KHMER CERAMICS
9th–14th Century

T ASIAN CERAMIC SOCIETY

KHMER CERAMICS
9th–14th Century

A collection of 120 pieces, all featured in colour, illustrates the ceramic art of the ancient Khmer Empire. The informative text discusses finds at Angkor, Chinese and Indian influences, the mysteries of Ban Kruat and the ritual and utilitarian uses. It has been written by leading experts and comprises the **Introduction to the Ceramic Wares of Angkor** by Bernard P. Groslier, **Khmer Ceramics of the Korat Plateau** by Roxanna M. Brown and the **Uses of Khmer Ceramics** by Dawn F. Rooney. **The History of the Khmers** was contributed by the late Malcolm MacDonald.

This book has been published by the Southeast Asian Ceramic Society on the occasion of the exhibition of KHMER CERAMICS 9th–14th Century, which was held in conjunction with the National Museum, Singapore in March 1981.

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International Standard Book Number: 9971-83-001-9.

Price: $60.00
Date of Pub: 2 March '81

Printer: Times Printers Sdn. Bhd., Singapore
Photographer: Winson Photo/Graphic Consultants Pte. Ltd.
Designer: Susan Poyneer
Distributor: MPH Distributors (S) Pte. Ltd.
Publisher: Southeast Asian Ceramic Society
Tanglin P.O. Box 317
Singapore 9124

KHMER CERAMICS
9th–14th Century

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ACKNOWLEDGEMENTS

In the planning of this exhibition and the compiling of the publication thanks must be extended to many. Firstly to the National Museum which has again lent its invaluable support and co-operation and to the Muzium Seni Asia and Muzium Negara for their participation.

The Society is grateful to the contributors of articles, Bernard Groslier, Roxanna Brown, Dawn Rooney and Malcolm MacDonald. It is indebted to Mr. Groslier and Ms. Brown for their advice on the authenticity and attribution of many of the exhibits. Thanks must also go to the collectors who so generously lent their pieces.

During the early stages of the project overseas members gave encouragement and guidance, namely Jean-Jacques Favre, J. D. van Oenen and Dean Frasche. Helpful suggestions and continuous interest came from Malcolm Quie and Roger Bluett.

In the preparation of the publication Marie-France Dupoizat and Carol Young translated the introduction, Winson Tan took the photographs, Susan Poyneer designed the book, Sally Houseman drafted the map, and June Chin and Neela Chitty typed the manuscript. Their contributions are deeply appreciated.

To the members of the Khmer Committee, especially Carol Young, I should like to extend thanks for their energetic and whole-hearted support.

Diana Stock
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FOREWORD

This is the third exhibition to be presented by the National Museum and the Southeast Asian Ceramic Society as a joint venture. It follows the "Chinese Blue and White Ceramics" in 1978 and the "Chinese Celadons and Other Related Wares in Southeast Asia" in 1979. It is the fifth in a series of major projects undertaken by the Southeast Asian Ceramic Society. The earlier two were "Ceramic Art of Southeast Asia" and "Chinese White Wares".

As we both share similiar aims of stimulating the interest in and widening the knowledge of Oriental ceramics, particularly those wares of Southeast Asia, it is indeed very timely that on this occasion we have focused our attention on the wares of one area in this region; the ceramic art of the ancient Khmer Empire, the territory which comprised part of present-day Kampuchea and parts of Northeast Thailand.

Khmer ceramics have been appreciated in the West for some time; however, they have not been collected by many people in this part of the world. We are fortunate that, from among our friends, two museums in Malaysia and the members of the Southeast Asian Ceramic Society, we have been able to select a collection of exhibits representative of Khmer ceramic art from the late ninth to the fourteenth century.

Of all the Southeast Asian wares, Khmer ceramics seem to be the most independant of Chinese influence. At a cursory glance, it could be said that they are lacking in refinement as well as appearing limited in form and glaze types. But upon further contemplation, Khmer ceramics have a dignified, unassuming nature. They exude an architectural strength of form and a geometric balance which often express themselves through the carving and incising in their decoration. The smaller pieces, such as the zoomorphic lime pots, are realistically modelled and show a keen sense of observation by the potters. They have considerable charm and are, understandably, a favourite among collectors.

In recognizing the unique qualities of Khmer ceramics, our views are shared by the contributors of articles to this publication. Bernard Groslier's introduction discusses many of the pieces he has seen at Angkor, the nature of the Chinese influence, and he favours a separate category for wares made in Northeast Thailand. Roxanna Brown centres her article around her recent trip to the Korat plateau. The illustrated glazed and unglazed sherds from Ban Kruat provide useful information on the types of glazes and the forms that were being made during the late 11th and 12th centuries in this area. Dawn Rooney discusses the assembled exhibits and includes her thoughts on the possible usage of some of the pieces, while "The History of the Khmers" by Malcolm MacDonald provides the necessary background for placing in perspective the fabulous Angkor and the rise, zenith and decline of the great Khmer Empire.

There are many questions left unanswered, but we hope that this record of our Khmer ceramics exhibition will provoke thoughtful comment from students, collectors and enthusiasts of Oriental art and that it may act as a catalyst in furthering the archaeological research in this fascinating field.

Christopher Hooi
Director
National Museum, Singapore

Lu Yaw
President
Southeast Asian Ceramic Society

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INTRODUCTION TO THE CERAMIC WARES OF ANGKOR

The ancient Khmers crafted ceramics which are part of their material culture but, beyond their utilitarian role, constitute also one of the aspects of their art. They have attracted scant attention until now and this silence is due to many reasons.

Khmer archaeological work was, and essentially remains, focused on its great monuments. The temples, by their number, their grandeur and beauty, almost ineluctably monopolise the attention of the rare, concerned institutions and a few research workers. Their first priority was to discover and preserve them, an overwhelming task which left time for little else. Then the tragic events of the last world conflict hindered and finally paralysed the work of this very young discipline, one which started only at the beginning of the century.

In contrast to their statuary and bronzes, the Khmers did not develop a great ceramic art. One could say they hardly mastered it. They came, very early, under an overwhelming Chinese influence which seems to have restrained and perhaps weakened their aptitude. Moreover, as early as the 10th century, they imported, in bulk, quantities of Chinese vessels of such quality that the local production could not compete. Ceramics were not esteemed. The Khmers preferred to go to the coppersmith and especially to the goldsmith for a number of their domestic objects. If the archaeologist had to judge Khmer art entirely by the ceramics, he would not place it first among the arts of Southeast Asia.

Paradoxically, it is the amateurs, by definition the hunters of rare and precious objects, who preceded the historian and became enthusiastic about Khmer ceramics, and are showing ever increasing curiosity. The present exhibition bears witness to this. We cannot thank the Southeast Asian Ceramic Society enough for organising this exhibition even if it arouses some regret among archaeologists. But this approach has its drawbacks. Amateurs look for unusual objects and limit their choice to undamaged vessels of good quality. They risk selecting only "exceptional" pieces in both senses of the word, and end up with only a partial and prejudiced view of this art.[1] The chests of drawers signed by Oeben or Riesener, or Imperial court vases, undoubtedly reflect the excellence of an art, but not the provincial furniture of 18th century France, or the pottery of the Chinese peasant.

Furthermore, the amateur is a customer and therefore partially subject to the dealer's claims, especially regarding the origin of a piece. Without defaming the honour of this respectable guild, there is always room for doubt, sometimes perhaps of their veracity and, in many cases, of their knowledge. Due to the absence of systematic studies, identification and dating are frequently done "negatively" by "impressionist" comparisons. A certain vessel, obviously neither Chinese nor Siamese but of Southern Indochina origin, is considered Khmer since the big centre of civilisation was the Angkorian Empire. It will be dated by "likeness" to some pieces seen through the glass of a museum showcase (whose labels may not always be taken at face value) or during a visit to a colleague or in a sales catalogue. Suppositions sometimes are grounded and perhaps true, but not thought out thoroughly and seldom proved. For a long time, export ceramics found in the Philippines or in Indonesia were called "Khmer" essentially because they were not datable or attributable to a Chinese origin and because they were covered with a brown glaze which appeared similar to that on documented Khmer pieces.

We can only speak of "Khmer" ceramics discovered in confirmed Khmer sites if they seem to be of local manufacture and satisfy an indigenous use. One can group them by

characteristics, then outline a chronology only if large numbers are at one's disposal, from dated strata, and if absolute dates are available for these levels. Indeed such ceramics do exist. Their style, evolution and chronology are more complex than are generally believed. We are only at the dawn of research into this field.

The Khmers seemed to have made little use of ceramics. No doubt this is partially due to the fact that the natural vegetation offered them exceptional resources. Bamboo, coconut husk and baskets, lacquer-coated and thus waterproof, are still used in the countryside. They answered numerous needs economically and effectively, particularly for a people who ate with their fingers, taking food from trays (wicker or metal) and rice from covered baskets. One of the bas-reliefs on the Bayon (ca. 1200) shows a royal feast and its preparation (see photo A1). Meat and rice are cooked in large cauldrons and pots on small three pronged circular stoves which are also still in use. Food is served on large trays and taken up directly from them; it is the same for the rice served from the covered baskets. Only stew seems to be placed in small pots. Today the same scene can be found at a celebration in a monastery. As in earlier times, crockery is practically unknown.

At the other social extreme, it is clear that metals, especially brass, but also silver and even gold, were frequently used. Excavations and bas-reliefs show the development of metal-working. Stone inscriptions giving inventories of temple gifts testify to this. In the last century, even in modest houses, copper bowls and plates were still common and crockery was of Chinese manufacture.

Ceramics seem to have been reserved for functions to which their own physical quality and low price assigned them. These were essentially for food preparation; cooking on one hand and foodstuff preservation on the other. To understand this, it is essential to appeal to the present.

LESSONS OF THE PRESENT

For their domestic pottery, the Khmers of Angkor were merely the heirs of a very long past, one that prehistory begins to reveal and which has remained almost unchanged until today.[2] Then, as today, vessels were shaped from clay cylinders by beating with a wooden paddle, sometimes against a wooden anvil held inside or, more simply, against the left hand of the potter. There was no wheel, only a simple fixed support around which the potter regularly turned. They knew how to make the desired form with remarkable precision and were able to obtain near perfect symmetry. The pots usually were given a decoration of repeated geometric motifs on the shoulder. This was engraved with a bamboo fork, (the Cambodian term for this operations is *sak* meaning "to tattoo") or by beating with an engraved or cord-wrapped paddle. Then they were fired in an open hearth or a shallow pit lined with clay, under a burning log fire which was covered with straw to better distribute the heat.

This contemporary production falls into three main groups: First, *kaam,* a vessel used for drawing and carrying water or liquids, with spherical body, long neck and everted lip. Then, *thlang,* a cooking vessel which is the classical cooking pot, and, lastly, *khvang,* a storage vessel for water, grain, spices, to which we link the *peang* sub-group of jars. Finally there is a small footed vessel with cover, *kaam pouch choeung*, which is still manufactured today and used for perfumed water in the various family ritual ceremonies and also at feasts in Buddhist monasteries. It, too, comes directly from Angkor.

