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# A PRELIMINARY REPORT OF THE EXCAVATION ON THE URBAN SITES IN BANTEN (WEST JAVA)

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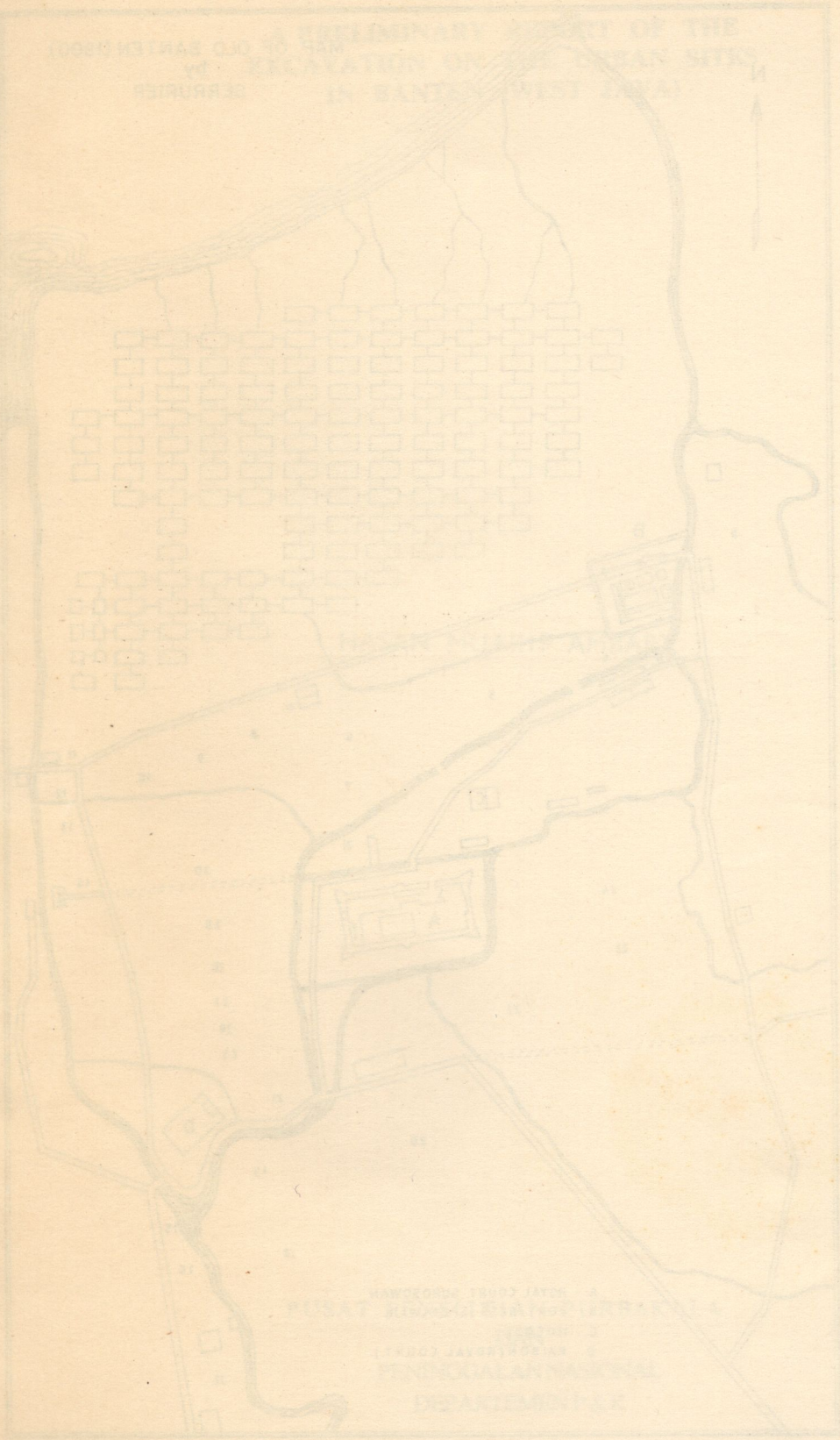

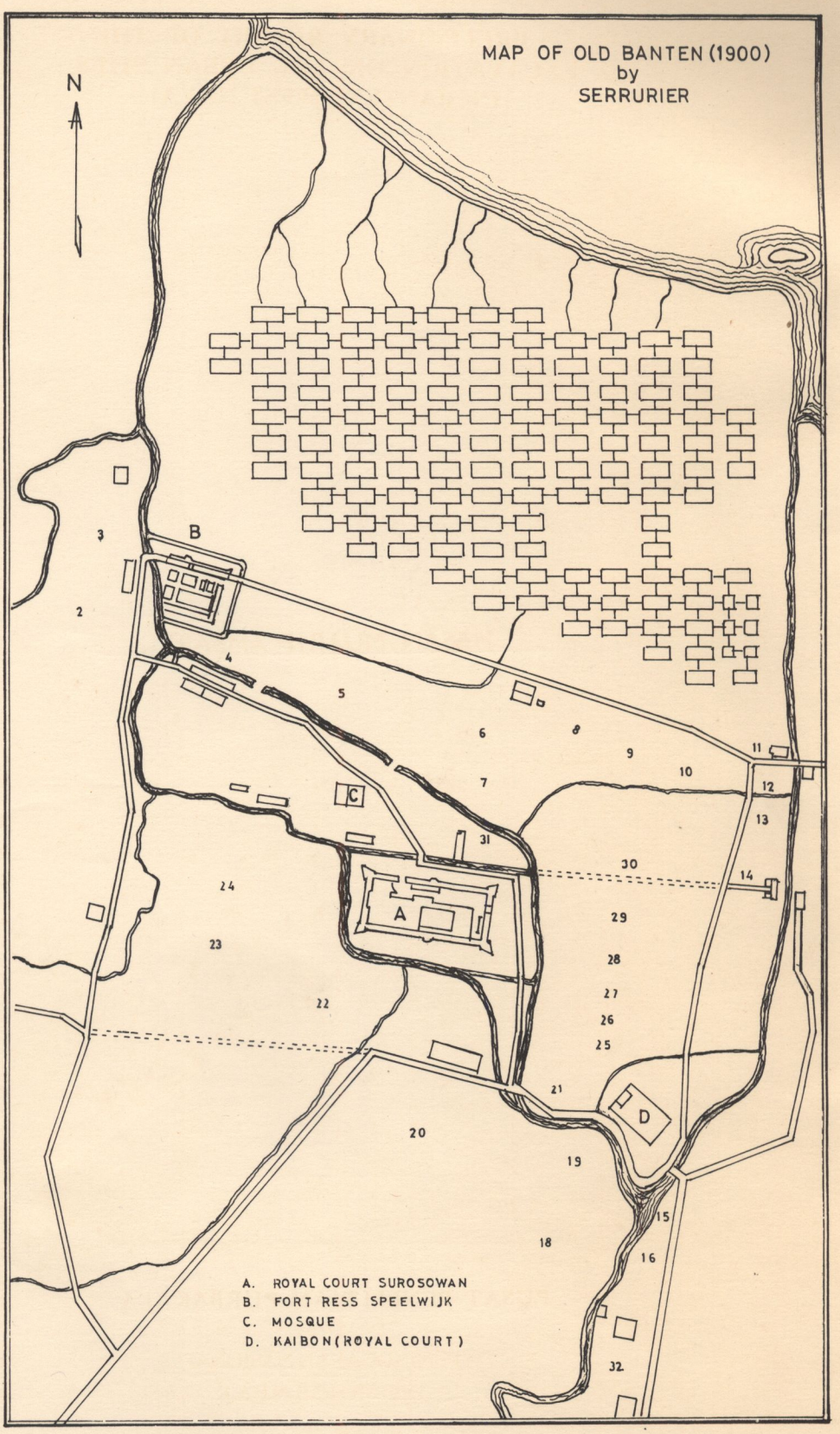
MAP OF OLD BANTEN (1900)
by
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A. ROYAL COURT SUROSOWAN
B. FORT RESS SPEELWIJK
C. MOSQUE
D. KAIBON (ROYAL COURT)

