhill, Economic Products, p. 1547.

<sup>112</sup>Mills, Ma Huan, p. 114. Anderson indicates however that padi "is cultivated at Deli to an extent barely sufficient for the use and consumption of its inhabitants, none being exported from the country; and in bad seasons, they import from other quarters"; Anderson, Mission, p. 279. Apparently conditions had changed, or the nature of the inhabitants had changed.

<sup>113</sup>K. Butzer, Environment and Archeology: An Ecological Approach to Archeology (Chicago: Aldine, 1971), pp. 401-12.

Location 1.<sup>114</sup> A more detailed, in depth examination would, no doubt, prove of considerable interest as there is no comparable published material from any archaeological site in Sumatra.

The remarkable state of preservation of these faunal remains is probably due to the extremely alkaline (high pH) state of the soil, brought about by a combination of the high concentration of shellfish remains present and a high water table. This indicates that future excavations at Kota Cina should be adequately prepared to deal with the conservation of both sizable faunal and floral recoveries.<sup>115</sup>

Reference has already been made to the legend concerning Kota Cina, which appears to be an attempt to explain in local terms, the large quantities of shellfish remains present throughout the site. Shells form the greater part by volume and weight of the non-ceramic buried remains, from which it appears safe to conclude that shellfish played an important part in the diet of the inhabitants. Shellfish and crustaceans are plentiful in the type of aquatic environment that linked the tideswept estuarine location of Kota Cina with the open sea. Certain reptiles are characteristically found in the brackish water of the mangrove and nipa swamps which line the edges of estuaries and tidal flats.<sup>116</sup>

Two main species of bivalves appear in abundance. Both the kepah (Meretrix meretrix) and the kerang (Arca granosa) are excellent sources of

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<sup>114</sup>I am indebted to Dr. John MacKinnon of the World Wild Life Fund at Bogor and Rodney Clough of the Institute of Archaeology, London for these observations.

<sup>115</sup>I. Glover, "Report on a Visit to Archaeological Sites near Medan," Indonesia Circle, 11 (1976), pp. 2-6.

<sup>116</sup>For a useful discussion of different types of strand environments, see Sopher, The Sea Nomads, pp. 3-19.

food and were, as such, exploited by much earlier inhabitants of this coastal region.<sup>117</sup> Also present are shells of several large oysters, tiram (*Ostrea* spp.), probably a mud oyster from the surrounding mangrove areas. Less frequent are shells of strombs, ciput (*Strombus isabella*); also common and an important food mollusc, seteng (*Placuna* spp.); two small fragments of coral, batu karang, and a single cowrie, congkak (*Cypraea* spp.), the latter recovered in close proximity to the hearth uncovered at Location 1. In all, there are about fifty species of shellfish represented in these remains.

Other aquatic species are represented by dorsal plates of the catfish, ikan duri (*Arioides* spp.), an estuarine species which can weigh up to fifty kilograms and is still of some importance as a low-priced food fish even at the present time,<sup>118</sup> numerous other fish vertebrae and spines from the king crab, belangkas (*Lumulus* or *Tachypleus* spp.), and cartilage from various turtles, the giant freshwater turtle, (*Chitra indica*), a soft shelled turtle (probably *Trionyx*), and at least three more species of turtle and many terrapins, kura kura. The remains of two species of crocodile, buaya (*Crocodylus porosus*), the largest and most ferocious of the amphibians, once held in great fear by the Malays but now virtually extinct in east Sumatra and the freshwater crocodile, buaya jolong jolong (*Tomistoma schlegelii*) are also present.

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<sup>117</sup>Numerous shell middens once existed on this part of the north Sumatra coast. For a recent discussion, see Mikšic, "Archaeology," pp. 117-22. On the historical geography of this area, see O. W. Wolters, "Molluscs and the Historical Geography of Northeastern Sumatra in the Eighth Century A.D.," *Indonesia*, 22 (1976), pp. 9-17.

<sup>118</sup>M. W. F. Tweedie and J. L. Harrison, Malayan Animal Life (London: Longmans Green, 1956).

Among the terrestrial fauna, it has been possible to identify the complete jawbone of the domesticated water buffalo, kerbau (Bos bubalus Linn.) (Plate 49) and the largest ungulate bones belong to similar animals, but there are probably three or perhaps four other ungulate species. Several antlers, one of which had been cut and shaped into a peg were also found. Among the deer, remains of a rusa (Cervus unicolor), a big animal standing some four feet high at the shoulder, have been identified as have those of the barking deer, the muncak or kijang (Muntiacus muntjak). Also found, were bones of the pig, probably domesticated, the babi (Sus scrofa) and the teeth of an unidentified small rodent. The almost complete skeleton of a bird was recovered from a disturbed level on the south side of Location 1 and numerous other bird bones were also found. Many of the larger bones were found in fragmentary condition, suggesting that they may have been broken open to remove the marrow. A monkey tooth was also recovered.

The inhabitants of Kota Cina appear to have exploited predominantly strand, estuarine and domesticated food resources, suggesting that there was, perhaps, no tradition of forest hunting among the inhabitants.<sup>119</sup> In other parts of the world, strand resources have been commercialized in such communities.<sup>120</sup> There is, as yet, however, no evidence for this type of exploitation in the Kota Cina area, although in the nineteenth century, salt fish were being imported into the highland areas.<sup>121</sup>

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<sup>119</sup>I am indebted to Dr. John MacKinnon for discussing the implications of the analysis.

<sup>120</sup>See C. W. Meighan, "Molluscs as Food Remains in Archaeological Sites," in Science in Archaeology, ed. D. Brothwell and E. Higgs (London: Thames and Hudson, 1969), pp. 415-422.

<sup>121</sup>De Haan, "Verslag," p. 38.

It is clear that the largest ungulate bones represent a domesticated species, the water buffalo. Other domesticated species, such as pigs, dogs, chickens and perhaps goats may also be present. A more detailed analysis of the remaining faunal recoveries can be expected to confirm this supposition.

### 3.8. Burials and Burial Customs

No trace of any burial attributable to the Kota Cina phase occupation has yet been excavated at this site. According to one villager, however, a human skull was exhumed during the digging of the drainage ditch which linked the former tobacco estate boundary ditch to the Paluh Tangkalan Lajang in 1958 and a second villager reported having found the lower part of a human skeleton whilst cultivating a vegetable plot near Location 1. People have obviously been burying relatives at various points in the village since the early nineteenth century and it has proved impossible to verify the contexts of either of the discoveries of human remains. There is no way of knowing whether they were in any way connected with the earlier phase of occupation.

If, however, as seems likely from an examination of the cultural remains, people of South Indian origin made up a sizable proportion of the inhabitants of Kota Cina, it would be logical to expect that most, if not all of their dead, were cremated. On the other hand, were there people of South Chinese origin also involved, it is possible that there may be traces of inhumations somewhere in the vicinity of the site. Areas chosen for Chinese burial sites were normally on higher ground, preferably overlooking water. Although there do not appear to be any such sites in the immediate vicinity that are significantly higher than the surrounding areas, there are

a number of slightly raised areas which offer possibilities as sites suitable for burial areas. None of these has been examined.

Cremation as a form of burial among emigrant Chinese in the thirteenth and fourteenth centuries is not to be ruled out. Cremation was practiced in Guangzhou at the time that Marco Polo visited China and such practices appear to have been taken overseas by emigrant communities.<sup>122</sup>

Chance finds of caches of ceramics comprising Kota Cina phase materials in the general area of the site, particularly that in the vicinity of Hamperan Perak and at Kota Bangun on the Sungei Deli, suggest that indigenous burials of the Kota Cina phase were inhumations accompanied by grave goods. Unfortunately, none of these discoveries has ever been properly documented, nor are the locations of these finds known precisely.

The discovery of a secondary jar burial at Kampong Pasar Enam, near Percut in 1970, may, however, throw some light on local burial practices at about the end of the Kota Cina phase. A farmer digging in a rice sawah recovered a yellowish green glazed four eared stoneware dragon jar datable to the late Yuan or early Ming period. The jar was found to contain the decomposed bones and teeth of a secondary burial. This type of burial, as far as is known, is apparently rare in a northeastern Sumatran context

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<sup>122</sup>See H. Yule and H. Cordier, The Book of Ser Marco Polo, 2 (Amsterdam: Philo, 1975), p. 132. Polo notes that "Cacanfu is a noble city. The people are Idolaters and burn their dead. . . ." Yule noted that "A great change seems to have come over Chinese custom, since the Middle Ages, in regard to the disposal of the dead. Cremation is now entirely disused, except in two cases; one, that of the obsequies of a Buddhist priest, and the other that in which the coffin instead of being buried has been exposed in the fields, and in the lapse of time has become decayed." Yule further quotes a remark of a Chinese envoy to Zhenla in 1295 who remarks "There are some, however, who burn their dead. These are all descendants of Chinese immigrants." The Book, pp. 134-35. But see, for example, Tanazas, A Report, pp. 17-20. Of fifty-five burials excavated, thirty-three were definitely cremations. Remains of a charnel house were also excavated.

though it is not uncommon in other parts of island Southeast Asia. The discovery of other jar burials in the Percut area were reported intermittently over the period 1970 to 1977, but the one at Pasar Enam was the only one which I was able to verify.

### 3.9 Summary

Investigation of the cultural remains from Kota Cina provides strong evidence of a South Indian involvement at the site. The statuary is undoubtedly of Cōḷa origin. The evidence for an Indian presence is brought out further by at least one gold artifact, the tāli recovered at Location 1. This, in all probability, would have been worn by a woman of the Hindu faith.

At the same time, evidence for a Chinese involvement in the trading activities of Kota Cina cannot be overlooked. The fragments of gold foil marked with Chinese characters suggest a direct Chinese involvement in the gold trade at the site. The large numbers of Chinese coins recovered is also of considerable significance. The frequency with which Chinese coins appear as surface finds points to their use in daily transactions rather than as a source of metal for other purposes. The fact that on occasion they have also been found stuck together in sausage-like form indicating the presence of strings of cash further strengthens the argument in favor of their use as a medium of exchange. The recovery of part of a Chinese pendant or charm engraved with an auspicious saying may give added weight to the possibility of Chinese among the inhabitants of Kota Cina.

The presence of carnelian beads, small monochrome glass beads and a small ruby-like stone would suggest an Indian rather than a Chinese origin for these items. The small, undecorated bronze mirrors also seem to have

an Indian rather than a Chinese derivation. The glass is very difficult to place. Indian and Sinhalese glassmakers appear to have been making small vessels similar to those found at Kota Cina by the twelfth or thirteenth centuries. The glass certainly appears to be of "western" rather than "eastern" origin. It may be of Indian origin, made locally, at Kota Cina or imported directly from South India or indirectly from Kedah.

Miksic's small carved pointed stone is the only identifiable artifact with an indigenous Malay or Karo Batak connotation. The evidence to date would appear to reveal very little about the indigenous inhabitants of the Kota Cina region. The faunal remains suggest a lack of expertise in the exploitation of forest animal resources. The fish and mollusc remains may, however, indicate the development of an exchange system between the inhabitants of Kota Cina and indigenous people who had developed considerable expertise in the collection of shellfish and in fishing techniques.

Although there is now considerable artifactual evidence for material culture at Kota Cina, there is little or no evidence regarding the mechanisms of exchange at the site. Indications of ancient modes of exchange may yet be sought in ethnographic evidence among the Karo and other Batak peoples of northeastern Sumatra. Commodities which may have played an important role in trade with the interior such as salt, cloth and the like have left no trace in the archaeological context. The Karo remain exasperatingly elusive.



CHAPTER 4  
LOW FIRED CERAMICS

Little is known regarding the origins of the low fired earthenware excavated at Kota Cina though two, possibly three major cultural influences, those of India, China and the Islamic world, may be discerned in this assemblage. In analyzing this material, I have followed an established approach, having tried to "let the sherds speak for themselves."<sup>1</sup> In the context of this analysis, the term "ware" means a broad class of pottery, based on some prominent feature such as color, decorative technique and/or function. "Type" may be understood as a ceramic group in which paste, temper, and the method of construction are constant. A "varety" is a subdivision of a type based on form and decoration.<sup>2</sup>

There is very little descriptive literature on Sumatran pottery. Miksic is the first to have attempted an analysis of low-fired earthenware from a Sumatran site in which temper is used as a prime factor in understanding the material. He has also emphasized the importance of ethnohistorical data for establishing a framework within which to study Sumatran pottery.<sup>3</sup>

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<sup>1</sup>See J. C. Gifford, Prehistoric Pottery Analysis and the Ceramics of Barton Ramie (Cambridge, Mass.: Harvard University, Peabody Museum of Archaeology and Ethnology, 1976), pp. 5-6.

<sup>2</sup>A. O. Shepard, Ceramics for the Archaeologist (Washington, D.C.; Carnegie Institute, 1956), p. 318.

<sup>3</sup>Miksic, "Archaeology," pp. 199-202.

Over three-quarters of a ton of sherd material was excavated at excavated at Location 1 in 1975-76. Of this, 65% by weight was unglazed earthenware pottery, fired at temperatures between 400 and 900°C.<sup>4</sup> The remaining 35% by weight was high-fired glazed stoneware and porcelain produced at temperatures around 1200°C from kilns in South China together with a few fragments from Thailand and possibly also Indochina. No sherd count was undertaken, but all excavated material was weighed.<sup>5</sup>

During a survey of archaeological sites in 1973, Bronson gained the impression that sherds were extremely scarce in Sumatra, especially compared with the sherd-rich sites of the Thai isthmus.<sup>6</sup> There are, however, exceptions to this. Sherds can be found at most late first and second millennium coastal sites of which Kota Cina is but one. Inland of the coastal areas, sherds are certainly less obvious and relatively scarce, but rarely entirely absent. Whether the relative abundance of pottery at coastal sites is due to external influences is yet to be ascertained, though the evidence available to date does tend to indicate that this is the case. In dealing with the Kota Cina material, I have had the advantage of being able to compare it to earthenware sherds recovered as surface finds from a number of different Sumatran sites from both coastal and inland areas.

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<sup>4</sup>Firing temperatures for earthenware normally range between 700 and 900°C. Shepard, *Ceramics*, pp. 21-23. Experiments undertaken by Stargardt on red paste sherds from Kedah and a report from India suggest that firing may possibly have taken place at lower temperatures between 400 and 700°C. See Stargardt, "Extent and Limitations," pp. 287-90; and L. Dumont, "A Remarkable Feature of South Indian Potmaking," *Man*, 121 (1952), pp. 81-83.

<sup>5</sup>Miksic, "Archaeology," p. 164.

<sup>6</sup>Bronson and Wisseman, "An Archaeological Survey," pp. 37-94.

#### 4.1 Ethnohistorical Pottery Data

Dutch records of the nineteenth and early twentieth centuries give the impression that the production of pottery was of little consequence in the Kota Cina area. With one or two exceptions, there does indeed appear to have been a dearth of pottery production, particularly further away from the coast.

In Kota Cina's immediate hinterland, the dusun areas of the erstwhile Malay sultanates of Deli, Serdang and Langkat, and in the Karo highlands, the Karo Batak who comprised the majority of the inhabitants appear to have had relatively little use for pottery per se. Other readily available natural materials such as large bamboos (buluh) provided immediate and useful alternatives for holding and transporting water and also for some forms of food preparation. Gourds (labo) abounded and could be easily collected for this use.<sup>7</sup> Among the Karo, meals were eaten from a communal platter (capah), manufactured from selected types of wood.<sup>8</sup> An earthenware cooking pot, known as kulin or kudin was used for the preparation of rice and vegetables, but by the late nineteenth century an iron pot was preferred. Indeed, by 1898, pottery is recorded as being made at only three huta or villages in the mountain areas of Tanah Karo, namely at Juhar, Merdinding and Bulanjahe, near which deposits of clayey soil suitable for pot making

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<sup>7</sup>K. Nicklin, "The Location of Pottery Manufacture," Man, 14, no. 3 (1979), pp. 436-76, discusses environmental, cultural and economic factors and suggests why pottery making may or may not have developed in certain areas.

<sup>8</sup>Anon., "Beschrijving van eenige Karauw-Bataksche Voorwerpen ten geschenke aangeboden door den Datoeq Seri Indra Lela Setija Radja, Wazir Sapoeloh Doewa Kotta (Hadji Mohammad Noer Van Hamparan Perak)," NBG, 36 (1898), Bijlage 4, pp. xxvii-xxxvi.

are still to be found.<sup>9</sup> The Karo imported pots for a relatively low price from the Toba Batak area, notably Samosir, and pots appear to have been readily available at the traditional weekly markets (tiga) held at appointed places throughout the Karo highlands.<sup>10</sup>

On Samosir, women potters produced distinctive cord impressed cooking vessels (hudin or hudon) by the paddle and anvil technique which were exported not only northward through villages such as Tengging on the shores of Lake Toba to Tanah Karo, but all around the lake and even down to the east coast at Batu Bara, where they were sold in competition with locally made vessels.<sup>11</sup>

Burton and Ward, writing in 1826, made the following brief account of pottery produced in the Batak area:

A rather superior kind of white pottery is produced in the vicinity of the lake. Large dishes and platters, glazed and adorned with figures of different shapes and colours, are in common use for serving up their food in; and a species of coarse brown ware unglazed, and in the form of the Indian waterpot, called in Bengal kulsi, is employed for the carriage of water for domestic use.<sup>12</sup>

In 1893, Van Hasselt recorded the existence of an indigenous pottery industry in the Ulu Barumon and Barumon Tonga area of the Padang Lawas, more correctly known as the Padang Bolak area of Tapanuli,<sup>13</sup> some three

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<sup>9</sup>Drs. Terbit Sembiring, personal communication.

<sup>10</sup>Joustra, Batakspiegel, p. 313, lists the places and days of the week upon which these traditional markets were held.

<sup>11</sup>H. H. Bartlett, "The Pottery of Batoe Bara," in The Labors of the Datoe, pp. 155-57.

<sup>12</sup>See Burton and Ward, "Report of a Journey into the Batak Country, in the Interior of Sumatra, in the Year 1824," Transactions of the Royal Asiatic Society, 1 (1827), pp. 485-513.

<sup>13</sup>A. L. Van Hasselt, "Aanteekeningen omtrent de pottenbakkerij in de Residentie Tapanoeli," Internationales Archiv für Ethnographie, 6 (1893), pp. 41-43.

hundred kilometers to the south of Kota Cina. The Padang Lawas is the site of an extensive complex of brick built Hindu Buddhist temples or candis and other remains thought to date from between the tenth and fourteenth centuries A.D.<sup>14</sup> Earthenware sherds of indigenous origin and imported Chinese stonewares of thirteenth to fourteenth century date have been found not far from the ruins at Portibi Bahal 1.<sup>15</sup> Most of the later examples of pottery vessels from this area illustrated by Van Hasselt do not appear to relate to sherds of earlier types.<sup>16</sup> The few fragments of earthenware which I recovered as surface finds after a ditch had been dug near the candi Bahal 1 at Portibi appear to be distinctly finer than the late nineteenth century examples of Padang Lawas origin that I have been able to examine. As there is a tradition of recent migration into the Padang Lawas area from elsewhere in the Batak region, the later examples may well represent a different ceramic tradition than that which existed there in the tenth to fourteenth centuries.<sup>17</sup>

Van Hasselt reported that the Barumon Tonga and Ulu Barumon vessels were made exclusively by women, who used the paddle and anvil technique on a slow wheel. The raw material consisted of a light gray clay, presumably obtained in the vicinity of the village, which was first dried, pulverized, sifted and then mixed in a proportion of 2:1 with the ash of rice

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<sup>14</sup>Schnitger, Archaeology, pp. 16-37.

<sup>15</sup>Finds of Sung period Chinese ceramics were first reported from near Portibi in 1941; see E. W. Van Orsoy de Flines, "De Keramische Verzameling," Jaarboek, 9 (1941-47), p. 114.

<sup>16</sup>Miksic, "Archaeology," p. 201.

<sup>17</sup>L. Castles, "Statelessness and Stateforming Tendencies," pp. 67-76 (especially p. 70, n. 17).

chaff. Some coarse sand was then added and the clay kneaded with water until ready for working. Decoration, where required, was made with the point of a special knife. The vessel was finally burnished using the sap of a certain climbing plant, the luster obtained by using the leaves of the sampilulut. Firing took place bonfire style on the open ground, with dry split blamboo and dry grass used as fuel.<sup>18</sup>

Van Hasselt collected specimens of the various artifacts used in the preparation of pottery from both Barumon Tonga and Ulu Barumon which he sent with an explanatory note describing the manufacture process in some detail, to the Rijks Ethnologisch Museum at Leiden. He noted that two different types of pot were used by the Bataks for the preparation of cooked rice which he gives as (a) hudon with its cover sanggop ni hudon and (b) si suban with its cover sanggop ni suban. A third variety of pot, balonga was used for cooking other food.

The potters of the Padang Lawas also produced labo tanah (literally earthen gourds) or kendis, some of which are elaborately decorated by a technique of incision using a knife (Plate 51). Although none of these kendis bear any resemblance to the earthenware shapes recovered at Kota Cina, it is possible to discern a similarity between the simple, round-bottomed pots with their covers and round-bottomed cooking vessels with geometric designs excavated at Location 1. The cover of the hudon with its protruding knob is similar to covers found in the Kota Cina assemblage and known from other Southeast Asian sites.<sup>19</sup>

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<sup>18</sup>Van Hasselt, "Aanteekeningen," p. 42.

<sup>19</sup>See, for example, W. G. Solheim, "The Prehistoric Earthenware Pottery of Tanjong Kubor, Santubong," SMJ, 12 (1965), pp. 3-62.

Van Hasselt's description of the manufacturing process is worth quoting in full as it is one of the rare descriptions of Sumatran pottery production:

The pottery is thrown on a circular disc named a barombang which turns upon a pin, upon which lies the wheel, panopaan, or juguhan (from juguk: to sit). The disc is turned with the left hand while the right imparts the desired shape to the object. A stone, landasan, is held against the inner side of the pot or belly, whilst the exterior is struck with a wooden paddle, topa-topa. A relief cut flower is carved upon the upper end of the handle (the paddle itself displays a carved fish-bone pattern in relief, though the pots themselves appear to have plain surfaces, any decoration from the paddle presumably being lost during the burnishing process which follows).

The polish of the gendis is made with the fruit of a creeper, the sap of which is also used as soap. To produce the luster of gendis, they also make use of the leaves of a plant named sampilulut, which is also used by coppersmiths as it has the quality to make the copper soft and flexible.<sup>20</sup>

Loeber in briefly discussing pottery making in the archipelago generally, illustrates a group of Sumatran potters (all women) at Tarutung in northern Tapanuli, who made cooking pots and spouted kettles. The pots ranged from small vessels, probably no more than 10 to 12 cm in diameter, up to large, round-bottomed pots (the hudon of Samosir) some 50 cm in diameter. The Tarutung pottery was said to be technically very good. A brief description of the process of manufacture indicates that the purified clay was first divided into balls, each big enough to make one pot and the lumps were then laid out under green leaves in the sun, where they were allowed to sweat. Thereafter (as in Minangkabau), a cavity was first formed with the hands and a stone, held in the left hand, was inserted against the inner wall of the clay whilst the potter hit the same spot on the exterior with a paddle, at the same time turning the pot until she obtained the

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<sup>20</sup>Van Hasselt, "Aanteekeningen," p. 43.

desired shape.<sup>21</sup> This is essentially the same process as that used in the Padang Bolak. Unfortunately, no description appears to exist of the processes used in Samosir or the Karo villages, but we may assume that it was, in essence, similar. The Batak do not appear to have known the use of the fast wheel.

In the Batu Bara area of northeastern Sumatra, the Timor Batak had ceased all pottery production by the early years of this century. Pottery was, however, still produced by Chinese and by a few Malays. The latter produced a distinctive ceremonial form of pottery which was required by the Timor Bataks for religious purposes. These ceremonial pots have been described by Bartlett, and were essentially incense burners made in the form of a bird and painted in the ritual colors of white and red.<sup>22</sup>

In 1975, a small quantity of simple pottery was still being made at the village of Senteng, near Limau Laras, south of Tanjong Tiram at Batu Bara. The women of two or three Malay families still produced cooking pots (priok), for sale in the local market, where they were said to be in demand for cooking fish. The pots, which were plain and undecorated, were produced by the paddle and anvil technique on a slow wheel. Clay is dug from a nearby river bank and tempered with sand. The pots are formed around a stone anvil on a wooden disc which is rotated with the left hand and are finally closed at the bottom (Plate 52). After being left to dry in the shade for four to five days, the pots are fired in the open under a heap of dried coconut fronds and fragments of bamboo.

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<sup>21</sup>J. A. Loeber, "Leden-en perkamentwerk, schorsbereiding en aardwerk in Nederlandsch Indie," in Geillustreede Beschrijvingen van Indische Kunstnijverheid (Amsterdam: Koloniaal Instituut, 1915).

<sup>22</sup>Bartlett, "Pottery," p. 155.



Although there are no descriptions of pottery making among the Malays of Langkat, immediately to the north of Kota Cina, Van der Hoop illustrates a vessel decorated in a manner similar to the incised labo taneh of the Padang Bolak.<sup>23</sup> From this, it may be assumed that some pottery making did take place in the area until fairly recently.

Miksic, in discussing pottery making in the Medan area, reported a Karo potter at Sunggal who had learned his trade from a Javanese and was making flower pots for the Medan market.<sup>24</sup>

In Aceh, an extensive series of second millennium habitation sites in the Lhoksuemawe area of Aceh Utara, relating mainly to the former polity of Samudera Pasai, appear rich in both low-fired ceramic remains and a wide variety of imported stonewares and porcelains.<sup>25</sup> Much of the earthenware was very probably made locally, as meter-thick deposits of large sherds were to be observed overlying earlier Islamic gravestones in an area a few

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<sup>23</sup>A. N. J. Th. a. Th. Van der Hoop, "A Prehistoric Site near the Lake of Kerinchi (Sumatera)," in Proceedings of the Third Congress of Prehistorians of the Far East, ed. F. N. Chasen and M. W. F. Tweedie (Singapore: Government Printing Office, 1940), pp. 200-204, plates LXXXI-LXXXIX. The kendi (K.B.G. 14205) is reported as having come from Bohorok in the Karo dusun area of Langkat Ulu. It is not clear whether Karo or Malay potters were involved in the production of this pottery; see NBG, 48 (1910), Bijlage 1, p. xlvi.

<sup>24</sup>Both Miksic and I visited Tanah Priok near Kampong Terjun on the road from Labuhan Deli to Hamparan Perak at different times to try to ascertain whether Tanah Priok (the name means "earth from which clay pots are made") might have any historical associations. No signs of any activity earlier than the late nineteenth or early twentieth century was to be found though Miksic notes that "the paste of the earthenware sherds found here bears a general resemblance to the paste of Kota Cina sherds; but there is no proof that Tanah Priok was in fact a source of clay for ancient potters." Miksic, "Archaeology," pp. 200, 201.

<sup>25</sup>E. Edwards McKinnon, Research into the Disposition of Ceramic Sites in North Sumatra (Singapore: Southeast Asian Ceramic Society, 1976).

hundred meters northwest of the Cot Astana, Kampong Samudera, in 1975. There are, however, indications that some of this material was imported from elsewhere, a distinct possibility considering the extensive commerce of this former rival of Malacca. Samudera Pasai was destroyed by Aceh in about 1524.<sup>26</sup>

Elsewhere in Aceh, a distinctive pottery tradition survived until recently among the Gayo folk settled around Lake Tawar in Aceh Tengah. Here, a burnished, black incised ware was produced by women potters, comprising mainly of cooking pots and kendis.<sup>27</sup>

In 1976, I found Ibu Aminah binti Ibrahim in Kampong Keulibuet, Kecamatan Pidie, making small cooking pots with lids by the paddle and anvil technique (Plate 53). Clay was obtained from the bank of a nearby stream. She used rice husk ash to dust the stone anvil to stop the clay sticking to it. A plain paddle was used to form the vessel which was beaten from a lump of kneaded clay placed upon a wooden disc which she rotated with her left hand.

In this brief rather general ethnohistorical overview of pottery making in northern Sumatra, it appears that potting never developed into a sophisticated art as it did in other regions of southeast Asia. Indeed, it would appear to have played a relatively unimportant part in local cultural development and, apart from the trade in Samosir pottery, no other inland center of pottery making seems to have developed on any scale. The reasons for

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<sup>26</sup> A. H. Hill, Hikayat Raja-Raja Pasai, JMBRAS, 33, no. 2 (1960), complete issue, p. 24.

<sup>27</sup> Anon., "Inventaris van voorwerpen, versameld in de Gajolanden gedurende de excursie onder Majoor Van Daalen in 1901," NBG, 40 (1902), Bijlage 1, pp. xxii-xxiii.

this are probably the ready availability of alternative sources of containers such as bamboo and gourds and a preference for wooden artifacts. Near the coast, however, sites with external contact indicate a higher degree of cultural sophistication and a greater awareness of the uses of pottery.

#### 4.2 Type-Variety Analysis

At Kota Cina, vessels which may have been used for routine culinary purposes appear to be relatively scarce among the high-fired stonewares, wares which would have been expensive compared with ordinary, low-fired pottery. This indicates that earthenware supplied the basic needs for vessels for cooking and probably for storing drinking water also. The natural porosity of an earthenware vessel has a cooling effect which may have offered a practical advantage over higher-fired stoneware vessels for such purposes. Practical and economic advantages aside, the aesthetic qualities of higher-fired stonewares suggests that they may have served as symbols of status in Kota Cina society and that they may have been utilized in household rituals. Their use would no doubt have been largely limited to the upper stratum of society.

Miksic, in a preliminary classification of this material, discerned three major categories of low-fired ceramics:

- 1) "Fine Paste Ware."<sup>28</sup>
- 2) "Other Earthenware of Problematic Origin."<sup>29</sup>
- 3) "Common Earthenware," which he divided into two main types:

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<sup>28</sup>Edwards McKinnon, "Oriental Ceramics," p. 75; Miksic, "Archaeology," p. 185.

<sup>29</sup>Miksic, "Archaeology," p. 189.

"Kota Cina Sand tempered" and "Kota Cina Shell tempered."<sup>30</sup>

The first two types are wheel made, the remainder are all produced by the paddle and anvil technique, either assisted by a slow wheel or, as seems possible in one instance, formed on a fast wheel and subsequently finished by the paddle and anvil technique, a process which appears peculiar to south India.<sup>31</sup>

#### 4.2.1 Wheel-made Pottery

Three types of wheel-made low-fired pottery have been identified in the Kota Cina assemblage, namely "fine paste ware," "Glazed Persian Ware" and "Painted Buff Ware."

##### 4.2.1.1 Fine Paste Ware

Sherds of this light-weight, smooth finished utilitarian ware exhibit a fine homogeneous paste with no apparent temper. Visible marks on the inner surfaces of sherds attest to its having been produced on a fast wheel. Although this ware may generally be described as "brittle," Miksic discerned a separate "brittle" variety, amounting to 2% by weight of "fine paste" sherds, "in which the bodies of the vessels are fired to an orange color" and are "more brittle" than the majority. Whether or not this characteristic is due to a higher firing temperature and was in fact intentional has not yet been ascertained.<sup>32</sup>

Paste and Temper: the paste is a fine, homogeneous kaolinitic clay with no apparent temper; it may however contain volcanic glass,

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<sup>30</sup> Ibid.

<sup>31</sup> Dumont, "Feature," p. 81.

<sup>32</sup> Miksic, "Archaeology," p. 186.

haematite and mica as natural inclusions.

**Firing:** oxidation is variable with thicker areas of the body often exhibiting a dark core, otherwise both exterior and interior surfaces exhibit a uniform pale grey, beige or pinkish tinge. Munsell color range, core 2.5Y, 5/0, exterior 10YR, 8/3 - 5YR, 7/4 (very pale brown to pink).

**Surface Finish:** exterior well finished and uniformly very smooth, sometimes burnished. Interior well finished, but with fine horizontal lines indicative of wheel technique. Spouts of kendis applied over a hole made in the body.

**Decorations:**

- a) plain, no decoration.
- b) slipped, pinkish slip on the exterior
- c) painted, with horizontal or vertical bands of color ranging from red to orange brown, to dark brown and almost black. One sherd has traces of what could be a floral design.
- d) incised, sgraffiato.
- e) ribbed.

**Form:** flat bottomed vessels ranging from simple spherical bowls and jars, to kendis (a closed, spouted water vessel derived from the Indian kundika [Skt.]) (see Figure 9), and tall vases with flanged necks (see Figure 10). At least 59 vessel spouts of this ceramic type were excavated at Location 1.

**Dimensions:** as yet undetermined, but one small kendi, when intact measured 9 to 10 cm high and about 12 cm in diameter

(Figure 9). Bowls were approximately 18 to 20 cm in diameter and 15 cm in height. There are also closed vessels (bottles?) of 15 to 20 cm height and tall vases which may have stood up to 45 cm in height. Body sherds range between 3 to 5 mm in thickness (Figure 10).

Comments:

This is a firmly established type, quite distinct from the bulk of low-fired pottery at Kota Cina. Sherds comprise 8% by weight of the total low-fired earthenware excavated at Location 1.<sup>33</sup>

The bodies of these fine paste vessels are usually thin, ranging from 3 to 5 mm, but occasionally thicker. There are also heavy, cylindrical solid feet, presumably from stemcups, vases or bowls of the same material. Due to the brittle nature of this material and the fragmentary condition of the sherds it has been very difficult to reconstruct complete vessels. Forms appear to range from simple rounded bowls and small kendis to quite large elaborate vases with flanged necks. Some vessels exhibit vertical ribbing. At least eighty of the sherds have incised linear decoration,<sup>34</sup> in designs which are typical of twelfth century unglazed Islamic pottery from the Persian Gulf area.<sup>35</sup> About 7% of the sherds have red stripes 1.5 to 2 cm wide applied in horizontal and vertical patterns (10R, 5/6 to 5/8) and four sherds have a markedly different reddish brown (5YR, 4/4)<sup>36</sup> (Plate 54; Figure 11).

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<sup>33</sup>Ibid., p. 185.

<sup>34</sup>Ibid.

<sup>35</sup>G. Fehevari, personal communication.

<sup>36</sup>Miksic, "Archaeology," p. 185.

The bases, with only a few exceptions, are almost invariably flat and devoid of any footrim.

Fine paste ware appears to have remained in use throughout the entire occupation period at Kota Cina, having been excavated from the top of the occupation layer at 0.40 m down to the junction with sterile clay at 1.00 m.

#### Comparable or Related Finds:

Information from elsewhere in Southeast Asia suggests that "Fine Paste Ware" was produced over a considerable period of time for, as Miksic correctly points out, Kota Cina is by no means the first Southeast Asian site where a light, brittle wheelmade earthenware of this type has been described.<sup>37</sup> Descriptions of what may be similar ware have not always been complete enough to make confident comparison with finds from other sites, but the following examples are likely to be closely related to, if not the same as, the Kota Cina "Fine Paste Ware."

#### 1. Pengkalan Bujang, Kedah, West Malaysia

Situated only a day's sail by prahu from Kota Cina on the opposite (east) side of the Selat Melaka, Pengkalan Bujang is a closely related and probably largely contemporary site. Large quantities of similar Chinese and Middle Eastern ceramics have been recovered there. Lamb, who first paid attention to the ceramic material at this site, describes sherds of:

a fine, soft material of light yellow colour, though sometimes with a black streak in the centre. Some of these seem to represent large vessels . . . others with moulded decoration (Pl. 55) appear to be part of round lidded boxes similar to those found among the white

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<sup>37</sup> Ibid., p. 186.

porcelains and stonewares, and a few fragments of this kind were painted black on the exterior.<sup>38</sup>

Among the Kota Cina sherds, "the neck of one vessel has a black band set off from a red band by an intermediate flange or ridge,"<sup>39</sup> a characteristic which appears very similar to those described by Lamb.

A fuller description of the Pengkalan Bujang fine paste ware has been given by Leong, who notes that "the colours of the paste vary from an orange buff, buff to light brown." Most of the sherds are described as having a fairly thin body and as being generally fragile and soft (this may mean soft in comparison to the stonewares), the majority apparently fragments of small vessels. Parts of narrow necked vessels and flaring mouths up to 14 cm diameter were also found as were spouts and the characteristic flat bases.<sup>40</sup>

## 2. Satingphra, South Thailand

Lamb noted that a similar "fine paste" material occurred as surface finds at Satingphra on the eastern side of the Thai isthmus, an area with which Kedah had long maintained close cultural and trade connections.<sup>41</sup> Later Stargardt discovered considerable quantities of similar material in the same area and was of the opinion that she had discovered the site of a kiln or kilns which produced this ware.<sup>42</sup> This evaluation has been disputed,

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<sup>38</sup>Lamb, "Research," pp. 21-37.

<sup>39</sup>Miksic, "Archaeology," p. 185.

<sup>40</sup>Leong Sau Heng, "A Study of Ceramic Deposits from Pengkalan Bujang, Kedah" (M.A. thesis, University of Malaya, Kuala Lumpur, 1973).

<sup>41</sup>Lamb, "Kedah and Takuapa," pp. 69-88.

<sup>42</sup>J. Stargardt, "The Ceramic Industry of Southern Thailand in the Śrīvijayan Period," Archaeology (Bangkok: Silapakon University), 4, no. 2



particularly as the site was "highly disturbed" and none of the high kaolinitic clay from which fine paste ware vessels could be made is to be found in the immediate vicinity.<sup>43</sup>

### 3. Tanjong Kubor, Sarawak, East Malaysia

Ninety-five sherds of a closely related type of ware were recovered from the small site at Tanjong Kubor, Sarawak which is thought to date from the ninth or tenth centuries A.D. In his analysis of the pottery from this site, Solheim notes the presence of wheel-made, nonvitrified vessels of a

fine homogeneous paste which is cream to peach in colour, as is the surface. Some of the sherds have extreme exfoliation on the inner or outer surface. The vessels had flat bottoms with flaring sides and a narrow neck. Body thickness is 2 mm to 9 mm towards the base; flat bases 4 to 12 mm thick with a slight protuberance in the centre on the inner surface; base diameter 6.5 to 8.0 cm. One heavier vessel of the same shape has a grey paste and a tan surface colour. Its body is 5-10 mm thick, the base about 7.5 cm in diameter. It has a narrow neck with a minimum diameter of 2.4 cm and a diameter of 30 cm at the mouth.<sup>44</sup>

Nine of the sherds were incised with concentric circles or curvilinear designs and ten spouts of this material were found to be "applied over a hole in the body of the vessel,"<sup>45</sup> a description which could easily fit the Kota Cina material. Except for the complex rim of one vessel, Solheim's reconstructed shapes do not appear to resemble Kota Cina forms.

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(1972), pp. 190-219. Also, "Southern Thai Waterways: Archaeological Evidence on Agriculture, Shipping and Trade in the Śrīvijayan Period," *Man*, 8, no. 1 (1973), pp. 5-23.

<sup>43</sup>Stargardt, "Ceramic Industry," p. 203, discussed by Miksic, "Archaeology," p. 188.

<sup>44</sup>Solheim, "Tanjong Kubor," pp. 52-53, Fig. 18.

<sup>45</sup>*Ibid.*, p. 52.

#### 4. Butuan, Mindanao, Philippines

Sherds of "fine paste ware," excavated from Butuan, a complex of low-lying sites on the Agusan river in Mindanao, were exhibited by Evangelista at the Symposium on Trade Pottery in South and South East Asia held in Hong Kong in September 1978.<sup>46</sup> Butuan is rich in late Tang period (ninth century) Chinese export wares related to types discovered as far afield as Siraf on the Persian Gulf and Fostat in Egypt. The Fine Paste Sherds were described as "problem sherds" for which no close parallels were known from other Philippine sites. I was able to examine these sherds and can confirm that they are of precisely the same material as those excavated at Kota Cina. Although the chronology of Butuan has still to be ascertained, it would appear that in this context, "fine paste ware" is contemporary with ninth to tenth century Chinese stonewares.

#### 5. Majapahit period sites in East Java

A number of whole pieces of "fine paste ware" exist in private ceramic collections in Jakarta, where they are known as "Majapahit" ware. A kendi, described as coming from East Java, was exhibited at the Indonesian Ceramic Society exhibition held in Jakarta in June 1977. The Majapahit empire flourished in the thirteenth to fourteenth centuries and is known to have had considerable trading connections with other areas in south and southeast Asia, principally through its port of Tuban, situated near Surabaya.

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<sup>46</sup>A. Evangelista and J. T. Peralta, "Preliminary Report on the Butuan City Excavations," Symposium on Trade Pottery in East and South East Asia (Hong Kong, 1978).

6. Muara Jambi, Jambi Province, Sumatra

Fragments of the neck of a tall, pinkish colored "fine paste ware" vessel were recovered in association with twelfth to fourteenth century Chinese ceramics near Candi Astano, Muara Jambi in 1977.<sup>47</sup> The extensive site at Muara Jambi has been associated with the toponym Mo-lo-yu of the early Chinese annals and may at one time have been capital of the Malay polity of Śrīvijaya.<sup>48</sup> No description of the ceramic assemblages from this important site have yet been published but excavation and restoration work is now in hand.<sup>49</sup>

7. Danau Gadang, Kerinci, Jambi Province, Sumatra

One sherd from a collection made by Van der Hoop on the Danau Gadang Tea Estate, Kerinci, in 1937, appears to be a specimen of "fine paste ware." It is described as "made of a fine, light terra-cotta clay and with its beautiful, robust profile it strongly reminds one of the earthenware from East-Java, generally ascribed to the late Majapait-period."<sup>50</sup> The illustration, Plate LXXXVII (No. 3350), bears a striking resemblance to fragments of rims found at Kota Cina.

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<sup>47</sup>E. Edwards McKinnon and S. Dermawan, "New Ceramic Discoveries at Sumatran Sites," Transactions of the Southeast Asian Ceramic Society, 8 (1981), pp. 2-17.

<sup>48</sup>O. W. Wolters, "A Note on the Capital of Śrīvijaya during the Eleventh Century," in Essays Offered to G. H. Luce, ed. A. B. Griswold et al., 1, pp. 225-39.

<sup>49</sup>M. Nazir, Mengenal Candi-candi Muara Jambi (Jambi: Departemen P dan K, 1978).

<sup>50</sup>Van der Hoop, "Kerinci," p. 203.

## 8. Transbassac Area, Southern Vietnam

Malleret found sherds of a ware closely resembling "fine paste ware" in the course of his excavations at Oc-eo in the western Mekong Delta, and at all early first millennium sites of the Transbassac. It also appeared predominantly in Angkorian period sites.<sup>51</sup>

### Summary

Fine paste ware appears to have a wide distribution throughout Southeast Asia, from southern Vietnam, Peninsular Thailand and Malaysia, to southern Sumatra, Java and Mindanao in the southern Philippines. This wide distribution suggests a well organized and long established link with Southeast Asian maritime commerce from a source which produced pottery over a long period of time without any significant technological change.

Barbara Harrisson, who examined the Kota Cina material in Medan in 1977, noted a similarity in paste to Vietnamese parallels of Chinese qingbai and "Marco Polo" ware,<sup>52</sup> which are, however, high fired glazed ceramics. Both Harrisson and Solheim<sup>53</sup> consider that "fine paste ware" originates "somewhere in the Hindu sphere of influence," which would include in addition to India itself, southern Thailand, Cambodia, south or central Vietnam, Burma, Sumatra and of course Java.

Another line of evidence points elsewhere, however, far to the west to the region of the Persian Gulf. Both Fehevari and Keall have stated that

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<sup>51</sup>Malleret, L'archeologie, 2, pp. 99-100.

<sup>52</sup>Miksic, "Archaeology," p. 187.

<sup>53</sup>Mrs. Barbara Harrisson and Professor W. G. Solheim II, personal communications.

this ware appears to display Persian affinities though no kiln site is known.<sup>54</sup> I have seen one close parallel, a pot in a private collection, with similar potting and paste, said to have come from north central Iran and dated to the first millennium A.D.

On the basis of the very limited evidence available, and due to the fact that it has not been possible to make direct comparisons with most of the above mentioned sources, it is still not possible to decide upon a specific provenance for "fine paste ware." East Java appears as a strong candidate for the source of fine paste ware, but it is not yet possible to completely exclude a western Asian provenance. Despite its brittleness, this ware appears to have been widely distributed throughout Southeast Asia during a period when East-West Asian commerce flourished. Admittedly, Lamb, when discussing small fragments of Middle Eastern sherds in the isthmian region of the Malay peninsula, found it "hard to see how at any period from the T'ang period onward, the fragile ceramics of the Middle East could compete to the east of India with Chinese wares."<sup>55</sup> He interpreted sherds with Middle Eastern stylistic traits as the remains of vessels brought to Malaya by Muslim merchants for their personal use, not as trade merchandise. But Islamic wares have since been found in quantity in Kedah,<sup>56</sup> and appear among the ninth/tenth century sherd material excavated at Prambanan in Central Java during the 1930s.<sup>57</sup> Further archaeological research may reveal that "fine paste ware" is by no means a rarity in Southeast Asia.

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<sup>54</sup>Geza Fehevari and E. Keall, personal communications.

<sup>55</sup>Lamb, "Research," pp. 36-37.

<sup>56</sup>Othman bin Mohammad Yatim, personal communication.

<sup>57</sup>Abu Ridho, personal communication.

Should the Kota Cina assemblage be representative of other contemporary coastal sites, it would support the hypothesis that this ware was, indeed, an item of trade.

#### 4.2.1.2 Yellow Glazed Persian Ware

A fragile ware with a coarse, reddish yellow body exhibiting inclusions of pyrite, micaceous flecks and small particles of volcanic glass, glazed with a thin, watery, yellow glaze.<sup>58</sup>

Paste and Temper: the paste is a relatively coarse clay with evidence of pyrite, micaceous flecks and particles of volcanic glass which may be temper but could possibly be natural inclusions.

Firing: fully reduced, uniform color through the paste.

Surface Finish: well finished, uniformly smooth, upper surface and part of lower surface covered with a thin, watery, yellow glaze.

Decoration: painted linear decoration around the upper rim.

Form: small, flat bottomed dish.

Dimensions: known only from six sherds, all possibly from the same shallow dish.<sup>59</sup>

#### Comments:

Fragmentary sherds of Middle Eastern glazed earthenware appear in the Pengkalang Bujang and Takuapa assemblages and are also known from

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<sup>58</sup>Miksic, "Archaeology," p. 189.

<sup>59</sup>Ibid.

Java. Two or more distinct types appear to exist but are inadequately defined. Pengkalan Bujang finds include large quantities of sherds with a chalky paste and a thin, green glaze.<sup>60</sup> Keall has identified a fragment with a coarse reddish yellow paste and a thin, watery yellow glaze with painted linear decoration as a product of the Persian Gulf area<sup>61</sup> (Plate 55). Small fragments of a chalky white paste glazed with a thin coating of azure blue found at Kota Cina, the nearby site of Tanjong Enom<sup>62</sup> and Pengkalan Bujang<sup>63</sup> are almost certainly fragments of Middle Eastern ware with a faience-like glaze. More work is required to make positive identification of these sherds.

#### Summary

Glazed Middle Eastern ceramic wares found their way into Southeast Asia, but, as Lamb suggested, would have been at a physical and economic disadvantage compared with the more robust Chinese wares. Further research may lead to the identification of specific wares and kiln sites.

#### 4.2.1.3 Painted Buff Ware

A sturdy, utilitarian ware formed on a fast wheel, known at present from a single rimsherd decorated with a band of red around the outer edge of the lip painted over a pinkish buff slip. The paste is much coarser and more friable than "Fine Paste Ware."

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<sup>60</sup>Othman bin Mohammad Yatim, personal communication.

<sup>61</sup>E. Keall, personal communication.

<sup>62</sup>Miksic, "Archaeology," pp. 237-42.

<sup>63</sup>Lamb, "Research," p. 26.

Paste and Temper: medium paste, brown in color (7YR 5/4), tempered with quartz sand, laterite, calcite and possibly organic matter. There is no trace of the volcanic glass so common among many of the low fired earthenware produced by the paddle and anvil technique.

Firing: complete oxidation.

Surface Finish: presence of a pink (7YR 7/4) slip requires verification by refiring. The slip appears on both the interior and exterior surfaces, otherwise smooth with distinct traces of wheel marks.

Decoration: a horizontal band of red (7YR 5/6) around the tapered rim of the vessel.

Form: uncertain.

Dimensions: unknown, but the mouth of the vessel is approximately 25 cm in diameter.

Comments:

A provisional type, possibly a copy of the painted variety of "Fine Paste Ware" but with a much coarser paste. The absence of volcanic glass in the paste suggests that it was not made locally.

#### 4.2.2 Pottery Made by the Paddle and Anvil Technique

Under the heading of "Common Earthenware," Miksic has described two major types of low-fired earthenware at Kota Cina but noted that "there is a wide degree of variation within these" and suggests that future research might enable such features as quantity or coarseness of temper to be linked



to specific design motifs.<sup>64</sup> His two types, "Kota Cina sand-tempered" and "Kota Cina shell-tempered" comprise about two-thirds and one-third respectively of the "common earthenware."

Pots in the first group are very similar in form to the most common vessels at Arikamedu on the Mabar coast of southeastern India, a site which dates back to the early first millennium A.D.<sup>65</sup> Unfortunately, very little work has yet been done on the closely related and contemporary site of Pengkalan Bujang in Kedah which has yielded close parallels to some of the Kota Cina material. Leong's analysis of sherds from her own and Lamb's excavations show that the Kedah ceramics bear strong affinities to the earthenwares and high fired wares found at Kota Cina. Tanjong Kubur, Sarawak has yielded somewhat similar earthenware.<sup>66</sup> Low-fired earthenware from southern China may also bear a close relation to some of the Kota Cina earthenware.<sup>67</sup>

#### 4.2.2.1 Red-slipped Ware

Red-slipped sherds resembling first and early second millennium south Indian and Sinhalese cooking vessels can be divided into two major varieties, both tempered with quartz sand. The paste does not, however, include the volcanic glass which is found in other Kota Cina earthenware. This is a utilitarian, smooth finished red-slipped ware with a relatively gritty, coarse

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<sup>64</sup>Miksic, "Archaeology," p. 189.

<sup>65</sup>R. E. M. Wheeler, A. Ghosh and Krishna Deva, "Arikamedu: An Indo-Roman Trading Station on the East Coast of India," AI, 2 (1946), pp. 17-124.

<sup>66</sup>Solheim, "Tanjong Kubor," pp. 52-53.

<sup>67</sup>Miksic, "Archaeology," p. 195.

paste, with well formed rims made on a wheel and the bodies finished by paddle and anvil technique (Figure 12).

**Paste and Temper:** a medium clay containing relatively coarse quartz sand as temper. Temper may also include laterite or small particles of potsherd, though this latter medium is uncommon.

**Firing:** oxidation is variable, the paste often exhibiting a dark core (2.5 YR 2.5/0), in some cases the body appears completely reduced except for a thin line of carbon under the red slip.

**Surface Finish:** exterior slipped, interior partially slipped (within the mouth), otherwise unslipped where the remaining surface is a uniform brown or red brown, dependent upon the color of the paste (2.5 YR range). Rims everted, plain or carinated.

**Decoration:**

- a) plain, undecorated.
- b) distinctive, incised, curvilinear script-like decoration, reminiscent of Pallava or Old Malay lettering, in continuous lines or segmented panels below the lip of the vessel; also concentric bands of incised patterns.

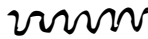
**Form:**

- a) large jars and spherical pots with plain or everted rims and shallow, wide-mouthed shallow bowls with carinated rim flanges
- b) spherical pots with plain, everted rims.
- c) kendis.

- Dimensions:
- a) Bowls: D. 15 to 24 cm, H. 5 to 10 cm (Figure 14).
  - b) unknown.
  - c) none reconstructed.

Comments:

This is a firmly established type, though additional research may lead to further modification of the above varieties.

The plain rim variety with incised letter-like body decoration is rare in a Southeast Asian context, one sherd with an incised letter "ya" is known from northeast Thailand.<sup>68</sup> Miksic considered the decoration to be "Old Malay or Pallava script letters,"<sup>69</sup> but on the other hand it may be a purely decorative device made by someone who was obviously familiar with south Indian script. Although individual parts of the design may represent letters, the continuous curvilinear design  cannot be taken as lettering (Plate 56).

The carinated rim variety appear to be mainly wide-mouthed pots suitable for the preparation of rice (Figure 13). Both plain and carinated rim varieties included various specimens with black discoloration on their bottoms, due to smudging in the firing process. Some specimens were recovered with soot and other carbonized material actually adhering to their surfaces.

The well formed rims were clearly made on a wheel. Whether the wheel was of the slow variety, normally used in the production of Sumatran pottery, or whether the process involved a fast wheel, with the body of the

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<sup>68</sup>Ibid., p. 192.

<sup>69</sup>Ibid.

pot being finished by the paddle and anvil technique peculiar to south Indian practice, it is not yet possible to say. Most vessels are carinated with flanges projecting outwards two to four centimeters from the inner lips. Interior surfaces below the rim display numerous small indentations where a stone was held against the inner surface while the exterior was beaten with a plain wooden paddle.<sup>70</sup>

In Sri Lanka, cooking vessels of this type are known as kunḍahaṭṭiya, where they are described as a vessel:

that has a wider mouth than the hāliya and is shallower . . . generally used for the boiling of rice and yams, and in the preparation of māllum or preparation of edible leaves that have been minced. The advantage of using this vessel is that the contents can be more readily stirred than in a muttiya. The kiri haṭṭiya or curd-pot is also a term that is commonly used.<sup>71</sup>

Lamb describes some of the earthenware from Pengkalan Bujang as "rims of shallow cooking bowls of a type still widely used in Malaya and in India. The rims, the only easily recognisable portions which survived, were decorated with a variety of billet designs and concentric circles."<sup>72</sup>

The links between the carinated rim pots of Kota Cina with forms common to south India and Sri Lanka appear to be more than coincidental, considering that the site has other unmistakable cultural links with that area in the form of Cōḷa statuary and late twelfth and early thirteenth century coins from Sri Lanka. Kendi forms also appear to relate to South India (Figures 15, 16).

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<sup>70</sup>Ibid., p. 190.

<sup>71</sup>U. A. Gunasekera, P. L. Prematillake, and R. Silva, "A Corpus of Pottery Forms Found in Ceylon," Ancient Ceylon, 1 (1972), pp. 166-92.

<sup>72</sup>Lamb, "Research," p. 25.

Comparable or Related Finds:

1. Arikamedu, Tamilnadu, South India

The close resemblance between the pottery of Arikamedu and Kota Cina has already been noted by Miksic.<sup>73</sup> Those vessels which bear the closest relation to profiles of the Kota Cina carinated rim forms come from both the Early Phase of the Southern Sector at Arikamedu and from disturbed areas (e.g., Types 126a, 127, 127a). Another closely related form (Type 123) bears a decoration consisting of bands of stamped concentric circles and incised oblique strokes which appears on a red slipped vessel at Kota Cina. This is also from a disturbed sector in which brick robbers had been active. Fragments of Chinese green glazed (celadon) wares of the ninth to twelfth centuries were found mixed with low-fired sherds of both earlier and later periods in such areas. The possibility exists, therefore, that not all of the pottery can be dated to the earlier period but that some of the forms are later, or at least continued in use until a much later date than the Early Phase.

In the Southern Sector, occupation is thought to have begun later and lasted longer than in the Northern Sector. This occupation is characterized by a "crude type of pottery overwhelmingly red in colour" which was predominant over other forms. It is dated from the mid first to the second century A.D. and later.<sup>74</sup>

Mahalingam mentions the existence of a south Indian "coarse red ware" thought to date from about 900 until 1500 A.D. but lack of published data limits what can be ascertained about its relationship to the Kota Cina red

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<sup>73</sup>Miksic, "Archaeology," p. 191.

<sup>74</sup>Wheeler et al., "Arikamedu," pp. 50-51.

slipped ware. In south India, both slipped and unslipped varieties of "coarse red ware" were produced from "impure clay," the surface was rough and not uniformly fired. The commonest shapes are bowls with a broad, truncated bottom and both incised and impressed patterns are found on this ware.<sup>75</sup>

It is apparent that most of the features of south Indian "coarse red ware" could be applied to the Kota Cina "red slipped ware," but actual physical comparison is required before any definitive statement can be made about similarities. It is also of interest to note that laterite is present in south Indian pot making earths.<sup>76</sup>

## 2. Mahatiṭṭa, Mantai, Sri Lanka

During a brief visit to the important first millennium port site of Mahatiṭṭa, near Mantai in northwest Sri Lanka in 1980, I was able to discover on the surface a few sherds that resemble closely the Kota Cina red slipped ware. The similarity is quite striking.

Hopefully, excavation at Mantai is to be undertaken by John Carswell of the Oriental Institute, Chicago. It will be useful to make comparisons with the pottery from the upper levels of this site when they are published.

## 3. Pengkalan Bujang, Kedah, West Malaysia

Leong's analysis of ceramic materials from this site indicates some close parallels with the Kota Cina material. "Among the most common earthenware vessel forms found are those of medium sized wide mouth

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<sup>75</sup>T. V. Mahalingam, "Ceramic Industries in South India," in Potteries in Ancient India, ed. B. P. Sinha (Patna: Patna University Department of Ancient History and Archaeology, 1969), pp. 224-28.

<sup>76</sup>S. K. Mirmira, Indian Pottery (Bombay: Vora, 1973), pp. 9-11.

shallow cooking pots with convex bases. Rims of these shallow cooking vessels . . . have been earlier noted by Lamb."<sup>77</sup>

#### Summary

Lack of published material from South Indian and Southeast Asian sites limits what can be said about "red slipped ware." It would, however, be useful to make detailed physical and quantitative comparisons with southern Indian and Sinhalese assemblages, as well as with what are probably related types at Pengkalan Bujang. Such a comparative study takes on added interest when considered in the light of the ancient Indian custom of throwing away all the pots in a household on the occasion of an eclipse, or the death of a relative.<sup>78</sup>

#### 4.2.2.2 Coarse Red Ware

Coarse, reddish colored sherds with a paste containing haematite, probably as a natural inclusion, and tempered with quartz sand. Probably, but not certainly produced on a slow wheel assisted by paddle and anvil technique.

Paste and Temper: a medium clay containing quartz sand as temper with haematite, probably as a natural inclusion.

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<sup>77</sup>Leong, "A Study of Ceramic Deposits," p. 221. Stargardt's remark that "discussions with Dr. B. K. Thapar . . . led to the conclusion that these (Kedah red) wares did not relate directly to any Indian prototype" ("Influences," p. 290) may be misleading. They do not appear to relate to any of the "classical" Indian wares. The Southern Coarse Ware described by Mahalingam has been insufficiently studied and not published in any detail so that it, in particular, cannot be ruled out as a possible prototype for the Kedah wares.

<sup>78</sup>S. Playne, Southern India: Its History, People, Commerce and Industrial Resources (London: Foreign and Colonial Compiling and Publishing Company, 1914-15), p. 634.

- Oxidation: variable, but generally reddish to dark reddish brown (5YR 4/4, 3/4).
- Surface Finish: smooth, unslipped uniform brown color (5YR range).
- Decoration: concentric rings impressed on the body below the rims, which are either slightly everted or rounded.
- Form: no reconstructed vessels, but necks are very short with both rounded and everted rims. The curvature of the body below the rim indicates a closed type of vessel of jar-like form.
- Dimensions: curvature of rim sherds indicates a mouth diameter of about 20 cm, the diameter of the body is presumably considerably greater.

Comments:

A provisional type possibly related to the Kota Cina "Red Slipped Ware," of which it may be a plain, unslipped variety. Further research is required to verify this supposition.

#### 4.2.2.3 Red Geometric Ware

This is a utilitarian, unslipped ware made by the paddle and anvil technique assisted by a slow wheel. The exterior usually exhibits a single design produced by impressing with a carved wooden paddle. Occasionally the design is a combination of two different patterns, indicating that two paddles were used. The carved paddle impressions are found over the entire body except for the short neck and plain rim. The designs are often indistinct as repeated beating has tended to obscure the basic pattern.



- Paste and Temper: a medium clay variously containing fine to relatively coarse quartz sand which may be temper. Calcite, haematite, mica and volcanic glass are also present.
- Firing: oxidation is variable, the paste often exhibiting a dark core; there is no correlation between the color of the core and body color, which is very variable.
- Surface Finish: both exterior and interior surfaces unslipped, the whole of the exterior, except for the short neck and rim is carved paddle-impressed, the interior surface exhibits small indentations due to the use of a stone anvil during the paddling process.
- Decoration: various designs applied with a decorated (carved) wooden paddle (see design descriptions) (Plates 57-62).
- Form: round bottomed, spherical pots with short, plain everted rims (Figure 17) or round bottomed vessels with sloping shoulders set at an angle to the lower part of the body, described by the Kota Cina Malays as "priok" (cooking pot).
- Dimensions: one reconstructed vessel diameter 160 mm, height 135 mm, body thickness 2 to 6 mm (Figure 18, Plate 57).

Note: remains of simple, circular "pot stands" made of this paste and perhaps used as supports for round bottomed pots when placed on the floor were recovered at Location 1. Rotan rings used by the Karo for a similar purpose were called kerpe, Malay, lekar.<sup>79</sup>

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<sup>79</sup>Neumann, Karo-Bataks Nederlands Woordenboek, p. 150; "een v. rotan gevlochten ring waarop men de kookpot plaatst," Wilkinson, Dictionary, p. 670. For a discussion on "pot rings," see J. Lowenstein, "Hollow Clay

## Comments:

Solheim, writing in 1964, defined three pottery traditions in Southeast Asia which he defined on the basis of shared decorative motifs and vessel forms from the type-sites of Sa-huynh-Kalanay (Vietnam and the Philippines), Bau-Malay (Sarawak, West Malaysia) and Novaliches (Philippines).<sup>80</sup> A large part of both the sand-tempered earthenware and the white (slipped) earthenware from Kota Cina appears, however, to be related directly to the South Chinese Geometric ware which Solheim considered to be an ancestor of the Bau-Malay tradition. If, as I suspect, a sizeable proportion of the population of Kota Cina was of south Chinese origin, and indeed from that same part of South China which has yielded the "Geometric" ware, it would not be surprising to find direct traditional Chinese influence upon the locally made utilitarian earthenware of the Kota Cina site. It is impossible to judge at present where the "South Chinese Geometric" influence ends and the influence of the Bau-Malay tradition begins. It is most difficult to determine whether the "South Chinese Geometric" and the Bau-Malay are, in fact, different ceramic traditions. Both incised and paddlemarked earthenware are known from south China from the neolithic period (2000 B.C.) onwards.<sup>81</sup> There is not, as yet, any precise information regarding the

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Stands and Censers from Neolithic Malaya, and Their Western Prototypes," *JMBRAS*, 33, no. 1 (1959), pp. 168-96, who suggests that the Malay pottery lekar is of Indian origin. Admittedly, both in Malaya and Sumatra, the clay "pot ring" is to be found in areas that have "Indian" connections. But the idea of a ring upon which to seat a round bottomed pot is so basic that such an invention may be considered as a spontaneous development in many areas.

<sup>80</sup>W. G. Solheim, "Pottery and the Malayo-Polynesians," *Current Anthropology*, 5, no. 5 (1964), pp. 360, 376-84. The "Bau-Malay" tradition was first identified at Bau in Sarawak by Harrison and Tweedie in 1951. See T. Harrison and M. W. F. Tweedie, "Excavation of Gua Bungoh in Southwest Sarawak," *Journal of Philippine Studies*, 60 (1951), pp. 164-86.

<sup>81</sup>For a discussion on the South Chinese Geometric ware, see R.

period when this tradition finally came to an end in south China itself. But it appears plausible that low-fired pottery continued in use for utilitarian purposes. The Kota Cina "Geometric" ware may therefore be seen as a continuation of this unbroken tradition transported (perhaps with the increased arrival of Chinese shipping) into Southeast Asia at the beginning of the second millennium A.D. Data from other Southeast Asian sites, particularly those with "Chinese" associations, may help to resolve this question.

#### Geometric Design Elements

These designs fit into the context of what Solheim has called the Bau-Malay tradition, of which he notes the distribution "is pre-historic, historic and contemporary, and has a wide distribution in south China and Southeast Asia."<sup>82</sup> It is possible to discern two major design elements in the paddle-marked patterns, (a) designs based on straight line or rectangular or lozenge patterns and (b) those which are curvilinear designs. These design elements normally occur on separate vessels. There are however instances where both rectangular and curvilinear designs occur on the same vessel, or where a design comprises both straight lines and curvilinear elements. On south Chinese wares, a combination of two separate designs is quite common.

There is, however, one south Chinese "Geometric" design which is conspicuous by its absence at Kota Cina. This is the characteristic "double f" pattern described by Finn.<sup>83</sup>

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Maglioni, "Archaeology in South China," JEAS, 2, no. 1 (1952), pp. 1-20, plates 1-9.

<sup>82</sup>Solheim, "Pottery," p. 377.

<sup>83</sup>D. J. Finn, Archaeological Finds on Lama Island, Hong Kong (Hong Kong: Ricce, 1958).

The following analysis classifies the design elements under three main natural categories:

- a) straight-line or rectangular patterns
- b) curvilinear patterns
- c) combined curvilinear and straight-line patterns

It is not known at present what proportion numerically the different design elements make up to the total of paddlemarked sherds as no sherd count has yet been carried out.

#### a) Straight-line Design Elements

##### 1. Diagonal Straight-line Design

A simple straight-line pattern between single or double parallel borders, applied vertically or diagonally to the body of the vessel (Figure 19).

##### 2. Chevron or Fishbone Pattern

Also called the "pine tree" or "herringbone" pattern by Solheim<sup>84</sup> and "leaf vein" pattern by the Chinese.<sup>85</sup> This is a basic chevron design, sometimes found with a single ridge running down the center of the design or bordered by parallel lines. There are several variants on a basic design (Figure 19).

##### 3. Triangular Pattern

A series of "banded" triangles within parallel lines (Figures 19, 20, and 21).

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<sup>84</sup>Solheim, "Tanjong Kubor," p. 8.

<sup>85</sup>Kiangsi Provincial Museum, "A Note on the Pringing Designs with Geometric Patterns on Ceramics Unearthed in the Kiangsi Region" (in Chinese), Wen Wu, 9 (1977), pp. 40-57.

#### 4. Rectangular or Square Pattern

Small, plain squares and variations on a basic theme such as a simple diagonal cross within a square or rectangle. There are also alternate plain and crossed rectangles (Figure 21).

#### 5. Lozenge Pattern

Basically a lozenge surrounded by one or more larger lozenges and bordered by triangles (half lozenges) (Figure 20).

#### 6. Meander Pattern

This appears as both a rectilinear and a curvilinear form. In its rectilinear form it appears with another curvilinear design on the same sherd (Figure 19). The origins of this design go back to the Chinese Neolithic period and it is a common border design on later Chinese glazed ceramics where it is known as the "key fret" or "thunder cloud" pattern.<sup>86</sup>

#### 7. Miscellaneous Patterns

A few designs are indistinct but may possibly be identified from better preserved sherds. Others are extremely complex combinations of angular shapes which often defy description (Figure 20). These sherds are, for the time being, grouped under the heading of "miscellaneous" until such times as further specimens can be examined.

#### 8. "Mi" or Rice-grain Pattern

One distinctively Chinese pattern is the "Mi" or Rice-grain pattern

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<sup>86</sup>In later design it is basically used as a band or filler.

known from pottery of the Chinese bronze age, which is a development of the cross within a square (Figure 19).<sup>87</sup>

#### b) Curvilinear Design Elements

##### 1. Split Oval or "Cowrie" Pattern

Another design found in the Chinese neolithic.<sup>88</sup> It consists of two semicircles or ellipses with their straight sides facing each other and a number of curved parallel lines (ellipses) radiating from the outer edges (Figure 19).

##### 2. Whirlpool Pattern

This consists of a spiral or "whirlpool" pattern and is yet another example of a design found on early Chinese pottery (Figure 19).

##### 3. Miscellaneous Patterns

As with the indistinct rectilinear designs there are a number of curvilinear patterns which are temporarily grouped under the general heading of "miscellaneous" (Figure 21).

#### c) Combined Curvilinear and Straight-line Elements

##### 1. Spiral and Chevron Pattern

This as its name suggests is a combination of spirals (whirlpools) and chevrons (Figure 19).

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<sup>87</sup>Kiangsi, "Note," p. 57.

<sup>88</sup>J. G. Andersson, Children of the Yellow Earth (London: Kegan Paul, 1934).

## 2. Elliptical and Parallel Line Pattern

Similar to the Diagonal Straight-line Pattern, it comprises short curved lines bounded by parallel straight lines at either end (Figure 20).

In analyzing these design elements, it is clear that certain patterns are associated with different pastes and these are discussed under their appropriate headings. Thus not all these patterns are associated with the Kota Cina "Red Geometric Ware." The descriptions given in excavation reports are often inadequate to make specific comparisons. Therefore, a brief discussion on comparable or related finds is given here.

### Comparable or Related Finds

The patterns found on "geometric" impressed pottery at Kota Cina are comparable to simple paddle-impressed patterns from several other sites. Gibson Hill in discussing earthenware from the sixteenth to seventeenth century site of Johor Lama illustrates "Han" period sherds from China and Vietnam and it is interesting to note that some of the more complex Chinese designs resemble designs from Kota Cina more closely than those from Johor.<sup>89</sup>

### 1. South China

The close resemblance between design elements appearing in south Chinese pottery design has already been noted.<sup>90</sup>

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<sup>89</sup>Miksic, "Archaeology," p. 195. See also C. A. Gibson Hill; "Johore Lama and Other Ancient Sites on the Johore River," JMBRAS, 28, no. 2 (1955), pp. 127-97.

<sup>90</sup>On South Chinese earthenware, see W. Schofield, "A Proto-historic Site at Shek Pek, Lantau Island, Hong Kong," in Proceedings, pp. 235-305. See also: Maglioni, "Archaeology in South China"; Finn,  Finds on Lama Island; S. G. Davis and M. Tregear, "Man Kok Tsui, Archaeological Site 30, Lantau Island Hong Kong," Asian Perspectives, 4 (1960), pp. 183-212; and Kiangsi, "Note," pp. 40-57.

## 2. Taiwan

Chang illustrates examples of related designs from excavations in Taiwan which date to about 3000 B.C.<sup>91</sup>

## 3. Tanjong Kubor, Sarawak, East Malaysia

Tanjong Kubor, described as a ninth to tenth century site, yielded 26,500 sherds (79%) with impressed paddle decoration out of a grand total of 33,500 sherds. Unfortunately no distinction was made between cord-wrapped and paddlemarked sherds so that no direct quantitative comparison can be made.<sup>92</sup>

## 4. Satingphra, South Thailand

Lamb noted that earthenware from Satingphra was "very similar" to stamped or paddlemarked earthenware common in the Johor river sites of the southern Malay peninsula.<sup>93</sup>

## 5. Other Southeast Asian Sites

Although similar paddlemarked pottery has been published from sites in the Johor river area, these sites are generally later than Kota Cina and do not necessarily afford direct comparison. Great changes had taken place in the Straits of Malacca between the fourteenth century and the occupation of the Johor sites in the late fifteenth and sixteenth centuries. Increasing conversions to Islam and the coming of the Portuguese had a significant

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<sup>91</sup>Kwang Chih Chang, Fengpitou, Tapengkeng and the Prehistory of Taiwan, Department of Anthropology Publications No. 73 (New Haven, Conn.: Yale University, 1969).

<sup>92</sup>Solheim, "Tanjong Kubor," p. 37.

<sup>93</sup>Lamb, "Notes on Satingphra," pp. 74-87.



effect on life in the area. The unavailability of published material from contemporary sites makes useful comparisons extremely difficult.

### Summary

With the acknowledged Chinese penchant for archaism, the remains at Kota Cina may be more of an indication of direct links with south China than a purely Southeast Asian example of tenacity in earthenware decoration. To resolve this question, more data is required for the period bridging the centuries between the development of Bau-Malay and the sixteenth century, by which time the art of local pottery making suffered due to increasing availability of inexpensive Chinese stonewares. The Kota Cina "Red Geometric" may be regarded as a firmly established type in the Deli region during the twelfth to fourteenth centuries.

#### 4.2.2.4 Fine Bodied White Ware

An unslipped, utilitarian ware with geometric decoration.

Paste and Temper: a fine to medium paste containing traces of volcanic glass and haematite, lightly tempered with medium quartz sand which appears as gray or brown spots in the paste. There are also traces of a yellowish band of inclusions at one point in the body of the single sherd identified to date.

Firing: oxidation complete.

Surface Finish: plain, unslipped (10YR 8/1) white.

Decoration: impressed paddle mark with a geometric (triangular) motif.

Form: uncertain, probably globular cooking pots.  
 Dimensions: unknown, insufficient material. Body 6 mm thick.

Comments:

A provisional type. White earths which could possibly give rise to this type of paste, are found in the paya soils of the alluvial coastal plain or associated with hot sulphurous springs at various places in the hinterland of the east coast of Sumatra, such as that at Tinggi Raja in Serdang,<sup>94</sup> and on a tributary of the Sungei Wampu (Lau Biang) above Bohorok in Langkat. The geometric design is coarser than that on the White Ware to which it may be related.

4.2.2.5 Black Ware

A coarse, heavy-bodied, utilitarian ware made by the paddle and anvil technique. Decorated with either incised or impressed decorations.

Paste and Temper: a coarse dark gray (5Y 4/1) paste containing volcanic glass and traces of haematite and mica and tempered with medium quartz sand.

Firing: the exterior surface and sometimes the interior surface smudged. Firing tests will be required to ascertain whether this ware was fired in an oxidizing or a reducing atmosphere. The likelihood exists that the open firing conditions traditionally employed in Sumatra resulted in partially oxidizing conditions.

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<sup>94</sup>V. Dersjant, "Het kalksintercomplex Dolok Tinggiradja (Sumatra's Oostkust)," Jaarverslag van den Topografisch Dienst (1936).

Surface Finish: smooth black surface on the exterior, small indentations due to the use of a stone anvil visible on the interior.

Decoration:

- a) plain, burnished.
- b) impressed geometric paddlemarked decoration, chevron or fishbone pattern applied horizontally to the vessel (Plate 63). One sherd displays traces of the impressions of a woven tikar or pandanus matting on one surface.
- c) spiral pattern incised with a fine pointed instrument.

Form:

- a) kendis.
- b) globular cooking pots.
- c) uncertain.

Dimensions:

- a) diameter 18 to 30 cm, height 11 cm.
- b) uncertain.
- c) uncertain.

Comments:

A provisional type but quite distinct from the majority of the Kota Cina earthenware sherd material. A kendi of the undecorated burnished variety (Figure 22) was recovered by excavation from a disturbed level at Location 1 and therefore may or may not be contemporary with the rest of the material. A flat sherd with the impression of pandanus matting on one surface has an accumulation of resinous material on the opposite surface.

#### 4.2.2.6 Sand-tempered Gray Ware

A grayish, unslipped utilitarian ware made by the paddle and anvil technique assisted by a slow wheel or simply fashioned by hand from small

lumps of clay, comprising cooking pots, bowls, kendis, lamps and small crucibles.

Paste and Temper: fine, yellowish gray paste (10YR 8/2, 6/2), containing visible amounts of volcanic glass, tempered with medium quartz sand. Surface may exhibit a pinkish tinge (7YR 7/4, 6/4).

Firing: oxidation often incomplete, dark core (10YR 3/1), very dark gray.

Surface Finish: a) smooth, unslipped, plain and undecorated, sometimes with signs of having been wiped over with a cloth or leaf.  
b) impressed geometric paddlemarked designed, including both linear (fishbone and rectangular patterns with a simple cross) and curvilinear designs (Plate 64).

Form: globular pots, bowls (Figure 23), kendis, lamps and small crucible (Figures 24, 25).

Dimensions: variable: crucibles diameter 4 to 7 cm, height 1 to 2.5 cm; lamps diameter 10 to 11 cm, height 5 cm. Pot lid diameter 16 cm, indicating a vessel of somewhat greater diameter.

Comments:

An established type. Small objects of this ware are very common both as surface finds and in excavation at Kota Cina. They were presumably made on the spot with clay from a local source without any particularly

thorough preparation. Small crucibles, similar to those described above, are still used by Southeast Asian goldsmiths, and a green stain in the bottom of one of the Kota Cina "crucibles" was provisionally identified by an Indonesian goldsmith as "the result of the use of borax as a flux during the melting of gold."<sup>95</sup> No laboratory analysis has yet been performed to confirm this hypothesis.

#### 4.2.2.7 White Ware

A coarse bodied, utilitarian ware made by the paddle and anvil technique assisted by a slow wheel. There are both vessels with a plain, smooth finish and those with paddle impressed geometric designs. Some vessels appear to have a white or pinkish white slip over the grayish colored paste. Other vessels may or may not be slipped, or are possibly "self-slipped" due to a fine kaolin element in the clay used.

Paste and Temper: coarse, grayish colored paste (5YR 7/1, 6/1) containing flecks of mica and significant amounts of ferruginous matter visible as specks on the surface. Broken surfaces appear "flakey" possibly due to the use of crushed shell temper.

Firing: oxidation is incomplete in thicker sherds, dark core (5YR 4/1).

Surface Finish: variable; it may or may not be covered in a white slip-like coating which may display a pinkish tinge (5YR 7/4). Where the slip is worn or absent the surface is

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<sup>95</sup>Miksic, "Archaeology," p. 208.

rough, the quartz sand of the temper tends to show through the slip-like coating creating an "oatmeal" effect. Inner surfaces of body sherds display small indentations due to the use of a stone anvil.

Decoration:

- a) plain.
- b) body paddlemarked with mainly rectangular geometric designs (Plate 65) (three of the twelve different designs have curvilinear elements) (Plate 66), rims are plain and undecorated.

Form:

- a) bucket-shaped stoves.
- b) heavy, basin-like vessels.
- c) globular pots, or pots with shoulders set at an angle to the lower, rounded part of the body.
- d) incense burners.

Dimensions:

- a) no reconstructions.
- b) basins, diameter approximately 350 mm.
- c) pots, mouthrims range from about 100 to 220 mm.  
Rims are sturdily made (4 to 6 mm), but body sherds may exhibit a remarkable degree of fineness, being only 1 to 2 mm thick (Figure 26).
- d) incense burner (Figure 27).

Comments:

An established type. The paste is unusual in the context of the Kota Cina assemblage as potsherds have been used as temper. The base of paddlemarked vessels has been compacted to only 1 to 2 mm thickness, a

characteristic which may be possible to the kaolin property the clay used.<sup>96</sup> The white clay of this of earthenware presumably originates from the white paya soils of the swamps of the alluvial coastal plain. Further research into the geological composition of the pottery is required before it can be related to any specific source.

#### 4.2.2.8 Brittle Impressed Gray Ware

A heavy, unslipped gray colored ware which is "brittle" to the touch, made by the paddle and anvil technique. The exterior exhibits a distinctive type of impressed paddlemark technique.

Paste and Temper: a medium clay tempered with quartz sand, containing volcanic glass, mica and haematite as natural inclusions.

Firing: oxidation is variable, the color of the paste varying from light to dark brown (10YR 5/6, 3/2), some smudging.

Surface Finish: both interior and exterior unslipped, indentations due to the use of a stone anvil visible on the interior surface, distinctive carved paddle marks on the exterior. Brittle to the touch.

Form: round bottomed cooking pots.

Dimensions: unknown, no reconstructed vessels but curvature of the sherds indicates that vessels are quite large, probably over 30 cm diameter.

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<sup>96</sup> Ibid., p. 193, where it is discussed as the "White-slipped variety."

## Comments:

A provisional type differing in both paste and potting from other paddlemarked sherds. The distinctive type of decoration (Plates 67, 68) relates closely to that found on impressed paddlemarked sherds at Kota Rentang (Plate 69), a site further inland and possibly later in time than Kota Cina.<sup>97</sup> This relationship suggests a local development in decorative techniques quite distinct from the more orderly "geometric" designs of other Kota Cina paddlemarked sherds.

4.2.2.9 Shell-tempered Gray Ware

A coarse, grayish colored utilitarian ware apparently limited to ceramic "platform hearths," variations of which are still in use in riverine and coastal settlements of Southeast Asia up to the present time.<sup>98</sup>

Paste and Temper: coarse, flakey gray (10YR 8/1) paste indicative of the use of crushed shell as temper. The paste also contains quartz sand and occasionally traces of haematite.

Firing: oxidation is variable, a dark core (10YR 5/2) is present in some instances.

Surface Finish: upper surface smoothed, lower surface roughly scraped.

Decoration: none, plain and undecorated.

Form: rectangular platform with broad, raised, rounded rim with three or possibly four triangular supports on the

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<sup>97</sup>For this and other sites investigated in the Kota Cina area, see Milner et al., "Aru and Kota Cina," p. 29.

<sup>98</sup>Miksic, "Archaeology," p. 198, where it is discussed under "Shell tempered vessels."



longer sides upon which a cooking vessel could be placed. The underside is flat.

Dimensions: no complete reconstructions but the "hearth" was approximately 25 to 30 cm wide and 40 to 50 cm in length; the body 1 to 2 cm thick with the rounded rim raised 1 to 2 cm above the level of the flat body.

Comments:

An established type. Stoves or "platform hearths" are still in use up to the present time in Sumatran coastal villages where they may be seen at Upang and Sungsang on the lower reaches of the Musi river. According to informants, the hearths currently found in the Palembang area are produced at Tanah Abang, some two hundred kilometers upstream at the confluence of the Musi and the Lematang. In the Philippines earthenware hearths were common until recently in Mindanao and the islands of the Sulu archipelago where they are believed to have derived from Chinese sources.<sup>99</sup> Spoehr illustrates what he calls "Pilar Plain Gray fragments of (a) large tray" which is very similar to the Kota Cina hearths.<sup>100</sup>

Comparable or Related Finds

Fort Pilar, Zamboanga, Mindanao, Philippines

The only reference that I have been able to trace of a similar artifact to the Kota Cina hearths is from Fort Pilar, Zamboanga, where similar

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<sup>99</sup> A. Spoehr, Zamboanga and Sulu: An Archaeological Approach to Ethnic Diversity, Ethnology Monographs No. 1 (Pittsburgh: University of Pittsburgh, 1973), p. 113.

<sup>100</sup> Ibid., Fig. 86.

objects are described as "large trays or flat-bottomed dishes." The "tray" is of "Pilar Gray" ware, which is described as:

Well compacted paste. Temper consists of a fine carbonate sand identical to that used by contemporary Samal potters. However, microscopic analysis of a small sample of sherds revealed that the temper also includes some ground shell grains showing a definite invertebrate structure. The shell grains could have been intentionally ground or have simply been part of a beach sand deposit used as a temper source.<sup>101</sup>

The Kota Cina examples would have been too heavy to have been comfortably used as trays and it seems more likely that they were in fact used as a form of hearth.

#### 4.2.2.10 Yellow-slipped Ware

A coarse bodied utilitarian ware made by the paddle and anvil technique with a (usually) distinctive yellowish surface often displaying a speckled appearance due to particles of quartz sand, mica and volcanic glass showing through the surface color, decorated with incised vertical, diagonal and elliptical lines and small impressed circles.

Paste and Temper: coarse, yellow brown paste with obvious inclusions of mica, volcanic glass and some haematite, tempered with quartz sand.

Firing: oxidation incomplete, smudging apparent on some specimens.

Surface Finish: slipped with a thin yellowish to reddish brown wash (7.5 to 10YR), variable, smooth, fine to rather coarse textured finish.

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<sup>101</sup>Ibid., p. 136.

- Decoration:** distinctive decoration comprising pairs of vertical, diagonal and elliptical incised parallel lines with small circles impressed between the lines, especially in a band surrounding the shoulder of the vessel and occasionally in the angles between the lines.
- Form:** small angular or shouldered kendis or bowls with a short, plain, slightly everted rim on the mouth of the vessel (Figure 28).
- Dimensions:** body diameter: about 180 mm, mouth about 120 to 140 mm. No reconstructions made.

**Comments:**

A provisional type, currently known from only eight rim and body sherds. Further specimens are required for examination before additional observations can be made.

4.2.2.11 Painted Gray Ware

A utilitarian ware made by the paddle and anvil technique, known only from a few sherds with a curvilinear design painted in red upon a gray-brown surface.

- Paste and Temper:** a fine to medium paste, tempered with organic matter and calcite (crushed shell?) in addition to the usual quartz sand.
- Firing:** partially oxidized, the whole core of the body remaining black in color.
- Surface Finish:** smooth gray brown surface (10 YR 6/2) broken occasionally by larger particles of temper.

Decoration: curvilinear design painted in red (7.5R 5/8) around the circumference of the body.

Form: uncertain.

Dimensions: unknown.

Comments:

A provisional type. Apart from the painted variety of "Fine Paste Ware," painted sherds are extremely rare among the Kota Cina assemblage.

#### 4.3 Summary

The foregoing analysis of low fired ceramic material at Kota Cina is only a preliminary stage in the analysis of the excavated ceramic assemblage. The identification of three types of wheel-thrown pottery and eleven different types of wheel-assisted, paddle and anvil made pottery in contemporary use should serve as a useful point of reference for other related sites of this period in Sumatra and perhaps elsewhere in Southeast Asia. The close parallels with material from Pengkalan Bujang indicate that a qualitative and quantitative comparative study between the ceramic assemblages at both sites could be most useful. This would, in turn, enhance the usefulness of these assemblages in constructing a framework for the study of ceramic development in the Malayo-Polynesian region of Southeast Asia. Such a study might also permit a reexamination of Solheim's model of three main Southeast Asian pottery traditions.

The variability in the assemblage of earthenware and imported ceramics considered in the light of other aspects of the site such as the finds of coinage and religious statuary strengthens the hypothesis that the site had a heterogeneous population. Two external cultural influences, those of

south India and south China, are discernible in the characteristics of the low fired pottery, mingling with what appear to be indigenous traits. The divisions between these cultural traits appear quite strikingly in the characteristics of the pottery.

On the basis of comparisons with one or two rim sherds from Mahatiṭṭa in Sri Lanka, it seems that the Kota Cina Red Slipped Ware bears a close resemblance to the slipped variety of South Indian Coarse Red Ware current in Tamilnadu between the ninth and fourteenth centuries. The absence of volcanic glass from the paste of this type may mean that it is an actual import from either South India or from Sri Lanka, though in what quantities it is not yet possible to determine. Indian sailors from South Indian ports are likely to have had a supply of pots on board their vessels for cooking purposes during the crossing of the Bay of Bengal. A quantitative analysis of the assemblage, clarifying the relationship of these sherds to the balance of the other types may indicate whether or not they are rare at the site. Physical comparisons with early second millennium sherds from South Indian sites will be invaluable in determining their origin.

Due to the lack of published data on earthenware, not only in Sumatra but in Southeast Asia generally, it has not been possible to make useful comparisons with other contemporary sites. The similarity between some of the paddlemark designs on some South Chinese neolithic wares and the Kota Cina Red Geometric and Fine Bodied White Wares is, however, quite striking. What exactly this means is at present difficult to ascertain. It may imply a continuation of the South Chinese neolithic tradition carried overseas by emigrant communities in the twelfth to fourteenth centuries, but not necessarily. Physical comparisons with early second millennium low-fired pottery

from South China would be extremely useful. The presence of volcanic glass in the paste of both the Red Geometric and Fine Bodied White Wares suggests a local origin for the clay. The thinness to which the body of the latter type has been taken suggests a sure knowledge of the properties of clay and considerable skill in potting.

Kota Cina Earthenware (Summary)Wheel Made Types

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|-------------------------------|---|
| 1. Fine Paste Ware            | Plain variety<br>Slipped variety<br>Painted variety<br>Incised (sgraffiato) variety<br>Ribbed variety |
| 2. Yellow Glazed Persian Ware | Glazed variety  |
| 3. Painted Buff Ware          | Painted variety   |

Wheel-assisted Paddle and Anvil Types

- |                                |  |
|--------------------------------|--|
| 1. Red Slipped Ware            | Plain variety<br>Incised variety                                   |
| 2. Coarse Red Ware             | Plain rim variety  |
| 3. Red Geometric Ware          | Plain rim variety<br>Burnished rim variety                         |
| 4. Fine-bodied White Ware      | Paddlemarked variety   |
| 5. Black Ware                  | Plain burnished variety<br>Paddlemarked variety<br>Incised variety |
| 6. Shell-tempered Gray Ware    | Plain variety<br>Paddlemarked variety                              |
| 7. White Ware                  | Plain variety<br>Paddlemarked variety                              |
| 8. Brittle Impressed Gray Ware | Paddlemarked variety   |
| 9. Shell-tempered Gray Ware    | Plain variety  |
| 10. Yellow-slipped Ware        | Incised variety  |
| 11. Painted Gray Ware          | Painted variety  |

## CHAPTER 5

### HIGH FIRED CERAMICS: PORCELAIN AND STONEWARE

#### 5.1 Introduction

By about the fourth century B.C., Chinese potters had already discovered the technique of using sustained and controlled high temperatures to produce high fired glazes. This discovery was to lead, eventually, to the development of large-scale production of vitrified stonewares and, later, to porcelain.<sup>1</sup>

The fortuitous occurrence in many parts of China of a fine, non-plastic clay of decomposed felspar known as goalintu (kaolin) and of baidunzi (petuntse), a refined non-plastic feldspathic material derived from weathered granite which is combined with kaolin to lower its melting point,<sup>2</sup> created a circumstance that enabled Chinese potters to develop a ceramic technology which surpassed anything known in the west until the seventeenth century.<sup>3</sup> In Chinese, the term tao is used for pottery in general and for low fired

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<sup>1</sup>M. Medley, The Chinese Potter: A Practical History of Chinese Ceramics (Oxford: Phaidon, 1976), p. 12.

<sup>2</sup>The name "petuntse" is derived from baidunze, "little white bricks," referring to the clay stone which when washed and crushed was molded into small white blocks for transportation to the kilns.

<sup>3</sup>Chinese ceramic technology was closely related to that of metals. Advances in both technologies appear to have been closely interrelated, due perhaps to the use of fireclay crucibles for smelting iron. The basic design of iron furnaces and ceramic kilns have much in common. See H. Hodges, "Interaction between Metal Working and Ceramic Technologies in the T'ang Period," in Pottery and Metalwork in T'ang China: Their Chronology and External Relations, ed. W. Watson (London: Percival David Foundation, 1970), pp. 58-61.



earthenware in particular. The term ci refers specifically to high fired wares, subsuming what in Europe and the West are known as stoneware and porcelain.<sup>4</sup>

This section concerns the high fired porcelain and stoneware which were produced extensively in the kilns of South China during the Song and Yuan periods. Stonewares were also produced in the kilns of Vietnam (including the area which was once the independent state of Champa) and Thailand. Imported stoneware and porcelain make up 35% of all the ceramics excavated at Kota Cina Location 1.<sup>5</sup> It was the abundance of fragments of high-quality wares, with their technical superiority over low fired earthenware and their superior aesthetic appeal that first made me realize the potential significance of Kota Cina as a trading site of some importance.

Earthenwares are fired at temperatures usually between 800° and 1100°C with an upper limit of about 1150°C, above which they will disintegrate. Earthenware has to be glazed to make it impermeable and due to the relatively low upper firing limit, the glazes also have to be of a low fired nature.<sup>6</sup>

Stonewares are fired at between 1200°C and 1300°C, porcelains in the region of 1400°C, at which temperatures they are completely vitrified and naturally impermeable. Stoneware bodies are heavy, solid and dense whereas porcelain, being entirely vitrified, is extremely hard, resonant

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<sup>4</sup>Medley, Chinese Potter, pp. 13-14.

<sup>5</sup>Miksic, "Archaeology," p. 164.

<sup>6</sup>Lead oxide fuses at 888°C, but the melting point when mixed with 12% of silica (lead-silicate eutectic) drops to 532°C. Commercial raw lead and alkaline glazes form in the region of 900°C. Shepard, Ceramics, p. 45.

when struck, a pure white in color and translucent when thin. The use of glazes on these materials would therefore appear to be for purely aesthetic reasons rather than to ensure impermeability.<sup>7</sup> High fired wares could thus be glazed with either high fired glazes applied before firing or with low firing lead glazes by firing a second time at a lower temperature once vitrification had been achieved. Stonewares may, however, be fired at lower than normal temperatures but the full potential strength of the body material does not develop.

Low fired glazes used in China were predominantly lead fluxed, but leadless alkaline glazes are also known. High fired glazes are alkaline and generally, though not necessarily, felspathic. The constitution of glazes is highly complex and can only be determined by expensive and highly sophisticated techniques of analysis.<sup>8</sup>

Low fired lead based glazes give intense, bright colors. In the range of colors encountered on low fired wares at Kota Cina the greens derive from the use of copper oxides, and the blues, less brilliant but nevertheless intense, from cobalt.<sup>9</sup> Browns, yellows and amber derive from the use of iron oxides.

The colors of the high fired glazes on the other hand, are much less dense. The wide range of grays, greens, browns and yellow browns of the greenwares and blacks are produced by a variety of iron oxides used in different concentrations and under different firing conditions. Control of the kiln atmosphere and firing conditions are all important for obtaining a

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<sup>7</sup>Medley, Chinese Potter, p. 14.

<sup>8</sup>Ibid., p. 15.

<sup>9</sup>Ibid.

uniformity of glaze color and vitrification. Oxidizing conditions result from a plentiful supply of oxygen and a good draught so that the fuel burns with a clear flame. Reducing conditions are created by restricting the oxygen supply by damping down the fire.

During the sixth and seventh centuries A.D., technological developments eventually reached a stage where the production of stoneware superseded that of low fired earthenwares. In Zhejiang province alone, over twenty kilns produced Yue ware from which eventually evolved the ubiquitous Song period Longquan green glazed stonewares that have become known in the West as "celadon." Similar wares were also produced in the provinces of Henan and Hunan.<sup>10</sup>

The establishment of the Tang, built upon the overambitious economic adventures of Sui (581-618 A.D.) heralded a new era of peace and prosperity after several centuries of disruption and strife. Chinese trade with Central Asia and the Nanhai or Southern ocean flourished and it is during the Tang period that the first appreciable exports of Chinese ceramic materials began. Superior in quality and in aesthetic appeal to the mundane products of much of the rest of the non-Chinese world, these products of an age-old tradition were no doubt highly prized by those who were fortunate enough to be able to obtain them. The scope of their appeal is testified by the widespread finds of late first millennium Chinese sherd material as far afield as the Philippines, Indonesia, Sri Lanka, the Persian Gulf and the eastern Mediterranean.<sup>11</sup>

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<sup>10</sup>The term "celadon" has recently come under heavy criticism on both technical and cultural grounds. See Lu Yaw, "Introduction," in Chinese Celadons, p. 13. But see also W. Willetts, "Celadon," also in Chinese Celadons, pp. 33-41.

<sup>11</sup>E. W. Van Orsoy de Flines, "Onderzoek naar en van Keramische

Some ceramics may have been exported to Southeast Asia as early as the Han period (206 B.C.-220 A.D.).<sup>12</sup> A few pieces of white glazed Xing ware from Hebei appear to have found their way along the Silk route into Central Asia and Iran at an early date.<sup>13</sup> But it is not until about the eighth or ninth centuries that archaeological evidence affirms their movement southward and westward, mainly in return cargoes from South China to Southeast Asia, Sri Lanka and the Persian Gulf. In Iran, Chinese wares may have had a marked impression upon Islamic ceramic production.<sup>14</sup> It was not until the tenth century, however, that ceramic wares are mentioned in connection with the overseas tributary trade. The export of stonewares was already well established by this time, but, even so, there is only one, solitary, mention of a gift of white porcelain and that to the Maharaja of Śrīvijaya in 963 A.D.<sup>15</sup> Later, however, in 1180, a mission from Zhen-li-

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scherven in de Bodem in Noordelijk Midden-Java 1940-42," *OV* (1949), pp. 66-84; J. D. Frierman, "T'ang and Sung Ceramics Exported to the West in the Light of Archaeological Discoveries," *OA*, 24, no. 2 (1978), pp. 195-200. See also B. Gyllensvard, "Recent Finds of Chinese Ceramics at Fostat, I," *BMFEA*, 45 (1973), pp. 91-119, and "Recent Finds of Chinese Ceramics at Fostat II," *BMFEA*, 47 (1975), pp. 93-117; also D. Whitehouse, "Chinese Porcelain in Medieval Europe," *Medieval Archaeology*, 16 (1972), pp. 63-78; and W. Willetts, "Ceylon and China," *TASSI* (1960-62), pp. 97-115.