Today women exclusively (except for the collection of clay) practise this technique. Thus they make what is necessary to the gathering, preservation and preparation of food which is their domain in everyday life. In terms of the well-known analysis of Mr Claude Levy-Strauss, they are generally responsible for the transition from "raw" to "cooked", from Nature to Culture: one could say with "giving birth". But it is the men who do the cooking for the

feast days and for rituals at the monasteries. There is no reason to suppose this has been otherwise for centuries. On the bas-reliefs at Angkor, it is the women who take charge of the family meals, but it is the men who prepare the King's food. If one could prove someday that, in Angkor, women made earthenware and men glazed ceramics meant for the temple and the palace, one could corroborate this attractive structuralist hypothesis.

In any case, unglazed earthenware pots which show similarities to those of prehistoric times and to those of modern Cambodia have been found throughout Angkorian sites. The material, the firing and the know-how are identical to that just described to such an extent that, if there were not in ancient times a more elaborate decoration, one could confuse sherds of each of these periods with those of today.

The study of ceramics in the daily life of contemporary Cambodia is, moreover, a source of useful information. An object exists not so much in itself, but for the way in which it is used, the rhythm of the gestures it requires and the "view" one has of it.

The Cambodian house on stilts has a flexible floor of plaited bamboo or loose boards. There is no furniture; everything is placed on the floor. It is no surprise that almost all vessels have a spherical bottom so they can rock with the movements of the floor without overturning. Only grain jars or "paddy beer" jars have a foot or a flat base, but these are most often kept under the house and therefore on the ground. Formerly, it was the same; footed vessels were destined for the temple and the palace where the ground was stable.

Since objects were placed on the floor, they were seen from top to bottom, in "dropshot" in cinematographic terms. Throughout its history, the decoration on ceramics has been almost exclusively on the neck and shoulder, the only visible parts, and never on the belly. This is in contrast to the Grecian cup used by men who ate reclining and raised it for libations and, in so doing, admired the decoration. There is an experiment that demonstrates this dynamic aesthetic. Nothing is easier than to arrange a showcase with Chinese or Greek vases. They can be placed at any height, especially at eye-level of the standing viewer. Nothing is more difficult than to display Khmer ceramics. Their bases, mostly unglazed, do not sustain such elevation and their decoration is not really seen unless they are placed in low showcases. This is particularly the case with small, zoomorphic vessels whose significant decoration, eyes, beak and tail, is found on the shoulder and modelled in such a way as to be best appreciated from a downward perspective. Such is the case with small boxes, as well, which are used as sweet meat boxes. Thus, the Chinese holds his cup, without handle, between two fingers, and admires the subtleties of the tea against the glazed interior as he raises it to his lips. A European, his cup with a handle, full of dark coffee or chocolate, will raise it to eye-level to appreciate the decoration on the exterior sides.

These objects must be lived with and touched to fully appreciate their presence and their personality.

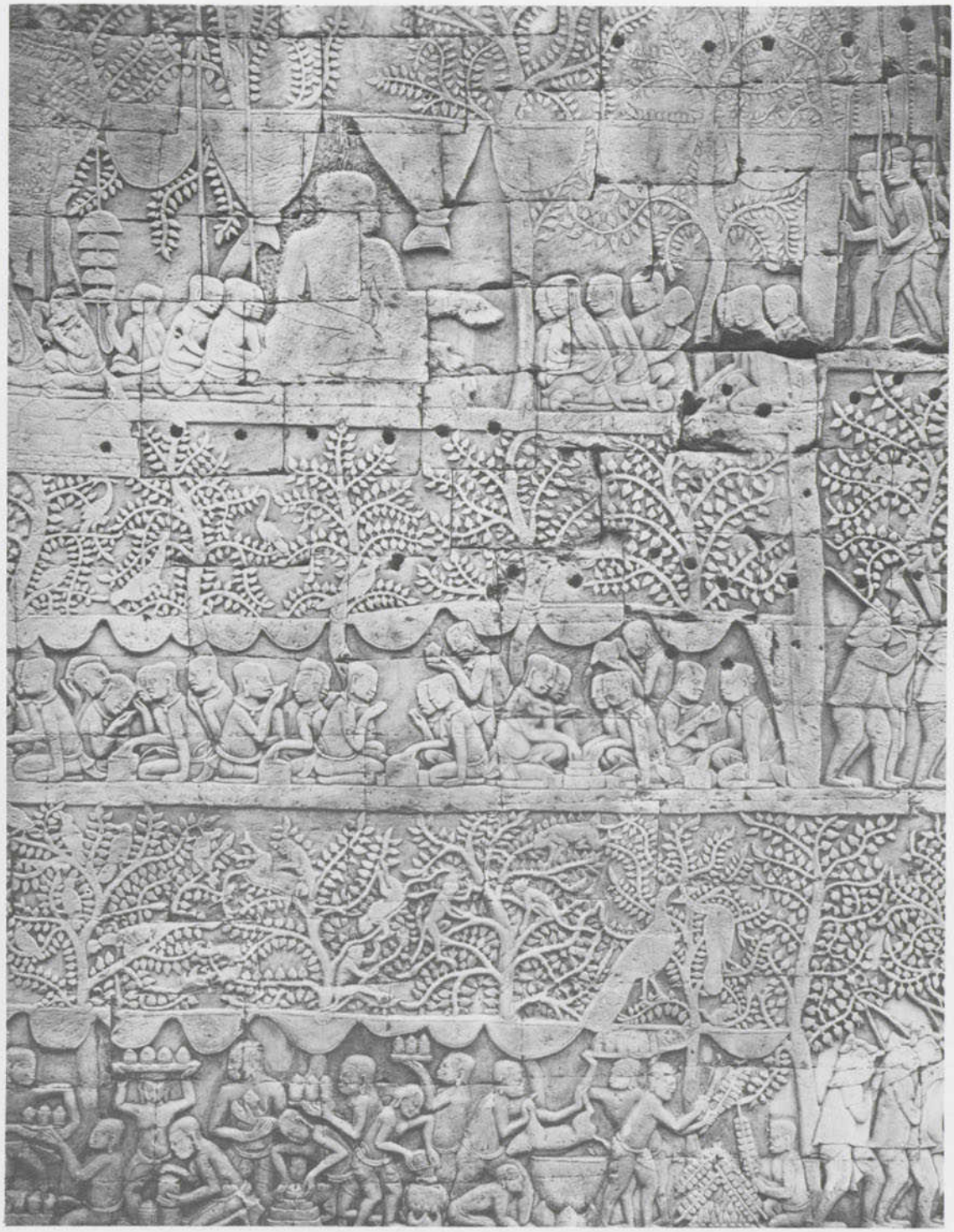
ORIGINS OF THE CERAMIC WARES OF ANGKOR

Domestic Pottery

The study of contemporary pottery allows us to understand the production from the 6th-14th century found in abundance at all archaeological levels at Angkor. We designate it, by convenience, as domestic pottery or earthenware, recalling that it consists of terra cotta vessels shaped by hand and decorated with a paddle.

Note briefly the broad categories. We will group together hemispherical cooking vessels with a cover on a wide mouth and simply finished with a coiled lip. Two sub-groups can be distinguished: cooking pots without neck which must have served to cook rice, and cooking pots with short neck and everted coiled lip which perhaps would correspond to soup or stew pots, for they could thereby be easily manipulated. Only the shoulders are decorated,

A1,2
Bayon. ca 1200, External gallery, south side, east wing. Royal banquet scene in the forest.
Bottom; cooking in the open fire. From right to left, the servants roast brochettes and cook pork in a cauldron, no doubt metal. The cauldron is placed on a terra cotta Khmer stove. A man pours rice, from a wicker basket, into a rice cook pot. Two servants fill trays and pots, to overflowing with food. (See photo B). A servant carries a



ewer (see detail photo C). One servant cooks soup in a big cauldron while another stirs it with a long handled spoon. Another man pours food into the last cauldron. Above, the masters draw (with their hands) from the large platters (in wood, wicker, metal?) and take rice from cylindrical covered baskets in wicker. A servant pours drink and a guest drinks from a small cup. Large wicker baskets (left) contain fruits (?).

almost always by beating with a cord wrapped paddle, but never the bottom.

The second group seems to relate to the gathering and preservation of food: spherical vessels, much more closed—always with cover, in general hollow with a central knob—which could be hermetically sealed with wax or clay. There are also vessels for drawing water, with an elongated neck which allows for easy holding and the lip everted to facilitate filling and pouring. Here one again finds the same type of shoulder decoration but the bottom is often striated or grained by beating, probably to assure a secure hold, support on the hip and stability on the floor. To this we add a range of very large pans or basins intended perhaps for communal cooking, or rather suited for special uses: dyeing cloth, boiling silkworm cocoons, etc. We also found basins and strainers intended, probably, to prepare butter for the Brahmanic cult.

There are no large grain jars because the firing, and therefore the strength, did not lend itself to such sizes. Rather, the Khmers stored their paddy in granaries of plaited bamboo strips and, in general, handled the grain in baskets up to and including meals, as attested by the bas-reliefs (see photo A2).

A precise chronology for this pottery cannot be established. The permanence of forms is astonishing. Variations in decoration seem rather to be linked to areas of manufacture.

We will not dwell further on this modest branch of Khmer ceramics, totally ignored by collectors and with good reason. But we must not forget its existence because it reveals a technology and a number of shapes upon which glazed ceramics will draw.

Appearance of Wheel-made Ceramics

At the very end of the 6th century, and thus at the dawn of Khmer history so to speak, wheel-make[3] and decorated ceramics appear which break with the paddle-made earthenware, the manufacture of which continued. This has been revealed by the excavation of Sambor Prei Kuk which brought to light pits where several hundred complete vessels had been buried. They had been "sacrificed" in a manner of sorts. The neck was sometimes sawn off, then buried nearby; more often, the bottom was neatly punctured. Among the many hypotheses, one we can consider is that they were sacred utensils of the temple. Where they were no longer usable (either after the solemn consecration or after an exceptional event) but yet still full of magical power, they were thus ritually "buried".[4]

For the most part these were big vessels: water jars with spherical body, long neck, horizontal everted lip, and lined with a vertical band which is the Indian *ghata;* jugs with globular body, short neck and spout, the Indian *bhrngara;* small jugs with a long spout or *kundi;*[5] jugs without spouts but with everted lip or *kalasa;* and a small vessel for ablution with long neck enabling it to be held, and with an elegant twist of the wrist to wash the hand that holds it, the *lota.*

Some water pots with their straight sides, clay ribs imitating the hammered joints of two metal sheets, even clay beading simulating rivet heads, are clearly imitations of metal vessels.