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# A PRELIMINARY REPORT OF THE EXCAVATION ON THE URBAN SITES OF BANTEN.
## (West Java)*)

## A. Introduction :

1. Early Indonesian history such as the history of Banten comprises **chronology** and **such subjects** as ancient economics, ancient human relationships and the nature of ancient international diplomacy and policies of the realm. In the field of archaeological research in Indonesia which at present is developing rapidly there is the use of modern analytic and interpretative methodology which is a must for most of the archaeological activities undertaken. The tackling of problems concerning artifact chronology, ancient settlements and subsistence form an important part of these activities. Therefore the excavations in Banten in 1968 and 1976 were carried out with the purpose to answer certain questions such as chronology and urban settlements with the use of analytic methodology. The sites chosen situated in the district of Serang (West Java) are Banten Girang and Banten Lama. Banten Girang which is situated approximately 5 kilometers to the south of Serang is according to the historical sources such as the Babad Banten the place where the first Moslem ruler made his first settlement. He afterwards shifted his capital to Banten Lama which is situated on the mouth of the Banten river which discharges itself on the north coast of Java into the sea.

2. **Environment.**
The district of Serang can be divided into four environment zones :

   a. Plains with relatively little rainfall and poor quarternary soil which extend all around the bay of Banten up to Pontang. In the area where rivers discharge themselves into the sea there is much sediment which causes the coastline to move more and more northwards with a growth of about four meters a year. It is less than five meters above sealevel, and the rainfall is about 1.500 milimeters a year. Due to the poor condition of the soil it is used for coconut farming and fish ponds.

   b. The area of Cilegon consists of plains and foothills. North Serang, Ciruas, Pamarayan and Pontang — fifty percent of the entire area of the district of Cilegon consists of plains with in addition a few foothills in the south. The soil is quarternary sediment with a height of about 100 meters above sealevel. The rainfall is about 1.500 — 2.000 milimeters a year. It is a large fertile area and generally used for wet and dry ricefields. Population is about 400 — 600 per square kilometers.

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c. The area of Mount Salak, Mount Gede and Mount Batur. The soil is very fertile; it exists of quarternary and tertiary sediments. It is 600 meters above sealevel. The soil is in general used for plantations. The rainfall is about 1.500 — 2.000 milimeters a year. The population is 600 — 800 per square kilometers.

d. The mountaineous area consists of quarternary and tertiary sediments. This area comprises Anyer, West Serang and Ciomas. It is about 200 - 2.000 meters above sealevel. The rainfall is about 2.000 - 3.500 milimeters per year. The soil is used for rice fields and estates.

The sites for the Banten exavation were Banten Girang and Old Banten. These two sites are situated on a distance of 18 km. The site of Old Banten Girang is in the valley and at the foot of the hills whereas Old Banten is on the seashore. The difference in natural environment has also been the cause of different influences on the inhabitants of these two places. The Banten River which encircles the site of Banten Girang proved to be a good natural protection, and was at the same time also used as a communication route between the interior and the coast. Old Banten consisted of open plains. Old Banten was chosen as a centre of the realm not so much for its agrarian, but rather for its maritime potentialities. The problems of infertility and lack of water were overcome by the royal administrators with the construction of irrigation works and the opening of rice fields in the south. The need for fresh water was filled by the construction of a water reservoir at Tasik Ardi, a small lake situated about 1,5 Km from the Keraton (Royal palace). For this purpose terracotta pipes were made as well as two filters (pengindelan).

3. **Historical background.**

There are but few sources on Banten history of the 16th century. It is only known that at least from the 12th to the 15th century Banten was an unimportant harbour of the Kingdom of Sunda. The ancient history of Banten has two stages. Banten became a busy harbour due to the pepper trade. Banten in that period was still under the suzerainty of Sunda which had Pajajaran as its capital. The second stage was Banten prior to the beginning of the 16th century when it became the capital of Moslem princes. During the Pajajaran period the capital was still Banten Girang. Sunan Gunung Jati ordered Hasannuddin to make Surosowan the capital of Banten. When they first arrived in Banten around 1524 — 1525 Banten was still under the suzerainty of the Kingdom of Sunda. Hasanuddin who was crowned as king of Banten in 1552 added two mosque to the town of Banten. We can get a view of the town of Banten in the period when Prince Muhammad was the Young King, while his uncle Aria Japara was

the prince regent (De Graaf 1974. 23). Prince Muhammad received the ships from the Netherlands under command of Cornelis de Houtman. It is from the notes made by some of their passengers that we have our knowledge about the town of Banten. Jan Hans Kaerel wrote in August 1596 that the foreign ships anchoring at Banten needed the permission of the Shahbandar. In order to enter Banten from the port, one had to pass the tollgate (tolhuis), (Rouffaer 1929.201). The picture drawn in 1596 shows that in Banten the mosque was near the market (Lombard 1967. 136 — 137). Banten had already a circular wall of brick (Rouffaer 1929. 104 - 106 pl. 11). Willem Lodewijcks who had joined the expedition led by de Houtman wrote the following notes about Banten :

East of the town (Karang Antu) are many foreign tradesmen such as Portuguese, Arabs, Chinese, Turcs, Kelings, Pegunese, Malays, Benggalis, Gujarati and people from the Malabar and Abessina. Their trading activities were carried out by morning and afternoon. The market where daily commoditions were sold was located by the Paseban.

4. **Basic Concept :**

The main points of archaeological research in Banten are those connected with the layout of the town. The main point is to look for characteristics in the town environment. One factor is its chronology. Both Old Banten and Banten Girang were sites used as examples for dating determinations by means artefacts exacavated on these sites. Two major aims have been the guidelines for excavations carried out in 1968 and 1976 : The 1968 excavation aiming at the architectural interpretation of the physical structure of the palace as the site on the whole. Meanwhile the 1976 excavation is the methodological interpretation based on the artefactual data obtained on the site. Historical data gave sufficient evidence on the existence of Old Banten as a compound of a unit (a town) comprising smaller elements viz. The cluster as sub units. The location of clusters might indicate a settlement pattern, diffusion of community groups, trade and defence — systems, social structure etc. Based upon the systemic point of view of culture, Old Banten can be considered a town as a system consisting of a number of clusters as a sub - system. It was assumed that political and economical power unite these sub-systems. Historical data also gave records of the geographical condition, political and economical systems and their interrelationship. These data also explain the interpretative frame of cultural aspects of the site. No exact data referred to the site of Banten Girang but Old Banten is mentioned that is consited of a least 33 elements (units) of clusters of which 3 main subdivisions could be discerned :

a). **Grouping based on the racial and tribal aspect;** i.e. Pekojan, Kebalen, Pecinan etc.

b). **Grouping based on social stratification** ; i.e. Kapurban, Kesatrian,

Kefakihan etc.

c) **Grouping based on occupational aspects** ; i.e. Kepandean, Panjunan, pejantran etc.