<sup>12</sup>See R. Von Heine-Geldern, "Prehistoric Research in the Netherlands Indies," in *Science and Scientists in the Netherlands Indies* (New York: Board for the Netherlands Indies, 1945), pp. 129-67, especially p. 147. The authenticity of these finds has been questioned by Bronson, who points out that none of the ceramics, so far as he could ascertain, were actually recovered from verifiable archaeological contexts. See Bronson and Wisseman, "Palembang as Srivijaya," *AP*, 19, no. 2 (1978), pp. 200-239.

<sup>13</sup>J. Guy, *Oriental Trade Ceramics in Southeast Asia 10th to 16th Century* (Melbourne: National Gallery of Victoria 1980), p. 25.

<sup>14</sup>The question of Chinese influence in Persian ceramic technology has been reexamined by Fehevari who suggests that there is little or no Chinese influence in Iran. See G. Fehevari, "Near Eastern Ware under Chinese Influence," in Watson, ed., *Pottery and Metalwork*, pp. 23-29.

<sup>15</sup>G. Wong, "A Comment," in *Chinese Celadons*, pp. 73-100.

fu<sup>16</sup> specifically asked for pottery and porcelain in return for tribute gifts.<sup>17</sup> The mention of ceramics in reports of trade at this period is relatively rare though they do appear as articles offered for exchange with overseas goods in the thirteenth century.<sup>18</sup>

#### 5.1.1 Methodology, Analysis and Dating

As already noted, no sherd count was made of the ceramic material excavated at Location 1 or from the earlier excavations. All ceramics from Location 1 were, however, weighed and sorted into three major categories comprising porcelain, stoneware and earthenware. These divisions were made on an entirely empirical basis. Most sherds can, in practice, be distinguished by the appearance of paste and surface treatment.<sup>19</sup>

Porcelain was subsequently found to comprise 13% and stoneware 26% of the ceramic assemblage by weight, that is just over one-third of the total. Lower fired glazed materials of Chinese origin were included with the stonewares. Their total weight, in the overall context of the assemblage, is insignificant.

For future reference, however, all ceramic materials should be both weighed and counted. Such data will be most useful to help determine the nature of the site. No complete quantitative analysis of ceramic materials is yet available for any contemporary site in Indonesia, west Malaysia or

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<sup>16</sup>An unidentifiable toponym, probably in or near Cambodia, Wong, "A Comment," p. 78.

<sup>17</sup>Ibid., p. 78; she also notes that ceramics were brought thither in Chinese ships (n. 3 p. 95) (my italics).

<sup>18</sup>Ibid., p. 94.

<sup>19</sup>Miksic, "Archaeology," p. 165.

southern Thailand and comparable data would no doubt be useful and of considerable interest.<sup>20</sup>

The continuing use and validity of the conventional historic dynastic chronology for Chinese art work has been questioned as inaccurate by Hutterer. Hutterer has suggested that a new system of classification, based on a type variety system, similar to that utilized by American archaeologists in dealing with indigenous pottery should be developed for Chinese ceramics.<sup>21</sup>

The dynastic system may be misleading if used carelessly. The development of an alternate system based on a type-variety approach may, however, be fraught with difficulty, especially if it is to be of use to both archaeologists in the field and to art historians. The situation is complicated by the fact that any single Chinese kiln or related group of kilns often produced a whole range of ceramic wares and, at the same time, utilized more than one kind of paste. This was sometimes achieved by importing suitable materials from some distance away. Also, copying of successful wares and designs was widespread and further complicates to an extreme the business of making attributions. This is not to say that a suitable system cannot be worked out. It can be done, but such a task would be so much easier if carried out in cooperation with Chinese archaeologists, utilizing excavation reports from ancient kiln sites. The Chinese themselves are well on the way to producing such a system.

It is apparent that such a system is highly desirable. It would need to be capable of more precise terminology for dating than the dynastic

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<sup>20</sup> Ibid.

<sup>21</sup> K. Hutterer, Review of L. and C. Locsin, "Oriental Ceramics Discovered in the Philippines," AP, 17, no. 1 (1974), pp. 76-77.

system. It has become increasingly evident that ceramic and other art styles do not change abruptly with a change of dynasty. The change is, instead, a gradual process, proceeding at different rates in different parts of the country and possibly depending upon the proximity of kilns and workshops to the center of power and taste. Provincial kilns, catering for a limited or parochial market might continue producing wares in a style that has long gone out of fashion elsewhere. The same qualification would apply to kilns producing wares specifically for export.

Kilns in the maritime provinces of South China, being those with which we are directly concerned here, were, until the establishment of the Southern Song capital at Hangzhou, far enough removed from metropolitan influences as to be virtually unaffected in the short term by any changes in Imperial taste. Such kilns naturally catered to a different clientele from those which supplied the Imperial court. Provincial kilns did, however, gradually copy successful or popular developments though there was no doubt a "time lag" between such developments at the center of power and more remote areas.

It is thus evident that it is no longer satisfactory to simply label an artifact "Tang," "Song" or "Yuan" without qualifying its context both temporally and spatially. An amelioration of the dynastic terminology for dating may be achieved by stressing the transition from one dynasty to another. The terms "late Song" or "early Yuan" are, however, not altogether satisfactory as both the upper and lower limits for these periods would have to be purely arbitrary. It should, however, be possible to qualify these terms in any particular context. With regard to ceramics, insufficient is yet known about the precise chronology of the various kilns and their

development from the middle or late first millennium through to the mid second millennium.

Excavation reports made some two or three decades ago are now being questioned in the light of improved excavation techniques.<sup>22</sup> It should now be increasingly possible to cross check such dating with results of excavations in other parts of the world where more precise chronologies have already been evolved. For example, Chinese stonewares appear in association with other datable artifacts in sites in Iran and Egypt.<sup>23</sup>

In analyzing the Kota Cina Chinese ceramic material, I have, wherever possible, followed the system adopted for the classification of sherds in the exhibition "Kiln Sites of Ancient China" held in Britain in 1980.<sup>24</sup> This is a development of the conventional dynastic approach in which ceramics are, wherever possible, attributed to specific kilns or a group of kilns. The term "ware," defined by Shepard as "a broad class (of ceramics) based on some prominent feature such as color, decorative technique or function,"<sup>25</sup> is used in the broader art historical sense to subsume a related range of colors, decorative forms and functions. I continue to use well-established, broad-based categories such as "green ware," "white ware," "qingbai," "temmoku" or dark brown to black glazed wares, "gray wares" and "lead glazed wares" as a basis for the analysis.

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<sup>22</sup>See Lu Yaw's "Translator's Comments" in Chinese Translations No. 2 (Singapore: SEACS, 1980), p. 21.

<sup>23</sup>For instance, see D. Whitehouse, "Islamic Glazed Pottery in Iraq and the Persian Gulf: The Ninth and Tenth Centuries," Annali dell Istituto Orientale di Napoli, 39 (N.S. 29) (1979), pp. 45-61.

<sup>24</sup>P. Hughes-Stanton and R. Kerr, compilers, Kiln Sites of Ancient China: Recent Finds of Pottery and Porcelain (London: Oriental Ceramic Society, 1980).

<sup>25</sup>Shepard, Ceramics, pp. 318-19.



Ceramics are initially divided into "provincial" types. In some instances, where it appears possible to attribute them to a specific kiln or group of kilns, they are attributed to "varieties." A typical description might therefore be: Greenware: Zhejiang type, Longquan variety, for any green glazed stoneware attributable to the Longquan kilns of Zhejiang province. A less precise attribution would be: Greenware: Fujian type, without any attempt to allocate the ware to a specific provenance or kiln in the province of Fujian. These attributions are, however, in the main only provisional, as without direct physical comparisons it is often extremely difficult to differentiate between the products of one kiln and another. The attribution to a provincial provenance is, however, in line with Moore's analysis of stonewares from Sarawak (East Malaysia). Moore discerned several different types of stoneware, one of which she was able to attribute to a Guangdong origin.<sup>26</sup>

Ideally, for such an analysis, it would be most useful to have access to a standard reference collection or library of accurately dated sherd material excavated from specific kiln sites. Eventually such a situation may be forthcoming, should each National Archaeological Service or organization concerned with Chinese and other export ceramic material have access to a standard reference series of sherd material. Hopefully, this would be available on an international basis as part of a regional or even worldwide art historical and archaeological educational facility.<sup>27</sup> Such information would

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<sup>26</sup>E. Moore, "A Suggested Classification of Stonewares of Martabani Type," SMJ, 18, nos. 36-37 (N.S.) (1970), pp. 1-78, especially pp. 29-55.

<sup>27</sup>A project of this nature was discussed informally at the Symposium on Trade Pottery in East and South-East Asia held at the Chinese University of Hong Kong Shatin, Hong Kong in September 1978. The Proceedings of the Symposium are to be published.

be amenable to computer analysis and retrieval systems. Pending the development of such a facility, photographs (preferably in color) and profile line drawings allow at least provisional identification and attribution of vessels and sherds.

The publication of ceramics from datable tombs, or pieces which are attributable to specific periods due to their association with other datable artifacts, is an important step forward in helping to establish a more precise chronology for Chinese ceramic materials.<sup>28</sup> The discovery of late Song and late Yuan period green glazed wares in a shipwreck at Sinan, off the southwest coast of Korea, has called for a reassessment of the dating of production of the Zhejiang Longquan kilns. The Sinan ship sank about the year 1367 A.D. (the twenty-seventh year of the reign of Zhizheng, last emperor of the Yuan dynasty). From the ceramics recovered from this wreck it must now be assumed that the Longquan kilns were still in full production at the beginning of the Ming dynasty (1368-1644).<sup>29</sup> This dating is also helpful in determining the end of the occupation period at Kota Cina which I have estimated at about the middle or later part of the fourteenth century, a date which is eminently in keeping with the date of the Sinan wreck. The predominance of green glazed wares datable to the Southern Song and Yuan

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<sup>28</sup>See, for example, J. Addis, Chinese Ceramics from Datable Tombs (London: Sotheby Parke Bernet, 1978).

<sup>29</sup>On the Sinan recoveries, see Special Exhibition of Cultural Relics Found off Sinan Coast (Catalogue) (Seoul: National Museum of Korea, 1977), with an English Summary; M. V. Quie, "Sinan Relics," in Chinese Celadons, pp. 43-48; and J. Ayres, "A Note on Celadon Wares from Sinan," also in Chinese Celadons, pp. 49-56. See also S. G. Valenstein, "Some Chinese Celadons Reclaimed from the Sea," OA, N.S., 25, no. 1 (1979), pp. 88-102; and C. M. Zainie, "The Sinan Shipwreck and Early Muromachi Art Collections," OA, N.S., 25, no. 1 (1979), pp. 102-14.

periods and the absence of blue and white wares is also consonant with this evidence.

The use of cobalt as underglaze blue decoration appears to have been tried experimentally as early as the Song period.<sup>30</sup> By the beginning of the Yuan, considerable experimentation in decoration was taking place and great technological advances were made.<sup>31</sup> Fine specimens of ceramics decorated in underglaze blue had already been shipped abroad in the fourteenth century. But the development of blue and white decorated porcelain does not concern us here. With the exception of a single fragment of blue and white recovered as a surface find somewhere east of Location 4, no blue and white material has been recovered by excavation at Kota Cina. Moreover, only two fragments that can be attributed to the Sawankhalok kilns of Thailand have been recovered, also in surface collections. The significance of these three sherds must not be overlooked. But the Kota Cina phase assemblage appears as a fundamentally pre-blue and white one. Blue and white material may yet be recovered from the site, in which case the occupation period may have continued longer than the evidence currently available would suggest. Alternatively, the site may have been partially or temporarily reoccupied for a short period during the fifteenth or sixteenth centuries. On the basis of current ceramic evidence, the abandonment of the site occurred no later than about 1380; at which time Longquan greenwares were still being exported in quantity, at least to Japan. The types of wares found at Kota Cina

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<sup>30</sup>See Yu-kuan Lee, "Preliminary Study of Chinese Ceramics in Blue and White (Ch'ing Hua)" (Tokyo), Deutsche Gesellschaft für Natur- und Völker und Ostasiens (1971).

<sup>31</sup>For a full discussion of the changes taking place during this period, see M. Medley, Yuan Porcelain and Stoneware (London: Faber, 1974). But see also Hughes-Stanton, Kiln Sites, especially "Yuxi," p. 68.

may have been determined by the ports of origin of the shipping that called there, or by a distinct preference of the population for green glazed wares. The evidence from Location 1 implies a distinct deterioration in the quality of ceramic materials being imported at the end of the occupation period. It is assumed that this is representative of a general trend throughout the site. Further investigation at different locations is needed to confirm or refute this hypothesis.

## 5.2 Qingbai Ware

The term qingbai refers to a distinct group of Chinese porcellaneous wares distinguished by a glaze which varies from an almost white with the faintest touch of blue, through pale blue to a strong bluish green.<sup>32</sup> The name has been given to mean "the color of the sky after rain."<sup>33</sup> The best of the qingbai wares are undoubtedly among the finest porcelains ever produced. The potting is often surprisingly thin and the paste is generally translucent. At the same time even the most delicate vessels are quite robust, due to a high felspar content.<sup>34</sup>

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<sup>32</sup>Qingbai (ch'ing pai) is also known as ying qing (ying ch'ing). See P. David, "Ying ch'ing: a Plea for a Better Term," OA, 1, no. 2 (1955), pp. 52-53. Tichane has shown that the qingbai glaze is essentially the same as that of the Guan (Kuan) type. He stresses that the purity of the body is most important as the glaze would easily be discolored by contaminants such as titanium and iron. The qingbai glaze is relatively overfired compared with that of the Guan. A slight variation in chemical content makes a significant difference in color compared with Longquan greenwares. See R. Tichane, Those Celadon Blues (Painted Post, New York: New York State Institute for Glaze Research, 1978), pp. 129-36.

<sup>33</sup>See below.

<sup>34</sup>J. Wirgin, Sung Ceramic Designs (Stockholm: Museum of Far East Antiquities, 1970), p. 48.

Qingbai was produced in great quantities. It appears first in the late Tang period (the ninth century) and was already being exported in the tenth century. By the thirteenth century it had become immensely popular; it has been found at numerous archaeological sites in Southeast Asia, in particular in Indonesia and the Philippines and as far west as Sri Lanka, India, South Arabia, East Africa and the eastern Mediterranean.<sup>35</sup>

The bulk of production appears to have been in the provinces of Jiangxi and Fujian, but kilns producing qingbai glazes are also known in Zhejiang, Anhui and Yunnan.<sup>36</sup> As with other popular types of Chinese ceramic wares, the major centers of production such as Jingdezhen and Dehua had many imitators, making it difficult, if not virtually impossible to discern the products of one kiln or group of kilns from another.

Wirgin discerns two major groups of qingbai wares: those based on incised and carved designs, and a second based on molded patterns. He stressed, however, that "a distinction between the two groups is not always clear and some types could be put in with either of the groups."<sup>37</sup> He states, quite categorically, that both because the wares exhibit striking uniformities and insufficiently large samples were available for study, it was difficult to attribute specimens to specific kilns.<sup>38</sup> Even today, despite the

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<sup>35</sup>Medley, Chinese Potter, p. 164, where she suggests that kilns in the Jingdezhen area producing qingbai glazes only began to operate regularly on a commercial basis in the tenth century. But see also B. Gyllensvärd, "Recent Finds, 1," pp. 91-119.

<sup>36</sup>Feng Hsien-ming, "Important Finds of Ancient Chinese Ceramics Since 1949" (London: OCS Translations No. 1, 1967), pp. 1-22.

<sup>37</sup>Wirgin, Sung Ceramic Designs, p. 50.

<sup>38</sup>Ibid.

excavation of numerous kiln sites, the problem of making specific attributions is far from resolved.

From the examination of specimens of qingbai glazed vessels recovered at Kota Cina, Pulau Kompei and elsewhere, it appears that there are, however, factors in design attributes which may help to narrow down certain types to specific kilns. Two systems of firing have been used in the production of qingbai wares (as is also the case with certain white and green glazed wares): the conventional method of firing on the foot, and a system of rim-firing, the mang-k'ou of the Chinese. This latter system is thought to have been introduced during the southern Song period.<sup>39</sup> In addition to the two distinct methods of firing and the two major groups of designs, i.e., molded and incised decoration discerned by Wirgin, the treatment of the foot also allows for further analysis into specific groups. It is as well to note, however, that any one kiln or group of kilns may have produced ceramics with combinations of these different factors and there is, therefore, no substitute for making direct comparisons with sherds recovered from specific kiln sites.

The recoveries of qingbai glazed ceramics at Kota Cina range from small, delicate, translucent saucers with incised or molded decoration, fired either on the foot or on the rim, to larger saucers normally fired on the foot and deep bowls with incised designs. The incised designs include the popular motif of boys among leaves and scrolls. There are also ewers, large, undecorated bottles and vases with incised designs. Sherds of twelve different vessels were found in sufficient quantity to allow the reconstruction of

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<sup>39</sup> Lin Hsin Yuan, "A Study of Mang-k'ou Wares and the Fu-shao Technique of Sung and Yuan at Ching-te Chen" (London: OCS Translations No. 8, 1978). The translator notes that mang-k'ou literally means "barbed mouth" and that Fu-shao means "up-side down firing," *ibid.*, p. 22.

their shapes and sizes. Fragments of many more vessels indicate that a wide variety of shapes, sizes and quality of vessel had been in use at the site.

For convenience, I have divided the qingbai wares into two groups. The first group comprises those pieces fired on the foot, the second those pieces fired on the rim. This division by firing technique does not necessarily imply that the pieces displaying these characteristics originate from different kilns. Both techniques may have been in use at one and the same kiln or group of kilns. I have attempted to make specific attributions for only two of the qingbai wares. These pieces may originate in the main from Fujian.

QB 1

Figure 29, Plate 70

Saucer

Glaze: A clear bluish glaze which covers the whole body except for foot.

Decoration: The exterior is plain, the interior decorated with a lightly incised, sketchy floral design.

Form: Small, saucer-like dish. The flat base is unglazed and burnt to a reddish brown. Traces of a black substance, presumably from a kiln support, adhere to the base at the junction of the glaze and the base. Wheelmarks are visible on the unglazed foot.

Dimensions: D. 94 mm

H. 13 mm

D. foot 34 mm

Comments:

Probably Southern Song.

Jiangxi type: Jingdezhen variety

QB 2

Figure 30, Plate 71

Dish

Glaze: A clear, pale bluish glaze.

Decoration: Exterior plain. The rim is lobed; the interior decorated with a boldly incised peony design within a border divided into six lobes by small raised bands which appear white through the glaze. Combing is discernible between the petals of the peony.

Form: A Saucer-like dish with a lobed rim. The fine footrim has been carved to a point; the flat interior of the base is recessed below the level of the footrim. A slight ring has been carved out of the base and the footrim. Part of the unglazed interior base is burnt a reddish brown. Traces of a black substance, presumably from a kiln support, adhere to the unglazed base.

Dimensions: D. 160 mm

H. 41 mm

D. footrim 47 mm

Comments:

Compare with Wirgin, Sung Ceramic Designs, Plate 12j.

QB 3

Figure 31

Dish

Glaze: A pale blue, heavily crackled glaze.

Decoration: Exterior plain. The rim is formed into a series of lobes corresponding to lobes molded into the interior of the cavetto which extend from the edge of the rim to the central medallion. The



central medallion has a molded five-petaled flower and a foliar spray.

**Form:** A saucer-like dish with a lobed rim. The foot is solid, completely flat and free of glaze. Concentric wheel marks are easily visible on the unglazed surface. The angle at which the foot joins the body is vertical or very slightly bevelled.

**Dimensions:** D. 189 mm  
H. 37 mm  
D. footrim 48 mm

Jiangxi type: Jingdezhen variety?

QB 4

Figure 32, Plate 72

Bowl

**Glaze:** A pale blue green, heavily crackled glaze.

**Decoration:** Exterior plain. The interior is decorated with an incised composite design of boys playing among floral scrolls and elongated feathery leaves, alternately lightly and deeply incised. A small circular medallion in the interior center contains a butterfly with outspread wings.

**Form:** A deep bowl with a very fine, slightly everted rim. The fine footrim has been carved to a point with the interior recessed below the level of the footrim. A slight ring has been carved out between the interior base and the footrim. Some glaze has splashed onto the otherwise unglazed interior base. Traces of a black substance and of a kiln support adhere to the unglazed base.

## Comments:

Sherds of at least three bowls with similar incised decoration of boys among flowers and leaves were recovered by excavation at Location 1. The detail of the design varies. Compare with Wirgin, Sung Ceramic Designs, Plate 19, Figure 17a.

QB 5

Figure 33

## Tall Bottle Vase

**Glaze:** An opaque, dense light blue glaze which covers the whole of the exterior down to the heavy footrim and the inside of the broad neck. Splashes of glaze are to be found on the interior.

**Decoration:** The neck has a pronounced six lobed rim. The lower part of the neck is surrounded by a ring of stiffly incised rounded lotus petals above a ring of vertical incised lines. A plain band below the neck sets it off from the body decoration which consists of eight bands of carelessly incised and combed opposed arcs. The design elements have been broken up into horizontal bands with no regard to the contours of the vessel.

**Form:** A tall bottle vase with a long cylindrical neck with a pronounced six lobed rim above a bulbous body of basically mei-bing form, tapering to a heavy foot. The body is made in three sections luted together, base and lower body, shoulders and neck.

**Dimensions:** D. 158 mm

H. 310 mm

D. footrim 98 mm

## Comments:

Compare Wirgin, Sung Ceramic Designs, Plates 18, 22 g, h, i, j.

Very late Southern Song or Yuan (between about 1250 and 1360).

QB 6

Figure 34, Plates 73, 74

Bowl

Glaze: A thick, opaque, pale blue glaze covers the whole body except the interior base. The glaze has tended to form pin holes where it has failed to cover completely the deeper parts of the incised decoration.

Decoration: Exterior plain and undecorated, the rim slightly foliate. The heavy glaze tends to obscure the designs incised into the cavetto and central medallion, which comprise a sketchy foliar design on the cavetto and a flower within the central medallion.

Form: Bowl with a slightly foliate rim and outwardly curving sides. The carved footrim is bevelled on the interior. The interior of the foot is unglazed. The exposed portion of the paste has burnt to a pale orange.

Dimensions: D. 199 mm

H. 70 mm

D. footrim 62 mm

## Comments:

Much coarser than the general run of most of the qingbai wares excavated at Location 1. Probably a rather late piece in the context of Kota Cina ceramics, dating to the mid-fourteenth century. Late Yuan.

Jiangxi type: Jingdezhen variety?

QB 7

Figure 35, Plates 75, 76

Bowl: Spurmarked

Glaze: A clear, pale bluish to white glaze over a white slip, which covers the interior but stops well short of the foot on the exterior.

Decoration: The exterior plain and undecorated. The interior with roughly incised combed decoration.

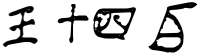
Form: Broad bowl with everted rim. Five small triangular spurmarks on the interior base.

Dimensions: D. 281 mm

H. 71 mm

D. footrim 90 mm

Comments:

The sherd of a very similar bowl from Dehua was exhibited in the Kiln Sites of Ancient China exhibition, and in the Catalogue, No. 102. This bowl has a kiln support adhering at six points to the inside of the bowl. The Kota Cina bowl has the characters  Wang Shi Si Dan inscribed in black ink on the base (Plate 76). In the case of bowls discovered in the Sinan wreck, it was noticed that they were often packed in sets of ten and that a number of pieces were also found with black ink inscriptions written on them. The inscriptions would appear to relate to a merchant's inventory.<sup>40</sup>

This type of bowl was probably first produced during the Song period but continued in production throughout the fourteenth century (see also W 16).

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<sup>40</sup> See Cultural Relics, p. 260.

Pieces fired on the rim

QB 8

Figure 36, Plate 77

## Saucer Dish

Glaze: A clear, pale blue crackled glaze which covers the whole of the body except for the fine mouth rim.

Decoration: Indistinct, but traces of lightly incised floral decoration are discernible under the glaze.

Form: Small, finely potted, translucent saucer-like dish with sharply upturned sides and an unglazed rim.

Dimensions: D. 96 mm

H. 16 mm

D. footrim 76 mm

## Comments:

The only small saucer of this particular shape excavated at Location 1. The potting is surprisingly delicate. The mouthrim, as with QB 1, is barely more than 1 mm thick.

QB 9

Figure 37, Plate 78

## Bowl

Glaze: An opaque, pale blue crackled glaze which covers the whole body except for the mouth rim. The glaze on the interior foot is, however, rather thin. The biscuit can be discerned through the glaze within the footrim. The glaze tends to obscure the decoration on the interior of the bowl.

Decoration: Indistinct, molded foliar decoration on the interior cavetto.

Form: Bowl with straight, angular sides. The exterior is plain and undecorated. The molded decoration on the interior is largely

obscured by the thickness of the glaze. The footrim is narrow and neatly carved.

Comments:

Similar to bowls excavated in Sulawesi. Yuan period.<sup>41</sup>

QB 10

Figure 38

Bowl

Glaze: A thick, matt, opaque powdery blue glaze that covers the whole of the body except for the mouthrim which is burnt to a bright orange color.

Decoration: None.

Form: Bowl with rounded sides and a carved footrim.

Dimensions: D. 127 mm

H. 83 mm

D. footrim 57 mm

Comments:

The shape and glaze of this bowl suggest that it dates from the second or third quarters of the fourteenth century, the very end of the Yuan period.<sup>42</sup>

Numerous fragments of qingbai glazed vessels, representing bowls, dishes, small jars and incense burners with both incised and molded decoration were recovered by excavation. It has not been possible to reconstruct

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<sup>41</sup>This drawing may be compared with the outline of a bowl illustrated by Lin, "A Study," Figure 1,9 which is described as a Fu-shao type bowl of the Yuan period.

<sup>42</sup>Although differing in size and footrim, the outline is suggestive of a white glazed bowl from the tomb of the Marquess Xi Ning who died in 1407. See Addis, Chinese Ceramics, pp. 88-90.

vessel outlines from any of these sherds. Photographs of typical sherds, with brief description are included as a supplement to the discussion (see Plates 79 to 92).

QB 11 Plate 79

Base sherd of a bowl with incised decoration of boys among floral scrolls beneath a light blue qingbai glaze (see QB 4).

QB 12 Plates 80, 81

Base sherd of a dish with molded decoration of a flower spray within a central medallion beneath a cracked qingbai glaze (Plate 80). Foot of the same dish, showing the incised ring forming a shallow footrim (Plate 81).

QB 13 Plate 82

Base sherd of a dish with incised and stippled floral decoration beneath a pale qingbai glaze.

QB 14 Plate 83

Base sherds of three bowls. The first with a completely glazed base, would have been fired on the rim. The other two fragments show typical remains of kiln supports adhering to the unglazed basal portions of the sherds.

QB 15 Plate 84

Base sherds of three dishes (including QB 2 and QB 3).

QB 16 Plate 85

Fragment of the base of an incense burner with a pale, almost white qingbai glaze over lozenge shaped molded decoration. The base is unglazed.

QB 17 Plate 86

Rimsherd of a small thinly potted bowl with fine molded floral decoration on the interior. The rim is unglazed.

QB 18 Plate 87

Rimsherd fragments of small bowls with various molded designs on the interior. Designs include peony flowers and a fish among waves surmounted by a key fret border.

QB 19 Plates 88, 89

Base sherds of two small bowls with molded floral designs on the interior. The left hand fragment has a heavily crackled glaze and a distinctive unglazed foot. The right hand fragment is covered with a clear light blue qingbai glaze which covers the base.

QB 20 Plate 90

Two fragments comprising the body sherd of a small angular jar with molded decoration and the base sherd of a small bowl or dish also with molded decoration on the interior.

QB 21 Plate 91

Miniature qingbai glazed molded water dropper in the form of a jug with a ring handle. Recovered as a surface find east of Location 3.

QB 22 Plate 92

Body sherd of a large vessel with appliqué decoration of a bearded human face, presumably intended as a representation of a western barbarian. Recovered as a surface find immediately south of the excavation at Location 1. M.E.D. 58 mm.



### 5.3 White Ware

This class of wares was produced extensively at numerous kilns in the southern provinces of China during the Song and Yuan dynasties. Production of white wares had already commenced in the south during the Tang period. The principal centers of production for white wares were at Jingdezhen in Jiangxi and at Dehua and Anxi in Fujian. There was much copying of popular or successful types by lesser kilns. As in the case of other wares, it is consequently difficult to differentiate between the products of different kilns, especially in the light of confusing reports.<sup>43</sup> Differences in the paste may, however, give useful indications of the region from which these wares originated. The products of Dehua and Anxi are mainly of a soft, alkaline variety. Those of Jingdezhen, on the other hand, are of a harder paste.<sup>44</sup>

The white wares recovered at Kota Cina are mainly of the soft alkaline variety which were produced at Dehua and Anxi. The Dehua wares are thought generally to have been glazed down to the foot, whereas on the Anxi wares the glaze may have stopped short of the foot. This is not, however, invariably the case as both methods of glazing appear to have been used at both kilns.<sup>45</sup> Decoration consists of both molded and incised underglaze designs. With the exception of a small number of large spurmarked bowls, a vase and a heavy stoneware bottle, most of the white wares are

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<sup>43</sup>See Lu Yaw, "Translator's Comments," pp. 21-22.

<sup>44</sup>For an account of the early development of these white wares, see P. J. Donnelly, Blanc de Chine (London: Faber and Faber, 1969).

<sup>45</sup>See Lu Yaw, "Translator's Comments," pp. 21-22.

small pieces of medium to good quality. The paste is of the soft porcellaneous variety unless otherwise stated.<sup>46</sup>

W 1

Figure 39

Fujian type: Bowl with molded decoration

Glaze: An opaque, matt white glaze which stops well short of the foot.

Decoration: A band of upright lotus petals encircling the exterior of the bowl. The interior is plain and undecorated.

Form: A small bowl with slightly rounded sides and a low footrim.

Dimensions: D. 85 mm

H. 30 mm

D. footrim 50 mm

W 2

Figure 40, Plate 93

Fujian type: Bowl with molded decoration

Glaze: An opaque, shiny creamy white glaze that covers the whole of the bowl down to the edge of the footrim.

Decoration: Six vertical ribs rising from the base to the rim.

Form: A small, shallow bowl with rounded sides and a low footrim.

Dimensions: D. 91 mm

H. 33 mm

D. footrim 45 mm

W 3

Figure 41

Fujian type: Bowl with molded decoration

Glaze: An opaque, shiny, white glaze which covers the interior and

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<sup>46</sup>For illustrations of similar, contemporary wares of this class, see Chinese White Wares (Singapore: SEACS, 1973), especially plates 18-94.

the exterior down to the footrim.

Decoration: A band of swirling foliar scrollwork encircles the exterior of the bowl.

Form: A small bowl with rounded sides.

Dimensions: D. 108 mm

H. 35 mm

D. footrim 63 mm

W 4

Figure 42, Plates 94, 95

Fujian type: Bowl, undecorated

Paste: A hard, white porcellaneous paste.

Glaze: Shiny, dense white glaze which covers the whole of the interior and the exterior down to the edge of the carved footrim. The interior base is unglazed.

Decoration: None.

Form: A small tea bowl with rounded sides and a slightly everted rim. The interior center is convex. The low footrim is square cut on the exterior, gradually sloping towards the inner recessed part of the inner base.

Dimensions: D. 97 mm

H. 47 mm

D. footrim 46 mm

Comments:

The only example of a bowl of this shape recovered at Kota Cina. The concave interior base is unusual.

W 5

Figure 43

Fujian type: Bowl with molded decoration

Glaze: A shiny, dense creamy white glaze which covers the interior and the exterior down to the edge of the footrim.

Decoration: The exterior plain and undecorated. The rim lobed, the interior molded into the form of a chrysanthemum blossom.

Form: A small bowl with curving sides and a low carved footrim.

Dimensions: D. 120 mm

H. 44 mm

D. footrim 43 mm

Comments:

One of four similar small bowls excavated at Location 1. The quality of the paste and glaze varies considerably between the best and the worst specimen which is underfired.

W 6

Figure 44

Fujian type: Bowl with molded decoration

Glaze: A shiny, opaque, creamy white glaze which covers the interior and the exterior down to the edge of the low footrim.

Decoration: The exterior decorated with the design of a duck with extended wings. The lines of the molding are sketchy and relatively thick.

Form: A bowl with rounded sides and a low footrim.

Dimensions: D. 141 mm

H. 58 mm

D. footrim 71 mm

## Comments:

Very similar to a bowl displaying a design of a duck with outstretched wings excavated from the Qudoudong kiln at Dehua in Fujian.<sup>47</sup> Similar bowls are known from Sulawesi.

W 7

Figure 45, Plate 96 (i)

Fujian type: Bowl with molded decoration

Glaze: A shiny, dense white glaze which covers the whole of the interior but stops short of the foot on the exterior, partially covering the lower part of the decoration.

Decoration: The exterior with two bands of lotus petals placed one above the other. The longer, upper band reaches to within about 10 mm of the rim.

Form: A thinly potted, well finished bowl with curving sides and a low footrim.

Dimensions: D. 100 mm  
H. 52 mm  
D. footrim 44 mm

## Comments:

A form of bowl represented by numerous sherds at Location 1.

W 8

Figure 46, Plate 96 (ii)

Fujian type: Bowl with molded decoration

Glaze: A shiny, dense white glaze which covers the whole of the interior but stops short of the foot on the exterior, partially

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<sup>47</sup>Lu Yaw, trans., "A Brief Report on the Latest Excavations of an Ancient Kiln Site at Dehua in Fujian," in Chinese Translations No. 2, p. 9, Fig. 4.

covering the lower part of the decoration.

Decoration: The exterior with two bands of lotus petals placed one above the other. The top of the longer upper band end about 15 mm below the rim.

Form: A thinly potted, well finished bowl with curving sides and a slightly flared mouthrim.

Dimensions: D. 148 mm

H. 78 mm

D. footrim 60 mm

Comments:

Basically a larger version of W 7 with a slightly more everted rim and presumably from the same kiln. A form known from the Philippines<sup>48</sup> and from Sulawesi.

W 9

Figure 47, Plate 97

Fujian type: Dish with molded decoration

Glaze: A thick, creamy white opaque finely crackled glaze which covers the whole of the interior and the exterior down to the edge of the low footrim.

Decoration: A molded foliar design covers the flattened, slightly lobed rim and the small central medallion. A band of triangular dentils separates the edge of the rim from the plain cavetto. Details of the pattern are obscured by the thickness of the glaze.

Form: A shallow dish with a flattened, slightly lobed rim and a low,

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<sup>48</sup>C. Y. Locsin, "A Group of White Wares from Te-Hua," Manila Trade Pottery Seminar: Introductory Notes (Manila: Research Foundation in Philippine Anthropology and Archaeology, Inc., 1976), Fig. 15.

square cut footrim. The poor finish gives the impression of work having been done in a hurry with very little care.

Dimensions: D. 176 mm

H. 32 mm.

D. footrim 58 mm

Comments:

An example of the poorer quality ceramics found in the upper levels of excavation at Location 1. Mid fourteenth century, late Yuan period.

W 10

Figure 48

Fujian type: Covered box with molded decoration

Glaze: A shiny, opaque white glaze which covers the exterior of the lid and the lower part of the box and a thin band inside the lid.

Decoration: A finely molded foliar scroll on both the upper and lower parts.

Form: A well made small covered box of compressed form, made in two sections. The base is slightly concave and devoid of any footrim.

Dimensions: D. 89 mm

H. 43 mm

D. footrim 68 mm

Comments:

One of several similar small boxes recovered at Location 1. The design of these boxes varies. Occasionally the lid is decorated with molded scroll work and the base plain, occasionally both base and lid are virtually devoid of decoration.

W 11

Figure 49, Plate 98

Fujian type, Dehua variety: Jar with two ears and molded decoration

Glaze: A shiny, clear crackled glaze with a bluish, almost qingbai quality, full of minute bubbles. The glaze covers the whole of the interior but stops short of the foot on the exterior.

Decoration: The exterior decorated with two finely molded bands of foliar scrollwork separated by a band of five plain horizontal ribs. Three ribs separate the upper band from the neck and two further ribs separate the lower band from the base.

Form: A small, finely made jar often referred to as a "Marco Polo" type.<sup>49</sup> The small neck constricts at the orifice, the shoulders are broad, the base narrower. The jar is made in two sections, luted together.

Dimensions: H. 82 mm  
D. 71 mm  
D. footrim 31 mm

Comments:

Similar in form to the "Marco Polo" jar in the Treasury of St. Mark's Cathedral at Venice. Known from the Philippines,<sup>50</sup> Sarawak<sup>51</sup> and Sulawesi.

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<sup>49</sup>T. Harrison, "Export Wares Found in West Borneo," OA, 5, no. 2 (1959), pp. 42-51; B. Harrison, "Stoneware: 'Marco Polo' Ware in South-east Asia," SMJ, 11 (N.S. 19-20) (1962), pp. 412-16. See also W. Willetts, "A Note on Marco Polo," in Chinese White Wares, pp. iv-v. The term "Marco Polo" ware appears to have passed into general usage for this range of wares.

<sup>50</sup>L. and C. Locsin, Oriental Ceramics Discovered in the Philippines (Rutland, Vermont: Tuttle, 1970), pp. 83-85.

<sup>51</sup>See Harrison, "Export Wares."



W 12

Figure 50, Plate 99

Fujian type, Dehua variety: Vase with molded decoration

Glaze: A thick, opaque, white glaze that covers the exterior down to the footrim.

Decoration: The neck is plain and undecorated. The body has a series of vertical, molded ribs between the base of the neck and the plain foot.

Form: A small vase, molded in two sections and carelessly luted together at the middle with a prominent joint.

Dimensions: H. 57 mm (excluding foot)

D. 31 mm

D. footrim unknown.

Comments:

Excavated from Location 1. It is representative of a form of small molded vase common at late thirteenth and fourteenth century sites in South-east Asia. Similar vases have been reported from Malaysia (Kedah and Sarawak)<sup>52</sup> and from the Philippines. They are also found at sites in southern Thailand such as Satingprah and the Nakhon Sri Thammarat region.<sup>53</sup> Yuan period. See also W 13 below.

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<sup>52</sup>Lamb, "Research," Plate 44; C. M. Zainie with T. Harrison, "Early Chinese Stonewares," SMJ, 15 (N.S. 30-31) (1967), pp. 30-90.

<sup>53</sup>On the Philippines, see Locsin, Oriental Ceramics, pp. 83-85. On Thailand, see Lamb, "Notes on Satingprah"; and O'Connor, "Tambralinga and the Khmer Empire," p. 166.

W 13

Figure 51, Plate 100

Fujian type, Dehua variety: Vase with molded decoration (Base and lower body only)

Glaze: A shiny, dense white glaze which on the remaining part of the body stops short of the foot.

Decoration: The body has a raised, molded foliar design partially obscured by the density of the glaze. The foot is tall and angular.

Dimensions: H. (estimated) Approximately 105 mm  
(actual: remaining portion) 50 mm

D. 63 mm

D. footrim 54 mm.

Comments:

This is the lower portion of a larger, better made example of W 12, that is possibly an earlier example of the same form. The quality of these vases varies considerably from very fine examples with a hard paste and a pearl-like glaze such as those recovered at the Telaga Jernih site, near Stabat in Langkat to the poorer quality examples such as W 12. Several better quality examples have been recovered at Kota Cina.

W 14

Figure 52, Plate 101

Fujian type: Covered Box (lower part only)

Glaze: An opaque, gray white glaze which covers the exterior from the edge of the unglazed flange to the lower body where it stops well short of the foot.

Decoration: A single, molded horizontal rib situated approximately one-third of the distance from the top of the lower part of the vessel.

Form: A solidly made tapered cylinder having an unglazed flange on the upper rim, formed to receive the lower rim of the lid (not recovered). The base is flat and slightly recessed leaving a low, broad footrim.

Dimensions: H. 105 mm

D. 165 mm

D. footrim 100 mm.

Comments:

This large type of covered box is represented by a single fragment excavated at Location 1. The complete vessel probably measured in the region of 180 mm in height. Similar boxes are known from Sulawesi. Fourteenth century, Yuan period.

W 15

Figure 53

Fujian type: Bottle vase

Paste: A hard, white vitrified stoneware.

Glaze: An opaque, gray white glaze which stops well short of the base.

Form: A sturdily made, tall bottle vase with a long neck, rounded, globular body and flat base.<sup>54</sup>

Dimensions: H. 263 mm

D. 172 mm

D. foot 76 mm.

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<sup>54</sup>The line drawing in "Oriental Ceramics," TOCS, 41, Fig. 9 gave a hypothetical reconstruction of the base of this vessel showing an indented base. It is now known that the base of these large bottles is quite flat.

## Comments:

Recovered from a well southeast of Location 4. Fragments of similar bottles have been found in the vicinity of Location 1 including one sherd with part of a floral design painted in underglaze iron brown. Similar bottles, both plain and with peonies painted in underglaze iron brown are known from undocumented sites in Sulawesi. Thirteenth to fourteenth century, Yuan period.

W 16

Figure 54, Plates 102, 103

Fujian type, Dehua variety: Bowl with six spurmarks

Paste: Greyish white, exhibiting cheesy cracks in the surface.

Glaze: An opaque, shiny grey to white, finely crackled glaze which covers the interior except for the scars left by spurmarks and the exterior where it stops well short of the foot (sometimes no more than half way down the outside).

Decoration: A single incised line around the bottom of the interior, within which are six spurmarks left by a kiln ring support.

Form: A wide, shallow, utilitarian bowl with a flattened rim and a low, broad footrim. The footrim is cut at an angle causing the bowl to rest on the inner edge of the rim. Marks on the footrim correspond to the position of spurmarks on the interior. Chattermarks from the wheel are visible on the lower, unglazed part of the body.

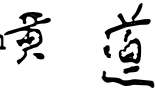
Dimensions: D. 273 mm

H. 63 mm

D. footrim 98 mm.

## Comments:

One of at least five similar bowls excavated at Location 1. Base sherds of this type of bowl are common as surface finds throughout the Kota Cina site. All of the interiors show signs of wear where the glaze has become scratched or worn away by prolonged use.

The base sherd of a similar bowl with six small spurmarks, a creamy yellow gray heavily crackled glaze and swirling, incised underglaze design and a broad, low footrim, has the inscription  huang dao, "yellow road," written in black ink on the unglazed base. Huang dao is part of a Taoist auspicious saying or good luck formula.<sup>55</sup>

## Comparable finds:

Spurmarked bowls were first discussed by Zainie and Harrisson after their discovery in the Sarawak Museum excavations. It was noted that white glazed bowls with seven spurmarks on their interiors occurred in twelfth to fourteenth century "celadon" sites.<sup>56</sup> The Kota Cina spurmarked bowls including those with qingbai type glazes (QB 7), exhibit a wider range of characteristics than those from Sarawak, and would therefore appear to originate from a number of different kilns.

The different origins of these bowls are indicated by different pastes, form, decoration and the varying number of spurmarks on their interiors. The qingbai examples tend to be better fired than those with grey to white glazes. The form differs in that the qingbai examples are more finely potted and have an everted rim and a narrower footrim compared with the flattened

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<sup>55</sup>I am indebted to Mr. I. L. Legeza for the identification of this formula.

<sup>56</sup>Zainie with Harrisson, "Early Chinese Stonewares," pp. 39, 85.

rim and low, broad footrim of those with the creamy yellow, or gray to white glaze. Decoration may be present or absent in either case. The most significant indication of differing origin is, however, the number of spurmarks on the interior base.

The Kota Cina examples exhibit four, five, six or seven spurmarks on their interiors. As the spurmarks reflect kiln firing practice, it may be assumed that the kiln supports with different numbers of spurmarks originate from different kilns. A base sherd of a Song period bowl with incised underglaze decoration recovered by excavation at the Fujian Dehua kilns has a ring support with six points that adhere to the inside.<sup>57</sup> This suggests that bowls with six spurmarks on the inside may originate from the Dehua kilns, though it is not possible to rule out that ring supports with six points may have been used at other kilns also. (See Table 3.)

There would appear to be a correlation between bowls with a hard paste, an everted rim and narrow foot and either a clear, crackled or qingbai glaze over a white slip with either four or five spurmarks. Bowls with a softer type of paste, a flattened rim and a broad footrim with a clear crackled or yellowish, gray or white glaze relate to five, six or seven spurmarks. These differing characteristics may indicate that the bowls originate from at least five different kilns. All the bowls would appear to be roughly contemporary, dating from the Southern Song and Yuan periods.

Numerous fragments of mainly small white-glazed vessels, representing bowls, covered boxes and vases were excavated at Location 1. Other fragments were excavated or recovered as surface finds at or near

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<sup>57</sup>Hughes-Stanton and Kerr, Kiln Sites, p. 22, No. 102.

TABLE 3  
Spurmarked Bowls

Characteristic	Number of Spurmarks					
	4	5 a	5 b	6 a	6 b	7
Paste:						
Hard, fine white	*	*				
Soft, fine gray white			*	*	*	*
Glaze:						
Clear, crackled over white slip	*			*		
<u>Qingbai</u> , crackled over white slip		*				
Gray/white, shiny, opaque			*		*	*
Footrim:						
Narrow	*	*				
Broad			*	*	*	*
Rim:						
Everted	?	*				
Flattened			*	*	*	?

Location 3. No line drawings have been prepared from these finds, but photographs of some typical sherds are included as a supplement to the discussion.

W 17

Plate 104

Body sherd of a jar or kendi with deeply carved, rounded lotus petals and finely combed decoration. Excavated in association with Longquan greenwares and heavy, gray glazed "bare ring" bowls immediately north of the Sanctuary at Location 3. Late Southern Song or Yuan.

W 18

Plate 105

Rim sherds of small bowls, both plain and with molded lotus petal decoration, displaying traces of metal binding. Excavated at Location 1. Late Southern Song or Yuan.

W 19

Plates 106, 107

a and b. Base sherds of small bowls excavated at Location 1.

a) Interior

Plate 106

- i. Base fragment with molded underglaze floral decoration partly obscured by the opaque glaze. M.E.D. 81 mm.
- ii. Base fragment of a small bowl with a shiny, opaque glaze and molded underglaze decoration of a lotus pod, the circles representing the seeds in cross section. M.E.D. 44 mm.
- iii. Base fragment of a plain bowl with a dense, shiny, finely crackled glaze with (four) rounded spurmarks on the interior. M.E.D. 114 mm.



b) Footrims of the above: Plate 107

- i. Base fragment with delicately carved footrim, interior of the base unglazed. Footrim D. 45 mm.
- ii. Base fragment with delicately carved footrim. Footrim D. 37 mm.
- iii. Base fragment with low, broad unglazed footrim, the glaze stops well short of the foot. D. footrim 54 mm.

W 20 Plate 108

Lid of a round covered box with finely molded underglaze decoration of a floral spray within two small concentric circles and with a vertically ribbed edge. This fragment is typical of much of the small, finer white glazed sherds excavated at Location 1. Southern Song or Yuan.


W 21 Plate 109

Fragment of a lid of a covered box with a finely crackled glaze and raised, molded decoration of a classic scroll at the rim and a lozenge shaped motif at the center. Excavated at Location 1. Yuan.

W 22 Plate 110

Body sherd of a large bottle vase (see: W 15), with underglaze iron decoration. Surface find east of Location 1. Yuan.

W 23 Plate 111

Base sherd of a spurmarked bowl with a heavily crackled glaze. The characters  zhang [ ? ] inscribed in black ink on the unglazed portion of the body. The inscription is probably a potter's or trader's mark. (See W 16.)

W 24

Plate 112

Base sherd of a spurmarked bowl with a shiny, opaque glaze and five prominent spurmarks on the interior. Surface find near Location 3.

(See W 16.)

#### 5.4 Gray Ware

Although gray glazed ware might normally be included with either green or white glazed vessels as variants of these glazes, the following items appear to have been deliberately fired with gray colored glazes. They therefore form a distinct and separate group from the green or white wares and are treated as such. It has not been possible to attribute these vessels to any specific kiln or group of kilns. They are, however, presumably the products of kilns in the Guangdong or Fujian region.<sup>58</sup>

GR 1

Figure 55, Plates 113, 114

Bowl with everted rim

Glaze: A clear, shiny, blue gray glaze which covers the whole of the interior but stops well short of the foot on the exterior.

Decoration: A single incised line around the interior base. Two single incised lines almost equidistant apart on the exterior, dividing the otherwise plain surface into three registers.

Form: A solidly made, medium sized bowl with rounded sides and an everted lip. The footrim is square cut on the exterior, bevelled on the interior, the interior base is carved to a point at the center.

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<sup>58</sup>None of these gray glazed bowls appear to relate to the pieces published by Loesin under the heading of "Gray-Glazed Wares"; see Loesin, Oriental Ceramics, pp. 64-66.

Dimensions: D. 163 mm  
 H. 62 mm  
 D. footrim 54 mm

GR 2

Figure 56, Plates 115, 116

Bowl with an unglazed ring

Glaze: An opaque, shiny, pale gray glaze which covers the interior except for a bare ring around the interior base that corresponds to the diameter of the footrim. The glaze stops short of the foot on the exterior, the footrim and base are unglazed.

Decoration: A single incised line approximately 10 mm below the rim on the interior.

Form: A thinly potted, medium sized bowl with angular sides and a square cut footrim. The interior base is recessed.

Dimensions: D. 143 mm  
 H. 46 mm  
 D. footrim 60 mm

GR 3

Figure 57, Plates 117, 118

Bowl with incised line decoration

Glaze: An opaque, shiny, densely crackled gray-brown glaze that tends to darken where thicker on the interior. The glaze covers the whole of the interior but stops well short of the foot on the exterior. The footrim and base are unglazed.

Decoration: Two incised lines, one forming a small circle on the interior base, the second placed approximately 10 mm below the interior rim.

Form: A small bowl with rounded sides and a slender pointed footrim.  
The center of the base is carved to a small point.

Dimensions: D. 143 mm  
H. 56 mm  
D. footrim 57 mm

GR 4

Figure 58

Bowl with incised and combed decoration

Glaze: An opaque, shiny, gray glaze that covers the whole of the interior except for a bare ring around the irregularly glazed center. The glaze stops well short of the foot on the exterior.

Decoration: A series of vertically incised or combed lines creating a petal-like effect, rising from just above the base to a deeply incised horizontal groove approximately 12 mm below the rim on the exterior. A single incised horizontal line on the interior about 4 mm below the rim.

Form: A roughly finished, medium sized bowl with flaring sides and a distinctive footrim, bevelled on the exterior and sloping sharply to the recessed base on the interior.

Dimensions: D. 166 mm  
H. 58 mm  
D. footrim 60 mm

GR 5

Figure 59, Plate 119

Bowl with an unglazed ring

Glaze: A shiny, opaque yellow to gray glaze exhibiting a pronounced "oatmeal" effect, irregularly applied to the interior where it

covers the upper part of the cavetto and a small oval portion of the center. On the exterior the glaze stops well short of the base which is unglazed.

Decoration: A single incised line on the interior approximately 10 mm below the rim and a small incised circle at the center, similar to GR 3.

Form: A roughly made small bowl with flaring sides, a square cut footrim and a recessed base, the center of which has been roughly cut.

Dimensions: D. 148 mm  
H. 48 mm  
D. footrim 58 mm

Comment:

All the above examples, excavated at Location 1, would appear to date from the latter part of the thirteenth or early to mid fourteenth centuries. Yuan period.

GR 6

Figure 60, Plates 120, 121

Bowl with an unglazed ring: base and rim sherds only

Glaze: A shiny, thick, opaque grayish glaze, often discolored through poor firing to a pink or yellowish hue which cover the interior except for a broad, unglazed ring that corresponds to the diameter of the footrim. The glaze stops well short of the foot on the exterior.

Decoration: Plain and undecorated.

Form: A large, heavy, coarsely made utilitarian bowl with rounded sides, a rolled rim and a heavy, roughly cut footrim. There is a broad, unglazed ring on the interior base.

Dimensions: No reconstructed specimens. D. footrim 95 mm. Estimated diameter at rim approximately 235 mm, estimated height 80 mm.

Comment:

Numerous large sherds of these big, roughly made bowls were excavated in association with fragments of large Longquan basins immediately to the north of the Sanctuary at Location 3. Datable to the mid to late fourteenth century, Yuan or very early Ming period.<sup>59</sup>

### 5.5 Greenware

A fully satisfactory definition for this group of wares has apparently yet to be devised. The Chinese term qing ci or greenware may, however, be regarded as more satisfactory than the term celadon or celadonic that has enjoyed popular usage in the west. The term celadon has recently come in for a considerable amount of criticism on both cultural and historical grounds and its relevance in a ceramic context.<sup>60</sup> The term greenware may, therefore, be used to cover a range of high fired wares with felspathic glazes containing a small amount of iron which, when fired under properly controlled conditions, exhibit a greenish or bluish hue. It may also be satisfactorily used to encompass all shades of green and their relations

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<sup>59</sup>These bowls appear as some of the latest of the Kota Cina phase imported stonewares. They may be related to the "Iron slip bowls," Class Ah, reported from Sarawak, though without iron slip decoration. As with the Sarawak bowls, the gray glaze and unglazed ring bears a resemblance to later eighteenth to nineteenth century bowls often decorated in underglaze blue. Heavy, coarse and unattractive as these bowls are, they clearly represent a trend in later stoneware exports to Southeast Asia. On the Sarawak bowls, see Zainie and Harrison, "Early Chinese Stonewares," pp. 45-47.

<sup>60</sup>On the terms "greenware" and "celadon," see Lu Yaw, "Introduction," in Chinese Celadon, pp. 13-31. But see also W. Willetts, "Celadon," in Chinese Celadons, pp. 33-41.

ranging from light and dark grays to yellows and even browns resulting from misfiring.<sup>61</sup>

The actual shade of any glaze is dependent upon both quantitative amounts of the ingredients and their chemical constituents, as a slight chemical variation can make a significant change in the resultant color.<sup>62</sup> Also of importance are the position of the piece in the kiln, the kiln temperature and, of course, the color of the clay used for the body. Chinese potters made considerable use of reducing atmospheres created by damping down the kiln and restricting the free oxygen supply during firing, a process which, in turn, helped to extract oxygen from the glaze thus causing the iron content to impart a greenish or bluish hue.

Despite major technical improvements the enormously long, wood-fired "dragon" kilns in use in the south of China during the Song period, built in a series of ascending chambers, each a step higher on a convenient hillside with stoking vents along their length, could not develop completely uniform atmospheric conditions.<sup>63</sup> Skilled operators could, however, reduce disadvantages to a minimum and found empirical ways of ascertaining the optimum conditions of firing and placement of pieces within the kiln to obtain desired results. Such kilns could produce stonewares on a vast scale turning out between twenty to twenty five thousand pieces at a single firing.<sup>64</sup>

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<sup>61</sup>See Lu Yaw, "Introduction," p. 14.

<sup>62</sup>For a full discussion of Sung greenware glazes, see Tichane, Those Celadon Blues, pp. 129-36. See also Technical Studies of Lung ch'üan Celadons of Successive Dynasties, OCS Chinese Translations No. 7 (London: OCS, 1978).

<sup>63</sup>See Technical Studies, pp. 23-25, and Medley, Chinese Potter, pp. 147-48.

<sup>64</sup>Medley, Chinese Potter, p. 148.

Firing was commenced at the lowest levels and the upper levels were fired last. The result of this system was that pieces in the lower levels were subjected to shorter firing and more drastic fluctuations of temperature than those at the top which had the advantage of a longer and more even warming up period. Inevitably, the finest pieces came from the uppermost chambers.

#### 5.5.1 Greenware: Fujian Type?

##### Coarse Utilitarian Bowls

These are representative of a class of coarsely made, heavy, utilitarian bowls, of which numerous base sherds have been recovered as surface finds throughout the Kota Cina site. Due to the nature of the glaze, this group of wares has been described as "Yue-type" stoneware<sup>65</sup> but should not be directly related to the earlier Yue wares as it appears to be a product of the Yuan period. A more satisfactory terminology is therefore required to avoid confusion with the earlier Tang and Song period wares with Yue-related glazes. As examples of this class are generally heavy and coarsely made, "Coarse Green Ware" may be an acceptable term until such time as it can be attributed to a specific kiln or group of kilns.

The bowls come in both plain and decorated varieties. Plain bowls are known with spur marks on the interior, marks which are due to the type of saggar used in the firing process. Decoration may consist of incised under glaze designs such as floral (peony) or other patterns or incised characters. Stamped characters, both incuse and raised are also known.

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<sup>65</sup> On the terms Yue and Yue-type, see M. Tregear, Catalogue of Chinese Greenwares in the Ashmolean Museum, Oxford (Oxford: Oxford University Press, 1976), p. 1.



The most common of these is the four character Taoist benediction jin yu man tang (金玉滿堂), a hall filled with gold and jade<sup>66</sup> (see Figure 63, Plate 139). Single character marks, such as that on a base sherd impressed with the character wang (王), king or ruler, or what appears to be a corruption of yu (玉), jade, also appear. Some of the marks are either indistinct or corrupt and are not easily read or understood (see Figure 63 and Plate 143).

The body is usually a dense, light gray stoneware. Occasionally, however, misfiring has resulted in the paste taking on a buff or reddish color. Misfired pieces show considerable variation in the color of the glaze, ranging from a grayish white to yellowish and dark gray and various shades of green.

Comments:

Similar bowls have been reported from Sarawak, where they are included in Zainie's classification as Class B 1b, "Yueh-type" bowls, and from Kedah.<sup>67</sup>

Also belonging to this class of ware are four small bowls of very indifferent quality. They represent a group of bowls which, due to their small size and robustness, often survive intact. The glaze, where it has

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<sup>66</sup>See, for example, Zainie and Harrisson, "Early Chinese Stonewares," pp. 55-57, and Figure VII. See also Lamb, "Research," Plates 40 and 41. Lamb noted that the character yu (玉) was incorrectly written and considered that this may suggest a non-Chinese origin for his Pengkalan Bujang piece. It seems more likely, however, that the potters who produced these essentially utilitarian wares were semi-literate and made poor copies of popular benedictions. Most of the impressed marks on this type of ware discovered at Kota Cina are corrupt copies of Chinese characters.

<sup>67</sup>Zainie and Harrisson, "Early Chinese Stonewares," pp. 55-57. Lamb, "Research," p. 24.

not deteriorated, is very thin and a matt, grey green or khaki color. The paste on these small bowls may range from pinkish to mid gray, variations on color which relate to the firing process, as these bowls would often appear to be underfired (Figures 64, 65, 66 and 67).

GW 1

Figure 61

Deep bowl

Glaze: Rough, matt, gray green glaze with brown spots which covers the whole of the vessel down to the outer edge of the broad footrim. The interior of the foot is unglazed.

Decoration: Both the exterior and interior are plain and undecorated. There is a single incised line around the interior base.<sup>68</sup>

Form: Heavy, utilitarian, deep bowl with a narrowed, slightly everted rim. The base is massive, the footrim bevelled on both inner and outer surfaces.

Dimensions: D. 196 mm

H. 85 mm

D. footrim 70 (62) mm. Width of footrim 10 mm.

GW 2

Figure 62

Deep bowl: Spurmarked

Glaze: Rough, matt gray green glaze which stops short of the footrim. There are splashes of glaze on the interior of the base.

Decoration: Plain and undecorated except for a single line incised around the interior base.

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<sup>68</sup>In "Oriental Ceramics," TOCS, 41, p. 84, this bowl was mistakenly described as having an underglaze incised design of peonies, a description which related to the bowl illustrated in Plate 45, but for which no line drawing was provided.

Form: Heavy, utilitarian deep bowl with a plain rim, massive base and square cut footrim.

Dimensions: D. 186 mm

H. 74 mm

D. footrim 72 mm. Width of footrim 8 mm.






GW 3

Figure 63

Bowl: Base sherd

This base sherd is similar in construction to the bases of GW 1 and GW 2, but has a shiny, grey green glaze. The interior of the base is unglazed, the footrim is almost identical to that of GW 2. The interior base is impressed with the four character mark jin yu man tang, "gold and jade filled hall," enclosed within a double square. The characters are corrupt forms and suggest that the persons making the marks were either semi-literate or extremely careless.

Other marks from similar bowls are shown for comparison:

- b. Appears to be a combination of the characters  , yue, moon, and  ren, man.
- c. The character  yu, jade.
- d. Probably the character  wang, meaning king or ruler, though it could also be a surname.
- e. Possibly a corrupt form of the character  , Song, used as a surname.

GW 4

Figure 64

Small bowl

Glaze: Thin, crackled, muddy green-brown (khaki) colored glaze

which covers the whole of the vessel except the base of the foot.

Decoration: None.

Form: Small, solidly made utilitarian bowl with curved sides and a slightly concave solid foot.

Dimensions: D. 78 mm

H. 32 mm

D. footrim 30 mm

GW 5

Figure 65

Small bowl

Glaze: No visible remains of glazing, completely corroded?

Decoration: None.

Form: Small, deep solidly made utilitarian bowl with steeply curved sides and a slightly concave solid foot.

Dimensions: D. 74 mm

H. 42 mm

D. footrim 32 mm

GW 6

Figure 66

Small bowl

Glaze: Matt, khaki colored glaze which stops well short of the foot on the exterior and covers only the outer portion of the interior, leaving a rectangular unglazed portion in the center.

Decoration: None.

Dimensions: D. 102 mm

H. 32 mm

D. footrim 33 mm

GW 7

Figure 67

Small bowl

Glaze: No visible remains of glaze, completely corroded?

Decoration: None.

Form: Small, deep bowl with curved sides tapering to a narrow rim, the foot is heavy, solid and slightly concave.

Dimensions: D. 92 mm

H. 44 mm

D. footrim 38 mm

GW 8

Figure 68, Plates 122, 123

Shallow bowl with four ? spurmarks

Glaze: A shiny, variable gray brown to olive green heavily crackled glaze which covers the whole of the interior except for the scars left by four (or five?) small triangular spurmarks. On the exterior, the glaze extends unevenly down to the edge of the broad footrim where it has spilled over onto the footrim itself.

Decoration: A single incised line around the base and two similar lines just below the rim on the interior. The exterior is plain and undecorated.

Form: A small, shallow bowl with angular sides and a broad footrim, bevelled on the interior. The interior of the base recessed, with a slight point in the center. No marks on the footrim relating to the position of the spurmarks on the interior.

Dimensions: D. 178 mm  
 H. 44 mm  
 D. footrim 65 mm

Comment:

A single specimen recovered as a surface find adjacent to Location 3.  
 Fourteenth century, Yuan period?

GW 9

Figure 69, Plate 124

Zhejiang type, Qu zhou variety?

Dish with incised and combed underglaze design

This dish is representative of a group of generally coarse, rather heavily made green glazed vessels with incised underglaze designs. One of the most common is the flying goose pattern, but patterns composed entirely of floral or foliar designs are also known.

Paste: Fine gray stoneware.

Glaze: Variable yellowish to gray green glaze which covers the whole of the vessel down to the outer edge of the footrim. The bottom of the footrim and the interior of the base are unglazed.

Decoration: Exterior undecorated. The interior has an incised design of a flying goose or teal within a central medallion surrounded by loosely formed foliar scrolling and combed decoration.

Form: A broad, shallow dish with a turned over rim. The carved footrim is bevelled on both the interior and exterior surfaces. Part of the kiln support adheres to the unglazed portion of the base.

Dimensions: D. 285 mm  
 H. 73 mm  
 D. footrim 77 mm

Comments:

Several sherds of similar bowls of various sizes were recovered as surface finds from different parts of Kota Cina. The quality of the design varies considerably from a carefully incised goose with outstretched wings to a mere skimpy outline of the same basic design surrounded by floral scrollwork of a similar nature especially on some of the smaller examples. Several whole pieces of this type are known from private collections.<sup>69</sup>

Comparable finds:

Bowls similar in outline are known from Sarawak,<sup>70</sup> from Pengkalan Bujang in Kedah<sup>71</sup> and Egypt.<sup>72</sup> A base sherd of this type was recovered from Kota Rentang to the northwest of Kota Cina. The Kota Rentang assemblage is largely fourteenth to sixteenth century in date, comprising mainly blue and white and Southeast Asian ceramic imports. This suggests that

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<sup>69</sup>I have seen several comparable specimens offered for sale in Sulawesi and Jakarta. See, for example, Chinese Celadons, where a similar bird, described as a "mandarin teal," is illustrated (Plate 34). This piece has been dated to the tenth or eleventh centuries, probably one to two hundred years too early.

<sup>70</sup>Zainie, "Early Chinese Stonewares," where bowls of similar profile are included under Class Blb, iv, "Yueh-type bowls," Figure 7.

<sup>71</sup>Lamb, "Research," Plates 36 and 37, 38 and 39 (these illustrations are all of the same design, but only the wing of the bird is visible in Plate 36).

<sup>72</sup>B. Gyllensvard, "Recent Finds II," Plate 4,1, where the bird, with its head missing, is mistakenly described as a lotus leaf. (See GW 29 for an almost identical sherd from Kota Cina.)

the design may have continued in production into the Ming period, unless there was already a settlement at Kota Rentang during the Kota Cina phase.

An interesting variety of this type of dish was found at Kota Cina Location 3. The central design is, in this case, surrounded by a series of flutings which radiate out from the central medallion (Plates 125, 126).

GW 10

Figure 70, Plate 127

Fujian type? Bowl with incised underglaze design

Glaze: A thin, matt, dark gray green, slightly crackled glaze over a white slip which covers the whole of the vessel down to the outer edge of the broad footrim. The interior of the base is unglazed.

Decoration: A band of carved swirling foliar decoration enclosed between two bands, one above and one below the design. Some slight combing on individual leaves.

Form: A deep bowl with rounded sides and a slightly tapered rim. The broad footrim is bevelled on the interior and the base recessed.

Dimensions: D. 133 mm

H. 73 mm

D. footrim 59 mm

Comment:

This bowl has affinities in shape to a deeply carved Five Dynasties period bowl from Wenzhou.<sup>73</sup> It is distinguished from most other green glazed wares at Kota Cina by the presence of a white slip. It is possibly an early specimen in the context of Chinese stonewares at Kota Cina.

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<sup>73</sup>Hughes-Stanton and Kerr, Kiln Sites, p. 16, No. 85.



GW 11

Figure 71, Plates 128, 129

Zhejiang type: Bowl with incised underglaze design

Glaze: A shiny, dark yellowish gray glaze that covers the whole body down to the outer edge and onto the broad footrim. Except for splashes, the footrim and recessed base are unglazed.

Decoration: A single band of overlapping lotus petals, lightly combed with vertical lines on every alternate petal, incised below a single lightly incised line under the rim. The cavetto is decorated with peony flowers and the central medallion with a fully open peony blossom.

Form: A heavy bowl with slightly angular sides and a broad footrim. Traces of a kiln support are visible on the interior of the unglazed recessed base.

Dimensions: D. 170 mm  
H. 64 mm  
D. footrim 62 mm

Comment:

One of four similar bowls excavated at Location 1. The paste in all cases is a fine grayish stoneware covered by a yellow gray glaze which in the case of three of the bowls comes down to the edge of the footrim. Bowls with related decoration and glazes are known from archaeological sites in Egypt<sup>74</sup>

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<sup>74</sup>Gyllensvärd, "Recent Finds II," p. 99, Plate 6, 1. The Kempe bowl, which Gyllensvärd considers as belonging to "a rather sophisticated variety" of Northern Song period greenglazed Longquan ware is similar to the Kota Cina example. The glaze is within the range of colors for these wares. This may be an early Longquan piece or from other kilns in the Zhejiang region.

and the Philippines.<sup>75</sup> Twelfth to thirteenth centuries, late Northern or early Southern Song.

GW 12

Figure 72

Bowl with incised underglaze design

Glaze: Shiny yellow gray glaze which covers the whole body except for the footrim and recessed base.

Decoration: The interior plain and undecorated, the exterior with a band of overlapping, alternately large and small lotus petals, the larger decorated with vertically combed lines.

Form: Heavy, rather squat bowl with rounded sides and a broad footrim. There is a slight thickening below the rim. A single horizontal line has been incised just below the rim at the apex of the leaves.

Dimensions: D. 163 mm

H. 51 mm

D. footrim 65 mm

GW 13

Figure 73

Bowl with incised underglaze design

Glaze: A shiny yellow gray glaze covers the whole of the body except for the footrim and the recessed base.

Decoration: The interior with a scroll of incised and combed foliar design. The exterior decorated with a band of free standing lotus petals with vertically combed lines covering the whole petal.

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<sup>75</sup>Locsin, Oriental Ceramics, Plate 114, illustrates a slightly larger bowl with a gray glaze and similar incised decoration from Puerto Galera, Mindanao.

Form: A small, deep bowl with angular sides and a slightly everted rim. The interior base recessed and unglazed.

Dimensions: D. 136 mm

H. 61 mm

D. footrim 52 mm

GW 14

Figure 74

Bowl with incised underglaze decoration

Glaze: A shiny yellow gray glaze which covers the whole of the interior but which stops well short of the foot on the exterior.

Decoration: A single incised line around the interior base, the exterior with a single band of free standing lotus petals partially decorated with vertically combed lines.

Form: A small, finely potted bowl with rounded sides, a rolled rim and a square cut footrim slanting towards the recessed base on the interior.

Dimensions: D. 118 mm

H. 50 mm

D. footrim 40 mm

Comments:

These bowls are not necessarily from the same kilns but have obvious similarities in both glaze and potting.<sup>76</sup> Probably thirteenth to fourteenth centuries, Southern Song.

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<sup>76</sup>It may be impossible to distinguish between the pastes and glazes without sophisticated tests.

GW 15

Figure 75, Plate 130

Fujian type, Pu tian variety?

Saucer-like dish

Glaze: A shiny, gray green glaze with a heavy crackle which covers the whole vessel except for the small, flat circular base.

Decoration: Incised peony decoration on the flat interior base, with very fine combing discernible on the flower petals. The interior sides and the exterior plain and undecorated.

Form: A shallow, saucer-like dish with sharply angled, spreading sides, a straight rim and a small, flat unglazed base. The foot has been trimmed off.

Dimensions: D. 151 mm

H. 35 mm

D. foot 56 mm

Comments:

A form of saucer-dish which was produced at various kilns in Zhejiang and Fujian, it is known from Longquan where this form was first produced in the Northern Song period.<sup>77</sup> Sherds of these dishes display both incised and molded decoration.

Three different specimens, all of the same basic shape, have been excavated at Location 1. The smaller specimens have a slightly more concave base than the larger one. They are not necessarily from the same kiln. This specimen possibly from Fujian, Pu tian yao?<sup>78</sup> See also GW 16 and 17.

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<sup>77</sup>Hughes-Stanton and Kerr, Kiln Sites, p. 19.

<sup>78</sup>Similar saucers were made at kilns other than the Longquan group. See, for example, Li Huibing, "Notes on Remains of Kiln at Pu tian County

GW 16

Figure 76

Saucer-like dish

As above, with a slightly more recessed base.

Dimensions: D. 126 mm

H. 28 mm

D. foot 37 mm

GW 17

Figure 77

Saucer-like dish

As above, with an almost flat bottom and with a sketchy incised decoration on the interior.

Dimensions: D. 101 mm

H. 22 mm

D. foot 50 mm

GW 18

Figure 78, Plates 131, 132

Zhejiang type: Shallow bowl with incised underglaze design

Glaze: A shiny, even gray green crackled glaze which covers the whole bowl down to the outer edge of the footrim. The footrim and recessed base are unglazed.

Decoration: The exterior plain and undecorated. An incised peony flower and leaves fill the whole of the interior.

Form: A broad, shallow bowl with rounded sides and a slightly everted rim with a heavy, broad, square cut footrim. A slight point in the center of the recessed base.

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in Fujian Province," *Wen Wu*, 12 (1979), pp. 37-42, and also "Reconnaissance at the Site of the Porcelain Kiln in Tung'an County, Fujian Province," *Wen Wu*, 11 (1974), pp. 80-84. The stippled zigzag decoration is characteristic of both Pu tian and Tung'an kiln products.

Dimensions: D. 159 mm  
 H. 37 mm  
 D. footrim 58 mm

Comments:

One of three similar bowls excavated at Location 1. They are possibly copies of early Lonquan ware. Thirteenth century, Southern Song.

GW 19

Figure 79

Shallow bowl with incised underglaze decoration

As above, with slightly different decoration.

Dimensions: D. 160 mm  
 H. 39 mm  
 D. footrim 57 mm

GW 20

Shallow bowl with incised underglaze decoration

As above, with an incised peony flower on the interior, and a bevelled footrim.

Dimensions: D. 160 mm  
 H. 39 mm  
 D. footrim 57 mm

Comments:

The closeness in dimensions of these three bowls suggests that the potters may have been using a template to achieve uniformity of size. The variation in the finish of the footrim may not be of any significance.

GW 21

Plates 133, 134

Zhejiang type? Bowl with interior molded decoration

Glaze: A shiny, heavily crackled, opaque gray brown glaze which covers the interior except for an unglazed ring in the interior base. The exterior glazed down to the edge of the footrim, the foot and the recessed base are unglazed.

Decoration: The exterior with a single band of narrow molded lotus petal which extends from just above the foot to just below the rim. The interior with a Buddhist swastika motif within four lappets in the glazed center.

Form: A small bowl with rounded sides and a broad footrim, rounded on the exterior, slightly bevelled on the interior. The base slightly recessed with tooling marks on the interior.

Dimensions: D. 170 mm  
H. 56 mm  
D. footrim 60 mm

Comments:

Excavated to the north of the Sanctuary at Location 3, in association with large Longquan basins and coarse white bowls. Late thirteenth or fourteenth centuries, Yuan period.

GW 22

Figure 80

Zhejiang type: Bowl with incised underglaze decoration

Glaze: A shiny, crackled gray green glaze which covers the whole vessel down to the edge of the footrim.

Decoration: A single band of narrow lotus petals rising from the footrim to just under the rim on the exterior. The interior is plain

and undecorated.

Form: A bowl with rounded sides and a heavy footrim and a recessed base.

Dimension: D. 159 mm

H. 60 mm

D. footrim 55 mm

Comments:

Excavated at Location 1. Thirteenth century, Southern Song or Yuan.

GW 23

Figure 81

Zhejiang type: Bowl with incised underglaze decoration

Glaze: A shiny, crackled golden brown glaze which covers the whole of the vessel down to the edge of the footrim. The interior of the recessed base is unglazed.

Decoration: The exterior decorated with a single band of incised lotus petals.

Form: A low, broad bowl with rounded sides and a broad foot bevelled on the exterior. The interior of the base recessed.

Dimensions: D. 200 mm

H. 40 mm

D. footrim 62 mm

Comments:

Excavated at Location 1. Thirteenth to fourteenth century, late Southern Song to Yuan period.



Numerous fragments of green glazed vessels not dealt with in the above discussion were recovered either by excavation or as surface finds at different parts of the site. It has not been possible to reconstruct outlines of these vessels, but the sherds themselves are of interest, representing as they do, a wide range of bowls of different shapes and sizes. Photographs, with a brief description of the fragments are included as a supplement to the discussion.

GW 24

Plates 135, 136

Seven sherds from a large, shallow, thinly potted bowl with a heavily crackled, dark green glaze over a medium gray paste. The sherds display underglaze carved and combed foliar decoration in the "northern greenware" tradition. The rim is slightly rolled, the footrim straight cut and unglazed, displaying a distinctive unglazed strip between the interior edge of the foot and the glazed center of the interior base. The edge of the glaze is whitish in color (due to a slip?), and a reddish brown line has formed at the edge of the glaze. The body, where exposed is burnt to a gray buff color. Excavated at Location 1. Probably twelfth century, early Southern Song.

GW 25

Plates 137, 138

Rim sherd of a large, thinly potted bowl with a heavily crackled olive gray green glaze over incised designs including a stippled zig zag. The exterior has broad, rounded lotus petals with longitudinally combed decoration both on and between the petals, the interior with carved foliar designs and combed lines. Excavated at Location 1.

Possibly Fujian type, Pu tian variety. Thirteenth century, Southern Song.<sup>79</sup>

GW 26

Plates 139, 140

Base sherd of a medium sized bowl with a shiny, crackled, olive green glaze. A Taoist auspicious saying in four characters reading Jin Yu Man Tang within a square seal impressed into the center of the interior base. The base is roughly finished, with an unglazed footrim and recessed interior base. D. footrim 62 mm. Recovered as a surface find in the vicinity of Location 3.

GW 27

Plates 141, 142

Base sherd of a flat bottomed saucerlike dish with a shiny, yellow gray glaze full of small bubbles over a light gray paste with an impressed design of lilies. The base is flat and unglazed with part of a kiln support adhering to the edge. D. base 48 mm. Surface find near Location 3.

GW 28

Plates 143, 144

Base sherd of a small bowl with a shiny, heavily cracked glaze over a molded design comprising an indistinct character or characters with four lappets. The footrim and interior base are unglazed. D. footrim 56 mm. Surface find near Location 5.

GW 29

Plate 145

Base fragment of a small bowl with a shiny, crackled olive green glaze.

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<sup>79</sup>See Lu Huibing, "Notes," pp. 41-42.

Underglaze carved design of a flying goose. D. footrim 65 mm. (See also GW 9.)

GW 30

Plate 146

Base sherd of a small, badly fired bowl with a shiny, variably gray-green, heavily crackled glaze which covers the interior but stops well short of the base on the exterior. A sketchy, combed underglaze design is visible on the cavetto and the interior base. The under-fired paste varies from pale buff gray to brick red. The footrim (not shown) is straight cut on the exterior, bevelled on the interior. Pronounced chatter marks from the wheel on the unglazed portion of the exterior. D. footrim 58 mm. Surface find, Location 3.

GW 31

Plates 147, 148

Lid of a small covered jar with a matt, heavily crackled gray-green glaze which displays an orange tinge due to the tendency of the paste to show through the glaze. The interior of the lid shows the glaze on the interior and the unglazed flange around the interior of the rim is burnt to a brick red color. D. 82 mm.

#### 5.5.2 Greenware: Zhejiang Type, Longquan Variety

The ubiquitous Longquan greenware glazes are thought to have developed in the mid to late twelfth century, The kilns were already in production by the late Tang period or by the end of the ninth century but only reached their apogee after the establishment of the Southern Song at Hangzhou in 1127.<sup>80</sup> The proximity of the Imperial court after this date

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<sup>80</sup>Medley, Chinese Potter, p. 145. But see also Technical Studies, pp. 39-40, and Excavations of Lung ch'üan Celadon Kiln Sites, pp. 1-3.

no doubt had a direct effect upon the development of ceramic style in the Longquan area.

Not only were the Longquan greenglaze wares produced in great quantities at numerous kilns in central and southern Zhejiang, but were also closely copied at kilns such as Jin cun in northern Fujian. For all practical purposes these products can be included with the Longquan group. As with other wares, it is extremely difficult to attribute pieces to any specific place of origin due to the almost universal practice of copying. In the later stages of production, however, certain kilns began to specialize in certain shapes and decorative techniques, making it possible to group some of these wares on the basis of technique and style.<sup>81</sup>

Paste is not of great help in attempting to attribute pieces to specific kilns as the body material varies, even with pieces from the same kiln. This practice of using different pastes at the same kiln seems to be quite widespread throughout South China<sup>82</sup> and complicates to an extreme the task of making specific attributions.

During the Northern Song period, Longquan wares were characterized by a low, fairly broad foot with an unglazed base.<sup>83</sup> During the Southern Song period the foot seems to have been very variable. In later times, the foot often assumed a broad and rather heavy appearance.<sup>84</sup>

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<sup>81</sup>Medley, Chinese Potter, p. 147.

<sup>82</sup>Ibid. See also Shiwan Wares (Hong Kong: Hong Kong University, Fung Ping Shan Museum, 1979), "Introduction," pp. 10-11.

<sup>83</sup>Excavations of Lung-ch'üan Celadon Kiln Sites, p. 4.

<sup>84</sup>Cultural Relics, pp. 255-56. But see J. Ayres, "A Note on Celadon Wares from Sinan," in Chinese Celadons, pp. 49-55. Ayres rightly warns that ceramic discoveries "are only rarely accompanied by firm chronological evidence" and points out that much dating "continued to be based on

The earliest Longquan wares would appear to be those with plain, undecorated bodies or with simple, carved lotus petals on the exterior. Incised underglaze designs also appear among the earlier products of these kilns. Medley dates the introduction of appliqué or sprig molded decoration to about the middle of the thirteenth century. The practice of laying unglazed sprig molded elements on top of the unfired glaze may date to the fourteenth century,<sup>85</sup> but it is in any case a later development than the underglaze appliqué form of decoration. Numerous sherds with underglaze appliqué decoration have appeared at Kota Cina but unglazed appliqué elements are relatively rare. Only two sherds displaying the technique, both from an area to the southeast of Location 3, have appeared in the assemblage.

#### Greenware with Incised Decoration

Longquan greenwares with examples of incised underglaze decoration appears only rarely at Kota Cina. Only three specimens are known, of which one was excavated at Location 1 and the other two recovered as surface finds in the vicinity of Location 3. One specimen, which may or may not be attributable to the Longquan kilns, has the unusual combination of both incised and appliqué underglaze decoration. It has, however, been included with the Longquan wares due to its affinities with them.

LQ 1

Figure 82, Plates 149, 150

Large basin

Glaze: A glassy, uniform finely crackled brown glaze containing many

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traditional ideas about style that have no very firm historical or archaeological basis" (p. 50).

<sup>85</sup>Medley, Chinese Potter, pp. 150-51.

small bubbles which covers the whole of the vessel including the base with the exception of the narrow footrim.

**Decoration:** Incised underglaze decoration on both the interior and the exterior surfaces. The exterior is decorated with superficial curvilinear incisions giving the impression of a sketchy foliar pattern, the interior, with the exception of a broad, plain border at the rim is incised with a carefully but stiffly executed pattern of sickle leaf scrolls.

**Form:** A large basin or bowl with rounded sides and an everted rim. The footrim is thin and square cut.

**Dimensions:** D. 312 mm

H. 81 mm

D. footrim 92 mm

**Comments:**

An unusual piece in the context of the Kota Cina recoveries by virtue of both size and decoration. It is larger and more thinly potted than the general run of Longquan pieces. The sickle leaf scroll decoration strongly suggests that it was inspired by the northern greenware tradition and it may consequently be an early piece.<sup>86</sup> Probably late twelfth century, Southern Song.

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<sup>86</sup>Wirgin comments that the "sickle leaf scroll" is a very special kind of scroll which seems to be found only on Northern Celadon wares" (Wirgin, Sung Ceramic Designs, p. 24). Discoveries made more recently in Egypt and Southeast Asia would suggest, however, that this design does appear on Southern copies of green glaze stonewares made in the northern greenware tradition. See, for example, GW 24 (Plate 135) for an example of this design.

LQ 2

Figure 83, Plate 151

Shallow basin

Glaze: A matt, even toned green glaze which covers the whole of the remaining part of the body except for the narrow footrim which has burnt to a reddish color where exposed.

Decoration: An incised underglaze design of two fish swimming in a clockwise direction among waves, surrounded by two incised lines at the edge of the interior base.

Form: A large, shallow bowl of which only part of the base and side was recovered, the upper sides and rim are lost.

Dimensions: Diameter and height unknown.

D. footrim 143 mm

Comments:

The incised fish is of a type developed during the Northern Song period. The fins are extended, the tail fins split and flaring. The waves or ripples are effected by lightly combed incisions. It is a fine example of early Southern Song Longquan ware.

The interior of the base has a pronounced recessed circular mark approximately 1 mm deep in the center. Similar marks have been noticed on a number of other Longquan sherds which suggest that this may be a characteristic that may allow attribution of similarly marked specimens to a specific kiln.<sup>87</sup> No comparative pieces have been reported from Southeast

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<sup>87</sup>See, for example, LQ 13. Palmgren illustrates a cross section of a bowl from Yuan kou (元口) which has a pronounced inset in the base. See N. Palmgren, Sung Sherds (Stockholm: Almqvist & Weksel, 1963), Figure 61.

Asian archaeological sites but similar pieces are known from private collections.<sup>88</sup>

Probably late twelfth century, Southern Song.

LQ 3

Figure 84, Plates 152, 153

Bowl (base sherd only)

Paste: A dense, light to mid gray stoneware which has burnt to a darker buff where exposed, and to a bright orange red at the edge of the glaze.

Decoration: Incised design of two fish swimming in a counterclockwise direction above which two appliqué fish have been superimposed, swimming in a clockwise direction.

Glaze: An even colored, opaque green glaze with little crackle on the interior but a much heavier crackle on the base.

Form: A bowl, probably relatively shallow. The upper sides and rim are lost.

Dimensions: Diameter and height unknown. D. footrim 91 mm

Comments:

Of poorer quality than the two preceding examples, and therefore possibly not from the Longquan kilns though made in imitation of the Longquan ware. Of particular interest as it is possibly a transitional piece made at a time when appliqué designs were superseding the earlier and less satisfactory underglaze incised designs. Recovered as a surface find in the

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<sup>88</sup> Comparison may be made with a bowl in the Bristol Museum; see G. St. G. Gompertz, Chinese Celadon Wares (London: Faber, 1958), Plate 75. See also Guy, Oriental Trade Ceramics, Plate 67; SEACS, Chinese Celadons, Plate 63; and Wirgin, Sung Ceramic Designs, Plate 39b. See also Hughes-Stanton and Kerr, Kiln Sites, Plate 93, which gives a Northern Song example.



vicinity of Location 3. Possibly late twelfth to mid thirteenth century (Southern Song) or slightly later.<sup>89</sup>

#### Plain and Undecorated Greenware

LQ 4 and 5

Figures 85, 86

#### Bowl

**Glaze:** An even, shiny blue green glaze devoid of any crackle. The pale color of the paste tends to show through the glaze on the inner and outer edges of the rim and at the angle of the lower body.

**Decoration:** None.

**Form:** A shallow bowl with a slightly rolled everted rim, angular sides and a flat interior base. The footrim is delicately carved and the base recessed. The flat interior is broader than the footrim.

**Dimensions:** Bowls of this shape have been found in what are basically two sizes which show very little variation:

LQ 4	LQ 5
D. 87 mm	D. 122 mm
H. 30 mm	H. 37 mm
D. footrim 41 mm	D. footrim 60 mm

#### Comments:

Fragments of no less than six different specimens of this shape of bowl appeared in the excavation at Location 1. Sherds of similar bowls have

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<sup>89</sup>Compare with SEACS, Chinese Celadons, Plate 111, in which a pair of appliqué fish have been placed over, and at right angles to, a pair of impressed, molded fish.

also been recovered as surface finds at different parts of the site. The color of the glaze varies considerably from an exquisite pale blue green through shades of gray green to a dark gray green. Numerous bowls of this kind have also been found at other Kota Cina phase sites in the Medan area. Similar bowls are also known from Sarawak,<sup>90</sup> the Philippines<sup>91</sup> and Fostat.<sup>92</sup> Twelfth to fourteenth century, Southern Song to Yuan.

LQ 6

Figure 87, Plates 154, 155

Dish with foliate rim

Glaze: An even, shiny gray green glaze full of small bubbles covering the whole of the dish except for the narrow carved footrim. The paste is burnt to a dark orange red at the edge of the glaze.

Decoration: The rim foliate, otherwise plain and undecorated.

Form: A small, shallow dish with slightly angular sides and a foliate rim. The footrim is bevelled on the exterior, straight cut on the interior.

Dimensions: D. 163 mm

H. 27 mm

D. footrim 62 mm

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<sup>90</sup>See Zainie and Harrison, Early Chinese Stonewares, p. 66, "Clay, Small angled celadon bowls" with diameters from 90 to 130 mm.

<sup>91</sup>See Locsin, Oriental Ceramics, p. 116, for an example from Puerto Galena, Mindoro.

<sup>92</sup>Gyllensvard, "Recent Finds. II," p. 107 and Plate 21. He notes that this shape is common among the most sophisticated pieces of Song stoneware. Glaze on the Fostat sherds was both of high quality and a poorer gray blue shade (the former, he thought, possibly indicated a later date for these pieces). Sherds of this type were found at Da yao. Palmgren, Sung Sherds, Figure 12.

## Comments:

A single specimen represented by two fragments excavated at Location 1. It is very similar to a dish in "waterchestnut" form, excavated at Da yao and dated to the late twelfth or thirteenth century, Southern Song period.<sup>93</sup>

LQ 7

Figure 88

Large bowl or basin

Glaze: A shiny, blue green glaze which covers the whole vessel except for the carved footrim. The exposed paste has burnt to a reddish color.

Decoration: Undecorated except for a single incised line around the interior base.

Form: A broad, shallow basin with slightly rounded sides and an everted, flattened rim. The footrim is broad and bevelled on both sides.

Dimensions: D. 316 mm  
H. 60 mm  
D. footrim 98 mm

## Comments:

Excavated from the northwest quadrant at Location 1 in association with a range of rather poorer quality stonewares. Probably mid to late fourteenth century, Yuan period.

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<sup>93</sup>See Report on the Excavation of Lung ch'uan Celadon Kiln-sites, Plate 4, 10.

LQ 8

Figure 89

Small bowl with unglazed mouthrim

Glaze: A heavily crackled, dark gray green glaze which covers the whole of the vessel except for the mouthrim and the edge of the footrim where the paste has been burnt to a reddish brown color. The glaze on the interior of the recessed base is a paler gray and noticeably thinner than the glaze on the rest of the body.

Decoration: None.

Form: A small bowl with rounded sides and bevelled footrim. The base is recessed.

Dimensions: D. 88 mm

H. 44 mm

D. footrim 36 mm

Comments:

Excavated from the southeast quadrant of location 1. Probably mid to late thirteenth century, Yuan period.

LQ 9

Figure 90

Small bowl

Glaze: A crackled, gray green glaze which covers the whole vessel except for the edge of the footrim where the paste has burnt to a reddish brown.

Decoration: None.

Form: A small bowl with slightly angular sides and a straight rim. The footrim is rounded and the center of the recessed base is carved to a slight point.

Dimensions: D. 110 mm  
 H. 45 mm  
 D. footrim 36 mm

Comments:

Similar to LQ 8, but with a glazed rim. Excavated from the southwest quadrant of Location 1. Probably mid to late thirteenth century, Southern Song or Yuan.

LQ 10

Figure 91, Plate 156

Shallow bowl with incised lotus decoration

Glaze: A clear, shiny, even colored crackled brown glaze which covers the whole of the vessel down to the edge of the footrim. Some glaze has splashed on the outer edge of the footrim which is otherwise unglazed, the recessed base is unglazed.

Decoration: A band of broad, neatly carved, overlapping lotus petals which extend from the edge of the footrim to just below the rim.

Form: A shallow bowl or saucer with a low, broad, square cut footrim and a recessed base.

Dimensions: D. 154 mm  
 H. 35 mm  
 D. footrim 59 mm

Comments:

Excavated from Location 1, southwest quadrant. Possibly late twelfth century, early Southern Song and therefore one of the earliest pieces excavated at Kota Cina.

LQ 11

Figure 92

Medium bowl with incised lotus decoration

Glaze: A shiny, even colored blue green glaze which covers the whole of the vessel down to the edge of the footrim. The interior of the base is also glazed.

Decoration: A band of broad, overlapping, neatly carved lotus petals extending from the upper edge of the footrim to approximately 10 mm below the rim.

Form: A medium sized bowl with rounded sides and a broad bevelled footrim.

Dimensions: D. 157 mm

H. 47 mm

D. footrim 56 mm

Comments:

Similar to LQ 10 but slightly deeper. The glazed base may indicate that it is a slightly later version of this form.

LQ 12

Figure 93

Bowl with lotus decoration and two appliqué fish

Glaze: An opaque, matt mid green glaze full of small bubbles, which covers the whole of the vessel including the recessed base except for the point of the footrim.

Decoration: A single line of lotus petals on the exterior. A single incised line at the base of the cavetto with two appliqué fish placed as if swimming in an anticlockwise direction around the interior center.

**Form:** A large bowl or basin with rounded sides, a flattened rim and a heavy bevelled foot. The base is recessed.

**Dimensions:** D. 262 mm

H. 58 mm

D. footrim 110 mm

**Comments:**

Excavated to the north of the Sanctuary at Location 3 in association with numerous fragments of other large Longquan basins and sherds of heavy, gray glazed ring bowls (see GR 6) and earthenware. A fairly late example of Longquan greenware in the context of the Kota Cina assemblage. Datable to the mid or late fourteenth century, the late Yuan or early Ming period.

LQ 13

Figure 94

Bowl with lotus decoration and two appliqué fish

**Glaze:** An opaque, matt crackled green glaze which tends to noticeably obscure the detail of the decoration, covers the whole of the bowl including the recessed base down to the edge of the carved footrim.

**Decoration:** A single band of lotus petals around the exterior with two appliqué fish placed as if swimming in a clockwise direction around the interior center.

**Form:** A large bowl with rounded sides, a flattened rim and a bevelled footrim. There is a distinct circular depression in the center of the glazed base (as with LQ 2).

Dimensions: D. 215 mm  
 H. 52 mm  
 D. footrim 93 mm

Comments:

Excavated at 0.40 m in the northeast quadrant of the excavation at Location 1, it was lying face down as was often the case with other large fragments. It would appear to be a fairly late piece in the context of the Kota Cina assemblage, mid to late fourteenth century, Yuan to early Ming period.

LQ 14

Figure 95, Plates 157, 158

Bowl with lotus decoration and two appliqué fish

Glaze: A shiny, opaque light green glaze full of small bubbles which noticeably obscures details of the decoration. The glaze covers the whole vessel including the recessed base down to the edge of the carved footrim.

Decoration: A single band of double lotus petals around the exterior. On the interior, a single incised line around the bottom of the cavetto with two appliqué fish placed as if swimming in a clockwise direction.

Form: A small bowl with rounded sides, an everted flattened rim and a narrow, carved footrim.

Dimensions: D. 127 mm  
 H. 44 mm  
 D. footrim 60 mm



LQ 15

Figure 96

Bowl with lotus decoration

Glaze: A shiny, opaque even blue green glaze which covers the whole body except for the lower part of the footrim. The exposed portion of the body is burnt to a reddish color.

Decoration: A single band of overlapping lotus petals on the exterior. The interior plain and undecorated.

Form: A wide, deep bowl or basin with flaring sides and an everted lip. The base is recessed deeper than the outward curving part of the outer part. The footrim is bevelled on the outside and almost vertical on the interior. This form of bowl is known as no wan or cymbal bowl.

Dimensions: D. 221 mm

H. 57 mm

D. footrim 107 mm

Comments:

Excavated from north of the Sanctuary at Location 3, this is one of several large basins which may have been used in ritual ceremonies.<sup>94</sup>

LQ 16

Figure 97

Bowl with lotus decoration

Glaze: A shiny, opaque, slightly crackled blue green glaze which covers the whole of the body except for the narrow footrim.

Decoration: A single band of broad, overlapping lotus petals which extends from just above the foot to just below the rim.

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<sup>94</sup> Compare with Gyllensvard, "Recent Finds. II," Plate 6,2.

Form: A small bowl with gently rounded sides, a narrowed rim and a narrow footrim.

Dimensions: D. 157 mm

H. 47 mm

D. footrim 67 mm

Comments:

Excavated at Location 1 as were the following four bowls.

LQ 17

Figure 98

Bowl with lotus decoration

Glaze: A shiny, opaque gray green glaze which covers the whole of the body except for the narrow footrim. The paste shows through the glaze at the rim, imparting a brownish hue to the glaze.

Decoration: A single band of short, rather broad uneven lotus petals extending from the base to 5 or 6 mm below the rim.

Form: A small, shallow bowl with rounded sides and a tall, bevelled footrim with a recessed base.

Dimensions: D. 134 mm

H. 40 mm

D. footrim 72 mm

LQ 18

Figure 99

Bowl with lotus decoration

Similar to LQ 17, but with smaller, more upright lotus petals.

Dimensions: D. 128 mm

H. 38 mm

D. footrim 71 mm

LQ 19

Figure 100

Bowl with lotus decoration

Glaze: A matt, opaque, heavily crackled even green glaze which covers the whole of the body except for the narrow footrim.

Decoration: A single band of narrow lotus petals extending from the base to the rim.

Form: A small, wide bowl with rounded sides and a narrowed rim, small, narrow footrim and a recessed base the center of which is carved to a point.

Dimensions: D. 116 mm  
H. 42 mm  
D. footrim 29 mm

LQ 20

Figure 101

Bowl with lotus decoration

A smaller, but higher version of LQ 19 with an even, less crackled glaze and a more pronounced base.