All these forms are undoubtedly Indian. This is not surprising since they are associated with the Hindu cult. More directly, they proceed very closely from the Fu-nan ceramics so described by Louis Malleret.[6] The continuity of the two civilisations is well established. We are very close in time and place.

We cannot affirm that this ceramic ware and its technique were directly imported from Fu-nan. Nothing bears witness to it earlier in Cambodia but we have not yet excavated any sites earlier than the 6th century. We know only that the whole of these forms and technologies, associated with Indian religions, came via Fu-nan.

The clay is fine, carefully levigated with either fine sand or ground sherds as temper.

Well fired, it turns a light yellow to fawn colour, but always with a grey core which attests to a reduction firing. It is doubtful if a kiln was used. These vessels are wheel-made. The base, often a circular clay disc, together with the belly are raised separately from the shoulder and neck and then the two parts are joined with a clay coil. Pouring spouts are shaped independently and luted with a coil which remains visible on the outside. Handles are almost never found since the average strength of this material would hardly have been adequate. Most of the vessels are smoothed over by dipping in a very liquid slip of the same composition as the body. In the firing, it usually turns a medium yellow to yellow-ochre. A number of pieces are painted over the slip, either white or light red, with lime for the white and a very fine liquid clay for the red. Decoration is limited to a series of red circles alternating on the neck and shoulder, the body being uniformly white. Alternatively, the body is entirely painted red, then burnished, giving it the appearance of sigillated Roman wares. Two sherds, alas, minuscule, bear a decoration of red fleurettes painted on white background. In India, white and red are auspicious colours, as exemplified by the white and red washes on the temple walls. I also believe that the paint helped to improve water-tightness. When vessels are not painted, they receive a slip coating and are often burnished with a bamboo spatula as marks suggest. They take on, in this case after firing, a fawn colour or even gutta-percha.

This group is isolated and one cannot generalize its characteristics to the entire production of the 7th century. We have not located and, hence, not excavated the habitation levels at Sambor. We have, however, collected a number of domestic pottery sherds and scattered painted wares as well. It is therefore possible that these last were not restricted only to temples and that they constituted a luxury production for the privileged as well.

The Angkorian area has surrendered numerous vessels similar in all points to those of the temple of Sambor Prei Kuk. Most come from west of Angkor, especially from the region of Banteay Chhoeu, the first large Angkorian hydraulic city,[7] and the pre Angkorian-sites of Roluos of the 7th-8th centuries. There were also fragments excavated from a habitation site on the Siem Reap River near Thommanom, dated from the 8th century. It seems, therefore, for the time being, that from the last years of the 6th to the end of the 8th centuries, these ceramics of Indian origin, via Fu-nan, constituted the most significant production of the Khmer potters.

ANGKORIAN CERAMICS

Problems of Method

Painted vessels disappear entirely at the dawn of Angkor; not a single sherd appears after the end of the 8th century. They are replaced by a ceramic ware, wheel-made as well, but fired in a kiln and glazed and, therefore, glazed stoneware. While it constitutes only one aspect of the Khmer output, it is for the amateur the Khmer ware 'par excellence.' It is, in fact, the Angkorian ware 'de-luxe' that developed roughly from the end of the 9th century to the end of the 13th century.

It is appropriate here to trace the limits of our knowledge about this art.

The excavations I conducted were essentially intended to determine the relative positions of the temples and their urban layouts. This task was a priority in order to direct the restoration work and to establish a general chronology. But, these excavations generally encompassed short periods of time. Gaps remain because capitals and monuments moved and were not always built side by side. Therefore, inadequately known periods exist: such as the first quarter and the end of the 10th century, the beginning of the 11th, the last quarter of the 11th and the third quarter of the 12th. The years following the middle of the 13th century until the fall of Angkor around 1430 are difficult to follow. Not a single monument in stone was then raised. With the exception of roof tiles, it is not evident that the evolution of the

ceramic art followed the architectural or sculptural styles nor the historical rhythms (essentially the reigns of the great Kings) which we used to delineate the evolution of Khmer civilization.

Besides Sambor Prei Kuk, we have only excavated Angkor itself. It is not certain that the empire's provinces followed the lessons of the capital. Examination of sherds from distant settlements tends to convince us that, on the whole, Khmer ceramics were homogeneous and took their inspiration from the models of the metropolis, but often they were manufactured locally. Therefore, local kilns existed and even perhaps local styles.

We were mostly surveying the approaches to temples. These were surrounded with wood buildings where the priests and their attendants lived. Here were found numerous sherds which must have come mainly from the cult ceramics. It is therefore probable that the forms here identified are specialised and limited. This is important for the shapes; if a certain type of vessel is in use by the cult, its form is, thereby, sacred and can continue unchanged for a long period. This was often the case.

The excavations of the Royal palace of Angkor Thom have provided a long and abundant sequence of many glazed Khmer stonewares and imported Chinese wares. This succession is, however, sometimes interrupted. At the beginning of the 12th century the Royal palace seems to have been elsewhere. Chinese ceramics were of a very high quality, and even fragments worthy of imperial collections have surfaced, which we can recognize without too much imagination as "ambassadorial" gifts. Related glazed Khmer ceramics are equally of very high quality. The whole clearly constitutes the royal crockery and the contrast is obvious. In the domestic courts of this very palace, we found common kitchen earthenware, in all respects identical to that from commoners' habitation sites.

One observes the same decline in quality in the provincial sites. Some temples which dot the countryside often owned Chinese ceramics but of an average quality. The same goes for glazed Khmer pieces compared with those of the Royal palace. It is therefore clear that, of the Angkorian output, the best vessels were reserved for the King, the privileged, and "seconds" were adequate for the province.

Most of the complete vessels were recovered either in caches or in funerary deposits. If the Khmers were indeed cremated, the ashes were then buried in vessels[8] surrounded with a few precious objects: fine ceramics often Chinese, bronze mirrors, palanquin hooks and gilded bronze rings which decorated the handles of parasols and fans. From inscriptions we know that palanquins, fans and parasols were conferred as insignia of rank by the king. These objects must have shown the rank of the dead. Interesting point: while Chinese vessels when so used are intact, the Khmer vessels in these burials were always sacrified.[9]

Isolated funerary deposits are almost impossible to date. We found a vast burial ground on the west banks of the Sras Srang which provided several hundred complete vessels. It was used during the last decades of the 11th century and the first years of the 12th, then again at the end of the 12th century. The related dating of these burials (almost at ground level and in general hardly touching each other) is difficult to establish.

Worse, objects from the same funerary deposits are not always from the same date. Chinese ceramics and bronzes, which can be dated with some precision, are often from a different period. It seems, for these last rites, that previous pieces which often pre-date the cremation were used, as if, on the occasion of an important death, the family treasures had been sacrificed. In archaeology, the dating of tomb treasures is a well known case and always presents a delicate problem to resolve.

Finally, if the excavation at Sras Srang has helped us in the identification of forms here found complete, while elsewhere we found most fragments, it has not cleared up the riddles of chronology. And it is a pleasant paradox that the richest source is that which poses the most questions.

In other cases we found merely caches, as proved by the group of precious objects buried in a jar. Here obviously the dating is always approximate. Peasants, while farming (tilling, ploughing), often found such 'treasures'. Long ago these were turned over to the local monastery and many pagodas in Cambodia and Siam possessed some. More recently these have become sources for antique dealers. This has not simplified the problem of origin.

We have no precise idea regarding the kilns. For a long time we have known of very important mounds of kiln wasters on the Kulen plateau, the nearby area of Anlong Thom and Thnal Mrech. These deposits have not been studied. All that can be gathered from the fragments collected on the surface is that the majority were a light green, straw-yellow glazed stoneware from the mid 11th at least to the 13th century. These kilns were not the only ones. At Sambor Prei Kuk, at the level of the 10th century, one finds vessels similar to those of the same dating at Angkor, but with a very different body and glaze, implying local kilns. Such is also the case at Preah Khan de Kompong Svay for wares of the 12th century. M. J. Dumarcay suggested that, as with bricks, glazed tiles for the palaces and temples were very likely manufactured in the proximity of the construction worksites.[10]

We do not know about the means of exchange or trade (if it existed) in ceramics. I found, in the sites most remote from Angkor, sherds and vessels undeniably 'Angkorian', which would suggest trade or also, quite simply, the local tour of duty of an Angkorian dignitary or even a royal gift to provincial authorities. On the other hand, none of these characteristic vessels coming from kilns in the Northeast of contemporary Siam have been found to date at Angkor. The problem remains to be seen.

In ceramic history, the evolution of forms, decoration and material are not necessarily linked. Certain pieces, such as the zoomorphic vessels of the 11th century, independently of techniques, suddenly appear. On the contrary, sudden mutations of a style, believed to be homogenous, may be the result of accidental discovery in the course of firing.

The situation is further complicated at Angkor by the importation throughout the centuries of Chinese pieces which were often imitated. On the whole, Chinese ceramics thus associated with local production provide a good reference. But these pieces are as varied as their centres of production and their dating in China itself. At Angkor, we have only found certain Chinese types, little known in China because their manufacture was especially for export and particularly for the tastes of the buyer. The latest Chinese novelty probably took some time to reach the Southlands. Products greatly appreciated at Angkor seem to have been manufactured again and again in China, where they were out of fashion, but Chinese merchants who understood the law of local supply and demand continued to order them.

One must caution against the extremes of this 'circular' reasoning which too often affects our studies. An excavator finds—say at Angkor—in a locally datable layer, a Khmer vessel and a celadon; he will obviously assign the same date to both as a hypothesis. Three thousand kilometres from there—say in the Philippines—another excavator unearths the same Chinese piece in a grave not datable by local criteria and using the Angkorian "data" of the Chinese vessel, will date the tomb. A few years later, the first archaeologist will see this Chinese pot published with a 'confirmed date,' which served also to 'situate' the Philippines' grave site. And his own hypothesis, seemingly cross-checked, will become a 'certainty'. In all of this nothing *is* established. It is a circle and, unfortunately, a vicious circle . . . a little like the young puppy that, in play, bites his tail and believes he has captured a nice quarry . . . .

It is therefore quite premature to claim a definite chronology, to rigorously define classes, and still less so in an exhaustive way. All we can strive for is to identify a general trend and a probable succession. Taking up all these known elements, what I will submit is not entirely inexact. Nevertheless, I will be rather tempted to place earlier certain dates hereafter suggested for the appearance of a particular glaze or shape. A certain amount of time is necessary for a style to spread. Also, I have been frequently using, for the ceramic chronology,

the construction dates of temples given in inscriptions, and therefore we can rely upon their certainty. Foundation levels of these temples are rich with sherds. But a ceramic "style" may well antedate an "architectural" style.