Surface data collecting contributes to the identification, chronology and characteristics of the site. The whole program at the Banten excavation therefore can be specified as the following :

I. Excavation at the palace site to obtain the characteristics of the site as a whole (1968)

II. Excavation around the palace to obtain physical data being the foundation of town planning, industry, handicraft (1976).

III. Excavation around the socio-economical sites such as remains of storage areas, fisherman settlements, port area (to be carried out in 1977).

## 5. Results of the Banten excavation :

Two excavations were carried out in Banten to collect physical data on the town of Banten. The first, in 1968 (27 June — 10 July 1968) was undertaken by the Faculty of Letters, University of Indonesia, consisting of lecturers and students of the Department of Archaeology. The site selected for this purpose was a part of the Surosoan Palace, located 45 m. from the North gate, in South eastern direction. This excavation resulted in finds consisting of: architectural fragments (walls, floors, bricks and decorative carvings; Report F.S.U.I., 1968 unpublished). The second, in 1976, was carried out by the Department of Islamic Archaeology of the National Research Centre for Archaeology in collaboration with the Archaeological section of the F.S.U.I.

Aims and achievsments of both excavations will be discussed in the respective chapters. Classifications of the finds are summed up as follows :

— local pottery/ceramics — stone — animal remains
— foreign ceramics — charcoal — miscellaneous.
— metal — coins

**Samples of finds of the 1976 excavation :**

a). ANVILS

Anvils were found very rarely in excavations carried out elsewhere, contrary to this fact, a numbers of anvils amounting to 77 were found on this site, of which 73 were made of terracotta and the remaining were made of stone. (See Fig. 1 and 2). The following table reflects the spread of the anvils :

| Number | sites | amount |
|---|---|---|
| 1. | Sukadiri XII | 42 |
| 2. | Sukadiri XIII | 3 |
| 3. | Sukadiri XIV | 17 |
| 4. | Banten Lama (Outside Sukadiri) | 3 |
| 5. | Panjunan | 12 |
| | Total amount : | 77 |

One of the techniques applied to the manufacture of earthenware is the ''paddle and anvil technique''. The paddle and anvil come into use at the moment that the pot is sufficiently hard, but still soft enough to be beaten into shape before being dried and baked. The paddle is usually made of wood while the anvil, which is put inside the pot was made of other material such as stone, sundried or baked clay and also wood.

The aformentioned finds clearly show that the Sukadiri site was a fertile site for anvils. The same can be said of the Panjunan site (Panjunan refers to a place where pottery/eartheware is manufactured). It is therefore easy to assume that in the past, both Sukadiri and Panjunan have played an important role in the local earthenware industry.

b). **Earthenware containers.**

The greater part of the finds of the Banten Excavation in 1976, consist of postsherds or fragments of local ceramics. They amount to a number of 29.494 pieces, of which 12.808 were surface finds. Sampling a selection of surface finds and excavated material was done based on the assumption that Old Banten represented a single component site. In fact, the number of 12.808 surface finds cannot be considered as representing finds of the entire site, since this number only included those of sites XII and XIV of Sukadiri. A comparison of several excavation pits of equal size revealed the difference of density of the finds. For example, Pit XII/31 (Sukadiri), measuring 4 m2 (2 x 2 m), contained 477 loal potsherds, which means: a density of 120 per m2, while Pit XIII (Sukadiri) only yielded 27 sherds, thus giving a density ratio of 8 per m2. Pit XII/1 (Sukadiri) gave 6820 sherds within 1,72 m3, which account for a density ratio of 3.965 per m3. The following tabble shows the number and distribution of sherds found on the entire site.

| Number | Location | amount of finds | | description |
|---|---|---|---|---|
| | | surface | exc. | |
| 1. | Sukadiri - V | 483 | 692 | 31 rims, 763 bodies, 5 spouts, 13 carinations, 22 bases, 4 covers, 1 handle. |
| 2. | Sukadiri - VI | 135 | 1260 | 431 rims, 920 bodies, 3 spouts, 2 necks, 7 carinations, 29 bases, 3 covers, 17 handles. |
| 3. | Sukadiri - VII | 331 | 674 | 502 rims, 334 bodies, 8 necks, 38 bases, 7 covers, 17 handles. |
| 4. | Sukadiri - IX | — | 73 | 17 rims, 48 bodies, 4 carinations 3 bases, 1 handle. |
| 5. | Sukadiri - XII | 9823 | 6820 | 3178 rims, 2693 bodies, 41 carinations, 53 bases, 11 handles, 12 covers. |
| 6. | Sukadiri - XIII | 349 | 462 | 315 rims, 456 bodies, 1 spouts 10 carinations, 29 necks, |
| 7. | Sukadiri | 1530 | 6020 | 1343 rims, 6177 bodies. 23 bases, 4 covers, 1 handle. |
| 8. | Sukadiri - XV | — | 525 | 115 rims, 391 bodies, 3 carinations, 16 bases. |
| 9. | Panjunan | 131 | 152 | 158 rims, 37 bodies, 88 spouts, 13 necks, 10 carinations, 37 covers. |
| 10. | Pekojan | 8 | 8 | 6 rims, 6 bodies, 3 necks, 1 cover. |
| 11. | Banten Girang | 19 | — | 4 rims, 1 body, 8 spouts, 6 handles. |
| 12. | Banten Lama | 15 | — | 1 vase, 5 rims, 4 covers, 3 necks, 1 spout, 1 base. |
| Total amount : 12.888 | | | 16.868 | |

Based on sample analysis, at least 9 types of whole pieces of earthenware were identified, representing two main categories, viz. containers and non-containers. The containers include 8 types, such as :

pasu — bowls (basinets or troughs)
piring — dishes
jambangan — vases (flowerpots)
kendi — water jugs
periuk — pots (cooking pot)
wajan — baking pans (frying pans)
kuali — casseroles (cooking pot)

As non-containers can be listed : **tungku;** a kind of oven of stove. The number of bowls of various size surpassed that of other types at the percentage ratio as shown in the following chart :

| | | | |
|---|---|---|---|
| — bowls | : 80,95% | — cooking pots | : 10,39% |
| — dishes | : 0,75 % | — baking pan | : 1.96% |
| — vases | : 0,86 % | casseroles | : 1,90 % |
| — water jugs | : 1,11 % | — oven (stove) | : 0,54 % |
| — flowerpots | : 2,40% | | |

Abovementioned data give a clear picture of the use of earthenware utelsils in the Old Banten community of which each type has its own significance. But due to the small number of whole pieces among the finds, explaining satisfactorily is made difficult, except for a reconstructed remains of a rectangular dish, found in association with remains of sea-shells, consumed by the people. The plate is thus supposed to be used for meals. A percentage of 80,95% of bowls among the finds, leads to the assumption that bowls were also used for water storage. Scarcity of freshwater at the site at present give ample reason to belief that in the past, the problem was already existing.