Dimensions: D. 102 mm  
H. 47 mm  
D. footrim 30 mm

LQ 21

Figure 102

Bowl with fluted cavetto

Glaze: A shiny, even blue green glaze full of small bubbles. The body tends to show through the glaze on the ridges of the fluting and on the edge of the rim.

Decoration: The exterior plain and undecorated. The interior with a band of molded vertical flutes rising from the edge of the interior base to the edge of the rim.

Form: A small bowl with rounded sides, a flattened rim with an upturned outer edge, and a high, narrow footrim. The interior of the base is recessed and set higher than the outer part of the foot.

Dimensions: D. 144 mm  
H. 40 mm  
D. foot 64 mm

Comments:

One of a number of very finely made small bowls represented by fragments recovered at Location 1 and elsewhere throughout the site. Known from the Philippines<sup>95</sup> and Egypt.<sup>96</sup> Twelfth to thirteenth century, Southern Song.<sup>97</sup>

LQ 22

Figure 103

Bowl with molded cut sugar cane decoration

Glaze: A shiny, even green glaze covers the entire vessel except for an unglazed ring on the recessed base.

Decoration: The interior plain and undecorated, the exterior molded into vertical semicylindrical ridges of equal size, into a form known as tuan xi, cut sugar cane decoration.

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<sup>95</sup>Locsin, Oriental Ceramics, Plate 56.

<sup>96</sup>A form of decoration common at Fostat. Compare Gyllensvard, "Recent Finds. II," Plate 18, 1 and 2.

<sup>97</sup>For a similar bowl from Longfeng, which has, however, a slightly broader footrim, see Palmgren, Sung Sherds, Figure 36, No. 67.

Form: A flat centered, shallow bowl with slightly curved, almost straight sides and a bevelled footrim. The base is recessed.

Dimensions: D. 115 mm

H. 36 mm

D. footrim 74 mm

Comments:

One of several similar bowls of varying quality recovered at Kota Cina. This example, excavated at Location 1 is a particularly fine example in both potting and glaze. Similar bowls are known from Sarawak,<sup>98</sup> the Philippines,<sup>99</sup> Egypt,<sup>100</sup> and Sulawesi.

LQ 23

Figure 104, Plates 159, 160

Bowl with molded lotus interior

Glaze: A shiny, finely crackled yellowish to light green glaze covering the whole of the interior and the exterior down to the rounded footrim. The footrim and interior base are unglazed.

Decoration: The bowl is molded into the form of a lotus flower, the cavetto with vertical ridges to form petals, the central medallion slightly raised and perforated with a series of holes to create the impression of the stamens. The exterior is molded into a series of short vertical furrows corresponding to the indentations on the foliate rim.

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<sup>98</sup>See Zainie and Harrisson, "Early Chinese Stonewares," p. 68 and Plate 12.

<sup>99</sup>See Locsin, Oriental Ceramics, Plate 60. See also Tenazas, A Report on the Archaeology of the Locsin-University, Plate 19.

<sup>100</sup>Gyllensvard, "Recent Finds. II," p. 106, Figure 5 and Plate 18, 6. See also Palmgren, Sung Sherds, Plate 105 (T 103), Figure 12, 103 and Figure 15, 22, illustrating similar sherds recovered from Da-yao.

Form: A "lotus flower" bowl with slightly angular sides and a foliate rim. The small, slightly rounded foot is finely cut.

Dimensions: D. 120 mm

H. 48 mm

D. base 37 mm

Comments:

A unique example in the Kota Cina assemblage, recovered to the north of the Sanctuary at Location 3 in association with fragments of large Longquan basins and coarse gray glazed wares. Although the lotus was extremely popular in Song ceramic design and usually symbolic of purity, the lotus pod is thought to have been an expression of a wish for fertility.<sup>101</sup> Possibly used in ritual practice at the shrine at Location 3. Probably thirteenth century, late Southern Song or Yuan.

LQ 24

Figure 105

Wine jar or potiche

Glaze: A shiny, even green glaze covers the whole of the vessel except for the upper rim and the bottom of the broad, bevelled footrim. The paste tends to show through the glaze on the tops of the ridges. The glaze on the interior is paler and thinner than on the exterior.

Decoration: A series of ridges or flutes extending from just above the footrim to the top of the shoulder.

Form: A squat jar with a broad mouth, wider rounded shoulders and a recessed base. The body is molded in two sections and luted

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<sup>101</sup>Wirgin, Sung Ceramic Designs, pp. 170-72.

together. There is a low, fluted cover with a broad, unglazed flange on the lower edge which is designed to fit into the broad mouth of the jar.

Dimensions: D. cover 165 mm  
 H. cover 32 mm  
 D. mouth 115 mm  
 D. body 162 mm  
 H. body 91 mm  
 D. footrim 92 mm

Comments:

Excavated at Location 1. In addition to the medium sized specimen described above, fragments of another similar sized vessel, a smaller version of the same kind and a base sherd from a much larger example were excavated at Location 1. These jars appear to have been quite popular in the Kota Cina area. Sherds of similar vessels have been found at Kota Bangun, Deli Tua and Telaga Jernih. Two complete plain but very much larger versions of this jar were dug up by villagers at Tandem Hilir in 1971. The larger versions appear to be of Yuan date. Known also from Sarawak,<sup>102</sup> the Philippines and Egypt.<sup>103</sup>

LQ 25

Figure 106

Wine jar or potiche

A slightly smaller version of LQ 24 but without the cover. The molded fluting reaches up to the base of the broad, short neck.

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<sup>102</sup>See Zainie and Harrisson, "Early Chinese Stonewares," p. 68, Plate 12.

<sup>103</sup>Gyllensvard, "Recent Finds. II," Plates 30, 31. Palmgren illustrates a cover for a similar jar from Ao tou, Sung Sherds, Figure 24,6.

Dimensions: D. mouth 87 mm  
 D. body 139 mm  
 H. body 90 mm  
 D. footrim 81 mm

LQ 26

Figures 107, 108

Wine jar or potiche

A smaller version of the above, but with a matt, gray green glaze through which the ribbing shows as a pale gray vertical stripe.

Dimensions: D. cover 74 mm  
 H. cover 13 mm  
 D. mouth 55 mm  
 D. body 76 mm  
 H. body 64 mm  
 D. footrim 40 mm

Comments:

The covers for these jars vary in design, four different varieties were found at Kota Cina (Plate 161).

LQ 27

Plate 162

Zhejiang type, Longquan variety?

Dish with four character mark "He Pin Yi Fan" incised under the glaze

Glaze: A slightly crackled yellowish to light green glaze containing many tiny bubbles.

Decoration: The legend He Pin Yi Fan (河濱遺范) enclosed within a square seal incised into the interior base.<sup>104</sup>

<sup>104</sup>He Pin Yi Fan, an explanation which is not entirely satisfactory is: "Pattern bequeathed on the bank of a river," an obscure reference to an



LQ 29

Plate 164

Four fragments comprising base, body and rim sherds of large Longquan basins excavated to the north of the Sanctuary at Location 3. All display traces of lotus petal decoration on the exterior. The base, body and fragment of a flattened rim of a basin with a fine blue green glaze and a plain interior, a rim sherd with incised foliar design on the interior, and two base sherds with inferior glaze and parts of appliqué dragons on the interior. Fourteenth century, Yuan period.

LQ 30

Plate 165

A fragment of an incense burner with a fine glaze full of small bubbles excavated at Location 1. M.E.D. 83 mm. Thirteenth to fourteenth century, Southern Song or Yuan.

LQ 31

Plate 166

A fragment of the cover of a small box with thread relief under a shiny glaze full of small bubbles. Recovered as a surface find immediately north of Location 4.<sup>105</sup> Mid thirteenth or fourteenth century, very late Song or Yuan.

LQ 32

Plate 167

A fragment of the cover of a small box with molded floral decoration including lotus flowers and a lily under a shiny green glaze. Recovered as a surface find at Location 7. Mid thirteenth to fourteenth century, late Song or Yuan.

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<sup>105</sup> Compare Wirgin, Sung Ceramic Design, Plate 39f.

Form: Shallow dish? Known only from a single base sherd.

Dimensions: D. base 52 mm (?)

Comment:

The only four character mark found on a greenware vessel of Longquan quality. For an illustration of a dish of comparable type, see SEACS, Chinese Celadons, Plate 33, where it is dated to the tenth or eleventh centuries (a date which is possibly one to two centuries too early).

Numerous fragments of Longquan green glazed vessels were recovered either by excavation or as surface finds from different parts of the site. Although it has not been possible to reconstruct the outlines of these vessels, and they are consequently not included in the above discussion, they are of significance and interest. Photographs of certain of these sherds are therefore included as a supplement to the discussion.

LQ 28

Plate 163

Three fragments recovered as surface finds southwest of Location 4, comprising a rim sherd of a small bowl with a flattened rim and incised lotus petals with a double outline, a fragment of a small, molded octagonal covered box and a base sherd from a large basin with part of an underglaze appliqué dragon. Fourteenth century, Yuan period.

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emperor of legendary times. Medley states that this seal mark probably came into use in the latter part of the Southern Song and continued in use as late as the second or third decade of the thirteenth century. Medley, Yüan Porcelain, p. 67. See, however, Wirgin, Sung Ceramic Designs, p. 86, who says that it is one of a number of auspicious sayings on sherds excavated from Northern Song levels at Longquan. See also Report on the Excavation of Lung-ch'uan Celadon Kiln-sites in Chekiang, TOCS, Chinese Translations No. 2 (1968), p. 4.

LQ 33

Plate 168

Fragment of a large basin with detail of an appliqué fish excavated to the north of the Sanctuary at Location 3. The position of the fish in relation to the rim suggests that it was part of a "four fish" basin.<sup>106</sup>

LQ 34

Plate 169

Fragment of a large basin with detail of an appliqué fish excavated together with LQ 33 above. As with the former fragment the position of the fish suggests that it also formed part of a four fish basin. Mid thirteenth to fourteenth century, late Southern Song or Yuan.

LQ 35

Plates 170, 171

Base fragment from a medium sized bowl with an unglazed appliqué fish motif recovered as a surface find to the southeast of Location 3. The glaze is a gray green color, full of small bubbles. The footrim is carefully carved, with a reddish brown line along the edge of the glaze.

LQ 36

Plate 172

Five fragments of base sherds from small two fish bowls showing the different forms of fish motifs. The large sherd at bottom center with a shiny, clear brown crackled glaze full of small bubbles was excavated immediately south of the Sanctuary at Location 3.

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<sup>106</sup> Compare SEACS, Chinese Celadons, Plate 98. See also Gyllensvard, "Recent Finds. II," Plate 27, which illustrates part of a large fish in relation to the cavetto and rim of a Longquan basin found at Fostat.

### Fish Motifs: Incised and Appliqué Designs

Two varieties of incised fish designs and at least four different basic appliqué motifs may be discerned on green glazed Longquan sherds recovered at Kota Cina. The designs appear in different sizes, varying according to the dimensions of the vessels. These are, in the main, bowls varying from 140 up to 300 mm in diameter.

The fish is an auspicious emblem. Wirgin notes that "due to the similarity of pronunciation of the words for fish and abundance (yü), the fish motif became a symbol of wealth."<sup>107</sup> The fish also symbolizes fertility. A pair of fish symbolize connubial bliss and harmony. They may also be another form of the yin-yang symbol.<sup>108</sup>

Twin fish may be represented as swimming in a clockwise to an anti-clockwise direction. Examples of both forms have been found on sherds recovered at this site. Other variations are also known. Part of a large four fish bowl was found by a villager near Location 3 and other sites in the Kota Cina area have yielded small two fish bowls.<sup>109</sup>

#### 1. Incised designs:

- a) Fish with a large elongated mouth, extended fins and an upturned, widely flaring tail. Scales visible but not prominent on the body.

See Figure 109, a.

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<sup>107</sup>Wirgin, Sung Ceramic Design, p. 205.

<sup>108</sup>I am grateful to Mr: I. L. Legeza for discussing the implications of this with me.

<sup>109</sup>See above, LQ 14, recovered during ditch digging operations near Location 6 and a base fragment recovered as a surface find near Location 7. Late Song-Yuan two-fish bowls have also been reported from Terjun, on the road between Kota Cina and Hamperan Perak, from Kota Bangun on the Sungei Deli, from Telaga Jernih, near Stabat and from the c14-15 site at Kota Rentang northwest of Kota Cina.

b) Fish with a hump-like body, extended fins and a sharply downturned tail (found in association with appliqué design, Figure 109, h, which appears to be a development of the incised version). This is the only appliqué version in which the fish appears to be leaping, with both the head and the tail turned down.

2. Appliqué designs:

- a) Fish with a large head, pronounced scales, a single, elongated dorsal fin, two lower or pectoral fins and a sharply upturned tail with widely separated tail fins.
- b) Fish with less pronounced scales, a single elongated lower or pectoral fin, two small dorsal fins and uniform, widely separated tail fins.
- c) Fish with pronounced scales, an elongated dorsal fin made up of three separate sections and four separate lower fins. The tail is flaring with widely separated tail fins. This version is known from a single, unglazed specimen recovered as a surface find near Location 3. It may be safely dated to the Yuan period and appears as a development of (a) above.
- d) Fish with pronounced scales, on which the single elongated dorsal fin commences immediately behind the small head. There are two lower or pectoral fins of which the foremost balances the upper fin and the second forms a square base from which the sharply upturned tail seems to flare outwards.
- e) Fish with pronounced scales, a single elongated dorsal fin, two small lower fins which are little more than stubs and a sharply downturned tail, giving the impression that the fish is leaping out of the water. This last version is found in association with a similarly conceived incised fish. See Incised fish (b) above.

## 5.6 Miscellaneous Wares

### 5.6.1 Temmoku or Black Glazed Ware: Fujian Type, Quanzhou Variety

These deservedly popular dark brown, almost black glazed wares, known as temmoku by the Japanese,<sup>110</sup> are represented at Kota Cina by two distinct forms of tea bowl. There are a range of glazes which include a plain temmoku, a hare's fur variety and an oil-spotted glaze.

One of the forms described below is very similar to the classical Jian yao temmoku in both shape and glaze (Figure 111, Plates 175, 176). The paste is, however, a putty gray in color, closer to the finely potted tea bowls (Figures 173, 174) provisionally attributed to the Fujian Quanzhou kilns.

The paste of the classical Jian yao temmoku is a distinctive dark gray, almost black color. Copies of Jian yao from elsewhere in Fujian, where the dark clay was not available, attempted to imitate the Jian yao by painting the lighter colored bodies with a dark slip.

Unfortunately, few reports have been published of the numerous kilns which produced temmoku glazed wares in Fujian between the eleventh and fourteenth centuries. Some of these kilns are known to have produced also green and qingbai glazed wares.<sup>111</sup>

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<sup>110</sup>The name derives from Tian mu shan, a holy mountain in Fujian. J. M. Plumer, Temmoku: A Study of the Wares of Chien (Tokyo: Idemitsu Art Gallery, 1972), p. 16. Plumer's valuable study of the Jian kilns was carried out under difficult conditions during 1935. No excavation was carried out, but important surface collections were made from the kiln sites.

<sup>111</sup>Feng Hsien-Ming, "Important Finds," pp. 56-57. For a more recent assessment of the dating of the Jian wares, see Lin-sheng Chang, "The Tea-drinking Contests of the Northern Sung and Sung Chien Ware," Ku Kang Chi K'an (National Palace Museum Quarterly), 13, no. 4 (1979), pp. 39-41.

M 1

Figure 110, Plates 173, 174

Small bowl

Paste and temper: Fine, pale buff colored paste.

Glaze: A matt, uniform dark brown glaze which covers the interior and the exterior but stops well short of the carved footrim.

Decoration: None.

Form: Small, thinly potted plain "tea" bowl with a finely cut footrim.

Dimensions: D. 101 mm  
H. 47 mm  
D. footrim 37 mm

Comments:

Fragments of at least eight small temmoku glazed bowls were recovered by excavation at Location 1. These fragments include sherds from a single hare's fur specimen and one sherd with an oil spotted glaze (Plate 173). The paste ranges from a pale buff to a putty gray color.

Comparable Finds:

Reported from the Philippines<sup>112</sup> and from Sulawesi.

M 2

Figure 111, Plates 175, 176

Medium bowl

Paste and temper: Coarse, grayish paste with a sandy temper.

Glaze: Thick, unctuous, hare's fur glaze which stops in a thick

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<sup>112</sup>C. Grau-Abaya, "The Brown Wares," Manila Trade Pottery Seminar, pp. 6-9 and Figures Form 1.

roll well short of the carved footrim, applied over a dark slip.

Decoration: None.

Form: A heavily potted, medium size tea bowl. This specimen is incomplete, but apparently made in one of the standard Jian yao forms. It probably had a slightly everted lip.

Dimensions: D. (estimated) 122 mm

H. (estimated) 80 mm

D. footrim 40 mm

Comments:

This specimen comprises two sherds recovered by a villager as a surface find near Location 3. The sherds form the base and sides of a solidly made tea bowl of a common form of Jian yao. The light paste distinguishes this specimen from the classical Jian yao.

#### 5.6.2 Low Fired Green (Lead) Glazed Ware: Fujian Type, Quanzhou Variety

Sherds of this type appeared infrequently in the Kota Cina excavations. Due to the inherent brittle nature of this type of ware, vessels tend to have disintegrated into small pieces and most of the sherds recovered by excavation were only very tiny. There were, however, a few exceptions but it has not been easy to reconstruct vessel outlines from the remaining sherds. The glaze on many of these sherds has also tended to deteriorate badly compared with the high fired glazes.

One sherd of this type has been found with a green glaze over a pinkish body and black painted decoration on the glaze (Plate 188).



Small fragments of very delicately molded saucers, very much finer and thinner than anything recovered at Kota Cina, were found as surface finds near a drainage channel at Telaga Jernih, east of Stabat in Langkat. The Telaga Jernih sherds were associated with sherds of good quality qingbai and buff colored stonewares of Song period origin. The finer examples of this type of ware appear to have been produced in the Southern Song, with coarser, obviously mass produced specimens belonging to the Yuan.

M 3

Figure 112, Plate 177

Kendi

Paste and temper: A fine, pinkish brittle earthenware.

Glaze: Low fired, dark green lead glaze which covers the whole of the body down to the footrim and the interior of the flaring mouthrim. The glaze has turned iridescent due to burial. It tends to flake off easily from the body.

Decoration: A molded four-toed dragon with a prominent crest along the back, pursuing a flaming pearl around the shoulders of the vessel. The lower part of the kendi is decorated with vertical fluting.

Form: Kendi with a flaring mouth, broad neck and squat body, made in three sections luted together. The footrim is small, narrow and neatly finished.

Dimensions: D. 133 mm  
H. 144 mm  
D. footrim 70 mm  
D. mouth 88 mm

## Comments:

Parts of two similar kendis of different sizes were recovered at Location 1.

## Comparable finds:

Known from Sarawak<sup>113</sup> and the Philippines.<sup>114</sup> The rim sherd of a similar vessel was exhibited in the "Kiln Sites of Ancient China" Exhibition, where it was attributed to the Quanzhou kilns of Fujian.<sup>115</sup> Southern Song.

M 4

Figure 113, Plate 178

## Double gourd jar

Paste and temper: A fine, yellow to buff paste with visible finger prints on the interior surface. The paste has burnt a reddish brown on an unglazed portion of the base. Gritty adhesions to the flat base.

Glaze: A dark green lead glaze applied over a white slip. The glaze covers the whole of the remaining portion of the vessel except for a small area on the base.

Decoration: Molded decoration of vertical ribbing and scale-like impressions on the upper part of the remaining portion. The lower part is undecorated.

Form: Double gourd jar (?) of which only the lower portion was

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<sup>113</sup>Zainie and Harrisson, "Early Chinese Stonewares," p. 73 and Plate 14.

<sup>114</sup>C. Y. Locsin, "Lead-Glazed Wares Excavated in the Philippines," Manila Trade Pottery Seminar, p. 8, Figures 15, 16.

<sup>115</sup>Hughes-Stanton and Kerr, Kiln Sites, p. 35, No. 175. The vessel described has a handle and would perhaps be better called a ewer.

recovered by excavation at Location 1. Made in two or three sections luted together. The base is flat with no footrim.

Dimensions: D. 70 mm  
H. unknown  
D. foot 40 mm

Comments:

The only low fired vessel of this type recovered in the excavation.

Comparable finds:

Known from Sulawesi. Probably Yuan.

M 5

Figure 114

Dish with everted rim and molded decoration

Paste and temper: A fine, pale buff colored paste.

Glaze: A dark green lead glaze exhibiting a number of blackish spots as discoloration, applied over a white slip, which extends down to and over part of the flat base.

Decoration: Molded decoration comprising a raised, fluted rim with a band of daisies and acanthus leaves on the flattened portion of the rim, the side of the cavetto fluted on the interior and the interior base decorated with a raised floral and foliar design incorporating lotus flowers.

Form: A heavily made, broad shallow dish with a flattened rim and fluted cavetto. The base is flat.

Dimensions: D. (estimated) 240 mm  
H. 25 mm  
D. foot 172 mm

## Comments:

Fragments of a single specimen of this type were excavated at Location 1.

## Comparable finds:

Similar dishes are known from Sarawak<sup>116</sup> and from the Philippines.<sup>117</sup>

Probably Yuan.

5.6.3 Low Fired Yellow (Lead) Glazed Ware:  
Fujian Type: Quanzhou Variety

Represented by a fragment, comprising the upper part of a finely made small jar with a molded three-toed dragon pursuing a flaming pearl. This specimen was excavated at Location 1. No other sherds of this type have been recovered from the site.

M 6

Figure 115, Plate 179

Jar

Paste and temper: A fine, whitish paste.

Glaze: The dense, yellow glaze covers the whole of the remaining fragment and the inner part of the mouth. There is a single greenish spot on the body to the rear of the molded dragon.

Decoration: A molded three-toed dragon pursuing a flaming pearl. The dragon has a sharply upturned snout and a prominent tuft, the head is turned back towards the hind legs. There are three prominent spines on the upper

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<sup>116</sup>Zainie and Harrison, "Early Chinese Stonewares," p. 73 and Plate 14.

<sup>117</sup>Locsin, "Lead-Glazed Wares," p. 5, Figure 1a.

body pointing towards the uplifted tail.

Form: A small jar made in two sections and luted together.

Comments:

Only the upper part of this specimen was recovered from the excavation.

Comparable finds:

Small jars of this type have been reported from the Philippines<sup>118</sup> and are also known from Sulawesi where similar, but somewhat coarser specimens have been recovered from numerous sites.<sup>119</sup> The Sulawesi examples tend to be rather coarser than the Kota Cina fragment. Probably datable to the late Southern Song or Yuan period.

#### 5.6.4 Brown-painted Ware: Jiangxi Type, Jizhou Variety

M 7

Plate 180

This group of wares is represented by a single sherd recovered as a surface find immediately adjacent to Location 1. The sherd is a fragment of a bottle or vase decorated on the exterior with a knobbed scrolling pattern, painted in brown with details incised through the pigment to reveal the buff colored fine paste. The exterior is glazed with a thin, transparent glaze. The interior displays turning marks from the wheel. Southern Song.<sup>120</sup>

M.E.D. 50 mm, thickness 4 to 5 mm.

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<sup>118</sup>Ibid., p. 11, Figure 28.

<sup>119</sup>Numerous specimens have been offered for sale in Makassar at various times. According to the vendors these little jars have been found at sites on Pulau Selayar, at Buluhkumba and elsewhere.

<sup>120</sup>Compare Hughes-Stanton and Kerr, Kiln Sites, p. 52, No. 261.

### 5.6.5 Low Fired Amber (Lead) Glazed Ware

M 8

Figure 116

This group of wares is represented by a single sherd excavated at Location 1, representing the neck and rim of a kendi of a type known from several Southeast Asian sites.<sup>121</sup> The paste is soft, pinkish buff in color, glazed with a yellowish lead glaze flecked with amber over a white slip. This type of kendi has a small, depressed globular body with a tall neck topped with a characteristic flange below a contracted rim. The spout, which is often roughly formed, has a screw-like appearance and is attached to the shoulder. The glaze stops well above the base, which is flat. Diameter of mouth (at flange) 70 mm. Height, estimated 180 to 190 mm.

### 5.6.6 Figurines

Fragments of two ceramic figurines were recovered as surface finds to the south of Location 3. These fragments are reminiscent of figurines described by Palmgren from Jing He Xian,<sup>122</sup> but were doubtlessly made at many places on the Chinese mainland.

M 9

Plate 181

Stoneware figurine

This fragment consists of the lower part of a stoneware figurine wearing a Chinese robe tied with a tasseled belt. It is seated with the left foot resting on the right knee, a position which may be representative of a Taoist priest.<sup>123</sup> The feet are shod. Width 42 mm, length 56 mm.

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<sup>121</sup>See Locsin, Oriental Ceramics, pp. 43-49, Plates 20, 23, and Locsin, "Lead-Glazed Wares," p. 8, Figure 13. Also known from Sulawesi.

<sup>122</sup>See Palmgren, Sung Sherds, pp. 331-70.

<sup>123</sup>See *ibid.*, p. 343, No. 1772.

M 10

Plate 182

## Earthenware figurine

This consists of the head of a molded earthenware figurine which displays faint traces of red pigment on both the front and the rear. The head, which is in two parts, has long hair and remarkably expressive features. Height 60 mm.

## Comment:

Both these fragments are unusual in the context of Southeast Asian ceramic assemblages. They both appear to have religious connotations and may be linked with Song period Taoist practices.<sup>124</sup> If this is indeed the case, they add further weight to the evidence for a Chinese presence at Kota Cina.

As with other wares, fragments of a number of different vessels of this group were recovered which were insufficient to reconstruct outlines of complete pieces. These sherds are, however, of considerable interest as they extend the range of ceramics to be considered in the Kota Cina assemblage.

M 11

Plate 183

## Sawankhalok fragment

The Thai Sawankhalok kilns are represented by a single fragment of a two-eared bottle jar with a shiny, heavily crackled blue green glaze over incised underglaze decoration. This sherd was recovered as a surface find in the vicinity of Location 4.

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<sup>124</sup>See *ibid.*, p. 349. But see also Cultural Relics, Plates 248-252.

M 12

Plates 184, 185

Temmoku bowl fragment

A rim sherd of a small temmoku bowl with a highly crackled dark brown glaze over a light gray body. As can be seen from the sherd, the glaze stops well short of the foot. Excavated north of the Sanctuary at Location 3.<sup>125</sup> Fourteenth century, Yuan period.

M 13

Plate 186

## Brown glazed fragment

A rim sherd of a gray buff stoneware bowl with an unusual browish glaze displaying black and white hues which appear as a deliberate characteristic of the glaze. The interior of the fragment is unglazed. Excavated at Location 1. Probably fourteenth century, origin unknown.

M 14

Plate 187

## Brown glazed fragment

A fragment of a small box cover with a shiny, heavily crackled yellow brown glaze over a molded design of fish among water plants. Excavated at Location 1. Probably late thirteenth or fourteenth century, Yuan period, origin unknown.

M 15

Plate 188

## Green (lead?) glazed fragment

A single sherd of a highly crackled green glazed vessel with traces of black painted decoration and a chalky white body from which

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<sup>125</sup> Compare this fragment with the rim of a bowl from the Sinan wreck. See Cultural Relics, Plate 232.



the glaze tends to flake off very easily. Possibly Middle Eastern?

M 16

Plates 189, 190

Yellowish gray glazed bowl

Base, body and rim sherds of a bowl with a distinctive shiny, yellowish gray crackled glaze over a pale stoneware body. The exterior is unglazed, the interior with incised and combed underglaze foliar patterns and a sketchily formed flower in the central medallion.

Thirteenth or fourteenth century, Southern Song or Yuan.

### 5.7 Utilitarian Stonewares

This is a broad group of wares from a wide range of kilns, of which only a few representative or more interesting examples are described. Much work remains to be done to provide a finite analysis of this material.

Even so, this group of materials perhaps provides a greater insight into the day-to-day lives of the former inhabitants of Kota Cina than the more exotic stonewares described in the foregoing sections. It is here that we find not only storage jars of quite considerable proportions but also ceramic basins; mortars, a household jug and other small jars or containers. There were also numerous examples of sherds of a type of jar thought to be utilized for transporting mercury for use in gold working.

One can only guess at the uses to which the majority of the various storage jars were put. The larger vessels were presumably utilized for storing water or perhaps, in some cases, for fermented liquors. Occasionally, however, containers were found with traces of their contents adhering to the inner surface, as in the case of the small brittle ware jar with a

quantity of kapur (lime) used for betel chewing, still stuck to the sherds of the vessel.

US 1

Figures 117, 118, Plates 191-193

Glazed stoneware basin: Fujian type, Quanzhou variety

Paste and temper: Hard, granular (vitrified) stoneware; gray in color with obvious inclusions of white and blackish gritty temper (grog). Particles of quartz sand also evident.

Surface finish: Variety 1 Plate 191

Rough exterior, left unglazed with uneven finish and some obvious tooling marks. Characteristic "brittle" feel. Base may exhibit numerous cheesy cracks near the edge of the vessel. Interior smoothly finished and glazed.

Variety 2 Plates 192, 193

As above, but the exterior also glazed to within 2 or 3 cm of the base which is left unglazed.

Glaze: Variety 1

Thin, yellow/brown/green to khaki, finely crackled glaze over a gray slip on the interior only. Extends to within 1 to 2 cm of the rim where a grayish slip has been left unglazed in a band approximately 1 cm deep below the rim. The curved, rolled rim is partially glazed. Accidental splashes of glaze are to be found on the exterior which is otherwise unglazed.

Variety 2

As above, but with simple, rounded rim which is left

unglazed. Glaze on the exterior may leave portions of gray slip exposed on the lower part of the body, where it ends 2 to 3 cm above the foot. Slip may show through glaze as whitish spots. A distinct reddish line marks the edge of the slip/glaze and the gray paste.

Decoration:

Variety 1 .

Roughly painted, bold swirling bamboo leaf underglaze decoration in iron brown on interior of cavetto.

Variety 2

Roughly painted, often indistinct curvilinear design on both interior of cavetto and base. The design on the base comprises a leaf-like pattern with "hatching." Work appears hurried, careless, often with spill marks and runs in the glaze.

Form:

Variety 1

Open vessel, oval or circular utilitarian basin. The base is flat or slightly concave. Distinctive broad, downward rolled rim which affords easy gripping and handling.

Variety 2

As above, but lower and broader than Variety 1, it has a simple rolled rim.

Dimensions:

Variety 1

D. mouth 32.5 cm, D. base 14.0 cm, H. 12.5 cm.

Variety 2

D. mouth 30.0 cm, D. base 21.0 cm, H. 10.0 cm.

## Comments:

These stoneware vessels do not appear to have been used for cooking purposes as there was no sign of soot or burning apparent on any of the sherds excavated at Location 1. They may, however, have been used in the preparation of foodstuffs, for soaking or fermentation processes.

## Comparable finds:

A sherd of Variety 2 was exhibited in the British Museum/Ashmolean "Kiln Sites of Ancient China" exhibition 1980, and in the Catalogue, No. 167, where it is described as a fragment of a large dish from Quanzhou.<sup>126</sup> Similar stoneware basins have been found in Sarawak at most Phase 1 and some Phase 2 sites.<sup>127</sup> Examples from Sarawak Phase 2 sites (c12-13) all appear to have a simple round rim, characteristic of the Song period Fujian Quanzhou yao.

US 2

Figures 119-121, Plate 194

Glazed stoneware jar: Guangdong type

Paste and temper: Dense, very uniform fine paste, cream or very light brown in color in which may be discerned an occasional grain of sand.

Surface finish: Smooth on exterior, but wheel marks are common on the interior. The glaze stops well short of the foot, the

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<sup>126</sup>See Hughes-Stanton and Kerr, Kiln Sites, p. 33, color plate 167.

<sup>127</sup>Moore, "Suggested Classification," p. 22, and Figure 9, b-c. Moore classifies the second variety as "Brittle Ware" with a coarser body. She notes that these basins had not been described previously from Sarawak and that no illustrations or descriptions were to be found in any of the then available literature (1970). First mentioned in Sumatra in 1976, see Edwards McKinnon, "Oriental Ceramics," TOCS, 41 (1975-77), pp. 59-118.



## Comments:

Similar to those jars described by Moore as "Kwantung" ware, they would be useful for storing water or oil.

## Comparable finds:

Known from Sarawak<sup>129</sup> and other parts of Indonesia.

US 3

Figure 122, Plate 195

Partially glazed stoneware "mercury" jar:

Guangdong type, Guangdong variety

Paste and temper: Hard, granular, vitrified gray stoneware with obvious inclusions of blackish and white gritty temper including occasional lumps of quartz sand which erupt through the surface of the paste causing cracks. Described as "brittle" ware.<sup>130</sup>

Surface finish: Rough, interior exhibits strongly ribbed effect, rising at a slight angle from the base to the high shoulder where the interior ribbing, though present on this thinner and more neatly constructed part of the body, is normally less pronounced. The exterior may also exhibit traces of ribbing, the surface is irregular, recognizable finger prints are common, giving the impression of very hurried work. Small, neckless mouth.

Glaze: Often little more than a touch of yellow-brown glaze in

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<sup>129</sup>See Moore, "Suggested Classification," p. 36, Figure 13 d.

<sup>130</sup>Zainie and Harrisson, "Early Chinese Stonewares," pp. 30-90; Moore, "A Suggested Classification Martabani type," pp. 1-78.

and around the mouth, sometimes extending to the edges of the broad, rounded shoulder.

Decoration: None.

Form: Tall, closed (bottleshaped) vessel. Base flat, sides flare gradually to broad, rounded shoulder which may be slightly sloping or flat. The mouth is small with a rounded rim, rising only very slightly from the top of the vessel. The form of the mouth is not adapted to the easy pouring of liquids such as sauces or liquors. The absence of any real neck is significant.<sup>131</sup>

Dimensions: Base, D. 6 to 8 cm, H. 17.5 to 36 cm. Two sizes, a smaller one up to 18 cm. The larger up to 36 cm.

Comments:

This type of rough, utilitarian vessel has been associated with the storage and transport of mercury which is required for the extraction, purification and working of gold, and for medicinal and ritual purposes.<sup>132</sup> Tegengren notes that the occurrence and production of quicksilver is confined to the southern Chinese provinces of Guizhou and adjacent parts of the neighboring provinces of Sichuan and Hunan in the north and east and to Yunnan in the southwest. Quicksilver has been mined since ancient times. Traditions regarding the exploitation of quicksilver extant at the beginning of the current century, however, do not appear to relate to a period any earlier than the beginning of the Ming dynasty (c 14) when the

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<sup>131</sup>Treloar, "Stoneware Bottles," pp. 377-84.

<sup>132</sup>Ibid., pp. 378-81.

more important centers were already productive.<sup>133</sup> Cinnebar (red mercuric sulfide) was sent from Vietnam to China as tribute during the Tang at which time it appears to have been a very valuable product.<sup>134</sup> Quicksilver also occurs in western Yunnan in creeks and streams entering the Salween, Mekong and Yangtse rivers. Tegengren notes the existence of a pottery industry utilizing the shales overlying the quicksilver deposits at Wan Shan Quang. Earthenware condensers were used in the preparation of mercury which was then collected in flasks of bamboo and subsequently transported to the local market. In the earlier part of this century, iron flasks were generally used for further transportation. Practically all the mercury produced in Guizhou was marketed in Dung jen, with Pa quai being the market in the southern part of the province.

Guangdong appears to have been the ancient center for the Chinese quicksilver trade. The bulk of the metal was probably transported down the Hung Xui river from Guizhou to Guangdong.<sup>135</sup> Presumably the metal was filled into its container at or near the point of production, i.e., in the provinces of Guizhou, Guangxi or Guangdong.

There are at least two different varieties of tall jar (though only one appears at Kota Cina) and it seems reasonable to suppose two different sources for the metal. The second variety of jar has a much more

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<sup>133</sup>F. R. Tegengren, "The Quicksilver Deposits of China," Geological Survey of China, Bulletin, 2 (1920), pp. 1-36.

<sup>134</sup>E. W. Schafer, The Vermilion Bird: T'ang Images of the South (Berkeley: University of California, 1967), p. 157.

<sup>135</sup>Tegengren, "Quicksilver Deposits," p. 26.



pronounced series of external rings than those at Kota Cina<sup>136</sup> in which the external rings are less visible and the exterior relatively finely finished.

Historical records attest that mercury was exported from China to Cambodia in the thirteenth century, and that cinnebar was in demand in Java, where it was used both as a cosmetic and as a dye.<sup>137</sup> These stoneware jars may be associated with the southward expansion of Chinese maritime trade interests under the Southern Song, and to the establishment of Chinese communities in various parts of Southeast Asia during this period. Chinese characters impressed upon gold leaf excavated at Kota Cina is circumstantial evidence of Chinese involvement in the gold trade relating to the site.

Comparable finds:

Vessels of this type or of closely related form have been reported from Kedah, Sarawak and the Philippines.<sup>138</sup> They are also known from a twelfth-thirteenth century context at Angkor.<sup>139</sup> Twenty or thirty such bottles once offered for sale in Medan were said to have come from the Tanjong Pinang area of Riau, where they had reportedly found in

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<sup>136</sup>Treloar, "Stoneware Bottles," Plate 29.

<sup>137</sup>Chou Ta-kuan, "On the Customs of Cambodia," quoted in Treloar, "Stonewares," p. 381. Wheatley, "Geographical Notes," p. 91. Earlier, cinnebar and mercury had been imported into China. Export of this article from Guangdong may be either a re-export, or more likely a reflection on the level of indigenous production which appears to have increased under the Southern Song.

<sup>138</sup>See Lamb, "Research," pp. 21-37, Fig. 5, and Plate 45. Also Zainie, "Chinese Stonewares," p. 81, Moore, "Classification," p. 8; Grau-Abaya, "The Brown Wares," pp. 26-27, in Manila Trade Pottery Seminar.

<sup>139</sup>Treloar, "Stoneware Bottles," p. 378.

association with Yuan period green glazed stonewares. Lack of detailed publication of these and other ceramics from contemporary Southeast Asian sites makes more accurate comparisons difficult.

US 4

Figure 123, Plate 196

Glazed stoneware storage jar: Guangdong type

Also known as "Dusun" jars<sup>140</sup>

Paste and temper: Fine, light gray to light brownish gray with occasional whitish powdery inclusions. Small air holes are visible in the paste.

Surface finish: Smoothly finished both inside and out.

Glaze: Gray-green (olive gray) glaze which seems to flake off easily consequent to burial. The glaze may exhibit blue and whitish iridescence where it has gathered and pooled. Upper part of exterior glazed, mouthrim unglazed, interior of mouth glazed, some spillage on interior surface.

Form: Heavily potted, with a wide straight mouth above a broad shouldered body. Four horizontal loop handles applied just below the straight mouth rim.

Dimensions: D. mouth 11.5 cm. D. body 16 cm. H. unknown, but whole specimens of this type vary between 25 cm up to about 75 cm.<sup>141</sup>

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<sup>140</sup>See T. Harrisson, "Dusun Jars from Mayfair and Freisland through Cairo to Sabah," SMJ, 12 (N.S.) (1965), pp. 67-74.

<sup>141</sup>Moore, "Suggested Classification," pp. 5-6, Figure 1. For illustrations of a variety of "dusun" jars, see Tempayan di Indonesia (Jakarta: Himpunan Keramik Indonesia, 1977), text in Indonesian and English, pp. 42-45.

## Comments:

The generic term "Dusun" jar was first coined by the late Tom Harrisson for a class of stonewares commonly found among a Dayak people in Sabah.<sup>142</sup>

## Comparable finds:

Widespread finds from archaeological sites throughout Southeast Asia and as far west as the Persian Gulf and the eastern Mediterranean indicate that jars of the "Dusun" type were first exported from South China during the Tang period.<sup>143</sup> They were possibly copied at kilns in the Thanh hoa region of Vietnam.<sup>144</sup> The discovery of a "Dusun" jar in the Kota Cina assemblage may indicate the continuity of manufacture into the Song and Yuan periods though the appearance of a ceramic heirloom in what is essentially a late twelfth to fourteenth century assemblage cannot be ruled out.

US 5

Figure 124

Glazed stoneware household jug: Guangdong type

Paste and temper: Fine, light gray to light brownish gray paste with occasional whitish powdery inclusions. Small air holes are visible in the paste.

Surface finish: Smooth, but with visible tool marks on the exterior. Horizontal ribbing, caused during the throwing are also visible on the interior.

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<sup>142</sup>Harrisson, "Dusun Jars," pp. 67-74.

<sup>143</sup>Frierman, "T'ang and Sung Ceramics Exported to the West," p. 196.

<sup>144</sup>See R. M. Brown, Ceramics of Southeast Asia (Kuala Lumpur: Oxford in Asia, 1977), pp. 10-11, Plate 1,2, where a similar jar, but with six handles is thought to have come from Thanh-hoa province.

- Glaze: Thin, gray-green glaze displaying a powdery or speckled effect on both the interior and exterior of the mouth. The interior is unglazed except for odd splashes which have formed accidentally and a limited area around the mouth. On the exterior, the glaze has accumulated on the handle and the body in runs which are a dark brownish green.
- Decoration: None.
- Form: A simple restricted vessel with a vertically attached handle and a slight lip for facilitating pouring, formed by shaping the front edge.
- Dimensions: D. mouth 10 cm. H. unknown, incomplete. D. body 17 cm.

Comments:

A form of utilitarian household stoneware extremely rare in the context of Southeast Asian archaeological sites. Its presence in the Kota Cina ceramic assemblage may give added weight to the theory that there was a Chinese community at the site.

Comparable finds:

Similar forms are known from Shiwan kiln site in Guangdong where they were presumably made for local use.<sup>145</sup> Apparently unknown from contemporary sites in Sarawak where spouted vessels or kendis are more common.<sup>146</sup>

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<sup>145</sup> See Shiwan Wares, pp. 156, 169-87.

<sup>146</sup> Barbara Harrisson, personal communication. I am indebted to Mrs. Harrisson for bringing the significance of this find to my attention.

US 6

Figure 125, Plate 197

Glazed stoneware basin: Guangdong type, Xichun ? variety

Paste and temper: Stoneware, imperfectly fired as the surface is a darker gray than the gray-buff interior. Whitish inclusions.  
Paste fine, often with small bubbles or air spaces. Surface may burn to a pinkish hue where exposed.

Surface finish: Exterior smoothed, but with obvious tool marks. Interior and rim glazed, but splashes may occur on the exterior which is otherwise unglazed.

Glaze: Yellow-brown to dark brown glaze which may exhibit an iridescent bluish bloom and fine crackle. The glaze has collected in slight depressions between ridges raised in potting which creates a "banded" effect where the glaze lies alternately thicker and thinner. Reddish spots occur irregularly over the surface of the glaze.

Decoration: Plain and undecorated, or with impressed "floral" underglaze pattern stamps repeated seven times on the interior base.

Form: Heavily potted, with slightly flaring sides turned inwards below the edge of the heavy rolled rim. The base is concave.

Dimensions: D. 26.5 cm and greater. D. base 17.5 to 19 cm.  
H. 10.5 cm.

Comments:

Probably used in the preparation of food stuffs.

## Comparable finds:

In outline, these basins are similar to stoneware vessels produced at the Guangdong Xicun kiln from late Tang or early Song (c 10),<sup>147</sup> a model which appears to have been copied at the Cham Go-sanh kilns in the fourteenth century and also exported to Southeast Asia.<sup>148</sup> Similar basins have been recovered from Phase 1 and Phase 2 sites in Sarawak<sup>149</sup> and at sites in the Philippines.<sup>150</sup> They are also known at Muara Jambi in South Sumatra.<sup>151</sup>

US 7

Figure 126

Unglazed stoneware mortar: Guangdong type ?

## Ceramic mortar

Paste and temper: The paste is a coarse vitrified stoneware, fired to a pinkish gray, with obvious inclusions of coarse white quartz sand.

Surface finish: Rough, the interior is scored with vertical parallel grooves, in one case incised in sets of threes.

Glaze: None.

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<sup>147</sup> Guangzhou Xicun ku yao i chi (in Chinese) (The Old Kiln at Xicun, Guangzhou), Guangdong Province Commission of Preservation of Ancient Monuments (Peking: Wen Wu Press, 1958), especially Plate 121.

<sup>148</sup> Brown, Ceramics of Southeast Asia, pp. 26-27, Color plate H.

<sup>149</sup> Zainie, "Early Chinese Stonewares," p. 77, Figure 15 g. See also Moore, "Suggested Classification," p. 42, Figure 16 e, where similar basins are classified as "Kwantung" ware.

<sup>150</sup> Locsin, Oriental Ceramics, where a similar specimen is illustrated (Plate 109), described as an "ochre" glazed basin from Puerto Galena, Mindoro.

<sup>151</sup> Sherds of this type were included in surface collections made by a Pusat P3N team at Muara Jambi in June 1980.

Decoration:           None.  
 Form:                   Rounded or oval.  
 Dimensions:           D. 20 cm. H. 7 cm.  
 Comments:

Ceramic mortars of this and related types, with interior ribbing varying from fine to coarse vertical grooving and also criss-cross grooving, are used in China and Japan for the preparation of condiments such as sesame. Sherds of these three types were recovered at Location 1, but only one vessel with coarse grooving could be reconstructed to give an idea of form and size.

Comparable finds:

Apparently rare in Southeast Asian archaeological contexts. Moore mentions two very fragmentary basins with deeply combed cuts, rather like Japanese bowl-shaped mortars available at the present time<sup>152</sup> but mortars are otherwise not mentioned in excavation reports.<sup>153</sup>

US 8

Figure 127, Plates 198, 199

Partially glazed stoneware jar or kettle: Jiangxi type, Ganzhou variety

Paste and temper: Fine, hard, dark gray stoneware.

Surface finish:       Smooth, except where surface is decorated with incised horizontal and vertical lines and appliqué nipples.

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<sup>152</sup>Moore, "Suggested Classification," p. 42, which were excavated from Sei. Buah and dated to Phase II (twelfth to thirteenth centuries), a time span well in keeping with the Kota Cina phase.

<sup>153</sup>Ceramic mortars, though rare, are not unknown in western collections. For example, see that described by Mino as a Ding ware bowl of the late Tang or Five Dynasties period, the ninth or tenth century, of which it is noted, "Interior decorated with incised concentric and radiating lines forming [a] grid pattern. Most of [the] interior and base unglazed." Y. Mino, Pre-Sung Dynasty Chinese Stonewares (Toronto: Royal Ontario Museum, 1974), p. 80.

- Glaze:** The exterior is unglazed but covered with a thick reddish slip. The interior and lip is glazed with a shiny, finely crackled, iridescent black glaze which has an almost "leathery" look about it.
- Decoration:** Below the rolled lip are three parallel raised ridges running horizontally around the short neck below which is a ring of appliqué nipples. Below this a series of vertically incised lines decorated the belly of the piece. The foot is carved in a series of stepped concentric circles.
- Form:** A globular jar or kettle with a short constricted neck and an everted rolled rim above a bulbous belly.
- Dimensions:** D. mouth 8.1 cm. D. body 10.2 cm. H. 8 cm.
- Comments:**

An unusual, cauldron-like shape of which only one reconstructable specimen and a fragment of a second were found in the excavation at Location 1.

**Comparable finds:**

Reported from the Philippines.<sup>154</sup> Several similar specimens were recovered from the Sinan wreck off the Southwest coast of Korea.<sup>155</sup> One complete vessel and a rimsherd of a second of this type were exhibited at the "Kiln Sites of Ancient China" Exhibition Nos. 251, 252, in which they were attributed to a kiln situated at Qilizhen on the east bank of the Gan

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<sup>154</sup>C. Y. Locsin, "A Group of Painted Wares from Chichou and Some Related Wares Excavated in the Philippines," Manila Trade Pottery Seminar, p. 4, Plate 8.

<sup>155</sup>Korea, Cultural Relics, Plates 236-238.



river in Jiangxi. Black and qingbai wares were also discovered at this kiln.<sup>156</sup>

US 9

Figure 128

Glazed stoneware jar: Guangdong type ?

"Brittle" ware

Paste and temper: Hard, vitrified granular gray or yellow gray stoneware with what Moore has described as a "brittle" feel about it.<sup>157</sup> There are obvious coarse inclusions (grog or temper) both white and black in color, some of which are quite large (2 to 3 mm in diameter).

Surface finish: Variable, smooth to quite rough, especially on the unglazed interior and lower exterior. Larger particles of grog may erupt through the surface of the clay causing small cheesy cracks at the point of exposure.

Glaze: A thin, translucent glaze that often has a mottled or curdled effect, varying in color from dark brown through an olive green to yellow ochre. The glaze covers the exterior from about 6 to 7 cm from the base to the lip and about two-thirds of the interior of the mouth. The interior is unglazed apart from splashes which have fallen accidentally. Unglazed portions on the lower exterior tend to burn to a dull pinkish or purple hue.

Decoration: 1) Elaborate incised decoration forming rows of combed

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<sup>156</sup>Hughes-Stanton and Kerr, Kiln Sites, p. 50, Plates 251, 252.

<sup>157</sup>Moore, "Suggested Classification," p. 8.

straight and wavy lines in alternate registers covering two-thirds of the body between the junction of the neck and the unglazed lower portion.

2) Molded running dragons in shallow relief on the shoulder beneath the applied handles.

Form: Tall, well made jars with small, vertically applied plain loop handles.

Dimensions: Estimated and therefore only approximations: D. mouth 28 cm. D. body 42 cm. H. 66 cm. No specimen has been completely restored from fragments excavated.

Comments:

Sherds excavated at Location 1, Kota Cina represent at least four different large jars of basically the same design. The form illustrated is based on a drawing by Moore.<sup>158</sup>

Comparable finds:

Known from the Philippines<sup>159</sup> and western Borneo.<sup>160</sup> A specimen similar to the Kota Cina examples was excavated from the Painted Cave at Niah.<sup>161</sup> Sherds of this type were collected by Miksic from Tanjong Enom, a site situated to the northwest of Kota Cina close to the left bank of the Sungei Wampu.<sup>162</sup>

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<sup>158</sup>Ibid., p. 26, Figure 10.

<sup>159</sup>Locsin, Oriental Ceramics, Plates 181, 182.

<sup>160</sup>Moore, "Suggested Classification," p. 21.

<sup>161</sup>Zainie, "Chinese Stonewares," Plate XXII.

<sup>162</sup>Miksic, "Archaeology," p. 241.

US 10

Figures 129, 130

Glazed stoneware jarlet: Guangdong type

Brittle ware

Paste and temper: Fine, hard, vitrified stoneware, gray in color.

Surface finish: Smooth, with tooling marks sometimes visible on the lower, unglazed portion of the body.

Glaze: A thin, dark brown, almost black glaze which may exhibit a slight iridescence, similar to, but not the same as temmoku glazes, applied to the interior and exterior of the mouth rim and to the upper part of the body. The lower 2 to 3 cm is left unglazed. There may be a distinct unglazed band up to 1 cm wide left between the edge of the mouth and the shoulder.

Decoration: None.

Form: Squat, broad jarlet with a finely made, short, rounded mouthrim. The base is either flat or slightly recessed, a thin ridge of paste having been left at the outer edge of the body to form a slight footrim.<sup>163</sup>

Dimensions: D. mouth 3.5 cm. D. body 10 cm. H. 6 cm.

Comments:

Of the remains of over twenty similar dark brown glazed jarlets excavated at Location 1, two were found to contain finely powdered calcium

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<sup>163</sup>These dark brown glazed vessels are known in a variety of forms, many of which display a characteristic unglazed band around or below the neck. In addition to the small and somewhat larger jarlets, this distinctive glaze is also found on sturdily made stoneware bowls: see Figure 130.

carbonate still adhering to the interior surfaces.<sup>164</sup> The presence of this material suggests that the jars were used as containers for lime to be mixed with betel<sup>165</sup> or rolled up in a sireh leaf (betel pepper leaf).

Comparable finds:

Common in Phase II sites in Sarawak.<sup>166</sup> Also illustrated by Locsin, having been excavated from the Santa Ana site.<sup>167</sup>

US 11

Figure 131, Plate 200

Glazed jarlet with rolled rim

- Paste: A fine hard, light gray stoneware.
- Glaze: A mottled brown glaze with many dark flecks which stops just short of the slightly recessed base.
- Form: A small, round jarlet with a rolled mouthrim and a slightly recessed base. The footrim is low, narrow and bevelled on either side.
- Dimensions: D. 79 mm. H. 66 mm. D. foot 34 mm.
- Comment:

The only example of this type of jarlet excavated at Location 1. Small jarlets appeared relatively rarely in this excavation. Probably fourteenth century, Yuan period. Known from the Philippines.<sup>168</sup>

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<sup>164</sup>I am grateful to Mr. Laszlo Legeza who arranged for the chemical analysis to be undertaken at the University of Durham.

<sup>165</sup>On betel and sireh, see Birkhill, Economic Products, pp. 223-31 (Areca Linn.).

<sup>166</sup>Moore, "Suggested Classification," p. 9, Figure 2.

<sup>167</sup>Locsin, Oriental Ceramics, pp. 50-56, Plate 29.

<sup>168</sup>I saw a small jarlet of this type offered for sale in Manila in early 1977.

US 12

Figure 132, Plate 201

Glazed stoneware painted bottle vase

Paste and temper: Light gray (to light pink at the base) stoneware with many white and a few black inclusions (temper).

Surface finish: The exterior is smooth and completely glazed except for the flat base which has been left relatively rough. Fragments of a kiln support still adhere to the base. The interior exhibits a marked ridging, both near the base and within the narrow neck, due to the method of handling during throwing.

Glaze: A dark green (varying to yellowish brown in very limited areas) lead (?) glaze covers the vessel completely from the inner edge of the mouth down to the flat base where the glaze has been allowed to run under the roughly finished foot. The glaze has acquired a silvery iridescent scum, presumably due to burial.

Decoration: Four incised parallel lines run around the lower part of the neck, below which are two swirling bands of overglaze black painted decoration, one above the other. The upper band covers the shoulder and the lower band the middle part of the body. A band of black is also painted on the inside of the mouth. The black paint has tended to collect and run down over the glaze wherever it has been applied thickly, or at the lower part of the swirls giving the decoration a rather ragged appearance.

Form: A tall, bottle-like vase with an elongated neck and a flat base.

Dimensions: D. mouth 5.6 cm. D. body 17 cm. H. 28 cm.

Comments:

Unusual both in form and decoration, this is probably an experimental piece of a type apparently unknown in western collections. It is attributable to the early part of the Yuan period and like the bulk of other imported stonewares excavated at Kota Cina, is the product of a southern Chinese kiln. On the basis of the type of paste used in its manufacture, it could be related to the "Brittle" wares.

Comparable finds:

None known.

US 13

Figure 133, Plate 202

Glazed stoneware storage jar

Paste and temper: Poorly fired, incompletely vitrified coarse, gray to brick red paste which contains obvious inclusions of quartz sand.

Surface finish: Deteriorated glaze over a very roughly finished surface on which obvious tool marks leave prominent ridges on the exterior. The interior is also roughly finished.

Glaze: A thin purple-brown carelessly applied glaze covers both the exterior and the interior surfaces, often exhibiting a powdery or mottled effect. The sloping portion of the low, broad and slanting mouthrim is unglazed.

Decoration: None.

Form: Tall, crudely made, solid utilitarian stoneware container jar with four small, thin and carelessly applied loop handles positioned vertically on the shoulder immediately

below the characteristic broad sloping rim. The mouth is slightly constricted, the mouthrim shaped to facilitate the tying of a fabric or skin cover or seal. Heavy broad base, the lower part of which is thickly made and irregularly carved. The body is thinner near the shoulder.

Dimensions: D. mouth 7 cm. D. body 16.5 cm. H. (estimated) 26 cm.

Comments:

The shape of the mouth and the position of the four lugs or handles which would have afforded a point to attach a length of twine or gut indicate that these jars were made as containers for shipping a commodity such as salt or fish sauce.

Comparable finds:

Apparently unknown in the Sarawak excavations.<sup>169</sup> Whole specimens are known from the Philippines and one jar was excavated at Santa Ana.<sup>170</sup> They are also known in a number of different sizes from the Sinan wreck, discovered off the southwest coast of Korea.<sup>171</sup> Sinan examples range from 22.5 to 35 cm in height. These jars are also known with two, three and four ears. The Kota Cina examples all have four ears.

The dating of the Sinan wreck indicates that these jars are a product of the Yuan period. This date is borne out by the stratigraphy of the Kota Cina sherds excavated at between 0.40 and 0.50 m.

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<sup>169</sup>Moore, "Classification," p. 9.

<sup>170</sup>Locsin, Oriental Ceramics, Plate 92, where it is assigned to the Song period.

<sup>171</sup>Korea, Cultural Relics, Plates 253, 254, 255, 256 and 261.

Numerous sherds of stoneware vessels were recovered both from the excavations and as surface finds. It was not possible in the time available, however, to reassemble more than a fraction of the number of vessels involved. A selection of sherds from these vessels are included as they are of interest. A whole specimen, recovered by villagers in 1980 is also included.

US 14 Plate 203

Fragment of a Fujian type glazed stoneware basin showing detail of the painted design. Excavated from Location 1.

US 15 Plate 204

Fragment of a Fujian type glazed stoneware basin showing detail of the painted design arranged in parallel lines. Excavated from Location 1.

US 16 Plate 205

Body fragment of a stoneware jar showing the impressed decoration of a "housemark." Excavated from Location 1.

US 17 Plate 206

Fragment of a brown glazed stoneware bottle jar with a wide, flattened rim. Recovered as a surface find from the ditch at Location 1.

US 18 Plate 207

Reconstructed mouth portion of a squat, gray glazed jar with six small vertical handles. Excavated at Location 1.



US 19

Plate 208

Neck fragment of a tall, yellow glazed stoneware bottle vase with iron brown painting on the body. Excavated at Location 1. Fourteenth century, Yuan period.

US 20

Plate 209

Upper portion of an ornate, yellow glazed coarsely made stoneware kendi. A molded dragon has been draped around the shoulders of the vessel. Excavated at Location 1. Fourteenth century, Yuan period.

US 21

Plate 210

Four different handles from brown glazed stoneware jars. Two of these have "monster masks" similar to those recovered at Pengkalan Bujang in Kedah.<sup>172</sup>

US 22

Plate 211

A complete brown glazed stoneware jar recovered by villagers in 1980. H. 202 mm, D. 163 mm. Similar jars are known from the Philippines.<sup>173</sup> Finds of whole vessels at Kota Cina are rare.

### 5.8 Summary

In the foregoing section, I have described the different reconstructed ceramic vessels and sherds recovered at Kota Cina and have attempted to classify them into broad groups. Where possible, I have made attributions to specific origins or kilns. The attributions can still only be regarded as tentative, however, due to the widespread practice of copying and imitation

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<sup>172</sup>See Lamb, "Research," p. 25 and Plate 49.

<sup>173</sup>See Tanezas, "A Report," p. 27, Plate 6. Probably fourteenth century, Yuan period.

at many Chinese kilns. Even so, a pattern emerges with regard to the origin of many of these vessels. Kilns from all over South China and also those of Thailand are represented in the assemblage.

With regard to the Thai products, it would seem that Sawankalok wares were already being exported before Kota Cina was abandoned or destroyed, i.e., by about 1380 at the latest. No Vietnamese wares have appeared but this may be purely a question of dating as they do appear at slightly later sites elsewhere in northeast Sumatra.

Whether the range of wares recovered at Kota Cina begins to represent a regional (i.e., northeast Sumatran) preference for certain types of ceramics, or whether they represent a purely random collection of pieces built up over a long period of time from chance offerings by Chinese traders is yet to be ascertained. It seems likely, however, that the inhabitants of the site, by reason of their economic prosperity, had access to a range of the finer products of kilns in Fujian, Jiangxi and Zhejiang. One of the most striking aspects of the assemblage is the high quality of many of the pieces, especially among what appear to be the earlier wares. This is not invariably the case, however, as some of the better Longquan greenwares and qingbai pieces date from the Yuan period. At Location 1, the finer pieces almost invariably came from the lower levels of the excavation, between 0.80 and 1.05 below datum. At Location 3, most of the sherds were of lesser quality and seem to fit in to a Yuan or even early Ming range, that is from the late thirteenth to mid or late fourteenth centuries. As the excavation at this point was curtailed due to the onset of the monsoon, and did not reach a depth comparable to the lowest level at Location 1, it is possible that earlier material may yet be recovered from this spot. It appears that an earlier

structure once existed there before the sanctuary was built. It seems possible that the area was cleared, or at least leveled before the Sanctuary was erected which may account for the apparent lack of earlier material.

The lack of comparable data from other contemporary Sumatran sites makes it difficult to judge whether the Kota Cina assemblage is commonplace or extraordinary in terms of twelfth to fourteenth century trading sites. Once excavations have been undertaken at sites such as Muara Jambi in South Sumatra, it will be possible to make a comparative judgment upon the quality and range of wares found at Kota Cina.

I have tried to suggest a tentative chronology for the reconstructed vessels recovered, based on their position and relationship with other material in the dig. This may not be entirely accurate as the whole cultural layer barely exceeded 0.40 m and the accumulation of debris may not have been uniform over the whole area.

It is interesting to note how the dating of the Kota Cina wares relates to the first historical records of Chinese shipping in North Sumatran waters. By 1178, ships from Guangzhou were wintering at Lambri in Aceh whilst waiting for the monsoon to carry them across the bay of Bengal to Sri Lanka and South India.<sup>174</sup> The earliest stonewares recovered at Kota Cina appear to date from about this time, that is the last half of the twelfth century. It seems reasonable therefore, to correlate the appearance of Chinese export wares at Kota Cina with the arrival of Chinese shipping and Chinese traders in this region. Chinese stonewares had already found their way westwards

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<sup>174</sup> See Wolters, The Fall of Srivijaya, p. 42.

across the Indian Ocean by the tenth century, but never in such great quantities as began to appear by the end of the twelfth century.<sup>175</sup>

Further excavation at Kota Cina may confirm distinct differences between the constitution of sherd collections at different parts of the site. This may indicate differences in the social status of the occupants and possible distinctions regarding the utilization of the wares, such as that between Locations 1 and 3 where those at the former appear to have been used primarily for domestic purposes and at the latter largely for ritual.<sup>176</sup>

Work at Kota Cina has emphasized the value of ceramic materials for tracing ancient cultural exchange and trading patterns in Southeast Asia. Both the low fired earthenwares and the imported stonewares have come from accumulations of domestic rubbish. Except for two small, rather rough stoneware dishes excavated at Location 1, no whole pieces were encountered. All the various vessels had been in use before they were discarded.<sup>177</sup> A peculiarity relating to the larger sherds at Location 1 is that most were recovered in an upsidedown position, suggesting that they had been

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<sup>175</sup>This can be explained by the greatly increased production of the South Chinese kilns under the Southern Song who were anxious to boost revenue, and the expansion of the Chinese mercantile marine in both public and private sectors. On the latter, see Jung-pang Lo, "The Emergence of China as a Sea Power during the Late Sung and Early Yuan Dynasties," FEQ, 14, no. 4 (1955), pp. 489-503.

<sup>176</sup>Further excavation is required to verify this conclusion. The relative frequency of fragments of large Longquan basins in the immediate vicinity of a sacral structure does, however, suggest that these vessels were used for either ritual or ceremonial purposes.

<sup>177</sup>Most ceramics published from Southeast Asia have come from burial sites. Assemblages from habitation sites such as Kota Cina, Santubong in Sarawak and Pengkalan Bujang in Kedah, may well create a different impression from those recovered from burial sites. Such differences would indicate preferences for certain wares in daily use as distinct from those required or preferred for ritual purposes.

deliberately thrown from the raised platform of a dwelling that formerly stood at this spot, landing face down in the mud. In some cases the impact caused almost whole vessels to shatter even further, allowing us to recover most of the sherds of a vessel at the same spot. In one case, however, the rim sherd of a green glazed bowl was recovered some eight meters to the north of the base. A picture is thus emerging of living habits, a taste for fine ceramics and a standard of prosperity which allowed the purchase of what were, even then, items of considerable value from external sources.

CHAPTER 6  
KOTA CINA IN THE CONTEXT OF  
EARLY SOUTHEAST ASIAN TRADE

By the mid first millennium A.D., the Selat Melaka linking the Indian Ocean with the South China and Java seas, had become a strategic point on the maritime route between the west and China. The rise of the Malay thalassocracy of Śrīvijaya appears at a time in the late seventh century when there was a positive increase in seaborne trade between Arabia and China, reunified under the Tang.<sup>1</sup> Kedah, on the northwest coast of the Malay peninsula, had already become an important landfall for shipping to and from the Bay of Bengal and the focus of Arab navigation at the western end of the Selat.<sup>2</sup> Śrīvijayan power appears to have expanded into Kedah and northern Sumatra before the end of the seventh century.<sup>3</sup>

The seat of Śrīvijayan power, situated at the southern end of the Selat Melaka, was well placed to dominate not only the lucrative spice trade between India and China, but also the gold trade of Western Kalimantan (Borneo). Much of Java's gold may have come from the goldfields of the Sambas region and also, possibly, Sarawak.<sup>4</sup> Sumatran interference in this

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<sup>1</sup>Wolters, Early Indonesian Commerce, pp. 15-16.

<sup>2</sup>On Kedah, see P. Wheatley, The Golden Khersonese (Kuala Lumpur: University of Malaya, 1961), pp. 273-81.

<sup>3</sup>Wolters, Early Indonesian Commerce, p. 263.

<sup>4</sup>See B. E. Colless, "Were the Gold Mines of Ancient Java in Borneo?" BMJ, 3, no. 3 (1975), pp. 146-57. See also Harrison and O'Connor, Gold

region, in addition to pressure on the maritime trade to the north and west, may have engendered strong reaction from established interests in west or central Java. Conflict with Java appears at an early date, as is testified by the Kota Kapur (Bangka) inscription of A.D. 686.

By the late twelfth century, the entire nature of the earlier trade in this region had changed.<sup>5</sup> Historical records testify that Java now surpassed Sumatra in both wealth and power. Java is recorded as second only to Da-shi (Arabia) in prosperity.<sup>6</sup>

Events leading up to this situation had their origins at least one hundred and fifty to two hundred years earlier. In South China, the great port of Guangzhou had been sacked by rebels in 878 and many foreigners were slaughtered. China's overseas trade was seriously disrupted.<sup>7</sup> By 971, however, the Inspectorate of Maritime Trade was reorganized under the new Song dynasty and three major ports, namely Guanzhou, Mingzhou (Ning-po) and Hangzhou, were open for foreign trade.<sup>8</sup> By the time of the fall of the Northern Song in the late twelfth century, Quanzhou, known to the Arabs and other westerners as Zayton, was becoming increasingly important. About this time, events in South China created an unprecedented

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and Megalithic Activity, pp. 17-23, 58. On the Sambas area, see R. Braddell, "A Note on Sambas and Borneo," JMBRAS, 22, no. 4 (1949), pp. 1-15.

<sup>5</sup>J. K. Whitmore, "The Opening of Southeast Asia, Trading Patterns through the Centuries," in Economic Exchange and Social Interaction in Southeast Asia: Perspectives from Prehistory, History and Ethnography, ed. K. L. Hutterer (Ann Arbor: University of Michigan Papers on South and Southeast Asia No. 13, 1977), pp. 139-53.

<sup>6</sup>Wheatley, Golden Khersonese, p. 63.

<sup>7</sup>Hirth and Rockhill, Chou Ju-kua, p. 18.

<sup>8</sup>Kuwabara, "On P'u Shou-keng," p. 3.

expansion of Chinese maritime activity and a direct commercial interest in Southeast Asia and the Indian Ocean.<sup>9</sup> Quanzhou finally surpassed Guangzhou in importance in the mid-thirteenth century in a flush of prosperity which lasted about one hundred years.<sup>10</sup>

In the area of the Selat Melaka, the hostility between Java and Sumatra had continued. In the late tenth century there had been further conflict with Java.<sup>11</sup> In the early eleventh century, the Malay polities of South Sumatra were shaken by the devastation of the Cōla raids, prompted by either a desire for plunder or a conflict in expanding commercial interests.<sup>12</sup>

On the mainland, the empires of Angkor and Pagan were beginning to involve themselves in international trade. Angkor exerted increasing pressure on the Malay peninsula.<sup>13</sup> There were disruptions in Kedah.<sup>14</sup>

The weakening of Śrīvijayan power and increasing Javanese pressure on South Sumatra allowed foreign merchants to deal directly with the "restless vassals" of the Maharajas. By the late eleventh century, a group of Tamil merchants had established themselves at Baros on the west coast of Sumatra. It is in this context that we find the settlement at Kota Cina,

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<sup>9</sup>Lo, "The Emergence of China as a Sea Power," pp. 489-503.

<sup>10</sup>Kuwabara, "On P'u Shou-keng," p. 3.

<sup>11</sup>G. Coedes, The Indianized States of Southeast Asia (Singapore: University of Malaya, 1968), p. 142.

<sup>12</sup>Ibid., pp. 141-44; Whitmore, "The Opening of Southeast Asia," p. 145. See also G. W. Spencer, "The Politics of Plunder: The Cholas in Eleventh Century Ceylon," JAS, 35, no. 3 (1976), pp. 405-19.

<sup>13</sup>Whitmore, "The Opening of Southeast Asia," p. 143; O. W. Wolters, "Tambralinga," BSOAS, 21 (1958), pp. 587-607; O'Connor, "Tambralinga and the Khmer Empire," pp. 161-75.

<sup>14</sup>Coedes, Indianized States, p. 148.



established as one among numerous small ports on the east coast of Sumatra sometime in the twelfth century. It probably served as a port of call for ships going both east and west and was linked into a vast web of inter-regional maritime trade which extended from south China on the one hand, to Thailand, Java and the rest of Sumatra and to Sri Lanka, south India and the Persian Gulf on the other. There were also, in all probability, close connections with the Indianized settlements in Kedah, immediately to the north.

As a port or entrepot, however, it was linked not only to inter-regional and local coastal shipping, but also to a network of inland trails which led to centers of resource production that extended from the borders of Aceh through the Batak highlands and southwards, towards the gold rich areas of Minangkabau and upper Jambi.

In the following sections I review what is known of other archaeological sites in Sumatra and how Kota Cina may have been linked to a network of inland trails which would have allowed the peoples of the interior to trade with one another both across and up and down the length of the island. This network of inland trails would have enabled the hill people to choose among a number of outlets for their produce and at the same time made it necessary for overseas merchants to provide goods and conditions attractive enough to bring the hill people in.

#### 6.1 Coastal Sites and Overseas Trade: The Archaeological Evidence

Although numerous Arab, Chinese and Indian historical sources attest to non-indigenous involvement in trading activity in Sumatra from at least the mid first millennium A.D., archaeological evidence for external contact

with the island is very scant indeed. Factors which have contributed to this unsatisfactory situation are environmental as well as of a cultural nature. In addition to climatic factors, which encourage lush tropical vegetative growth that tends to obscure any remaining archaeological evidence, coastal accretion in some areas and unstable geological conditions in others have contributed to masking whatever ephemeral traces of cross-cultural contacts that remain.

A study of the island's natural resources and the identification of products which were of economic value in premodern trade can help to narrow down the areas in which traces of such trade might be expected. A few shreds of evidence, relating to the late first millennium or to the early second millennium A.D. have indeed come to light. It will be of interest to review these finds in relation to the discoveries made at Kota Cina and in placing the Kota Cina site in the broader context of both Sumatran and Southeast Asian trade of the twelfth to fourteenth centuries.

The aromatic resin-producing regions of the northwest Bukit Barisan mountain range assumed economic importance at an early date.<sup>15</sup> The northwestern coastal region of Baros appears to have been known to the Arabs and to the Chinese by about the ninth century.<sup>16</sup> The earliest archaeological evidence of external commercial contact with this area is from the site at Labu Tua,<sup>17</sup> situated north of the modern village of Baros, where two

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<sup>15</sup>Wolters, Early Indonesian Commerce, pp. 122-25.

<sup>16</sup>Wolters considers that northern Sumatra may have been known much earlier but under other names. See *ibid.*, pp. 17, 180-96. See also Tide-man, Hindoe-invloed, pp. 36-38.

<sup>17</sup>The name appears as Lubo Tua, Labu Tua and also Lubuk Tua, the name given by Van Vuuren. The name Labu Tua, meaning "Old Harbor" would appear to be correct, rather than Lubuk Tua, which means "Old

(possibly three) inscriptions and ceramics of Chinese and Persian origin have come to light.<sup>18</sup>

A Tamil stele, inscribed in Grantha characters and bearing a date of the Śaka year 1010 (1088 A.D.) attests to the presence of a group of South Indian merchants known as the Ainnurruvar, "the league of the five hundred . . . of the four quarters."<sup>19</sup> A second inscription, written in Old Malay language but in Javanese characters, has not yet been deciphered. Part of an inscription in Tamil Grantha characters is still at Labu Tua. This may be part of the inscription now at the Museum Nasional, Jakarta or may represent part of yet another inscription at the Labu Tua site.

The torso of a Boddhisattva image, carved from red granite was discovered at Labu Tua at the turn of the last century. It has since been lost.<sup>20</sup> This, in addition to the inscriptions, suggests the presence of a permanent religious foundation at the site. On the basis of the date of the Tamil stele, occupation at Labu Tua is datable to the late eleventh century. The presence of contemporary Chinese and Persian ceramics, together with

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Pool." Van Vuuren, in his map of the Baros area places Lubuk Tua inland of Baros on the Aek Batang Garigis near Pangeribuan. Although there is no doubt a place named Lubuk Tua, which may also be an archaeological site, this identification with the site mentioned by Deutz is most certainly a mistake. Deutz was correct in placing the site of Labu Tua near the coast immediately south of the Aek Sibusuk and some distance to the northwest of Baros. See Deutz, "Baros," pp. 156-63, and Van Vuuren, "De handel van Baroes," p. 1392.

<sup>18</sup>For a recent review of archaeological discoveries in the Baros area, see J. N. Miksic, "Classical Archaeology in Sumatra," *Indonesia*, 30 (1980), pp. 43-66, especially pp. 59-62. See also Edwards McKinnon and Dermawan, "Further Ceramic Discoveries," pp. 3-4.

<sup>19</sup>See Indrapala, "Some Medieval Mercantile Communities," p. 25, and K. A. N. Sastri, "A Tamil Merchant-guild in Sumatra," *TBG*, 72 (1932), pp. 314-27.

<sup>20</sup>See *NBG*, 37 (1899), pp. 12, 168, 218.

earthenware of possible Indian origin, further confirms a cosmopolitan interest in the Baros region.<sup>21</sup>

Early reports mentioning Labu Tua record the presence of glazed ceramics, earthenware, beads and a number of gold artifacts.<sup>22</sup> Similar remains have been found at other sites in the Baros.<sup>23</sup>

Although nineteenth century Dutch reports do not allow the exact identification of the provenance of the early finds, it appears that most have come from the area of a small earthwork situated at the edge of an escarpment just south of the Aek Sibusuk at Labu Tua.<sup>24</sup> In former times, the escarpment may have formed a low cliff overlooking the beach. Now, however, accretion or tectonic uplift has left this early harbor site high and dry, isolated by padi fields and small islands of higher ground, more than one kilometer from the current coast line.<sup>25</sup>

Labu Tua may not have been the only, or even the earliest, harbor on this coast. Legend ascribes an even earlier date to a harbor site (so far unidentified) at Manduamas, some distance to the north.<sup>26</sup> Moreover, an

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<sup>21</sup>Edwards McKinnon and Dermawan, "Further Ceramic Discoveries," pp. 3 and 4.

<sup>22</sup>Deutz; "Baros," pp. 160-63.

<sup>23</sup>H. M. Ambari, "Catatan tentang Penelitian Beberapa Situs 'Masa' Sriwijaya," in Pra Seminar Penelitian Sriwijaya.

<sup>24</sup>I assume that the inscriptions and the now lost bodhisattva torso originally all came from within or near the area of the earthwork associated with a legendary princess known as Puteri Andam Dewi (andam, Tamil: beautiful). See E. Edwards McKinnon and A. Milner, "A Letter from Sumatra," Indonesia Circle, 18 (1979), pp. 3-21.

<sup>25</sup>Investigation of the recent geology of the Labu Tua area could be very rewarding with regard to explaining the disposition of archaeological sites hereabouts.

<sup>26</sup>I am indebted to Pastor Theophil of Pangeribuan, Baros, for information regarding the legend concerning Manduamas on the Lae Satumang, a

unsubstantiated report of a heap of ancient bricks, said to be situated beside a timber road on the middle reaches of the Simpang-Kanan river above Singkel in western Aceh, may indicate the existence of yet another early settlement in the Baros region.<sup>27</sup> It was in this area, close to the rich camphor-producing region of the Aek Cinendang valley that Tideman located the ancient settlement of Kalasapura, the Camphor City.<sup>28</sup>

Between Baros and Kota Raja, evidence of ancient gold mining is said to exist in the area of Meulaboh.<sup>29</sup> This part of Aceh is virtually a terra incognita as far as early archaeological evidence is concerned.

From the Kota Raja area comes a finely sculpted head of a Mahayana Buddhist image, probably that of the Bodhisattva Avalokitesvara, which was discovered as long ago as 1880.<sup>30</sup> The head was subsequently sent to the Museum of the Batavian Society in what is now Jakarta. Unfortunately, the location of the find was never reported, or if any records did exist, they have now been lost. The head is strongly reminiscent of a small bronze Cunda, datable to about the ninth century from Polonnaruwa in Sri

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tributary of the Lae Tapus which flows into the sea between Ujung Binuang and Ujung Bako a short distance north of the Aek Sibusuk. This information, and the report concerning antiquities in the Simpang/Cinendang river valleys, is interesting (see below) as it tends to confirm, if only in local terms, Chinese concepts of Baros as a region rather than as a single point on the coast. See Wolters, Early Indonesian Commerce, pp. 180-88.

<sup>27</sup>Personal communication from Mr. Reg Bull.

<sup>28</sup>Tideman, Hindoe-invloed, p. 40 and map.

<sup>29</sup>A. L. ter Braake, Mining in the Netherlands East Indies (New York: Netherlands and Netherlands Indies Council of the Institute of Pacific Relations, 1944), p. 51. See also R. W. Van Bemmelen, The Geology of Indonesia, vol. 2 (The Hague: Nijhoff, 1970), p. 120.

<sup>30</sup>NBG (1880), pp. 47-48.

Laṅka.<sup>31</sup> The Acehese find may be indicative of Sinhalese connections with northern Sumatra at about the end of the first millennium A.D.

Somewhere in the Kota Raja area is the site of Lamri or Lamuri, a harbor where in the late twelfth century Chinese ships from Guangzhou sheltered to await the monsoon winds that would take them across the Bay of Bengal to Sri Laṅka and South India.<sup>32</sup> The Chinese were presumably emulating the practices of Arab and Indian sailors who had already been sailing this same route for centuries.<sup>33</sup>

Other pre-Islamic connections with Aceh may be indicated by the names Indrapuri, Indrapatwa and Indrapatna, all of which are in the region Kota Raja. Mosques built at these sites were reputedly erected on the foundations of earlier Hindu Buddhist remains. The present structures, however, are no earlier than the late sixteenth or early seventeenth centuries.<sup>34</sup>

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<sup>31</sup>Illustrated by Schnitger, *Archaeology*, frontispiece. Krebs has compared this image with those of Central Java; see E. Krebs, "Eine Bodhisattwa aus Atjeh (Sumatra)," *Ostasiatische Zeitschrift*, 18 (1942-43), pp. 58-61. The similarities with a Sinhalese Cunda image from Polonnaruva, especially the configuration of the high *mukuta* and the facial features are, however, much more striking than compared with those of Central Java. Compare Schnitger's illustration with W. Swann, *Lost Cities of Asia* (London: Elek, 1976), Plate 1. See also A. K. Coomaraswamy, "Mahayana Buddhist Images from Ceylon and Java," *JRAS* (1909), pp. 283-97, especially Plate III.

<sup>32</sup>Wolters, *Fall*, p. 42.

<sup>33</sup>Chinese navigators appear relatively late on the scene in the Indian Ocean. Like the Portuguese, they probably employed Indonesian, Indian or Arab pilots over new routes.

<sup>34</sup>Dutch reports suggest that these masonry structures were of "Hindu" origin. This is most unlikely. My own impression from visiting Indrapuri and the forts at Ladong is that they are much later. They may date from the sixteenth or seventeenth centuries. This impression has been confirmed by Dr. P-Y. Manguin who informs me that they are not mentioned in the earliest Portuguese sources. The possibility exists, however, that the mosques may have been built on earlier Hindu foundations. For details of the masonry antiquities in Aceh, see J. Kremer, *Atjeh*, II (Leiden: Brill, 1922-1923), Chapter 2.

The mosque at Indrapatwa has sunk beneath the waters of the Indian Ocean but its remains, according to local information, may still be seen beneath the shallow waters of the bay.<sup>35</sup>

On the eastern coast of Aceh, the site of ancient Pidië, inland of the modern town of Sigli, has yielded nothing earlier than remains of the sixteenth or seventeenth century.<sup>36</sup> Earlier remains do, however, exist in eastern Aceh. In 1976 I recovered a few fragments of late Song and Yuan ceramics on the northern bank of the Krueng Alue Rang, northwest of Biruen. The sherds had been exposed by villagers digging fishponds at one and a half to two meters below the surface.<sup>37</sup>

A few kilometers south of the modern town of Lhokseumawe is a complex of fourteenth to sixteenth century sites related to the former entrepot and rival of Malacca, Samudera Pasai.<sup>38</sup>

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<sup>35</sup>The bay at Lambaro (Indrapatwa) is quite shallow. It is situated a short distance northwest of Kota Raja, and is sheltered by Pulau Angkasa from the Indian Ocean. This site appears as a possible candidate for the ancient toponym Lamri or Lamuri mentioned in Chinese records and in the Tanjore inscription.

<sup>36</sup>Pires mentions that the town is situated half a league inland. There is an old masonry fort and a number of sixteenth or seventeenth century Islamic graves in the area. An earlier site may, however, also exist here. On Pidië or Pedir, see Cortesao, Suma Oriental, pp. 141-45.

<sup>37</sup>Edwards McKinnon, Disposition of Ceramic Sites. I gave the name of this river as the Kreung Alluring. Krueng Alue Rang is, however, correct.

<sup>38</sup>For reports of archaeological survey work carried out in this area during the early years of this century see the various reports of J. J. de Vink in OV, 1912 to 1918. I am indebted to H. Mohammad Said the historian and to Pak Ali Akbar of the Departemen P dan K, Kabupaten Aceh Utara, Lhokseumawe for my introduction to the sites at Samudera Pasai in 1976. I am also indebted to my colleague David Brameld who shared our experiences and whose efforts in exploration contributed considerably to our understanding of the sites.

Despite its renown as a port, which Ma Huan described as "the principal centre for the Western Ocean,"<sup>39</sup> Samudera does not seem to have been a good harbor. Historical records indicate that ships were continually foundering at the mouth of the river.<sup>40</sup> The name given on the Wu-Pei-Chih Charts would have warned the Chinese navigators what to expect, for the name Ji sui wan (急水湾), "Strong Current Bay" was probably a very apt one.<sup>41</sup>

In and around the small present-day village of Kuta Krueng, on the north bank of the Krueng (river) Pasai, are several important fifteenth to sixteenth century Islamic burial complexes. Extensive traces of former habitation in the form of accumulations of potsherds, glass, coins and other domestic debris extend to the north and west of the Cot Astana, the "Palace Hill" which legend connects with Merah Silu, who became the first Islamic ruler of Samudera.<sup>42</sup> Marco Polo, the Venetian adventurer, recounted that he spent five months in Samudera in 1292.<sup>43</sup>

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<sup>39</sup>Mills, Ma Huan, p. 115.

<sup>40</sup>Ibid., p. 116.

<sup>41</sup>Mills, "Malaya in the Wu-Pei Chih Charts," JMBRAS, 15 (1937), pp. 1-48.

<sup>42</sup>On Merah Silu, see Hill, Hikayat Raja Raja Pasai, pp. 15, 109-19. See also Brown, Sejarah Melayu, pp. 30-31.

<sup>43</sup>See Yule, Ser Marco Polo, II, pp. 292-98. Samudera had already sent a mission to China in 1286. As far as I am aware, however, no cultural remains (and ceramics, in particular), attributable to the late thirteenth century have been found in the Samudera Pasai area. See H. M. Ambari, "Discovery of Potsherds in Sumatran Sites," Symposium. An earlier part of the site may be buried under the extensive alluvium in this area. On the other hand, the fifteenth to seventeenth century site might be a new one altogether. Hill has suggested that an earlier site may have existed at the mouth of the Pasangan river further north. This seems quite possible considering the information contained in the Hikayat Raja Raja Pasai. See Hill, Hikayat Raja Raja Pasai, pp. 12-15.



To the south of Samudera Pasai, the site of the ancient port of Ferlak, also mentioned by Marco Polo, has eluded identification. It would appear to be in the vicinity of the modern town of Peureulak.<sup>44</sup> South of Peureulak the site of ancient Tamiang, a small polity mentioned in the Chinese records from the thirteenth century and known as the Freshwater Sea, is also still unidentified, though presumably situated on the lower reaches of the Tamiang river.<sup>45</sup>

The site of Kompei, mentioned in thirteenth to fifteenth century Chinese records, was identified by Tengku Luckman Sinar and myself in 1972. Pulau Kompei in Aru Bay has yielded a range of imported stonewares, probably datable to about the eleventh or twelfth centuries and Chinese coins of the Northern Song period.

Numerous small beads, gemstones and traces of a brick structure have also been found here. Pulau Kompei provided an excellent anchorage but it is difficult to assess its importance in terms of ancient commerce.<sup>46</sup>

To the south of Kompei on the Belawan estuary, is Kota Cina. The next harbor of importance appears to be the Silau/Asahan estuary where forest produce from the southern end of the Toba area found egress to the

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<sup>44</sup>Enquiries made at Peureulak in 1976 failed to reveal any local knowledge of an ancient site in the area.

<sup>45</sup>Tamiang is possibly Marco Polo's Dagroian. Yule, Ser Marco Polo, p. 297. The Tamiang estuary afforded a good anchorage for shipping, Although no early second millennium site has come to light in this area, a number of much earlier shell middens existed here. A small midden still survives in the swamps near Sungei Hiu downstream from Kuala Simpang. Bronson visited it in 1973. See Bronson and Wisseman, "An Archaeological Survey," p. 89.

<sup>46</sup>See Edwards McKinnon and Luckman Sinar, "A Note on Pulau Kompei," p. 66.

East Coast.<sup>47</sup> The Batu Bara area may also have been of importance in earlier times, but tectonic subsidence in this area has already caused the early nineteenth century port of Boga to sink below the high tide mark.<sup>48</sup>

The Panei/Bila estuary is the last harbor of importance on the east coast before Siak. Both the Panei and the Bila gave access to a rich hinterland. The Panei/Barumun river, in particular, was of considerably economic importance until the 1940s.<sup>49</sup> In recent years, however, the former river traffic has almost ceased as the middle reaches of the river are no longer navigable. The Panei-Barumun river valley gave access to one of the easiest and most important transinsular portages in the whole of northern Sumatra. Between the tenth and fourteenth centuries, an important Hindu/Buddhist polity, known as Paṅṅai, flourished on the upper reaches of the Barumun. The name Paṅṅai features among the list of conquests made by the Cōḷa in the early eleventh century.<sup>50</sup>

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<sup>47</sup>On trade in the Asahan region in the early nineteenth century, see Anderson, Mission, pp. 317-28. But this region may have been involved in external trade at a very much earlier date. See Bartlett, "A Batak and Malay Chant," pp. 320-21, where he discerns non-Batak pre-Islamic influences in the area. A legend concerning Batu Kanihir, a spot on the Aek Silau not far below Pasir Mandogai suggests that there was once a foreign settlement there. See Anon., "Aanvullingsnota van Toelichting betreffende het landschap Asahan," TBG, 53 (1911), pp. 385-406.

<sup>48</sup>On Batu Bara, see Anderson, Mission, pp. 310-16. I visited the foreshore on the north bank of the Batu Bara river at Tanjong Tirm with Abdul Rachman Lubis in early 1977. Stumps of piles from the dwellings of the former port of Boga are still visible in the sand. Sherds of eighteenth and nineteenth century Chinese and European export ceramics and other domestic debris are to be found along the high tide mark. A shrine containing iron cannon and ornate Islamic grave markers are situated on a beach ridge on the coast about a kilometer north of Tanjong Tiram.

<sup>49</sup>On the commerce of the Panei and Bila river area, see J. B. Neumann, "Schets der Afdeeling Laboean Batoe, Residentie Sumatra's Oostkust," TBG, 26 (1881), pp. 434-513, especially pp. 443-47, 462-65. See also J. B. Neumann, "Het Panei en Bila Stroomgebied," TNAG, 4, no. 1 (1887), pp. 52-101.

<sup>50</sup>Coedes, Indianized States, p. 142.

No sign of early trading activity has yet come to light on the lower reaches of the Panei/Bila river. From here southwards, records of archaeological discoveries from the lowlying swampy coastal areas and islands are scant indeed.

Traces of early settlement must surely exist on the islands of the Riau/Lingga archipelago. A rock cut inscription, datable on epigraphical grounds to the seventh or eighth century A.D., has come to light on a cliff face at Pasir Panjang on Pulau Karimun Besar.<sup>51</sup> On the higher ground above Pasir Panjang, there is a brick ruin with a yoni.<sup>52</sup> Finds of Song and Yuan ceramics have been made in and around Pulau Bintan.<sup>53</sup> But the very nature of these maritime settlements and the terrain upon which they were established must be against the recognition of early sites. Kota Kapur, on the island of Bangka, has been known for a long time. It has yielded an important seventh century Śrīvijayan inscription and the upper torso of a mitred Viṣṇu image, datable also to the sixth or seventh century.<sup>54</sup> Unfortunately, due to its relative isolation, Kota Kapur has been neglected by archaeologists but may yet prove to be of considerable value in understanding the nature of mid to late first millennium sites in this region.

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<sup>51</sup>The inscription, in Nagari script, is carved into a rock face at Pasir Panjang on Pulau Karimun Besar. See NBG (1887), pp. 148-52. See also Schnitger, Archaeology, p. 12.

<sup>52</sup>Personal communication from Mr. Wisnu Wijaya, Jakarta.

<sup>53</sup>Personal communication from Mr. Chandra, Medan.

<sup>54</sup>W. F. Stutterheim, "Note on a Newly Found Fragment of a Four-Armed Figure from Kota Kapur (Bangka)," IAL, 9, no. 2 (1937), pp. 105-9. Only the head and shoulders of the image were recovered. The fragment bears a close similarity to mitred Viṣṇu images discovered on the Thai peninsula which are discussed in O'Connor, Hindu Gods. See especially Plates 15 a and b.

The estuaries of the Panei, Rokan, Siak, Kampar and the Indragiri (Batang Kuantan) have still to yield their secrets.<sup>55</sup> Very little is known of ancient settlements in mainland coastal areas between Kota Cina and Muara Jambi. As long ago as 1921, Adam recorded a legend that "Hindus" had formerly lived at Ujung Jabung and then moved to Kampong Kandis and Kompeh and later still to Muara Jambi.<sup>56</sup> Recently, early second millennium (and possibly earlier) sites have come to light at Kota Kandis and Muara Kumpeh Hilir on the lower reaches of the Batang Hari, once thought to have been part of a large gulf extending inland until the middle ages.<sup>57</sup>

Although the existence of antiquities at Muara Jambi has been known since the early nineteenth century, it is only in the past decade that systematic exploration of the area has been undertaken.<sup>58</sup> It is now known that there are over forty brick-built ruins in the Muara Jambi area, with remains

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<sup>55</sup>The Kampar estuary may have been avoided in earlier times. Pires, writing in the sixteenth century, notes that "the land of Kampar is sterile and of little profit . . . the river flows violently and is difficult to navigate on account of the currents." Cortesao, Tome Pires, p. 151. There is a tidal bore which is an added hazard to navigation. Dobbin, quoting Camphus (1685), notes that the Indragiri was formerly the chief outlet for gold from Minangkabau. The route involved a voyage part way down the Kampar, followed by an overland journey to Siak. See Dobbin, "Economic Change in Minangkabau," especially p. 8 and n. 32.

Two early sites appear to have been known in this region, Kota Pinang in the Bengkalis area, where a "Hindu" ruin is said to exist, and Kota Benuwang at the mouth of the Sungei Sintung where it joins the Rokan. The latter, possibly associated with the former polity of Pakaitan, has now disappeared. OV (1914), p. 137.

<sup>56</sup>T. Adam, "Oudheden te Djambi, I," OV (1921), Bijl. U., pp. 194-97.

<sup>57</sup>For recent developments on the lower Batang Hari, see E. Edwards McKinnon, "A Brief Note on Muara Kumpeh Hilir: An Early Port Site on the Batang Hari?" SPAFA Digest, 3 no. 2 (1982), pp. 37-40 and "New Data for Studying the Early Coastline in the Jambi Area" (forthcoming).

<sup>58</sup>The work at Muara Jambi is being undertaken by the Direktorat Sejarah dan Purbakala, Dirjen Kebudayaan, Departemen Pendidikan dan Kebudayaan, Jakarta and the Pusat Penelitian Arkeologi Nasional, Departemen Pendidikan dan Kebudayaan, Jakarta.

of candi on both the north and south banks of the Batang Hari. Sherds of late first millennium Chinese ceramics have been discovered in this area. Muara Jambi, which has been associated with the ancient toponym Melayu, promises to be among the most interesting of all archaeological complexes in Sumatra, having yielded evidence of cultural and trading connections with China, Vietnam, Thailand, Java and south India.<sup>59</sup>

South of the Batang Hari, the next major river system is that of the Musi, which enters the sea at Sungsang on the Selat Bangka. A superficial survey of part of Sungsang yielded sherds of Thai Sawankhalok and Chinese Blue and White ware, datable to the fifteenth or sixteenth centuries. Today, Sungsang is a wooden town built on piles under which have accumulated vast amounts of ceramic debris. Although it stands on alluvium, there are areas of dry ground which rise to four or five meters above the high tide mark and it may have had a much longer existence than has formerly been anticipated. Recent research indicates that the coastline in the lower reaches of the Musi and the Selat Bangka has not changed as much as was once thought.<sup>60</sup>

Ninety kilometers upstream from Sungsang is Palembang, an ancient site associated with the Malay thalassocracy of Śrīvijaya.<sup>61</sup> An apparent

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<sup>59</sup>For an introduction to the Muara Jambi site, see M. Nazir, Arkeologi Klassik Daerah Jambi (Jambi: Departemen Pendidikan dan Kebudayaan, 1980).

<sup>60</sup>See O. W. Wolters, "A Note on Sungsang Village at the Estuary of the Musi River in Southeastern Sumatra: A Reconsideration of the Historical Geography of the Palembang Region," Indonesia, 27 (1979), pp. 33-50, and P. Y. Manguin, "Sumatran Coastline in the Straits of Bangka: New Evidence for Its Permanence in Historical Times," SPAFA Digest, 3, no. 2 (1982), pp. 24-28, 49.

<sup>61</sup>For a recent survey of Śrīvijayan studies, see O. W. Wolters, "Studying Śrīvijaya," JMBRAS, 52, no. 2 (1979), pp. 1-32. See also Pra Seminar Penelitian Śrīwijaya

paucity of archaeological remains has prompted some scholars to question the legitimacy of Palembang's claim as a seat of Śrīvijayan power.<sup>62</sup> Although inscriptional evidence points to seventh century activity in the Palembang area and a number of statues, both of stone and bronze, have come to light, no habitation sites earlier than the late twelfth or thirteenth century were known until recently. Ninth century green glazed stoneware bowls and jars from Talang Kikim and Bukit Seguntang now offer evidence for both habitation sites and late first millennium trading contacts with south China.<sup>63</sup>

Palembang, like Muara Jambi, appears as a site of major importance in the reconstruction of ancient cultural and trading developments in South Sumatra. Both are known from Chinese historical records. Recently, a third toponym, Mo-ho-sin, known to the seventh century Chinese traveler Yi-jing, has been identified in this area. Professor Wolters believes that Mo-ho-sin related to Mukha Asin, a waterway immediately west of the Musi estuary.<sup>64</sup>

From the Musi, southeast to the Selat Sunda and along the west coast of Sumatra, there is very little archaeological evidence of early external contact with the island until about the seventeenth century. There is, however, one more early toponym which may relate to Lampung in the southeastern part of Sumatra. Duolang Pohuang may be reconstructed as Tulang

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<sup>62</sup>B. Bronson and J. Wisseman, "Palembang as Śrīvijaya: The Lateness of Early Cities in Southern Southeast Asia," AP, 19, no. 2 (1978), pp. 220-39.