We must not lose sight of all these difficulties. They are the 'guard rails' that we must not let go of, and all observations which follow must be preceded in thought by the formula: "to the best of our knowledge . . . . "

Birth of an Art

It is under the reign of Indravarnman (877–889) that glazed stoneware appears in conjunction with glazed tiles (see no. 4). This is at Roluos, the ancient Hariharalaya, capital of Indravarnman and the first large Hydraulic city.[11]

This concerns essentially bowls without a foot, spherical, or in the form of an inverted, truncated cone, and some miniature bottles (height: 8 cm—10 cm) with straight neck, some without lip, others edged with a vertical band.[12] From the sizes, they suggest vials for perfumes or precious oils.

Most important and typical are miniature covered boxes (diameter: 8 cm—12 cm) of a very flattened shape. The base is flat, the body hemispherical or deeply bevelled, and the cover with a vertical border, symmetrical in shape with the bottom part. The bottom part shows a sharp interior lip which is enclosed by the rim of the cover. These are obviously cosmetic boxes, or to some extent could have been used for delicacies. Next we find covered pots (15 cm) quite close to those used in Europe for pipe tobacco. The bottom is flat, the body cylindrical or sometimes very slightly rounded, the cover encasing it with a vertical edge and a bevelled or rounded crown. It bears in the centre a pear-shaped button or knob set into the top of the cover (see no. 1). Its use is unknown. This type of pot could have contained betel leaves. One Bayon bas-relief (but four centuries later) could suggest they were used at meals to contain soups and meats (see photo B). But these are only hypotheses. The success of the shape is obvious and will endure, while, up to the Yuan period, identical Chinese pots, probably the model, will be imported. On the whole the Chinese origin of all of these shapes is evident.

The pieces are wheel-made, as proved by the traces remaining, and often on the base the mark in the shape of a 'thumbprint', made when the piece was cut from its support with a metal wire according to Chinese method.

Sometimes, in the face of the regularity of the shapes of these boxes, and the fact that their sizes are the same, down to one millimetre, I suspect the use of moulds. These pieces are not numerous enough to verify this hypothesis. I note simply that the Khmers used the mould to perfection for a number of objects, beginning with tiles which were so formed, or else by beating on a wooden matrix covered with a cloth to facilitate removing it from the matrix.[13]

The clay is a dirty white, quite hard, with open porosity (a magnifying glass shows numerous micro-orifices), and very refined with no temper visible. The pieces are glazed on the outside, sometimes also on the interior of the lids of boxes. The glaze is thin with a good fit and does not crackle. Translucent, it varies from creamy-white to a very light straw colour or a green (the colour of Chinese tea). The only analysis we had pertained to tiles and indicated uranium oxide as a constituent without determining from where it came.[14] A priori, we would think of a copper oxide, but in fact we do not have at hand any solid analysis, not even one measurement of firing temperature. I will avoid, therefore, from now on, passing judgement on names and numbers. We must await work in progress.

I have also found, at Baksei Chamkrong, two boxes, and one in Thommanom, that were all unglazed. They are complete enough to say safely, the glaze had not flaked. We must therefore consider two firings; the second fixing the glaze. It follows then that these pieces

B
Detail of food containers as shown in photos A 1 & 2.
Cylindrical, they are filled to overflowing with food (no covers). One would think of covered ceramic containers or even metal vessels. I would readily believe them, judging from the shape and the circles at the top and bottom, to be baskets of finely woven and lacquered wicker, well known in ancient Cambodia. One can readily believe this because the feast is in the open air. This type of receptacle is well adapted to "camping".

were valued enough to be used without glaze.

Even if domestic pottery with wood ash glazes existed previously as some sherds suggest (if these were not accidents), it is clear that we have here, with these true kiln fired glazed stonewares, a complete break with the traditions and the former sources of inspiration. Clay, firing, glazing, shapes—all are Chinese, the fruit of a will to produce locally *Yue* wares, *Ting* wares and, soon, celadons which began to appear in Angkor, were imported from China. It is the same for tiles, henceforth, with two new types: gutter tile and welted tile, both glazed outside. The Khmer architects break completely with the former model; the flat tile with tenon, unglazed, of Indian origin. M. J. Dumarcay studied this last problem thoroughly and one must refer to his solid work.[15] Like him, I think the Chinese influence is manifested here even if it was parallel to a certain local evolution, particularly for the wooden framework. This occurs also in Champa probably from the Chinese homes of Tonkin.

I do not believe that so new and so complex a technology could have been 're-invented' by simply studying imported vessels. It could only have been instituted by a few Chinese or sinicized potters who then formed workshops. It is not an accident if it is exactly at this date that the name China (Cina) appears for the first time in 10th century Khmer inscriptions. Therein it is said that Kings Indravarnman, then Yasovarnman extended their kingdoms northwards" to the CINA border". This must be taken allegorically and means, more modestly, that the first big organised political power which was "to the North" of Cambodia was China. This does not mean to say "in contact". In fact, the Khmer temples of this style very precisely drew the Khmer frontiers of this period; they did not yet reach north of the Se Mun, or on the Mekong, north of Vat Phu.[16] We must not forget that in about 906 China still enforced its protection over North Vietnam, roughly to the latitude of Hue. It is not impossible that Chinese ceramics reached Angkor by way of land, at least through Champa with which Angkor had constant contacts (towards 950, the King Rajendravarnman himself guided an expedition as far as Nha Trang).

But it is by sea, first of all, that trade developed. Chinese ceramics found along the shores of Southeast Asia show this. At Angkor, early Chinese pieces are rare. We found some *Yue* sherds, a dozen or so *Ting,* some fragments of very beautiful honey-brown glazed stoneware decorated with applied figures, all perhaps from the end of the Tang and certainly the Five Dynasties. But we have not excavated the sites between Sambor and Roluos. From the very beginning of the Northern Song we find hundreds of pieces, especially celadons. It is not surprising that the Khmers were fascinated by these early Chinese ceramics brought to their lands, and tried to reproduce them.

We do not know where the first kilns were installed. It is the custom to describe all yellow and light green glazes under the name Kulen. The kiln sites of this region produced, in fact, stonewares of this type, but we do not know when production started. Conversely, no other manufacturing site has been found in the district of Angkor. The Kulen Plateau, from the geological point of view, offers numerous pockets of halloysitic clays, rocks and sands suitable for tempering material, ferruginious clays, abundant sources of clean water and wood. As a commodity, I would say Kulen type glaze as well, but we will keep in mind that it is only a general descriptive term rather than a definite geographical localisation.

From this period on, the glazed stonewares often bore on the base marks which had been incised before firing. In general they are simple lines, grouped as "pseudo-roman numerals", or drawn as rough geometric figures (see nos. 3, 17).[17] We also find these marks, but rarely, on glazed tiles and, later, on brown glazed vessels. But despite systematic gathering of some sixty-five variations of these marks, no correlation can yet be established between them and the forms, the glaze and the date of the ceramics. To do so, it will be necessary to study the original kilns.

Given the style of crafted production of the Khmers, which some inscriptions allow us

to reconstruct very approximately, it seems the villages specialised in this or that manufactured object, and periodically turned over fixed quantities to the authorities for storing and then distribution. I would tend to believe that these marks, incised before loading the kiln, indicated the team or the village of craftsmen and permitted an easier accounting after firing. If this was the case, the kilns were also specialized and worked independently.

Infancy of Glazed Stoneware and Glossy Glaze

Under Yasovarman (889-ca.910), we find exactly the same ceramics as under Indravarman (see no. 3). In fact, the succeeding style did not develop until Rajendravarman (944-968) and was to last roughly until the death of Jayavarman V (968-1001). The brief displacement of the capital towards Koh Ker between 928-944 would explain, perhaps, this gap.

It is, in any case, during the second half of the 10th century that we see a true invasion of Song pieces with *Yue* and *Ting*, but especially celadons (some 70%) of which the *Ying-qing* challenge the place. Let us say right away that some *Jun* and *Guan* sherds were found, a few *Jizhou* or *Jian yao*, practically no *Cizhou* or painted pieces, nor polychrome decorated pieces or those with lead glazes.

Equally narrow is the range of imported forms: small boxes and covered pots, say 30% then almost exclusively plates, cups, bowls, covered bowls, 'crockery', one might say, some 70%. Occasionally, we find some *mei-ping* or ewers. Not to mention the small stoneware jars, glazed or not, made by the Chinese and used as containers for packing some of their export goods. These are the famous brown wares of the Philippines that are also found throughout Southeast Asia. The Khmers seem to have greatly valued these and even reused them. From the end of the 10th century, their own small jars will copy these (but almost never with the small lug handles on the shoulder).

It is quite clear that the Khmers, as soon as they could import Chinese ceramics of their choice and in quantity, simultaneously limited their own production of stonewares to a few models. Thus, they will, little by little, stop fashioning small, round, covered boxes: The Chinese production of these in *Ying-qing* eliminated the need for them to produce the same forms. They will practically cease to make bowls, at Angkor at least, and will never attempt to make plates or cups, the celadons being much better.

On the other hand, they did develop their own forms. One must consider a "double" Chinese influence: negative, in that it dispensed with certain manufacturing; and positive, in that it furnished a technique and certain models. One can say that the Angkorian production of glazed stoneware was complementary to the imports coming from China.

The almost overwhelming success of the Chinese ceramics is clear in terms of excavations. From the second half of the 10th century, at the Royal Palace at Angkor at least, this already represents more than the locally manufactured glazed stoneware. This is characteristic and a unique instance; the inscriptions confirm this fact. The texts of the little temple of Preah Einkosei at Angkor, which correspond to the period 968-984, tell us that in the treasury were three "*nong* of Cina".[18] *Nong* disappeared in the Khmer language but is found in Mon under the form *nung* in the texts of the 11th and 13th century. It means "vessel to contain a liquid" or for drinking and also "stem cup" (in metal as well).[19] Fine Chinese crockery was, thereafter, to furnish the temples and palaces of Angkor.

The Khmer production developed considerably in this second half of the 10th century. Tea-green glaze, at first imitating the *Yue*, tended to become thinner, crackles and often turns a straw-yellow on white clays, was still in use from the previous period. A new clay appeared; very smooth and homogeneous, therefore very well levigated and kneaded, compact and quite strong—it was no longer porous. On firing, it turned a medium grey

without a dark core. From all evidence, an attempt was made here to imitate the celadon stoneware. The geological maps of Cambodia indicate kaolinic clay deposits, especially in the region of Kompong Chnang, but we do not know if they were known then. The Khmers never tried to imitate *Ting* or porcelains.

The glaze on this grey clay is thicker and smoother and well fitting. Sometimes it takes on a rather unpleasant khaki-green or, rather, matt olive shade, while the tiles of this period, among the most beautiful from the point of view of technique, retain, in general, a creamy-white or honey-yellow coloured glaze. But their softer, pink clay affects the colour of the glaze.