Manufacture of local pottery was done in two ways :

1. With the use of the potter wheel
2. by hand

Considering the number of anvils found at Sukadiri and Panjunan, the paddle and anvil technique in the manufacture of eartherware seems to have been known since prehistoric times, and at present, not much has changed in that respect (Soejono, 1975: 174 - 179, 243 - 257).

c). **Foreign Ceramics.**

Fragments (sherds) of foreign ceramics collected during the Banten excavation in 1976, amount to 3109 pieces, of which 2521 were used as samples for further study. The remaining sherds cannot be classified, typologically as well as chronologically to the smallnes, thus difficult to

identify. All sherds were found as surface finds as well as excavation material from Old Banten and Banten Girang. The finds of both sites were recorded as follows :

| Location | Finds | | Amount |
|---|---|---|---|
| | surface | excavation | |
| Banten Girang | 316 | 21 | 337 |
| Old Banten | 1431 | 1341 | 2772 |
| Total amount : | 1747 | 1362 | 3109 |

Comparing both sites, Old Banten clearly yielded more finds than Banten Girang. Two reasons account for this difference :

1. Old Banten is a larger site with a ration of 8 : 1
2. A ratio of 6 : 1 for the size of excavation pits.

A field survey and excavations later on, confirm the fact that the number of surface finds at Old Banten by far surpassed that of Banten Girang. Surface finds and excavation material of foreign ceramics were specified as follows :

| Location | Finds | | Amount |
|---|---|---|---|
| | surface | excavation | |
| Banten Lama | 208 | — | 208 |
| Sukadiri V/1 | 217 | 87 | 304 |
| Sukadiri VI/1 | 37 | 227 | 264 |
| Sukadiri VII/1 | 311 | 191 | 502 |
| Sukadiri VII/2 | — | 101 | 101 |
| Sukadiri VII/4 | — | 70 | 70 |
| Sukadiri IX/1 | — | 35 | 35 |
| Sukadiri XII/1 | 80 | 202 | 282 |
| Sukadiri XII/2 | — | 56 | 56 |
| Sukadiri XIII/1 | 115 | 84 | 199 |
| Sukadiri XIII/2 | — | 16 | 16 |
| Sukadiri XIV/1 | 78 | 136 | 214 |
| Sukadiri XV/1 | — | 76 | 76 |
| Pekojan I/1 | 21 | 19 | 40 |
| Panjunan | 364 | 41 | 405 |
| Banten Girang | 316 | 21 | 337 |
| Total amount | 1747 | 1362 | 3109 |

Peculiar to site XIII (Sukadiri), which is assumed as the site of manufacture of local ceramics, is, that here, quite a number of foreign ceramics were also unearthed. This fact could only indicate that being the manufacturers of local pottery (ceramics), people here were also using foreign ceramics for their daily use. 1724 samples were used for typological classification, comprising all fragments of rims, bases collected during the excavation, and part of fragments of bodies. 11 types can be deducted of the sample analysis viz :

1. dishes/plates
2. bowls
3. boxes
4. flasks (bottles)
5. jars
6. cups
7. vases/flowerpots
8. Jars
9. water jugs
10. spoons
11. decorative pieces.

The following tables refects the number of respective finds of Old Banten and Banten Girang. :

| Number types | Old Banten | | Banten Girang | |
|---|---|---|---|---|
| | amount | percentage | amount | percentage |
| 1. dishes | 685 | 44% | 51 | 29,5% |
| 2. bowls | 730 | 47% | 110 | 63,5% |
| 3. boxes | 70 | 5% | 4 | 2,3% |
| 4. flask/bottles | 3 | 0,2% | 1 | 0,6% |
| 5. jars (Guci) | 32 | 2% | 6 | 3,5% |
| 6. cups | 3 | 0,2% | — | — |
| 7. flowerpots | 2 | 0,1% | — | — |
| 8. jars (jambangan) | 2 | 0,1% | — | — |
| 9. waterjugs | 4 | 0,3% | 1 | 0,6% |
| 10. spoons | 17 | 1% | — | — |
| 11. decorative pieces | 1 | 0,1% | — | — |
| Total amount | 1551 | 100,1% | 173 | 100,0% |

Except ceramics from Chinese origin, those from other parts of the world such as Europe, Annam, Japan, were also found here. The oldest find of Banten Girang, dated from the 5th dynasty, that of Old Banten gave the date of the Sung period. Ceramics dating as from the Ching Period, rates the youngest finds from both Banten Girang and Old Banten, The chronological sequence of the finds of Banten Girang and Old Banten are listed in the following table :

| The origin | Old Banten | | Banten Girang | |
|---|---|---|---|---|
| | amount | % | amount | % |
| I. **Chinese Ceramics** | | | | |
| 1. Fifth Dinasty (907 — 960) | — | — | 1 | 0,3 |
| 2. Sung (960 — 1280) | 8 | 0,4 | 141 | 42 |
| 3. Yuan (1280 — 1368) | 6 | 0,3 | 1 | 0,3 |
| 4. Transition (1640 — 1644) | 1 | 0,05 | — | — |
| 5. Ming (1368 — 1643) | 265 | 12 | 108 | |
| 6. Ching (1644 — 1912 A.D.) | 1885 | 86,30 | 65 | 19 |
| II. **Annamese** (XIV — XVI Century) | 6 | 0,3 | 16 | 5 |
| III. **Japanese Ceramics** (XVII-XIX Century) | 3 | 0,15 | 2 | 0,6 |
| IV. **European** (XVII — XIX Century) | 10 | 0,50 | 3 | 0,9 |
| Total amount : | 2184 | 100,00 | 337 | 100,00 |

The existence of foreign ceramics from outside Indonesia, points to the fact that in the past a regular trade flourished between Banten and other countries. Historic records confirmed the fact that Banten had in the past a flourishing harbour, frequently visited by foreign traders. As artefacts, these foreign ceramics were dated according to the Chinese dynasties. Accordingly, efforts were undertaken as to date the assemblages nearest to the physical structure of foreign ceramics related to finds found in situ. Though no proofs were obtained stating that these foreign ceramics were of the same assemblage, further analysis carried out afterwards, revealed that these ceramics from the Old Banten site dated from the Ching Dynasty, while those of Banten Girang were mostly from the Sung period. This fact could lead to the assumption that Banten Girang is older than Banten Lama. (See Fig. 3)

d). **M e t a l**

Metal artifacts found at the excavation at the Sukadiri site and surroundings, can be classified in 4 categories :

1. Bronze
2. Copper (brass)
3. Lead
4. Iron

Finds of non-artifacts comprise : remains (residue) of metal melting (casting) such as clotted bronze, iron and bronze crust clumps. Of the arti facts, (not including coins), only a few can be identified (recognized) as bronze artifacts. They were two nails from site VII and XII (Sukadiri) measuring 2.1 cm and 9 cm, the points are rather bent, a sign of former use nails for jewel boxed, leather-covered chairs etc. At site XII/31 (Sukadiri lot, 8) a spoon is found, also at site XII/32 (Sukadiri), lot 8) were found two fragments of spoons. Length of the spoon is 6.5 cm with a long rounded handle. The tip of the spoon is flat and widens at the ends. The spoon is 0,1 cm thick and the largest width is 0.9 cm. Remnants of chalk/lime indicates the use of it for betelchewing purposes.