<sup>63</sup>E. Edwards McKinnon, "A Note on the Discovery of Spur-marked Yueh-type Sherds at Bukit Seguntang, Palembang," JMBRAS, 52, no. 2 (1979), pp. 41-46.

<sup>64</sup>Wolters, "Studying Śrīvijaya," pp. 30-31.

Bawang, a river which flows into the Selat Sunda.<sup>65</sup> Finds of small glass and carnelian beads at points in streams and on old beach ridges in this area may indicate the existence of numerous habitation sites on the Tulang Bawang and Mesuji rivers.<sup>66</sup> A Śrīvijayan inscription has been found at Palas Pasemah on the Way Pisang, just north of Bukit Rajabasa in Lampung.<sup>67</sup>

These discoveries, still to be properly investigated by archaeologists, may be of considerable importance in relation to the beginnings of external trade in this region. Carnelian beads, in particular, are known to have been made in South India at least two to three millennia ago.<sup>68</sup>

Archaeological evidence for ancient cross-cultural contacts and trade, sparse though it is, indicates considerable activity on the east coast of Sumatra. Although the west coast route may have been known to navigators fairly early on, it is unlikely that it came into general use until the mid-second millennium.<sup>69</sup> The Baros area of northwest Sumatra appears more of a terminus for traders seeking access to the valuable resources of the area than as a port of call en route for elsewhere. The west coast, with few good harbors other than the bay of Tapanuli, is generally inhospitable. In the west monsoon season especially, the heavy seas of the Indian Ocean and the

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<sup>65</sup>Wolters, Early Indonesian Commerce, p. 162.

<sup>66</sup>J. Van Tuijn, "De Batoe-manik van Oost Palembang en de Noorderlijke Lampongsche Districten," De Mijningenieur, 1 (1932), pp. 20-22.

<sup>67</sup>Boechari, "An Old Malay Inscription of Śrīvijaya at Palas Pasemah (South Lampung)," Pra Seminar, pp. 19-40.

<sup>68</sup>Lamb, "Some Observations on Stone and Glass Beads," p. 88. I am indebted to Professor W. G. Solheim II for bringing the significance of these finds to my attention.

<sup>69</sup>For an alternative view regarding the use of the west coast of Sumatra, see W. J. Van der Meulen, "Suvarnadvipa and the Chrysê Chersonêsos," Indonesia, 18 (1974), pp. 1-40.

lack of safe anchorages would have made sailing extremely hazardous. The focus of early trading activity, with the single exception of the Baros area, was concentrated on the east coast ports, linked by either navigable rivers or portages to rich hinterlands.

## 6.2 Gold and Incense for the Maharaja: The Overland Route

In the foregoing section, attention has been focused mainly upon the maritime aspects of Sumatra's commerce and the location of coastal archaeological sites. There is, however, a second and extremely important factor in the island's commercial and cultural evolution which bears upon the development of Kota Cina's hinterland. The Hinduizing influences which appear to have entered the Bataklands from the south have already been mentioned. Legend implies a connection between the Karo Batak and the Minangkabau area, and I have suggested that the folk memories reflecting these connections are of considerable antiquity.

An examination of the disposition of archaeological remains in the long, axial valleys linking the southern edge of the Bataklands with Minangkabau and the Batanghari valley suggests that an important overland route may have formerly existed which facilitated commercial and cultural exchanges between the Batak peoples in the north and the Malays of central and south Sumatra. The Karo Batak may also have been involved in these exchanges.

Whether this route is of great antiquity, or whether it developed in the early second millennium in response to external pressures being exerted upon the maritime interests of Southern Sumatra, is not yet clear. It would seem, however, that by the twelfth century an extensive inland trading network existed throughout the center of the island. A proportion of the



valuable forest products of the Bataklands could have been sent southwards overland into Minangkabau and the Batanghari valley, avoiding the coastal trade. The existence of such a route does not necessarily imply political domination of part or all of the route by a major polity such as Śrīvijaya, but the Hinduized polity of Paṅṅai does appear to have developed largely in response to external and possibly internal, economic stimuli.

Despite the paucity of archaeological information relating to central and north-central Sumatra, it is possible to discern traces of the connections between the Panei/Padang Lawas area, Minangkabau and Melayu Jambi. Whether or not all the archaeological sites known in this area will prove roughly contemporary is still to be ascertained. The possibility does exist, however, that most are part of a long established route of commercial and cultural exchange. Although rivers such as the Panai/Barumun, Rokan, Kampar and Batanghari enabled forest produce and gold from the upland areas to be transported down to the east coast,<sup>70</sup> the long axial valleys of these same rivers facilitated movement up and down the center of the island.

In this section it is the intention to place on record data appertaining to the overland route connecting the hinterland of Kota Cina with that of Melayu-Jambi through the southern part of the Bataklands and Minangkabau to the upper reaches of the Batang Hari.

The Panei/Barumun temple complex is thought to have developed between the tenth and fourteenth centuries.<sup>71</sup> Whoever controlled this area

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<sup>70</sup>Loeb, Sumatra, pp. 4-5, notes that for centuries the major river systems were the only means of access to the interior. This is certainly true of southern Sumatra but less so in the north.

<sup>71</sup>For a recent discussion of the archaeological remains of the Panei/Barumun (Padang Lawas) area, see Mulia, The Ancient Kingdom of Panai. Also: Miksic, "Classical Archaeology," pp. 58-59. For a summary of the

also controlled the egress of much of the forest products, in particular benzoin, to both the east coast and inland destinations. The inland route followed the upper reaches of the Panei/Barumun river valley<sup>72</sup> and continued southwards along the axial valleys of the Bukit Barisan into Minangkabau territory, eventually terminating in Melayu Jambi.

The ethnic origin of the inhabitants of the Padang Lawas is an open question during this period. Schnitger, for example, has suggested that the architects and builders of the Padang Lawas candi were Hinduized Bataks.<sup>73</sup> Castles queried this assumption<sup>74</sup> and more recently Parkin has refuted any Batak connection with the Padang Lawas whatsoever. He has, instead, suggested that the candi were built either by Hinduized Javanese, Hinduized Melayu from Jambi or Hinduized Minangkabau.<sup>75</sup> Migrations of

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early Dutch writing on this area, see OV (1914), pp. 108-13. See also Van Stein Callenfels, "Rapport over een dienstreis," pp. 62-75; Bosch, "Verlag van een reis door Sumatra," pp. 133-57. Van Stein Callenfels was able to correct a number of inaccuracies incorporated into the 1914 report. For the first major description of the antiquities in English, see Schnitger, Archaeology, pp. 16-37.

<sup>72</sup>Neumann, writing in the 1880s describes the Padang Lawas area as one of major importance. "The Padang Lawas . . . is the greatest and easiest communication route between the East and West coasts of the island. Hundreds of Malays from Agam, Bonjol, Pasaman, Talu, Air Bangis, Rau, and Bataks from Mandailing, Angkola and regions lying further west, cross back and forth by way of the Padang Lawas." See Neumann, "Het Pane en Bila-Stroomgebied," p. 108.

<sup>73</sup>Schnitger, Archaeology, pp. 16-37.

<sup>74</sup>L. Castles, "Statelessness and Stateforming Tendencies among the Batak before Colonial Rule," in Pre-Colonial State Systems in Southeast Asia, ed. A. Reid and L. Castles (Kuala Lumpur: Monographs of the Malaysian Branch of the Royal Asiatic Society No. 6, 1975), pp. 67-76, especially p. 70. Castles opines that the present Batak inhabitants may have migrated into the area from the north in about the fifteenth century. Possible candidates for earlier inhabitants of the area are the Lubu who have more Malay-Minangkabau elements in their language.

<sup>75</sup>Parkin, Batak Fruit of Hindu Thought, p. 87. The inscriptions of the Padang Lawas exhibit virtually no Batak characteristics. The earliest

Batak clans within the past few centuries have complicated the issue.<sup>76</sup> The present-day populations of Angkola and Mandailing, and the Rao from immediately south of the area are not now seen as having any direct association with the Tantric-Buddhist-Hinduistic culture which flourished in the Panei area for upwards of three hundred years. The evidence as it exists at present is, however, inconclusive. The problem obviously requires re-examination from a multi-disciplinary point of view.

Dutch sources suggest that certain Indianizing influences emanating from the Melayu-Jambi region entered the Batak area from the south via Minangkabau.<sup>77</sup> Parkin's recent study, drawing mainly on linguistic evidence, lends support to this theory.

Dealing essentially with the problem as it affects the Toba Batak, Parkin also traced other Indianizing influences to the Tamil settlement at Labu Tua. In addition, other centers of Indianizing influence appear to have played a role on the east coast.<sup>78</sup> Kota Cina was one of them. A strong likelihood exists that there were similar, perhaps contemporary, settlements in both the Silau region of Asahan and on the Panai/Barumun estuary.<sup>79</sup>

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known inscription, that on a bronze Lokanatha from Gunung Tua, dated in the Śaka year 961 (1039 A.D.) is in Javanese script but contains the word *barbwat*, a Malay form. See Schnitger, *Archaeology*, p. 32, and N. J. Kron, *Hindoe-Javaansche Geschiedenis* (The Hague: Nijhoff, 1931), p. 247.

<sup>76</sup>Castles, "Statelessness," p. 70.

<sup>77</sup>Tidemand, *Hindoe-invloed in Noordelijk Batakland*, pp. 30-32.

<sup>78</sup>For example, Bartlett discerned non-Batak pre-Islamic influences in Asahan and Tanah Jawa. See Bartlett, "A Batak and Malay Chant on Rice Cultivation," p. 320.

<sup>79</sup>Both the Silau-Asahan and Panei/Barumun rivers provided established outlets for forest products from the interior. Although sporadic finds

Although the art and architecture of the Panai area has been studied in some detail, the wider contexts of this culture and its spatial relationships with other parts of Sumatra have not been brought into focus. Influences from both the art and architecture of Java and Southern India have been discerned in that of the Panai area.<sup>80</sup> Conversely, Parkin failed to discern any but a remote artistic and cultural connection between the art and religious beliefs of the former inhabitants of the Padang Lawas and the Toba Batak.<sup>81</sup>

It seems almost certain that the Padang Lawas maintained regular connections with the east coast.<sup>82</sup> Chinese ceramics, most likely imported via the Panai/Barumun river valley and dating to at least the twelfth century, have been recovered from the Portibi area.<sup>83</sup> A South Chinese ceramic statue, dating to the latter part of the thirteenth century, was recovered at Tandihet.<sup>84</sup> Chinese ceramics are much more likely to have entered this area in quantity from the east coast than from the west.

One of the easiest transinsular portages in Sumatra links the Padang Lawas with Padang Sidempuan on the Batang Angkola and thence to the Sibolga area. To the north, a route leading through Sipirok and the valley

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of Song and Yuan period Chinese ceramics have been reported from near the coast in these areas, no survey has been carried out to identify any early trading settlement which may exist.

<sup>80</sup> Schnitger, Archaeology, pp. 24, 37.

<sup>81</sup> Parkin, Batak Fruit, pp. 72-96.

<sup>82</sup> On the situation in the latter part of the nineteenth century, see Neumann, "Pane en Bila," pp. 69-71.

<sup>83</sup> Information from Mr. Muslim Lubis of Medan. See also Van Orsoy de Flines, "De Keramische Verzameling," p. 114.

<sup>84</sup> Schnitger, Archaeology, p. 22.

of the Batang Toru, linked the Padang Lawas with the benzoin-producing area west of Toba and subsequently with the camphor-producing region on the Cinendang river in the hinterland of Baros and Singkel.

Probably much of the high grade camphor found its way overseas by means of small trading settlements on the west coast. Baros itself may actually have been of importance from very early times, but it was not the only port in the area as the Tamil settlement at Labu Tua testifies. In addition to outlets on the west coast, camphor may also have found its way both to the east coast and to the south. A sophisticated system of exchange appears to have developed in the Batak areas which would have facilitated the movement of valuable forest products to which ever direction stimulated a demand.<sup>85</sup>

At least two routes allowed access to the Padang Lawas from the south. The first, and probably major, route passed through what is now Padang Sidempuan and from there southwards through the valley of the Batang Angkola. A second route appears to have run from near Sibuhuan in the Padang Lawas across the mountains into the Angkola valley near Si Abu. From Si Abu, the route then ran southward through Bonan Dolok to Penyabungan and Kotanopan in the valley of the Batang Gadis where it crossed the mountains by Muarasipongi to Rao. The modern road follows essentially the same route.

There may have been yet another route leading northeast from Rao into the Padang Lawas. To the south, an alternative route appears to have

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<sup>85</sup> Markets appear to have existed in the Batak areas from quite early times. In the late nineteenth century, there was a well established system of regular markets. See Joustra, Batakspiegel, pp. 313-14; see also De Haan, "Verslag," p. 38.

linked Rao with Muara Takus in the valley of the Batang Mahat, a tributary of the Kampar Kanan.<sup>86</sup> At Rao, the main route enters the valley of the Batang Sumpur, a tributary of the Sungei Rokan Kiri. It then passes through Tanjung Medan and Lubuk Sikaping via Bonjol into Minangkabau territory. From Bonjol, it seems that there were two alternative routes southwards. One followed approximately the route of the modern road whilst the second ran via Kota Tinggi and Paya Kumbuh to Bua. From Bua it was possible to gain access to the headwaters of the Batang Hari and proceed downstream to Muara Tebo and Muara Jambi.<sup>87</sup>

Archaeological evidence for a southward connection from Panei through Minangkabau to the Jambi area may be divided into three distinct geographical sections. The first is that covering the valleys of the Batang Angkola, Batang Gadis and the Batang Sumpur as far south as Lubuk Sikaping on the northern boundary of the Minangkabau heartland. The second is the Minangkabau area itself, and the third is the Batang Hari valley. The following notes detail the data concerning the area between Panei and Minangkabau.

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<sup>86</sup> Muara Takus was reportedly destroyed by Bataks from Kuamang (Panti) in the Rao area, though when this actually happened is not at all clear. See E. T. Van Delden, "Dagverhaal van eene reis naar Gloegoer VI Kota in 1880," *TBG*, 27 (1882), pp. 128-65. For then existing routes between the Rao area and VI Kota near Muara Takus, see J. B. Neumann, "Reis naar de onafhankelijke landschappen Mapat Poenggoel en Moeara Soengai Lolo, VI Kota," *TBG*, 29 (1884), pp. 1-35 (Map).

<sup>87</sup> A modern road runs through Bua to Sijungjung and Sungei Langsat, a tributary of the Batang Hari. This route appears to be a very ancient one.

### 6.2.1 The Northern Sector

#### Batu na Dua

Some five kilometers north of Padang Sidempuan on the route linking the Batang Angkola valley with Pagarutan and the Padang Bolak, a stone lotus cushion was discovered. No other artifacts have come to light in this area.<sup>88</sup>

#### Pijor Koling

At Pijor Koling, a short distance south of Padang Sidempuan, there was formerly a brick ruin which has long since been destroyed.<sup>89</sup> No details regarding the exact location of the ruin or of the building itself are available. It presumably stood on a tributary of the Batang Angkola which flows through Pijor Koling.

The name Pijor Koling is itself of interest. The word pijor means to heat iron to a temperature at which it can be worked. Koling is presumably a local derivation of Keling, a name commonly applied to South Indians.<sup>90</sup> The name would therefore appear to infer that Pijor Koling was an iron working site inhabited by Indians of Dravidian origin.

#### Simangambat, Si Abu

At Simangambat, some fifty kilometers south of Padang Sidempuan, are the remains of a Śiva sanctuary thought to date from about the eighth

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<sup>88</sup> See NBG (1899), p. 121; OV (1914), p. 105.

<sup>89</sup> See NBG (1971), p. 72; OV (1914), p. 105.

<sup>90</sup> Malay: pijar. The softening or liquifaction of metal under heat. Memijar besi: to soften iron for working. Wilkinson, A Malay English Dictionary, p. 901, keling, p. 542.

or ninth century.<sup>91</sup> The shrine is situated on the west bank of the Aek Muara Sada, a small tributary of the Batang Angkola. This stone and brick built shrine, which measures approximately five meters square, stood within a courtyard encompassed by an earthen wall some twenty-four meters square. The entrance of the sanctuary appears to have been on the east facing the stream. In front of the entrance are the foundations of a natural stone pendopo measuring 4 X 6 meters. A Ganeśa image and stonework carved in relief in Javanese style were discovered at this site.<sup>92</sup>

A pass across the mountains appears to have linked the Si Abu area with the area around Sibuhuan in the Padang Lawas, only a short distance to the east.

#### Bonan Dolok

At Bonan Dolok, three kilometers south of Simangambat, a second Ganeśa image in East Javanese style, a lotus cushion and other fragments of stone relief work were discovered in the latter part of the last century. These finds infer the presence of a second Śaivite shrine in the Si Abu area.<sup>93</sup> No date has been postulated for the Bonan Dolok remains, though they may be assumed to be roughly contemporary with those at Simangambat.

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<sup>91</sup>NBG (1888), p. 66; Van Ophuysen, "Oudheden," pp. 48-49; NBG (1889), p. 14; NBG (1892), p. 52; Van Stein Callenfels, "Rapport," p. 65; Bosch, "Verslag," p. 134; Schnitger, "De Temple van Simangambat," pp. 334-36.

<sup>92</sup>See Schnitger, "De Temple," plates.

<sup>93</sup>NBG (1888), pp. 66, 155-56; Van Ophuysen, "Oudheden"; NBG (1890), pp. 78, 105; NBG (1891), p. 96; OV (1914), p. 106; Schnitger, Archaeology, p. 14.



## Penyabungan

A small bronze image of an elephant with two women on its back, apparently the pommel of a staff, was recovered from a river at Penyabungan.<sup>94</sup> Schnitger notes that the elephant, which carries a flower bud in its trunk, is similar to fragments which he recovered from the candi at Bara in the Padang Bolak.<sup>95</sup> Other fragments of statuary from Penyabungan were collected by the Dutch authorities and deposited at Si Abu.<sup>96</sup>

## Tano Bato

Some twenty kilometers south of Penyabungan, at Tano Bato, a bronze image of Kubera and an elephant image were discovered.<sup>97</sup> Tano Bato lies at the foot of the Sorik Merapi volcano, just off the main road from Penyabungan to Kotanopan.

## Sorik Merapi

Formerly three brick graves and four small inscribed pillars were to be found at the edge of the crater of Sorik Merapi, just west of Kotanopan. An inscription on one of the pillars, which is written in Old Malay, appears to date from the Śaka year 1164 (1242 A.D.).<sup>98</sup>

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<sup>94</sup>Van Stein Callenfels, "Rapport," p. 65, plate 1.

<sup>95</sup>Schnitger, Archaeology, p. 14.

<sup>96</sup>Van Stein Callenfels, "Rapport," p. 65, plate 2.

<sup>97</sup>NBG (1866), p. 264; NBG (1867), p. 79; NBG (1890), p. 78; NBG (1891), p. 96, OV (1914), p. 107.

<sup>98</sup>OV (1914), p. 108; L. C. Damais, "Etudes d'Epigraphie Indonésienne," III, BEFEO, 46, no. 1 (1952), p. 101. Different versions of this same date had been given earlier by Brandes and Krom.

## Kotanopan (Hutanopan)

"Hindu antiquities" were said to have once existed in the kampong of the Yang dipertuan, the local chief. They had, however, already disappeared by the late nineteenth century.<sup>99</sup> A bronze lamp in the form of a kinnari was recovered from the Aek Singengu, a tributary of the Batang Gadis, just above Kotanopan.<sup>100</sup>

## Lubuk Layang (Kubu Sutan)

An inscription discovered at Kubu Sutan, Lubuk Layang, on the north bank of the Sungei Sibinail, a tributary of the Batang Sumpur, may relate to the ruins of a candi that recently came to light in this area. The inscription concerns a sanctuary devoted "to the ancestors."<sup>101</sup>

## Padang Nunun

A headless statue of a dvarapala or temple guardian, recovered from the bed of the Sungei Sibinail, is now in the village of Padang Nunun, near Rao. The image is in the style of the dvarapalas of the Padang Bolak region and may also date from the twelfth to fourteenth century.<sup>102</sup> Subsequent to the discovery of the dvarapala, a candi site was identified on the north bank of the Sungei Sibinail at Padang Nunun (this may also be considered as

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<sup>99</sup>NBG (1862), p. 103.

<sup>100</sup>NBG (1891), pp. 41, 96. The bronze kinnari was recovered from the river Aek Singengu just above Kotanopan. It was suggested that it may have been washed down by a flood from Simpang Tolang, where a landslide had occurred just a few days previously.

<sup>101</sup>S. Suleiman, The Archaeology and History of West Sumatra (Jakarta: Bulletin of the Research Centre of Archaeology of Indonesia No. 12, 1977), p. 6 and plate 3.

<sup>102</sup>Ibid., p. 2, plate 1.

Lubuk Layang). The ruin has been badly eroded by the action of flood water but may yet reward careful excavation.

Alluvial gold is said to be found in the bed of the Sungei Sibinail at this point.<sup>103</sup> This may be no more than a coincidence. On the other hand, it may be of significance in relation to the candi and former gold working.

Dra. Satyawati Suleiman has suggested that the Rao area in which Lubuk Layang and Padang Nunun are situated may have been a border area between Panei and Minangkabau.<sup>104</sup> It is certainly of interest to be able to note the influence of Panei sculpture so far south. It appears that Rao was, possibly, for a while under the control of the Panei area, a fact that may give added significance to the legend that Muara Takus, some eighty five kilometers to the southwest, was destroyed by "Bataks" from Panti in the Rao area.<sup>105</sup>

#### Tanjong Medan

Some thirty kilometers south of Rao, at Tanjong Medan is the site of a brick built candi located on the west bank of the Batang Sumpur. The ruin stands to the south of a small stream, the Kali Bandar, which flows into the Batang Sumpur, between the main road and the bank of the river. The ruin, formerly described as a biaro was apparently still in a reasonable state of preservation until the late nineteenth century. It collapsed completely

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<sup>103</sup> Edwards McKinnon and Milner, "A Letter from Sumatra," pp. 15-16.

<sup>104</sup> Suleiman West Sumatra, p. 6.

<sup>105</sup> Van Delden, "Dagverhaal van eene Reis naar Gloegoer, VI Kota," p. 138.

after uncontrolled excavations, carried out by a Dutch official, undermined the walls.<sup>106</sup>

The two-chambered tower or stupa-like sanctuary was a rectangular building measuring approximately 7.5 X 4.5 m, which stood to a height of approximately 4 m before it finally collapsed some time after 1876. An inscribed gold plate, the upper part of a metal kendi with its neck inlaid with gold and silver, some fragments of gold leaf and three rubies were recovered from what appears to have been a foundation deposit. Incised onto the plate is a mandala with eight Boddhisatvas and an inscription of Buddhist formulae in Nagari script thought to be no older than the twelfth century.<sup>107</sup>

Local people reported that the ruin had formerly contained a number of statues and a copper bowl.<sup>108</sup> These objects had all disappeared before the site was investigated in 1876. In 1978, a Pusat P3N team visited the site which was then badly overgrown. It does not appear to have been disturbed since 1930 when Bosch reported that the candi was no more than a heap of bricks. A few coarse earthenware sherds and a fragment of stoneware were recovered from the vicinity of the ruin.<sup>109</sup> The site would be worth further

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<sup>106</sup>NBG (1876), p. 18; NBG (1877), pp. 76-77; NBG (1879), p. 61; NBG (1911), p. 127; OV (1912), p. 36; Van Stein Callenfels, "Rapport," p. 64; Bosch, "Verslag," pp. 133-34. For a recent summary, see Miksic, "Classical Archaeology," p. 57.

<sup>107</sup>Bosch, "Verslag," p. 134. A certain Mr. Der Kinderen, who excavated the ruin, reported that he found the gold plate and other objects at a depth of "circa 5 1/2 el" approximately 5 meters, a depth which presumably refers to the position of the deposit below the top of the mound as it then was. This would appear to have been about 1 meter below ground level, not five meters, as was previously thought. NBG (1877), p. 76.

<sup>108</sup>NBG (1876), p. 18.

<sup>109</sup>Edwards McKinnon and Milner, "A Letter from Sumatra," p. 16.

careful investigation. Habitation sites almost certainly exist in the immediate neighborhood.

#### Lubuk Sikaping

A brick ruin, described as a "Hindu temple" formerly stood in the vicinity of the Administrative center at Lubuk Sikaping. It was demolished on the instructions of the local government in 1866.<sup>110</sup> The site of the ruin has apparently been forgotten. Enquiries by a Pusat P3N team in 1978 failed to yield any local knowledge of it. It would appear to have stood on the east bank of the Batang Sumpur, probably at or near the mouth of a tributary to the south of the town.

#### Tarung Tarung

Formerly a ruin, known locally as a biaro, was to be found at Tarung Tarung. Nothing is known regarding its religious or cultural associations.<sup>111</sup>

#### Pancahan, near Tarung Tarung

As with the case of the ruin at Tarung Tarung, nothing is known about this candi, the site of which also appears to have been forgotten.<sup>112</sup>

#### Muara Takus

Although not directly associated with the main north-south route from Panei to Minangkabau, the site at Muara Takus appears to be of strategic importance in relation to ancient routes linking the east coast with Rao and

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<sup>110</sup>NBG (1886), p. 236; OV (1912), p. 37.

<sup>111</sup>NBG (1911), p. 127; OV (1912), p. 36.

<sup>112</sup>NBG (1911), p. 127; OV (1912), p. 36.

the northern part of the Minangkabau area via the Kampar valley. The site itself is situated on the middle portion of the Mahat valley some twenty-six kilometers above the confluence with the Kampar Kanan at Muara Mahat. It is some seventy-five kilometers southwest of Tanjong Medan.

The Batang Mahat itself does not appear to be navigable. The Kampar Kanan, however, would have been navigable as far as Muara Mahat. The remaining distance could have been covered by raft.

The site at Muara Takus is also known as Kota Candi. It is situated on the west bank of the Batang Mahat at a point where the river is easily fordable. The candi stands in a complex encompassed by an earthen wall and ditch, at present nearly obscured by overgrown village rubber. The surrounding wall encloses an area of approximately 125 hectares.<sup>113</sup>

Although much of the enclosed area may have been reserved for crops and the actual habitation area restricted to the part adjacent to a small stream which runs through the site, it is nonetheless impressive.

The temple complex measures 74 X 74 meters. It consists of six buildings, of which the most important and best preserved is that known as the Mahligai stupa.<sup>114</sup> On either side of this are two smaller brick built

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<sup>113</sup>See C. de Groot, "Kota Tjandi," TBG, 9 (1860), pp. 531-33; NBG (1876), p. 103; G. du Ruy van Beeste Holle, "Beschrijving van de Hindoe-oudheden te Moeara Takoës," TBG, 25 (1879), pp. 217-20; R. D. M. Verbeek and E. T. Van Delden, "De Hindoe-ruinen bij Moeara Takoës," additional notes by W. P. Groeneveldt, VBG, 41 (1881), pp. 1-19. Also NBG (1889), p. 155; NBG (1890), p. 14; J. W. Ijzerman, "Beschrijving van de Boeddhistische bouwerken te Moeara Takoës," TBG, 35 (1893), pp. 48-74; NBG (1901), pp. 55, 97; NBG (1911), p. 127; OV (1912), pp. 38-39; OV (1929), p. 16; Bosch, "Verslag," pp. 148-49; Krom, Hindoe-Javaansche Gescheidenis; F. M. Schnitger, "Vondsten te Moeara Takoës," TBG, 76 (1936), pp. 331-32; and Schnitger, Archaeology, pp. 11-12.

<sup>114</sup>As Miksic has noted recently, Mahligai probably derived from the Tamil word Mahaligai, a palace or residence of a royal lady. Miksic, "Classical Archaeology," p. 56, n. 68. Wilkinson, Dictionary, p. 721. The name

structures known as Candi Bungsu<sup>115</sup> and Candi Palangka.<sup>116</sup> The largest structure, which is now in very ruinous condition, is Candi Tua which lies immediately to the north of Candi Bungsu. To the east of Candi Tua are two small foundations, one of which is constructed of sandstone. These foundations may originally have supported timber superstructures.

Estimates regarding the date of the Muara Takus site range from between the eighth to ninth centuries,<sup>117</sup> to the twelfth to fourteenth centuries.<sup>118</sup> A recent Pusat P3N excavation within the courtyard of the candi complex yielded only Chinese sherds datable to the sixteenth century.<sup>119</sup> These recent finds have further complicated the situation regarding the occupation period at Muara Takus.

Bronson's reference to the absence of large population centers in the valley of the Batang Mahat may be misleading.<sup>120</sup> The early demography of Sumatra has not yet been studied. Population figures for a site such as Muara Takus and the surrounding area will only be resolved by extensive excavation and should be seen, at present, in terms of probably no more

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appears also at Fansur near Baros where there is a Makham Mahligai, an Islamic burial ground on a hill overlooking the Aek Dangka (or Dakka), a tributary of the Aek Batang Garigis.

<sup>115</sup>Bungsu: youngest born. Wilkinson, Dictionary, p. 152.

<sup>116</sup>Palangka: Skt: paryāṅka: a couch or bedstead or a four-wheeled carriage. Gonda, Sanskrit in Indonesia, pp. 172, 386.

<sup>117</sup>Krom, Hindoe-Javaansche Geschiedenis, p. 133.

<sup>118</sup>Bernet Kempers, Ancient Indonesian Art, p. 69.

<sup>119</sup>Dra. S. Satari, personal communication. I am indebted to Dra. Satari for allowing me to examine a selection of sherds from this excavation.

<sup>120</sup>Bronson and Wisseman, "Archaeological Survey," p. 93.

than a few thousands at most which, in Sumatran terms, is quite considerable.

The probability also exists that such a population may have been fairly scattered throughout the valley with the highest concentration within the perimeter of the enclosing rampart at Muara Takus itself. Local resources, in terms of agricultural and irrigable rice land together with forest resources, appear to have been sufficient to support a moderately large population of several thousands.

The 125 hectare site at Kota Candi appears to have been occupied over a considerable length of time. There is, for example, evidence that the Mahligai stupa was rebuilt, an act which in itself implies continuity of occupation and a measure of economic prosperity. The original structure of the Mahligai stupa was, at some later date, completely enclosed by a new brick and stone shell.

Schnitger, who carried out some limited excavation at Muara Takus in 1936, discerned two general stages of construction throughout the entire candi complex.<sup>121</sup> He considered that the main buildings had been erected in the eleventh century and that rebuilding had taken place during the twelfth. There is, at present, very little to go on regarding datable artifacts at this site.<sup>122</sup> The twelfth century date is based on paleographic grounds and is dependent upon Bosch's reading of letters in Nagari script found inscribed on a gold plate recovered from a foundation deposit at Candi Bungsu. Schnitger is at pains to point out that this may relate to an

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<sup>121</sup>Schnitger, Archaeology, p. 11.

<sup>122</sup>Bronson and Wisseman, "Archaeological Survey," p. 93.



extension of the building and not the original construction as the gold plate was recovered from a votive offering linked to the second stage of construction.<sup>123</sup>

There has been speculation that the ruins at Muara Takus were associated with the center of Śrīvijaya,<sup>124</sup> an hypothesis which has found little acceptance.<sup>125</sup> Indeed, this appears to be highly unlikely. The site may, however, be associated with the ancient trade in gold and forest produce from the Bukit Barisan hinterland, and may have acted as a collection center for goods from both the Rao area to the north and the Minangkabau heartland. According to legend, the Minangkabau king, Adityavarman, is said to have obtained control of the area by marrying his daughter to a local chief.<sup>126</sup> The site is also said to have been destroyed by Bataks from Panti in the Rao area. This last point may be of some significance in indicating a conflict of commercial interests between the Rao area, which appears to have been under the control of the Panei/Barumun chiefs, and those in the Batang Mahat.<sup>127</sup> The distances involved are not large and can be covered

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<sup>123</sup>Schnitger, Archaeology, p. 11.

<sup>124</sup>J. L. Moens, "Śrīvijaya, Java en Kataha," TBG, 77, no. 3 (1937), pp. 317-486, reprinted in an abridged English translation by R. J. de Touché, JMBRAS, 17, no. 2 (1939), pp. 1-108.

<sup>125</sup>F. M. Schnitger, "Het ontstaan der rijken aan de Kampar Kanan," TNAG, 57 (1940), pp. 397-403.

<sup>126</sup>Ijzerman, "Boeddhistische bouwerken," p. 51; Schnitger, "Het ontstaan," pp. 399-401.

<sup>127</sup>Dobbin notes that Muara Takus was ideally situated for controlling the northern gold trade from Minangkabau to Rao. Dobbin, "Economic Change in Minangkabau," p. 9, n. 37. This implies that Rao, itself a gold producing area, was importing gold. It seems feasible to suggest that the final destination of this trade would have been the Padang Lawas. If Muara Takus was interfering in the northward flow of trade, this would help to explain its destruction. There could, of course, have been other reasons for conflict between the two areas.

quite quickly even on foot. Schnitger related other ruins at Durian Tinggi and Bangkinang to the Muara Takus complex.<sup>128</sup>

### Summary

None of the sites mentioned above are any great distance apart. Most are actually within a relatively short distance of the main road that links Bukit Tinggi in the province of Sumatera Barat (West Sumatra) with Padang Sidempuan in Kabupaten Tapanuli Selatan of Sumatera Utara (North Sumatra). Their proximity to this route in all probability accounts for most of them having come to the attention of the Dutch colonial authorities.

All of the candi sites are located on the banks of streams or rivers in areas with land suitable for wet rice cultivation. In the northern part of this area many of the hills along the route are now bare of any forest cover, probably due to prolonged swidden agriculture. The same area has also yielded aromatic resins<sup>129</sup> and small quantities of alluvial gold are still to be found in many of the rivers, especially the Batang Angkola, the Batang Natal and tributaries of the Batang Sumpur.<sup>130</sup>

Both aromatic resins and gold were commodities which could be readily exchanged for items such as salt, cloth, iron and gemstones. Imported ceramics appear to have found their way into the area as a result of trade with the coastal areas. At present, however, the evidence for ceramic imports is testified only by the discovery of a stoneware sherd at Tanjong

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<sup>128</sup>Schnitger, Archaeology, p. 12.

<sup>129</sup>The southern limit for camphor appears to be in the area of Air Bangis. See Heyne, De Nuttige Planten, p. 1100.

<sup>130</sup>On gold working in the Batang Natal area, see J. P. Godon, "Iets omtrent de Goudmijnen in de Afdeeling Mandaheling," TBG, 2, no. 2 (1864), pp. 49-51.

Medan, and the trade in this commodity would thus appear to have been quite limited.

The existence of numerous trails along the axial valleys and those leading across the mountains or along the transverse river valleys to the east and west coasts suggest the existence of a complex web of communication throughout the area. Future study of these routes should help to clarify relationships which appear to exist between the archaeological sites. Cultural interaction is already indicated by stylistic commonalities in the architectural and sculptural remains in the region. These appear, in the main, to date from the early second millennium A.D.

#### 6.2.2 The Minangkabau Area

Little is known of the archaeology and early history of Minangkabau. As with other parts of Sumatra, no early habitation sites have been investigated and archaeological data consists largely of inscriptions supplemented by finds of statuary and other artifacts.<sup>131</sup> Indeed, information relating to the period before the advent of the Malayo-Javanese prince Adityavarman who established himself as the first ruler of Minangkabau in the mid-fourteenth century, is virtually non-existent. What social organization existed in the area prior to the arrival of Adityavarman is not known. There appears, however, to have been bitter resentment to his intrusion and he was only able to establish himself after eliminating considerable local opposition.<sup>132</sup> Adityavarman left no less than eighteen inscriptions covering

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<sup>131</sup>Minangkabau is now subsumed into the province of Sumatra Barat. For a summary of the position prior to 1912, see N. J. Kron, "Inventaris der Oudheden in de Padangsche Bovenland," *OV* (1912), Bijl. G, pp. 33-50. See also Schnitger, *Archaeology*, pp. 13-15, and Suleiman, *West Sumatra*.

<sup>132</sup>In an important article on the economic significance of gold and the

the period between 1347 and 1371 A.D., most of which are concentrated in the south central part of Minangkabau.<sup>133</sup>

The motives behind Adityavarman's entry into this area appear to have been largely economic.<sup>134</sup> He may also have wished to secure a greater measure of independence from unwelcome Javanese control. South Sumatra had come increasingly under Javanese hegemony in the thirteenth century as the rule of the Maharajas of Melayu-Jambi faltered following the Cōḷa raids of the early eleventh century and the increasing involvement of Chinese shipping in Southeast Asian maritime trade had a detrimental effect on the region's external trading relations.<sup>135</sup>

The major centers of habitation in Minangkabau, based on three large rice growing areas known as Tanah Datar, Agam and the Limapuluh Kota, were linked by a complex web of trade routes extending to the north, east and south.<sup>136</sup> Minangkabau was not only a rich agricultural area but was of considerable economic importance due to appreciable deposits of alluvial gold.<sup>137</sup>

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rise of the Padri movement in the late eighteenth and early nineteenth centuries, Christine Dobbin has assembled much useful background material concerning gold production and archaeological evidence relating to the establishment of Adityavarman's power in the area. See Dobbin, "Economic Change in Minangkabau," especially pp. 1-17.

<sup>133</sup>Schnitger, Archaeology, p. 13.

<sup>134</sup>Dobbin, "Economic Change in Minangkabau," p. 11.

<sup>135</sup>See Wolters, "The Fall of Śrīvijaya," especially Chapter 4.

<sup>136</sup>Links to the west coast appear to have become important only in later times.

<sup>137</sup>In the seventeenth century, the main gold producing areas were in the hilly eastern border of the Tanah Datar plain. Gold was panned in two main longitudinal valleys dominated by the villages of Bua and Sumpur Kudus. It was also to be found in the southern part of Tanah Datar and in

Minangkabau may be seen as an area of strategic importance in the setting of Sumatra's internal trade in the early second millennium A.D. It appears to have played a similar role to that of the Padang Lawas further north. It may have provided a hinterland with both rich agricultural and mineral resources for the polities which developed in the middle and lower reaches of the Batang Hari.

### 6.2.3 The Batang Hari River Valley

The upper Batang Hari and its tributary, the Batang Tembesi, provided important links between Melayu Jambi, based on the Muara Jambi area and a rich hinterland. The toponym Melayu seems to have been associated with mountains by the first centuries of the Christian era. It seems likely that from the early first millennium A.D. Melayu referred to a substantial part of Sumatra, including areas situated deep in the hinterland.<sup>138</sup> Some of the richest gold-producing areas in Sumatra, in particular those of Minangkabau and the headwaters of the Batang Tembesi around Danau Kerinci were directly accessible from Jambi.<sup>139</sup> These areas may have supported a sizable population even in the mid to late first millennium. In Minangkabau and along the upper reaches of the Batang Hari and the Batang Tembesi, there are areas which are suitable for rice cultivation and which are today relatively densely populated.

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the hills around Suroaso, parts of the region known as Duapuluh Kota around Danau Singkarak and also around Batipuh. Dobbin, "Economic Change in Minangkabau," pp. 8-9.

<sup>138</sup>Wolters, "Studying Śrīvijaya," pp. 22-23.

<sup>139</sup>J. Tideman, Djambi (Amsterdam: Koningklijke Vereeniging Koloniaale Instituut, Mededeeling 42, 1938), pp. 225-27. See also Van Bemelen, Geology II, pp. 104-22.

A seventh century inscription, similar to the one discovered at Kota Kapur in Bangka was found at Karang Brahi, near Bangko on the Batang Merangin, a tributary of the Batang Tembesi.<sup>140</sup> This inscription attests to an early Śrīvijayan interest in the hinterland of Jambi. It is situated at a point which is not far from the mountains and may indicate that this area was once part of the territory of Melayu.<sup>141</sup>

The chronology and distribution of archaeological sites in the drainage basin of the Batang Hari and its tributaries are very poorly known. No systematic investigation of sites in the region has been undertaken and doubtless many sites remain to be discovered.

Professor Wolters, in response to criticism from Kenneth Hall, has recently brought attention to the possibilities of the hinterland affecting the situation on the east coast in the early second millennium, a possibility which has been largely neglected.<sup>142</sup> Professor Hall has pointed out that:

Remains of the Śrīvijaya period indicate that Śrīvijaya's culture penetrated deep into the interior not only along the rivers which flowed to Palembang but also along those which flowed through other contemporary commercial centers on both the island of Sumatra and the Malay Peninsula.<sup>143</sup>

The manpower, agricultural and forest resources and gold of the hinterland may indeed have played a far more important part in the development of

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<sup>140</sup>G. Coedes, "Les inscriptions malaises de Çrivijaya," BEFEO, 30 (1930), pp. 29-80.

<sup>141</sup>Wolters, "Studying Śrīvijaya," p. 22.

<sup>142</sup>Ibid., p. 3.

<sup>143</sup>K. R. Hall, "State and Statecraft in Early Śrīvijaya," in Exploration in Early Southeast Asian History: The Origins of Southeast Asian Statecraft, ed. K. R. Hall and J. K. Whitmore (Ann Arbor: University of Michigan Center for South and Southeast Asian Studies, 1976), pp. 61-105.

Śrīvijayan period coastal sites than has hitherto been understood.<sup>144</sup> The apparent lack of monumental religious remains in South Sumatra has tended to focus interest on the maritime aspects of commerce in this region. But neither traders nor travelers need have been aware of the extent to which the hinterland was involved in the prosperity of a coastal entrepot.

"Śrīvijaya" Jambi, at least in the early second millennium, was not so devoid of religious monuments as historians have been led to believe. Over the past decade, no less than forty brick-built monuments have been discovered in the Muara Jambi area alone.<sup>145</sup> Ninth to tenth century Chinese stonewares have also come to light here.<sup>146</sup>

Other archaeological evidence is also beginning to present itself. The upper reaches of the Batang Kompeh, which leaves the Batang Hari south of Jambi and rejoins it at Suak Kandis (Muara Kompeh Hilir) appears to have been canalized in what may have been an attempt to relieve population centers around Muara Jambi of seasonal flooding.<sup>147</sup> Brick built remains are said also to exist in the vicinity of Solok Sakean on the Batang Kompeh.<sup>148</sup> Late first millennium Chinese stonewares have also been found on the west bank of the Batang Kompeh near Solok Sakean.

A limited amount of archaeological evidence had already come to light by the mid-1930s. Schnitger, who carried out some cursory excavation at

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<sup>144</sup> Professor Hall considers that "Śrīvijaya depended upon its ability to organize hinterland trade." Hall, "Early Śrīvijaya," p. 92. I agree this was a major factor. It was the symbiotic arrangement between inland and maritime interests that brought success to the Maharajas' enterprises.

<sup>145</sup> Nazir, Arkeologi Klassik, pp. 23-25.

<sup>146</sup> See Suleiman, Sculptures, p. 26, n. 29.

<sup>147</sup> Edwards McKinnon, "New Data" (n.d.).

<sup>148</sup> I am indebted to Pak Mohammad Hatta of Jambi for this information.

Muara Jambi suggested that the site was that of ancient Melayu.<sup>149</sup> He also reported that there were many indications of "Hindu" influence in the upper Batang Hari region. Numerous brick remains, thought to date from about the thirteenth or fourteenth centuries, have been reported from Rambahan, Pulau Sawah and Padang Roco (Padang Candi) between the Batang Tumpuh and the Batang Lelo.<sup>150</sup> An East Javanese Amoghapasa image, with an inscription dated to the Saka year 1208 (A.D. 1286), was discovered at Sungei Langsat.<sup>151</sup> Javanese troops may have occupied the area between 1286 and 1290,<sup>152</sup> and at this time the Malay kingdom of Dharmaśraya, with which the remains or Rambahan and Padang Roco are associated, acknowledged the suzerainty of the Javanese state of Singasari.<sup>153</sup>

Finally, mention should be made of a prehistoric or proto-historic site discovered at Danau Gadang near Danau Kerinci during the 1930s. Numerous potsherds and fragments of bronze came to light on a tea estate a short distance to the south of the lake. Impressed designs on the pottery bear

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<sup>149</sup>Schnitger, Archaeology, p. 10.

<sup>150</sup>Ibid. But see also L. C. Westenenk, "De Hindoe-Javanen in Midden- en Zuid-Sumatra," Eerste Congres voor de Taal-, Land- en Volkenkunde van Java, Soerakarta 1919. Handelingen (Wetevreden: Albrecht, 1921), pp. 1-39. Westenenk includes two useful maps of "Hindu" remains in South Sumatra. For a recent study of events in the upper Batang Hari region, see also Suleiman, Archaeology, pp. 3-4.

<sup>151</sup>Schnitger, Archaeology, pp. 8-9.

<sup>152</sup>Westenenk, "De Hindoe-Javanen," p. 15. Dra. Suleiman suggests the occupation may have lasted a little longer; see Suleiman, Archaeology, p. 9. The occupation, a consequence of the Pamalayu expedition which took place between 1275 and 1293, was only temporary.

<sup>153</sup>See Coedes, Indianized States, pp. 201-2.



comparison to some of the Kota Cina designs and at least one of the pottery types may be related to the Kota Cina fine paste ware. This site offers considerable potential in understanding coastal-hinterland relations and warrants a new investigation by archaeologists.<sup>154</sup>

### 6.3 Conclusions

Kota Cina is the first site on Sumatra's northeast coast to produce substantive archaeological evidence, both of foreign settlement and direct commercial contacts with South India and South China. It is the second site offering evidence of Tamil involvement in northern Sumatra in the early second millennium A.D., an east coast equivalent to the eleventh century Tamil settlement at Labu Tua on Sumatra's west coast. It is yet another example of South Indian mercantile initiative on the eastern shores of the Indian Ocean.

The presence of South Indian religious images at Kota Cina is significant for our understanding of the long process of Indianization in Southeast Asia. Due to the seasonal nature of sailing patterns, foreign traders were obliged to establish permanent bases in Southeast Asian waters. In doing so, they set up religious institutions served by their own Brahmin priests and, in the case of Kota Cina, brought stone images of their gods with them from their homeland. This practice helps explain the presence of early bronze images of possible Indian and Sinhalese origin, both on the mainland and in the islands of the archipelago. Although bronze images were no doubt brought back to Southeast Asia by travelers and monks returning from such seats of learning as Nalanda, merchants from India and China

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<sup>154</sup>See Van der Hoop, "A Prehistoric Site," pp. 200-204.

probably also carried their own icons with them. This process indubitably worked in both directions, as is testified by finds of bronze images with "Indonesian" characteristics at both Nalanda and Negapaṭṭinam. Archaeological evidence for these processes may yet come to light in China at ports such as Guangzhou, extending the line of western artifacts found at Oc-eco and other sites in Southeast Asia.

The presence of significant quantities of high quality Chinese Song and Yuan period ceramics attests to the prosperity of the erstwhile inhabitants of Kota Cina. The recovery of gold leaf impressed with Chinese characters is the first archaeological evidence to substantiate historical records of Chinese involvement in the ancient gold trade of Southeast Asia.

The first Chinese immigrants to appear to have settled at Kota Cina in the mid to late twelfth century, a time when Chinese ships bound for Sri Lanka and South India were sailing along the northeast coast of Sumatra in ever increasing numbers. Eventually the numbers of Chinese may have increased until the site became known as the Chinese "kota" and their presence became a subject for local lore. Present-day evidence suggests that Chinese Buddhists would have had no difficulty in adapting an Indian Buddhist sanctuary to their own use or at least would have found no objection to using Indian images as objects of their devotions. A Chinese presence at the site is strongly suggested by the large numbers of cash and other evidence such as the fragments of artifacts which may be considered outwith the normal range of trade. The fragments of ceramic figurines, which may relate to Taoist religious practices, and a fragmentary talisman inscribed with Chinese characters indicate that this may have been the case. Chinese immigrants were certainly settled in Tumasik by 1330 and in South

Sumatra and Java by the late fourteenth or early fifteenth centuries. This process of immigration, however, had probably begun about one hundred years earlier. Kota Cina thus appears as a cosmopolitan settlement, though with more emphasis on the "Indian," rather than the "Chinese" aspects than I had given it in the past.

Ceramic evidence suggests that the site was abandoned in the third quarter or the early part of the last quarter of the fourteenth century, a slightly later date than I had originally considered likely. Much of the imported ceramic material can be attributed to products of the kilns of South China during the Yuan period and possibly to the first few years of the Ming dynasty.

A few shreds of evidence suggest that Kota Cina may ultimately have been burnt. The discovery of a collapsed glass bottle at Location 1 and fused bronze on the top level of a brick foundation at Location 8 are suggestive of a conflagration. Little other evidence of such an occurrence may remain as the high level of rainfall and acute leaching of the soil in this region may have removed most, if not all, traces of a carbon deposit.

One is still left with questions of the mechanics of cultural diffusion and political organization which are, admittedly, beyond the scope of this dissertation. I have suggested that Kota Cina, a foreign settlement established for purposes of trade, also became a nucleus for a scattered indigenous population around the bay and creeks of the Teluk Belanga. There is, as yet, little to suggest how things happened and it is here that ethnography and folklore may yet be able to fill some of the gaps.

It is uncertain whether the site was politically autonomous or whether it came under the domination of a local chief. Karo legend, with folk

memories of a rich Indian trader backed by well-armed followers, suggests a politically independent community.

The presence of Hindu religious institutions with the possibility of spectacular public ritual raises questions relating to their effect on the traditional religious practices of the Karo. There is a close parallel between the open village sanctuaries of South India and the pasuruan of the Pardemabanan Batak of Asahan and the pajuh-pajuhén of the Karo.

Miksic has suggested that exchange may have become ritualized. One may speculate regarding the possibilities of matrimonial alliances between Tamil settlers and the indigenous inhabitants. Such alliances would have greatly facilitated trade and established permanent bonds between them. This would also help to explain the occurrence of Dravidian sept names among the Karo and Pakualuh ceremony once practiced at Siberaya by the Sembiring Singombak.

The rise of numerous small ports on the northeast coast of Sumatra during the twelfth century was in all probability a direct response to the weakening and collapse of "Śrīvijaya" Jambi, the region's major entrepot. During the thirteenth century, Arab, Indian and Chinese traders took advantage of the weakness of the Maharaja, a reflection of the decline of "Śrīvijaya" Jambi. These small harbors may already have been established nodes in the extensive system of Far Eastern maritime trade. Their independence of a central power may have facilitated the establishment of Islam in the area, offering fertile ground for the trading activities of Islamic merchants from both south and northern India.

Archaeological evidence for earlier trading activity in the Kota Cina region is lacking. Further exploration and excavation is required before it

can be ascertained if the site developed from an earlier pangkalan, basically no more than a few timber huts at an anchorage associated with an area in which exchanges took place, or whether the site sprang into existence as a fully fledged emporium with the arrival of a group of foreign merchants.

There is still too little evidence to bridge the gap between the Hoabinhian shell middens of some four to five thousand years B.P. and cultural remains of the early second millennium A.D. Kota Cina does, however, provide a very useful insight into a period that has been a virtual hiatus in Sumatra's history between the disappearance of Śrīvijaya and the Islamization of the numerous small harbor polities in the thirteenth and fourteenth centuries.

Kota Cina is important in yet another respect. It is but one example of an extensive system of small trading ports throughout maritime Southeast Asia. It indicates the nature of coastal or riverine settlement that archaeologists can expect to discover in increasing numbers throughout the archipelago. The excellent state of preservation of much of the cultural remains due to favorable soil conditions may be an indication of what may be found at other similar sites.

The lack of stone-built monumental remains is no detraction from the importance of the site. As we have seen, sanctuaries can be effectively built of wood and brick and leave sufficient evidence to tell the careful excavator much about erstwhile religious practices. Useful comparisons can thus be made with other coastal habitation sites such as those in Kedah, Santubong in Sarawak, the Butuan estuary in Mindanao and elsewhere in Sumatra. As Miksic has suggested, once similar sites in Sumatra are located and investigated, Kota Cina may not seem to be so rich in cultural remains.

Even if this were so, it is still an archaeological site of considerable importance.

Kota Cina is the first entrepot site to be fixed spatially and temporally on the northeast coast of Sumatra. As such, it provides a useful foundation upon which to construct future research in the region and offers the basis for comparisons with other sites, not only throughout maritime Southeast Asia, but also as far afield as the Persian Gulf, South India and South China.

APPENDIX A

GOLD ARTIFACTS RECOVERED AT KOTA CINA

1. Tāli, comprising two pieces of foil held together by a suspension loop at the top center and a small clasp off side at the bottom, in the form of a Fatimid or Ayyubid gold dinar of the twelfth century (Plates 23, 24). Excavated: Location 1. 0.60 m. See JMBRAS, 53, no. 2, p. 117. 18 mm (Diam.)
2. Leaf, of average thickness 0.21 mm, stamped with two Chinese characters (分金) fēn jīn, a measure of gold. Excavated: Located 3. 1.00 m. See JMBRAS, 53, no. 2, p. 114, Sample 1. 24 mm 0.2026 g (M.E.D.)
3. Leaf, of average thickness ? mm, stamped with two Chinese characters (十分) shí fēn, pure gold, literally "ten measures." Excavated: Location 3. 1.00 m. 23 mm 0.185 g (M.E.D.)
4. Leaf, of average thickness 0.21 mm. Excavated: Location 1. 1.00 m, below a domestic hearth. See JMBRAS, 53, no. 2, p. 114, Sample 2. 11 mm 0.216 g
5. Leaf, of average thickness 0.56 mm. Surface find, Location 3 (area). JMBRAS, 53, no. 2, p. 114, Sample 3. 7 mm 0.290 g

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|-----|--|---------|----------|
| 6.  | Bead, hollow with loop; squashed. Surface find, Location 3 (area). <u>JMBRAS</u> , 53, no. 2, p. 114, Sample 4B.                           | 3.87 mm | 0.1907 g |
| 7.  | Leaf, of average thickness 0.38 mm. Surface find, Location 3 (area). <u>JMBRAS</u> , 53, no. 2, p. 114, Sample 4F.                         | 6.5 mm  | 0.0101 g |
| 8.  | Ring, fragment, average thickness 2.55 mm. Surface find, Location 1 (area). <u>JMBRAS</u> , 53, no. 2, p. 114, Sample 5R.                  | 22 mm   | 2.7281 g |
| 9.  | Ring, fragment, average thickness 2.12 mm. Surface find, Location 1 (area). <u>JMBRAS</u> , 53, no. 2, p. 114, Sample 5S.                  | 4 mm    | 0.2709 g |
| 10. | Foil, five sheets, total thickness 0.46 mm. Excavated: Location 3, SW. <u>JMBRAS</u> , 53, no. 2, p. 114, Sample 6.                        | 32 mm   | 0.5393 g |
| 11. | Bead, large, spherical with filigree ornamentation and plain, drawn wire encirclement. Damaged. Surface find: Location 4 (area). Plate 19. | 16 mm   | N/A      |
| 12. | Wire, drawn. Average thickness ? mm. Excavated: Location 3, SW. 1.00 m. Note: Items 12 to 26 all excavated at Location 3 SW.               | 52 mm   | N/A      |
| 13. | Wire, coil. Diameter 3 mm, average thickness ? mm.   | 15 mm   | 0.395 g  |
| 14. | Wire, coil (damaged). Diameter 4 mm, average thickness ? mm.   | 31 mm   | 0.512 g  |



15.	Wire, fragment, drawn. Average thickness ? mm.	8 mm	0.090 g
16.	Bead ?, hemispherical with filigree ornamen- tation.	10 mm	0.470 g
17.	Bead, plain, squashed.	6 mm	0.185 g
18.	Bead, plain, squashed.	5 mm	0.210 g
19.	Cylinder, with filigree decoration, fragment comprising one end only, damaged.	9 mm	0.595 g
20.	Leaf, with filigree decoration, rhomboid in form, decorated with lozenges and triangular dentils in horizontal registers. Rear plain.	11 mm	0.330 g
21.	Leaf fragment with filigree and wire decoration, rectangular 7 X 9 mm, upper part plain, lower part with decoration, reverse plain.	10 mm	0.240 g
22.	Sheet, fragment, polygonal with visible traces or cutting on all sides. Upper and lower sur- faces plain. Average thickness 3 mm.	11 mm	N/A
23.	Leaf, folded over four times, average thickness ? mm.	16 mm	0.350 g
24.	Leaf, folded four times, average thickness ? mm.	17 mm	0.140 g
25.	Leaf, single sheet.	15 mm	0.080 g
26.	Leaf, folded, average thickness ? mm.	9 mm	0.180 g
27.	Leaf, folded, average thickness ? mm.	8 mm	0.130 g

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KOTA CINA: ITS CONTEXT AND MEANING IN  
THE TRADE OF SOUTHEAST ASIA IN THE  
TWELFTH TO FOURTEENTH CENTURIES  
VOLUME II OF II

A Thesis

Presented to the Faculty of the Graduate School  
of Cornell University  
in Partial Fulfillment of the Requirements for the Degree of  
Doctor of Philosophy

by

Edmund Edwards McKinnon

August 1984

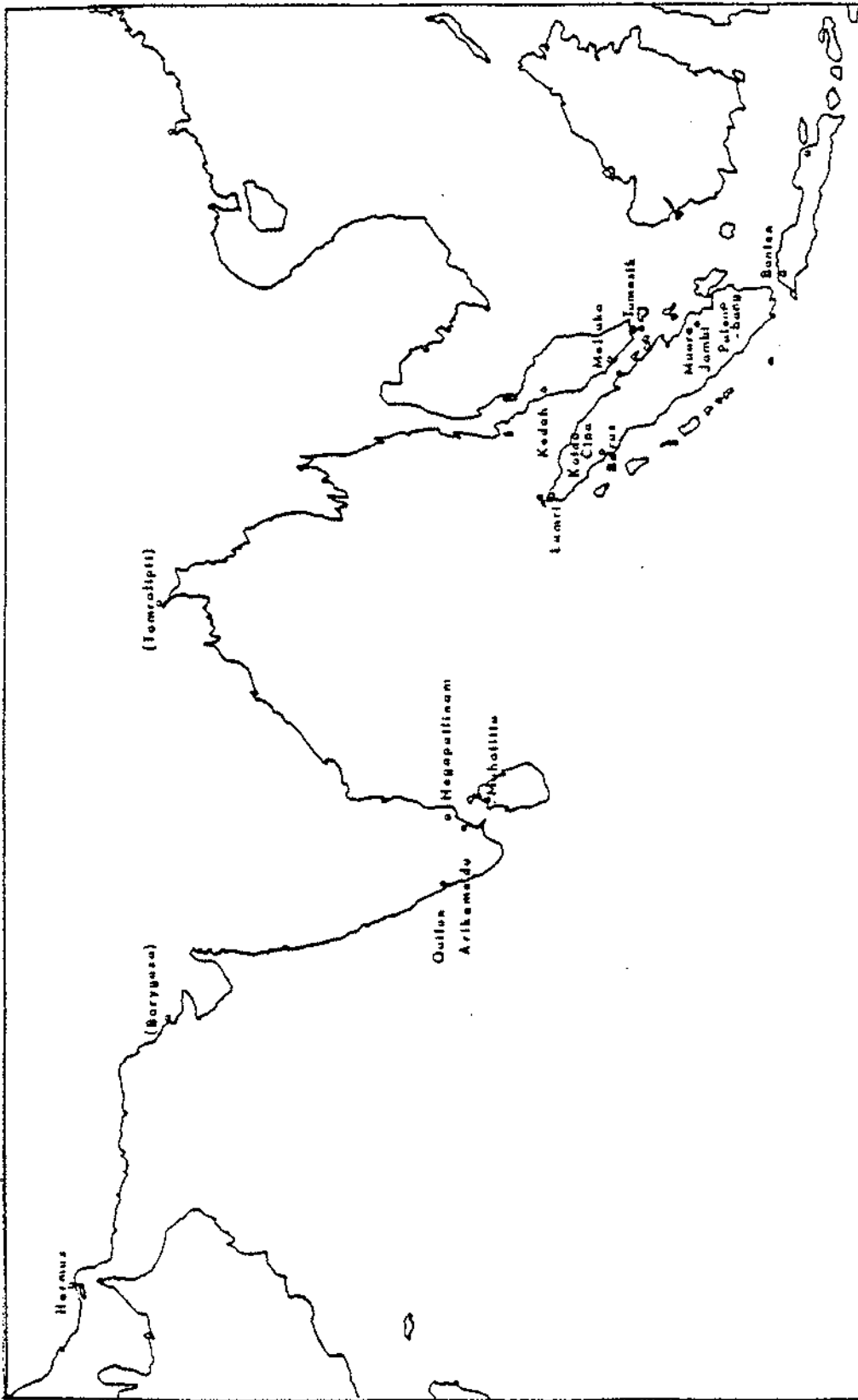


Fig. 1. India, Southeast Asia and China

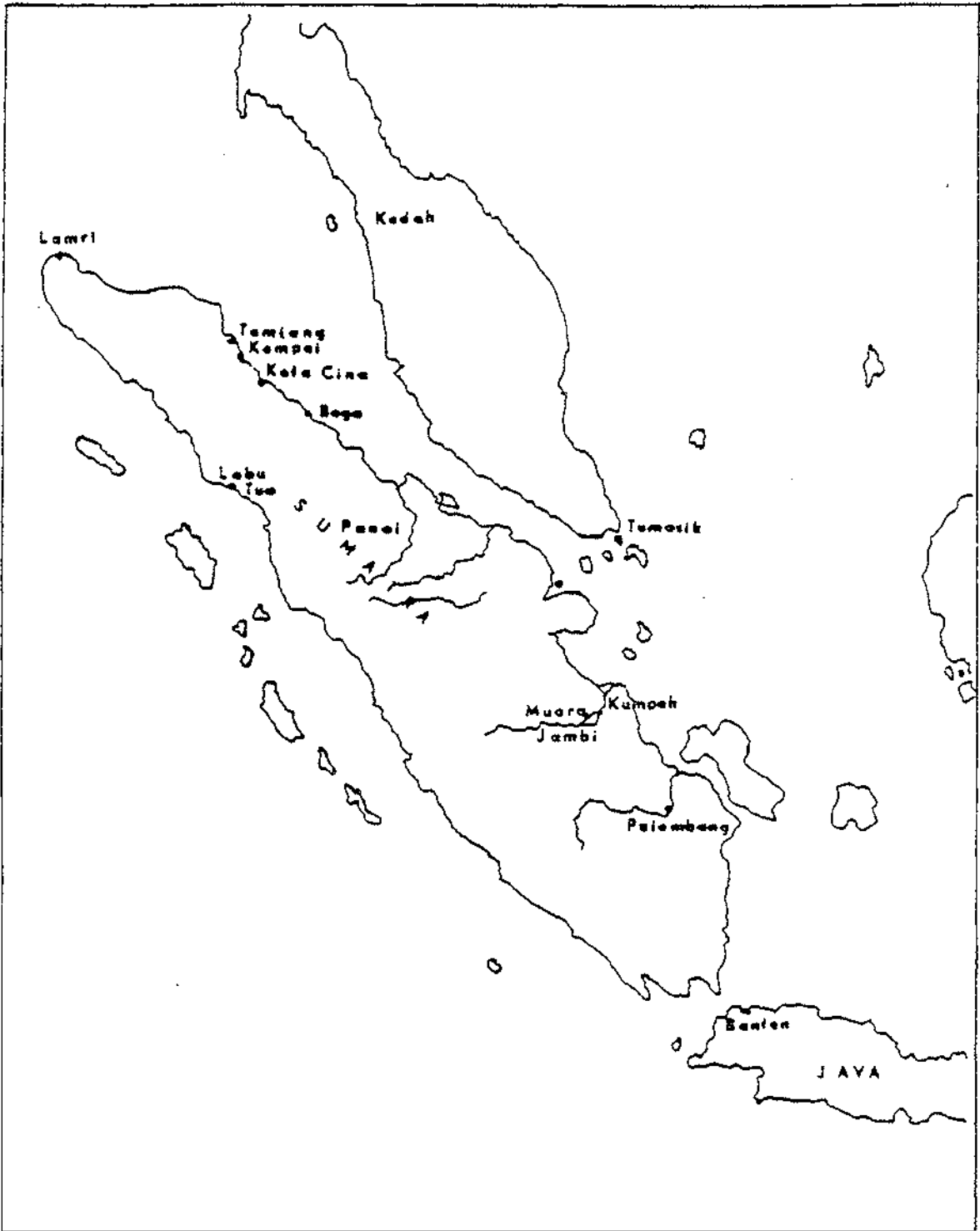


Fig. 2. Sumatra and the Selat Melaka.

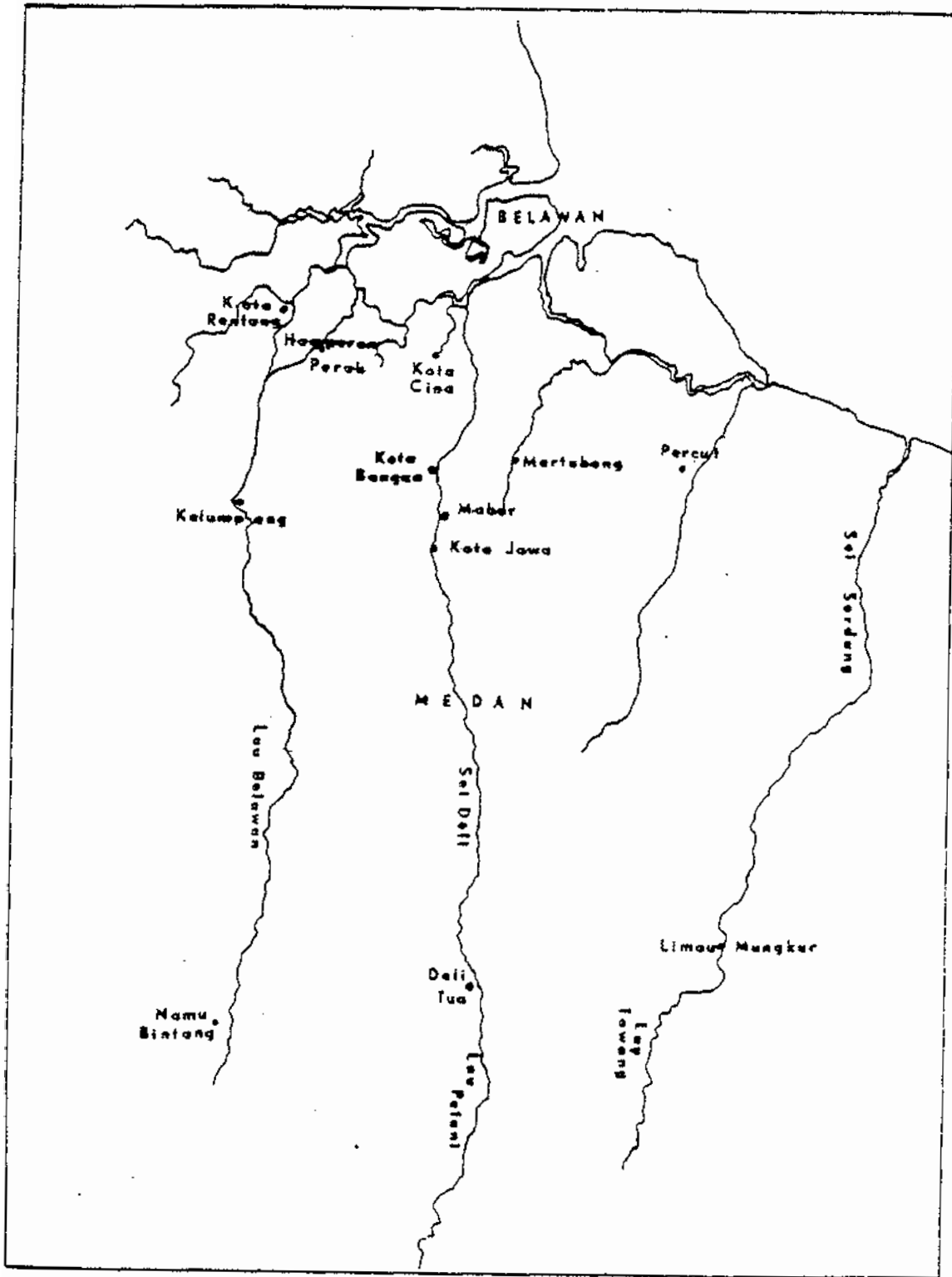
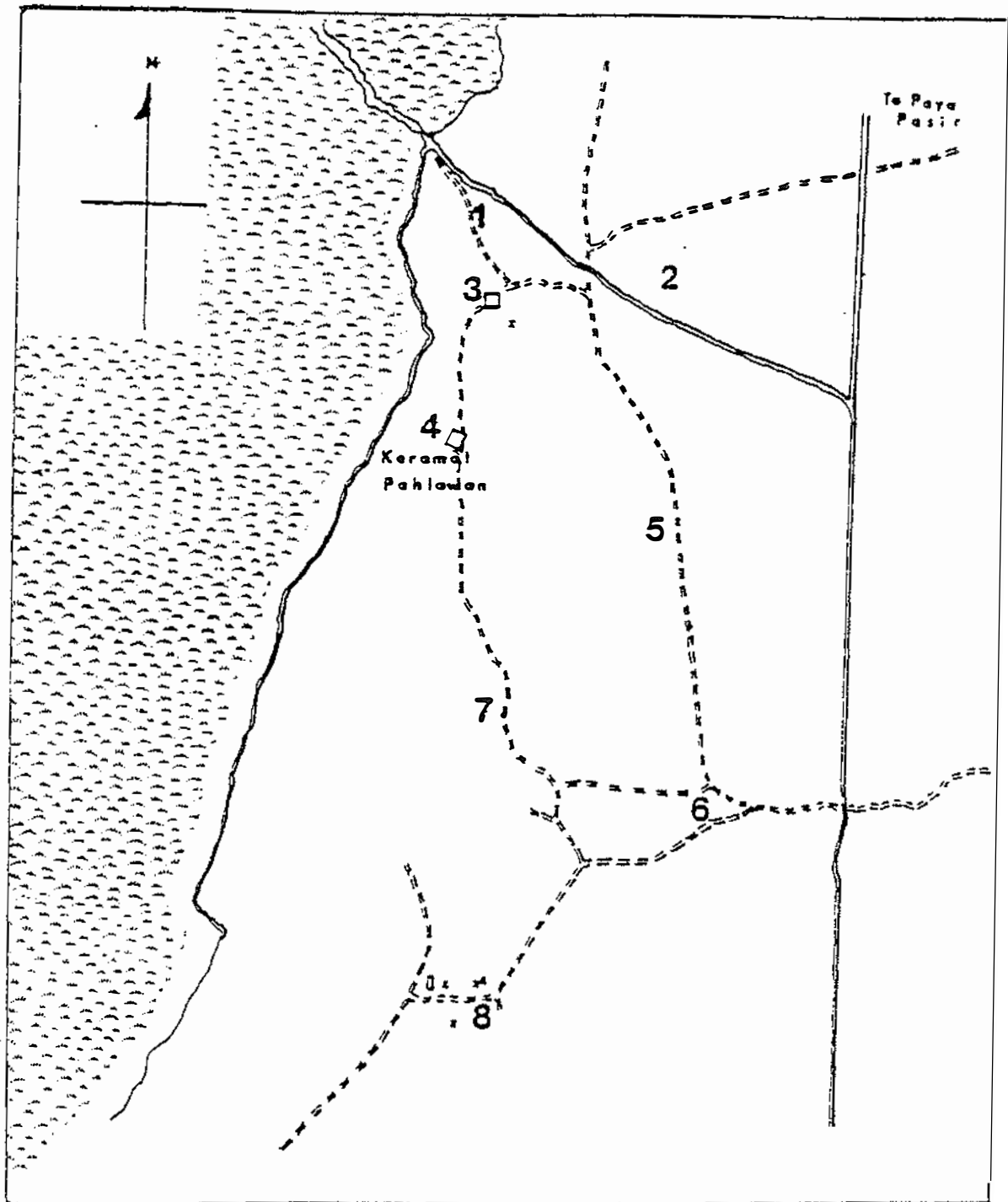


Fig. 3. The Medan Area.





Legend: Locations 1 to 8

— footpaths

□ brick foundations

x findspots of images and linga

Fig. 4. Kota Cina: site map.



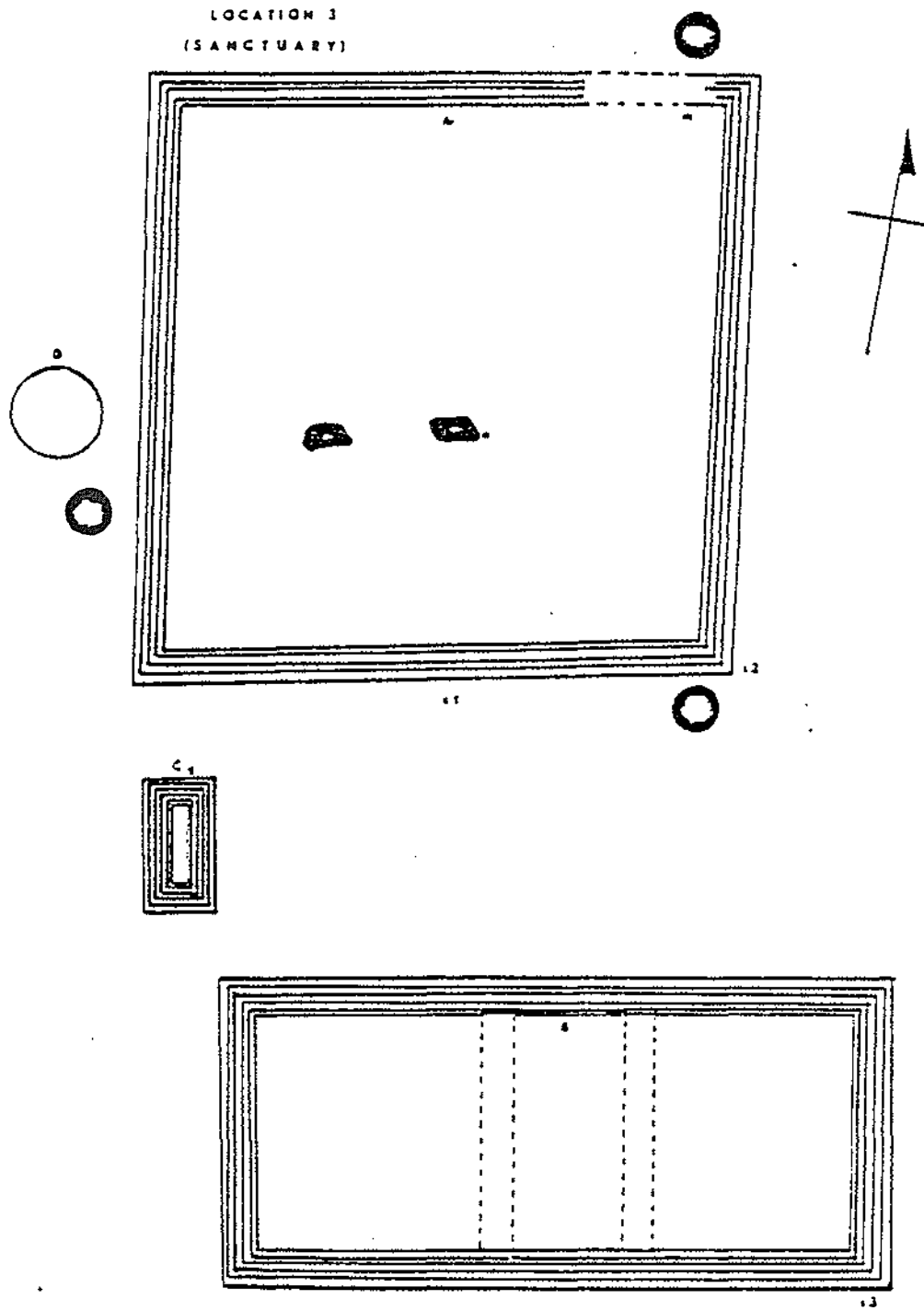


Fig. 6. Kota Cina: Location 3, The Sanctuary.

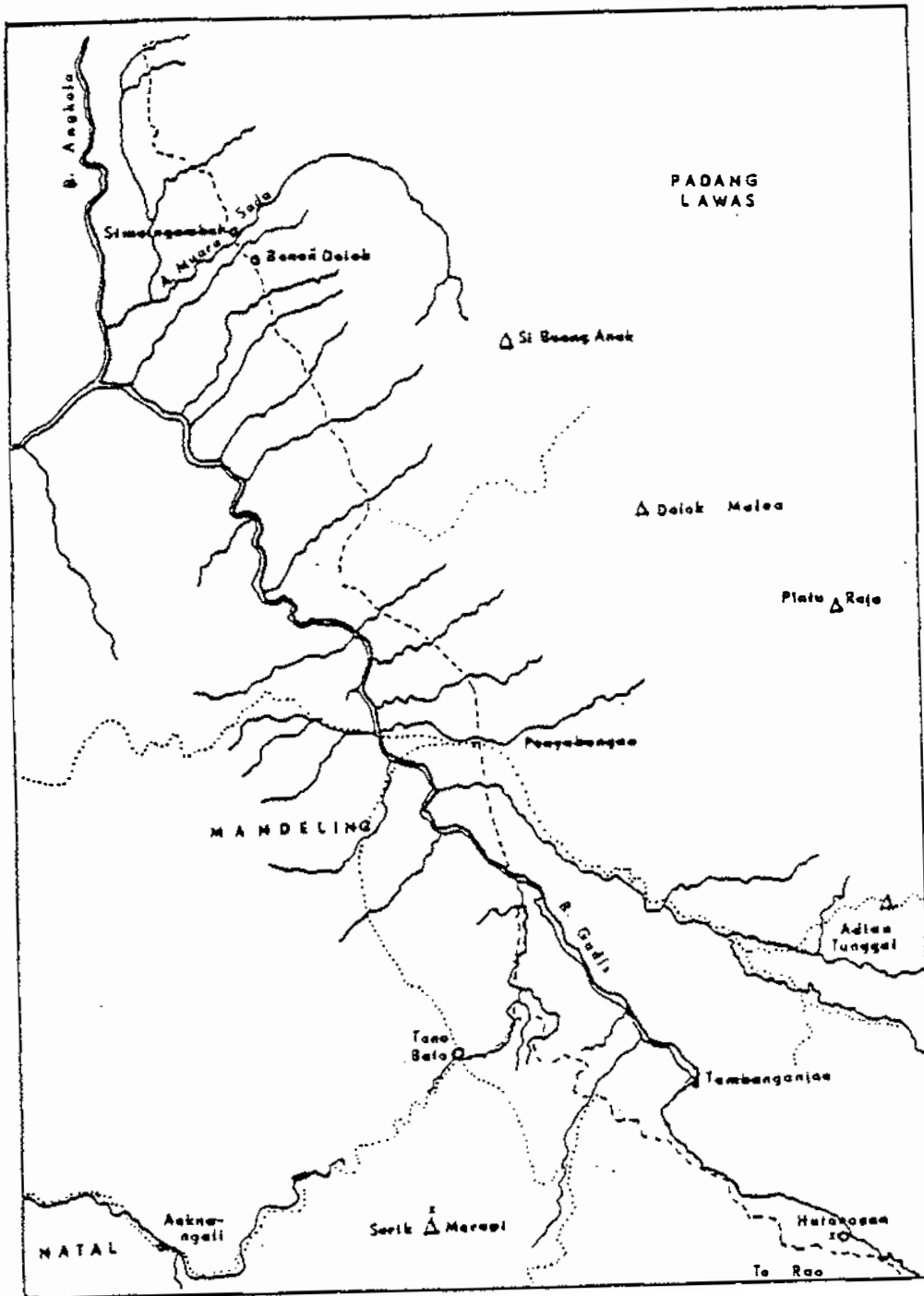


Fig. 7. The Overland Route: Tanah Batak, Minangkabau and Jambi.

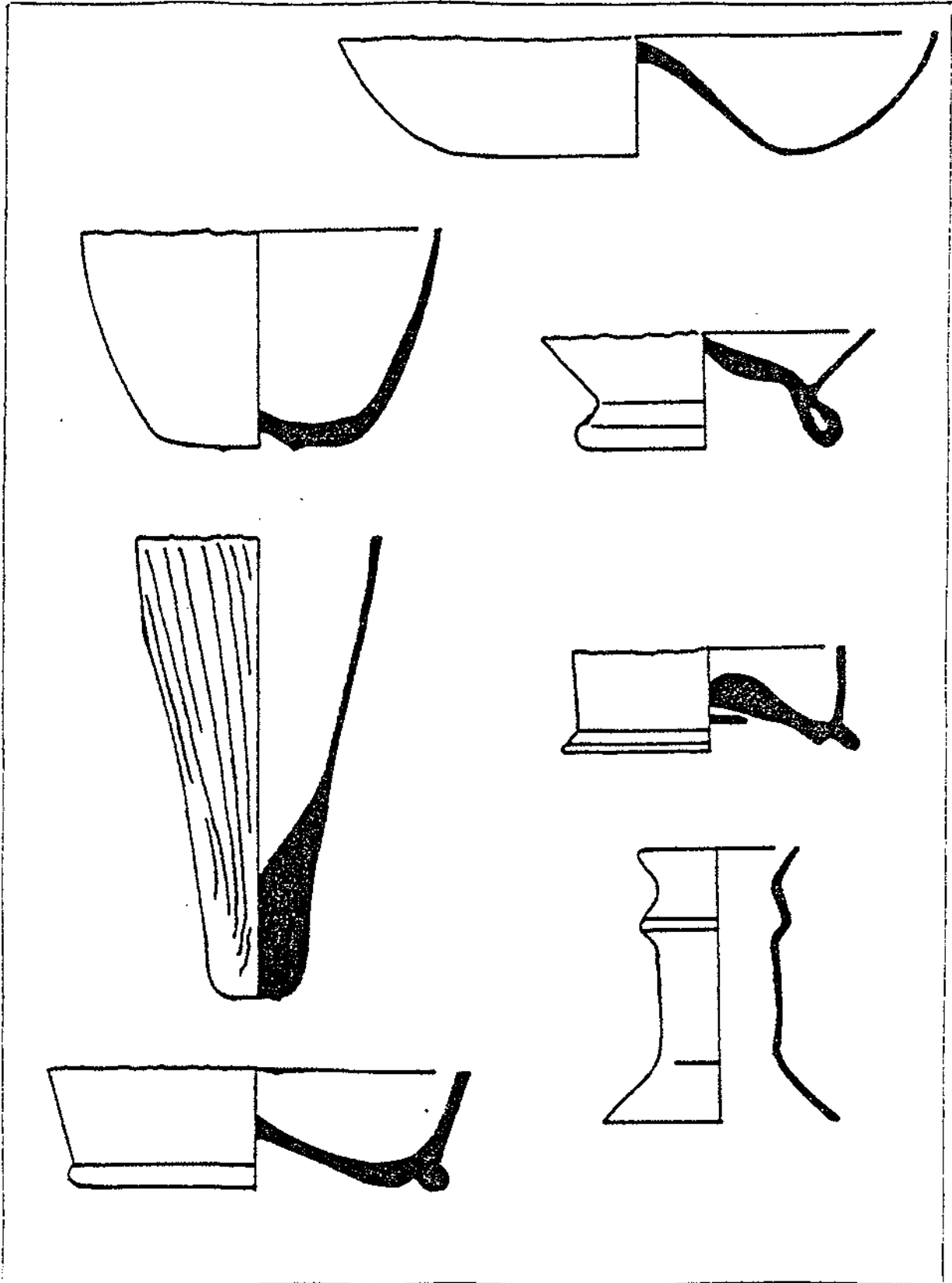


Fig. 8. Location 1: Glass Fragments.

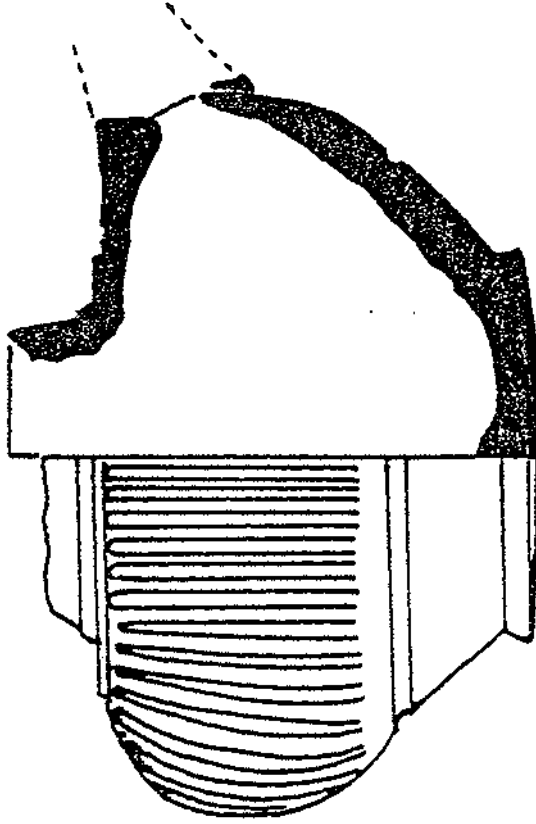


Fig. 9. Location 1: Fine Paste Ware: kendi.

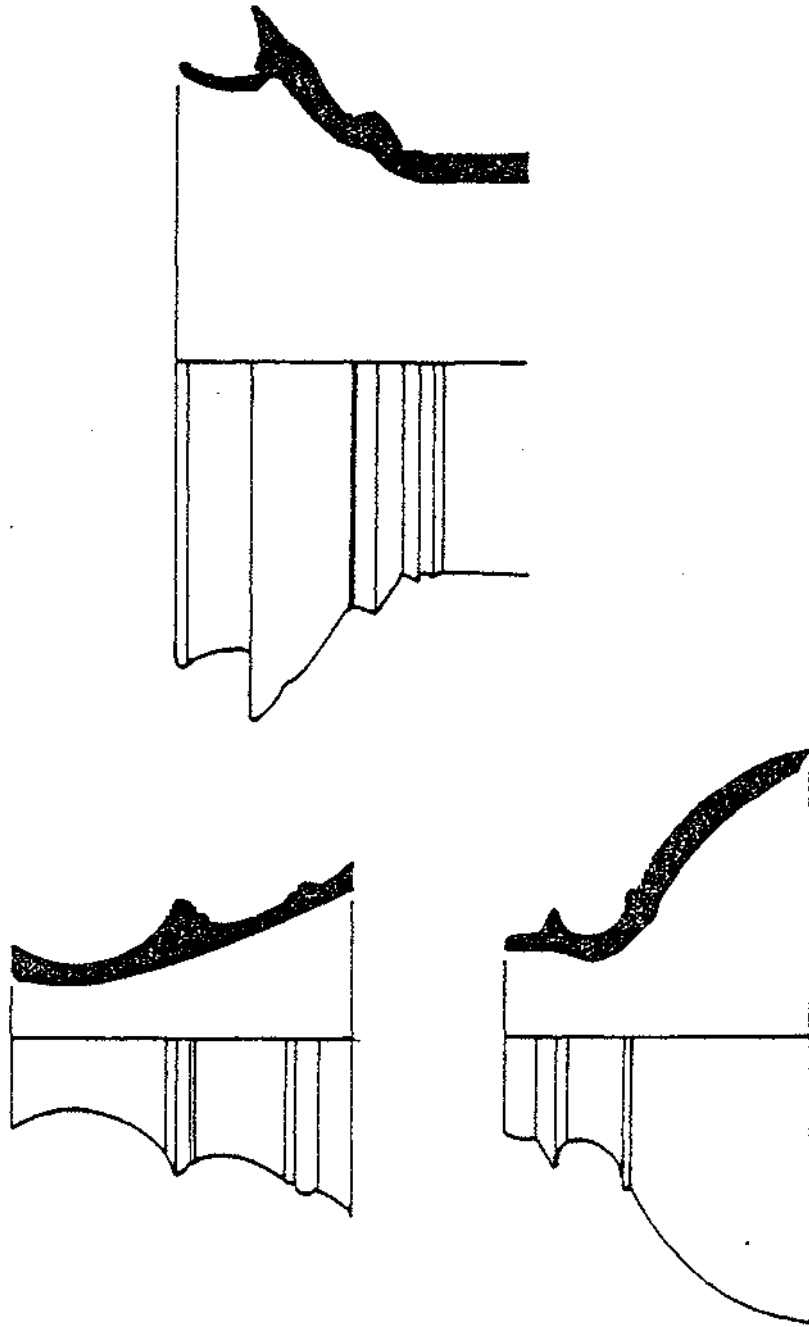


Fig. 10. Location 1: Fine Paste Ware: flanged necks (2/3).

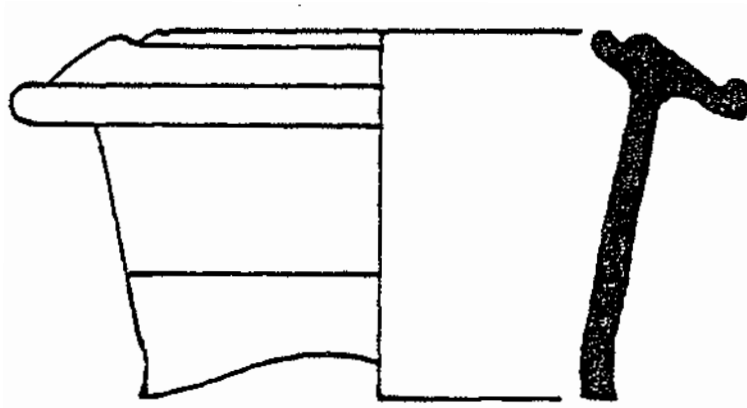


Fig. 11. Location 1: Fine Paste Ware: neck, painted variety.



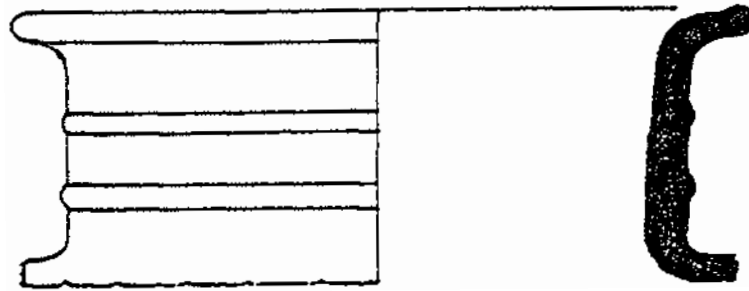


Fig. 12. Location 1: Red Slipped Ware: rim sherd profiles.

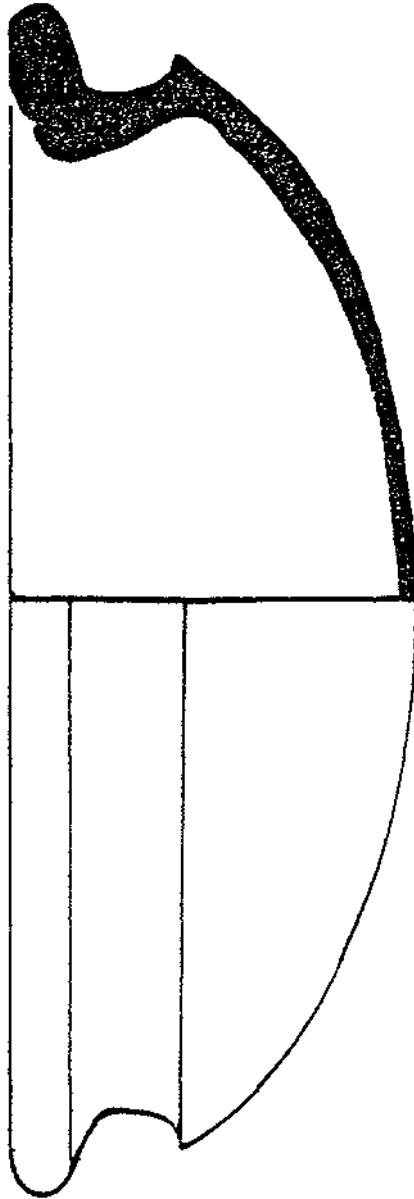


Fig. 13. Location 1: Red Slipped Ware: wide mouthed pot.

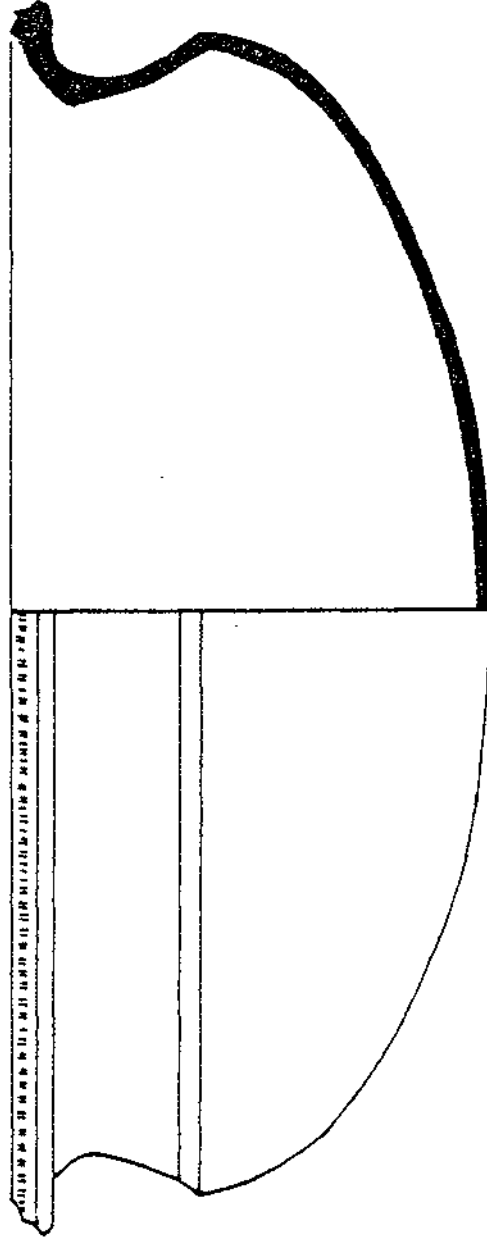


Fig. 14. Location 1: Red Slipped Ware: wide mouthed pot (2/3).

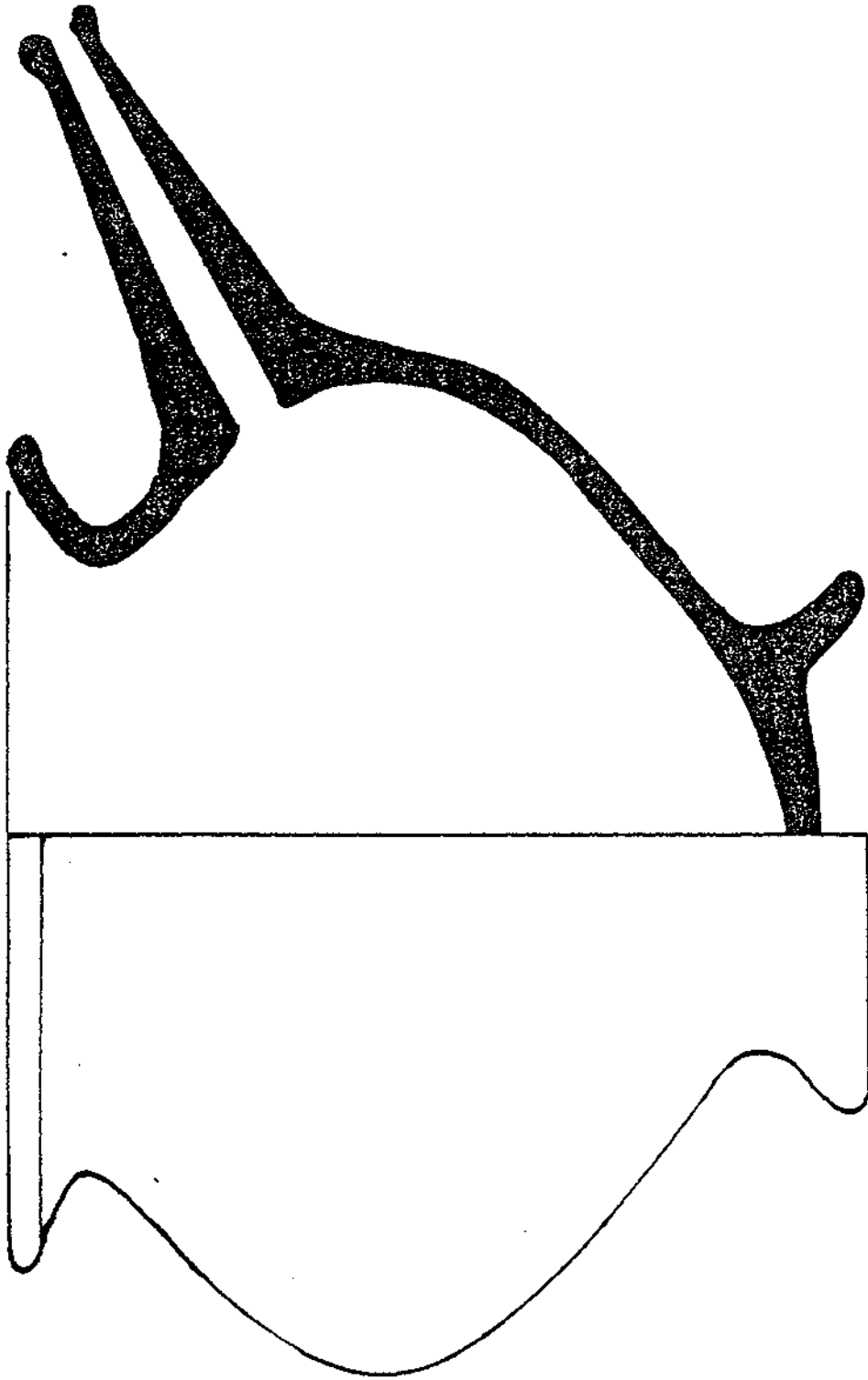


Fig. 15. Location 1: Red Slipped Ware: kendi.