In this series of Kulen glazes, and with the two clays, white and grey, we find shapes which appeared at the end of the 9th century: boxes and pots with covers, small bottles inspired by *hu* shape,[20] some bottles with short foot, body in the shape of an inverted truncated cone, slightly swelling shoulder, and sometimes set into the weight of a narrow neck without lip. Their body is sometimes decorated with incised lotus leaves (see no. 3). These bottles are known from Sambor and already show this "set in" shoulder under the neck. But here the Chinese models, especially for the decoration of the sides, are evident. We will add to this range small globular pots with cover (10 cm-12 cm), sometimes decorated with incisions under the glaze (see no 7). Here again, the Chinese models are obvious.

Next to these glazed stonewares, a production of large pieces with glossy glaze appears which is typical of this period. Their manufacture is new. The bottom consists of a flat clay ring or a short, solid cylinder. The body is coil built, the exterior walls very carefully smoothed. The interior, more rough, shows the "spiral" traces typical of this technique. The finishing, the balance of the forms and especially the base—the traces of metal wire which separated the vessel from its fabrication support—bear witness to the use of a wheel. But rather than a true wheel driven by a foot activated flywheel, or even by a cord as in China, it was more probably a turntable, a simple pivoting plate which allows the potter to tinker. This coil built method is surprising, the earthenware of this period always being formed with a paddle. And the very large pieces of this period, especially basins, are also paddle beaten. In fact, their biscuit shows pores and flat crackles made by gas escaping in firing, which suggest a clay layered by the successive pressings with a paddle, even the additions of clay to obtain the necessary thickness.

The clays are loaded with tempering material, quartz sand, and are badly refined, because one can see even small pebbles. Often in firing, gas bubbles form which burst on the surface. They go from dark grey to black with a darker core. These pieces have nearly all received[21] a very thin, liquid, slip coating, hardly visible, with slight amounts of iron oxides and possibly wood ash which gives them their gloss after firing. Thus, they turn to a copper-brown colour, even a venetian-red, but especially to the colour so characteristic of *lie de vin* . . . at least for a Frenchman . . . that I have grouped them under this term. The firing was done at a higher temperature than before, but had not yet been controlled. We can note nearly always on these vessels one side is more highly fired than the other, and believe that they were fired in pits, not yet in kilns; or if that were the case, not efficient ones. At the same date, domestic earthenware is much better fired. With a body identical to that of prior centuries, instead of turning a dark grey, it takes on a pink or yellow-ochre tint, indicating higher temperature. It seems also that, more and more often, rice chaff was used as temper which is found in the form of small calcinated specks in the thickness of the body.

In this range of *lie de vin*, we find small jarlets and two new forms. First, large basins (height, 30 cm-50 cm; diameter at mouth, 60 cm-80 cm) which suggest the form of Greek craters, but we do not know their use.[22] Such pieces existed in domestic pottery as early as the 7th century. We notice that they will disappear after the 10th century, to be replaced by brass basins, better adapted to such sizes, as seen on the bas-reliefs of Bayon (photo A1 & 2).

In addition, we note flat bottomed jars with a conical body, capped shoulder, wide

short neck and horizontally everted lip.[23] They might have been used in the preparation of paddy beer which was sipped through a bamboo straw. And, lastly, we find some bottles with a narrow neck and no lip, ewers with short spout, small vessels for liquid with inverted conical body and a somewhat wide neck and very everted lip.

None of these pieces is decorated, with the occasional exception of a few incised lines or a very discreet band of criss-cross pattern on the beer jars. The highlights consist of raised mouldings between two grooves, at the base of the neck and at the shoulder/belly junction, seldom at the foot. Typical of this period is the top of the lip of large beer jars and baluster vases, being most often decorated with a vertical ridge, and the lip rim with two horizontal ridges enclosing a groove.

Adolescence

The first half of the 11th century, which corresponds to the long reign of Suryavarnman I (1002–1050), is the period during which glazed Khmer ceramics will become an autonomous art. The Chinese influence is still felt, as is proved by the number of imported ceramics and their obvious imitations. It is not known if Chinese potters were still employed. However, in the second half of the same century, even though importing continued and, in fact, increased, the Chinese influence on the local products faded and finally disappeared.

Glazed ceramics of the Kulen type are thereafter nearly all with grey clay, fine and hard (see no. 65c). The *lie de vin* pieces disappear. It is almost certain that the brown glaze, which was derived from them, appeared from the end of the 10th century, but we do not have sufficient proof. In any case, it will develop to finish as the most typical production of the Angkorian potters. One can hardly doubt that this glaze, obviously of an iron oxide base, is an imitation of the Chinese packing jars which increased in number in Angkor, and also of Chinese pieces from the end of the 10th century (for example the Ch'ang-sha). The clay better levigated without pebbles and tempered with crushed quartz, is very fine and does not fracture or produce gas fissures. It is light grey, with a darker core, hard and resonant. All the big pieces are coil built, then covered with a liquid slip which turns, in the firing, to an ochre-rust. It seems to have been applied with a fibre pad. The glazes are thick, running to the point where they fall in long tears as though twisted. In the firing, they take on shades going from dark brown to blackish-brown, less often a dark green (see nos. 13a and 57) and sometimes with sulphur-yellow marbling. On the small vessels, for instance small lenticular pots, which developed then, the slip is often thicker and the glaze seems to adhere badly in "oil droplets" and tends towards the colour of dry blood. (see no. 70) Kiln glost disappears. One can believe that the large pieces were now fired in a kiln but that Khmer potters had not completely mastered this technique, as is proved by the variations in glazing. Often, one side is more highly fired than the other.

The green Kulen glazes are most often reserved for small-sized pots. The white clay is still used but it has become smoother, harder and the open porosity disappears. Is it possible that kaolin deposits were identified or perhaps felspathic fluxes added. On this clay, the glaze is light green, in general rather thick and translucent (see no. 9). One group, however, received a dull matt green glaze turning sometimes to a khaki yellow-green which seems to me to be an imitation, albeit an unsuccessful one, of celadon. It adheres well and never crackles, but will disappear by the middle of the century.

The range of forms increases and the baluster vases appear; large vessels with a cylindrical foot, ovoid body, elongated neck and often everted lip (see no. 57). They descend in a straight line by successive developments, from forms appearing as early as the 7th century, but they take here their definitive silhouette so characteristic and so truly Khmer. They must have been used to pour water. They are sometimes equipped with a short spout

but never a handle. Beer jars are more common, sometimes with a rib decorated with crosshatching on the lower shoulder, or waves (see no. 57). Large grain jars are found too. Some poly-lobed bottles or jarlets, with everted lip and a matt green glaze are styled on the Chinese type.[24]

In the Kulen type glazes, small flat covered boxes disappear. Bowls, in the shape of a truncated cone or hemispherical with a simple disc foot, appear again in greater numbers. Small globular covered pots are more numerous (see no. 7), and some of them have incised vertical 'ribs' or inverted triangles. We find, at the same time, rounded boxes, so treated, which imitate the shape of a pumpkin, from a well-known Chinese model.[25] We often find perfume vials and miniature bottles derived from the *hu* shape, more and more frequently incised with vertical 'ribs'.[26] As a general rule, this group was made in a hard, white clay, the glaze varying from a very light straw-yellow, often crackled, to a light green. The cover of these pots usually shows a knob and tends to become more rounded. Some of them, however, are decorated in relief with a lotus leaf motif, sometimes lotus fruit with a raised stem.[27] They are then covered with a matt khaki-green glaze and are unpleasant to the touch.

Generally, decoration, as in the 10th century, is limited to series of ornamental mouldings. Multiple mouldings developed and become more varied; flanges of hemispherical cross-sections; triple ridges in a trefoil cross-section, always enclosed by deep grooves. They are always found at the lip of large jars (see no. 13a). Sometimes at the base of the shoulder, between two flanges, we see a wider moulding with crosshatching and a band of incised waves resembling a shell (see no. 57). Sometimes, likewise, small beading is applied on the flanges.

It is probably during this period that modelled or zoomorphic vessels appear. At first they are small globular pots where two beads for eyes and bumps for the beak and the tail characterise a bird; owl or chick? We also see the first vessels in the shape of an elephant. A globular body, four short solid legs, a head shaped separately (possibly moulded) then applied, a modelled tail and, finally, on the back, a constricted opening with conical stopper. Traces of lime remaining in a number of these indicate that they served to store lime for betel chewing. This was drawn out with a spatula. Almost all zoomorphic vessels and the early elephant pots have a matt green glaze.

Nevertheless, these shapes are better known in the middle of the century because we have clearly dated strata, while the second quarter of the 11th century has not been studied in detail. I prefer, therefore, to consider them in their bloom.

Proliferation

This research centres and crystallises around the middle of the 11th century, more precisely during the reign of Udayadityarvarnman II (1050–1066), at least that is what stratigraphy indicates.

Brown glazes spread gradually with noticeable variations in texture and colour. As a general rule, clays are better levigated and contain rice chaff as a temper. Almost all pieces are dipped in a very liquid slip which turns a red-brown. Another slip appears more frequently, probably less iron-rich, and fires a light grey (see no. 32). Glazes, according to their varying thicknesses, go from chocolate-brown (see nos. 32, 33, and 53d.) to a brown-black. There are also some thick glazes, smooth to the touch, truly unctuous, of a dark brown or very beautiful olive-green. The marbling or sulphur-yellow specks disappear. On lenticular vessels the glaze in "oil droplets" is no longer found. As for the Kulen glaze, it is beautiful, thick, perfectly translucent, varies from light green to creamy-white (see no. 8) and tends to crackle.

It is here that we find the first "two glaze wares" or, at least, stonewares with two shades: light green and brown. Usually the light part is limited to a narrow band on the

C
Detail of A 1. A servant is carrying a ewer. Judging by the spout it would be a metal vessel. The way of holding it is surprising. Actually, arms crossed over the chest show a mark of respect before the king and the nobles and this is how objects they needed were brought to them.

shoulder and especially at the neck (see nos. 13b, 21, 27a and 27b).

It could be the same glaze, fired in an oxidation/reduction atmosphere. We know from kiln wasters that two-glaze, Kulen and brown pieces were fired in the same kiln. It might also be two different glazes. Certain sherds show that the green glaze is applied on a nearly white strip of clay added onto the body of the piece. The white zone is marked off, above and below, by deeply carved grooves and flanges. But this is also the case when there is no white clay; this artifice possibly allowed a more careful disposition and controlled its flow. But we have some vessels where the light green glaze is somewhat diffused into the brown glaze (see no. 13b).

These three systems seem to co-exist; we will need detailed examination and precise analysis to explain them. Ms. Brown[28] thinks that this technique was inspired by the inlaid ceramics of Vietnam. But, besides this one precise point, the additional application of white clay (which is not universal), it seems that the two systems are hardly related. It is very possible that contact took place between the two countries from the middle of the 10th century onwards. But one fact is clear, the first Vietnamese ceramics appeared only at Angkor during the first half of the 12th century. Yet this consists only of two sherds of inlaid vessels and a dozen or so lead, pea-green glazed pieces (small multi-sided boxes and small stem cups) with a soft yellow-orange body. This is explained by history: Suryvarnman II started an expedition against the Dai-Viet through Champa towards 1120: he tried again to invade in 1150, this time by way of land. It seems he perished in this struggle. Vietnamese ceramics imported to Angkor will be equally as rare later on: a few dozen pea-green multifaceted boxes, during the 13th century, and in the second half of the 14th century, a dozen or so blue and white pieces with chocolate bases.