At Sukadiri VII/43 (lot 1), a bronze wire bracelet was found in the shape of a 6-wired spiral. Found at site XIV is a bronze tweezer and a bronze bell was unearthed from site (VI/1 (lot 4). Other bronze artifacts, hard to identify are : a rectangular fragment of bronze, pieces spiraled wire and a flattened piece of wire with pointed ends. Copper (brass) artifacts yielded only one object, found at site VI/1: a cone shaped object, of which the top is badly corroded. Measurements are: 10 cm diameter, and 2.5 cm height. At the same site were found also lead artifacts, consisting of a ring-shaped object (diam. 1.2 cm) and a cylindric object of 10 cm length, diam. 0.6 cm. Along the shaft is found a grove of 0.3 cm width and 0.2 cm depth, both ends are rather pointed. The fourth category of metal is iron. Iron artifacts were irrecognizable since corrosion and oxydation affect these objects very easily. One of them is adze-like, the ends of it are rather pointed (convex), measuring 22 cm in length and 1cm thick. Another one found at site XII/1 (lot 2) is a cylindric object of 5.5 cm long with a diameter of 1 cm, ends rather bent and convex. One of the two finds at site IX (Sukadiri) is a knife-like fragment of iron of 8 cm length. This fragment comprises the handle and part of the blade. (See Fig. 4)

Non-artifacts finds occurred all over the site. A clump or layer of bronze was found only at site VII (Sukadiri, pit, 1, 2, 3); crusts of bronze at site VI, XIII, XV (Sukadiri); iron slag at site IX., XII, XIV, XV.

The significance of these finds are that it refers to the site as a place where metal casting was performed. Even though the site could be referred to as a place for metal casting, as confirmed by finds of layers of bronze residue, crusts of bronze and iron, it is not possible to state with certainty that bronze artifacts found at Sukadiri were products of this very site, since laboratory analysis has not been carried out to confirm that metal artifacts found at the site and all evidence of metal casting were of the same texture.
Iron slags found at Sukadiri indicate that in the process of metal casting, iron equipment was used, of which only fragments were left. Material for comparison at present can be referred to some metal casting workshops in the Bogor area.

(e). **Net — Sinkers**

One of the interesting finds among the archaeological objects found (excavated) at Old Banten, is what is supposed to be netsinkers. They are of great significance, because they form a link between man and its biotic environ ment.

These sinkers are used to put weight on the nets, spanned for trapping fish. They are of various shape and size but all are of the same pattern — perforated in the center part through which thread can be inserted and tied up to the net.

The sinkers found at Sukadiri and its surroundings are made of baked clay or terracotta and numbered a total of 15 pieces (8 being surface finds and 7 pieces were excavated material).
Excavation pits at Site VI Sukadiri yielded 3 pieces, site VII gave 1 as surface find and 1 excavated. Site XII gave 3 pieces as surface finds and 1 was excavated, while site XIII yielded only one surface find.

Outside Sukadiri, at Panjunan, were found 3 pieces on the surface and 2 were unearthed.

According to shape and size, these sinkers can be classified into 4 types.

1. Large, oval shaped — length ; 9,7 cm, diameter 6.7 cm and diameter of hole is 1 cm.
2. Elongated round and large — length 11.5 cm, diameter 5.5 cm and diameter of hole is 1.1 cm.
3. Cylindric and of medium size — length 5.3 cm, diameter 2.1 cm and diameter of hole is 0.5 cm.
4. Round and small with a diameter of 2.3 cm and a hole of 0.5 cm in diameter. (See Fig. 5).

Classification of these four types is done rudimentary because type 1 and 2 has varieties of its own, according to their size. Difference of size of these

sinkers depends on the size of the nets to be used, while difference of shape has no effect whatsoever on their utilisation.

Surveys carried out in the surroundings of Karangantu reveal that fishermen from these places made use of almost similar sinkers, viz. the cylindric shaped ones (type 3), made of terracotta, but some are also made of lead.

The use of terracotta sinkers seem to be popular and widespread in the past because of the fact they were found not only scattered all over the site of Sukadiri, but also at Tridonorejo (Demak) on the north coast of Central Java. It is possible that other settlements of fishing communities will give the same evidences.

**Crucibles (melting pots).**

Fragments of crucibles (melting pots) found during the 1976 excavation numbered a total of 762 pieces. (see Fig. 6).

Locally, these pots are called "kowi" (in Sundanese and Javanese), "nusa" (in Balinese and Madurese) or "tambingka" in the Minangkabau language (Mundardjito, 1977, 62).

These pots were used to melt metal for gamelans.

Crucibles of very small size (diam. 1 — 5 cm) are used to melt metal for the purpose of making jewellery.

Pots found at the Banten excavation are cylindric, made of clay and are of various size, with thick walls of which the outer surface were rough and coated with a layer of mineral residue of shining deep red colour. An open grove and on the opposite side a squarish knob are found on the rim. The bottom is uneven while the inner surface is void of any coating of mineral residue.

Twenty-eight whole pieces can be reconstructed of 744 fragments out of the 762.

The following chart reflects the distribution of the crucibles found at Old Banten.

| Number | | Fragments | Complete pieces | Total |
|---|---|---|---|---|
| 1. | Sukadiri | 343 | 6 | 349 |
| 2. | Sukadiri | 227 | 9 | 236 |
| 3 | Sukadiri | 140 | 2 | 142 |
| 4 | Sukadiri | 28 | 1 | 29 |
| 5. | Sukadiri | 5 | 0 | 5 |
| 6 | Sukadiri | 1 | 0 | 1 |
| 7 | Sukadiri | 8 | 0 | 8 |
| 8 | Sukadiri | 2 | 0 | 2 |
| Total amount | | 744 | 18 | 762 |

Concentrated finds, contibuting valuable data in relation with their funtion, occurred at site VII Sukadiri.

From this site, beside these crucibles were also unearthed: a brick floor of about 2 x 2 m; a layer or sheet of melted bronze or copper of approximately 1.5 x 0.5 m; metal slag, fragments of iron tools, a variety of fragments of local as well as foreign ceramics, metal coins, etc.

The soil of this site is not compact (rather loose) of a blackish colour in which were mixed grains of charcoal of wood and bamboo.

(Mundardjito, 1977, 64).

This paper does not present all of the finds of the 1976 excavation.
No report on coins, metal melters, tools for fishing, etc. are available yet, since analysis on these finds are still being done.

The 1976 excavation gave the following **conclusion :**

1. This excavation is the first of on overall plan to a study of the ancient town planning.
2. The Banten excavation in 1976, succeeded in finding some indications of ancient settlements, a.o. industrial and court settlements.
3. It also succeeded in finding an indicator for the technological development of local ceramics manufacture and metal industry of the XVI - VXII Century.
   Making it up-to-date and enchancing archaeological research in Indonesia.
4. Systematical and methodological interpretations were applied to the Banten excavation (up to date and making rancing its development).

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Plate I : The site of Sukadiri

Plate II : Lay-out of the site

Plate III: FInds of potsherds

Plate IV : Stratigraphic view of one of the pits.