Fig. 16. Location 1: Red Slipped Ware: kendi, base profile.

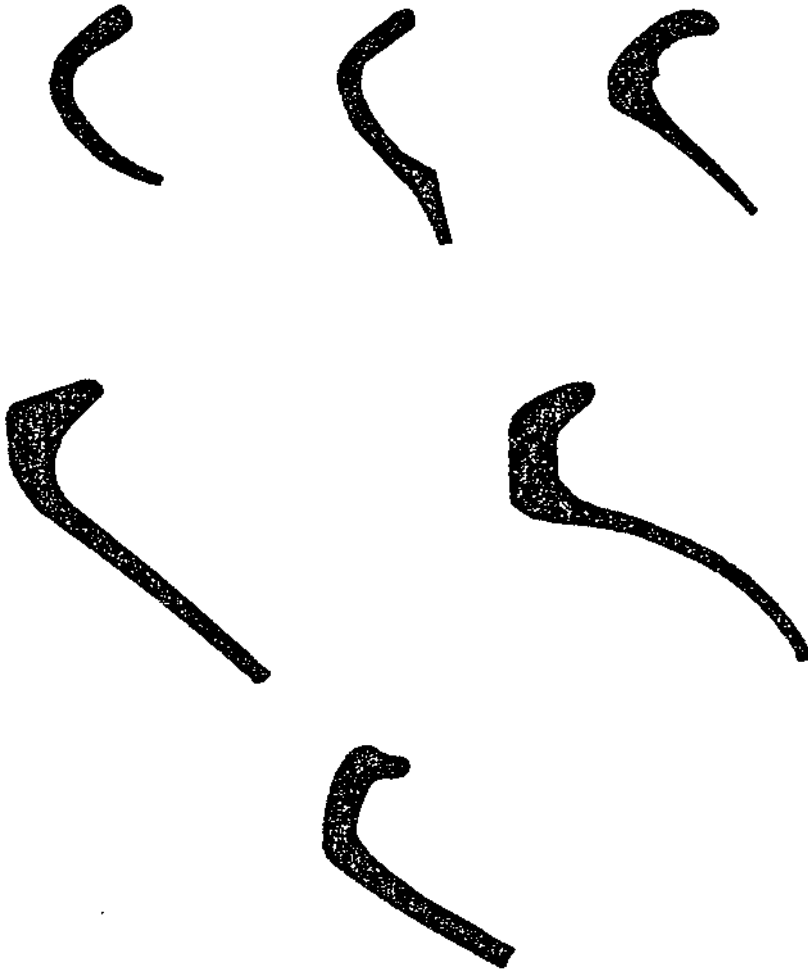


Fig. 17. Location 1: Red Geometric Ware: rim profiles (2/3).

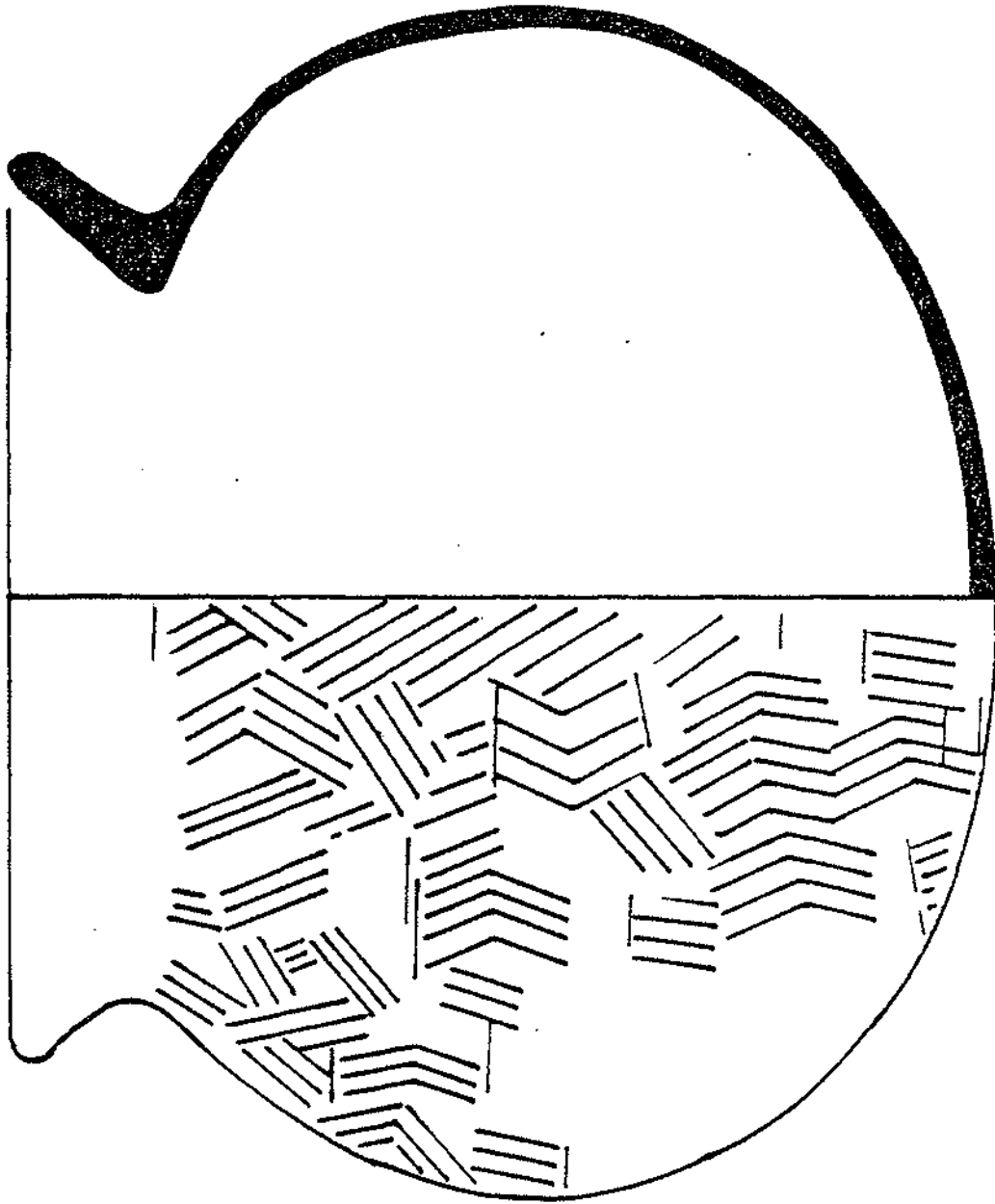


Fig. 18. Location 1: Red Geometric Ware: pot.

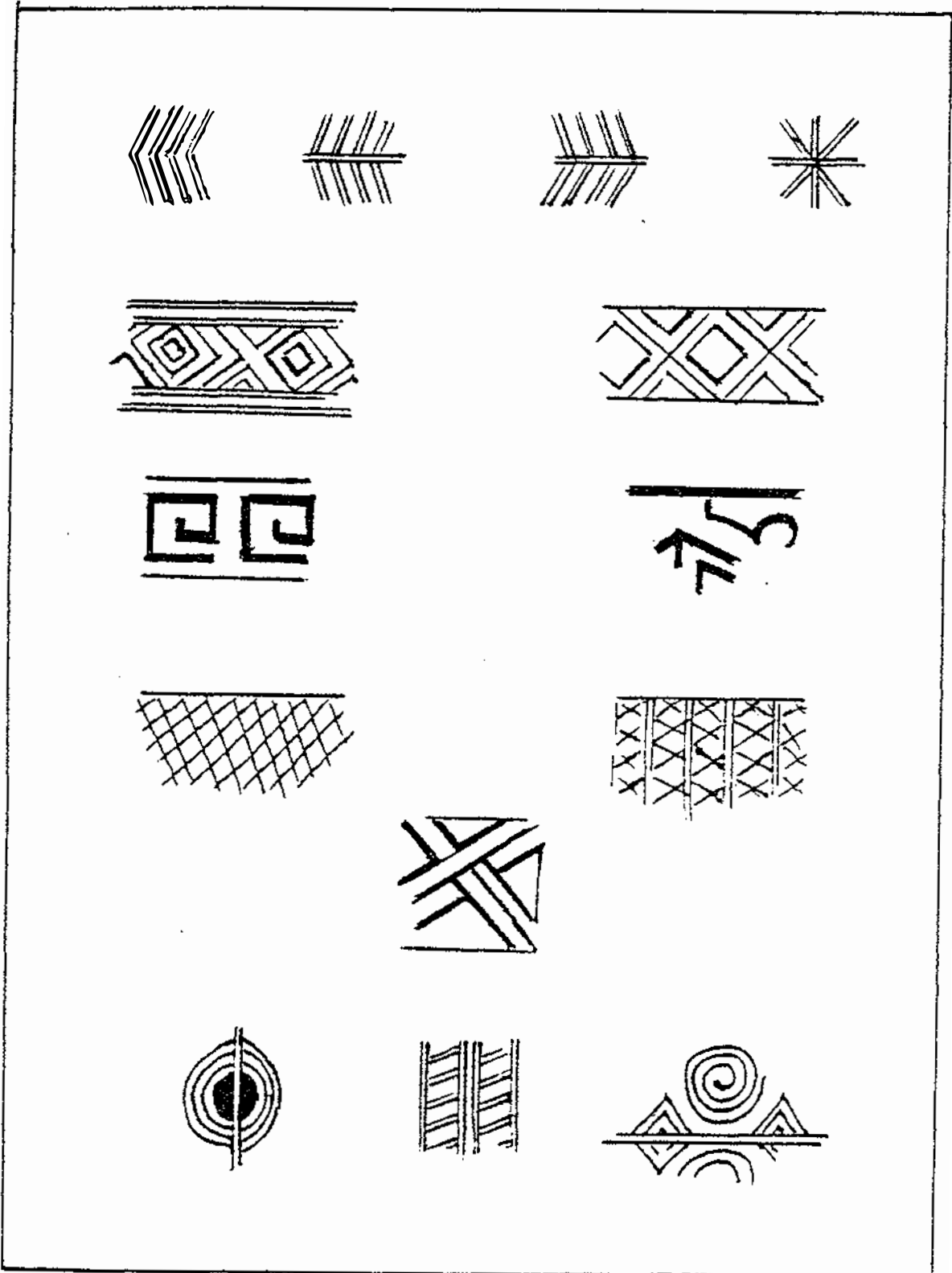


Fig. 19. Impressed design elements.



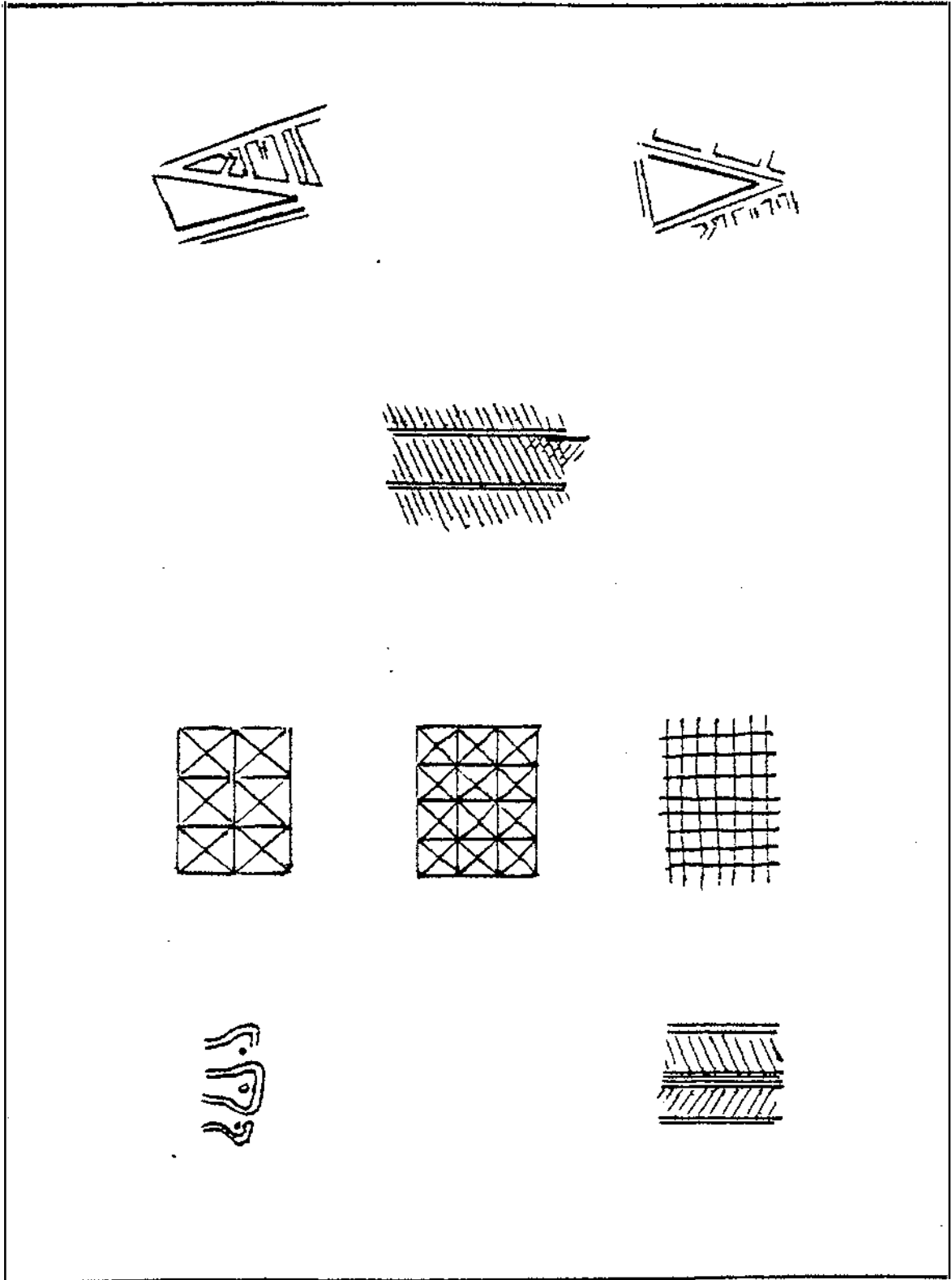


Fig. 20. Impressed design elements.

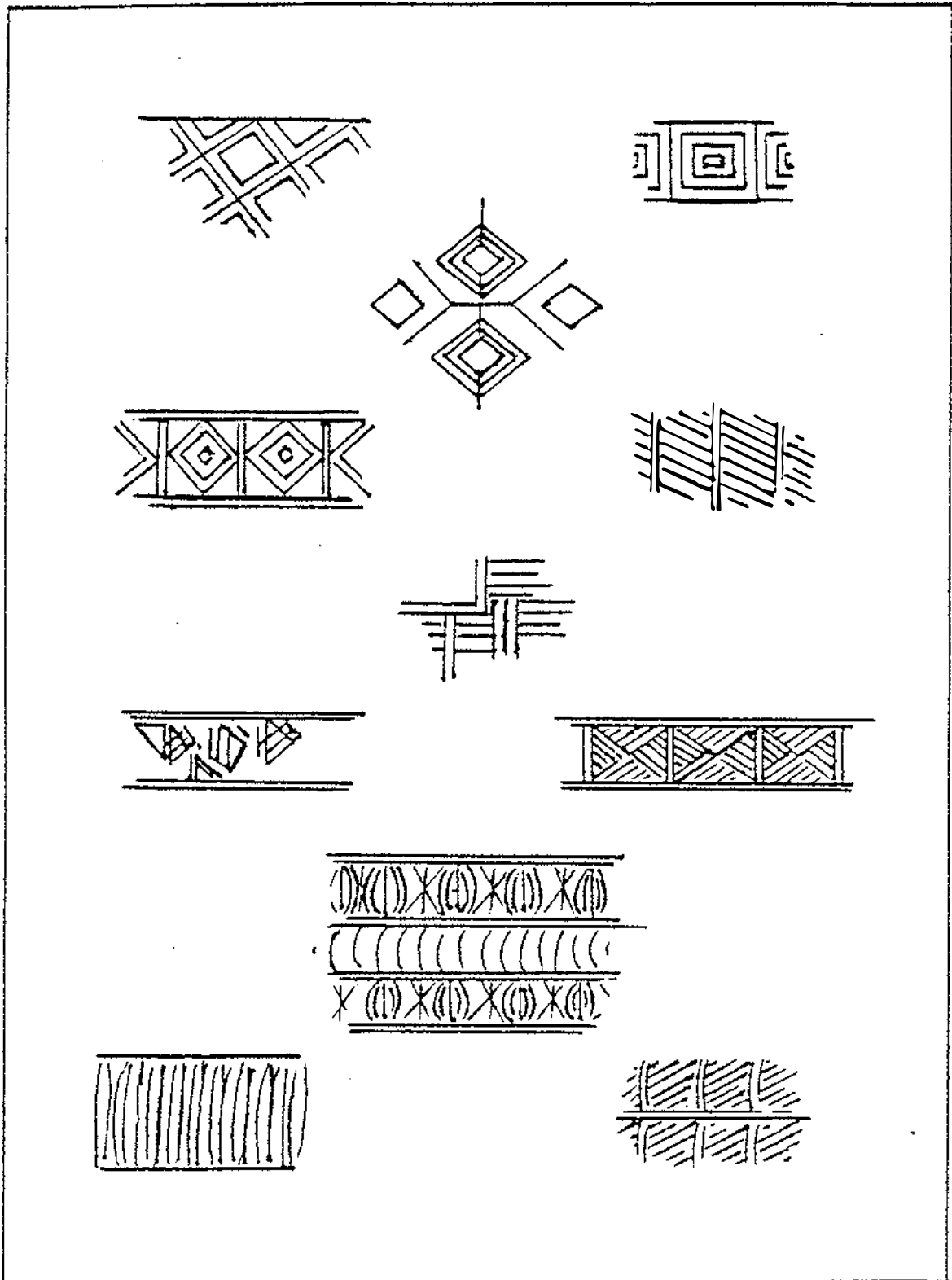


Fig. 21. Impressed design elements.

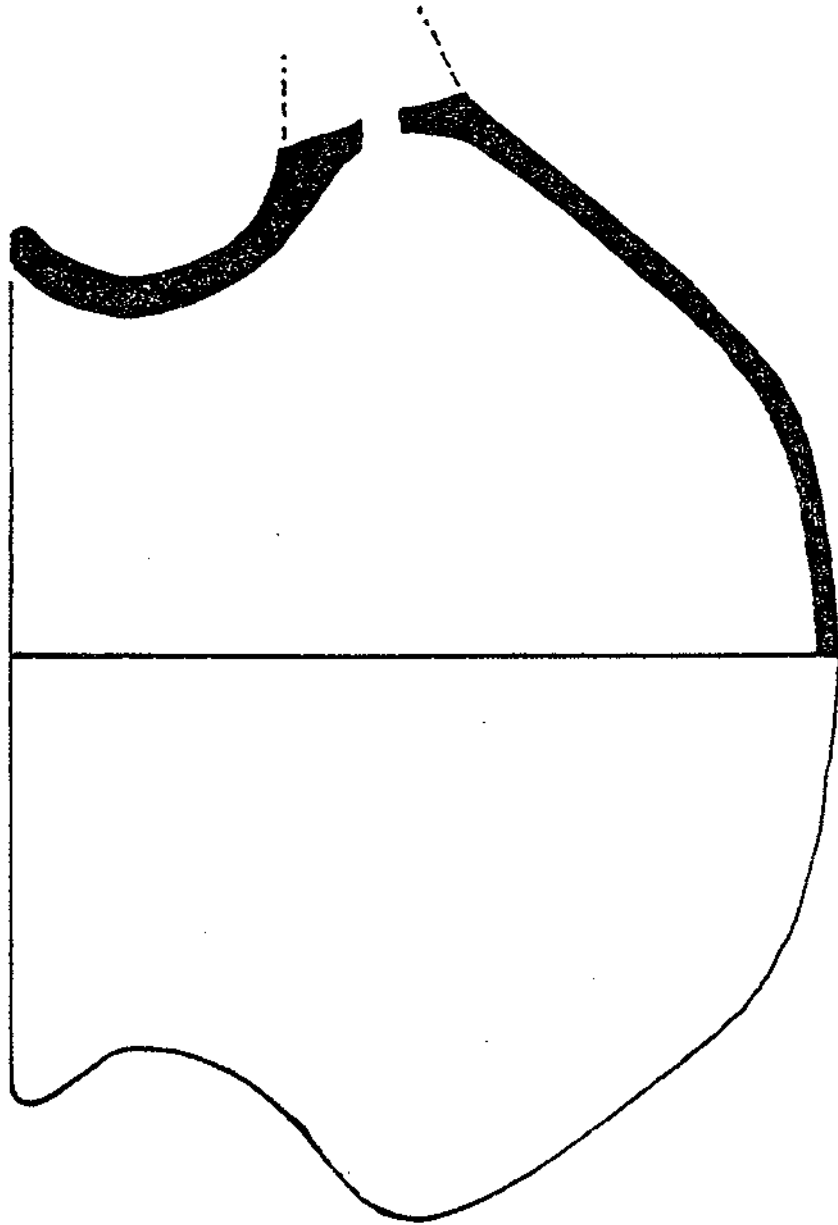


Fig. 22. Location 1: Black Ware: kendi profile.

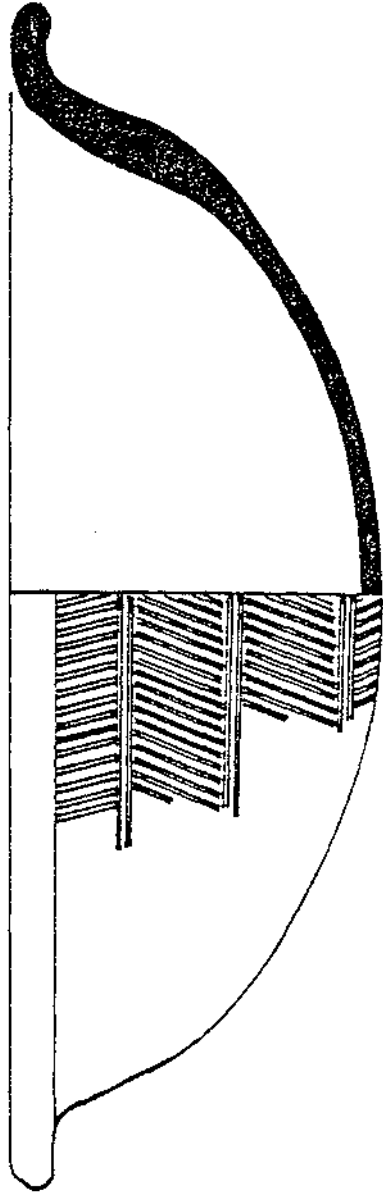


Fig. 23. Location 1: Sand-tempered Gray Ware: wide mouthed pot.

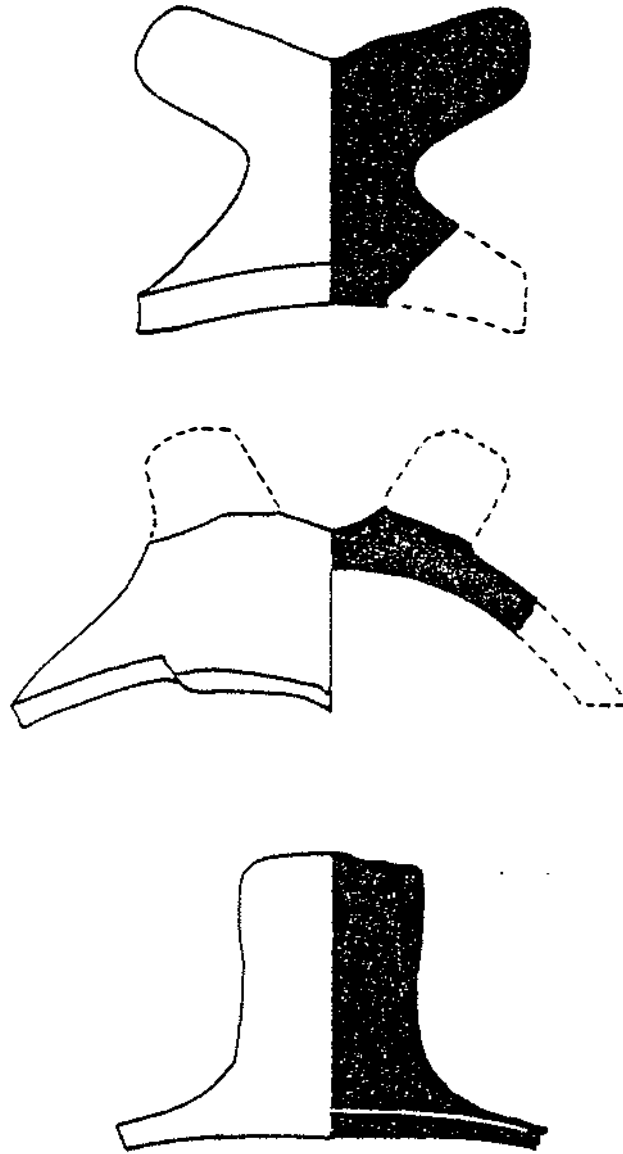


Fig. 24. Location 1: Sand-tempered Gray Ware: pot lid profiles (2/3).

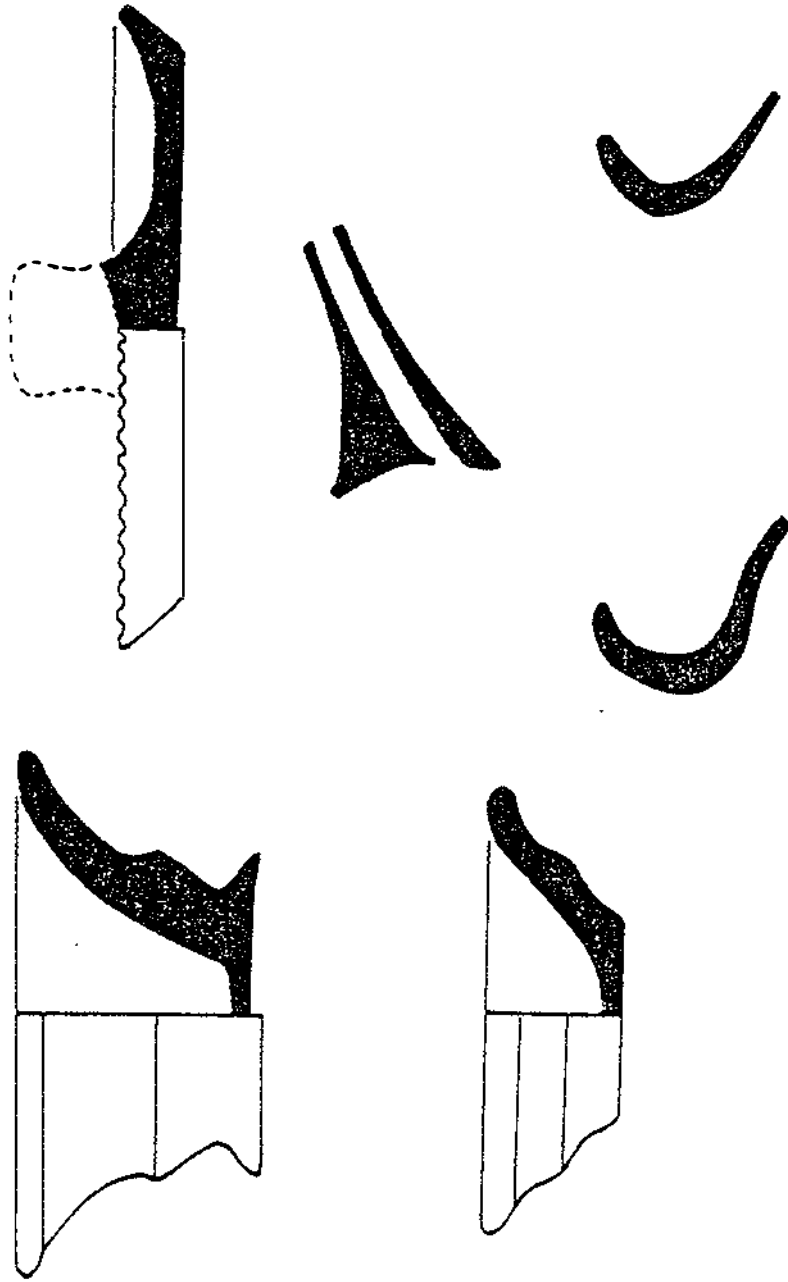


Fig. 25. Location 1: Sand-tempered Gray Ware: profiles.



Fig. 26. Location 1: White Ware: rim sherd profiles.

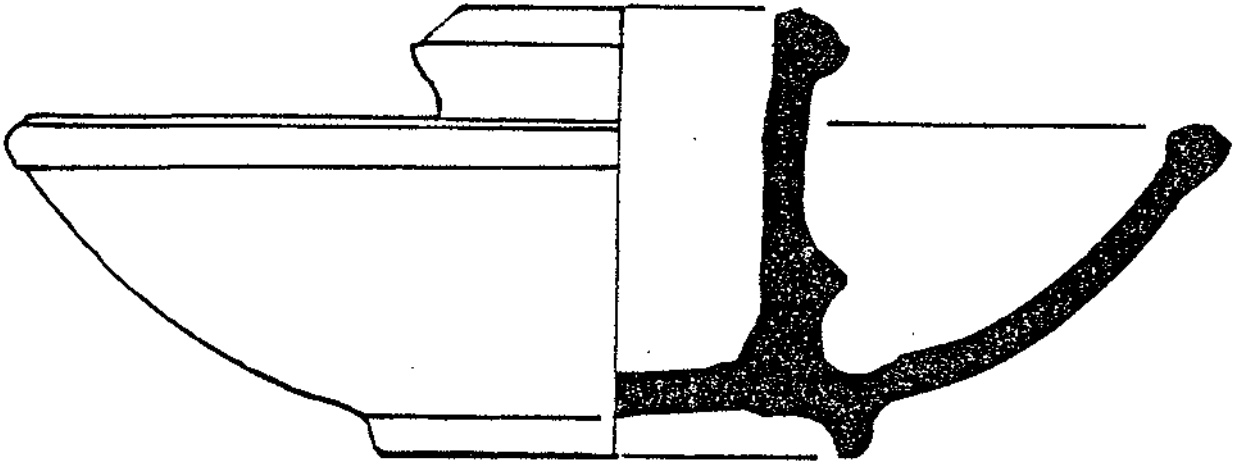


Fig. 27. Location 1: White Ware: incense burner.



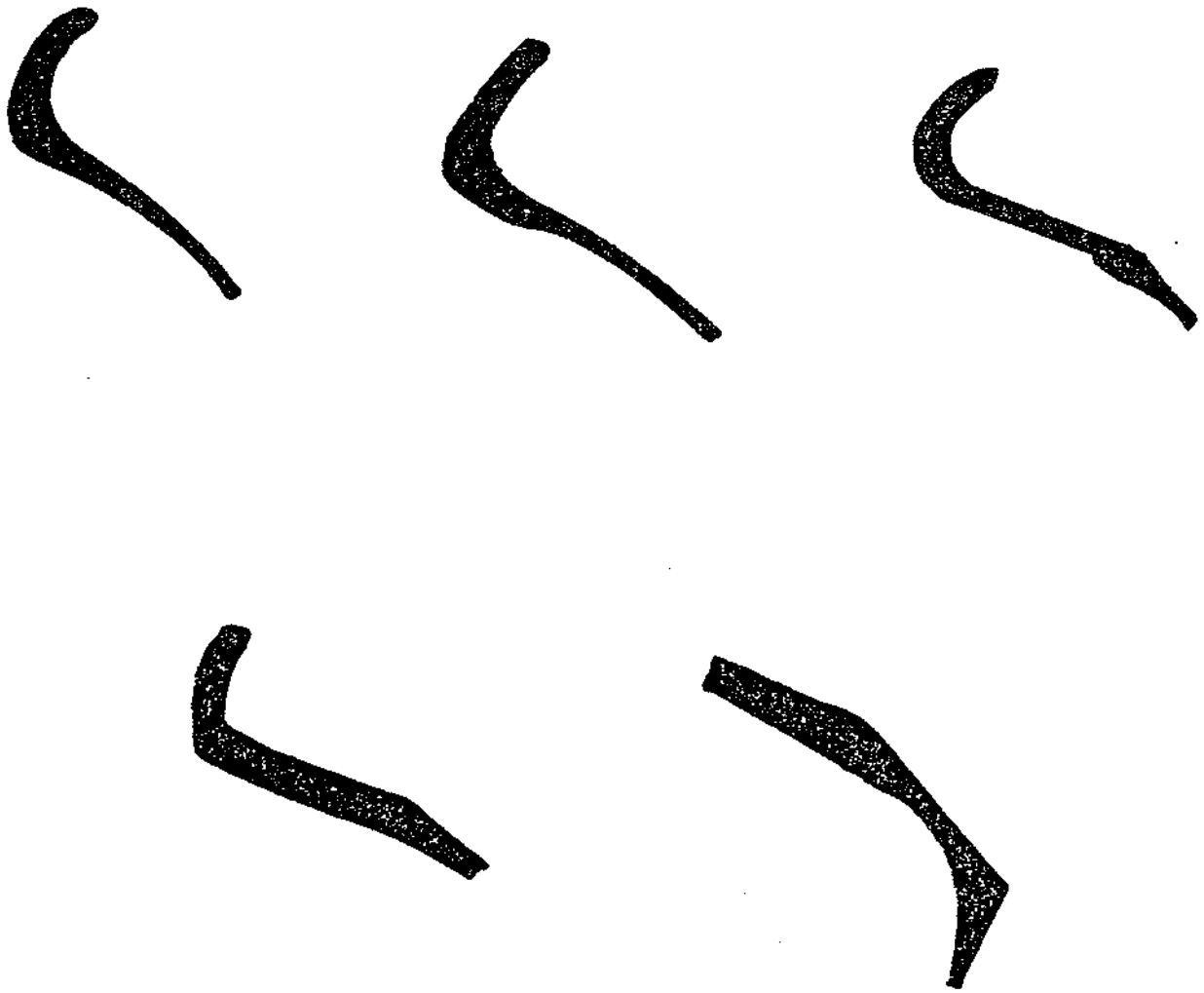


Fig. 28. Location 1: Yellow-slipped Ware: profiles.



Fig. 29. Location 1: Qingbai saucer (QB 1) (Plate 70).

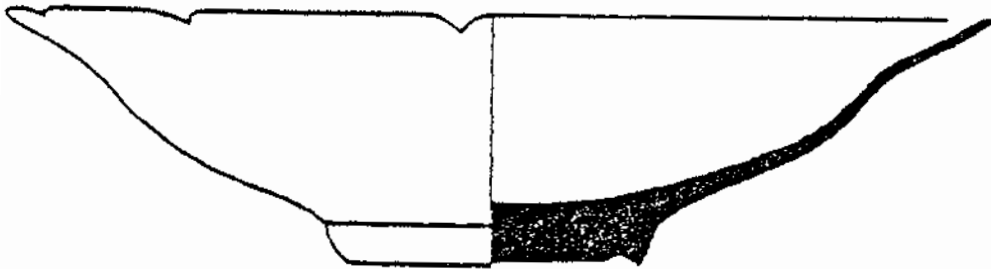


Fig. 30. Location 1: Qingbai saucer (QB 2) (Plate 71) (2/3).

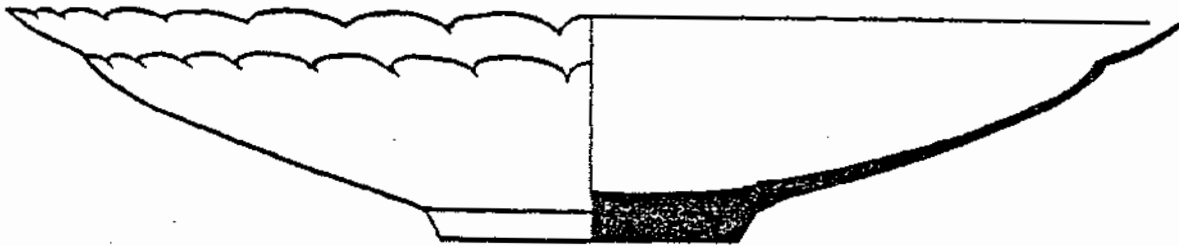


Fig. 31. Location 1: Qingbai dish (QB 3) (2/3).

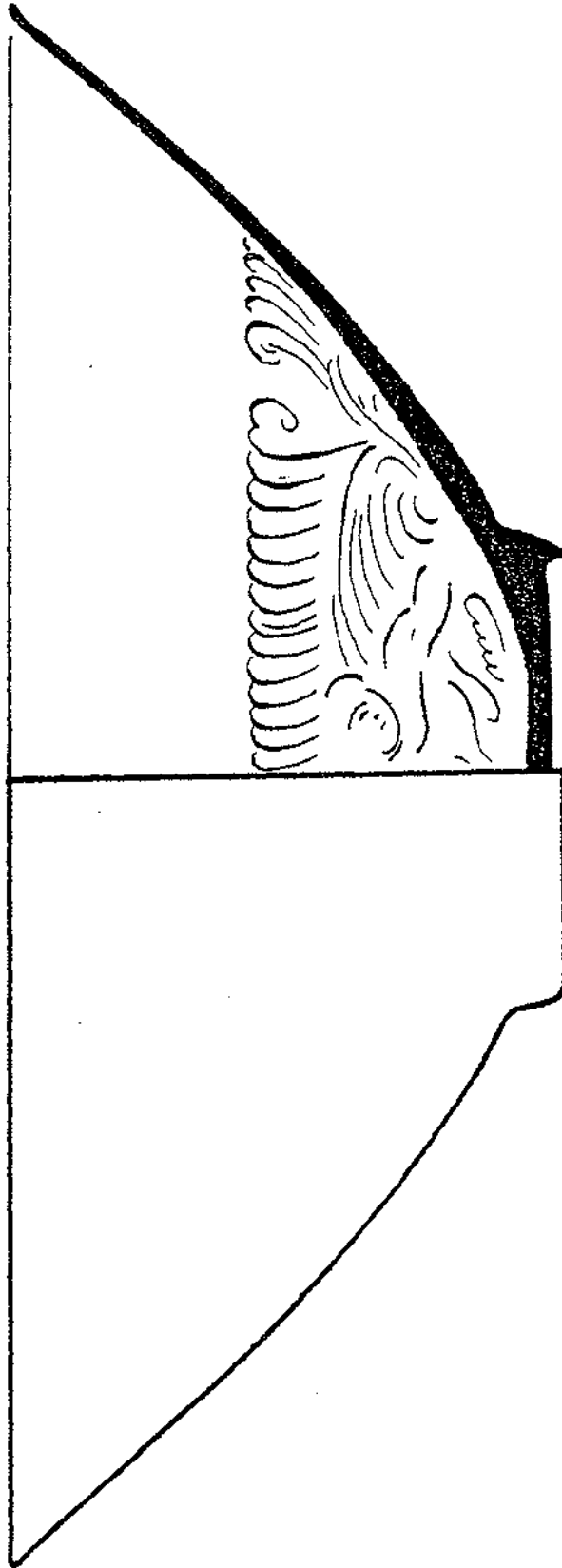


Fig. 32. Location 1: Qingbai bowl (QB 4) (Plate 72).

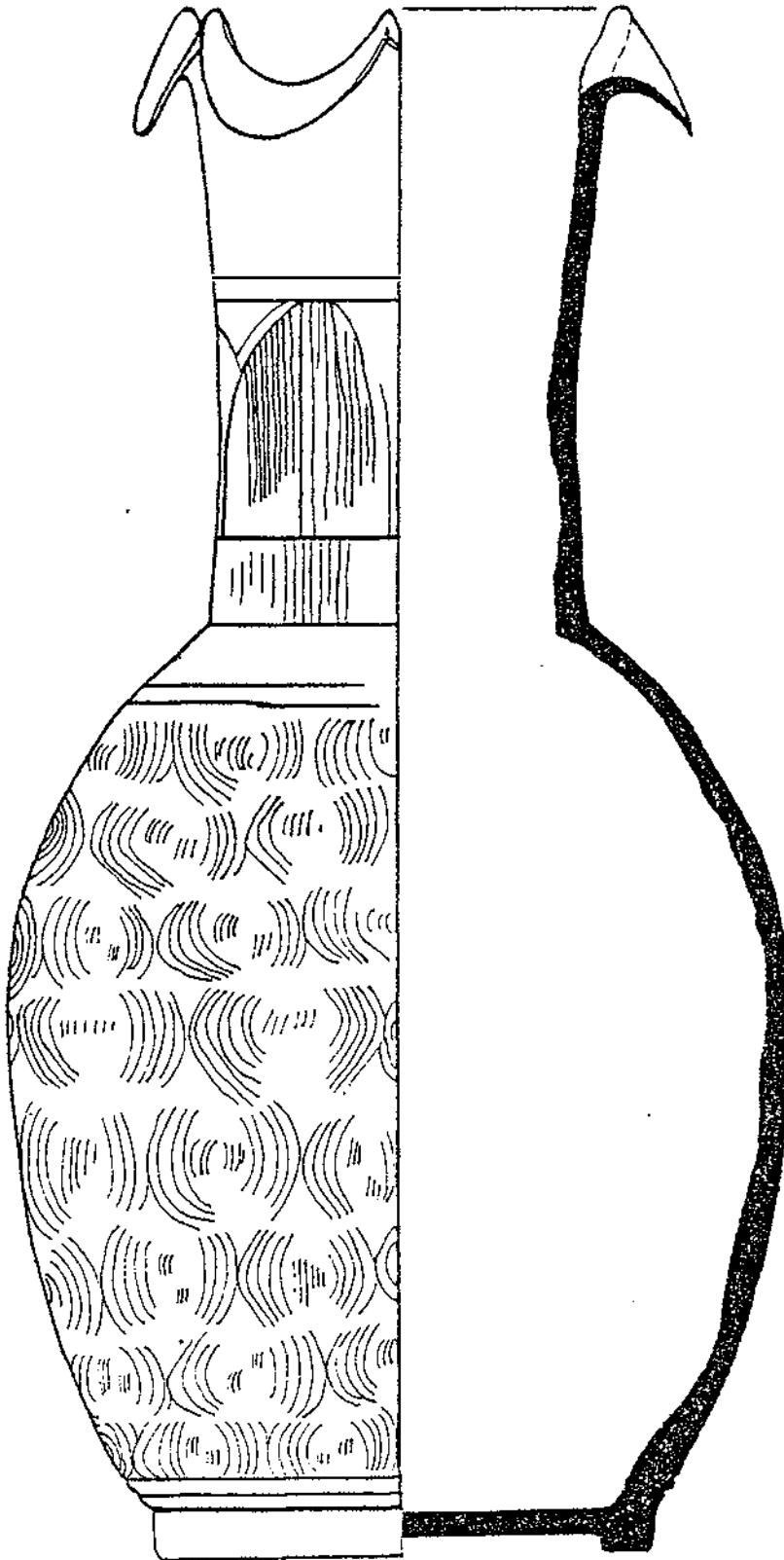


Fig. 33. Location 4: Qingbai bottle vase (QB 5) (2/3).

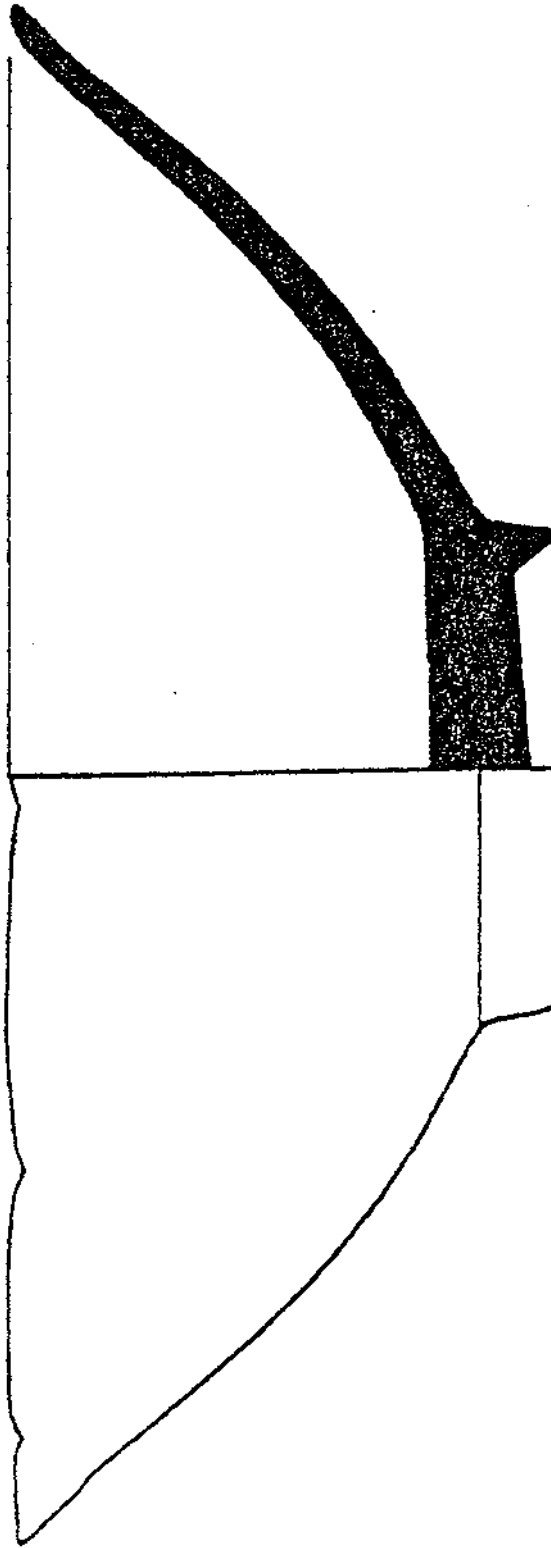


Fig. 34. Location 1: Qingbai bowl (QB 6) (Plate 73).

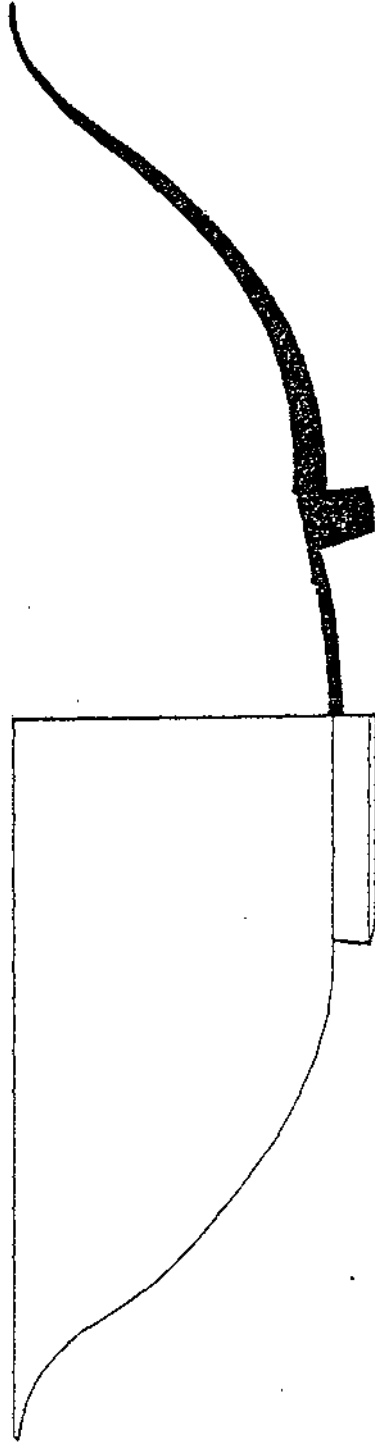


Fig. 35. Location 1: Qingbai bowl, spurmarked (QB 7) (Plate 75).



Fig. 36. Location 1: Qingbai saucer-dish (QB 8) (Plate 77).

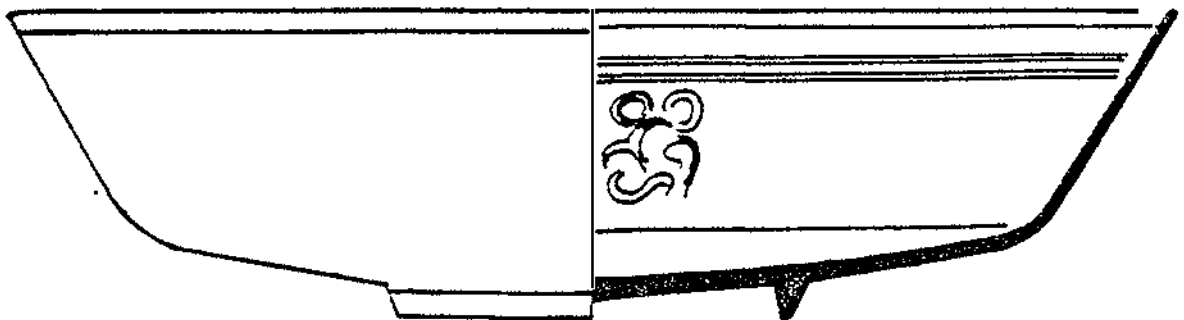


Fig. 37. Location 1: Qingbai bowl (QB 9) (Plate 78).

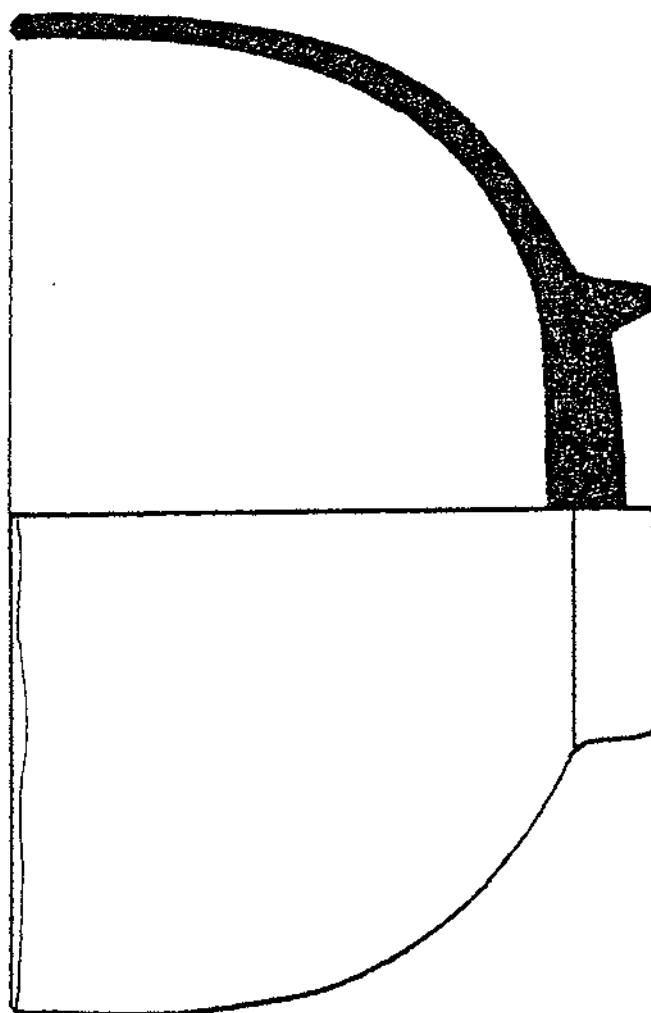


Fig. 38. Location 1: Qingbai bowl (QB 10).





Fig. 39. Location 1: White glazed bowl (W 1).

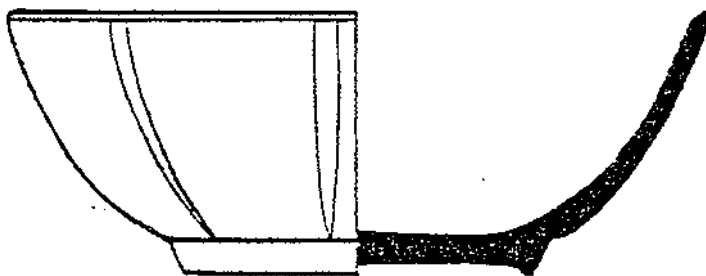


Fig. 40. Location 1: White glazed bowl (W 2) (Plate 93).

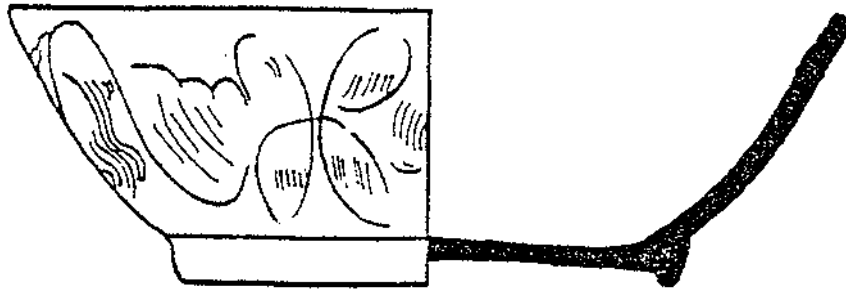


Fig. 41. Location 1: White glazed bowl (W 3).

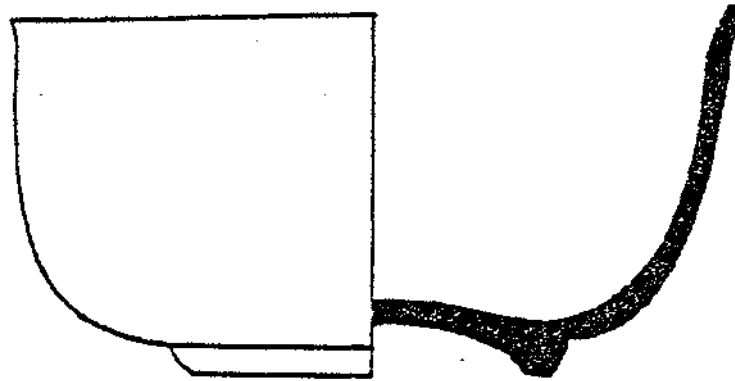


Fig. 42. Location 1: White glazed bowl (W 4) (Plate 94).

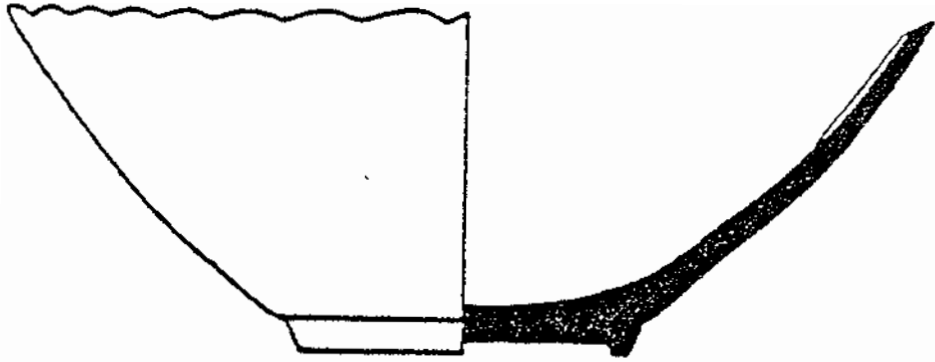


Fig. 43. Location 1: White glazed bowl (W 5) (Plate 95).

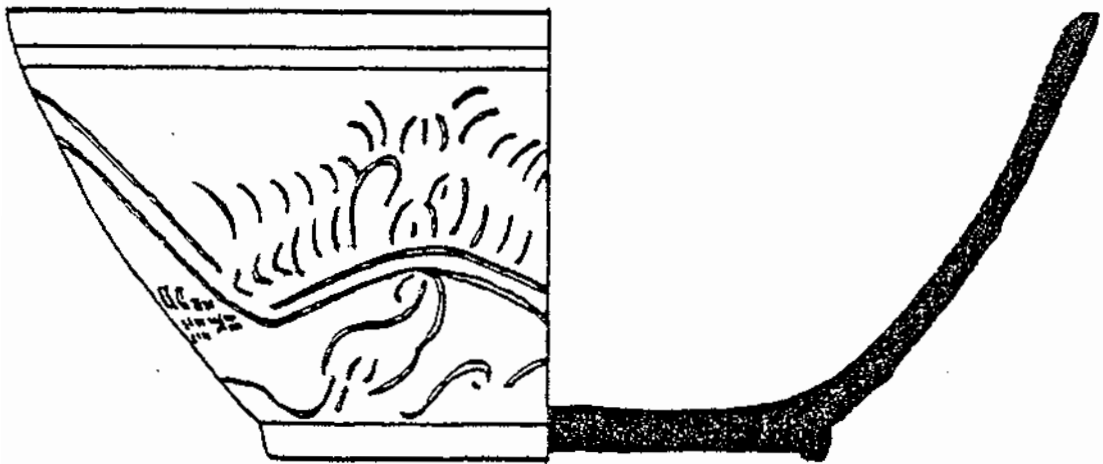


Fig. 44. Location 1: White glazed bowl (W 6).

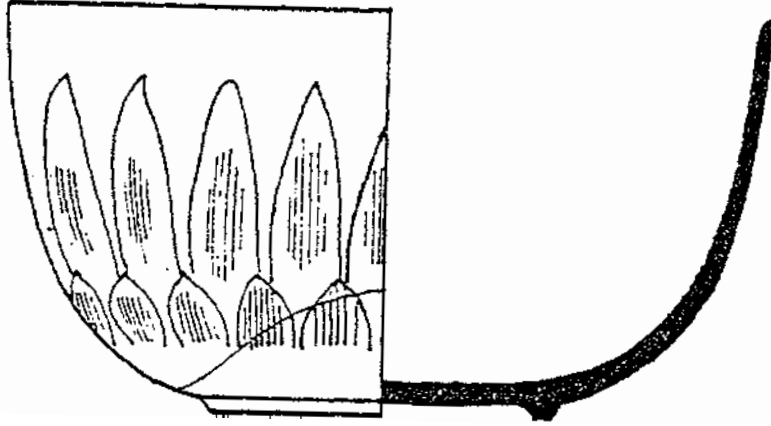


Fig. 45. Location 1: White glazed bowl (W 7) (Plate 96).

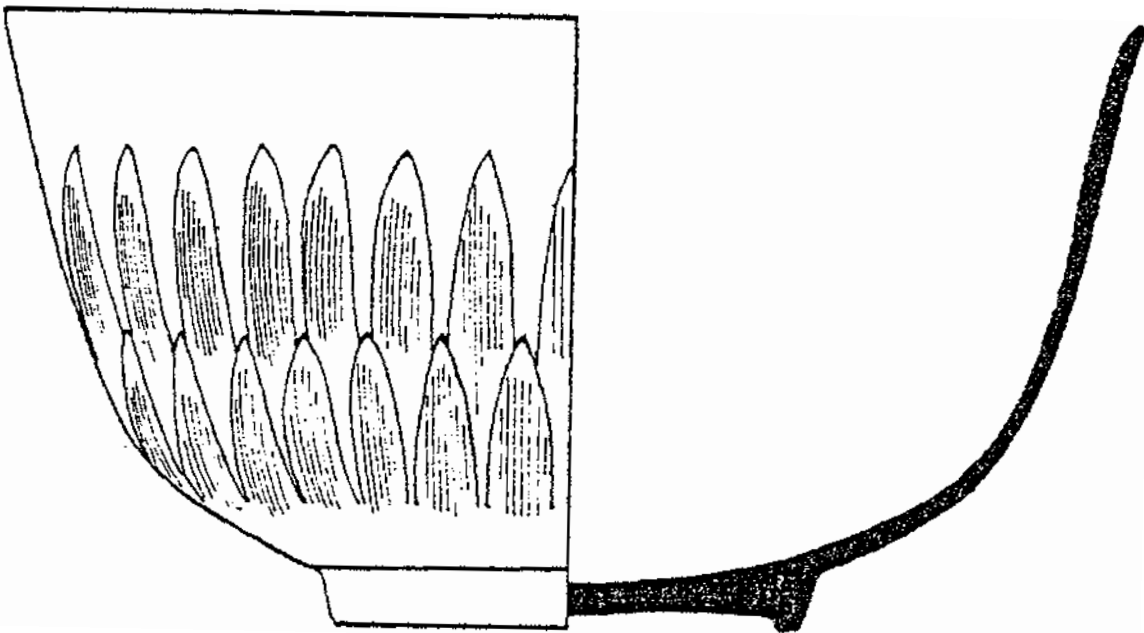


Fig. 46. Location 1: White glazed bowl (W 8) (Plate 96).

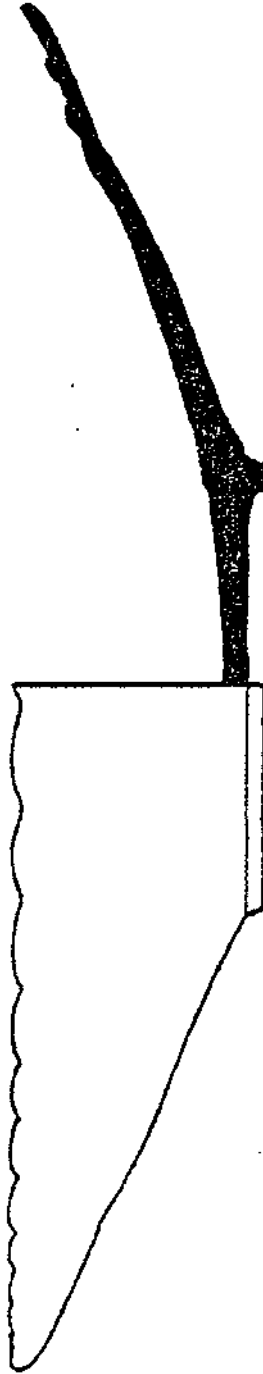


Fig. 47. Location 1: White glazed dish (W 9) (Plate 97).

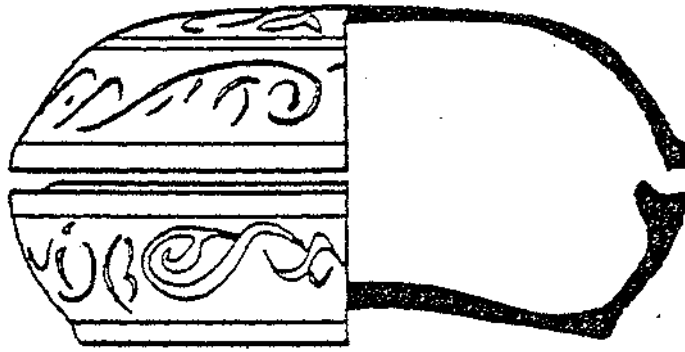


Fig. 48. Location 1: White glazed covered box (W 10).

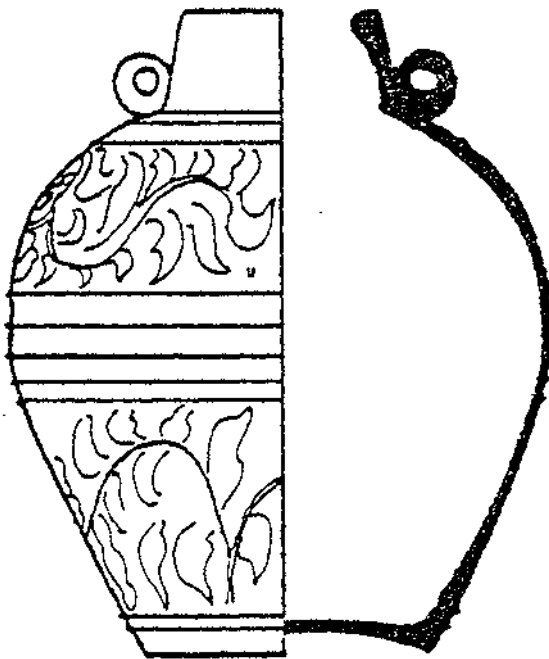


Fig. 49. Location 1: White glazed jar (W 11) (Plate 98).

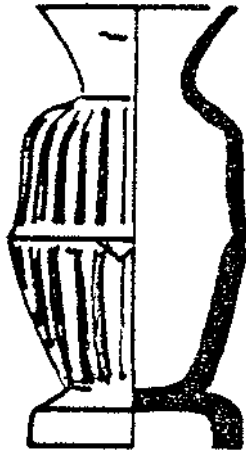


Fig. 50. Location 1: White glazed vase (W 12) (Plate 99).

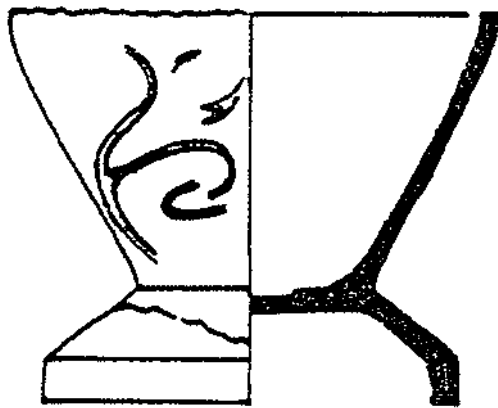


Fig. 51. Location 1: White glazed vase (W 13) (Plate 100).

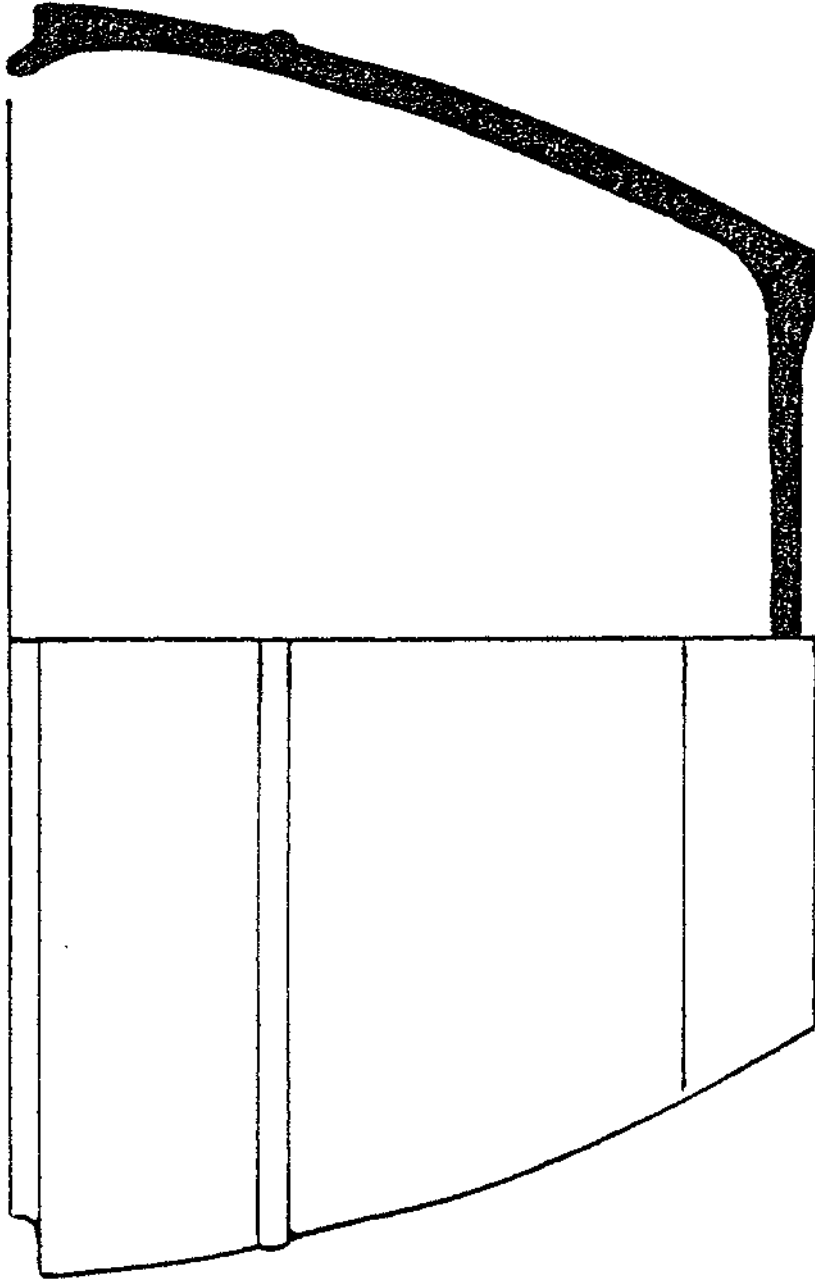


Fig. 52. Location 1: White glazed covered box (W 14) (Plate 101).



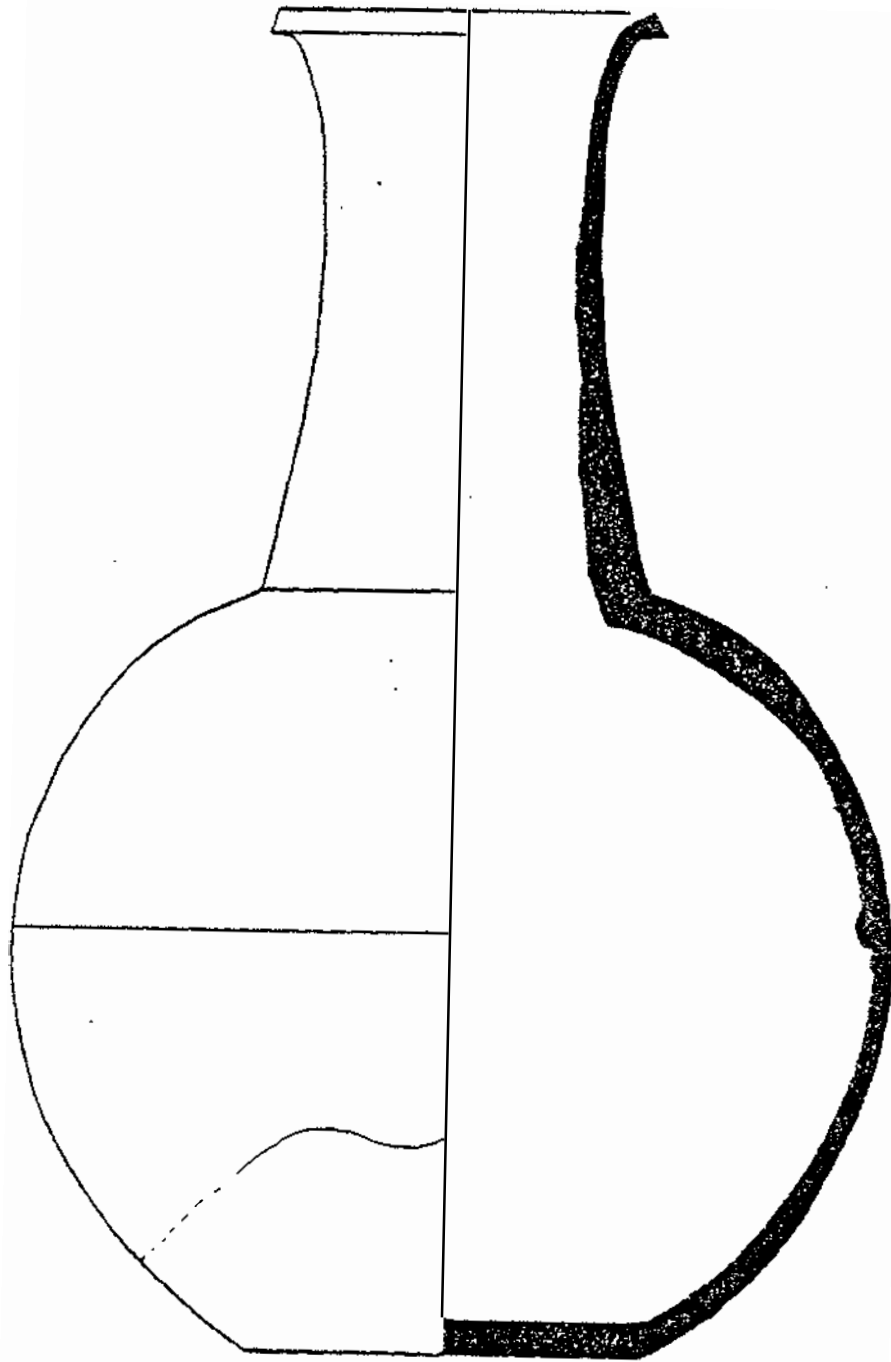


Fig. 53. Location 4: White glazed bottle vase (W 15).

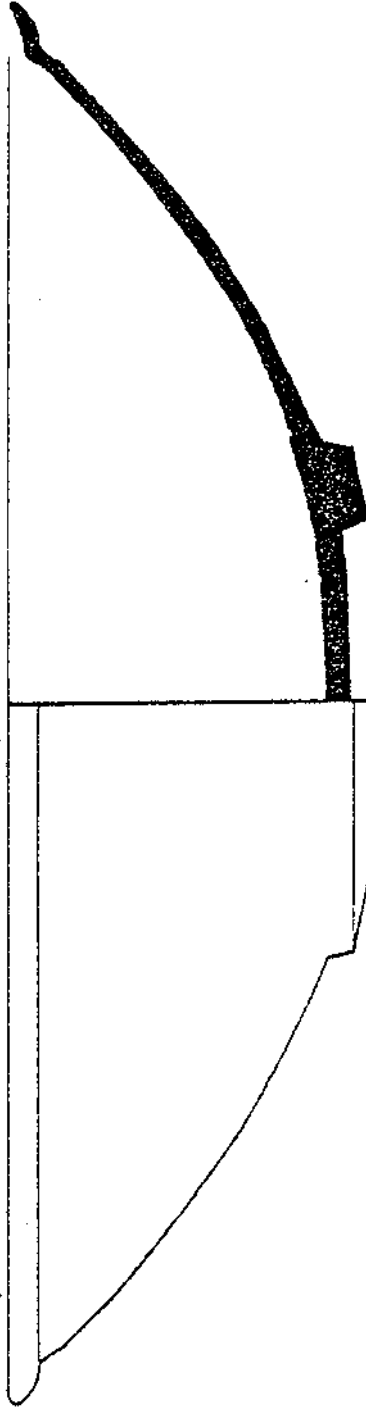


Fig. 54. Location 1: White glazed bowl (W 16) (Plates 102, 103).

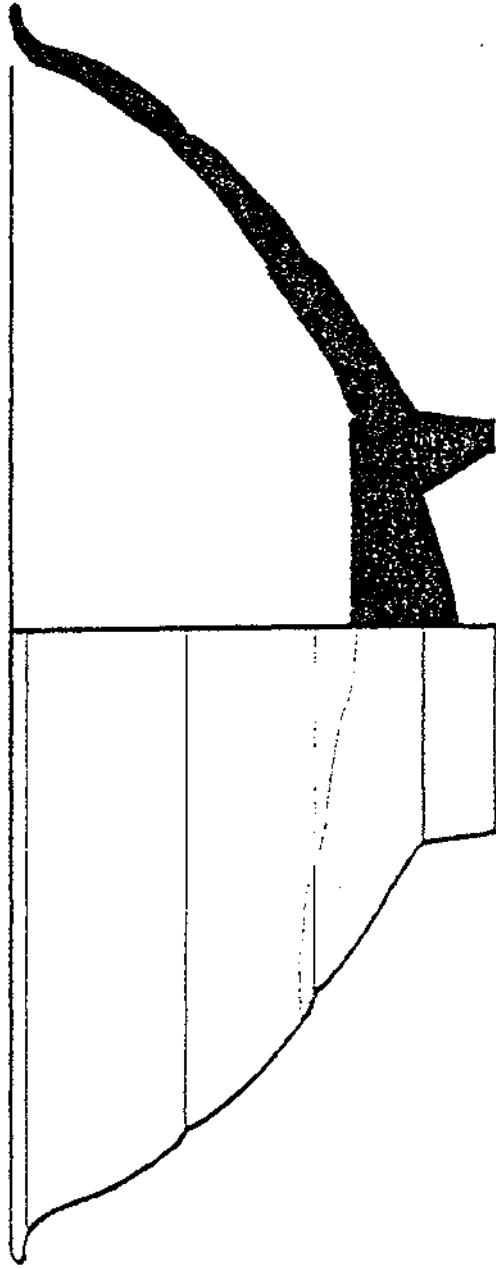


Fig. 55. Location 1: Gray glazed bowl (GR 1) (Plates 113, 114).

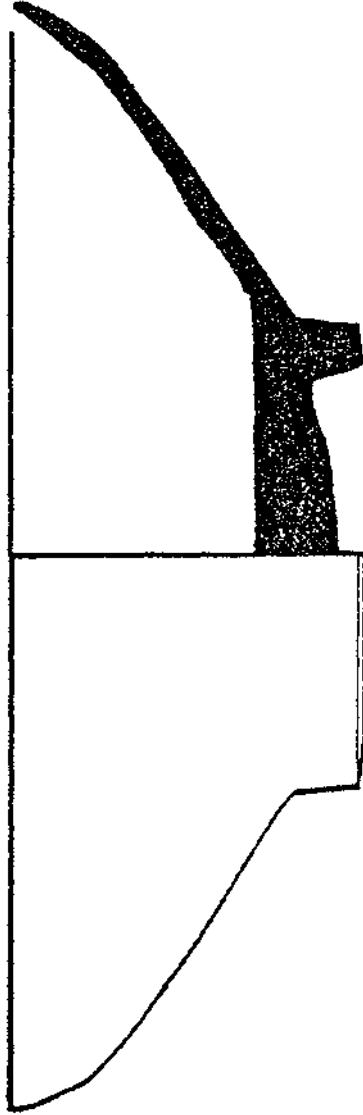


Fig. 56. Location 1: Gray glazed bowl (GR 2) (Plates 115, 116).

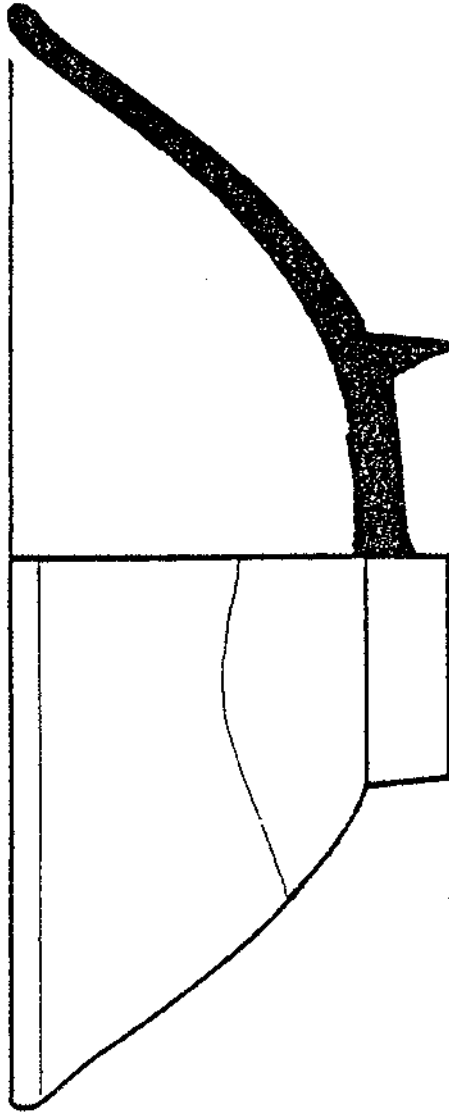


Fig. 57. Location 1: Gray glazed bowl (GR 3) (Plates 117, 118).

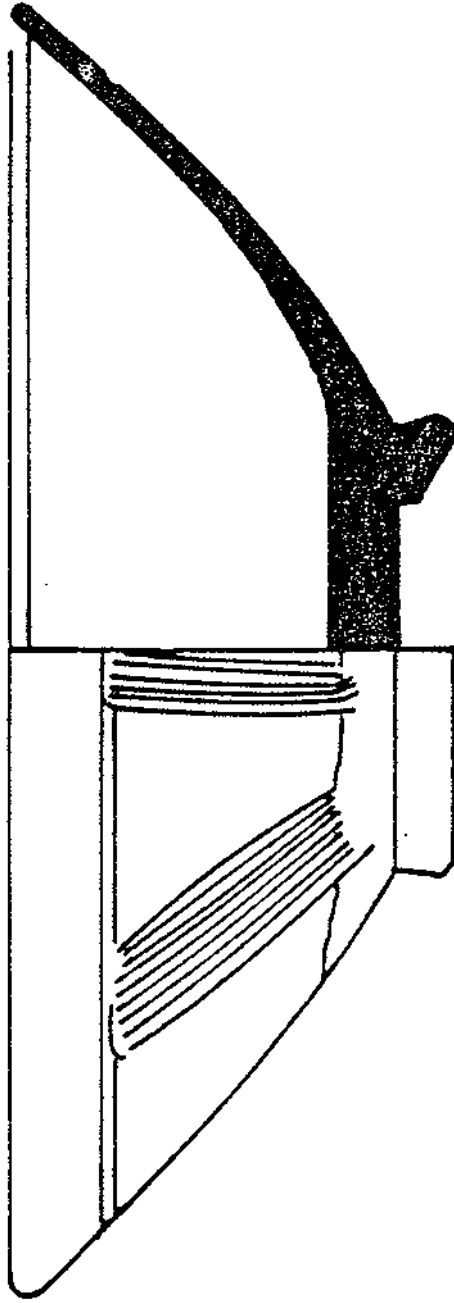


Fig. 58. Location 1: Gray glazed bowl (GR 4).

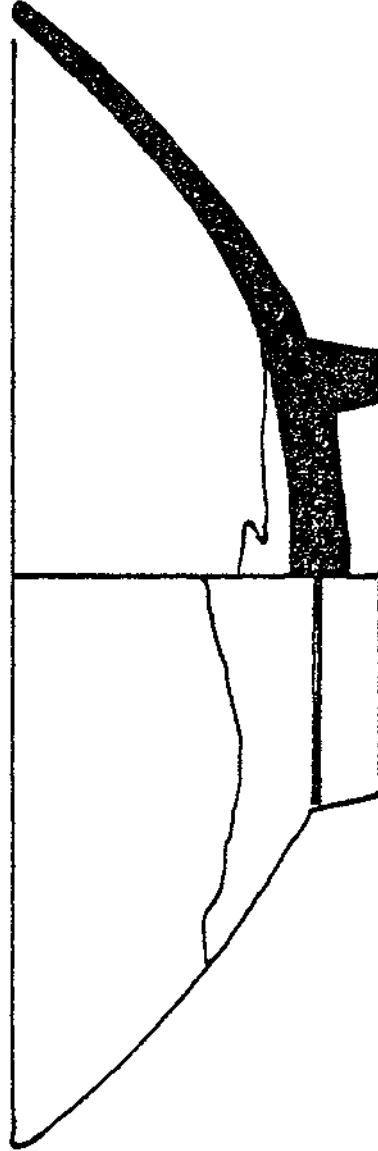


Fig. 59. Location 1: Gray glazed bowl (GR 5) (Plate 119).

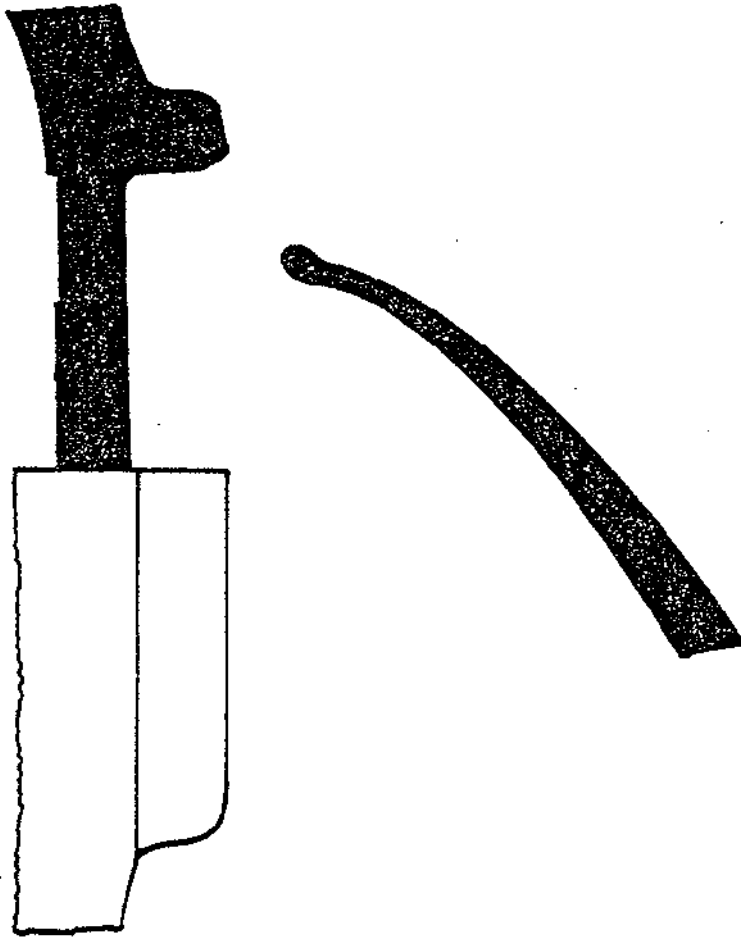


Fig. 60. Location 3: Gray glazed bowl (GR 6) (Plates 120, 121).



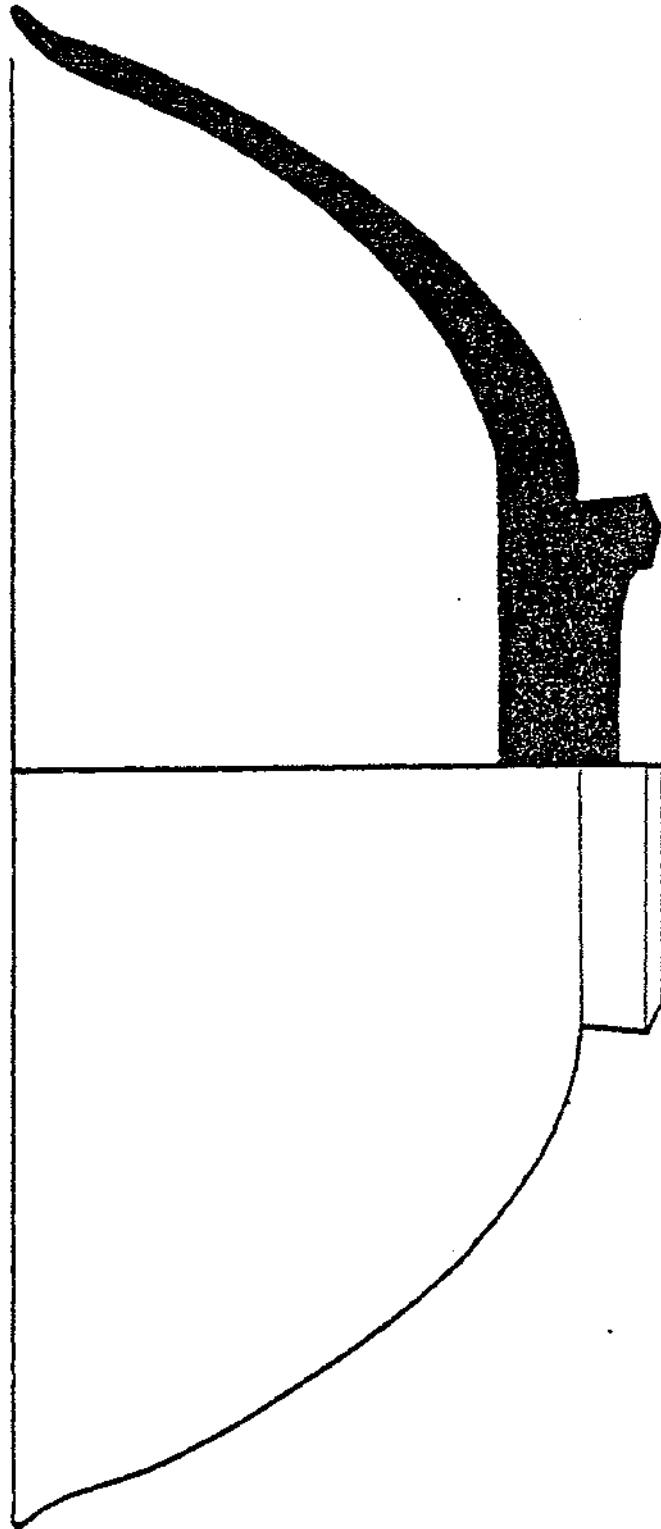


Fig. 61. Location 1: Green glazed bowl (GW 1).

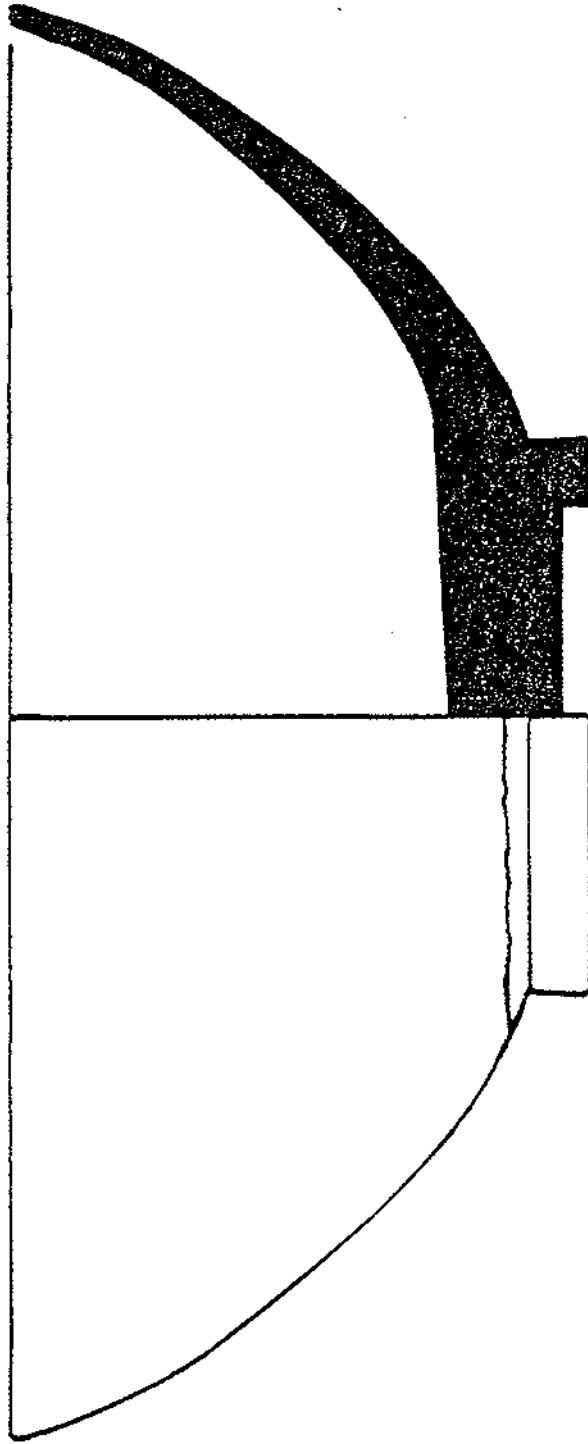


Fig. 62. Location 1: Green glazed bowl (GW 2).

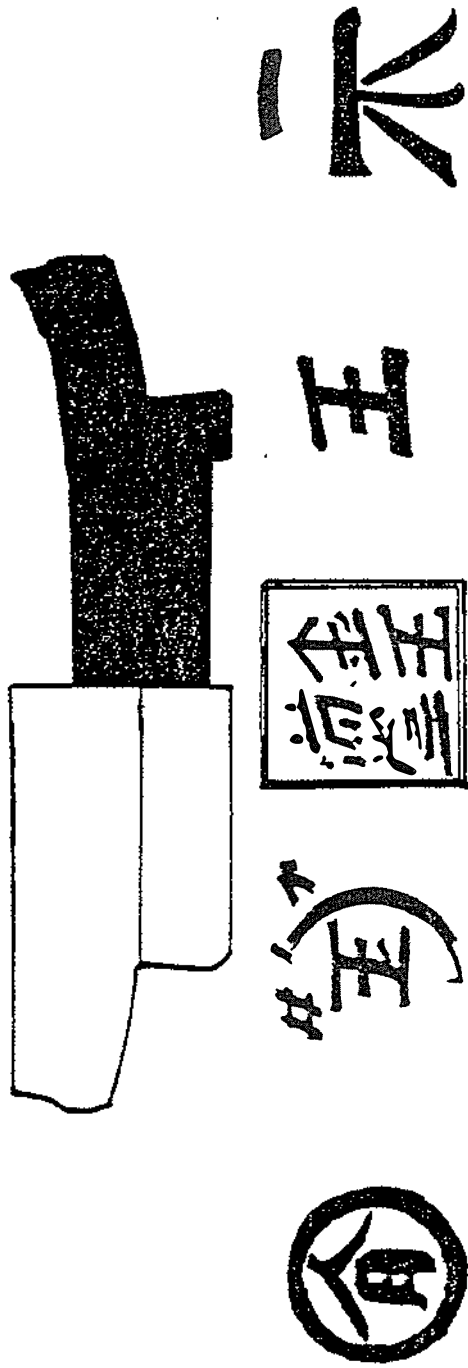


Fig. 63. Location 3: Green glazed bowl (GW 3).

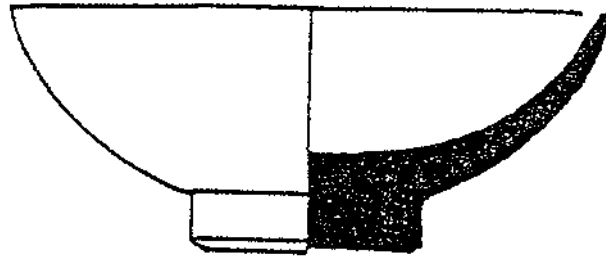


Fig. 64. Location 1: Green glazed bowl (GW 4).

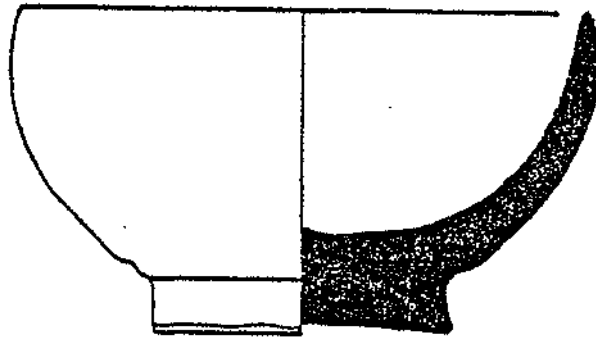


Fig. 65. Location 1: Green glazed bowl (GW 5).

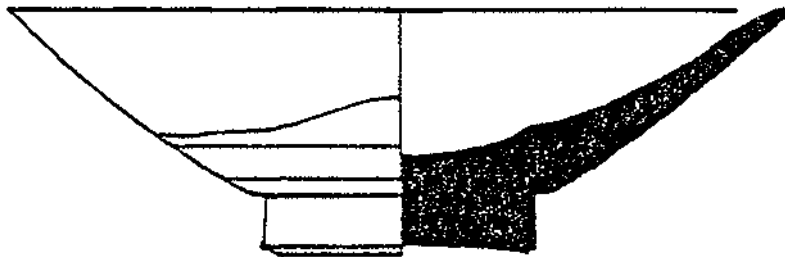


Fig. 66. Location 1: Green glazed bowl (GW 6).