I think of Chinese inspiration; for example *Cizhou* ware with black slip under a transparent glaze (unknown at Angkor) or, rather, of products from the kilns of Hao-pi-chi and Yu Xian of which some sherds have been found at Angkor.

Usually the two glazes are found on large pieces: baluster vases and jars, bottles, but sometimes also on mini-vessels (see nos. 27a and 27b). Green Kulen glaze dominates in the smaller objects; a brown glaze tends to cover the bigger ones. It is during this period that we find the most beautiful glazes and it seems that Khmer potters nearly equalled their Chinese masters (see nos. 8, 10 and 17).[29] It is curious, however, that they knew no other glazes besides light ones, yellow and green, and brown, and this short phase of two tone glazes. We do not know the colour realm of the Khmers, with the exception of ceramics and gilded bronzes; no traces of frescoes or coloured objects have come down to us. It is possible that this very limited palette was simply due to the inadequacies of technique. However, I pointed out that light glazes predominate for the miniature vessels, in which we clearly see the relationship to the work of the silversmith, and I will call these "the 'silverware' of the poor". We can, therefore, believe that the Khmers tried to reproduce silver tones. Just as we know, on the other hand, that the large vessels reproduced forms in metal, silver, indeed gold (which, in reality, meant to the Khmers a bronze gilded with mercury and copper). Khmer bronze is almost pure copper, as in India, and becomes brilliant when used. From this, we are tempted to suppose that the potters tried to reproduce the general hues of gilded bronze with this range of more or less golden browns.

To the known forms we must add a more varied series. Baluster vases are less "architecturally" ornamented; they bear, more often, registers of incised waves, though still discreet (see nos. 12, 22 and 34). They retain their cylindrical foot, but these tend to become taller and more often flanged, with even a discreet incised wave decoration (see nos. 12 and 34). Beer jars no longer have vertical ridges at the lip and are of a more subtle line. More frequent are small ovoid jars without neck (see no. 12) and with a rolled lip,[30] bottles with an ovoid body, narrow neck and no lip, or rolled and everted lip (see no. 27a),[31] and also gourd-

shaped bottles (see no. 27b).[32] Lenticular vessels become more common (see no. 50), but bear only a few vertically incised striations as decoration.

Zoomorphic vessels also become more common, almost always imitating an owl or a chick with the decoration, often now carved, to indicate wings (see nos. 10, 11 and 53). Simultaneously, small globular pots, sometimes with covers, are nearly always decorated with incised lines (see no. 32). Boxes in the form of pumpkins are more naturalistic, with the stem in high relief.[33] Small round boxes with rounded cover and conical knob, sometimes in two glazes, and with carved decoration, develop.[34] The best examples of this production are covered pots with a creamy Kulen glaze; but they are also found in brown (see no. 59).[35]

It is at this time that we find small covered boxes with slightly concave cylindrical body, resembling the shape of a pulley (see no. 28). The Cambodians immediately recognise these as wax pots because they are still used today; flowers are macerated in wax which is used to perfume oneself behind the ears and on the neck. Another creation is a footed vessel with sides in the shape of an inverted truncated cone and shoulder in the form of a very flat cone. It has a hollow cover, with a knob in the smaller versions and, in the medium sizes, a high conical cover. The vessel can range from 10 cm to 40 cm in height. Such receptacles very often appear in bas-reliefs at the feet of kings and nobles, containing round "fruits", roughly the size of plums, which could be also delicacies. The details of the sculpture indicate, without a doubt, baskets from which these ceramics could therefore be copied. In addition, very often the shoulder is fairly heavily decorated, for example with multiple flanges, rows of crosshatching and beading in relief which makes one think of an attempt to imitate basketry (see nos. 17 and 18).[36] These were offering plates and the predecessors of those footed trays so used by the Khmers to this day. They existed from the beginning in Kulen green but the brown glaze caught on quickly. Finally, conical bowls appear in greater number (see nos 14, 15, 16),[37] either hemispherical with a button foot[38] or flattened with a bevelled body,[39] and sometimes goblets with slightly hollow, cylindrical body.[40]

If we had to sum up this period in a few words, it would be by emphasizing the greater importance given to glazing and the diminishing importance of moulding as decoration, which was gradually replaced by incised geometric designs.

Crystallisation

This ceramic growth slowed and crystallised to some extent during the last quarter of the 11th century. We see this, thanks to the numerous finds of whole pieces in the funerary deposits of Sras Srang, for the most part from this time, which corresponds essentially to the reign of Jayarvarnman VI, 1080–1107.

Two-glazed vessels are now relatively few in number. The light glaze tends to cover the whole neck and shoulder. We end up finally with a few rare vessels almost entirely covered with green Kulen glaze, except towards the bottom, at a height of a few centimetres, where there is a dark chocolate glaze. Typical of these pieces, the green glaze very often stops on a moulded ridge incised with short vertical strokes, which is also found at the base of the neck of other similar vessels.

Brown glazes take hold and practically dominate all stone-ware, including the miniature vessels. Often they are first entirely dipped in slip, even covering the base and bottom (see no. 67b) which turns venetian-red, almost orange, sometimes with violet highlights. In the beginning, the glaze is especially thick, runny, good-fitting and of a very good quality. It contains miniscule gas bubbles and opaque specks which, due to its transparency, give it a "powered effect". It is, in general, dark chocolate (see no. 67a), often turning to dark brown (see nos. 30, 33a, 41, 49, 65a, b, c), even to pitch (see nos. 33b, 42a, 44, 53d). We have the impression that this is an attempt to imitate temmoku, since a few

sherds were found at the Royal Palace. The pitch glaze is frequent, especially with the provincial kilns, due perhaps to excessive firing.

Towards the end of the period, the glaze is much thinner and turns, therefore, to light brown sometimes a golden-honey or copper colour (see nos. 63, 67a). It can still exist with dark green highlights, but very rarely is in these last examples (see nos. 37, 42b, 67a and 85). As for the green Kulen glaze, now in decline, it is very thin, flakes easily, and varies from the pale green to honey-yellow (see nos. 11 and 14).

The forms are those already described: jugs,[41] bottles,[42] and jars,[43] baluster vases (see no. 68),[44] offering vases, and also beer jars which are very close to baluster vases.[45] Small basins are often found. The large grain jars begin to be decorated on the top of the sides with incised waves (see no. 85). Very typical of this period is a bottle with an elongated ovoid body, tall flaring neck which then closes to a truncated cone, with a row of applied beading.[46] More common are gourd bottles with ovoid body, elongated neck and everted lip, sometimes still glazed in Kulen green, or otherwise with a short neck ending in a simple flange, generally with a brown glaze. The small lenticular vessels are very numerous and are well-known by collectors because, owing to their compact form, they have survived. In the beginning, their only decoration consisted of vertical striations and a few carved notches on the edge of the shoulder (see nos. 49 and 50).

In the mini-vessel class there is little change. Covered pots, from this time on, are always brown and will see their knob still stand out on a peduncle (see no. 31). Small bulbous vessels (see nos. 33a and 33b), and mini-bottles are always decorated under the glaze and the same for perfumed wax boxes. We find the same decoration of obliquely incised or dotted striations but more often in several registers (see no. 74). Note the very interesting box (no. 63) with incised decoration and points in relief, which reproduce exactly bronze Angkorian boxes whose shapes are perpetuated in the silver boxes of today. Zoomorphic vessels are also often decorated with carved patterns (see nos. 10, 42a, 42b, 44, 53d., and 64). Hemispherical bowls with flat button foot, covered with a black-burned glaze are very common. Appearing also are bowls or stem cups with a flat raised button on the interior; their use is not known (see nos. 9 and 82).[47]

Generally we observe, at the same time, balance and confidence of forms; the almost total disappearance of mouldings and the development of incised decoration. Only a few discrete flanges survive. Incised decoration takes over the shoulder, the upper sides of the belly, even the foot. Essentially, it limits itself to shallow notches, striations, or oblique lines, and series of waves or shell patterns. Research further reveals a purity of line and quality of colour. Baluster vases are often very handsome, with a foot that tends to be treated as an inverted chalice.

Classicism

With the Angkor Wat period, we come to the point of balance of all these efforts. This phase overlaps with the reign of the builder of Angkor Wat, Suryavarman II (1113-ca. 1150), and must include those of his successors, up to the sacking of Angkor by the Chams in 1177.

This is the triumph of brown glaze and form. Green Kulen pieces are extremely rare and are limited to a few covered pots (see no. 39). They have a more slender body, more rounded cover, a conical recessed knob, often surrounded at its base by several rows of leaves or parallel incisions. This shape is found with brown glaze, but in this case, the knob clearly stands out on a peduncle, outlined at the base with a rim. In truth, we can hardly distinguish these last pieces from the immediately preceding production, and then perhaps only by their flaking glaze.

I tend to place as well, in this period, the most beautiful Khmer ceramic piece I have ever had the opportunity to hold; the superb elephant in the Phnom Penh Museum, glazed in two tones, as seductive by its glazing as by its form.[48]

Thick and powdery brown glaze over slip continues for some time, and the slip can turn a violet tint. But the glaze becomes more thin and transparent, ranging from a copper-brown to a venetian-red (see nos. 51, 55, 56, 75). Correspondingly, brown slip disappears, sometimes replaced with a very fine slip that turns a dirty white; more often the clay alone has fired a dirty grey or light tan.

The elegance and purity of forms are throughout. If the vessels are still coil built, the coil traces on the interior are very carefully smoothed. The walls become thinner. If one compares two vases of the same shape and size, one of the 11th and one of the 12th century, the walls of the latter will be half, or even one-third the thickness of the former.

Ridges and flanges are fewer and discrete, often replaced, as the century progresses, with simple grooves. Incised decoration develops on the shoulder and also stamped bands made with a bamboo roller (series of small squares) and waves in pseudo shell patterns (see nos. 34, 58, 68, 69b, and 73). These designs spread to the walls and to the foot. It is obvious that the fineness of the glaze encourages this type of decoration which plays under the glaze through its transparency.

The forms hardly vary any more (see nos. 41, 58 and 68). Ewers with pouring spouts are seldom seen. Large jars are numerous. The decoration on some of them is special and could be a product of provincial kilns. Almost all the small vessels are in brown glaze: miniature spherical vessels (nos. 35 and 67c), boxes, more or less globular, with pointed covers,[49] perfumed wax boxes (no. 29), etc. *Kundi* are rare (no. 62). Next to bottles, footed bowls with flat button foot (no. 60), in general with very dark and thinner glaze and also bowls with an internal button support are frequent.