Plate V : Sporadic brick-formations

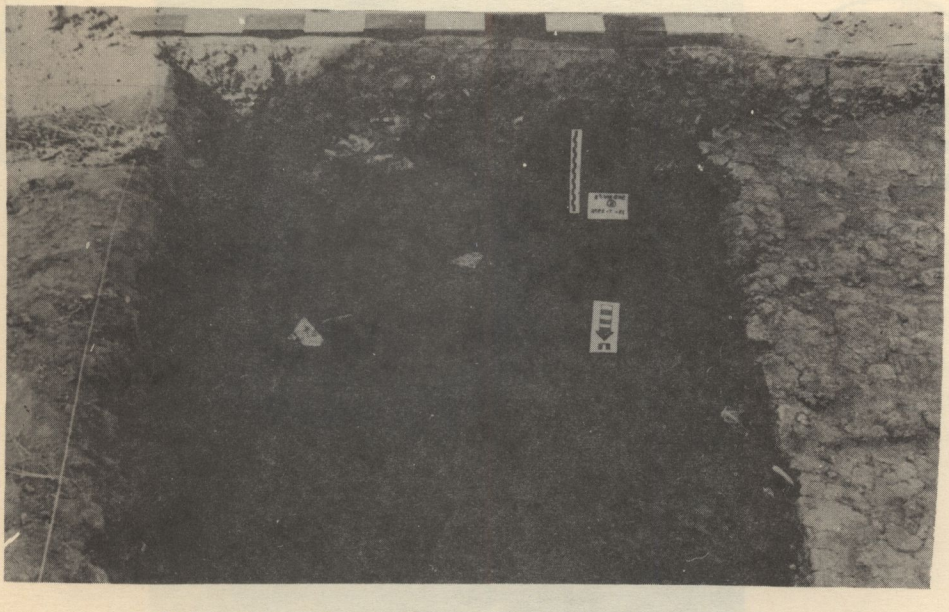


Plate VI : Brick-floor covered by bronze-slags

Plate VII : Assorted finds: anvils, net-sinkers among brick formation

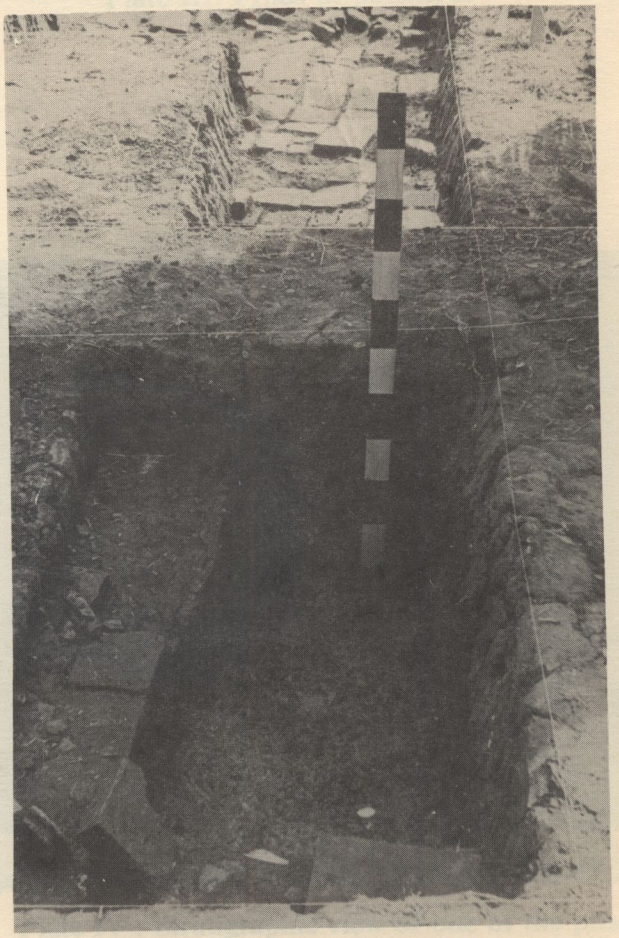
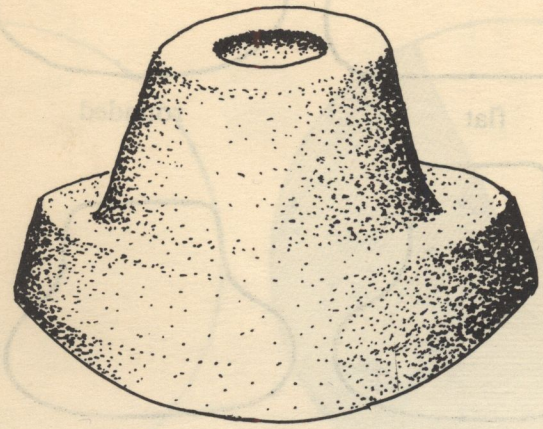
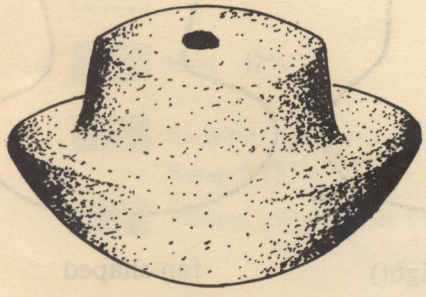


Plate VIII: Remains of a "brick-floor"



large



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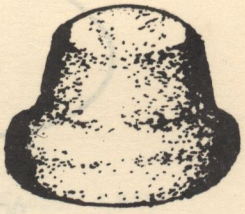

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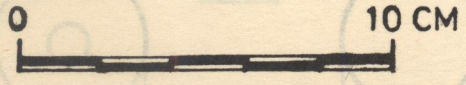