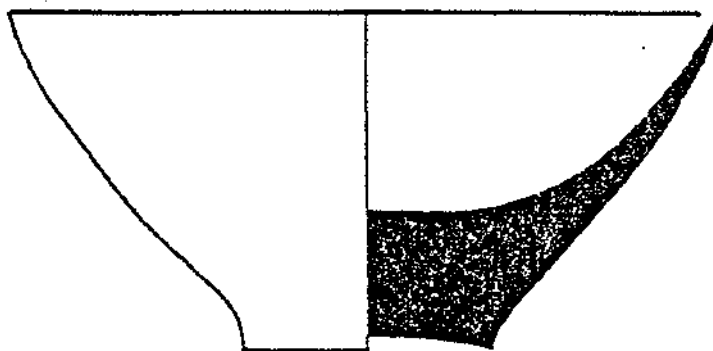


Fig. 67. Location 1: Green glazed bowl (GW 7).

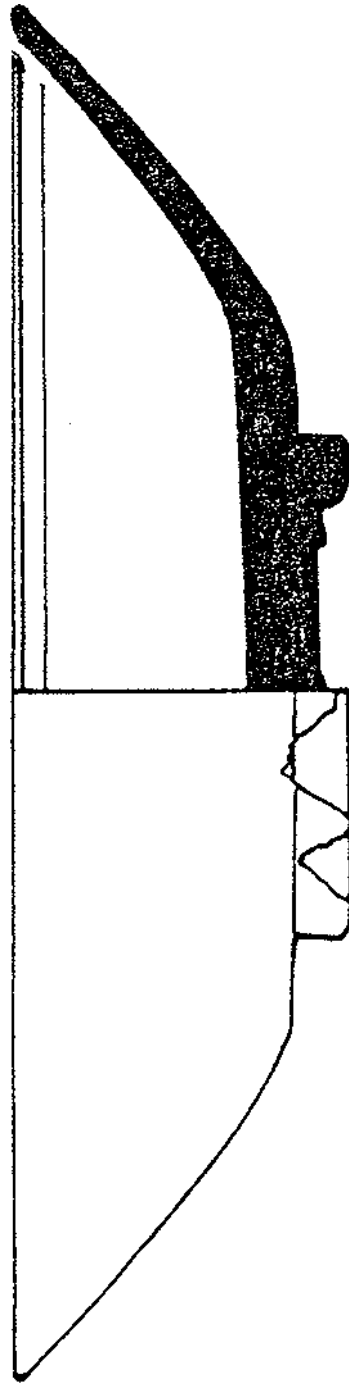


Fig. 68. Location 3: Green glazed bowl (GW 8) (Plates 122, 123).

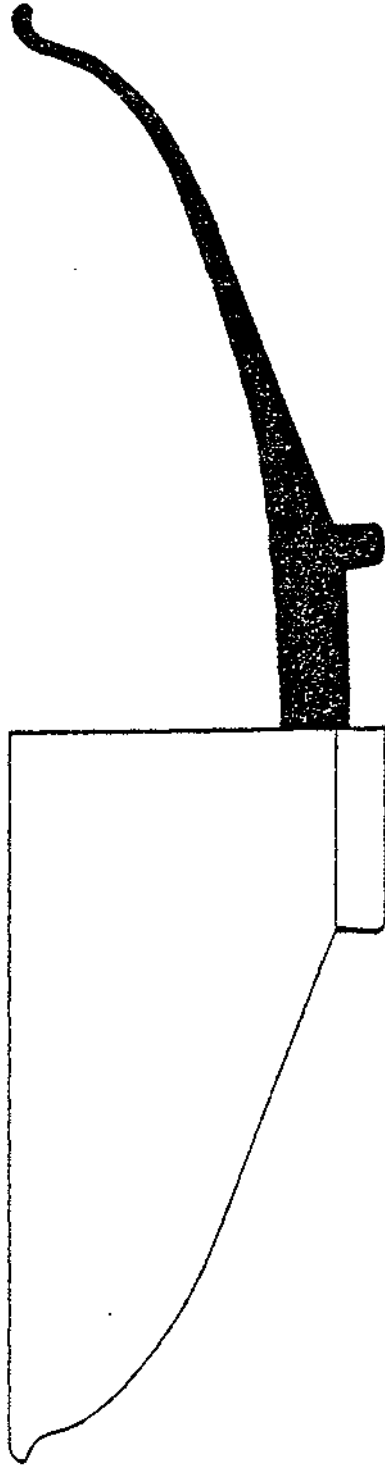


Fig. 69. Location 1: Green glazed bowl (GW 9) (Plates 124-126) (2/3).

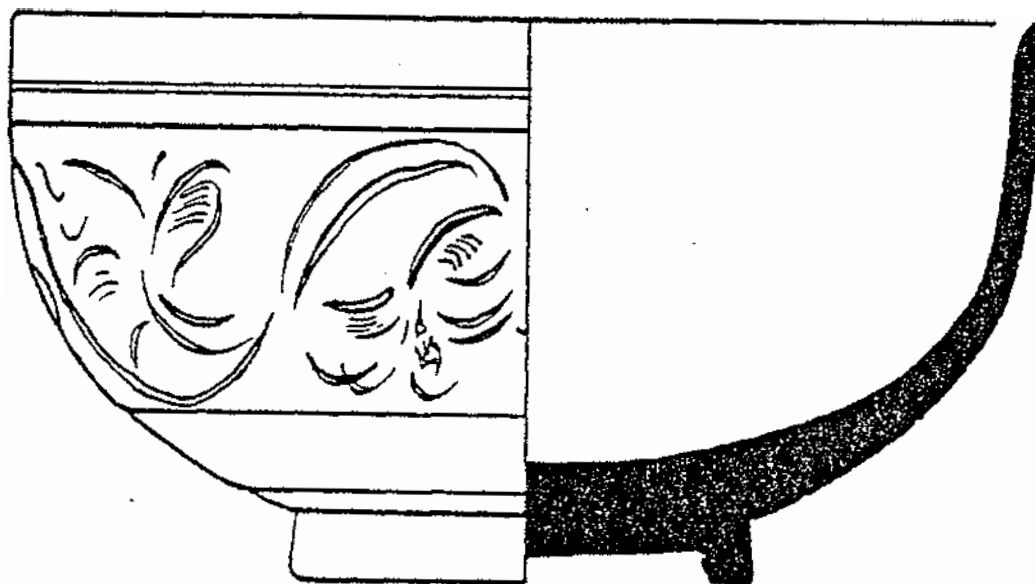


Fig. 70. Location 1: Green glazed bowl (GW 10) (Plate 127).



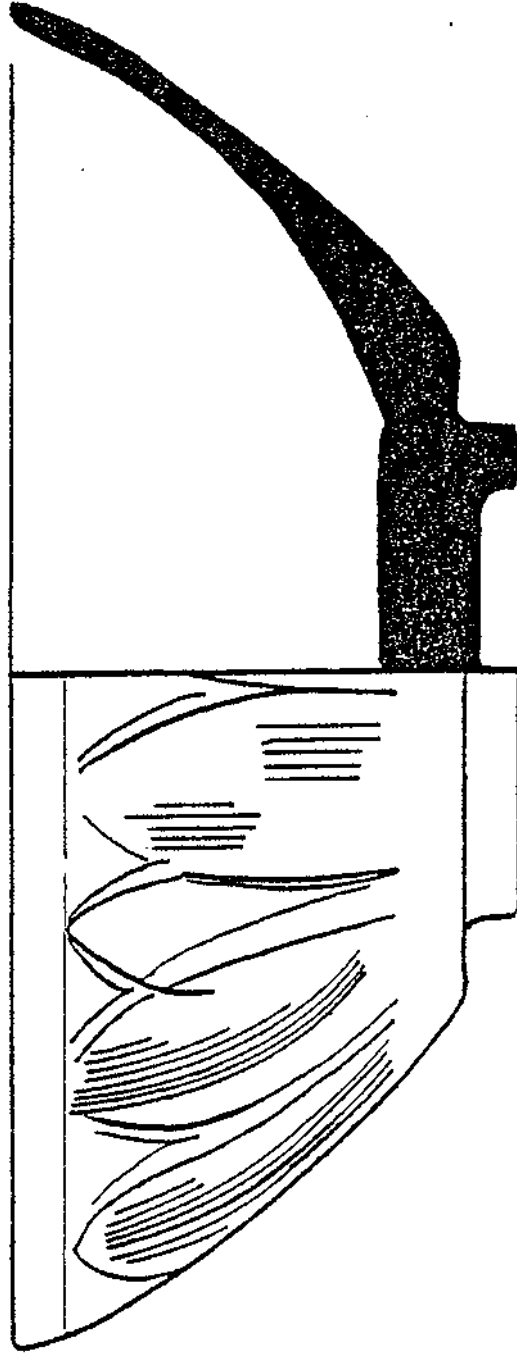


Fig. 71. Location 1: Green glazed bowl (GW 11) (Plates 128, 129).

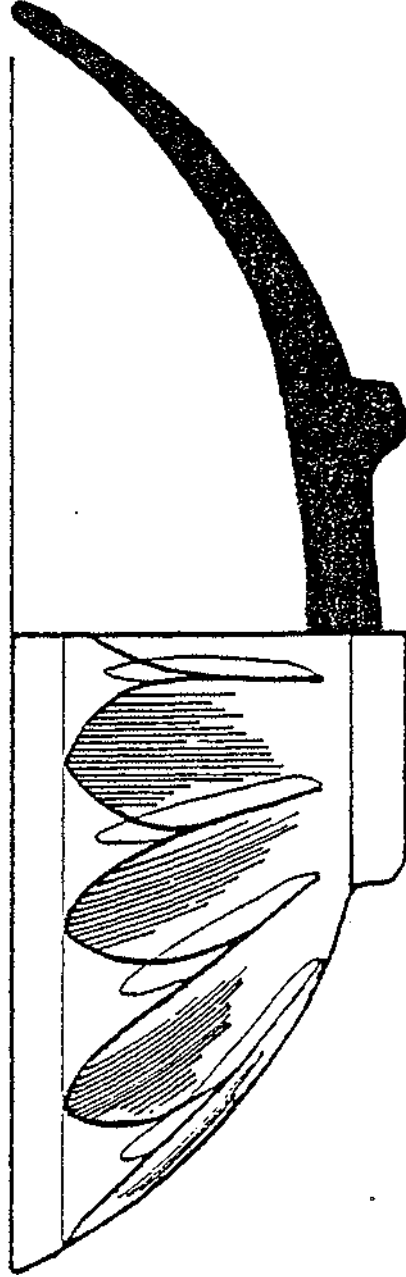


Fig. 72. Location 1: Green glazed bowl (GW 12).

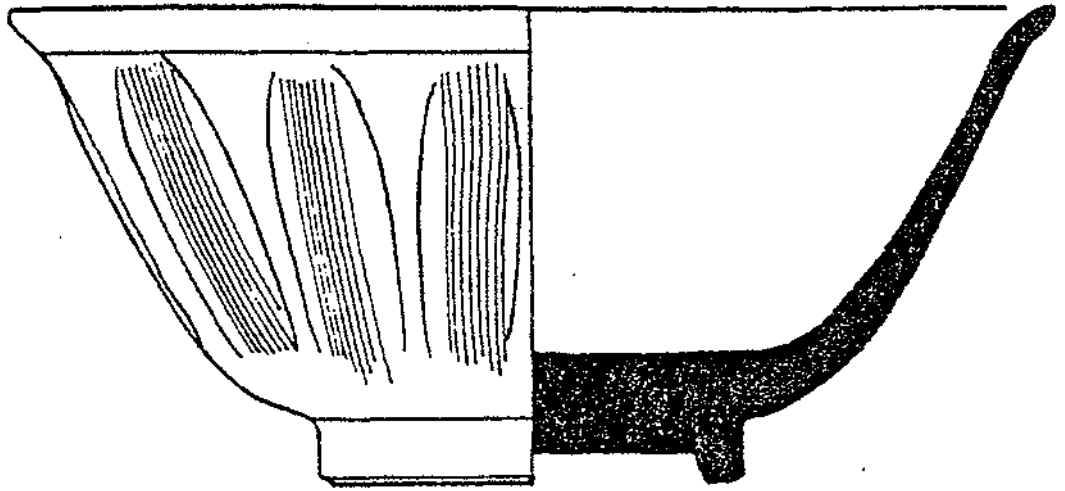


Fig. 73. Location 1: Green glazed bowl (GW 13).

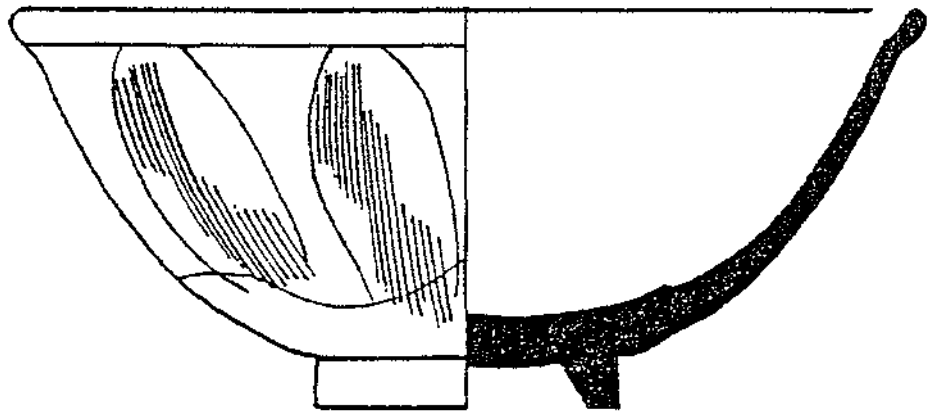


Fig. 74. Location 1: Green glazed bowl (GW 14).

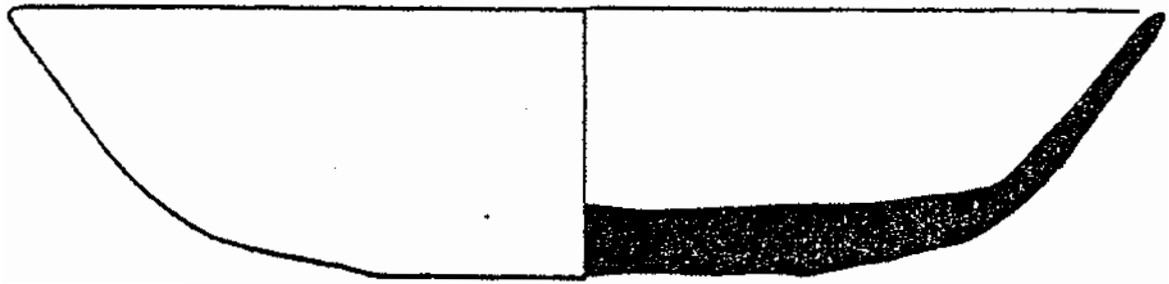


Fig. 75. Location 1: Green glazed dish (GW 15) (Plate 130).

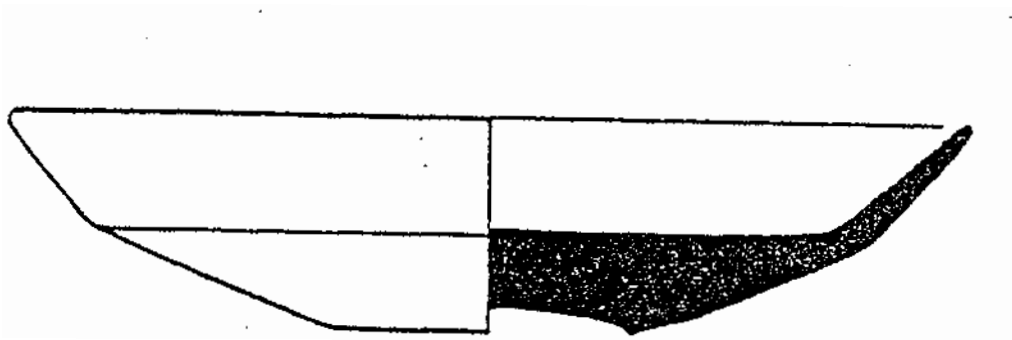


Fig. 76. Location 1: Green glazed dish (GW 16) (Plates 131, 132).

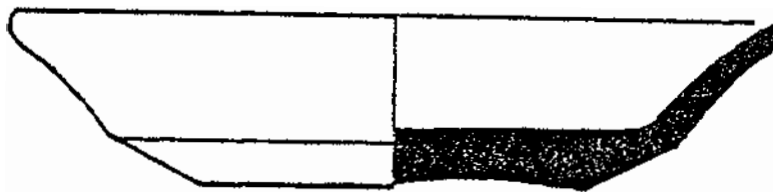


Fig. 77. Location 1: Green glazed dish (GW 17).

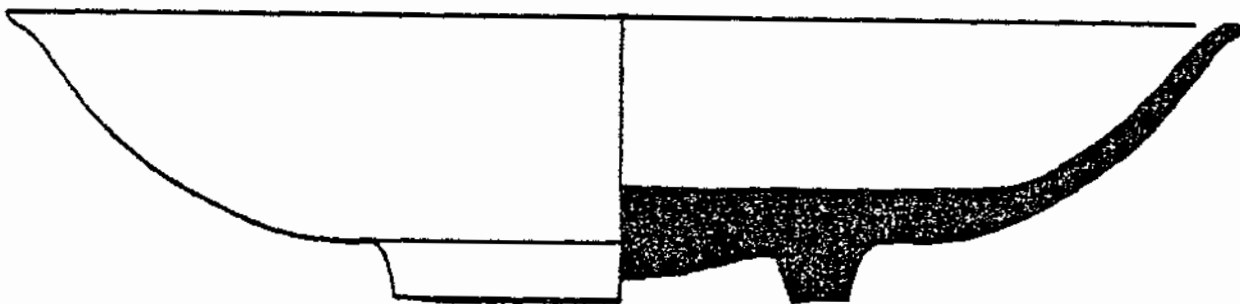


Fig. 78. Location 1: Green glazed bowl (GW 18).

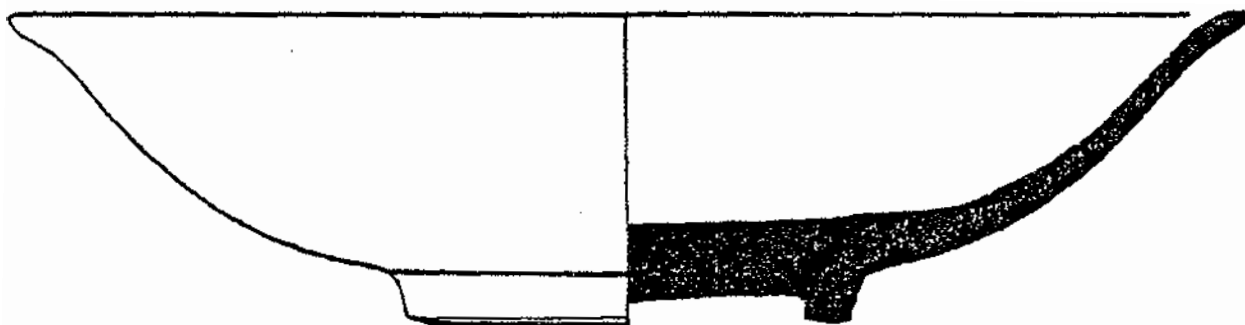


Fig. 79. Location 1: Green glazed bowl (GW 19).

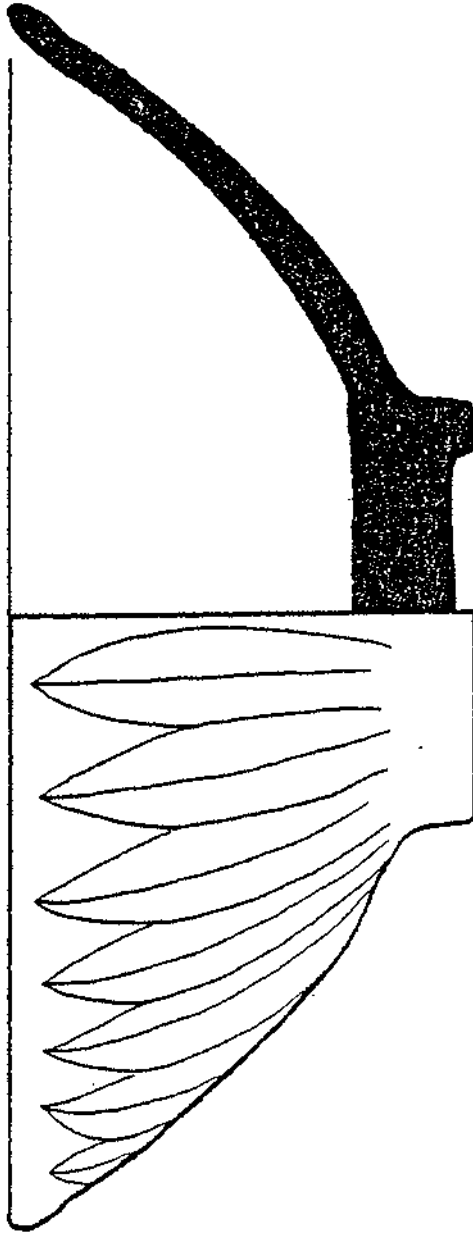


Fig. 80. Location 1: Green glazed bowl (GW 22).

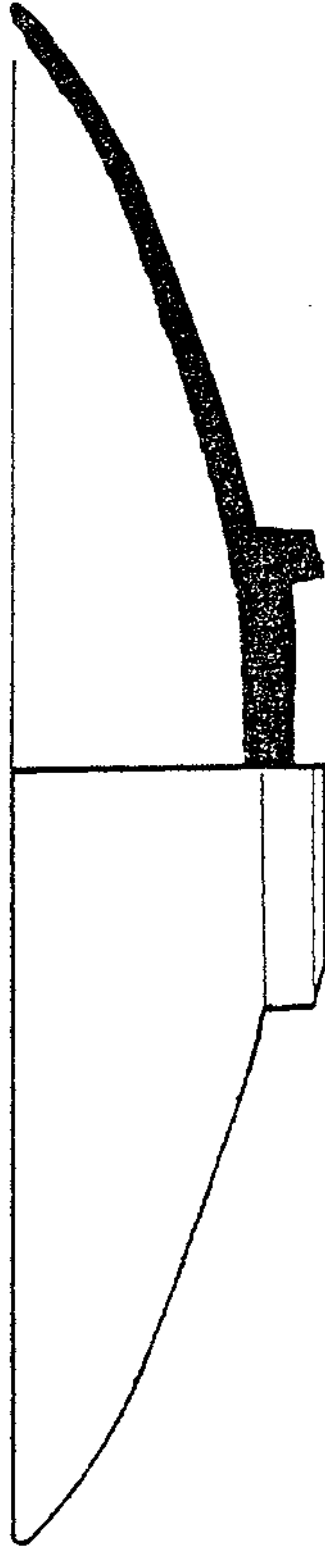


Fig. 81. Location 1: Green glazed bowl (GW 23).



Fig. 82. Location 1: Bowl (LQ 1) (Plates 149, 150) (2/3).



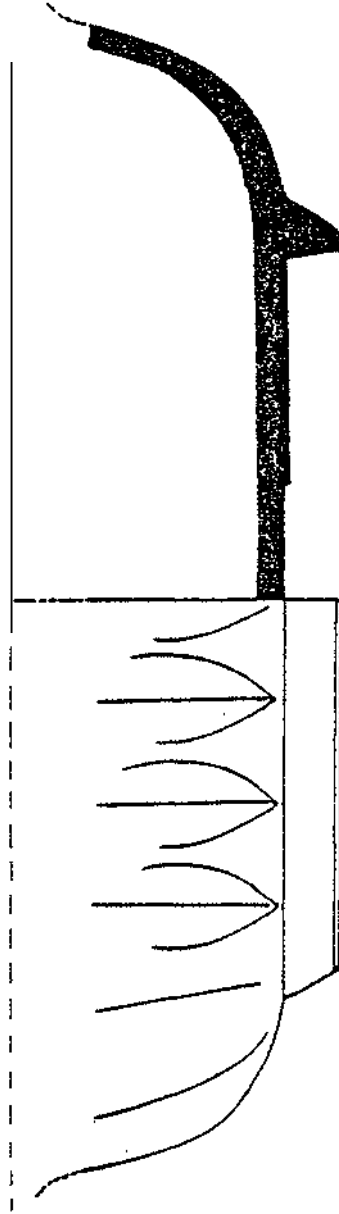


Fig. 83. Location 3: Bowl (J.Q 2) (Plate 151) (2/3).

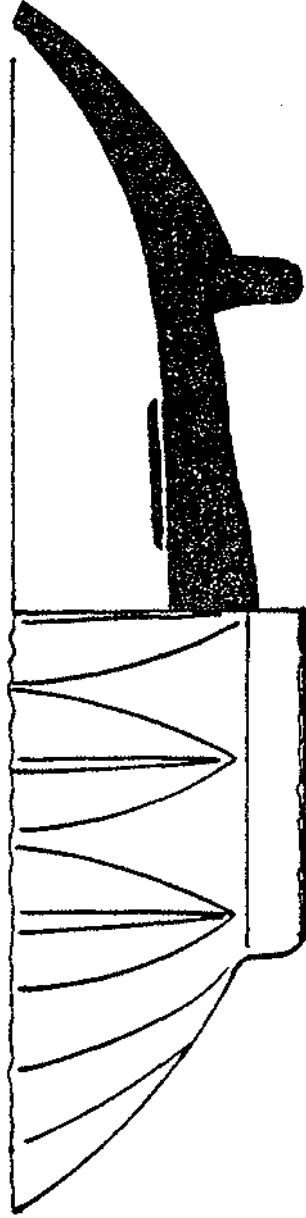


Fig. 84. Location 3: Bowl (LQ 3) (Plates 152, 153).

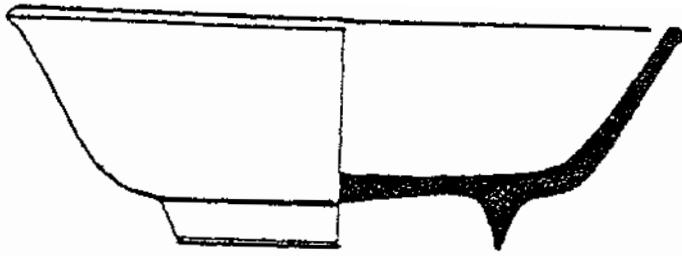


Fig. 85. Location 1: Bowl (LQ 4).

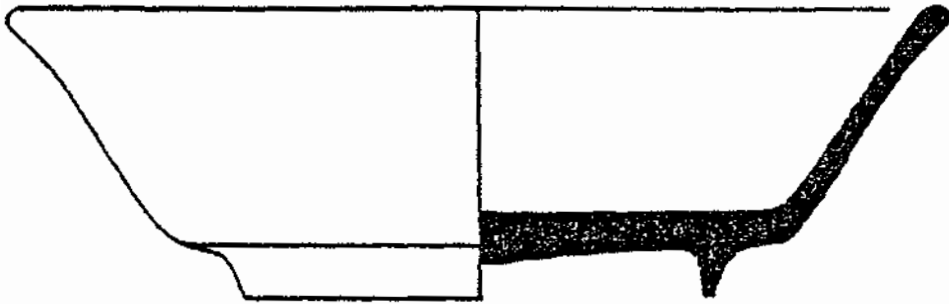


Fig. 86. Location 1: Bowl (LQ 5).

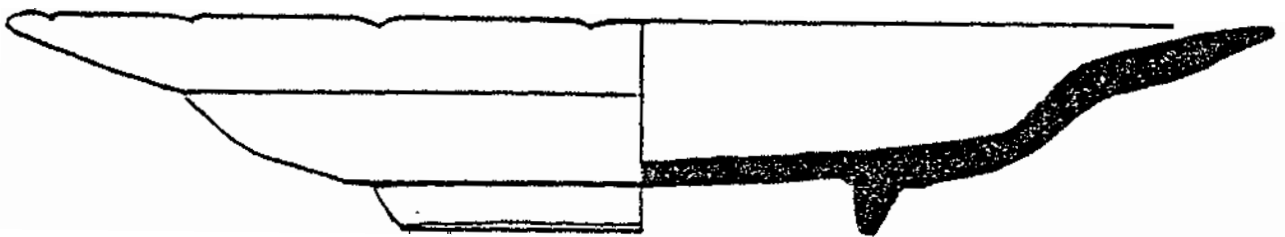


Fig. 87. Location 1: Dish (LQ 6) (Plates 154, 155).

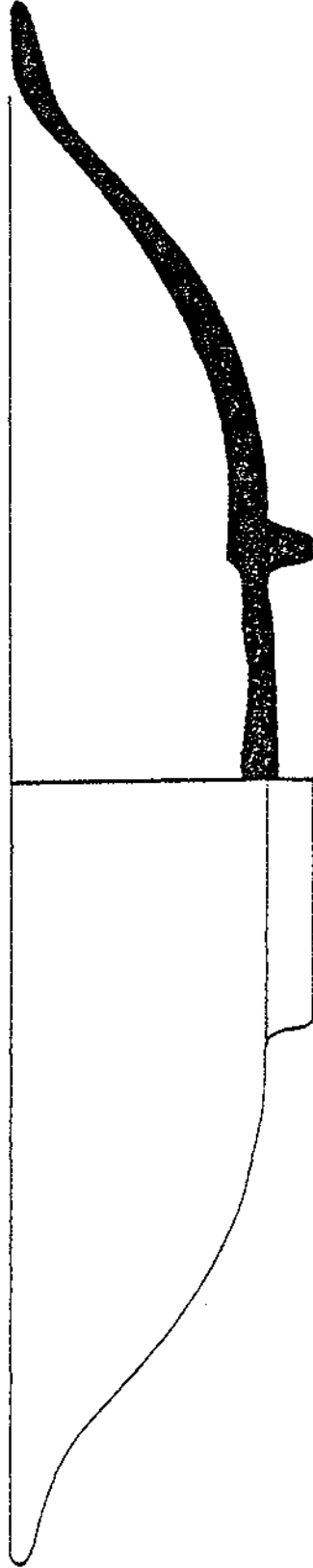


Fig. 88. Location 1: Bowl (LQ 7) (2/3).

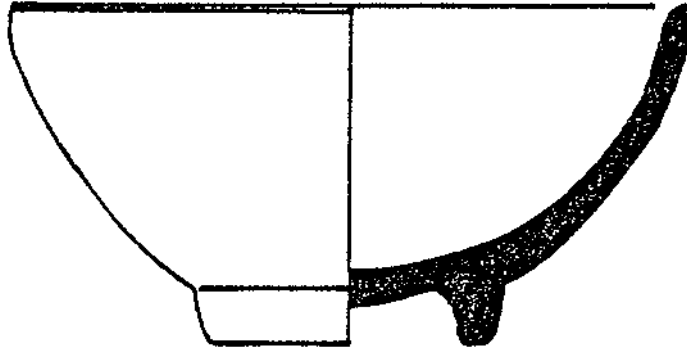


Fig. 89. Location 1: Bowl (LQ 8).

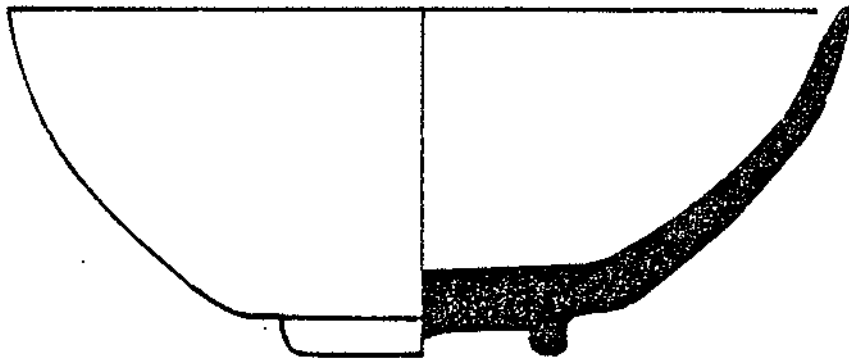


Fig. 90. Location 1: Bowl (LQ 9).

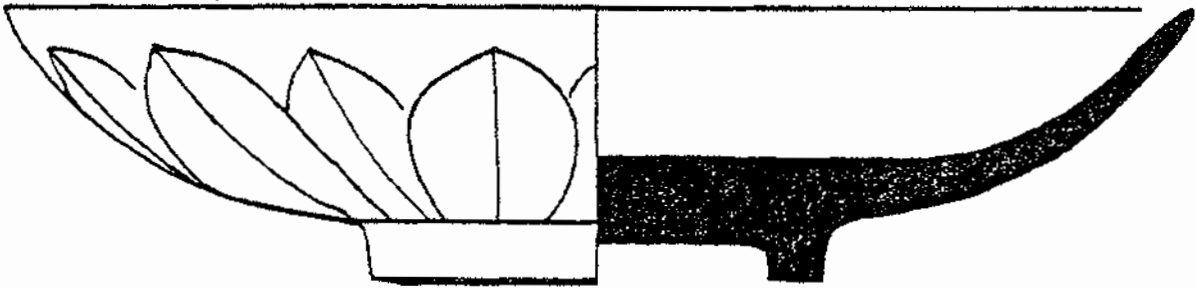


Fig. 91. Location 1: Bowl (LQ 10) (Plate 156).

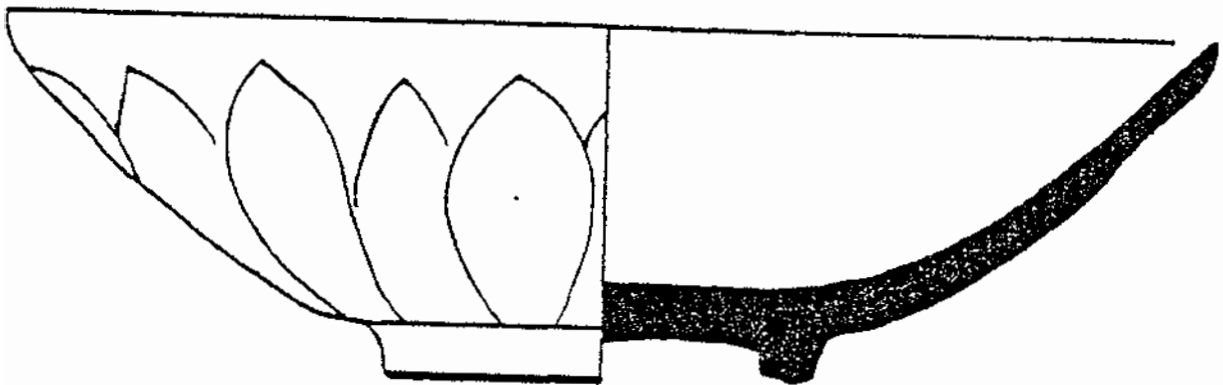


Fig. 92. Location 1: Bowl (LQ 11).

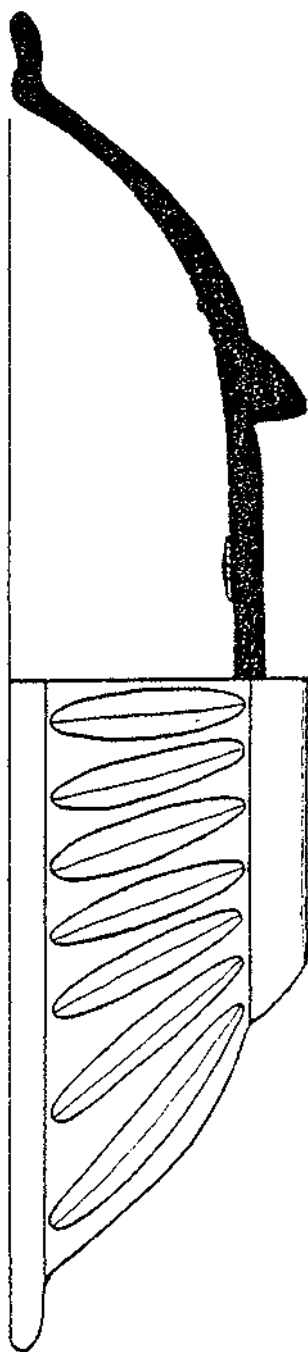


Fig. 93. Location 3: Bowl (LQ 12) (2/3).

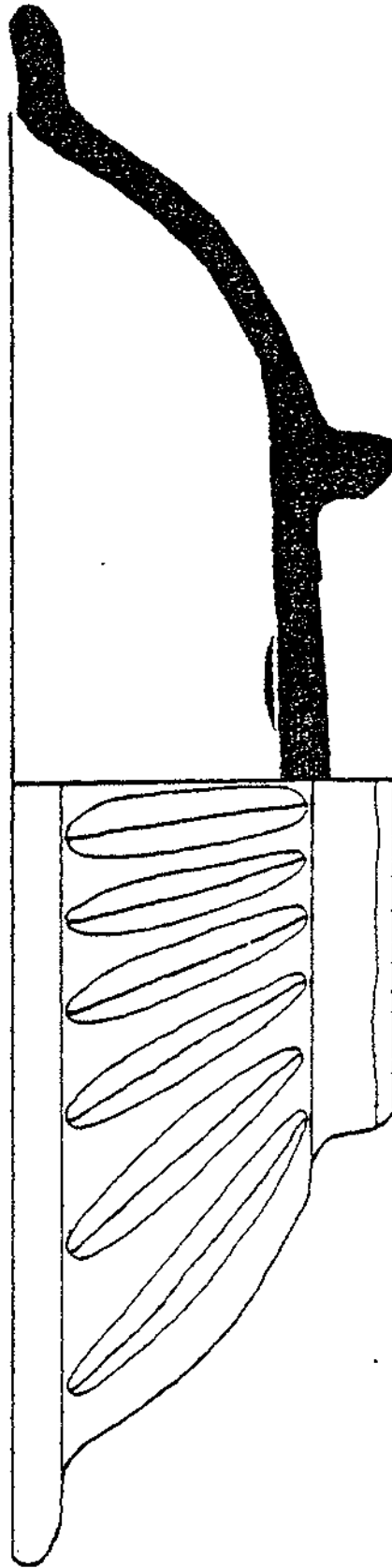


Fig. 94. Location 1: Bowl (LQ 13).



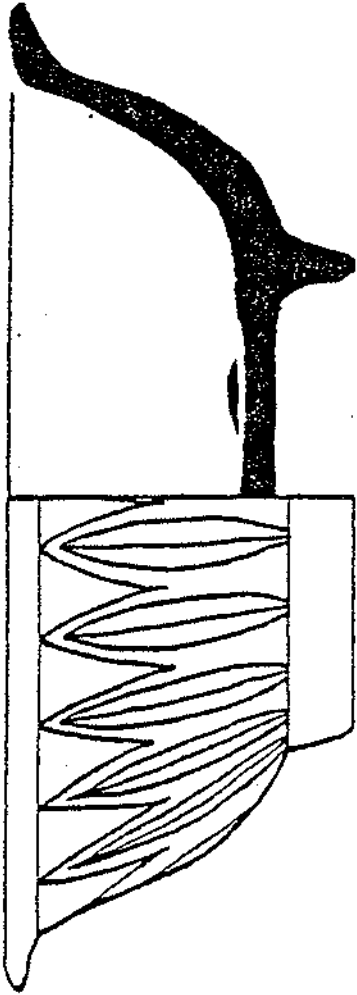


Fig. 95. Location 6: Bowl (LQ 14) (Plates 157, 158).

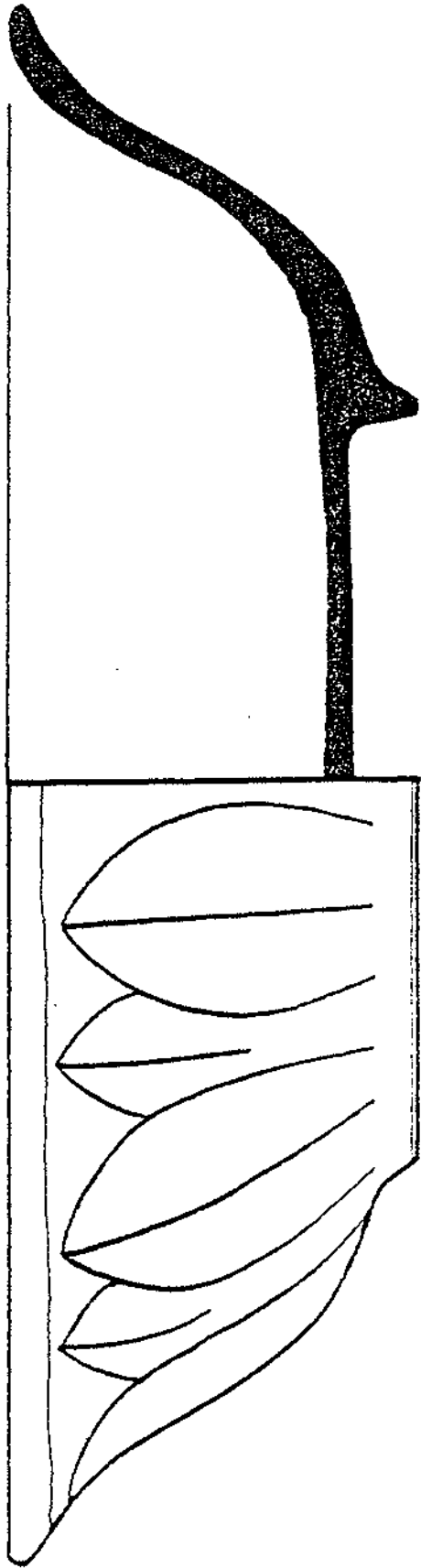


Fig. 96. Location 3: Bowl (LQ 15).

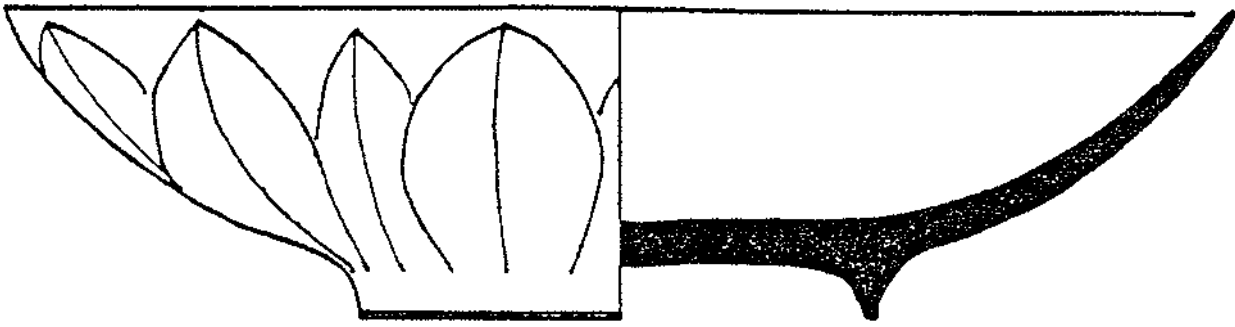


Fig. 97. Location 1: Bowl (LQ 16).

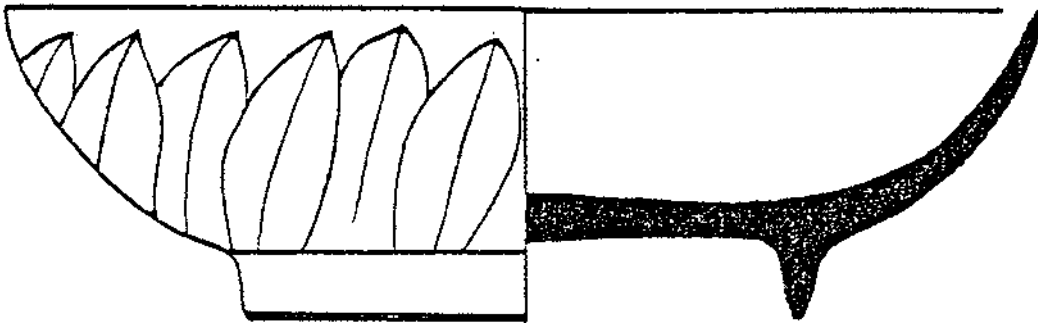


Fig. 98. Location 1: Bowl (LQ 17).

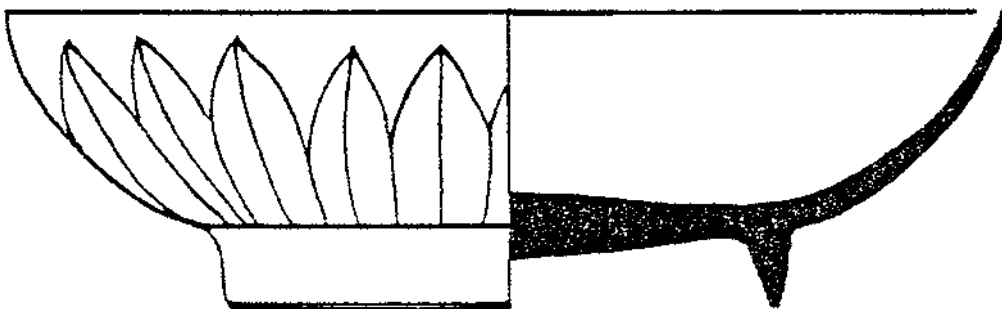


Fig. 99. Location 1: Bowl (LQ 18).

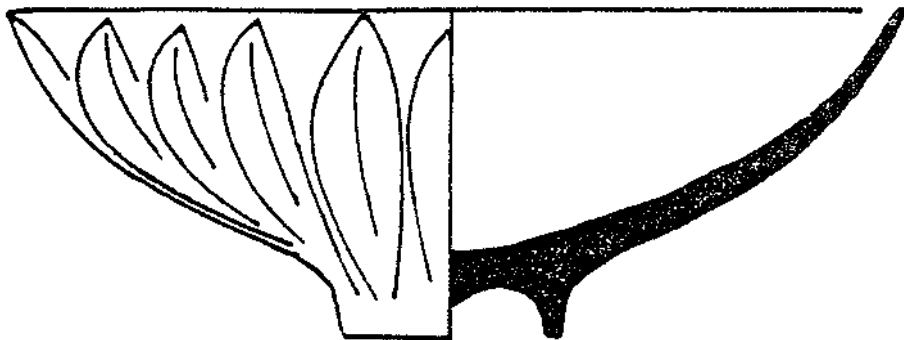


Fig. 100. Location 1: Bowl (LQ 19).

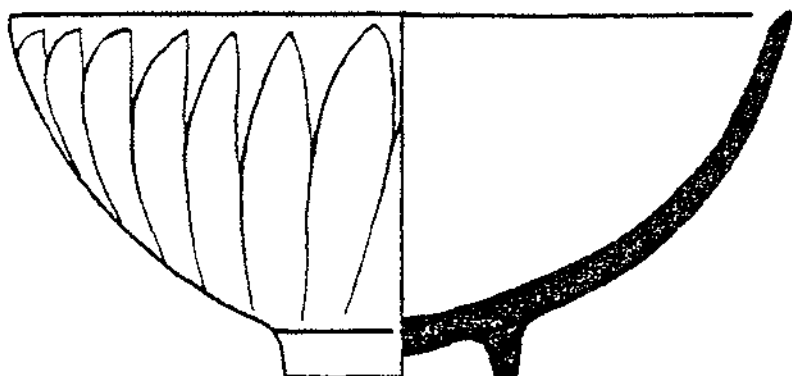
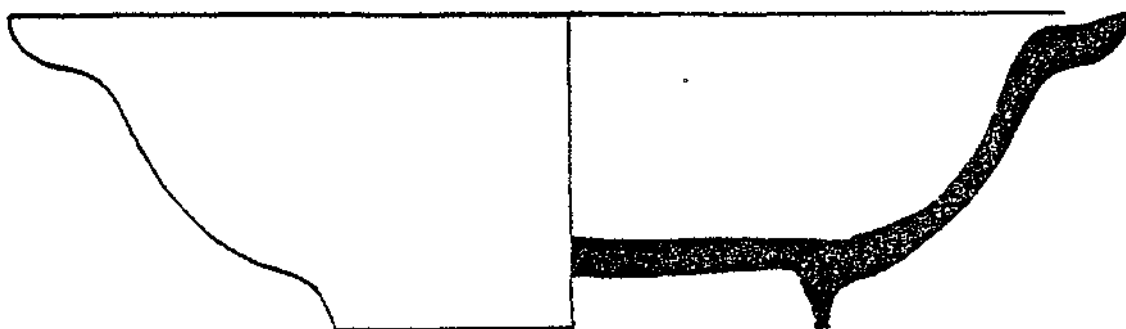


Fig. 101. Location 1: Bowl (LQ 20).

Fig. 102. Location 1: Bowl (LQ 21).



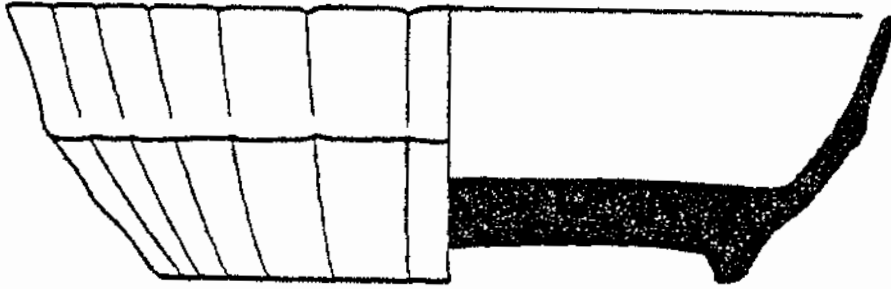


Fig. 103. Location 1: Bowl (LQ 22)..

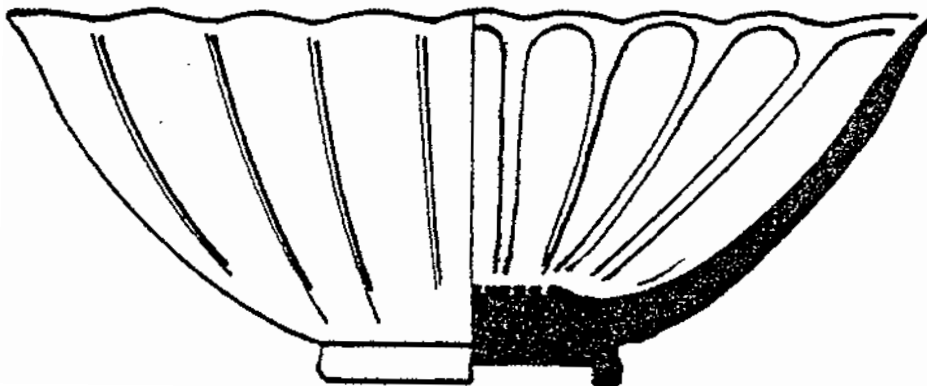


Fig. 104. Location 3: Bowl (LQ 23) (Plates 159, 160).

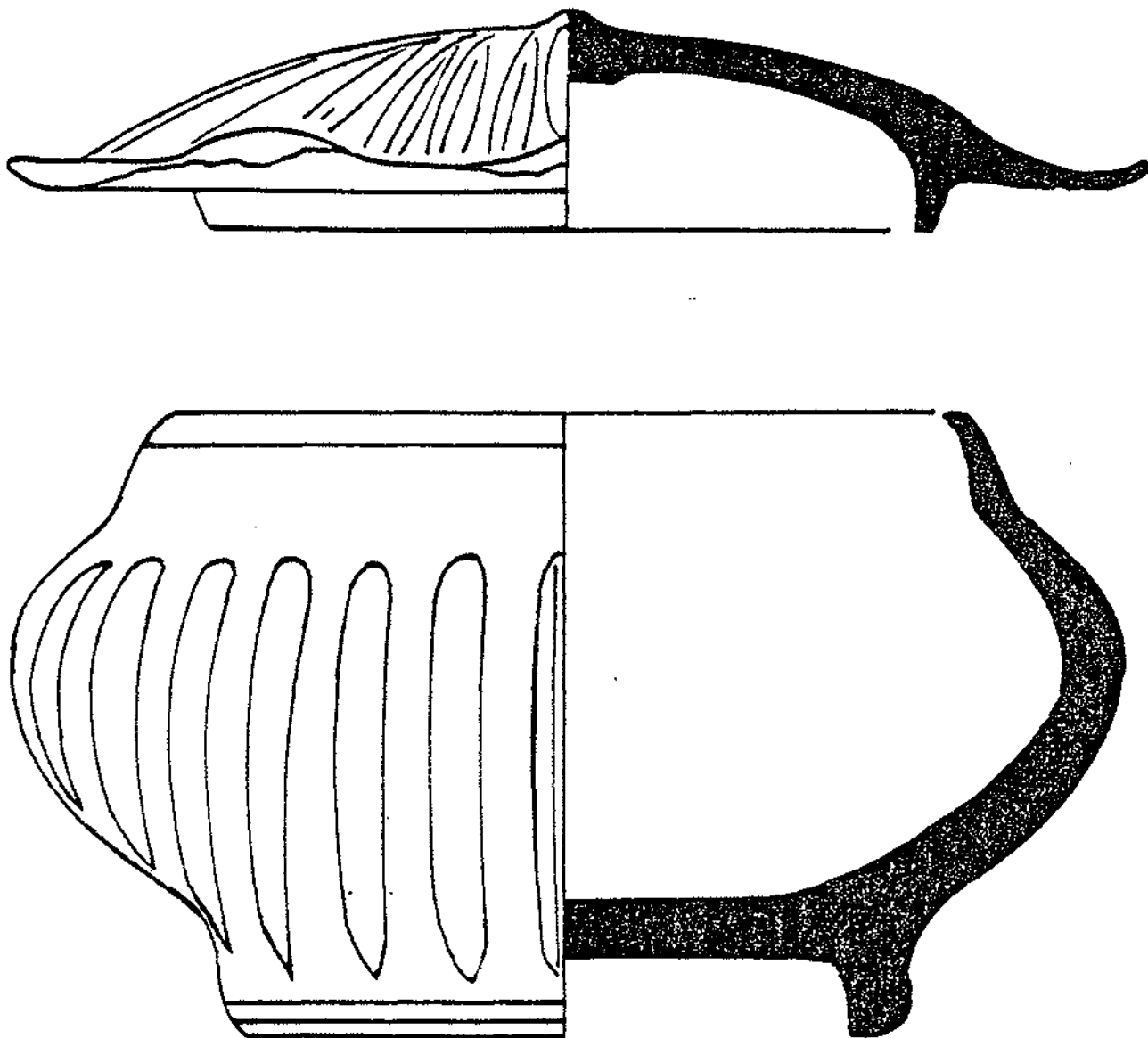


Fig. 105. Location 1: Wine jar or potiche (LQ 24).

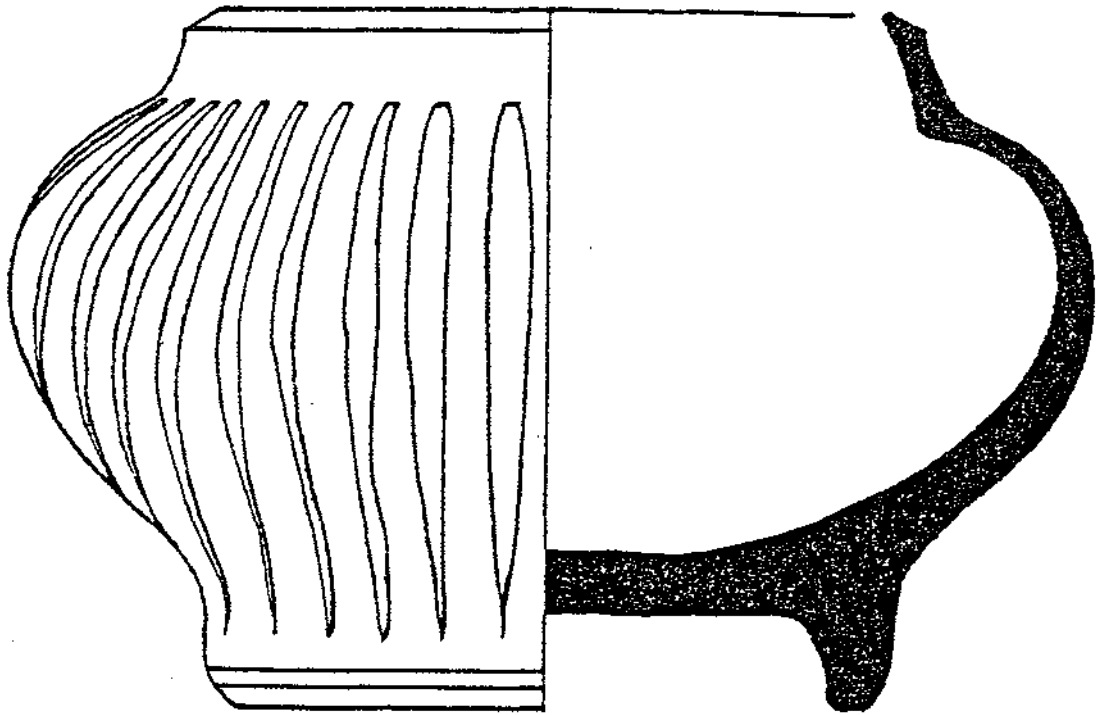


Fig. 106. Location 1: Wine jar or potiche (LQ 25).



Fig. 107. Location 1: Wine jar, cover (LQ 26) (Plate 161).



Fig. 108. Location 1: Wine jar, cover (LQ 27) (Plate 162).

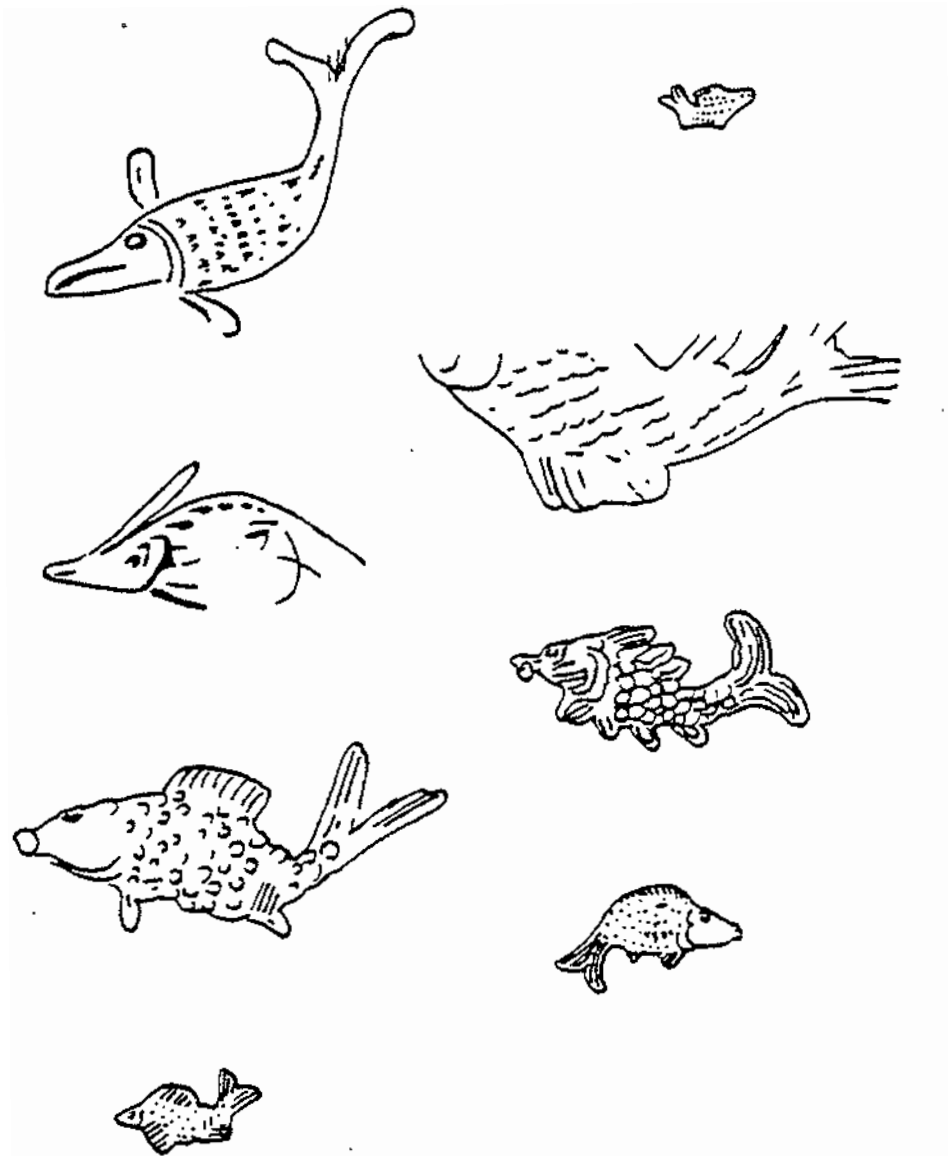


Fig. 109. Various: Fish motifs (2/3).

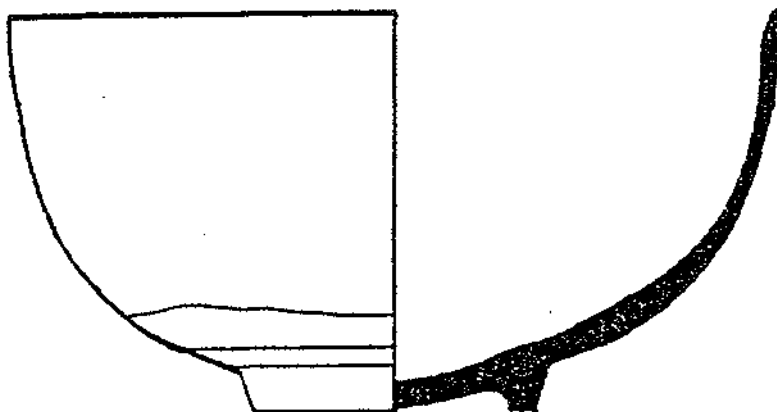


Fig. 110. Location 1: Bowl with temmoku glaze (M 1) (Plates 173, 174).

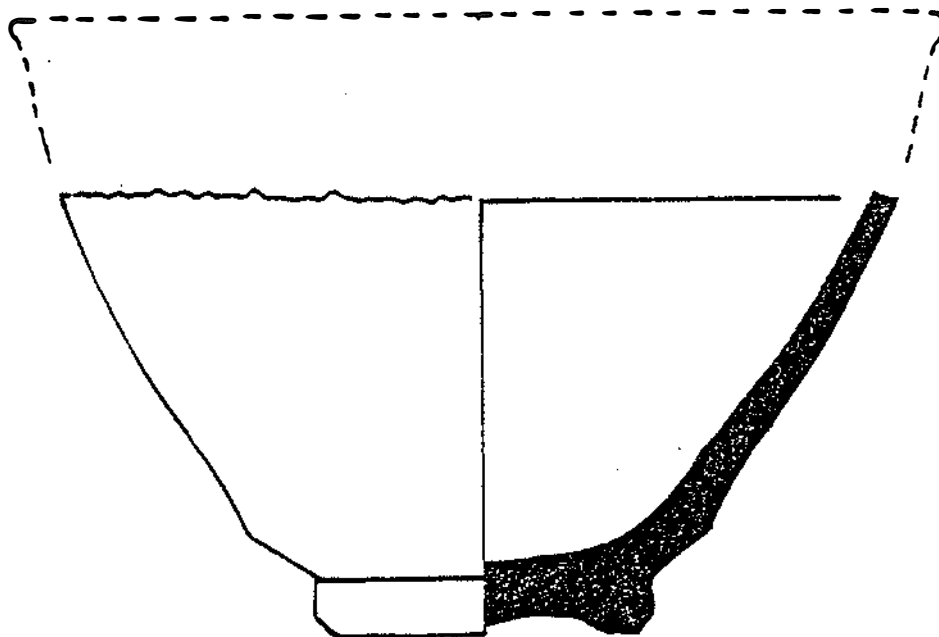


Fig. 111. Location 3: Bowl with temmoku glaze (M 2) (Plates 175, 176).



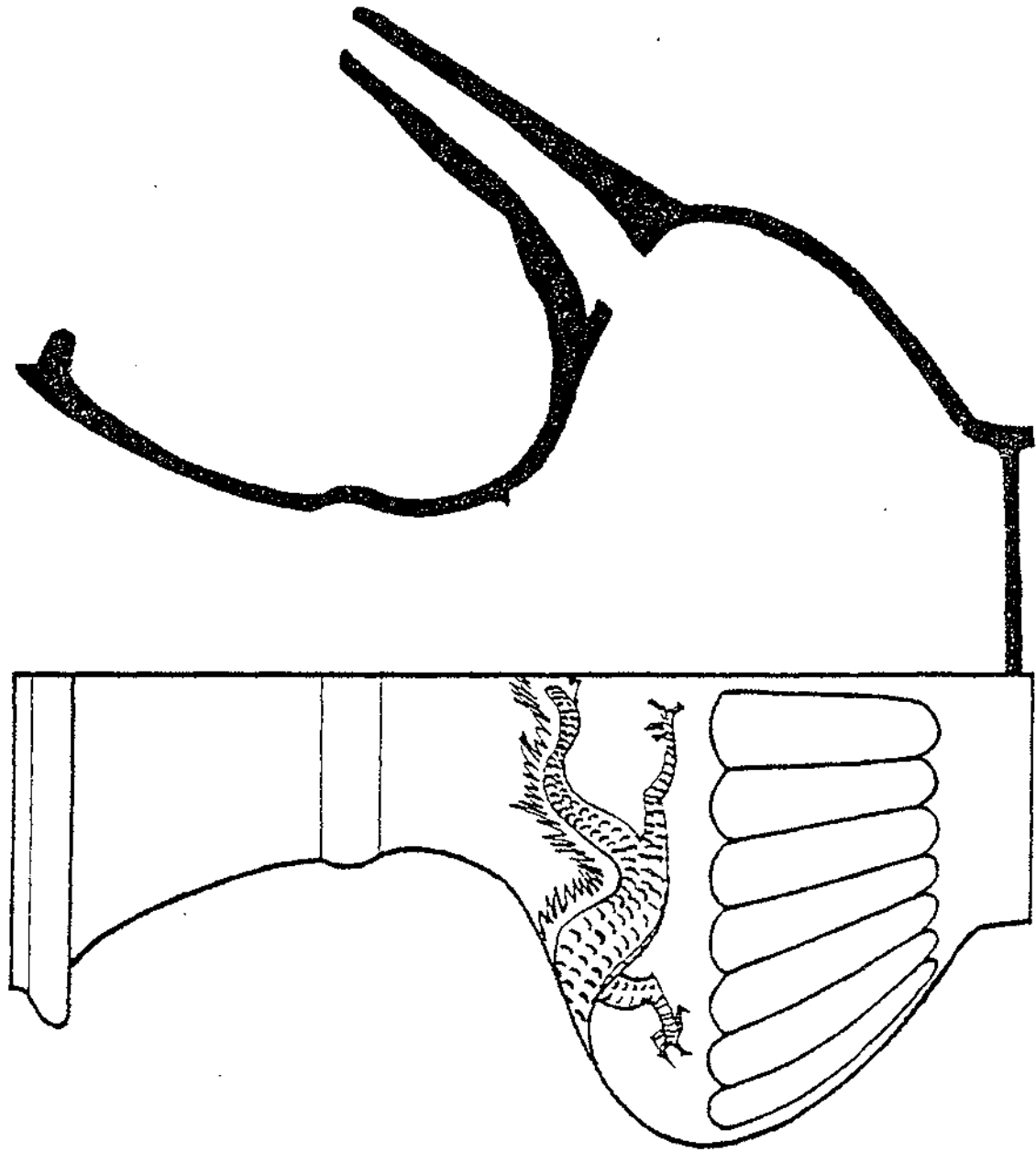


Fig. 112. Location 1: Kendi with green lead glaze (M 3) (Plate 177).

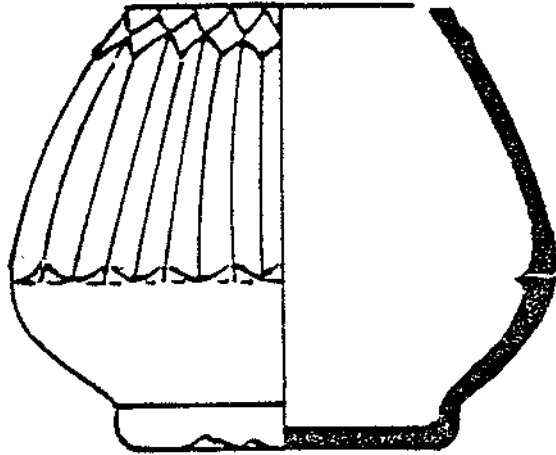


Fig. 113. Location 1: Jar with green lead glaze (M 4) (Plate 178).

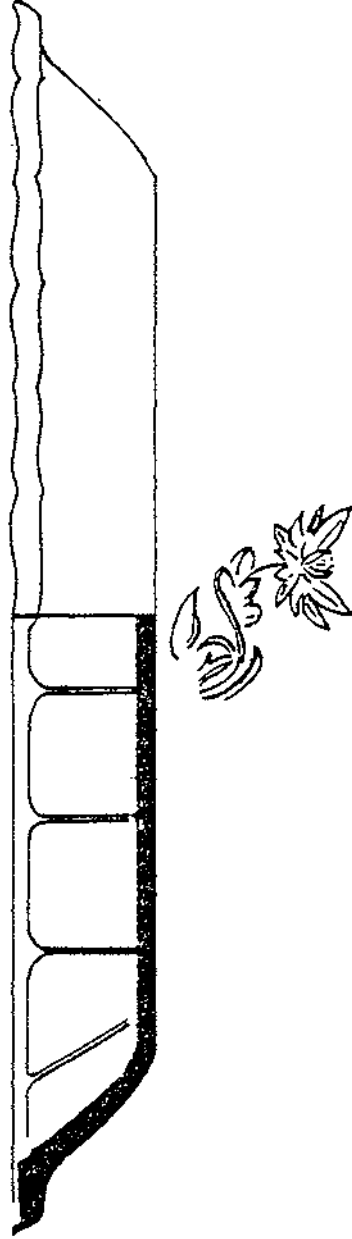


Fig. 114. Location 1: Dish with green lead glaze (M 5) (2/3).

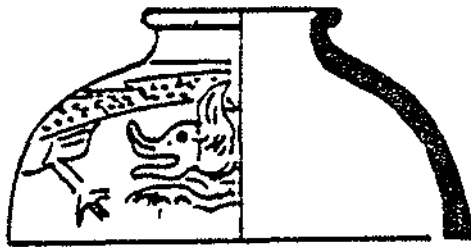


Fig. 115. Location 1: Jar with yellow lead glaze (M 6) (Plate 179).

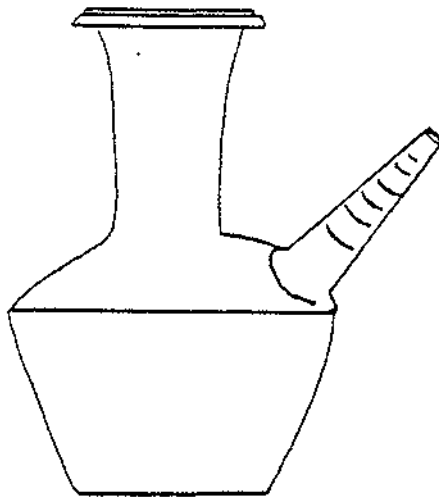


Fig. 116. Location 1: Kendi with amber lead glaze (M 8).

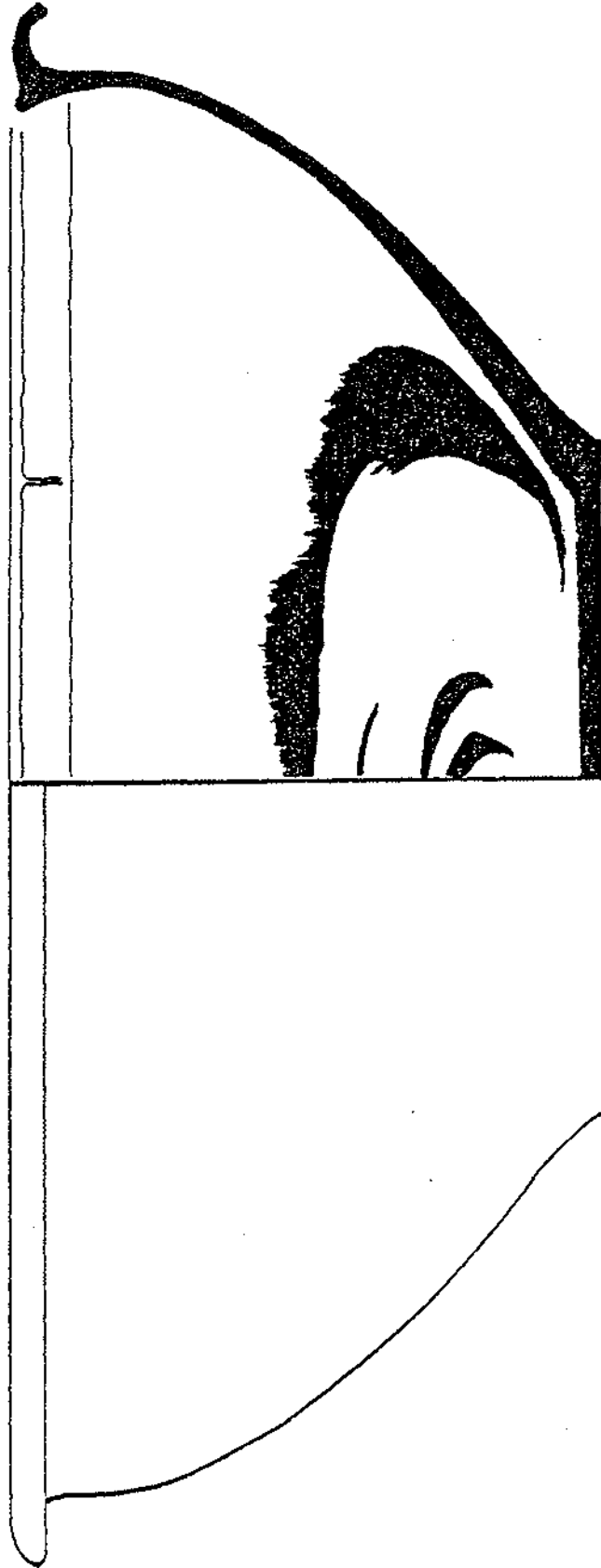


Fig. 117. Location 1: Basin (US II) (Plate 191) (2/3).

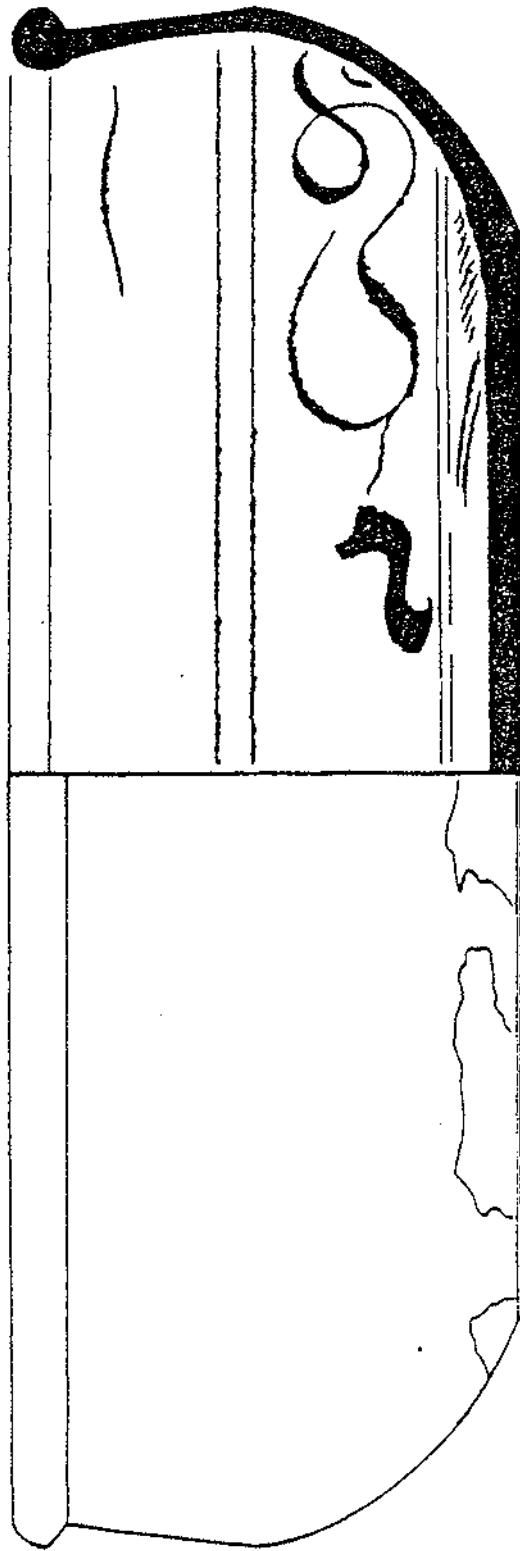


Fig. 118. Location 1: Basin (US III) (Plate 192) (2/3).

Fig. 119. Location 1: Jar, seal (US 2).

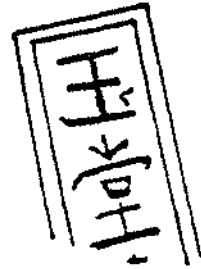
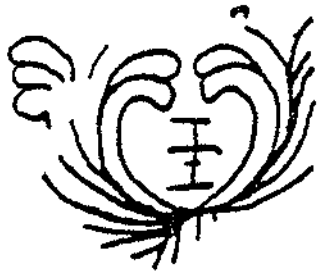


Fig. 120. Location 1: Jar, housemark (US 2) (Plate 194).



Fig. 121. Location 1: Jar, floral design (US 2).

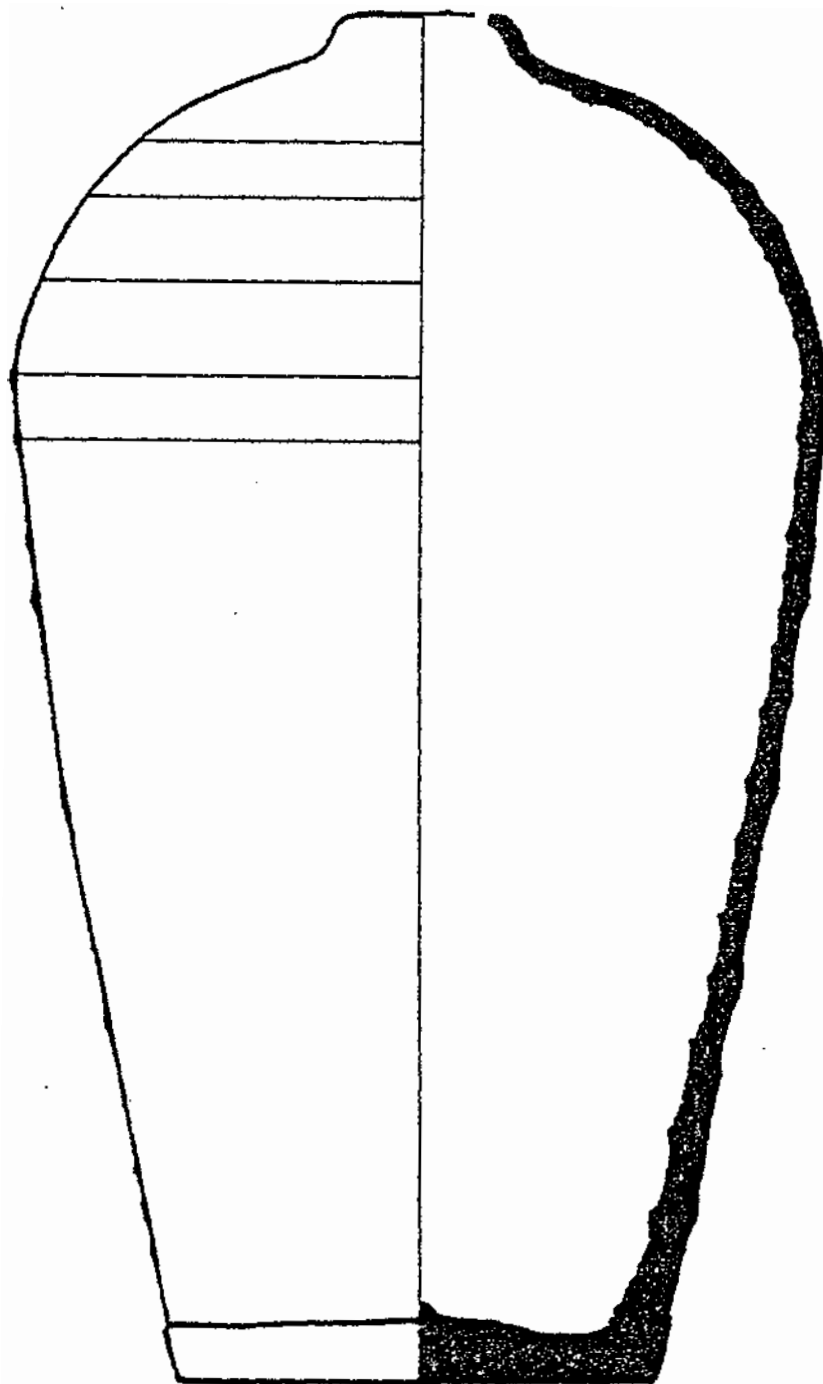


Fig. 122. Location 3: Jar, mercury (US 3) (Plate 195).



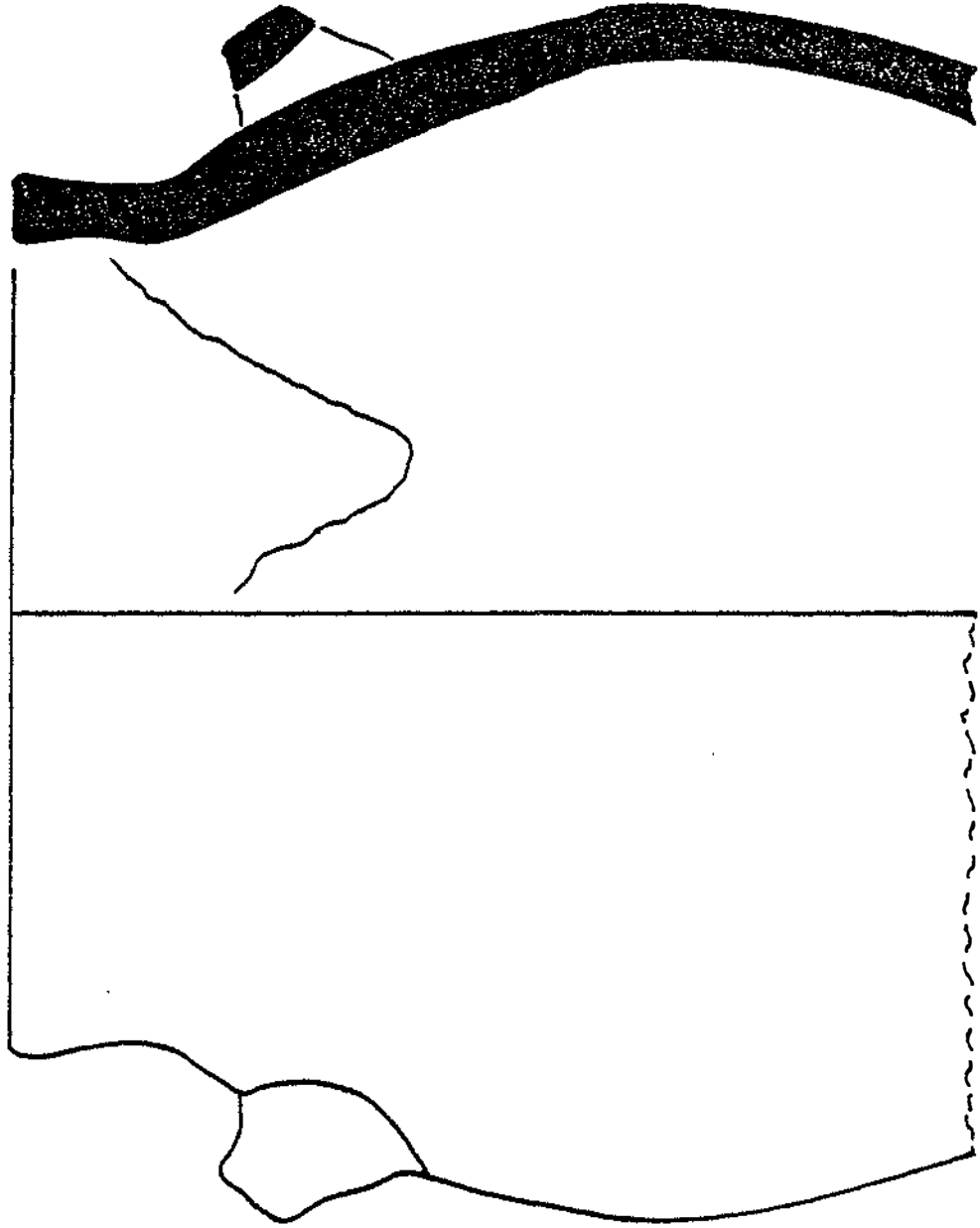


Fig. 123. Location 1: Jar, dusun (US 4) (Plate 196).

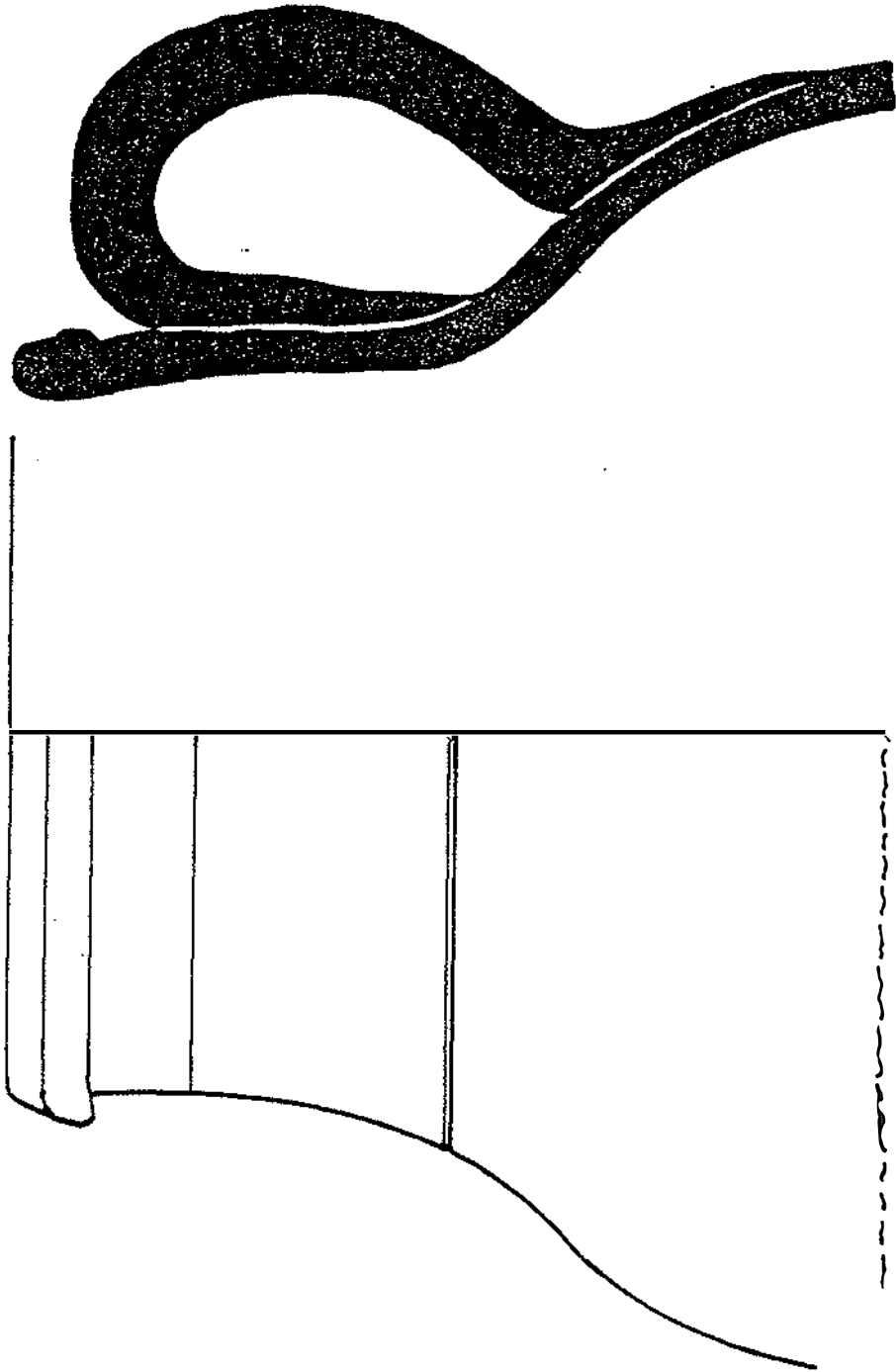


Fig. 124. Location 1: Jug (US 5).

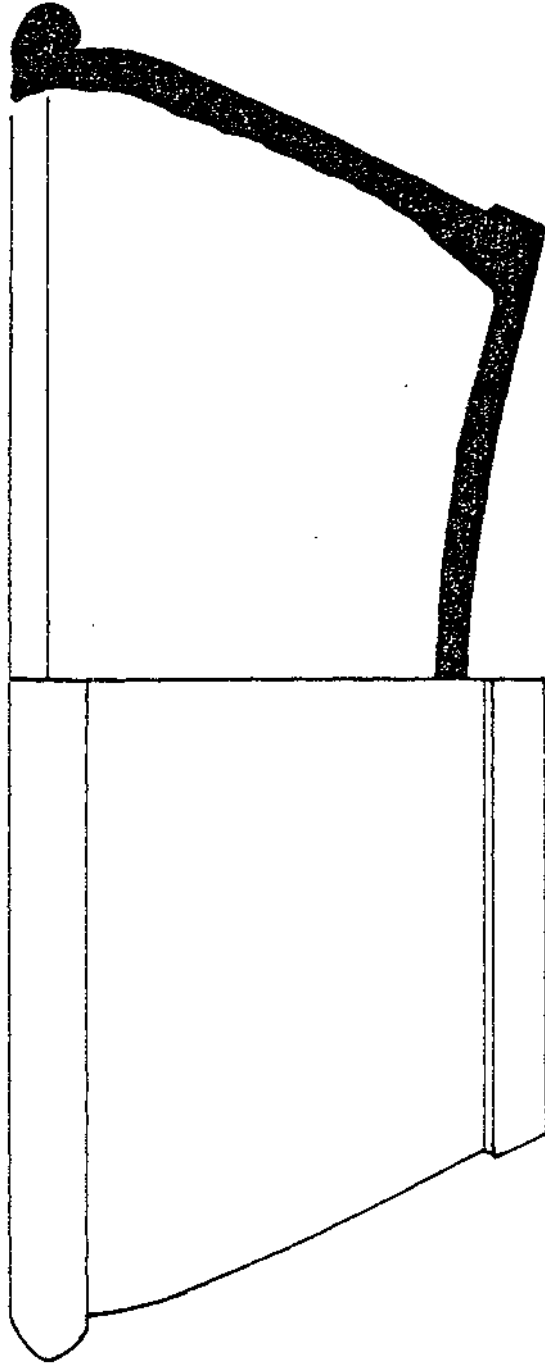


Fig. 125. Location 1; Basin (US 6) (Plate 197) (2/3).

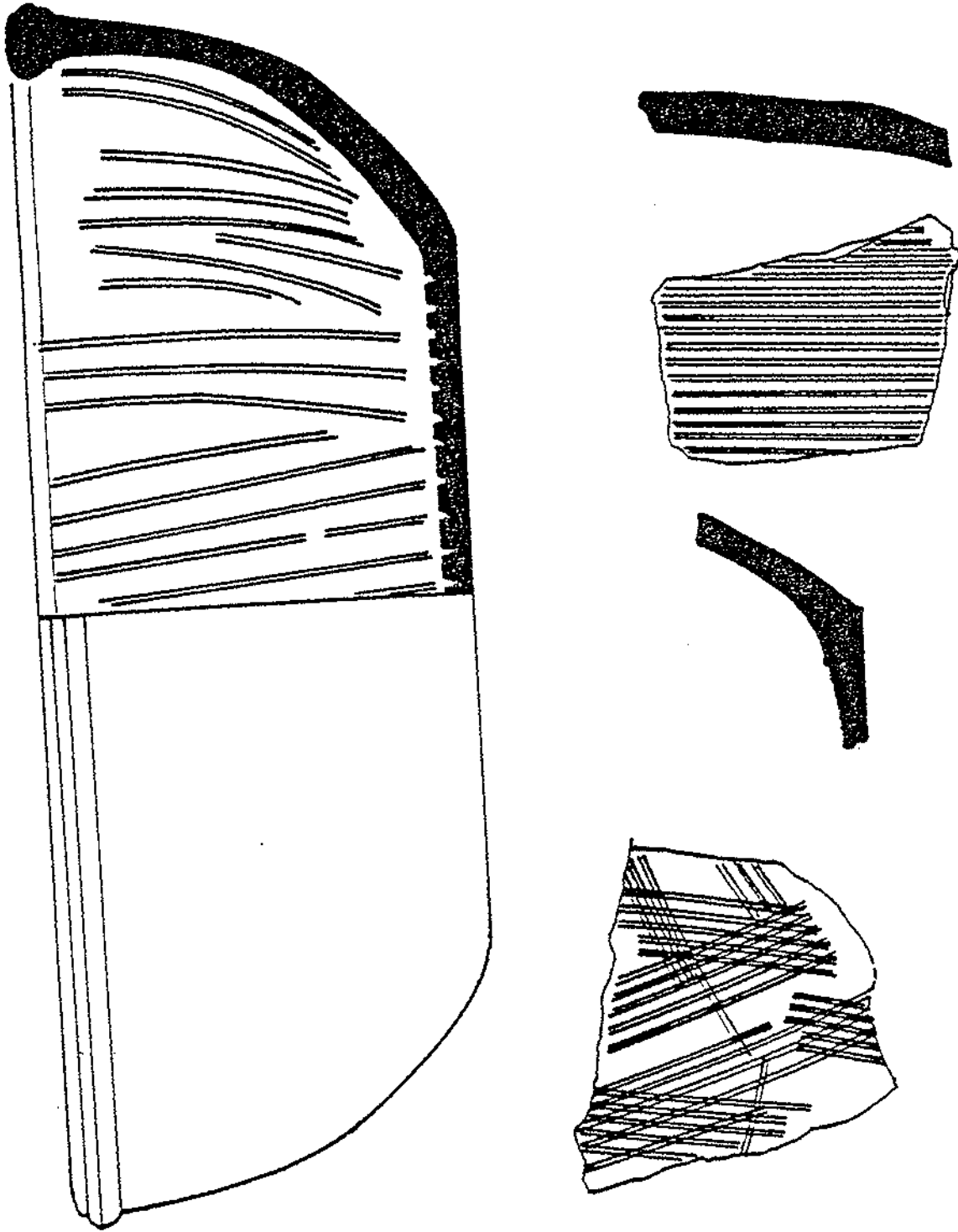


Fig. 126. Location 1: Mortar (US 7).

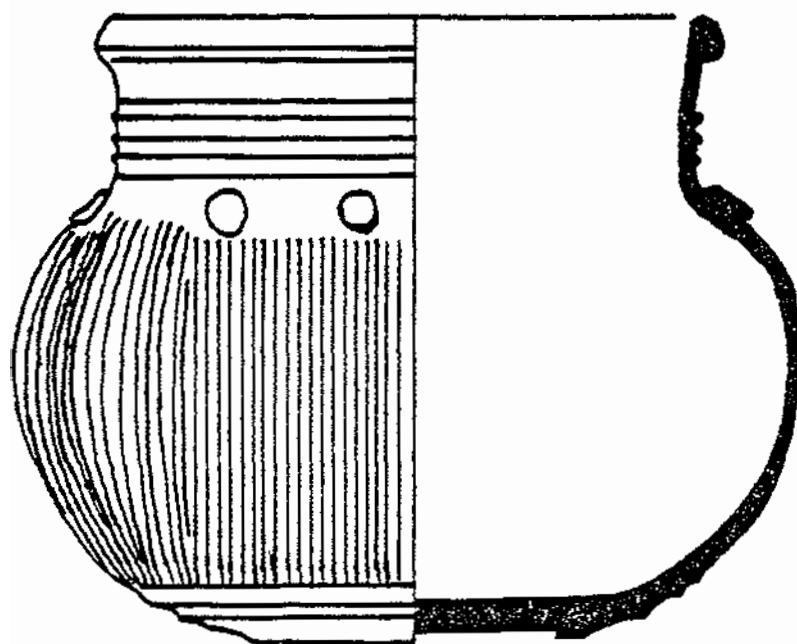


Fig. 127. Location 1: Jar or kettle (US 8) (Plates 198, 199).