It is difficult to distinguish the vessels made during the third quarter of the 12th century from the early products of the first half of the same century. The passing of time is hard to distinguish from the decline in quality. We can simply indicate that the direction of the development goes towards a more sparse and limited decoration of a few incisions, and towards a pitch black glaze. Thus, pieces nos. 35, 69a, 69b, 71, 72a and 92 could be a little later, and also the elephants nos. 89, 90, and 93. They seem to me to be prior to the pottery of Jayavarman VII, but this is only an impression.

One particular shape was very successful. It is the lenticular vessel with short pouring spout and a handle perpendicular to the mouth, always with a stopper top. It is often treated as a bird vessel or even receives the features of other animals modelled in relief on the handle: a small "lizard" or naga head (see nos. 51, 55, and 56).[50] Cambodians still recognize these vessels as honey containers.

Lastly, I place, provisionally, at the beginning of this period, a small and unusual group. It consists of bottles with an ovoid body topped with a swelling, then a long neck without lip. The swelling is treated as a human head, two arms are modelled on the upper body. The neck is sometimes in green Kulen glaze or the entire piece is covered with brown glaze (see nos. 46 and 47).[51] One of these vessels was found in the funerary grounds of Sras Srang, carefully sawn off at the top of the head. By its glaze I would attribute it to the 12th century.[52] Another is in the Korat Museum and several are scattered in collections which seem to come from the northeast of Siam. After all, couldn't the one from Sras Srang mark the grave of an inhabitant of this region who died at Angkor? It is the one example that I know of an anthropomorphic representation in Khmer ceramics. Its funerary usage is obvious, but was it made solely for this purpose? And if so, why was it sawn off at the neck? The question remains to be answered.

The End of an Art

The turning of 1177 is capital. The sacking of Angkor, which was burned to the ground, brought a veritable collapse of art which is obvious in the later monuments, sculpture and bronzes. We notice the same decline in ceramic art; in fact, under the reign of Jayavarman VII (1186–1218) and his immediate successors, it hardly survived.

Curiously, not only does the importing of Chinese ceramics continue, but it increases. It is true that the quality diminishes and therefore was probably cheaper. This may explain, in part, the disaffection for local products, the manufacturing of which would have been abandoned. Whatever the case, if we note as one the quantity of Northern Song sherds found in the Royal Palace; the amount of Southern Song pieces would be two; of Yuan, three; and of early Ming, four. And, still at the same site, the proportion of Chinese ceramics in comparison to glazed Khmer pieces would be for these periods; fifty percent, then seventy percent, then eighty percent both for the Yuan as well as for the Ming centuries. We will note later, how a Bayon bas-relief very eloquently illustrates this trade (photo D).

Local production concentrates on a few groups. The great majority, urns (and this time we can say for certain "urns", and no longer "covered pots") were found on the Kulen Plateau. The glaze is most often straw-yellow, crackled, often flaky. The form becomes standardized; the body rather clearly conical with a foot-ring, the cover rounded. At the bottom of the knob it has a row of small leaves, then one or two bands of vertical incisions. The knob is flattened and tops a cone of superimposed coils (see no. 40). These "urns" were systematically used by the Khmers, in a more recent era, to bury their ashes after cremation near the Angkorian temples or the Buddhist monasteries. We readily believe that they were now made for this purpose and one is very tempted to see in this an influence of Buddhism which spread with Jayavarman VII. It is note-worthy that these urns are never "sacrificed" decapitated or punctured—while, prior to this period, all the vessels used for tombs were. This would reinforce the hypothesis that "urns" were made specifically for funerary use.

No two-tone glaze pieces nor Kulen have been found at this level besides urns. The glaze of all other ceramics is very thick, matt, dull, opaque, ranging from the darkest brown to pitch black, and in this later case it can be very thin and seems "charred". Flanged decoration disappears as well as rolled and impressed bands and incised waves (see nos. 72b and 76). These last would have been invisible anyway under the opaque glazes. Principal forms are jars for liquid with a flared neck, beer jars and grain jars (see nos. 58, 83, and 86).[53] The only innovation in this class is a modest decoration in relief of applied beading on the body: fleurettes, stars, inverted triangles, pearls (see no. 83). The entire group of perfume vials, mini-bottles, small zoomorphic vessels disappear. Only the lenticular vessels, small globular vessels (see nos. 35, 72b, and 76), and elephant lime pots remain. These last are unskilled with hypertrophic bodies, ridiculously short feet, and hardly modelled heads. As for the glaze, it is often burnt black, covered with a dirty white slip on the underside and the feet (see nos 88, 89 and 90).[54]

This moribund ceramic art lingers, we believe, until the middle of the 13th century. But chronology becomes practically impossible because no more stone monuments were built at Angkor and our sources are now based only on chance finds of complete vessels, poorly dated. It is therefore, only approximately, that I place the appearance of a last group towards the end of the 13th century. It includes stoneware with very thick runny and marbly glaze. It goes from black to dark green with sulphur-yellow marbling. The clay is black and very full of temper made from badly fired ground sherds.

We distinguish, on the whole, four groups of forms.[55] Water vessels with flaring neck, beer jars, grain jars. There is no decoration on these pieces except for a row of flanges at the base of the neck. The latest series consists of elephant lime pots (see no. 93). But the animal is

very roughly modelled to the point where one would perhaps think of a boar.[56] It is not even certain that these pieces were made in Angkor, the greatest number having been discovered in the northeast of Siam. Perhaps only the glazed tiles continue to be manufactured for a certain time, probably until the 16th century.[57]

Provincial Kilns

I have not mentioned until now a particular problem; that of the "provincial" kilns recently discovered, especially in the provinces of Buriram and Surin, ancient Khmer territories (now Northeast Thailand). This is treated by Ms. Roxanna M. Brown and I refer the reader to her study. What must be brought out is their peculiarities in comparison with the Angkorian production.

Essentially, the kilns now known seem to have been in operation throughout the 11th century and perhaps the beginning of the 12th. After the conquest of Citrasena Mahendravarman towards the year 600, the countries to the north of the Dangreks were not reoccupied until Yasovarman, about 900, who built some sanctuaries there. But they were systematically colonised under Rajendravarman only during the second half of the 10th. It is with Suryavarman I, that the Empire really developed and knew its greatest expansion at the end of the 11th century. At this time the seat of Royal power was at Pimai with Jayavarman VI and especially Dharanindravarman I (1107-1113). In any case, at this date, monuments as important as Pimai did not exist at Angkor.

There is nothing really different in the progress of these provincial ceramics from those of Angkor.[58] However, the brown glazes are less thick and unctuous, often matt and dull, or, as has been said, "charred". The Kulen glazes are often white, dull, covered with many punctures, rather unpleasant. But we have mainly at our disposal, wasters of a great variety of shapes, found near abandoned kilns, undoubtedly Khmer, at most "provincial". If we compare the Khmer temples of this region with those of Angkor, this inferior quality on the whole is not surprising. With the exception of Pimai and Panom Rung, all monuments of the Se Mun basin are inferior with regard to architecture, decoration, and sculpture, or if we prefer, again, "provincial". We found, and it is quite normal, pottery of the quality of Angkor in the northeast of Siam, but conversely, we did not find these provincial products in Angkor itself. Evidently they could not compete with the ceramics made in the capital.

In Angkor, ceramic objects are rare. There are, of course, conches which were indispensible for the cult. The real shells would have been quite difficult to obtain. They were copied in two groups. First, the conches, often glazed, were used to pour lustral water. They were also made in bronze and, incidentally, the numerous known examples show the enormous superiority of this technique as compared with that of ceramics. Others are pierced at the tip and we are led to believe that a reed was introduced here, which allowed them to be blown for the ritual call. Often, these conches are without glaze, perhaps because plain earthenware provided a better resonance. We note, also, one unique terra cotta mould used to make Preah Patima, though in general these holy images were made from bronze matrixes. The holy images themselves—of course of clay, but almost never glazed—are mostly all from the end of the 12th century and later. We add a strange vessel in the form of a conical fruit, with a hole at the point and a tiny opening on the opposite side.[59] We think it was used as holy water sprinkler, held with a finger stopping the opening and allowing the contents to flow drop by drop. Only one was found at Angkor, datable to the 11th century. A whole group was found in the northeast of Siam, sometimes in the shape of fish or birds (see no. 97 which is perhaps later).

The Se Mun kilns manufactured more abundant and more various objects. We note small pedestals with a linga, oil lamps,[60] bells (see no. 45b) and tiny mortars possibly for

grinding cosmetics or medicines.[61] They are also known in Angkor, but here of a more normal size.[62] Certain forms are clearly more widespread than at Angkor; such as offering stands and, in a general way, the mini-vessels: flagons, miniature boxes, small zoomorphic vessels. It is clear that in Angkor these shapes were more often made in silver or in metal.

We are therefore led to believe that, in order to respond to the needs of a more modest clientele, which could only with great difficulty acquire Chinese ceramics, "substitute" ceramic production increased. In short, ceramics were the "silverware" of the poor. It is only a working hypothesis, but it is quite solid. Only a systematic, statistical study and the discovery of other provincial kilns will confirm it.

Zoomorphic vessels pose a special problem. In Angkor, we know of one small horse with a green Kulen glaze. In the Royal Palace, we found a group of charming little flat fish, covered with the same glaze, a hole pierced in the dorsal fin for hanging; toy or talisman? As for the zoomorphic vessels, practically all are treated as owls, chicks or elephants. We noted some hares, toads and tortoises. None of these animals is mounted by a rider. And they are "vases". Only the horse and fish are solid figurines, or statuettes if you wish. Except for the Sras Srang funerary urn, already described, no anthropomorphic vessel is known in the capital.

In Siam, on the other hand, we note not only more zoomorphic vessels, and with more varied shapes, but also numerous groups of animal figurines. Besides the birds and elephants,[63] we find horses (see no. 95), boars,[64] fish (see nos. 94 and 97),[65] hares (see no. 96),[66] deer,[67] cats,[68] and anteaters.[69] They pose a particular problem. We cannot actually guess their use: offerings for private cults, toys, funerary offerings, accessories to the practice of magic . . . the question remains open.

Considering the Khmer influence, and the constant exchanges between the Se Mun region and the Thai kingdoms of Siam from the beginning of their history, one is allowed to think that the tradition of the Khmer ceramics, so well implanted North of the Se Mun, could have played an important role in the origin of Thai ceramics proper which developed with Sawankhalok. It was perhaps as much a determining factor as the Chinese influence.

Certain of the zoomorphic vessels and animal figurines, which we have just enumerated, offer clues to reassembling the puzzle. A number of them are large, for example in this exhibition, nos 45a, 94, and 97. Others have a shape not truly Khmer in the sense that it is not known at Angkor, such as the hare (no. 96) with its two contiguous ears and unskillful frontal rendering (compare with the realistic hare no. 44, truly Khmer). Lastly many, as has been said, are not vessels but figurines. All these remarks apply as well to the reference pieces cited in my footnotes nos. 63–69.