**Figure 1**

**Anvils**

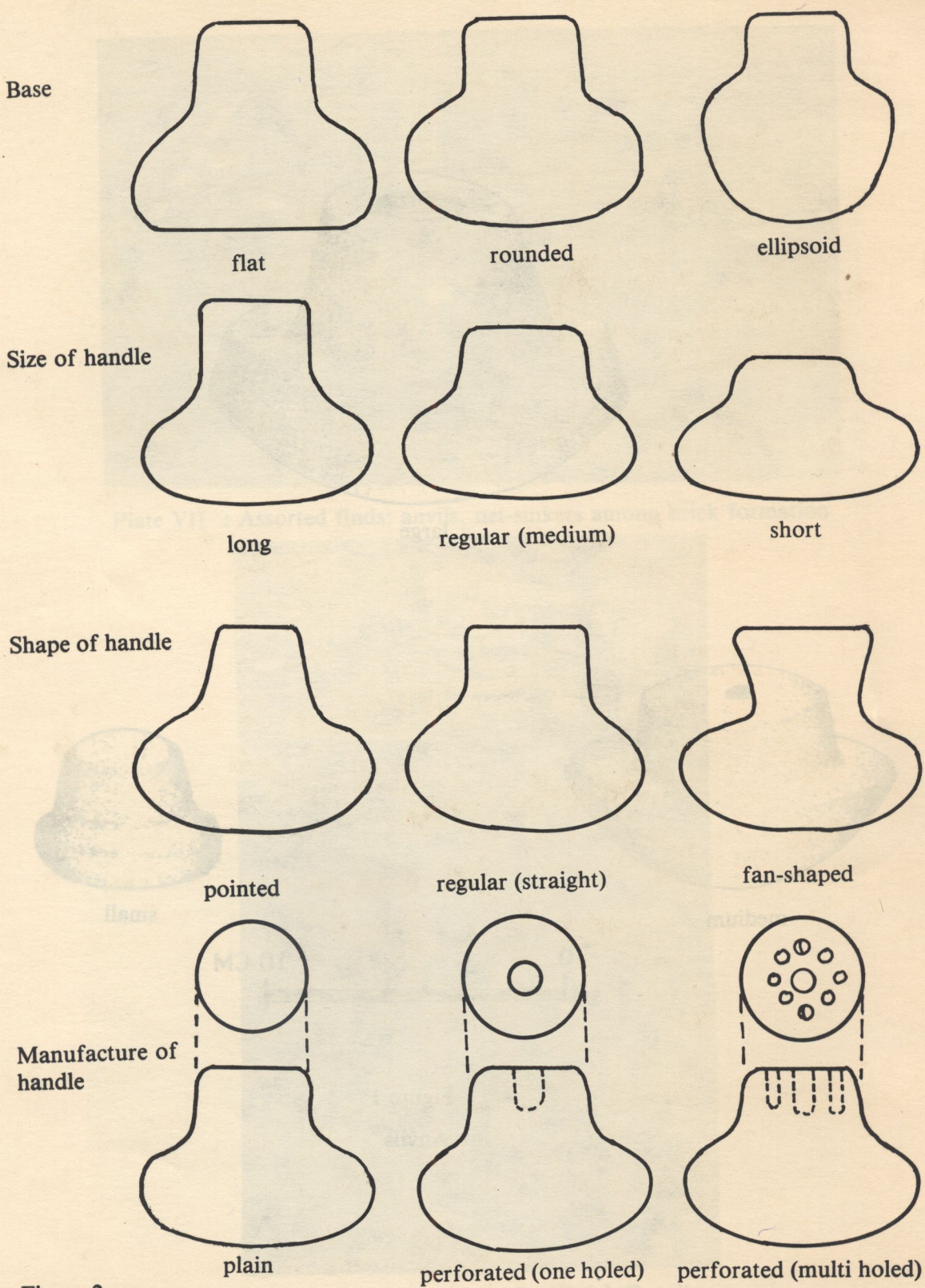
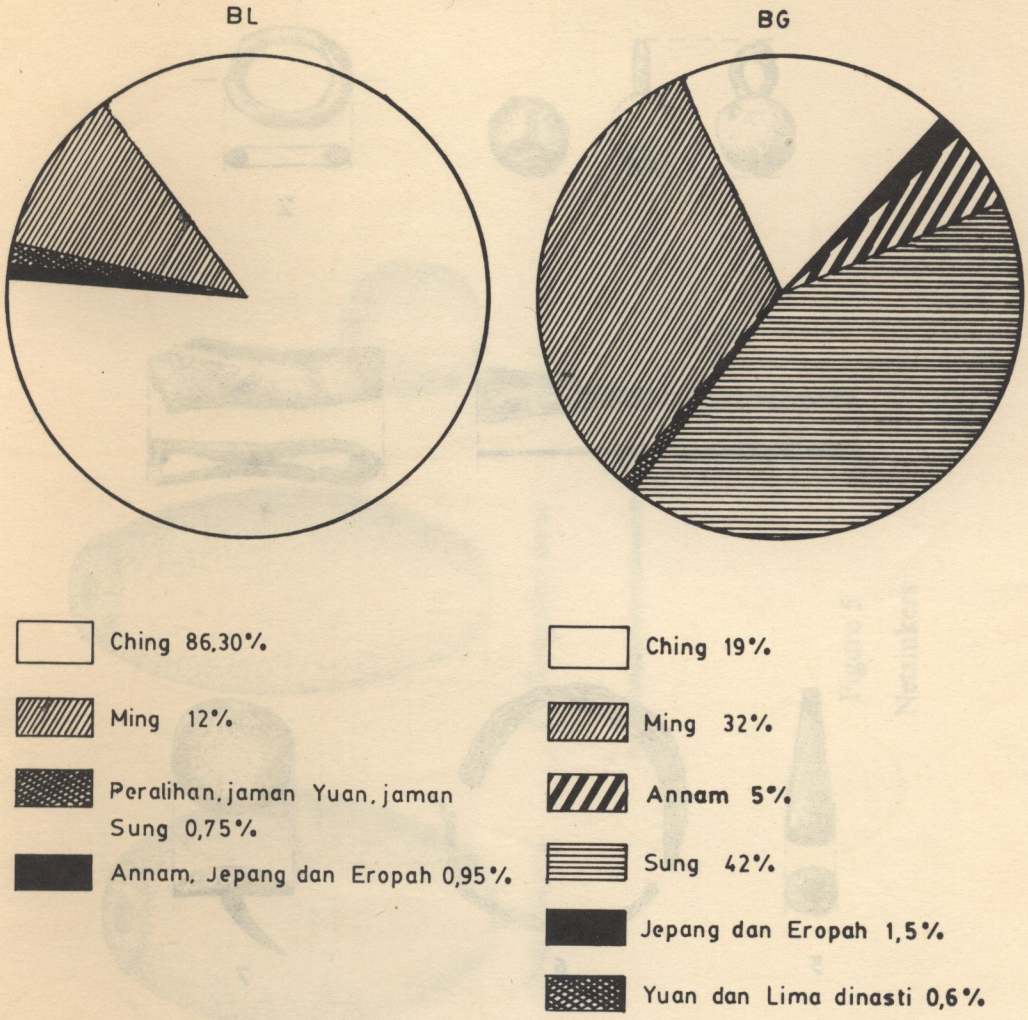



Figure 2
Anvils (cross-section)


BL
BG
Ching 86,30%
Ming 12%
Peralihan, jaman Yuan, jaman Sung 0,75%
Annam, Jepang dan Eropah 0,95%
Ching 19%
Ming 32%
Annam 5%
Sung 42%
Jepang dan Eropah 1,5%
Yuan dan Lima dinasti 0,6%