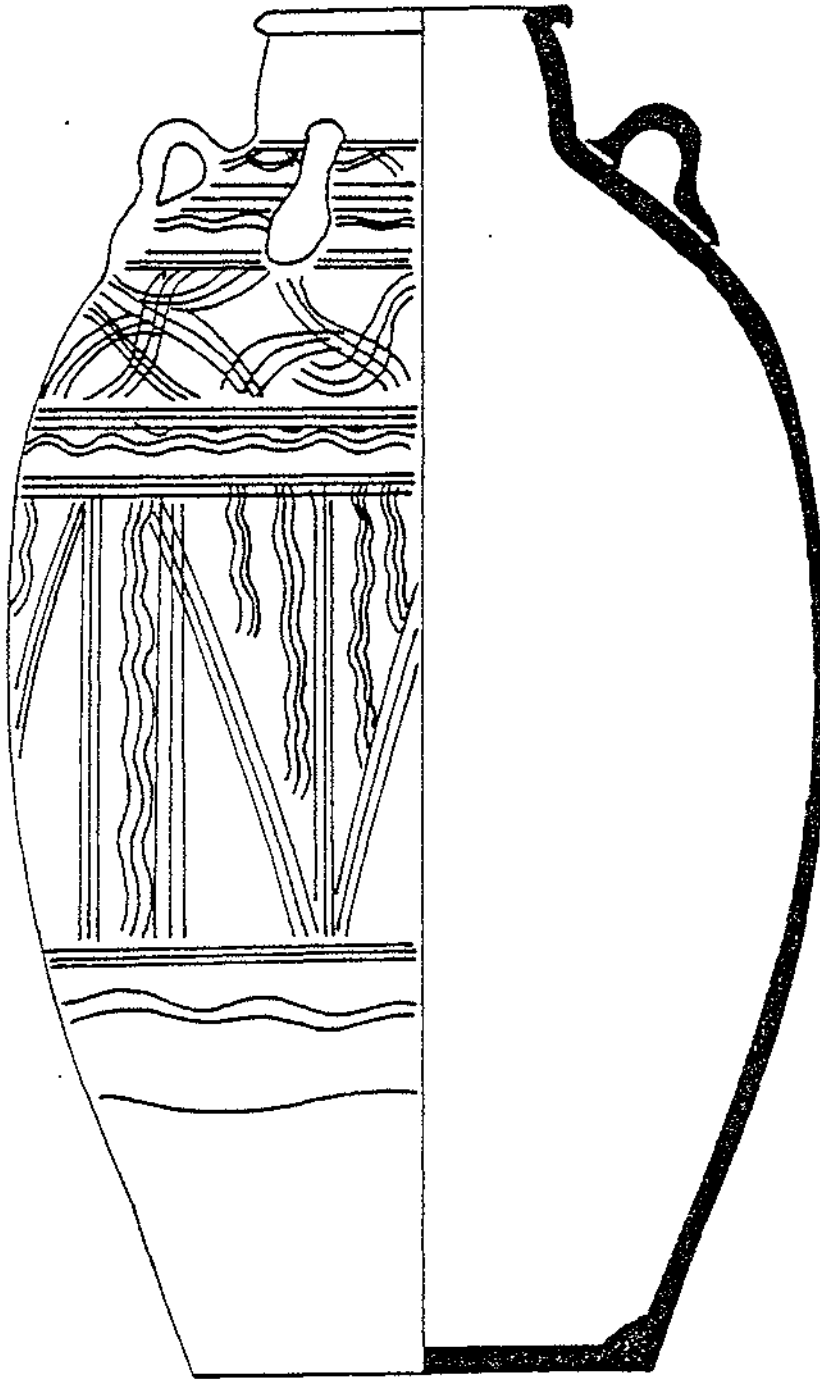


Fig. 128. Location 1: Jar (after Moore) (US 9) (1/4).

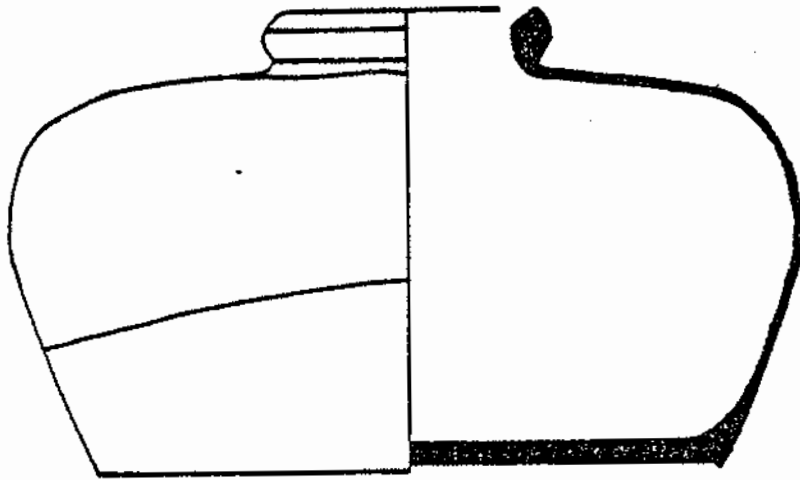


Fig. 129. Location 1: Jar (US 10).

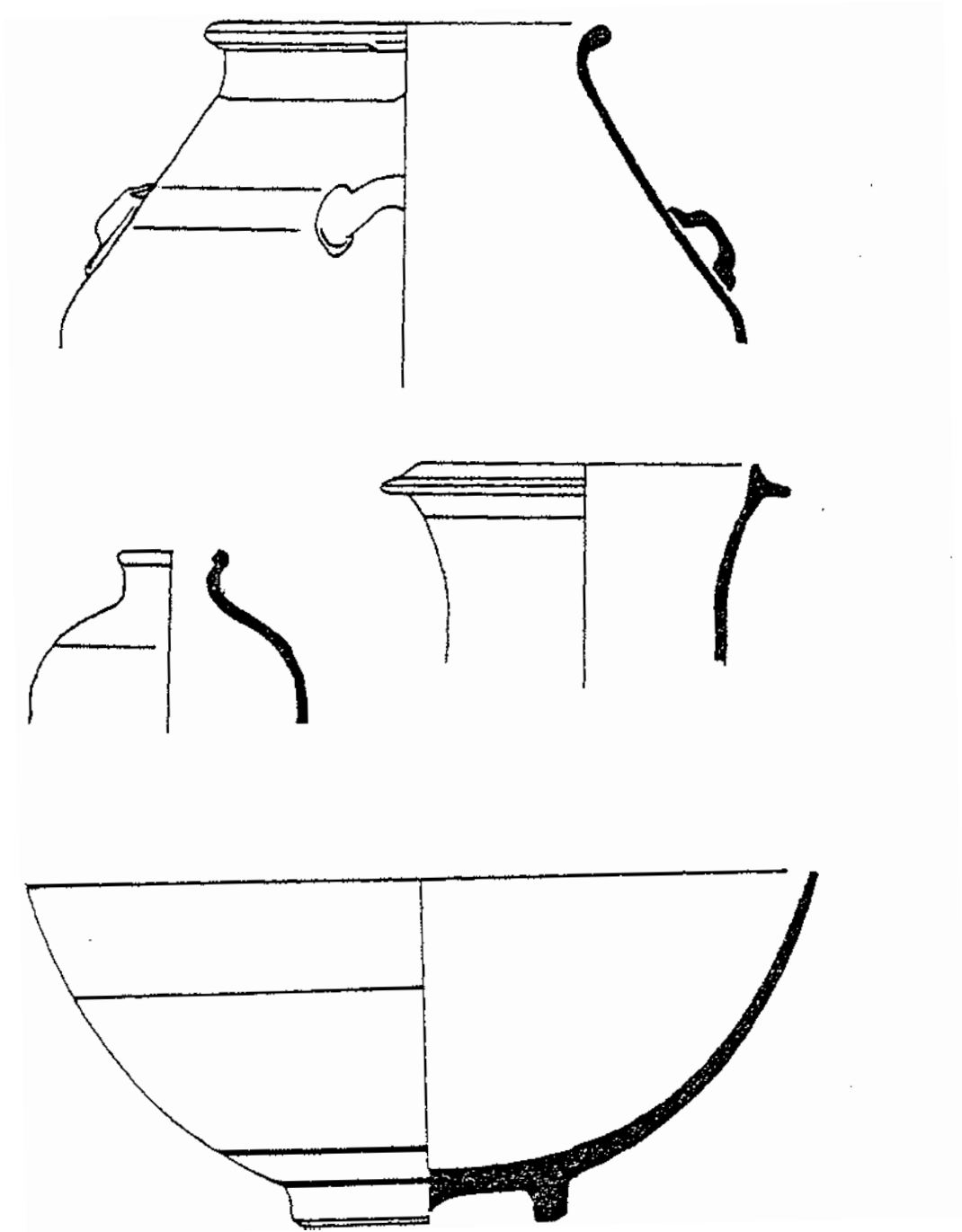


Fig. 130. Location 1: Jars, bowl (US 10) (2/3).



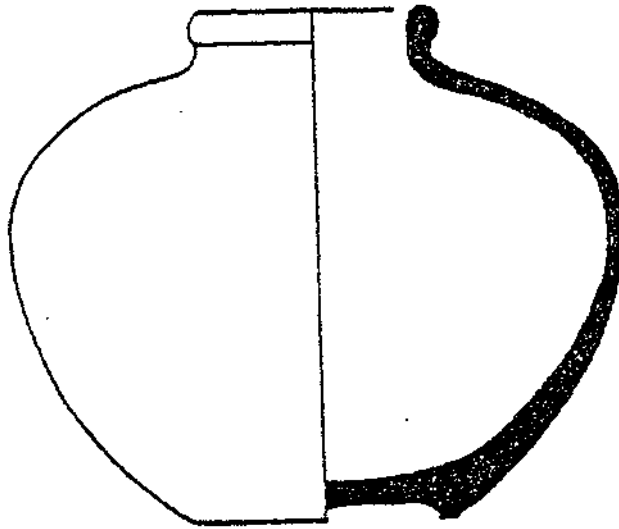


Fig. 131. Location 1: Jar (US 11) (Plate 200).

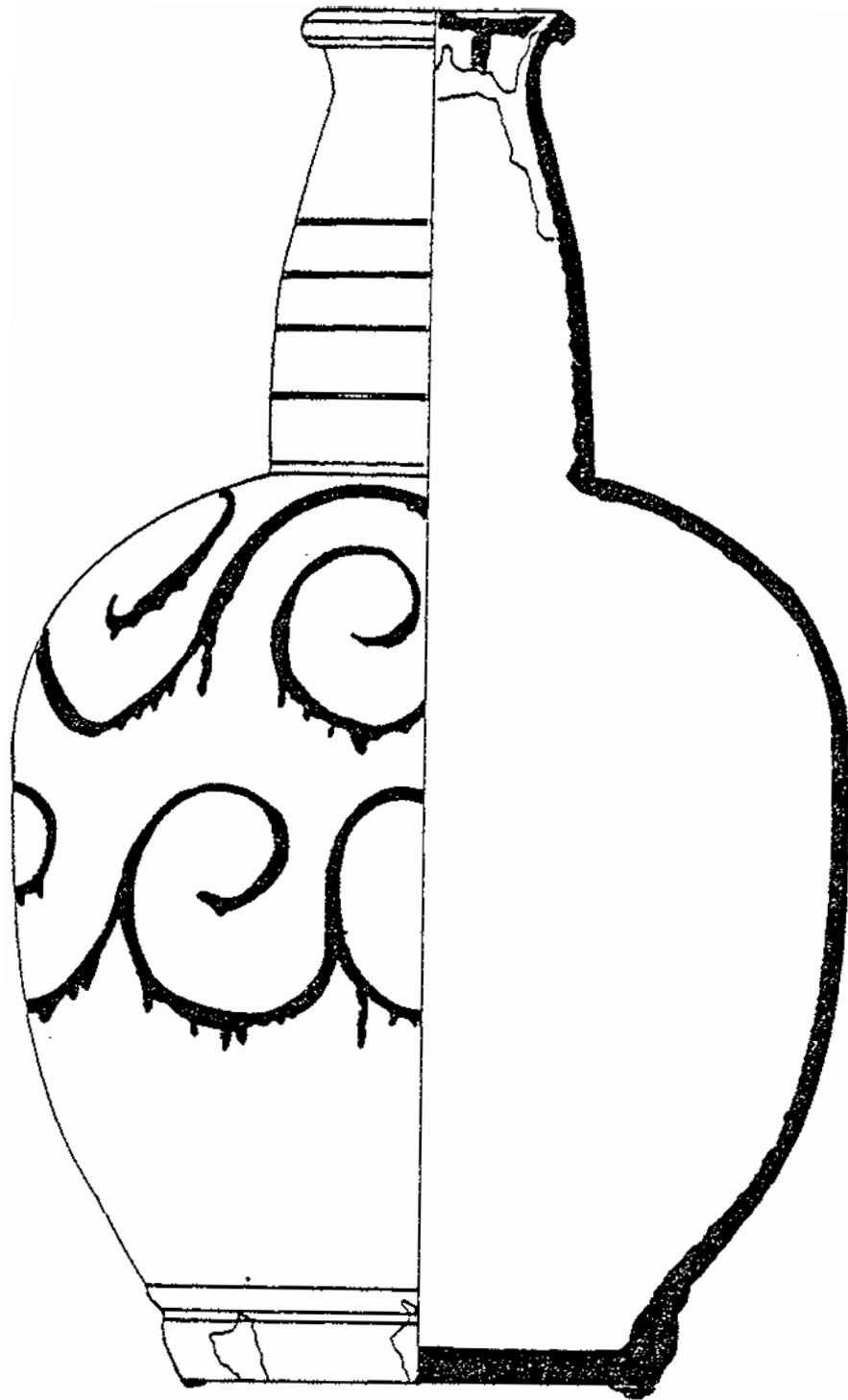


Fig. 132. Location 1: Bottle vase (US 12) (Plate 201) (2/3).

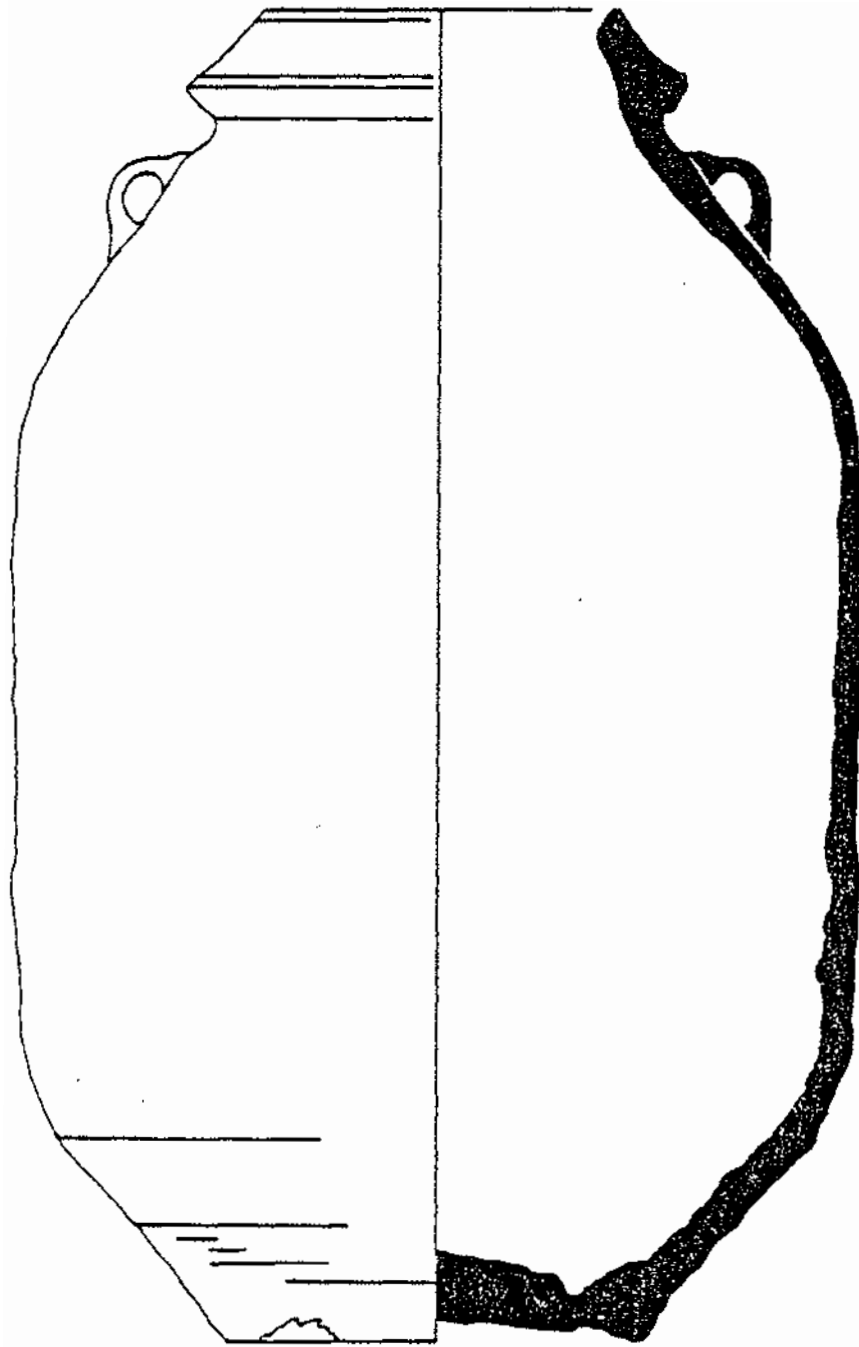


Fig. 133. Location 1: Jar (US 13) (Plate 202) (2/3).

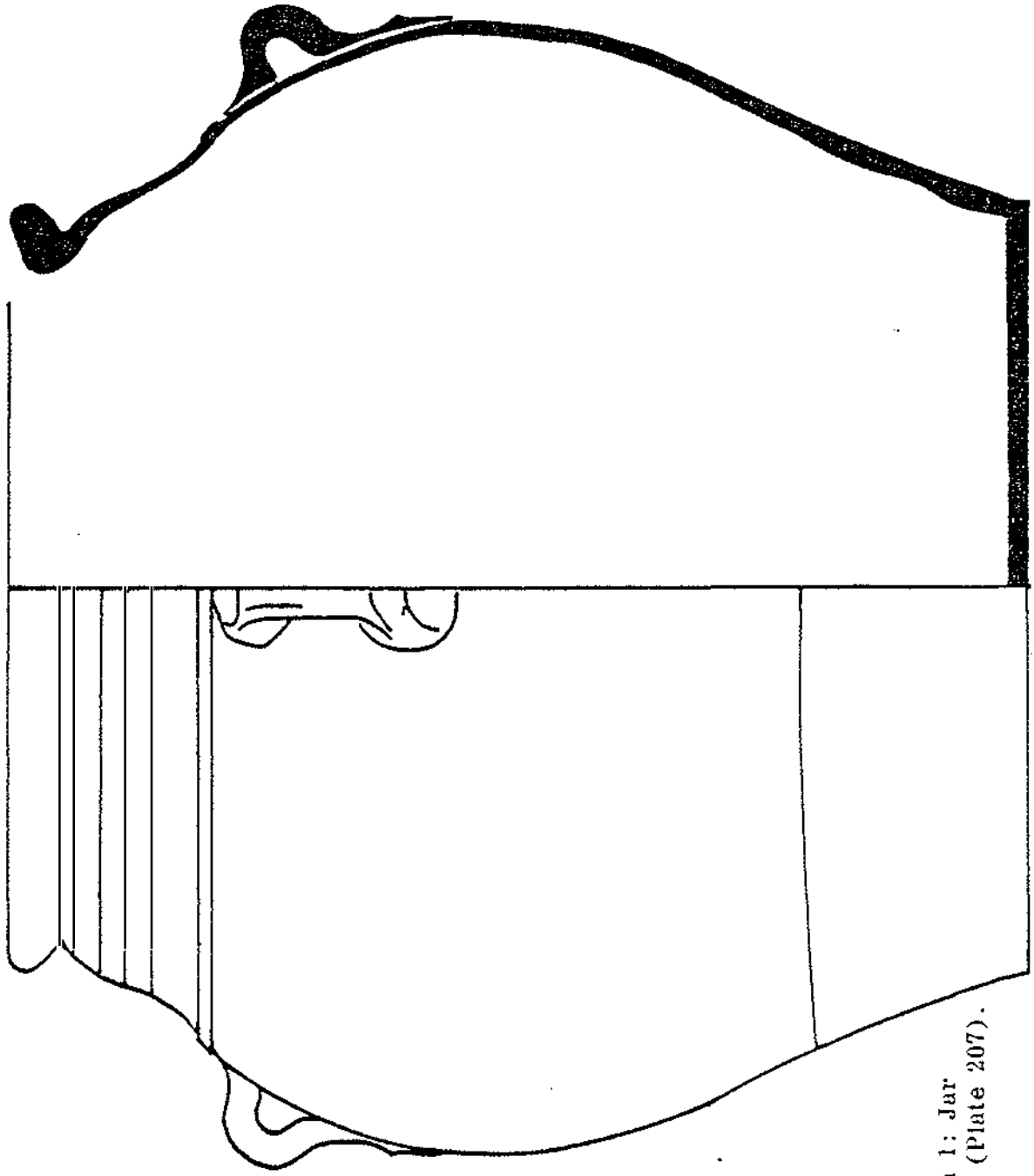


Fig. 134. Location 1: Jar  
(US 18) (Plate 207).

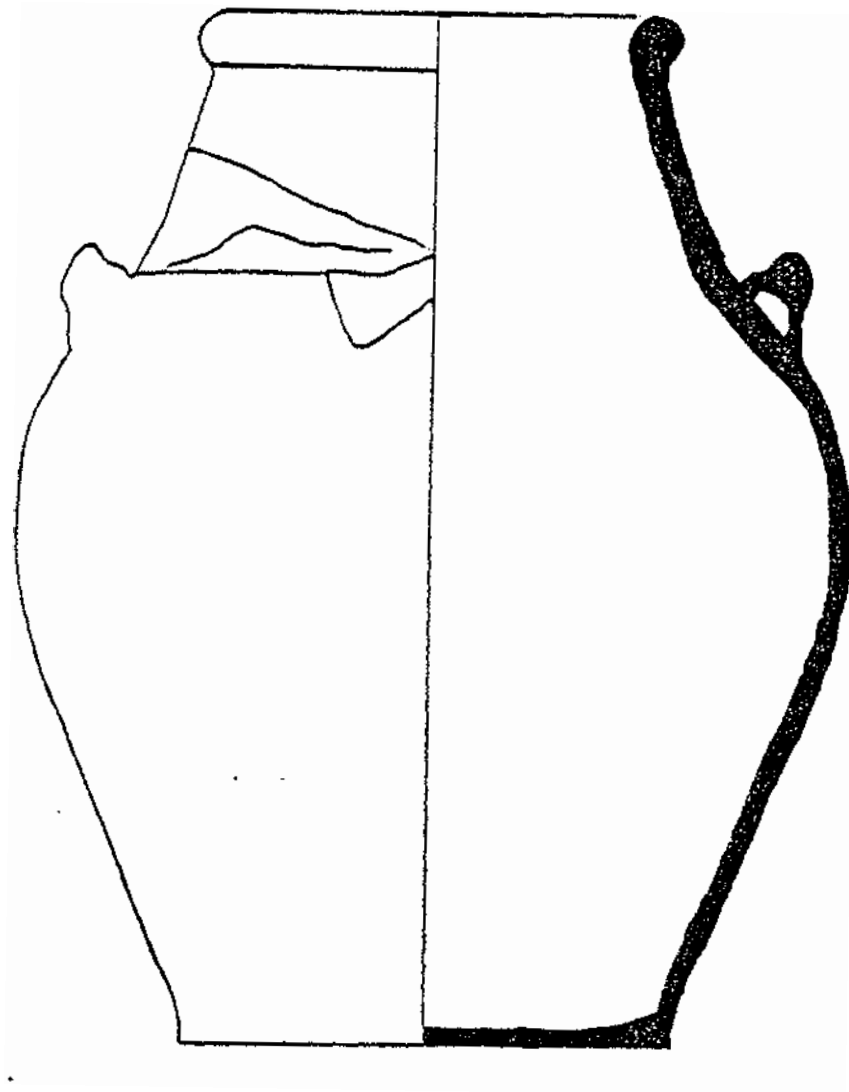
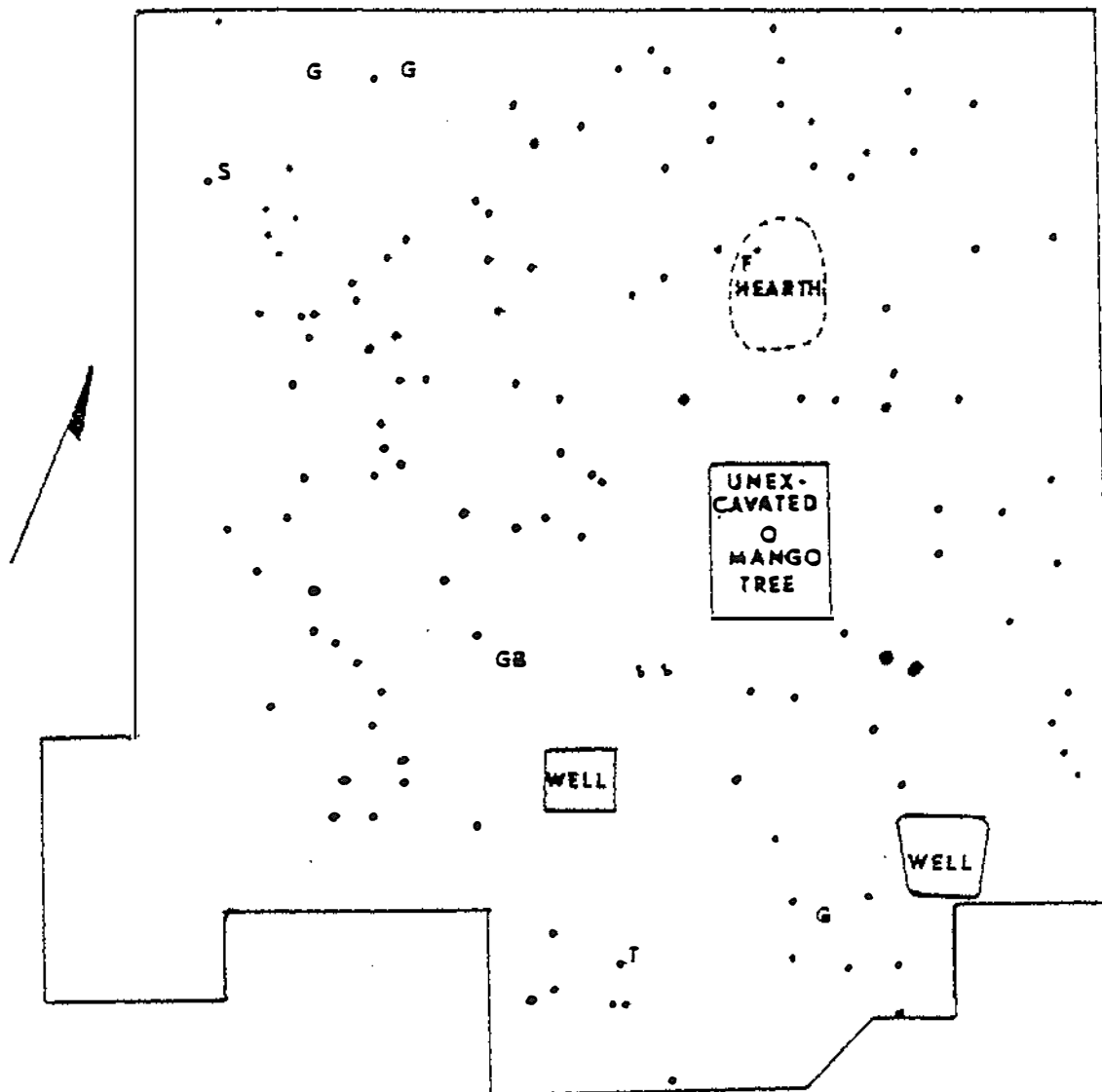
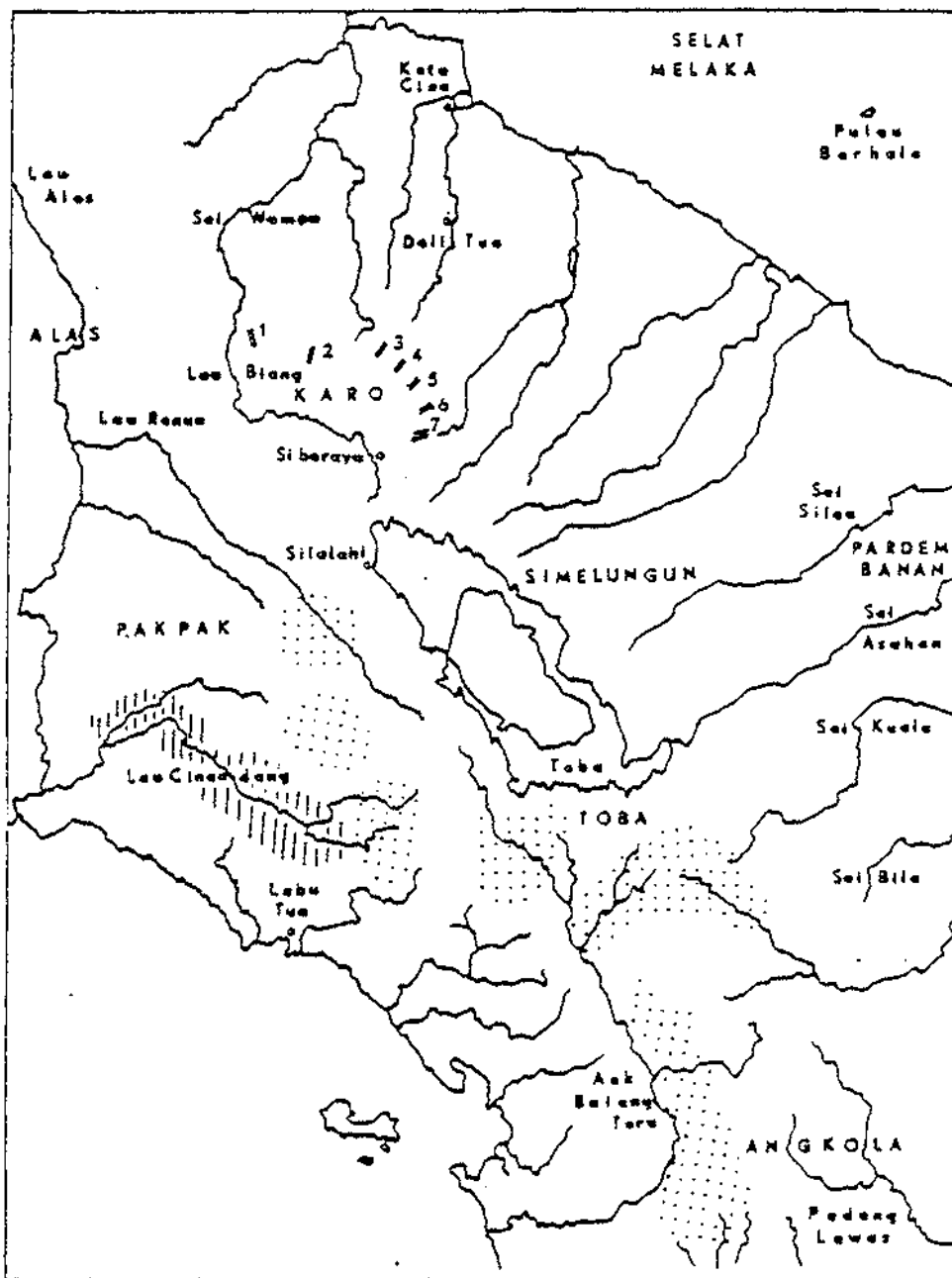


Fig. 135. Location ? : Jar (US 22) (Plate 211) (2/3).



Legend: ● = Post hole  
 G = Glass  
 GB = Glass bracelet  
 T = Tāli (gold)  
 F = Foil (gold)  
 S = Iron slag

Fig. 136. Location 1: Disposition of post-holes in excavated area.



|||| camphor

No. 1 to 7: Passes from Taneh Karo to the Dusun areas.

..... benzoin

Fig. 137. Kota Cina: Hinterland and Resources.

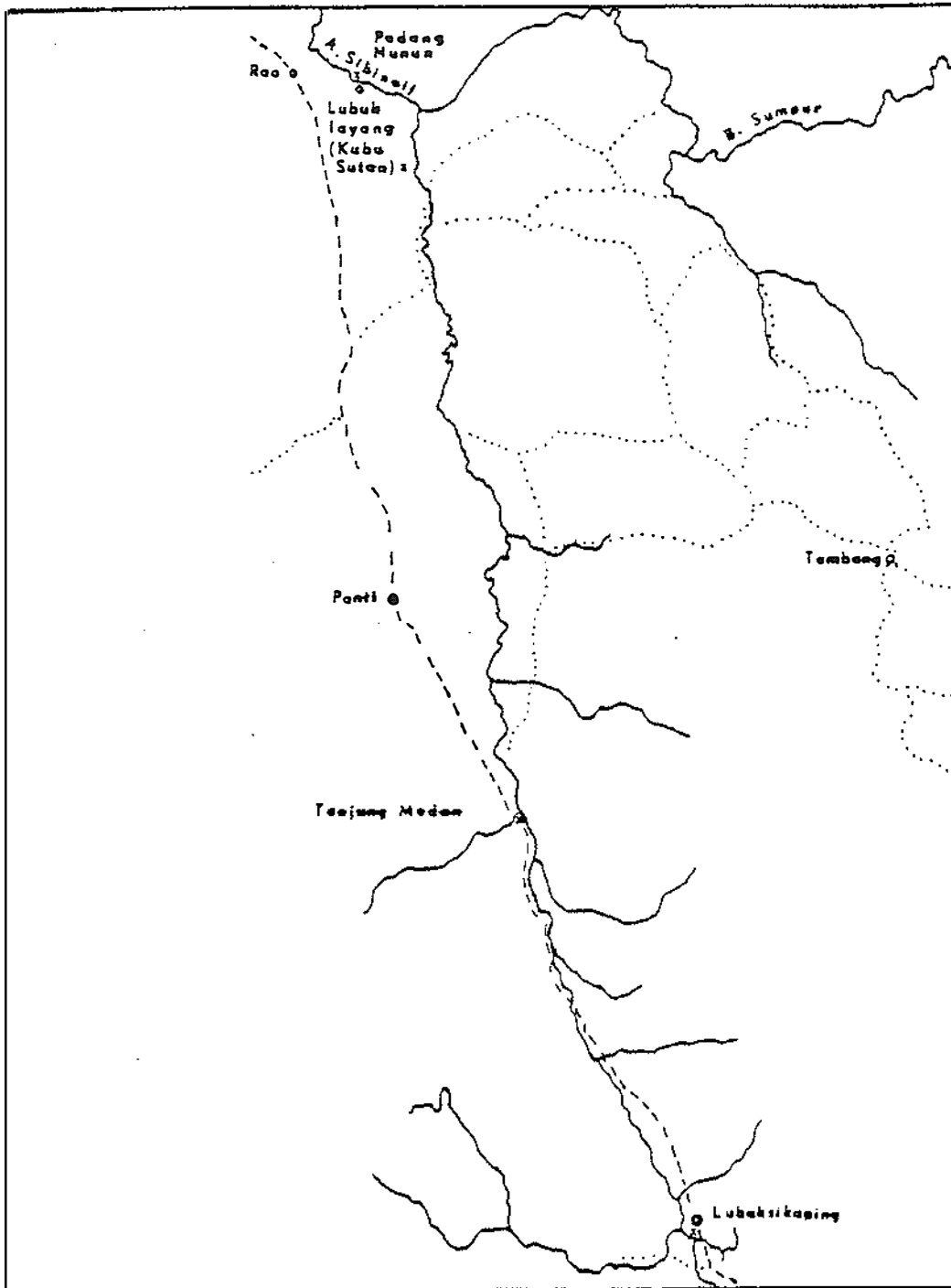
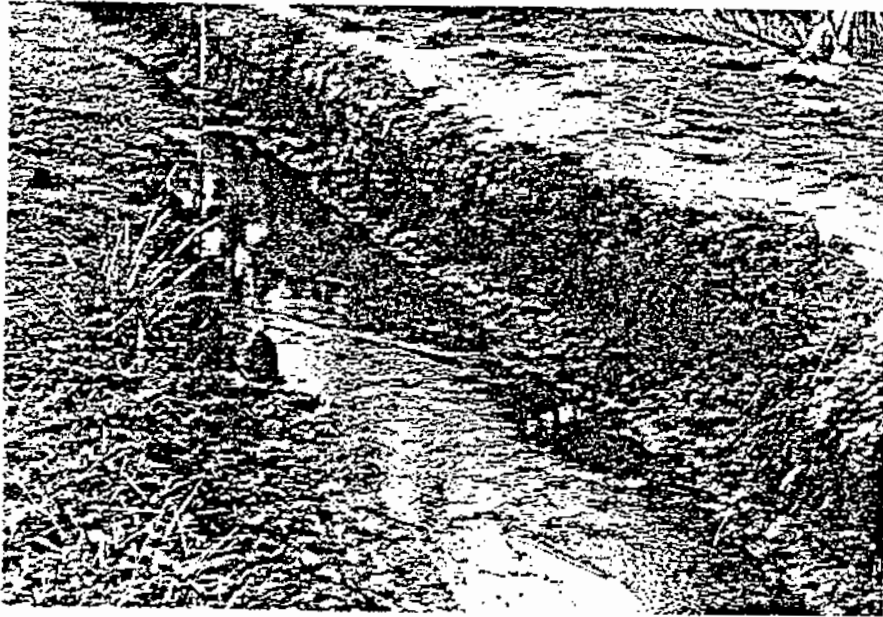


Fig. 138. Overland Route: Rao to Lubuksikaping.





Pl. 1. Location 1: the ditch at Paluh Tangkalan Lajang.



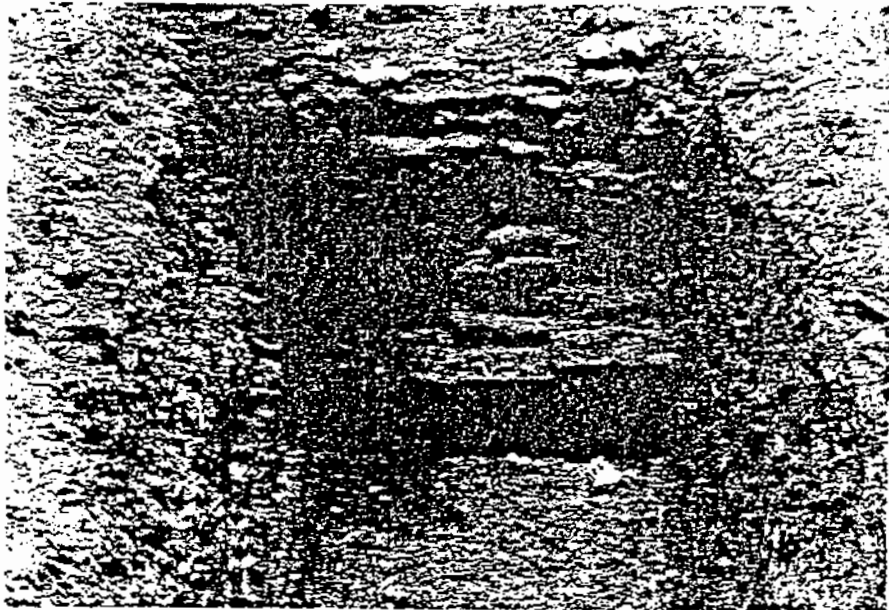
Pl. 2. Location 1: wooden posts imbedded in the mud.



Pl. 3. Location 3: west wall of the Sanctuary.



Pl. 4. Location 3: "pivot" stones.



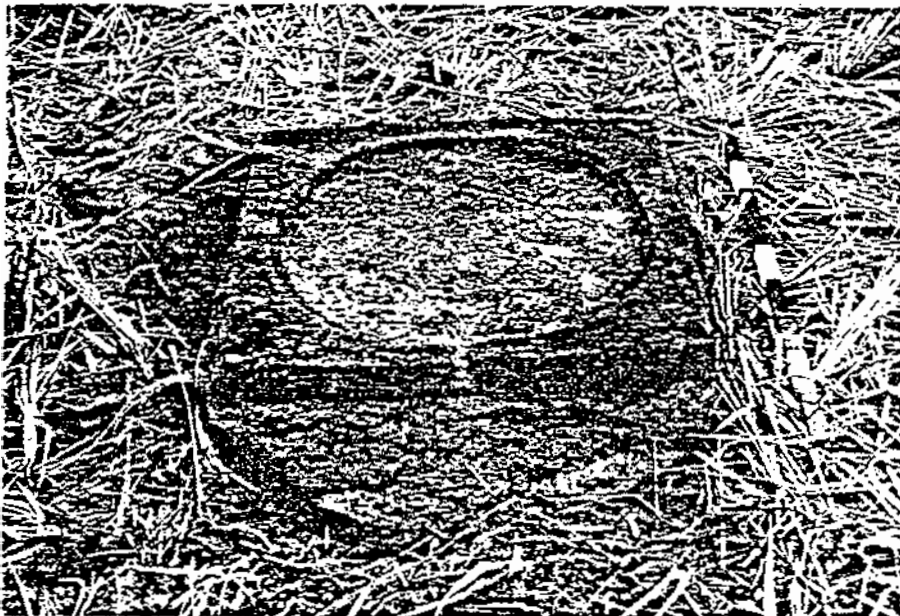
Pl. 5. Location 3: south wall of the Sanctuary.



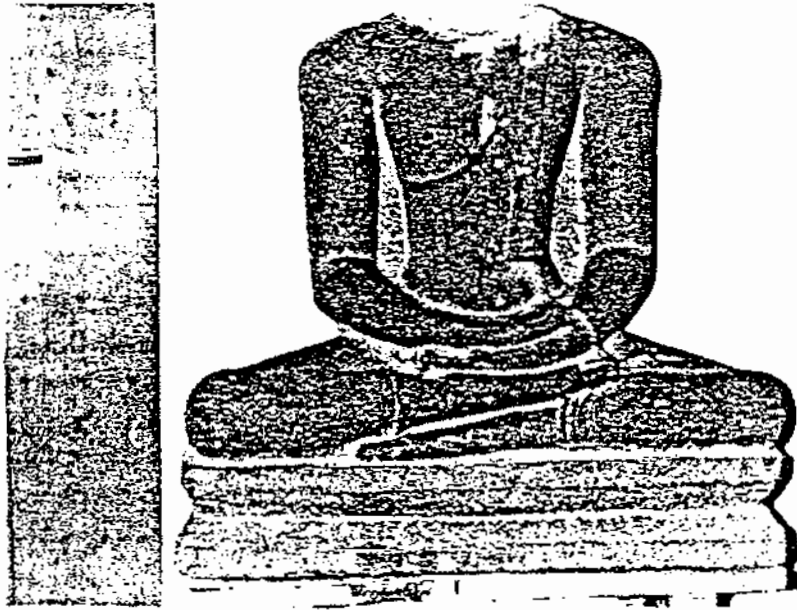
Pl. 6. Location 4: Yoni.



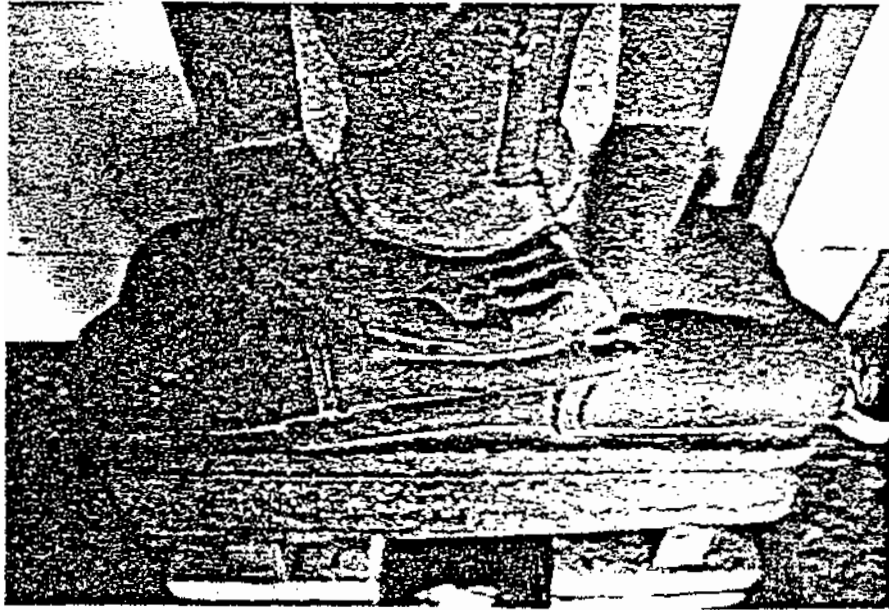
Pl. 7. Location 4: roughly hewn block.



Pl. 8. Location 4: image base.



Pl. 9. Location 8: Buddha image.

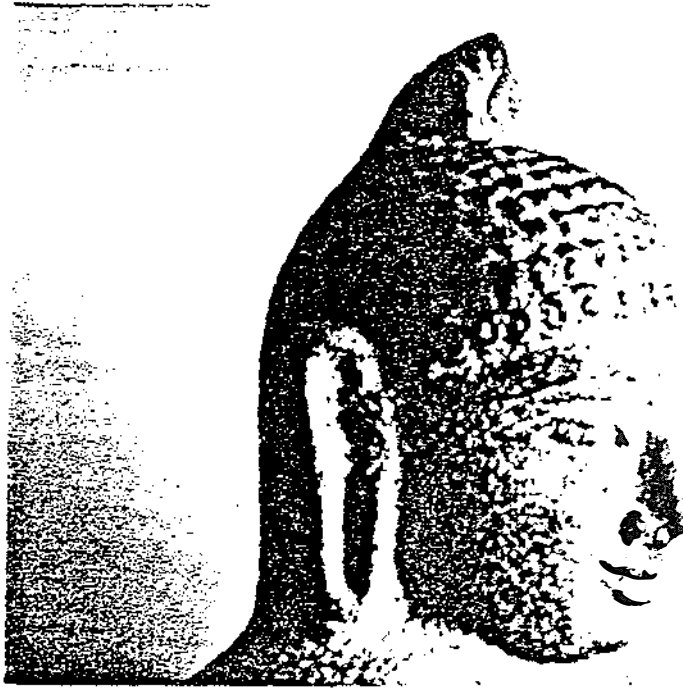


Pl. 10. Location 3: Buddha image: detail.



Pl. 11. Location 8: Buddha image.

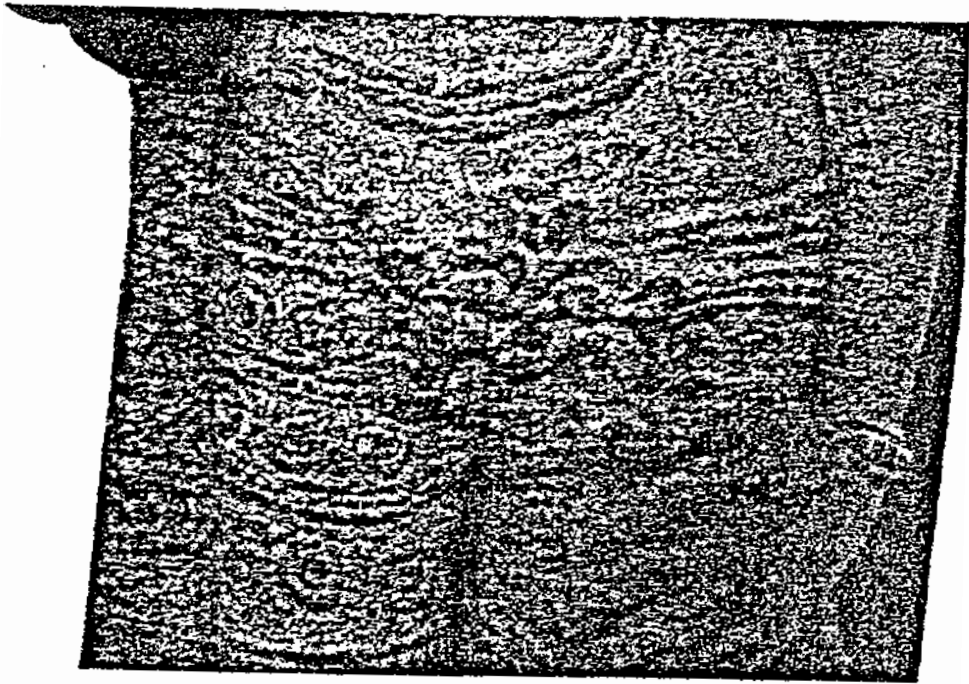




Pl. 12. Location 8: Buddha image: detail.



Pl. 13. Location 8: Viṣṇu image.



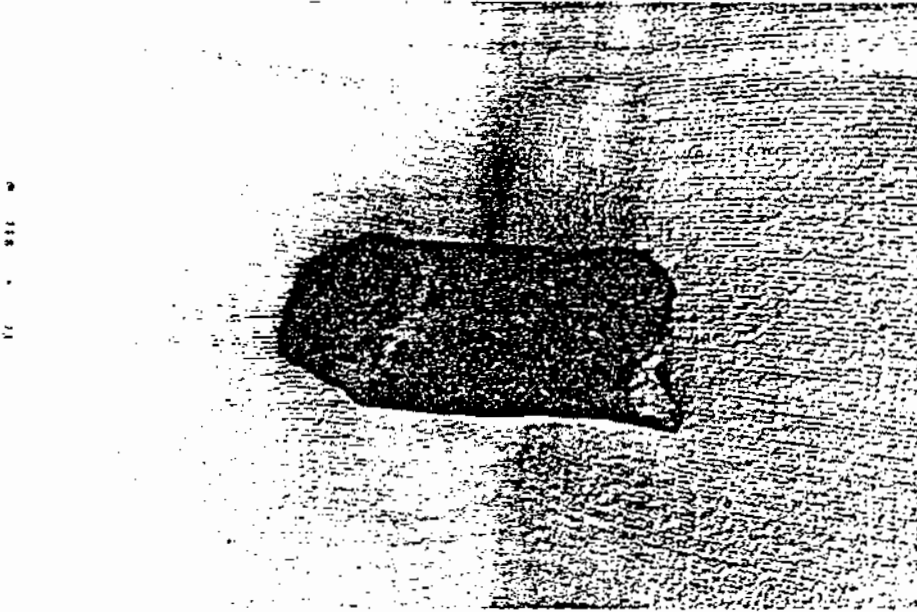
Pl. 14. Location 8: Viṣṇu image: detail; sinhamukha.



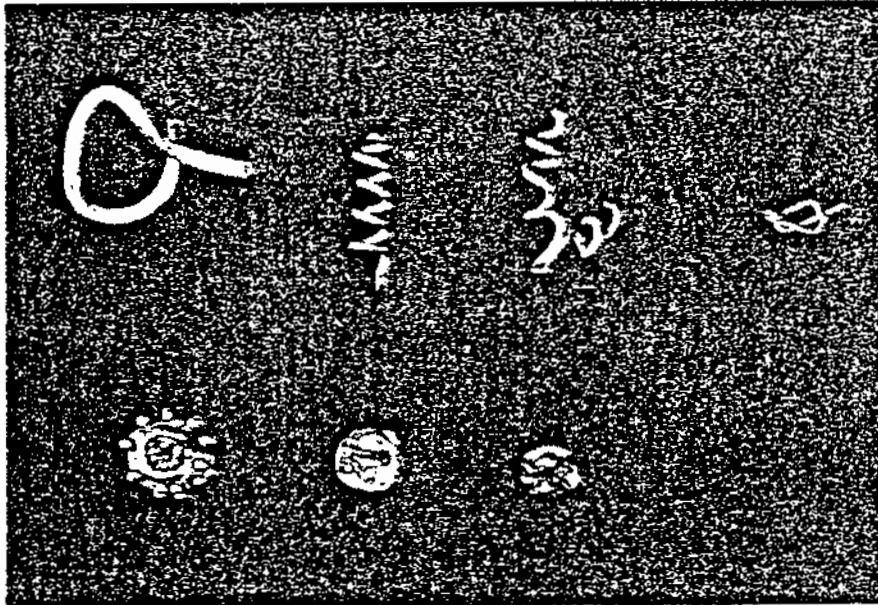
Pl. 15. Location 8: Bhudevi: second consort of Viṣṇu.



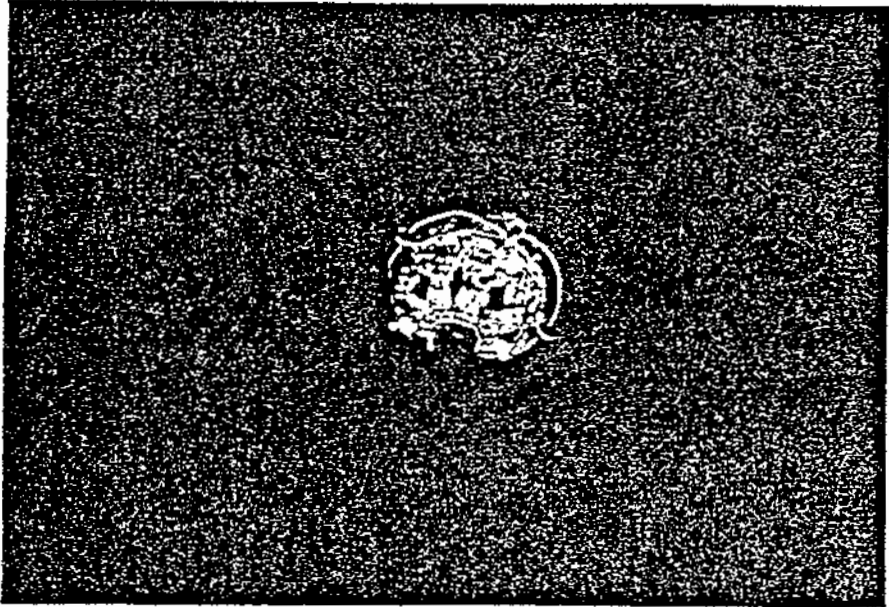
Pl. 16. Location 3: Śiva linga.



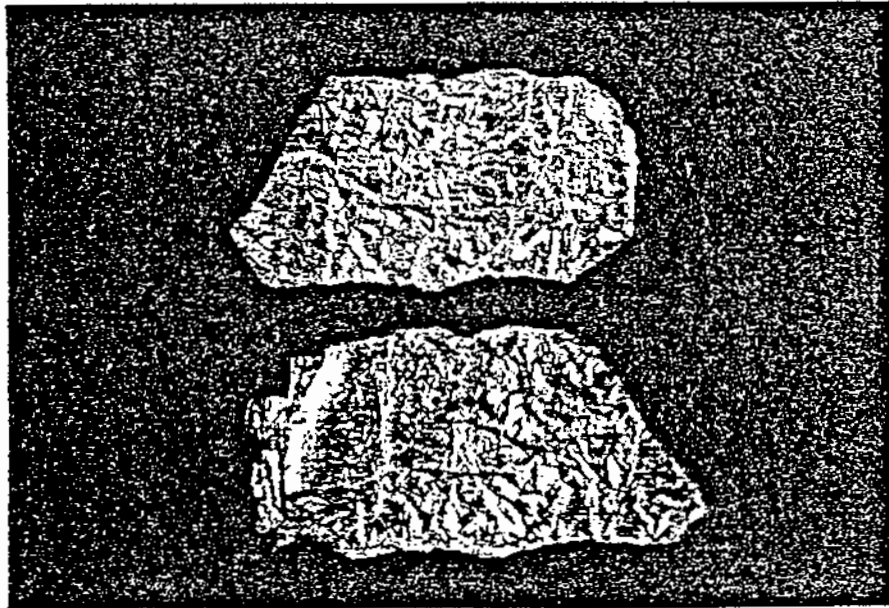
Pl. 17. Location 3: Tuière from west of Sanctuary.



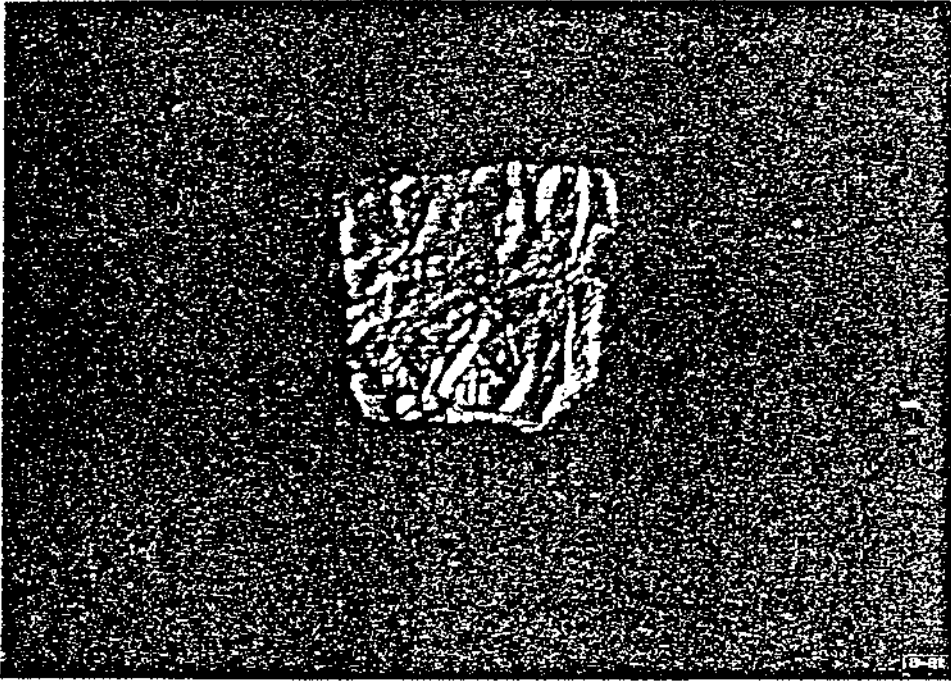
Pl. 18. Location 3: Gold wire and beads.



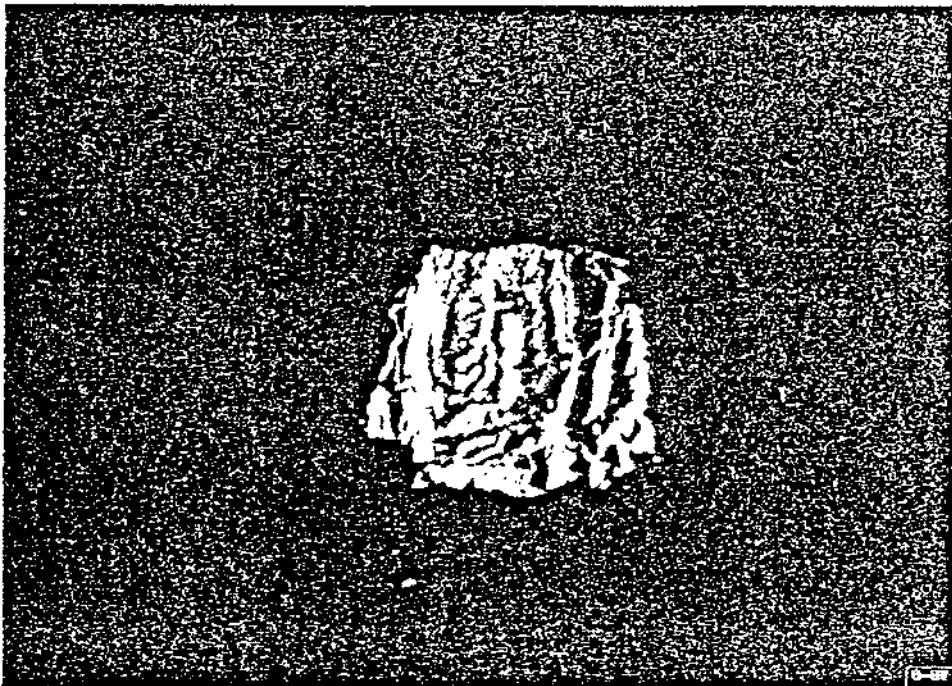
Pl. 19. Location 3: Filigree bead or pendant.



Pl. 20. Location 3: Gold foil.

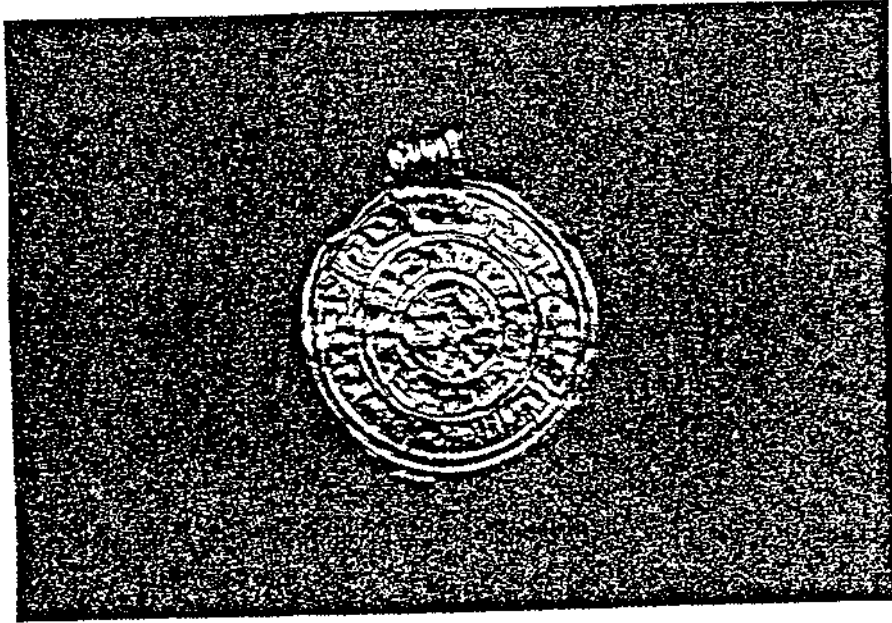


Pl. 21. Location 3: Gold foil with characters fen jin.

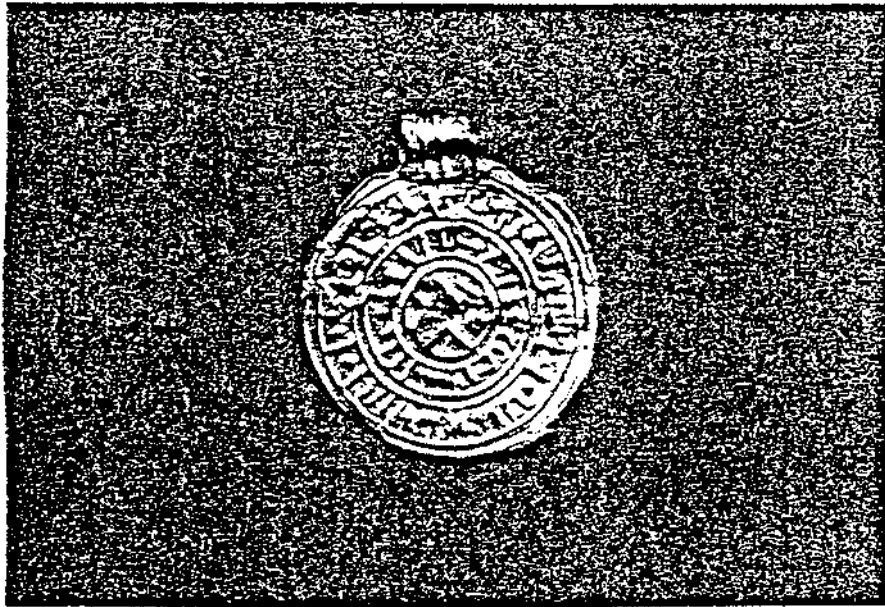


Pl. 22. Location 3: Gold foil with characters shi fen.

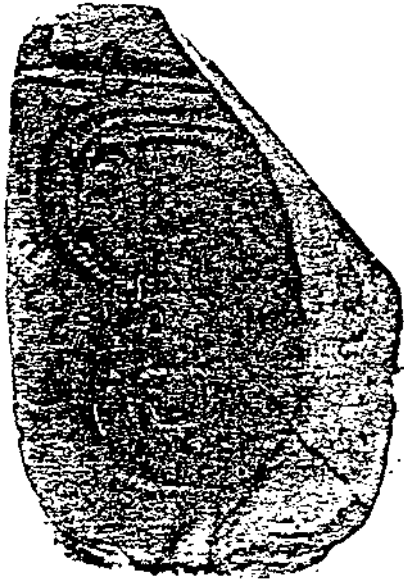




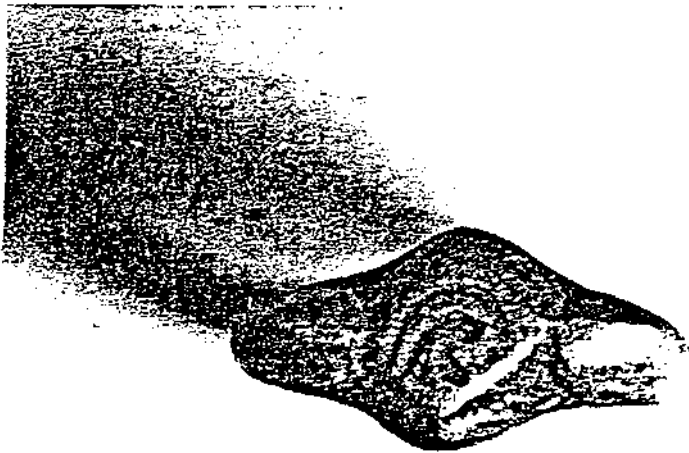
Pl. 23. Location 1: Gold tāli (obverse).



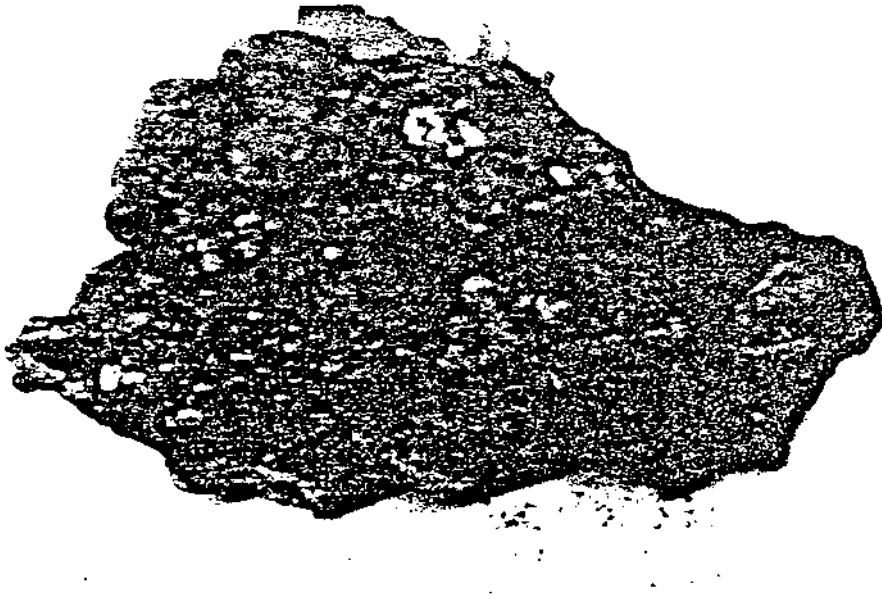
Pl. 24. Location 1: Gold tāli (reverse).



Pl. 25. Location 3: Stone mold for caping (pubic cover).



Pl. 26. Location 3: Square-shouldered ring of suasa.

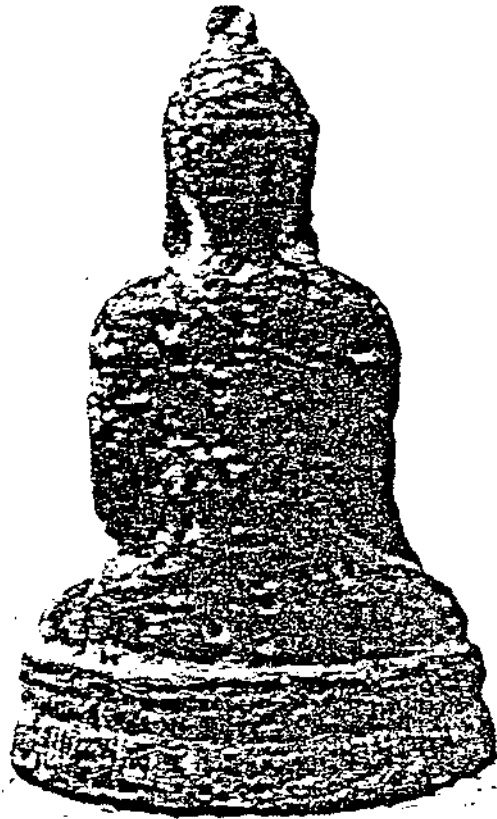


Pl. 27. Location 3: Bronze spillage.

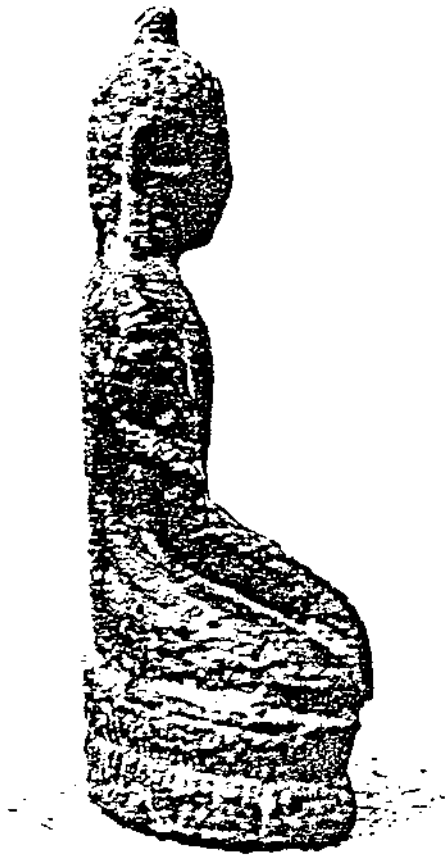


Pl. 28. Provenance unknown: Bronze Buddha.

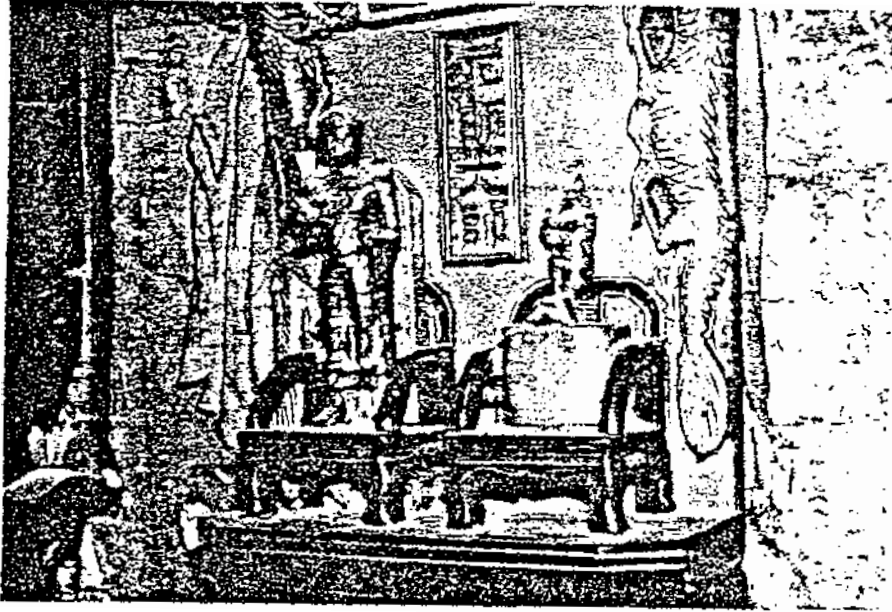
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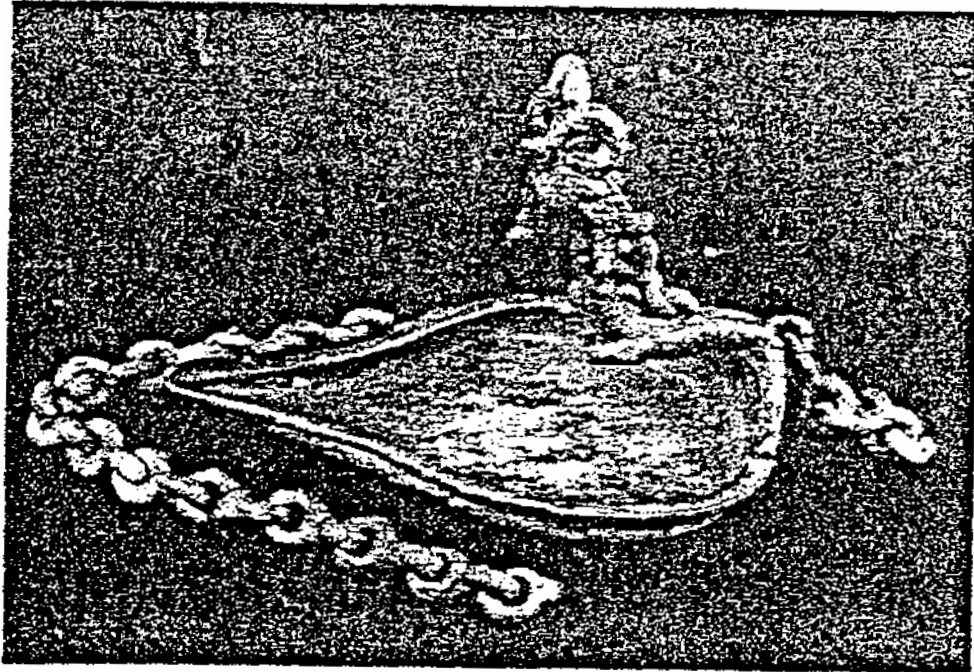
Pl. 29. Provenance unknown: Bronze Buddha (rear).



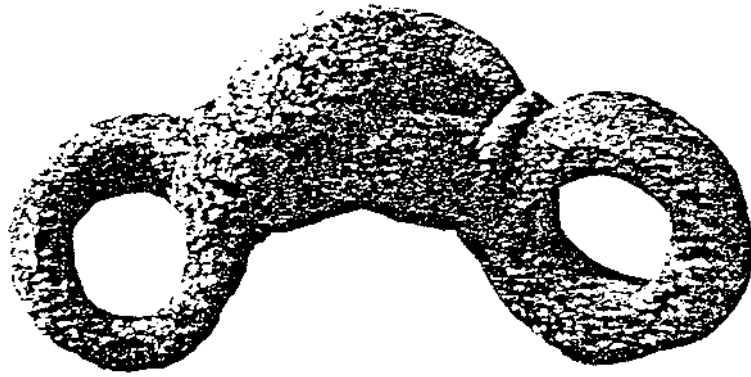
Pl. 30. Provenance unknown: Bronze Buddha (side).



Pl. 31. Location 4: Bronze Buddha and female image.



Pl. 32. Location 1: Bronze lamp with double-link chain.

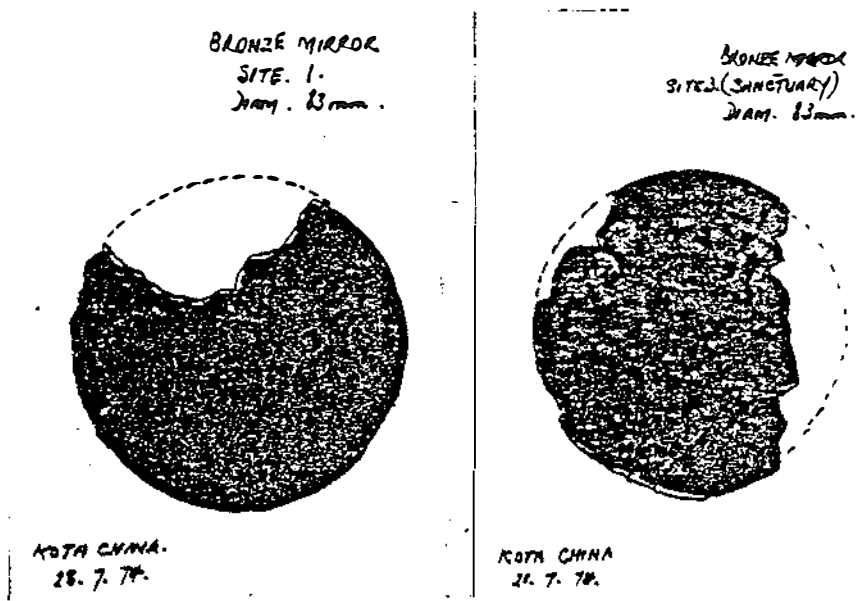


Pl. 33. Location 1: Chain: detail of double link.



Pl. 34. Location 1: Bronze ring set with a moonstone.





Pl. 35. Location 3: Bronze mirrors.



Pl. 36. Location 3: Bronze bell (surface find).



Pl. 37. Location 8: Congealed bronze from brick basement.



Pl. 38. Mertubong: Lamp chain decoration: the drummer.



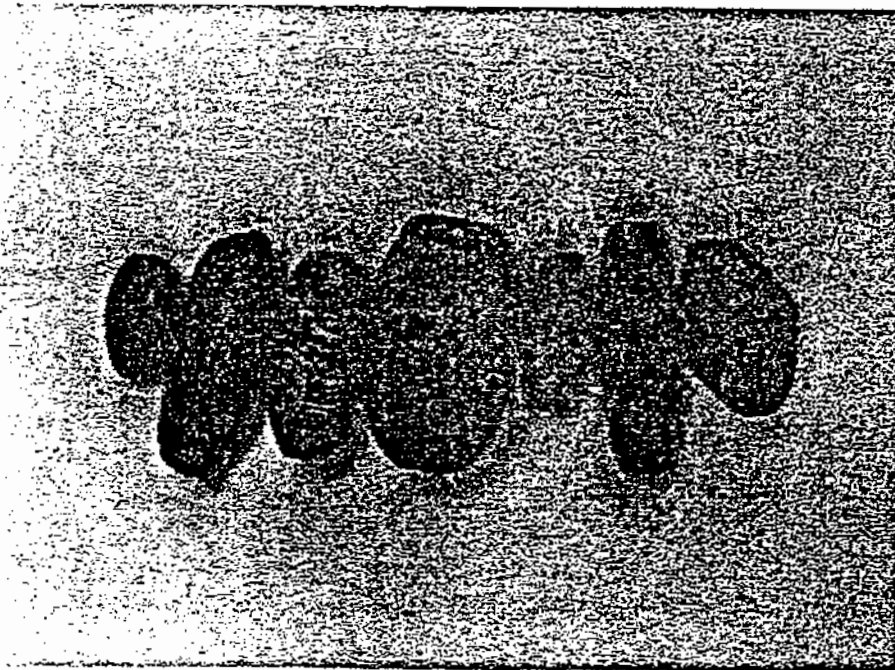
Pl. 39. Mertubong: Lamp chain decoration: the dancer.



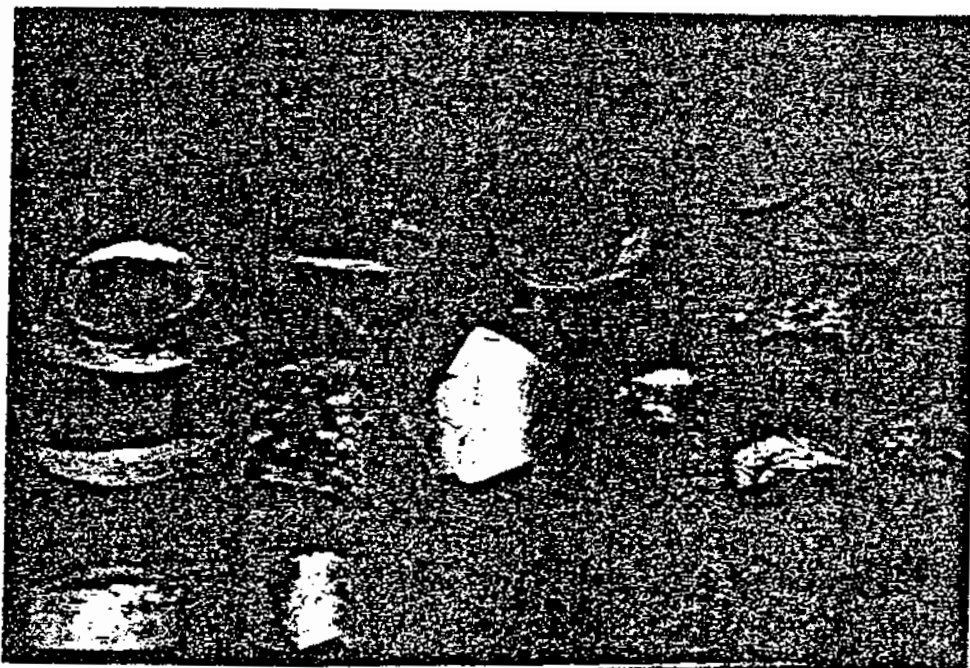
Pl. 40. Binjai: Karo blacksmith and assistant.



Pl. 41. Locations 3, 8: Carved stones with pointed ends.



Pl. 42. Stone and glass beads.



Pl. 43. Location 1: Glass fragments.

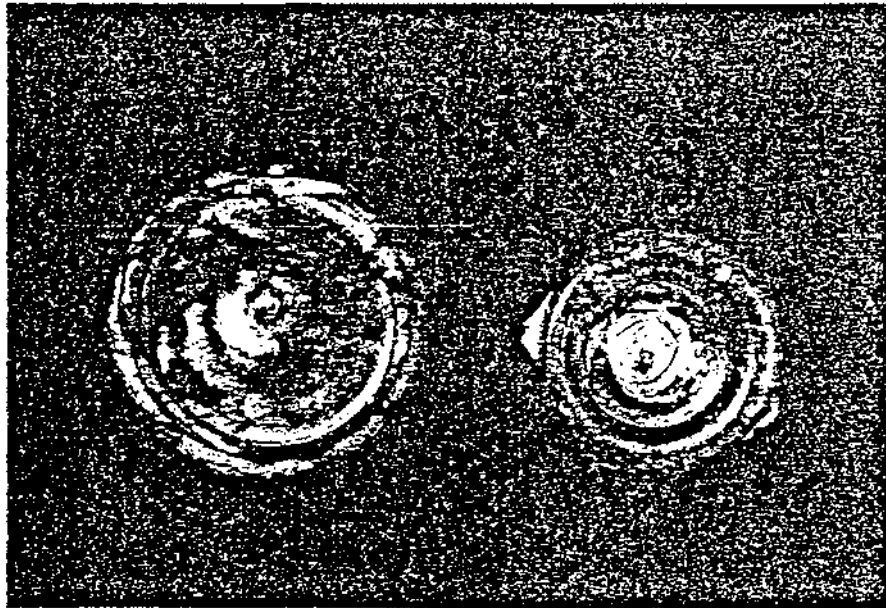


Pl. 44. Location 1: Bases and neck of small glass bottles.

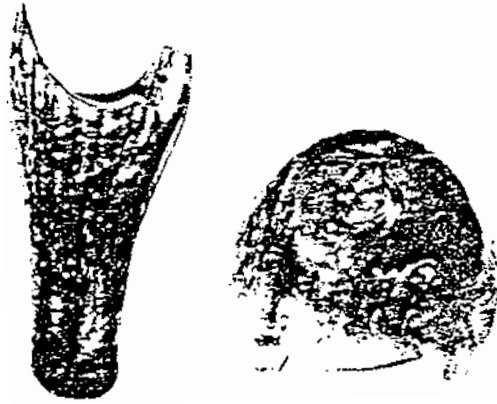




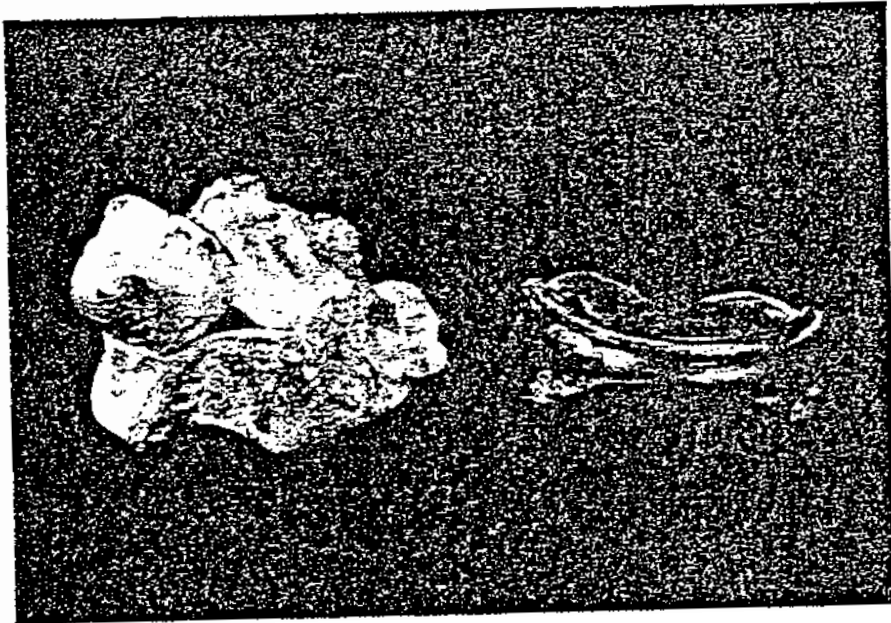
Pl. 45. Location 1: Base and body fragment of glass vessel.



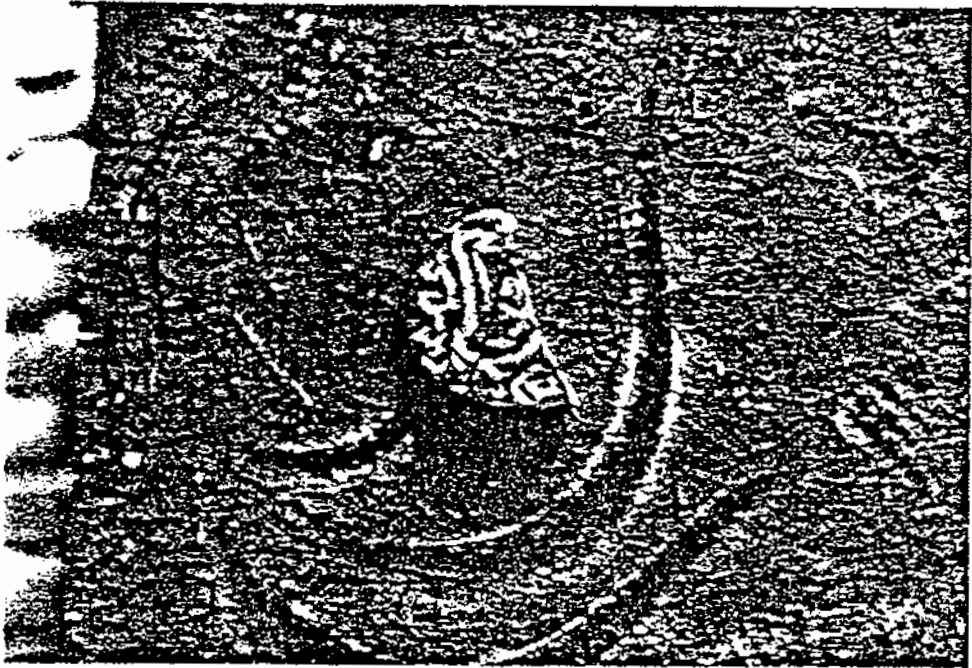
Pl. 46. Location 1: Bases with rolled footrims.



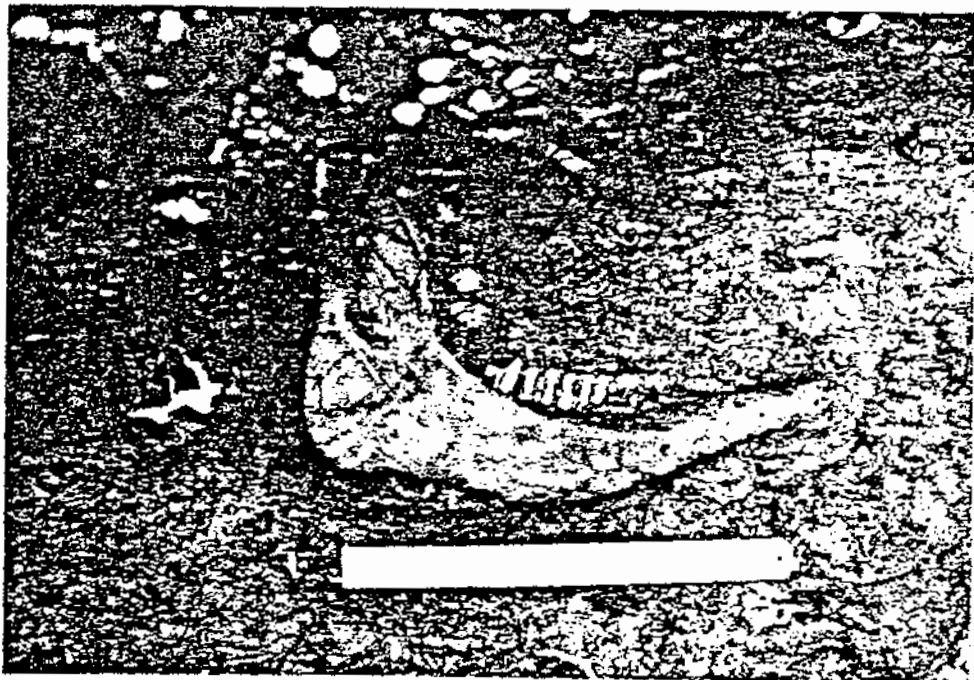
Pl. 47. Location 1: Base of an amphora-like vessel and bottle.



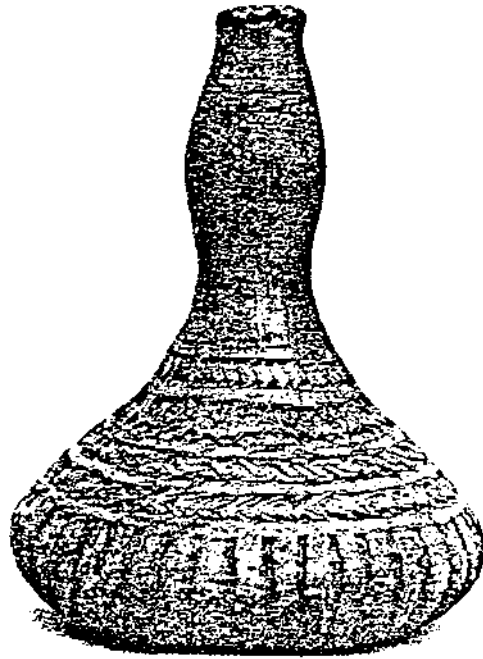
Pl. 48. Location 1: Congealed melted bottle and base.



Pl. 49. Location 3: Fragmentary gold weight with hamsa.



Pl. 50. Location 1: Jawbone of bos bubalus Linn.



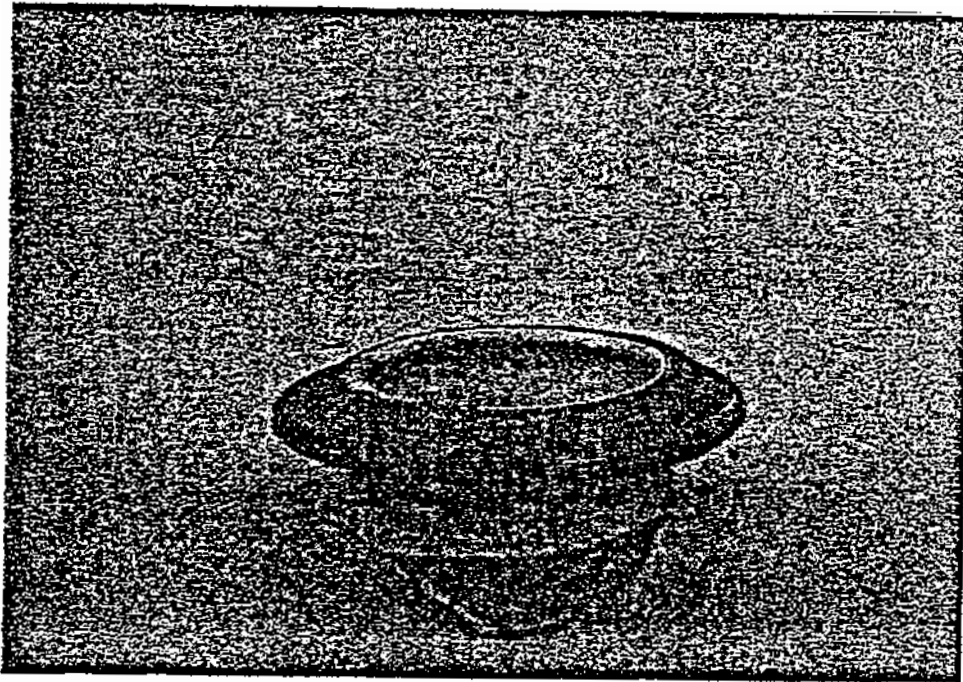
Pl. 51. Padang Lawas: a modern water vessel.



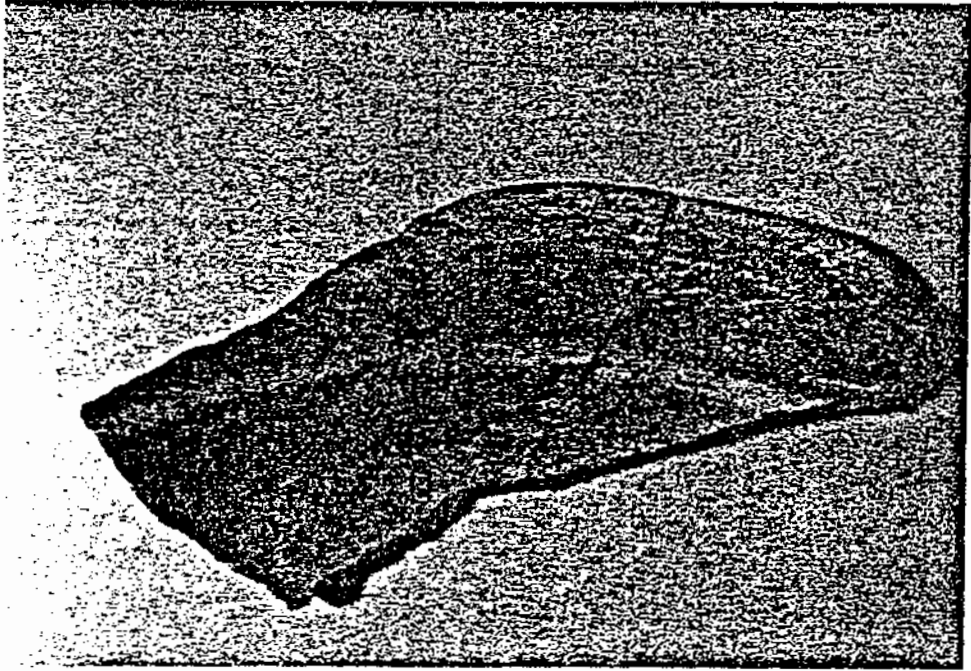
Pl. 52. Batu Bara: potmaking at Kampong Senteng.



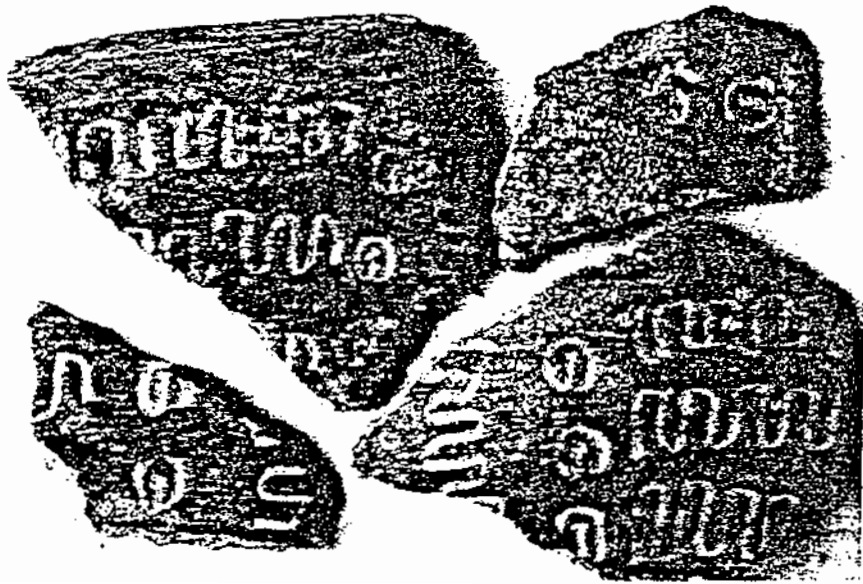
Pl. 53. Pidië, Aceh: potmaking at Kampong Keulibuet.