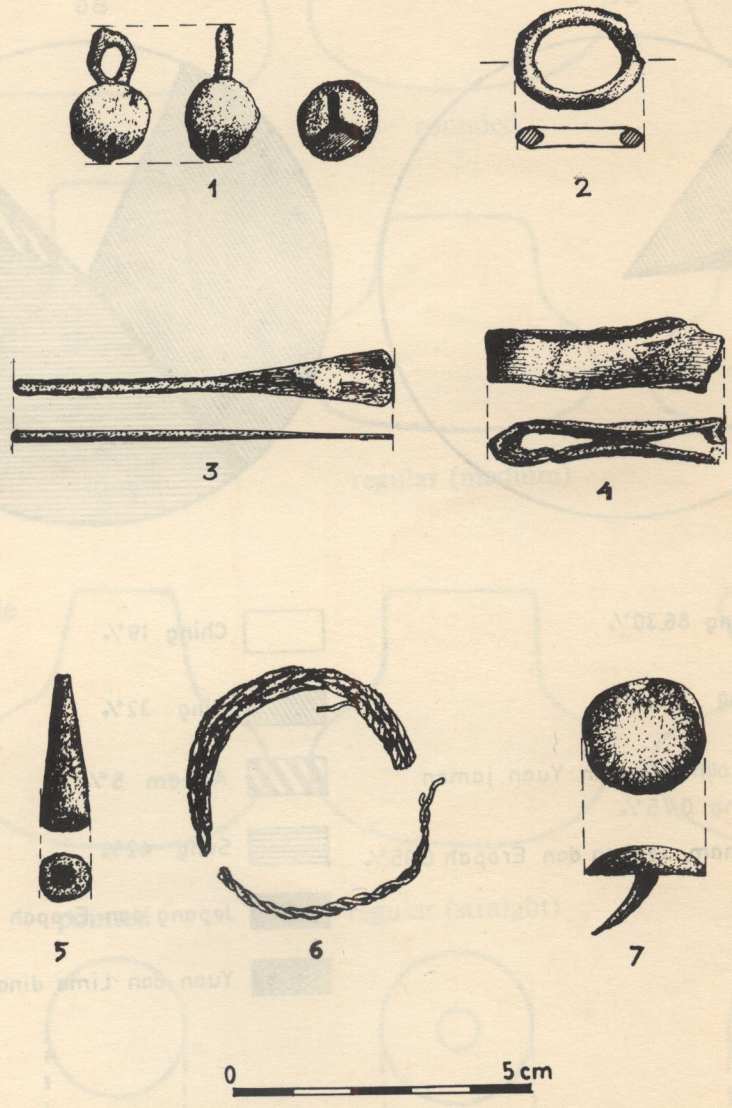



**Figure 4**
**Fragments of metal finds**

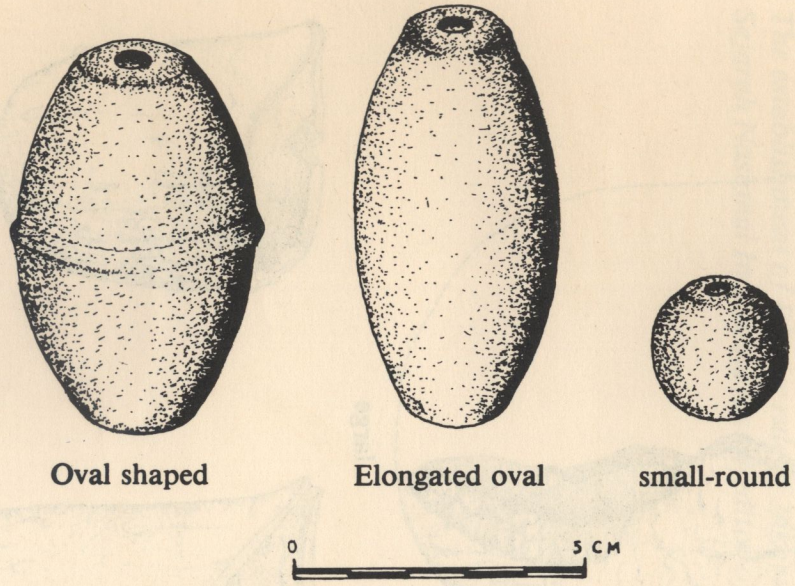



Figure 5

Netsinkers

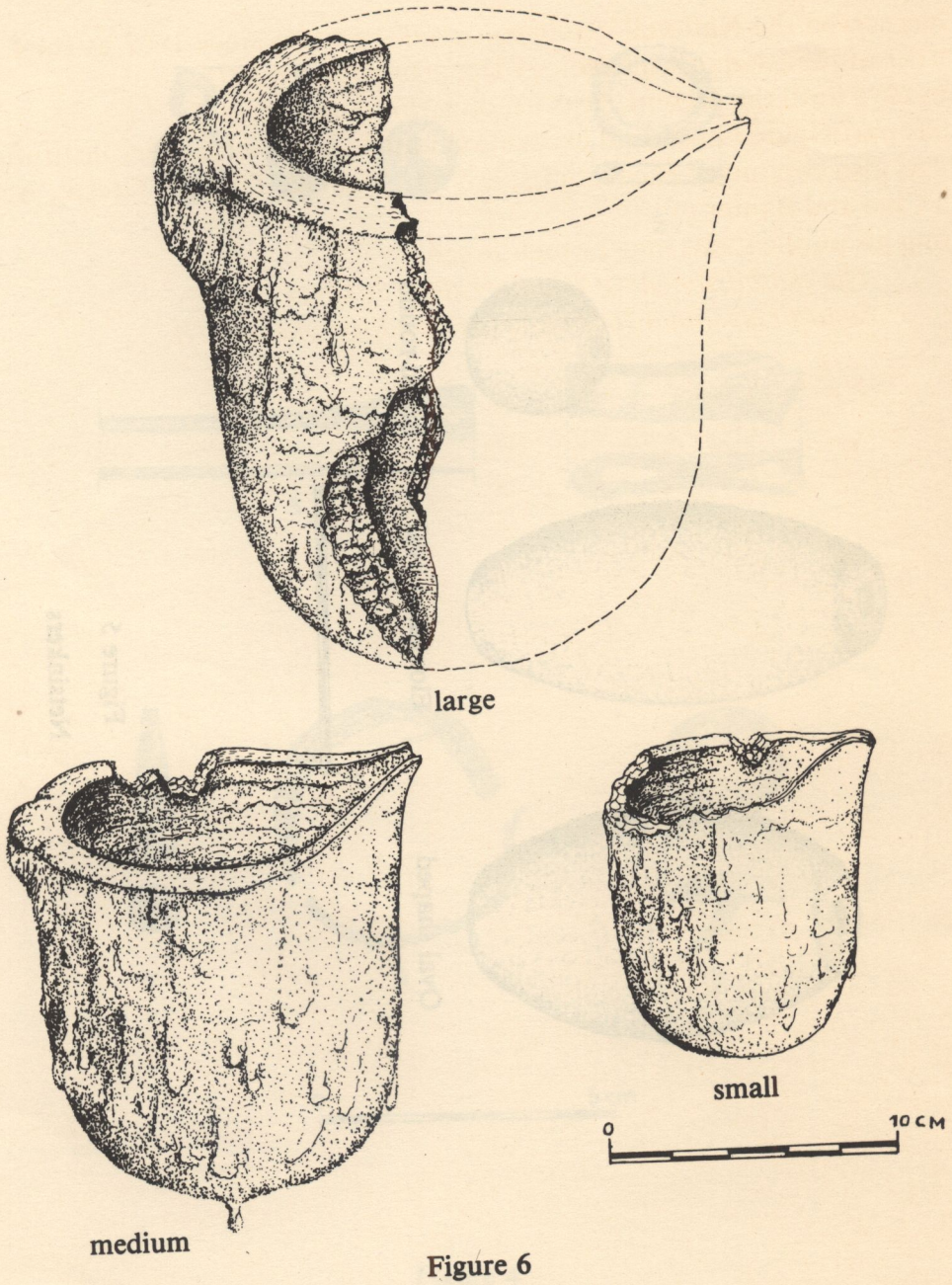



Figure 6

Crucibles

## BIOGRAPHY

Hasan Muarif Ambary is an archae ologist, graduated at the University of Indonesia in 1967.

He has served the National Archaeological Institute since 1967 as staff member of the Islamic Archaeology Department until 1975.

From 1975 until the present, he is heading this department.

He has participated in several excavation and research with other institutions and has also conducted excavations, a.o. at : Demak, Tralaya, Gresik, Aceh, Kota Cina and Banten.

Among his publications may be mentioned :

*The establishment of Islamic rule in Jakarta*

*Sejarah Nasional Indonesia (as co-editor of Part III).*