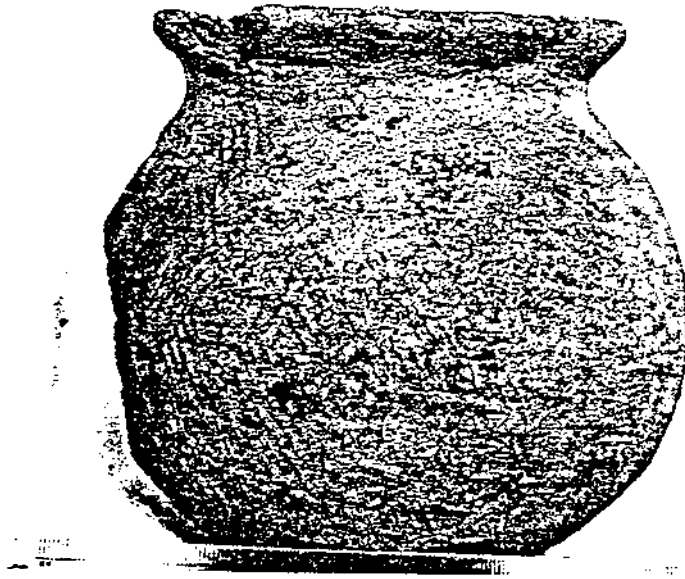
Pl. 54. Location 1: fine paste ware (Fig. 11).



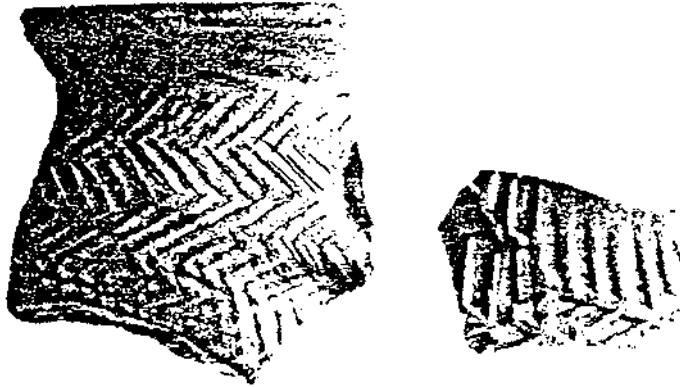
Pl. 55. Location 1: glazed Persian ware.



Pl. 56. Location 1: red-slipped ware with letter-like design.



Pl. 57. Location 1: red geometric ware: priok.



Pl. 58. Location 1: red geometric ware.

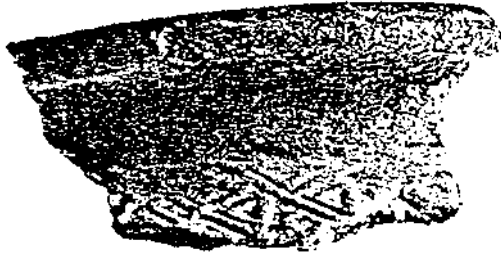




Pl. 59. Location 1: red geometric ware.



Pl. 60. Location 1: red geometric ware.



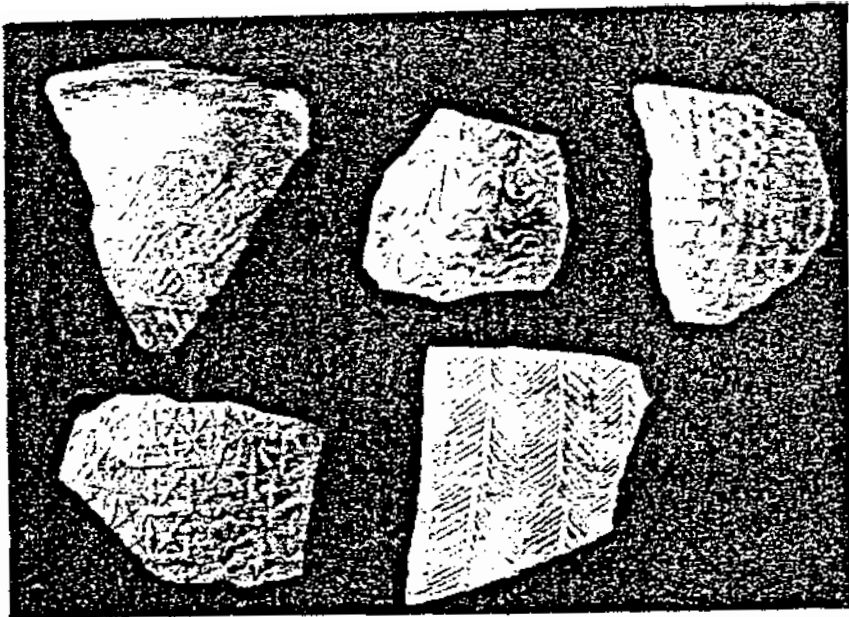
Pl. 61. Location 1: red geometric ware.



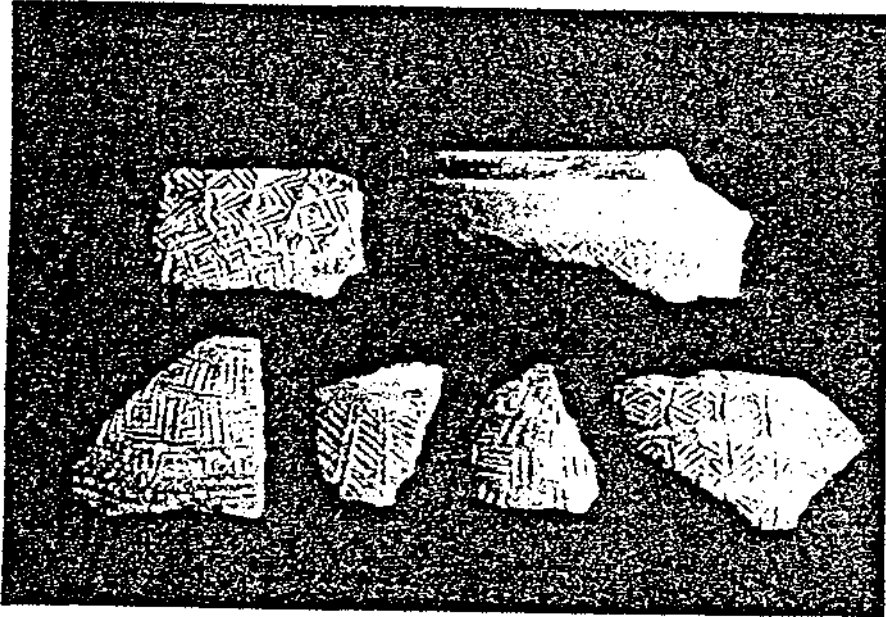
Pl. 62. Location 1: red geometric ware.



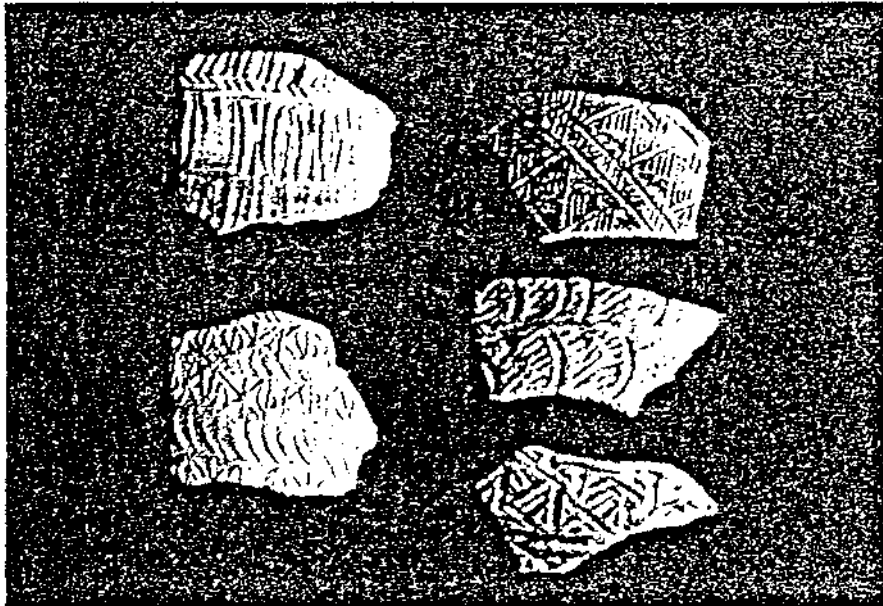
Pl. 63. Location 1: black ware.



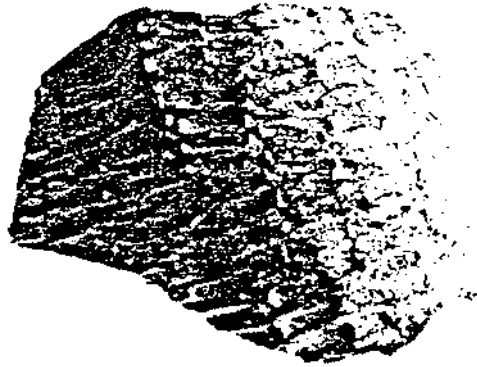
Pl. 64. Location 1: sand-tempered gray ware.



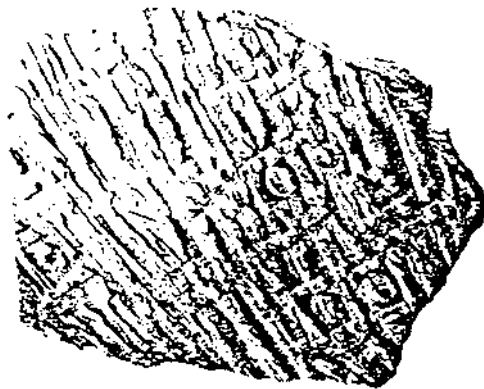
Pl. 65. Location 1: white ware.



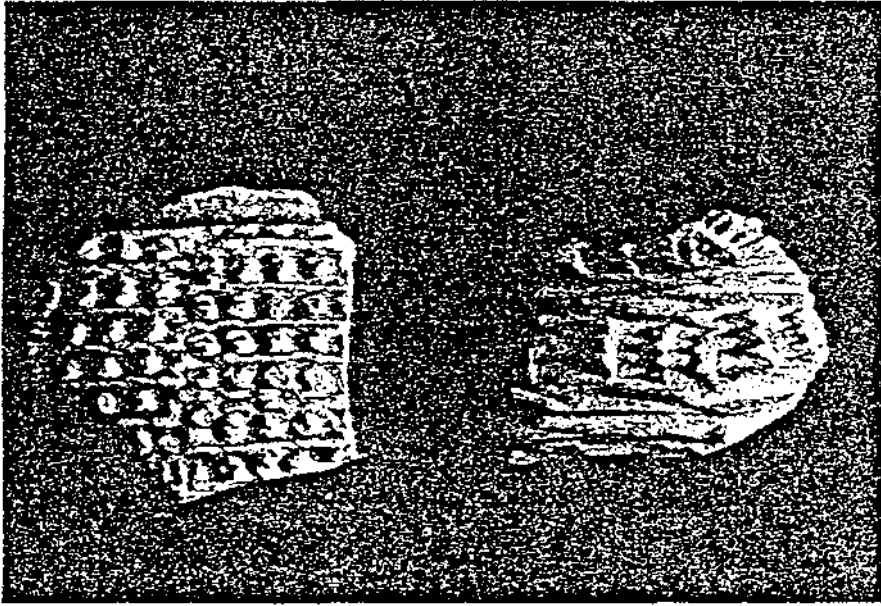
Pl. 66. Location 1: white ware.



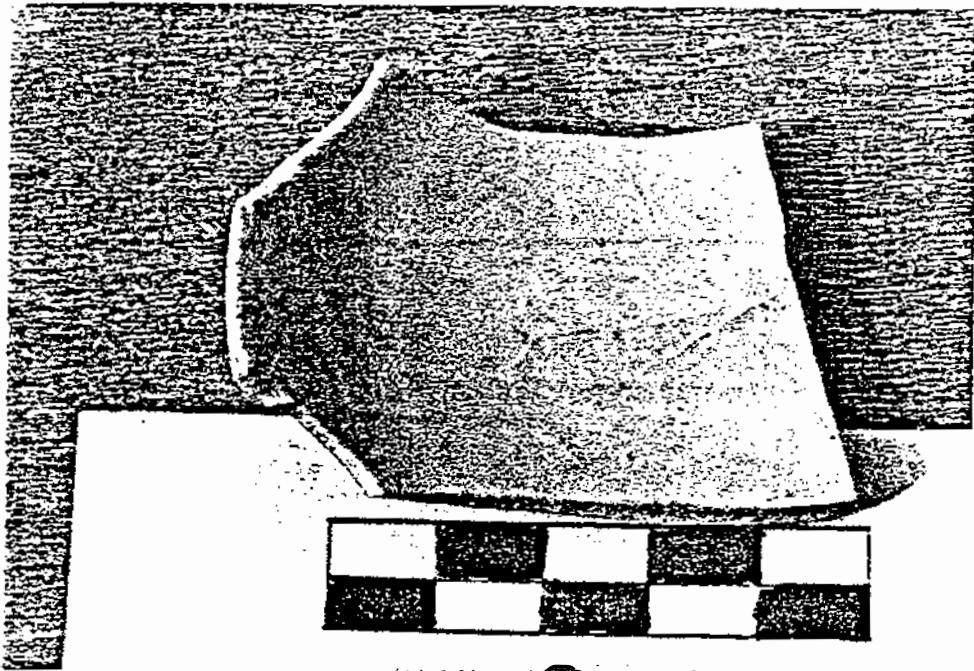
Pl. 67. Location 1: brittle impressed gray ware.



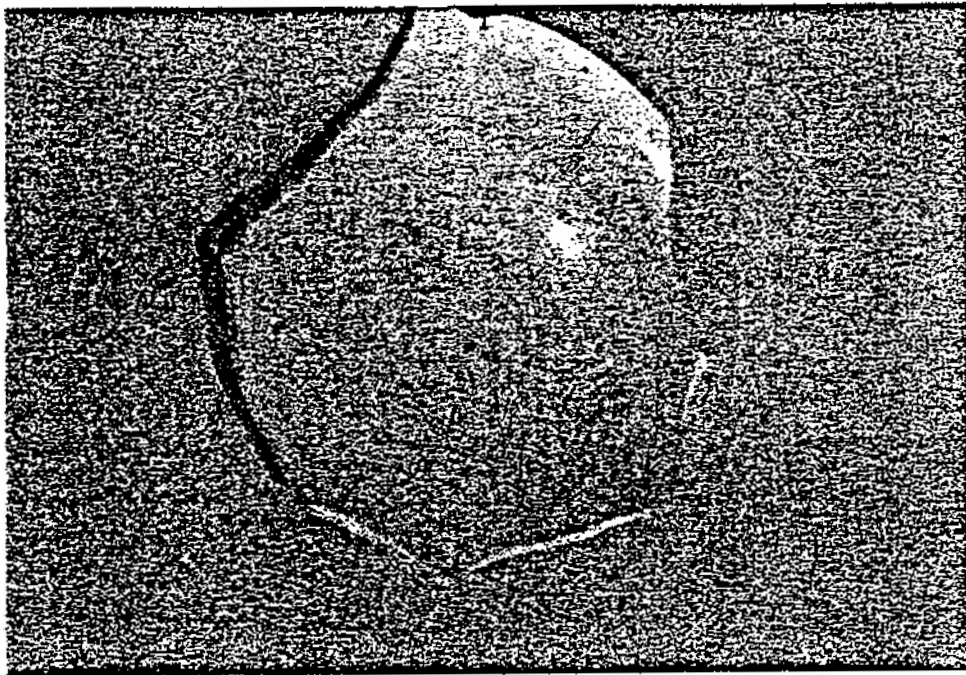
Pl. 68. Location 1: brittle impressed gray ware.



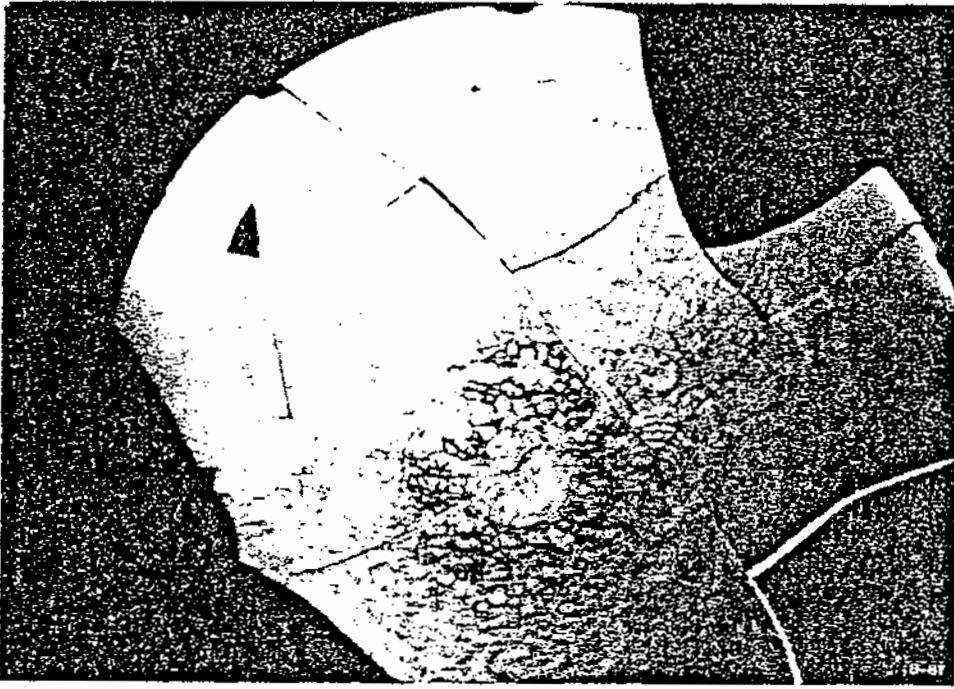
Pl. 69. Kota Rentang: brittle impressed gray ware.



Pl. 70. Location 1: qingbai saucer (QB 1).

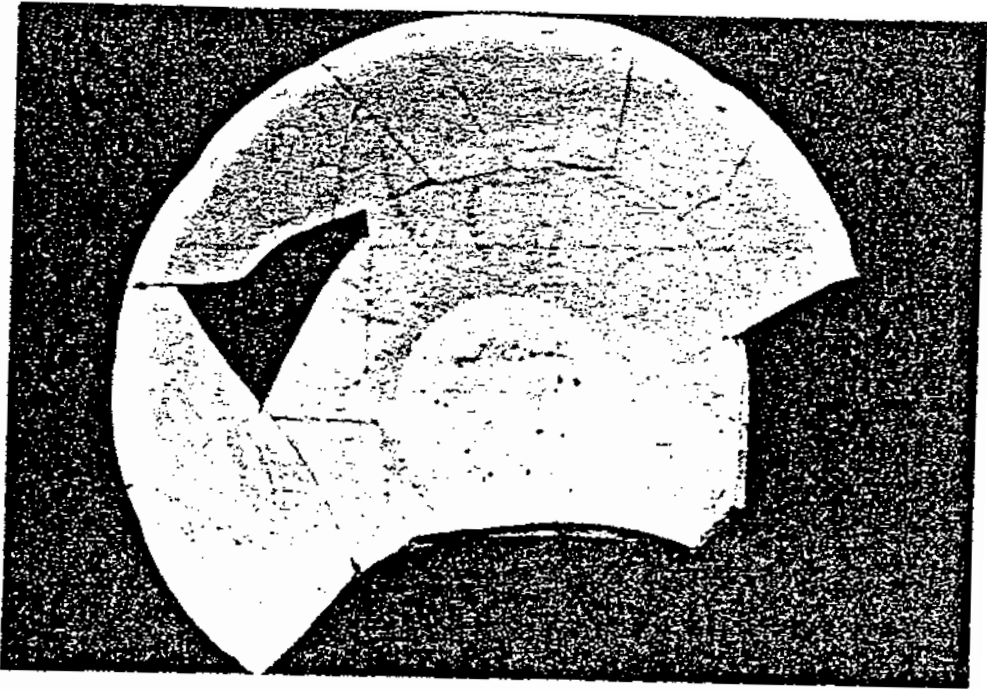


Pl. 71. Location 1: qingbai saucer (QB 2).

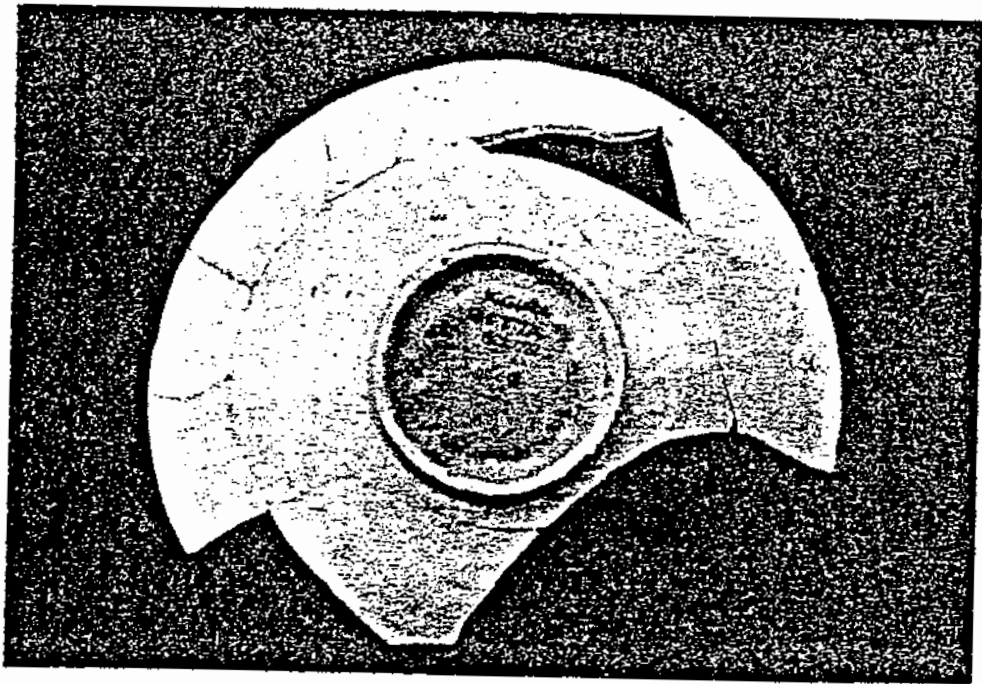


Pl. 72. Location 1: qingbai bowl (QB 4).

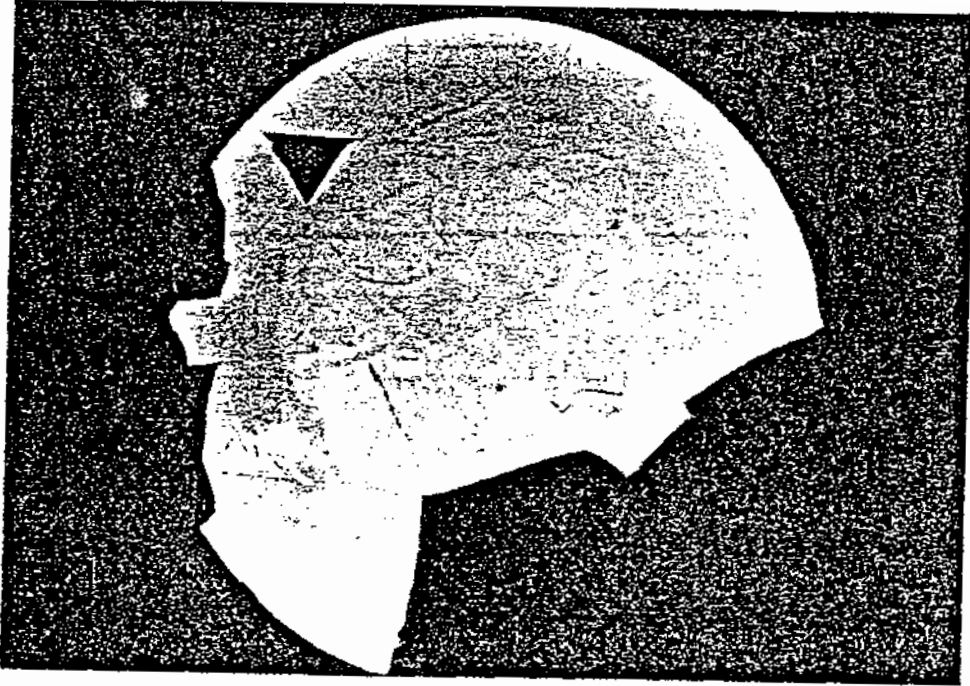




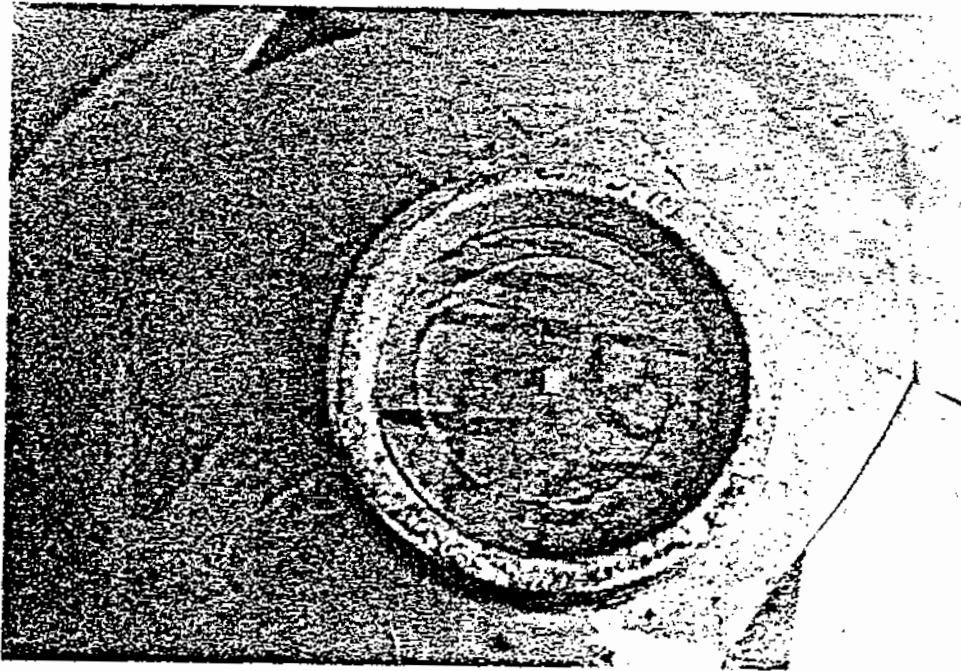
Pl. 73. Location 1: qingbai bowl (QB 6).



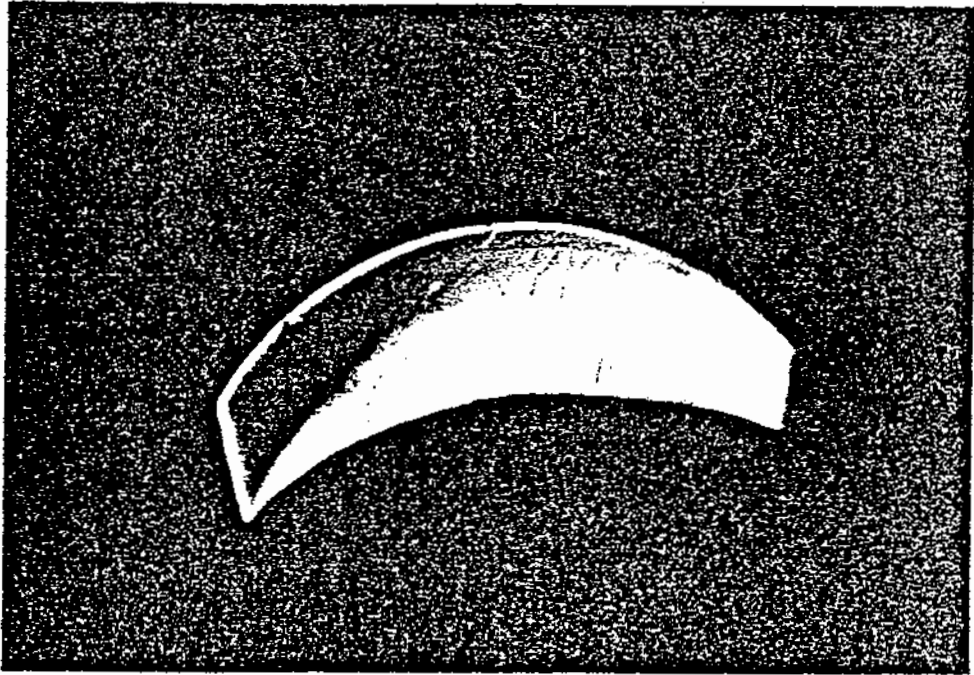
Pl. 74. Location 1: qingbai bowl (QB 6), base.



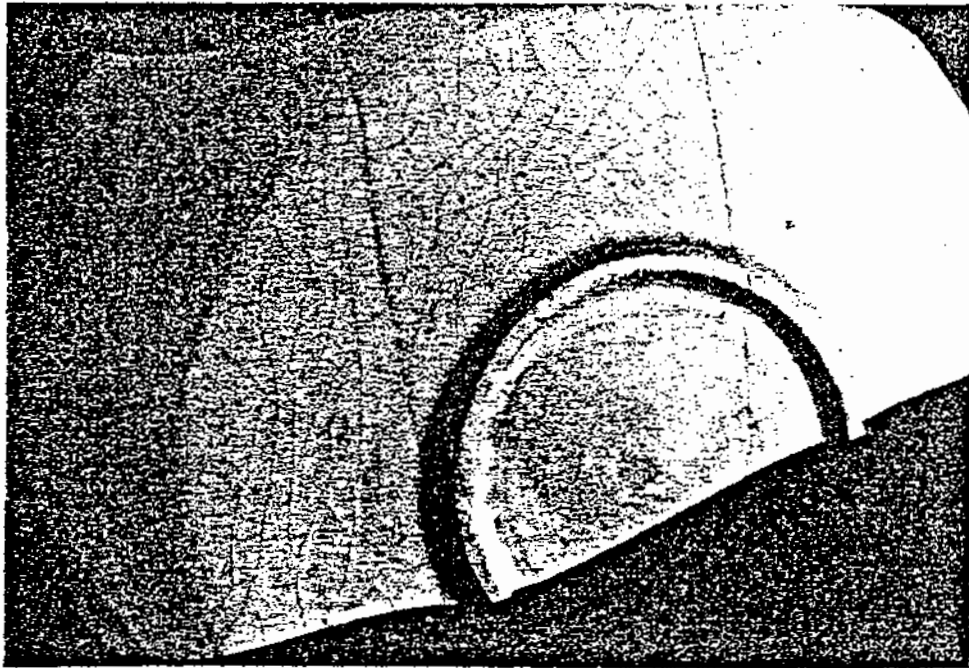
Pl. 75. Location 1: qingbai bowl (QB 7).



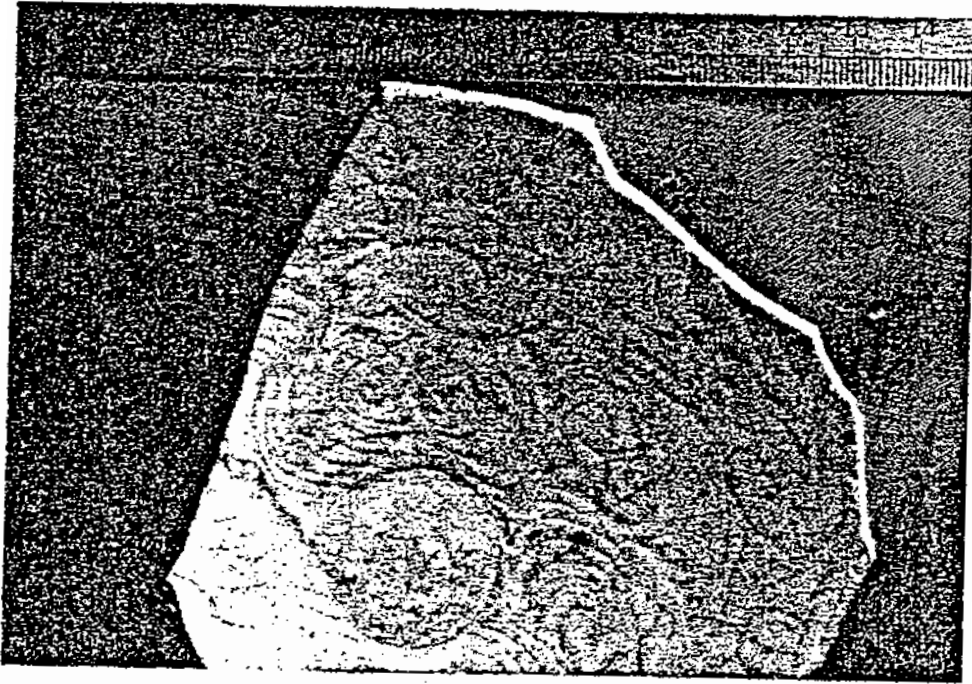
Pl. 76. Location 1: qingbai bowl (QB 7), base.



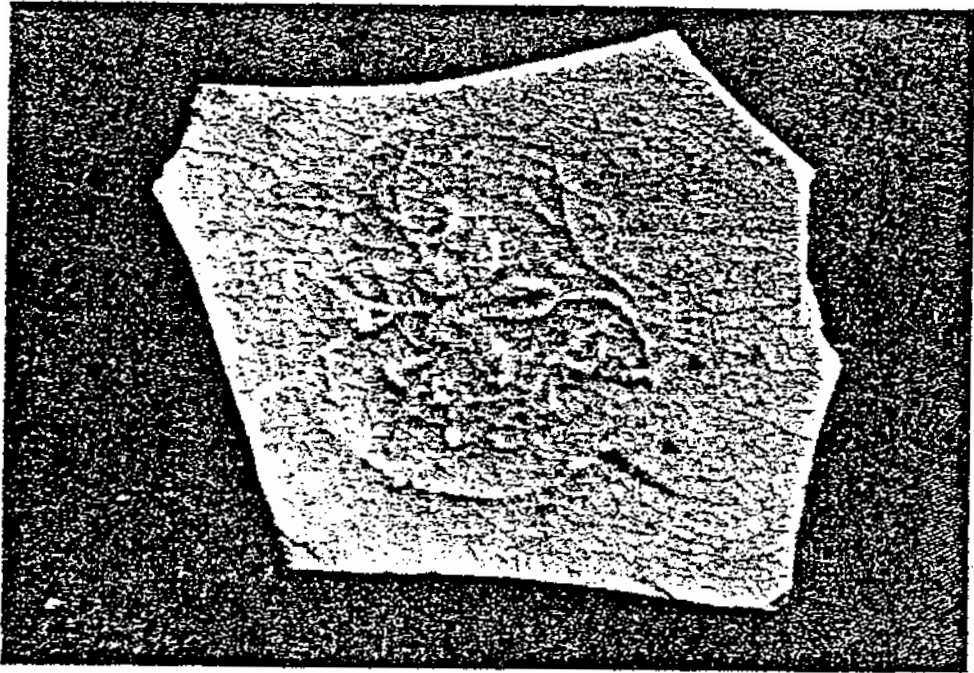
Pl. 77. Location 1: qingbai saucer-dish (QB 8).



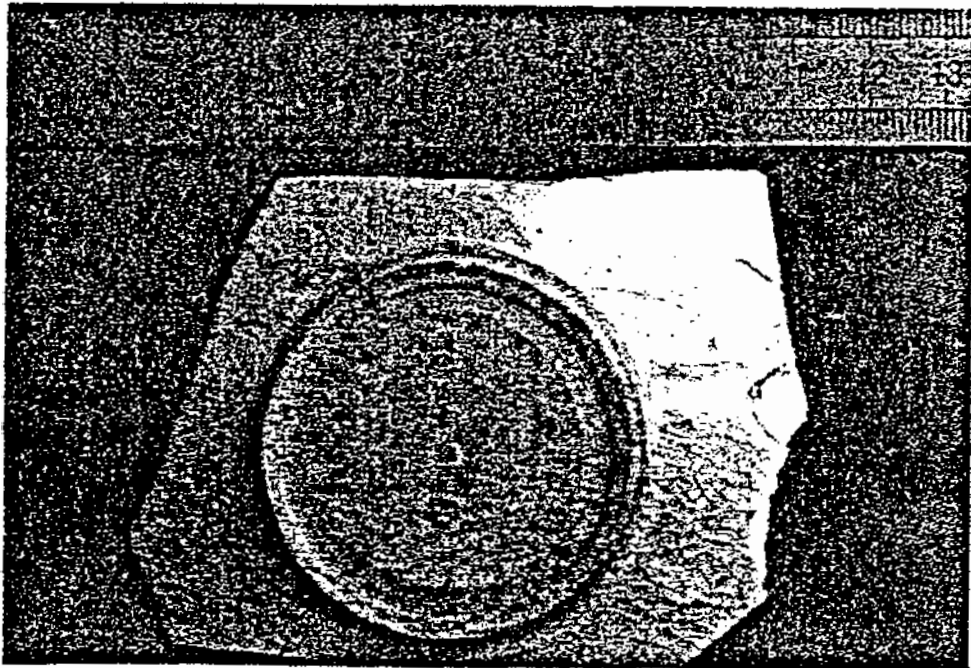
Pl. 78. Location 1: qingbai bowl (QB 9).



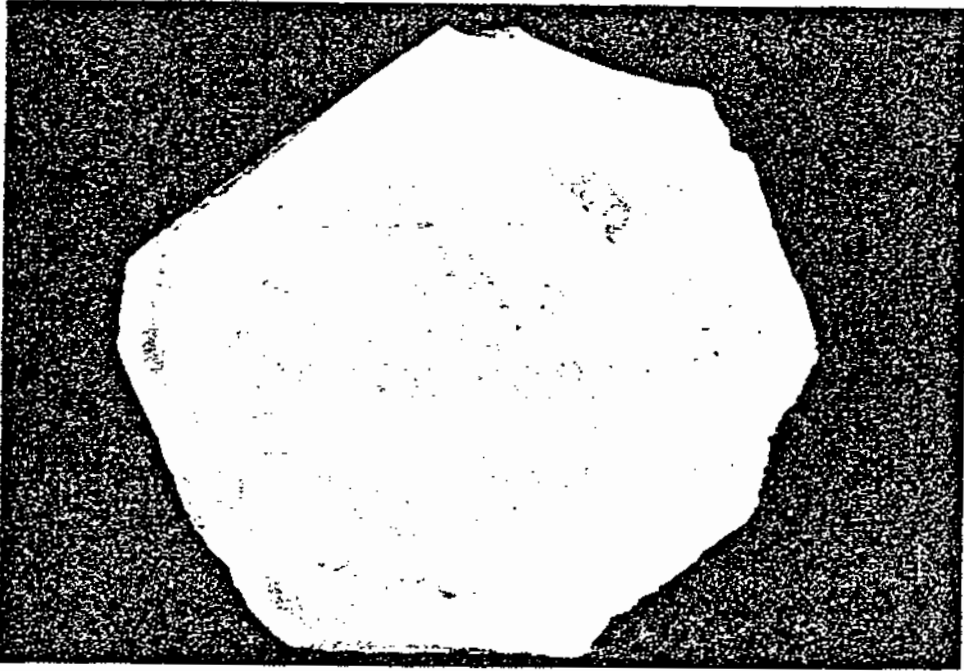
Pl. 79. Location 1: qingbai bowl (QB 11).



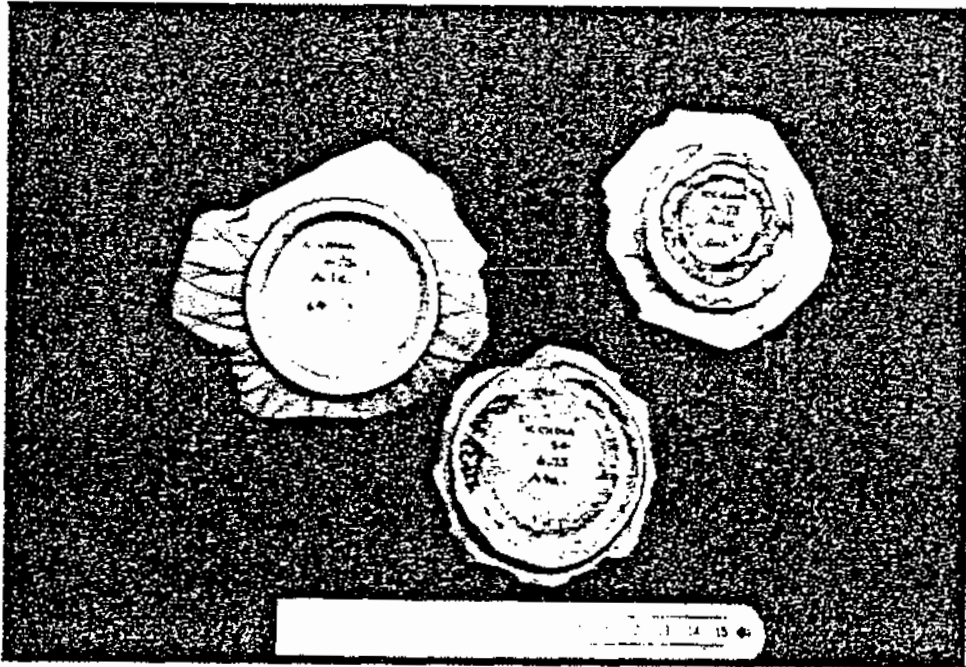
Pl. 80. Location 1: qingbai dish (QB 12).



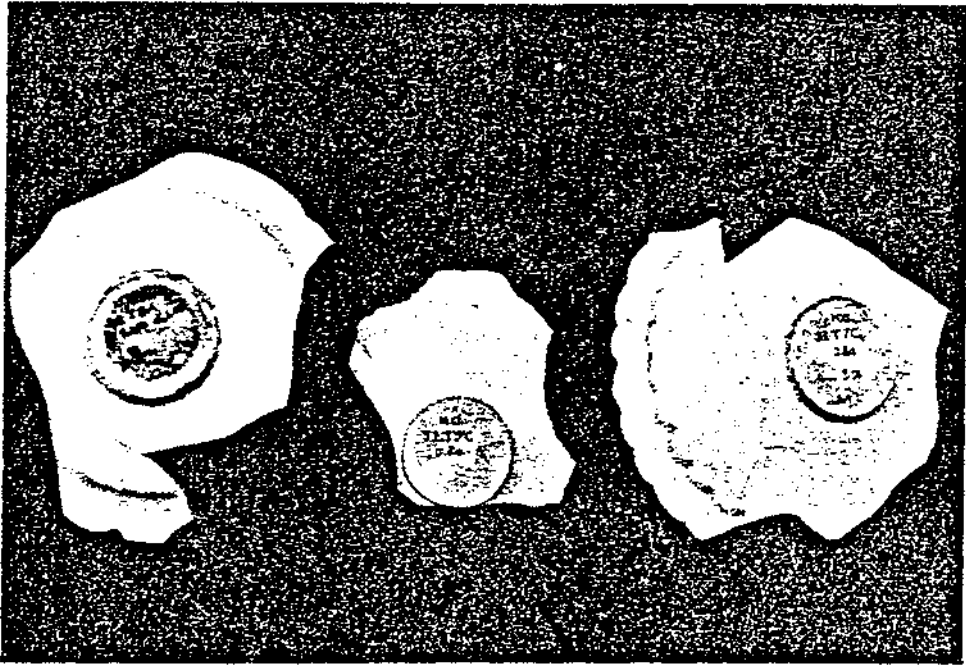
Pl. 81. Location 1: qingbai dish (QB 12), base.



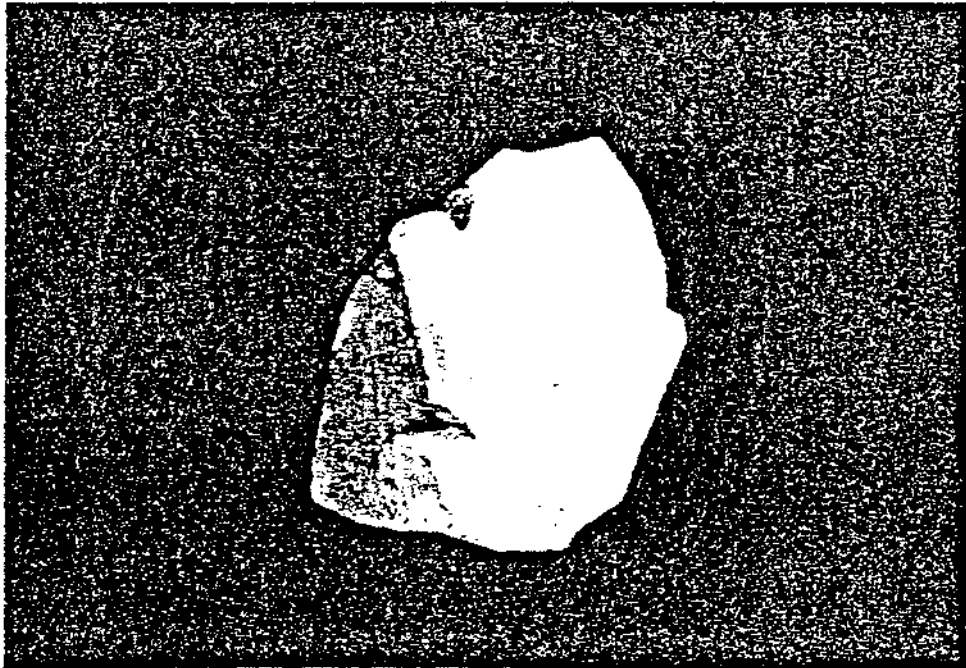
Pl. 82. Location 4: qingbai bowl (QB 13).



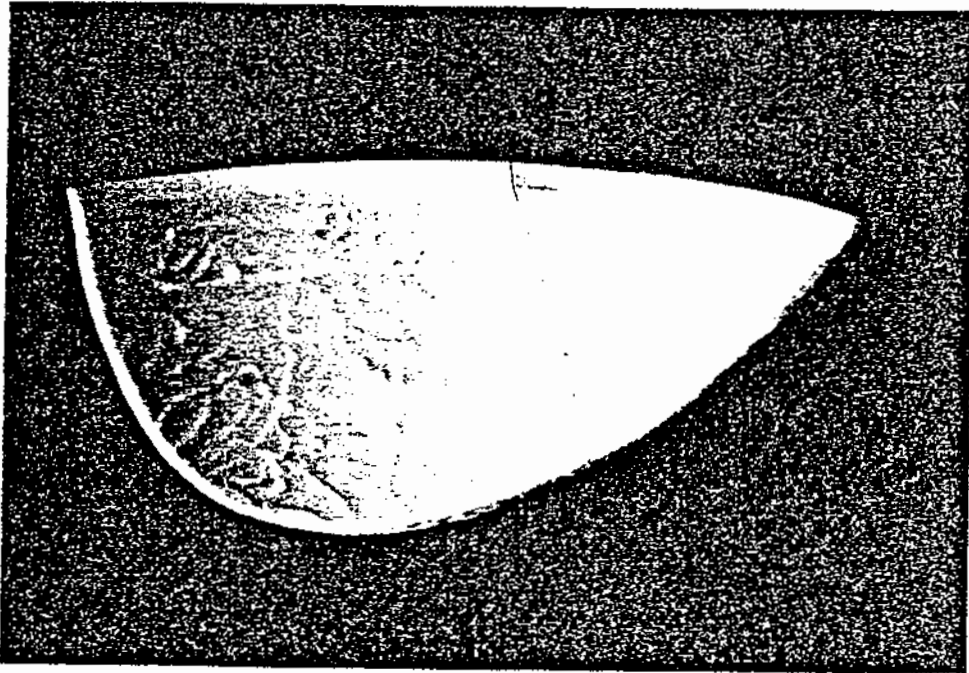
Pl. 83. Location 4: qingbai bowls (QB 14), bases.



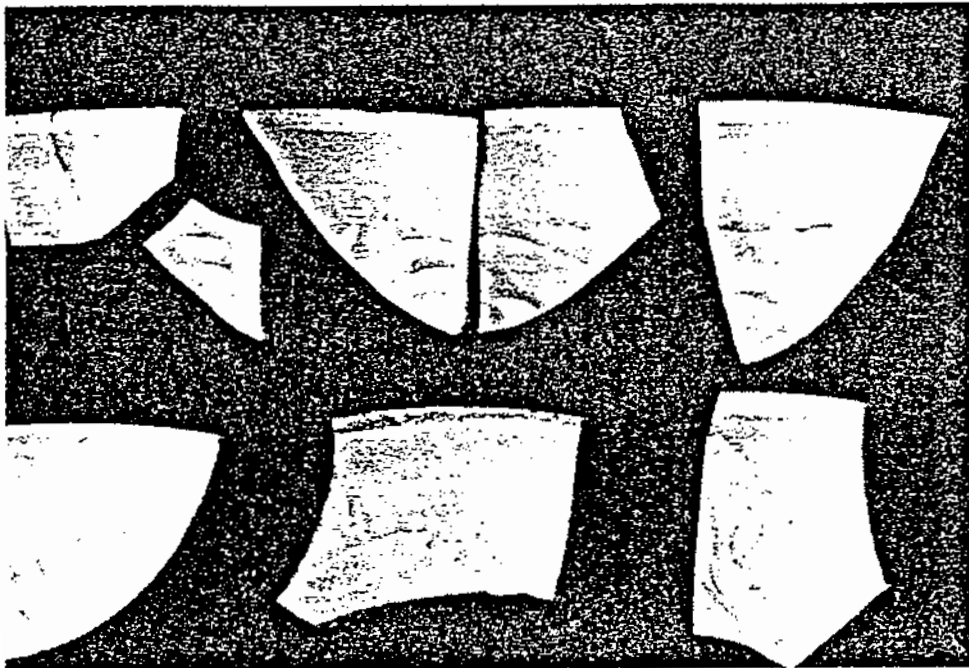
Pl. 84. Location 1: qingbai saucers (QB 15), bases.



Pl. 85. Location 1: qingbai incense burner (QB 16).

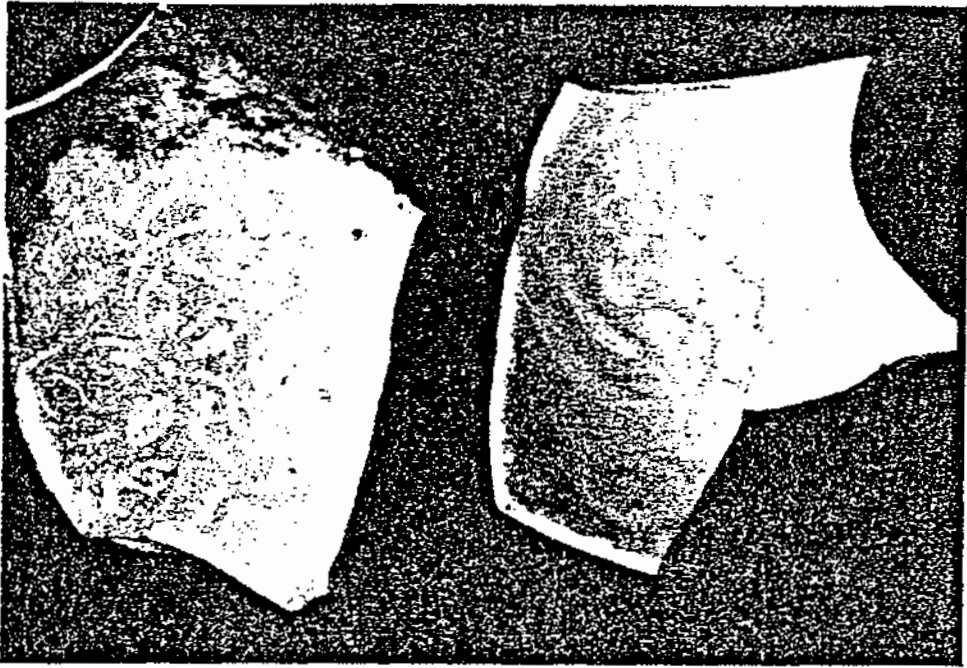


Pl. 86. Location 1: qingbai bowl (QB 17).

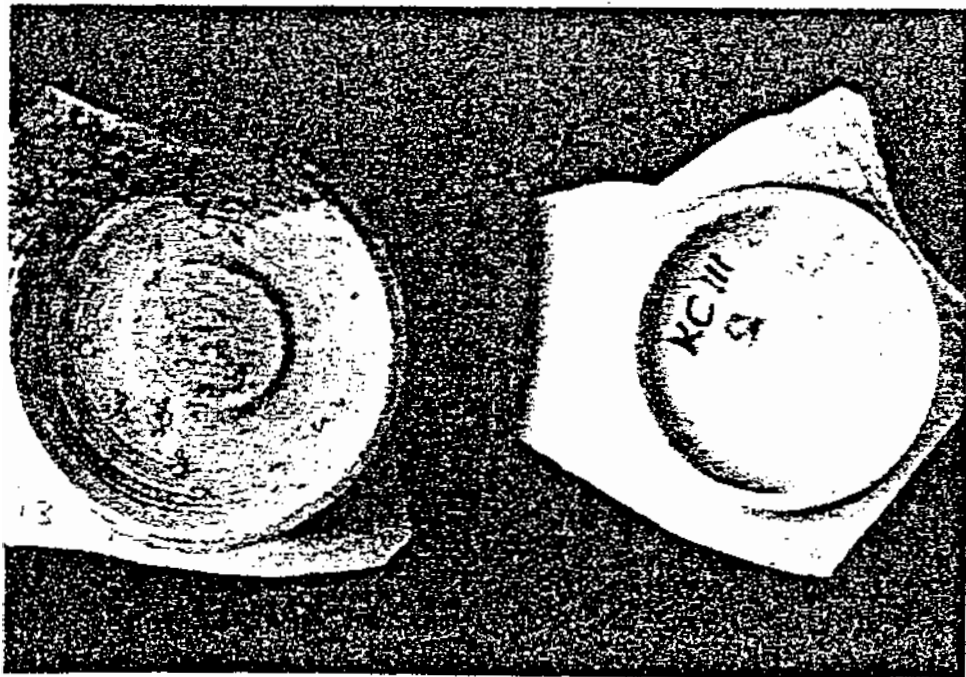


Pl. 87. Location 1: qingbai bowls (QB 18).

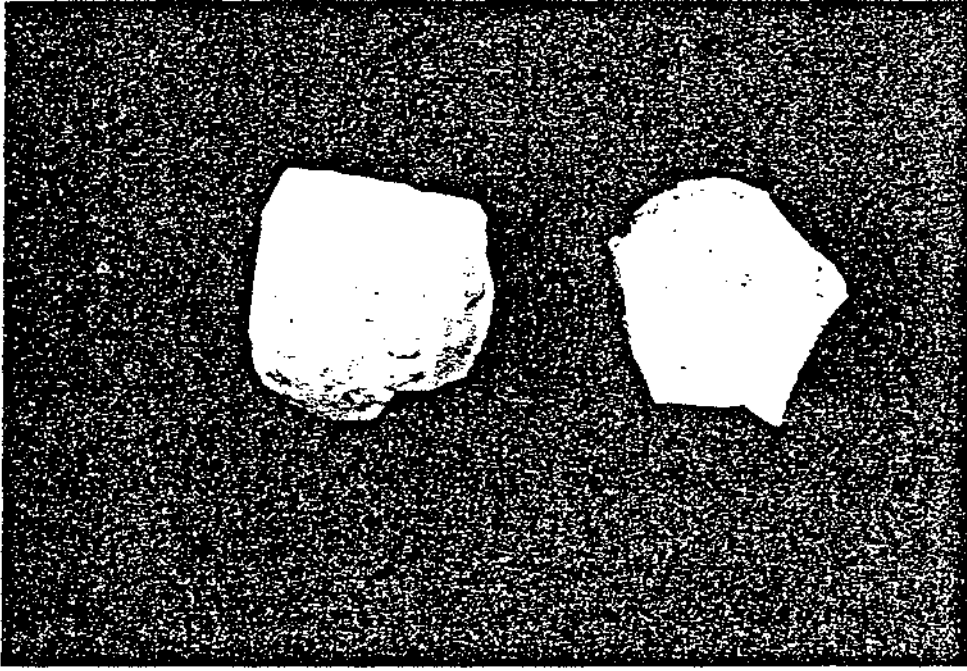




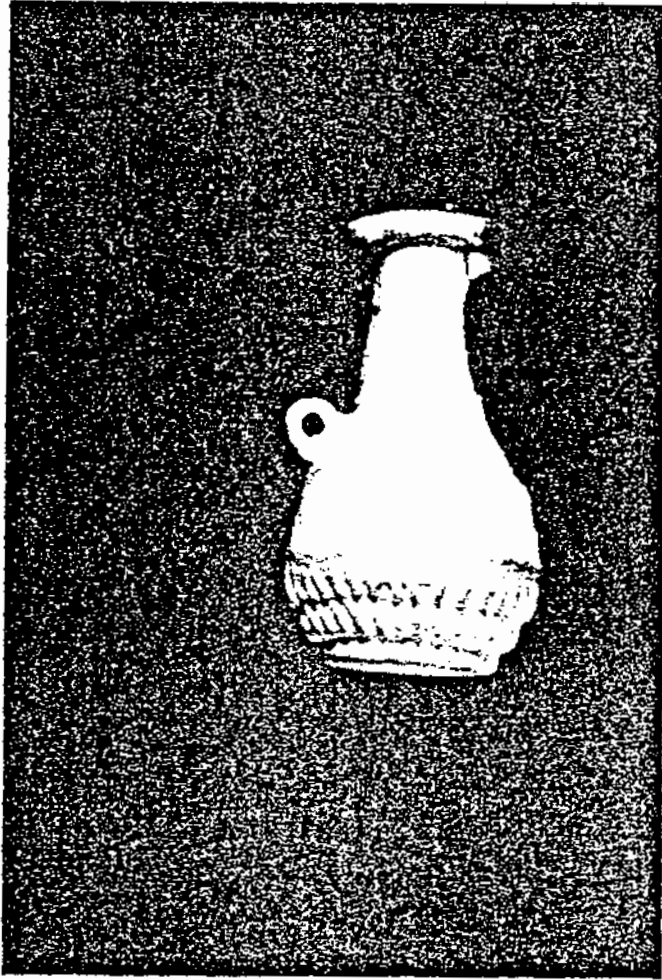
Pl. 88. Location 3: qingbai bowls (QB 19).



Pl. 89. Location 3: qingbai bowls (QB 19), bases.



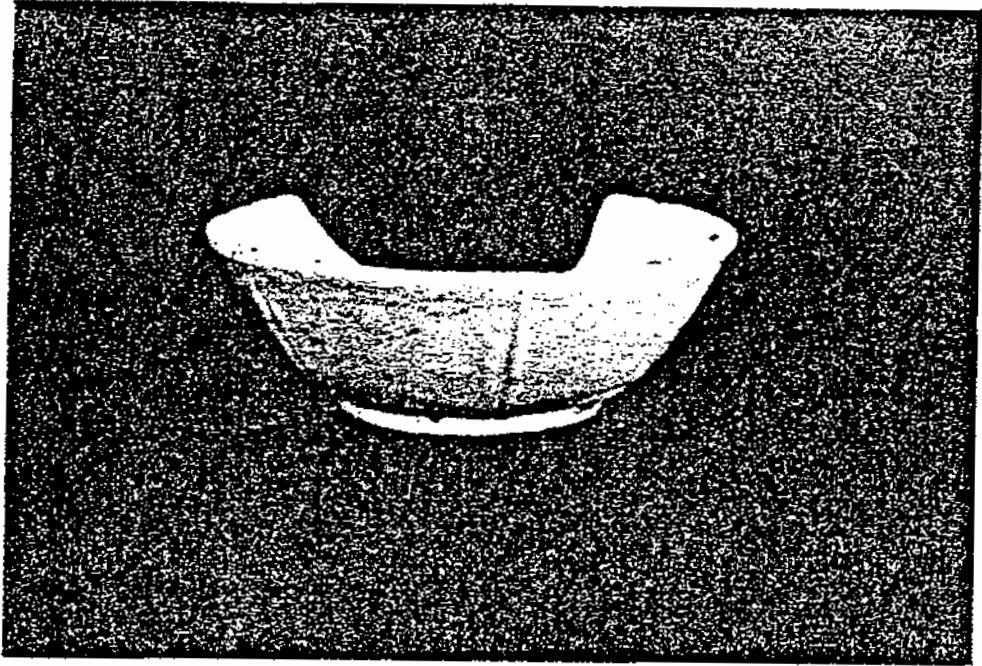
Pl. 90. Location 1: qingbai bowl and jar (QB 20).



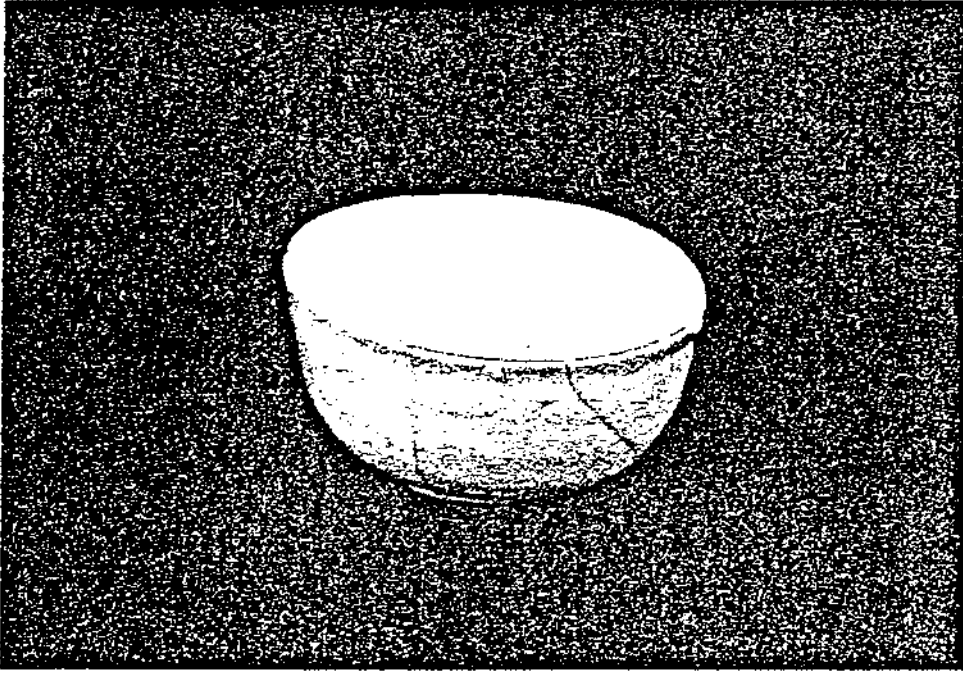
Pl. 91. Location 3: qingbai water dropper (QB 21).



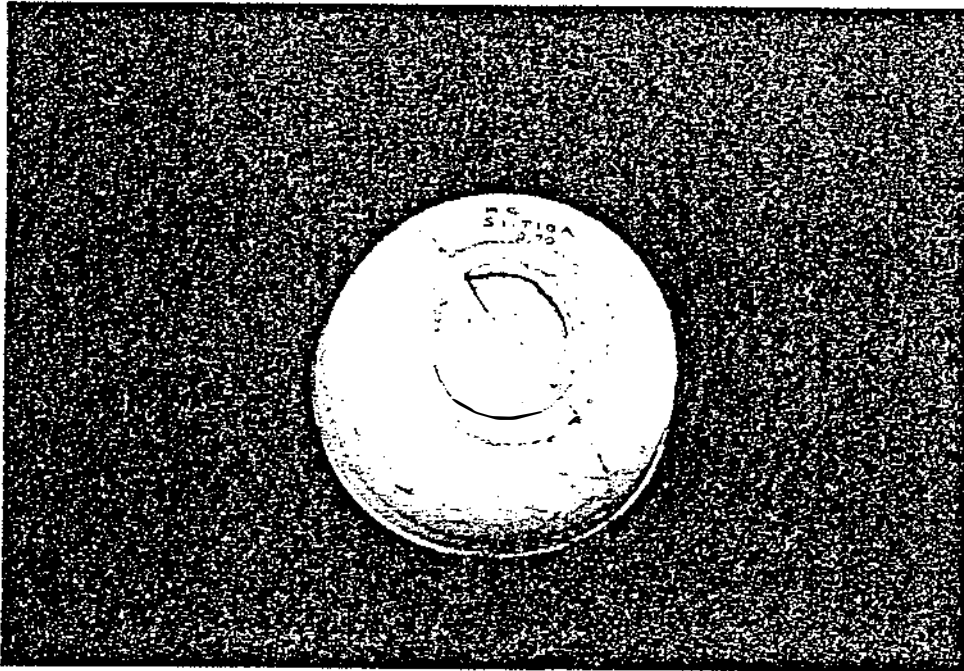
Pl. 92. Location 1: qingbai vase? (QB 22).



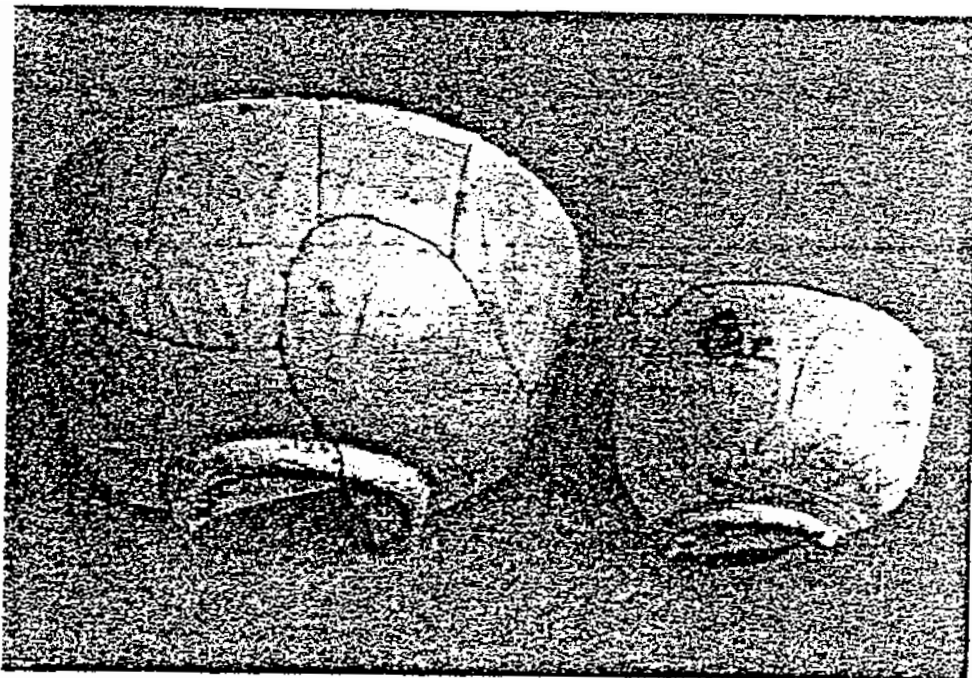
Pl. 93. Location 1: bowl (W 2).



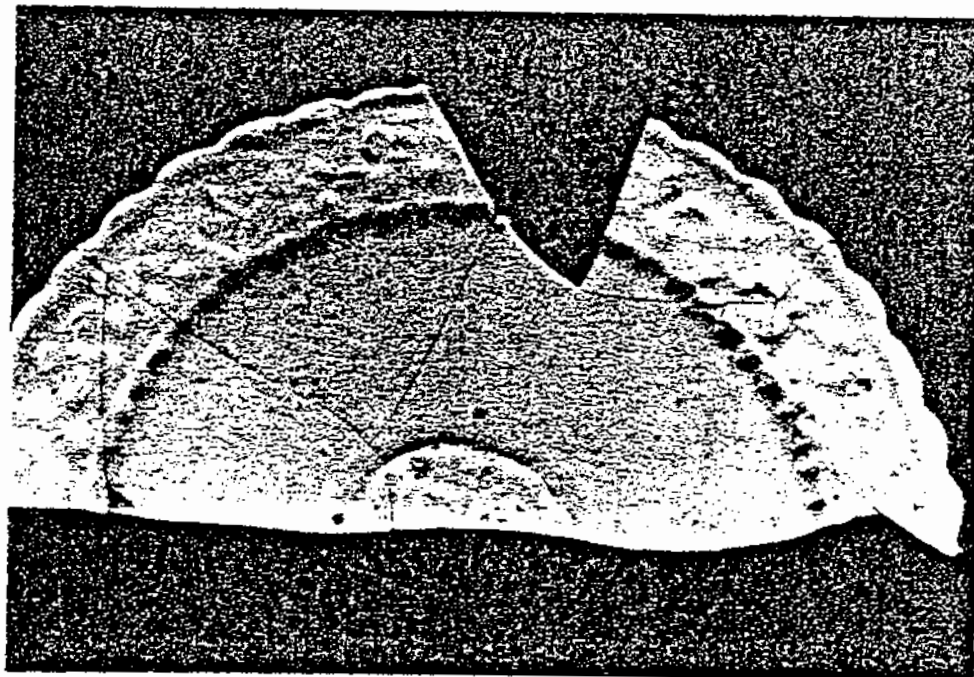
Pl. 94. Location 1: bowl (W 4).



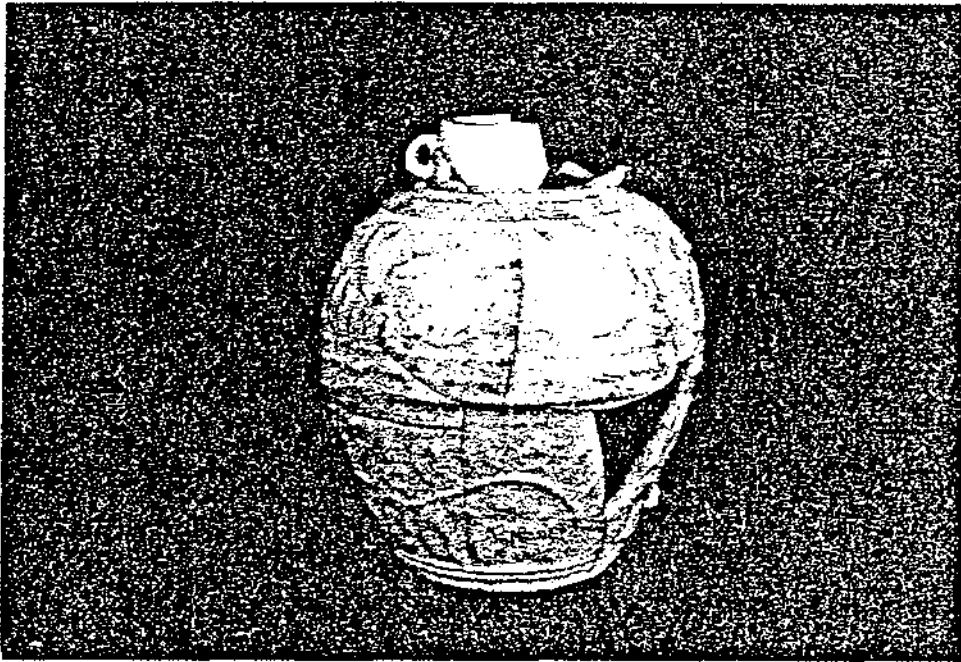
Pl. 95. Location 1: bowl (W 4), base.



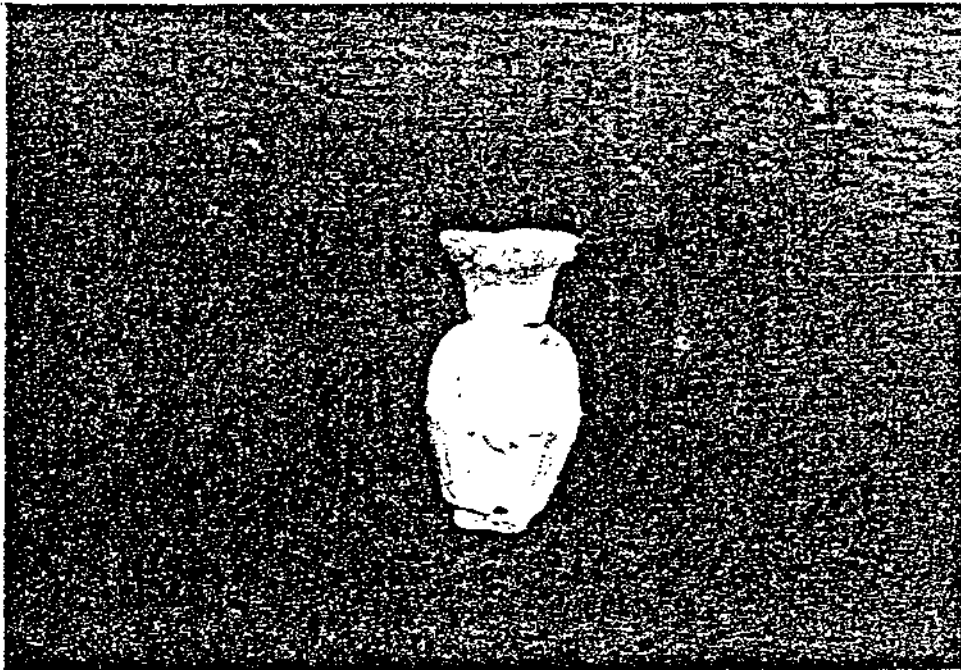
Pl. 96. Location 1: bowls (W 7 & 8).



Pl. 97. Location 1: dish (W 9).

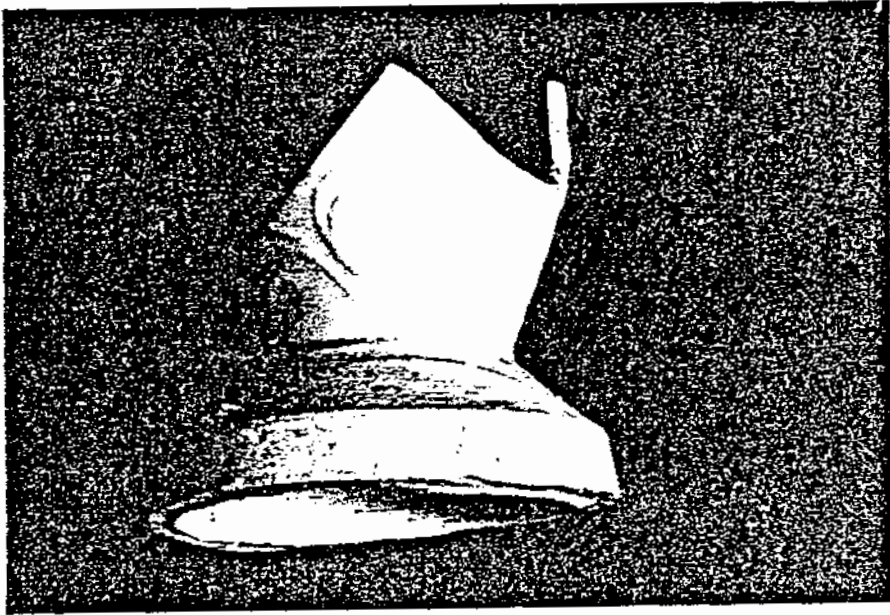


Pl. 98. Location 1: jar with two ears (W 11).

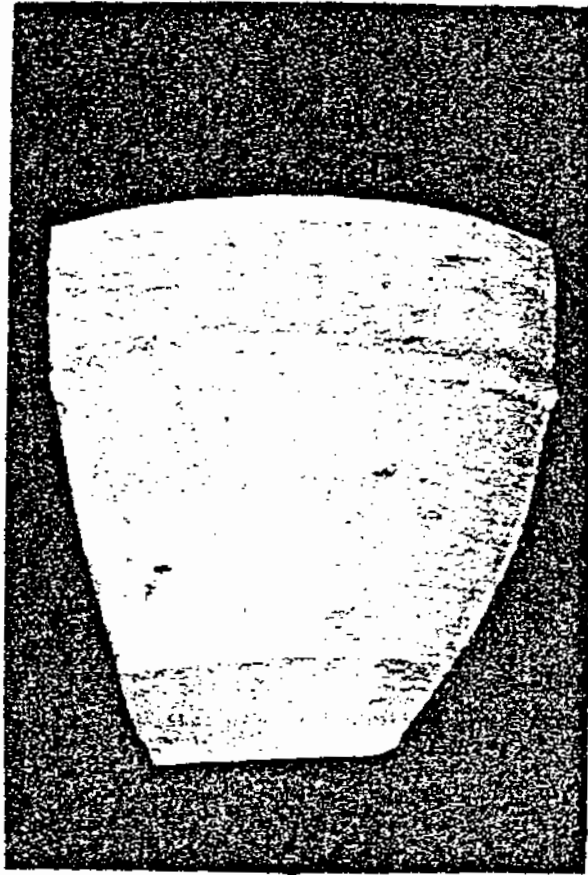


Pl. 99. Location 1: vase (W 12).

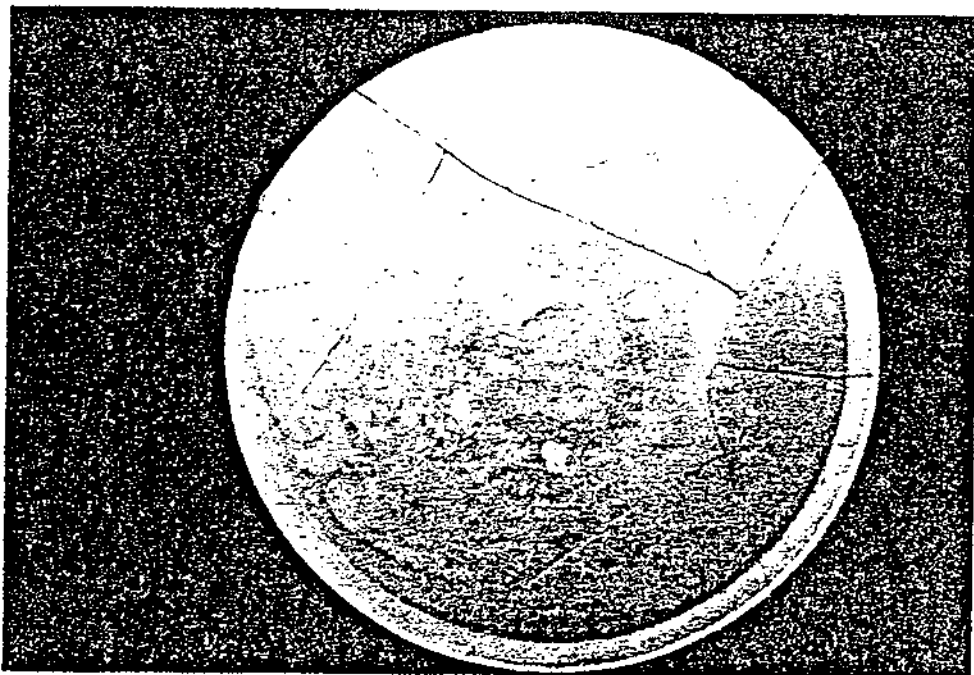




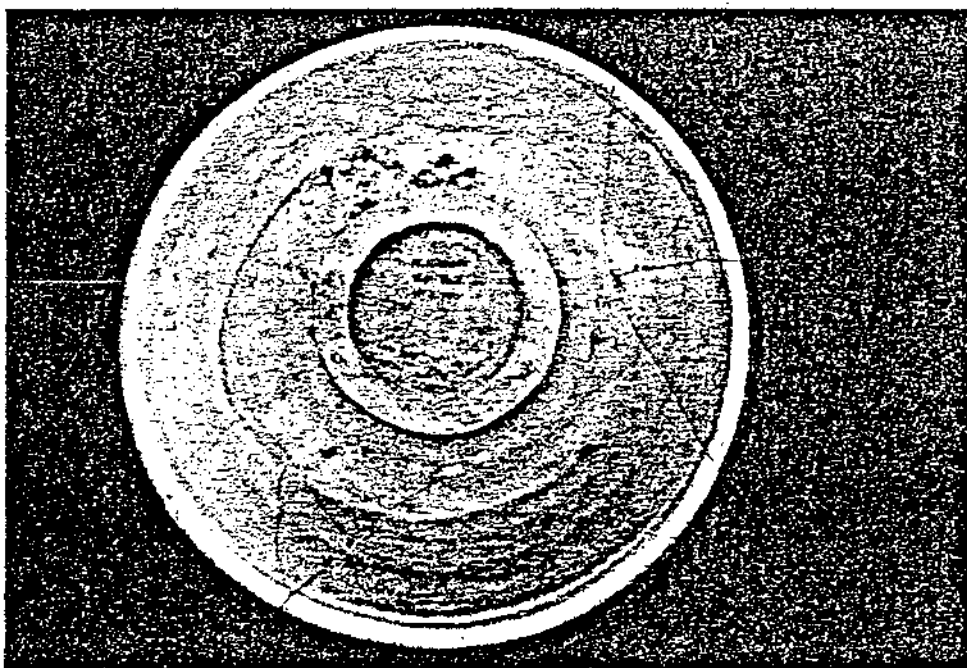
Pl. 100. Location 1: vase, foot (W 13).



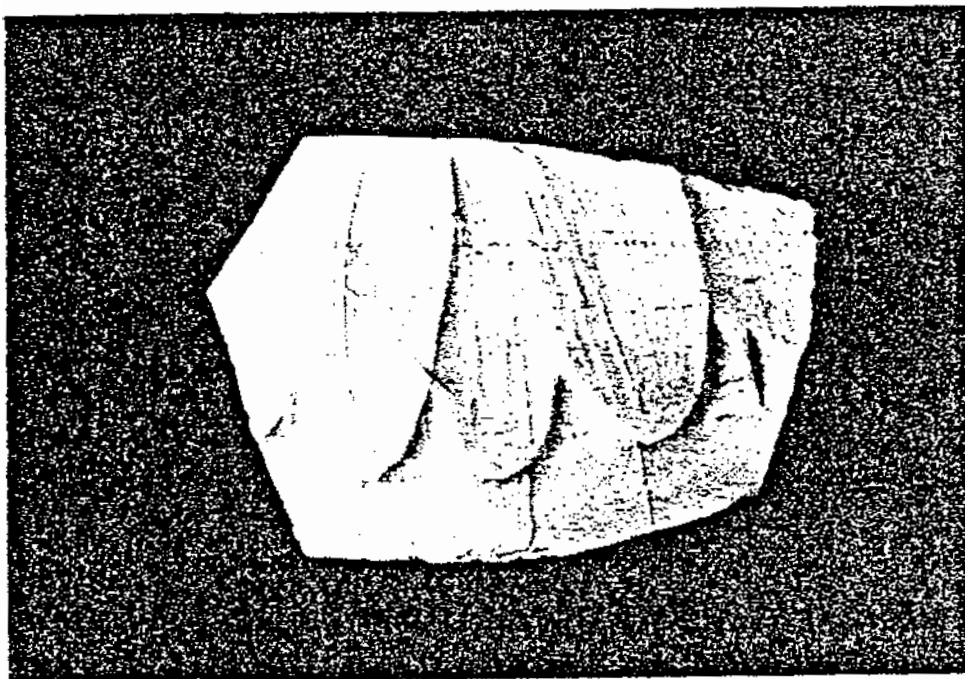
Pl. 101. Location 1: covered box (W 14).



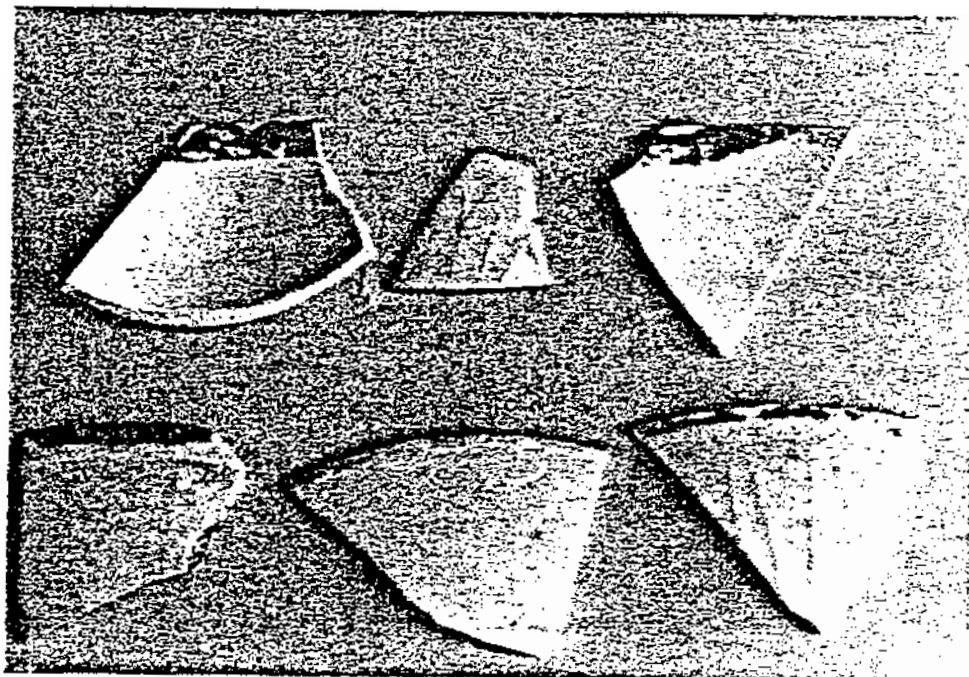
Pl. 102. Location 1: bowl with six spurmarks (W 16).



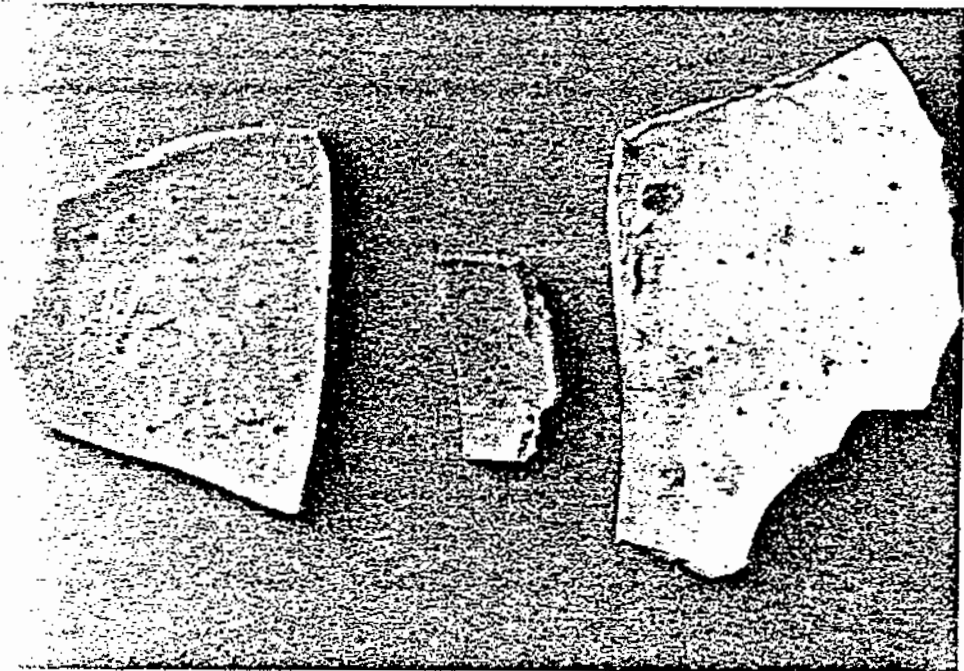
Pl. 103. Location 1: bowl, as above (W 16), base.



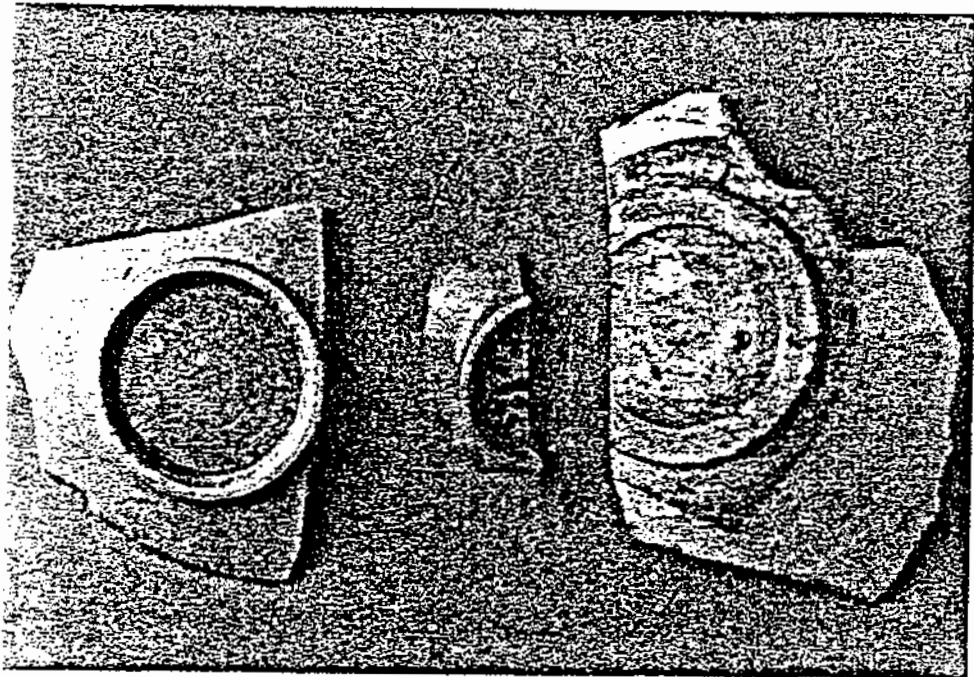
Pl. 104. Location 3: jar or kendi? (W 17).



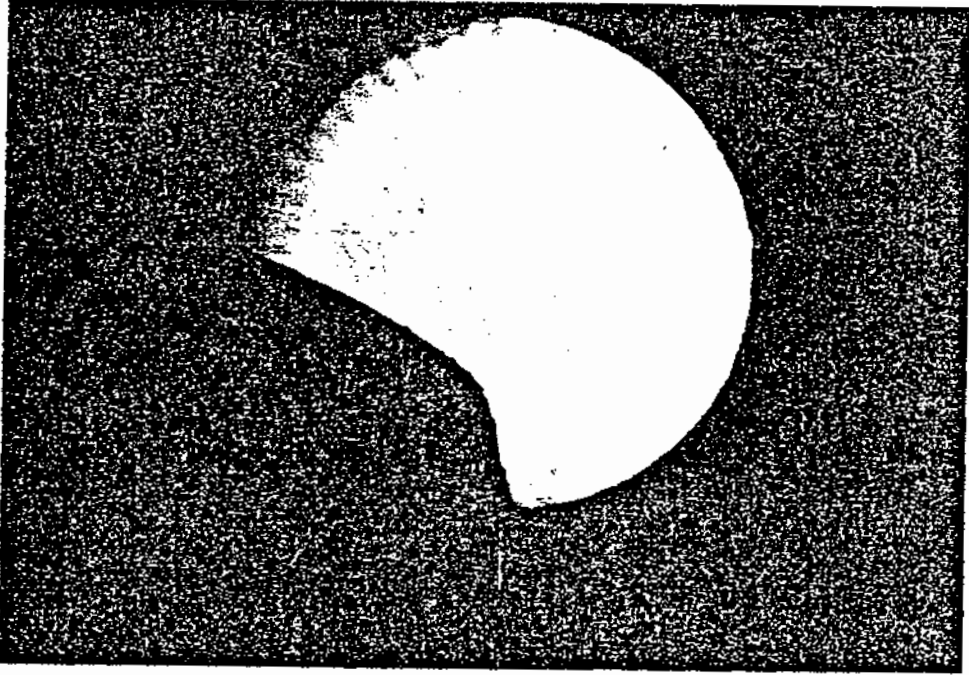
Pl. 105. Location 1: bowls, rimsherds (W 18).



Pl. 106. Location 1: bowls, basins (W 19).



Pl. 107. Location 1: bowls, as above (W 19), bases.



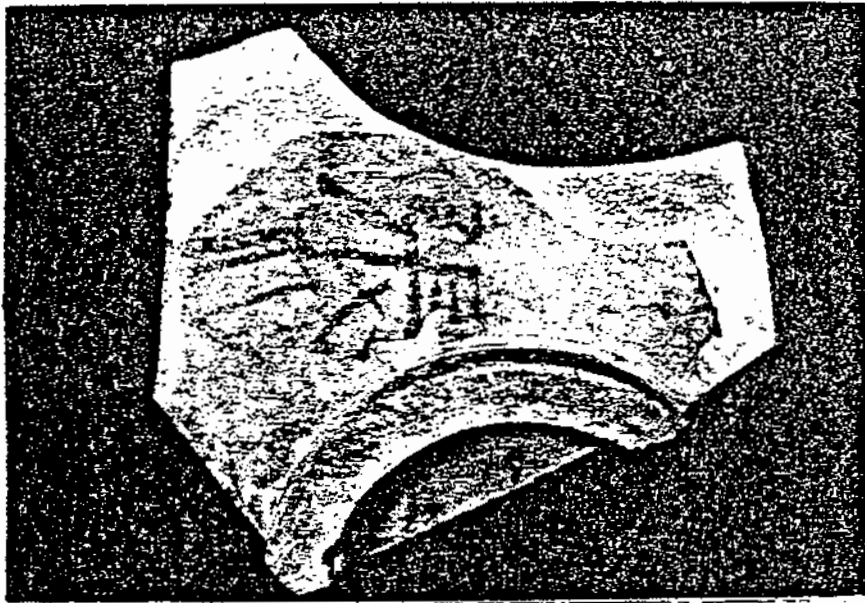
Pl. 108. Location 1: covered box (W 20), lid.



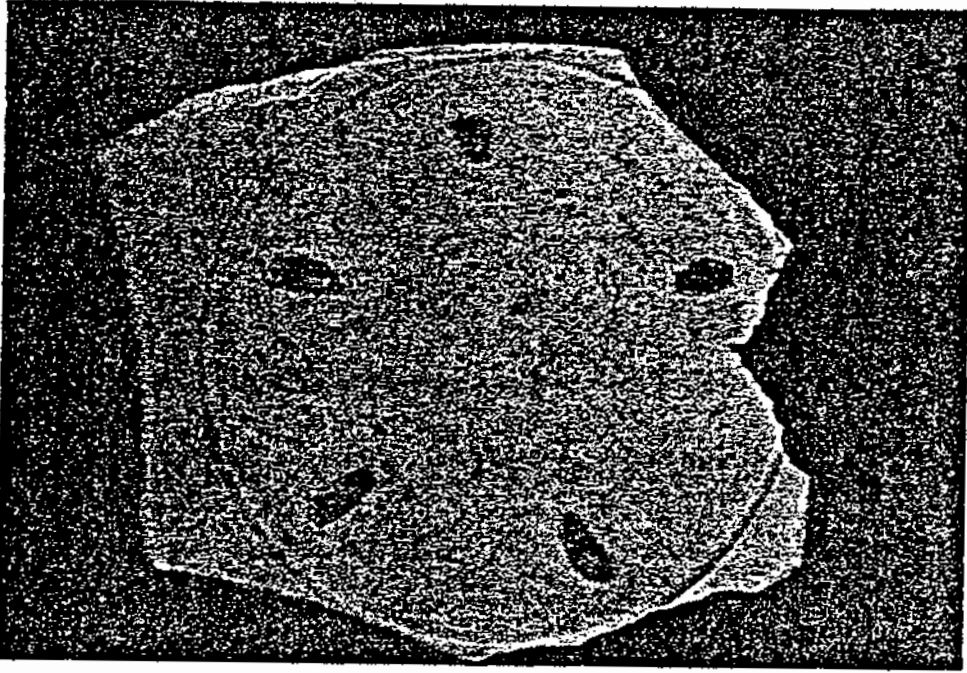
Pl. 109. Location 1: covered box (W 21), lid.



Pl. 110. Location 1: bottle vase, sherd (W 22).



Pl. 111. Location 3: bowl, with characters (W 23), base.



Pl. 112. Location 3: bowl with five spurmarks (W 24).