At first, one would date them, in view of their glaze, from the second half of the 11th to the beginning of the 12th century. Upon close examination, one notes that the two shades, dark brown and light brown, are intimately blended in degraded waves rather than two tones, clearly contrasted, as on Khmer pieces. Now, if one refers to the well-known pieces of Sawankhalok, the resemblance is infinitely more convincing.[70] I would be tempted, personally, as a working hypothesis, to attribute these pieces to a few "transitional" kilns which, heirs to the Khmer tradition of the Se Mun area, would have developed from the 13th–14th century, for example, and could have lead to the art of Sawankhalok. Of course, it will be necessary to confirm this in the field.

But, in any case, these animals are not Khmer, destined for a population of the Khmer civilization within the framwork of the Angkorian traditions. We do not yet know their true use. We spoke of "magical" rites, for example the famous decapitated statuettes of Sawankhalok, but nothing confirms this hypothesis and, as far as I know, this type of object has not yet been found in excavations in a clearly identifiable situation. After all, they could equally as well be funerary offerings. If that were the case, couldn't we attribute their success

to the increasing influence of the Thais who assumed political power in this region? And if we go back to the origins of the Thai, we will perhaps someday find that they brought the use of *ming chi* from China . . . .

MERCHANTS OF DREAMS . . . OR ILLUSIONS

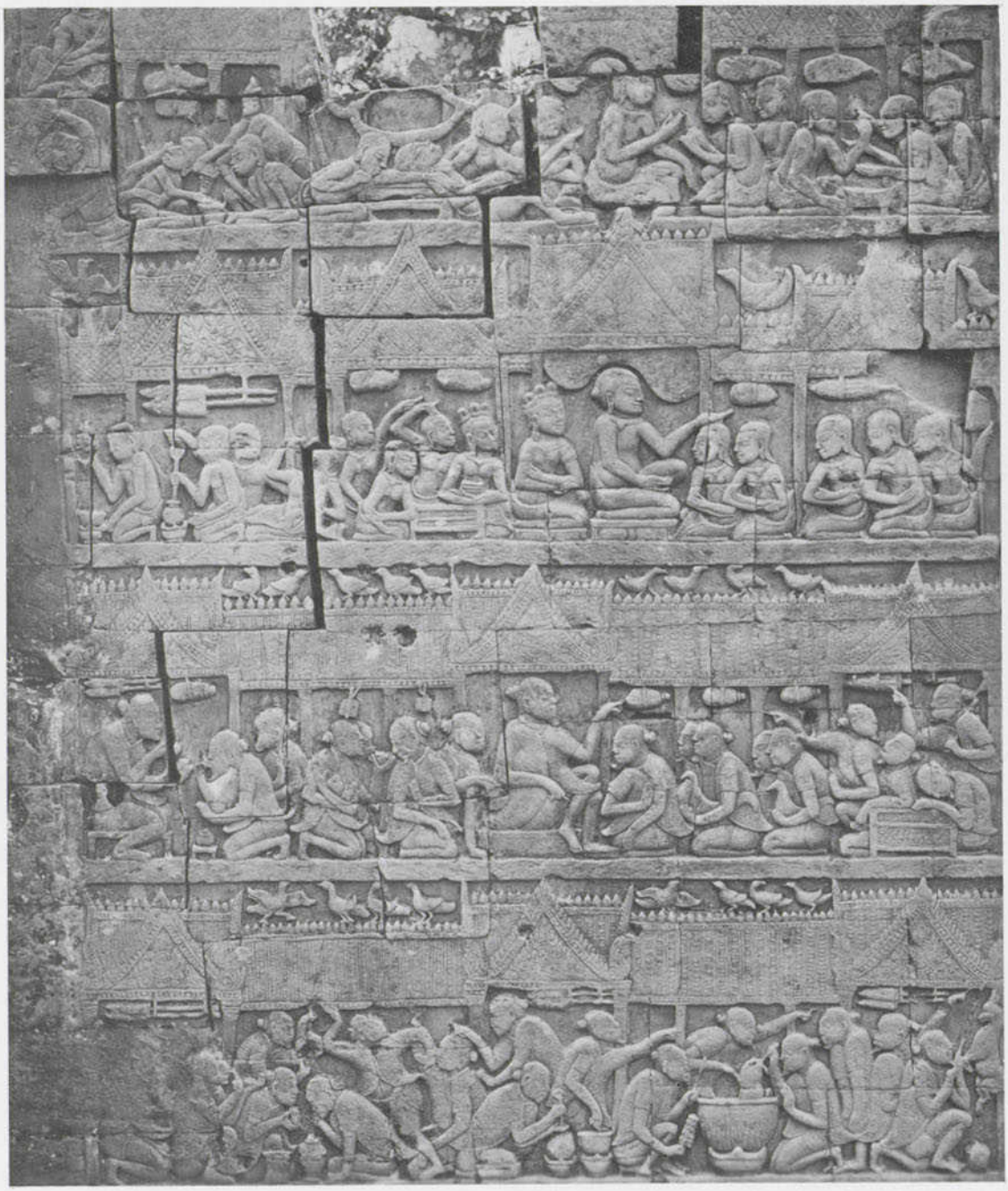
These provincial kilns assume another importance for amateurs. Nearly all the Angkorian ceramics are in the National Museum of Phnom Penh and especially in the Conservation d'Angkor, because they were discovered by archaeologists and curators in the course of their official duty. As for the collection of the Conservation d'Angkor, until 1970 all ceramics came from excavations, and were not, of course, for sale. A rather good collection is shown in the National Museum of Bangkok and in a few provincial museums in Siam. Some pieces, but not representative ones, have been obtained through exchanges and are in other museums: the Musee Guimet in Paris, the Muzium Seni Asia at the University of Malaya, the National Museum of Tokyo, the Musee du Cinquantenaire in Brussels, to name a few. Some vessels could have been acquired by visitors to Phnom Penh, Siem Reap or Battambang, who took advantage of the chance finds. But in fact, most of these were first presented to the Conservation d'Angkor, which systematically bought the most significant ones at high prices. It is only with the affluence of tourists, therefore the lure of gain, and especially the events of 1970, that this control has relaxed, and that some pieces have found their way into the antique shops.

The result is that almost all Khmer ceramics which appear in collections come from former Khmer provinces of Siam. This exhibition fully confirms this and it is not at all a false impression. I have just shown that even though provincial, for the most part, these wares are Khmer production. And true Angkor products are found in the Se Mun basin. It remains, however, that the amateur rather paradoxically sees but one side of this art, and not the best side at that. It is a little as though, in order to appreciate the Chinese ceramics of the Han to Song, we have only vessels made in Vietnam to study.

This situation has other more unfortunate consequences. We often find intact and isolated, ceramic covers and stoppers, because these pieces are small and compact and hold up well. Such is the case during excavations; I have not yet resolved with certainty the use of certain covers. Scruples do not always restrain the dealer who, when the glaze and the fit correspond approximately, prefers to display the "complete" vessel which will obviously command a better price. The results are sometimes curious.

Yet even more troublesome, using wasters from the kilns of the Northeast, certain "artists of the trade" have created true monsters with a skill already known in the production of "antique" bronzes. So we see strange vessels appearing on the market. Often the fake is obvious, as with reattached feet, when these feet are not transformed into necks or stoppers . . . . But we especially find baluster vases, bottles, small jars, certainly Khmer, adorned with one, indeed several animal heads, in general on the shoulder with tails opposite. I can say that all of these vessels that I have held, and the greater majority of those I have seen in photographs, but here with caution, seemed to be pure and simple creations.[71] Not a single sherd at Angkor allows us to imagine such "hybirds" or composites. The Khmer zoomorphic vessels, perfectly known, have nothing to do with these. The other vessels are always homogeneous, well proportioned, and never have such figurative appendages so obviously disproportionate. We must here, therefore, make all reservations.

It remains, however, that in one or two cases the pieces could well be original. But then, they are not "Khmer". Here again, I think, we should look to the "transitional" kilns of which I spoke above and which could very likely be the production centres, but in the Thai kingdoms.



D
Bayon, ca 1200, External gallery, south-east pavillion.
The "House of the Chinese Man"; two top registers show interior courtyards with the family and Khmer servants. Note the women's cooking scene. The lower register depicts the forecourt, showing the men's kitchen scene with Chinese servants (recognisable by their hair knots and costumes) preparing a meal. A small deer is bled and the blood is caught in a vessel. A man stirs soup with a long handled spoon ending in a hook. Another drinks through a reed from a small jar. Upper register: Chinese masters. The one on the left is seated on a low Chinese arm chair and holds a cup (tea?). In front of him, on a low Chinese table, is a small, obviously precious, covered pot. In front of the table, a man drinks from a cup; a servant carries a meiping. From the beams ovoid bottles of Chinese wine hang to attract the customers.

How to conclude this brief introduction which no doubt has posed more questions than it has answered? . . . as has been my very intention.

In Angkorian technique and art, ceramics have held one of the more modest roles. On the one hand, and even for domestic pottery, the vessels made of vegetable matter have widely competed (i.e., baskets, gourds, etc). On the other hand, as much for crockery as for deluxe vessels, metals were preferred and also buying Chinese ceramics which were incomparably more beautiful. In practice, glazed stoneware did not take hold except in three cases: food storage vessels, ritual temple furnishings (when these could not be provided in metal) and a complete range of small pieces for domestic rites, or toys. It was essentially the "silverware" of the poor.

The technique of wheel-made ceramics, and the shapes of ritual vessels draw their origin from India, via Fu-nan. Since the beginning of the Khmer civilisation—the end of the 6th century—painted ceramics appear that will survive with a few shapes throughout its entire history. Domestic earthenware, nonetheless important, and not the least constant, co-exist with them which goes back to pre-history. At the beginning of Angkorian power the technique was revolutionised by glazed stoneware. This contribution was obviously Chinese. It definitely gave Khmer ceramic art its orientation.

I have, on many occasions, cited Chinese shapes which inspired the Khmer potters, and any reader familiar with these will recognize them. The Chinese impact is even more striking when we compare the ceramics of the 9th century onwards with the earthenware and the painted pottery of Sambor. It is obvious that Chinese ceramics cannot be imitated. The craft, the choice of clays, the preparation of glazes, kilns, firing, can only be taught.[72] Up to the middle of the 11th century, Chinese lessons are perceptible. In the extreme, we could classify Angkorian glazed ceramics as one of the "exported" Chinese ceramics, in the same way as Vietnamese and Korean ceramics, or later those of Sawankhalok.

This is remarkable enough to pause an instant. Scholars have always emphasised the Indian influence in Cambodia. There is no point in minimising it and the monuments and the texts prove it. Up until the 14th century, an Indian Brahmin could come to settle in Cambodia and could feel at home. The only thing he had to learn was the Khmer language. For the rest, religion, royalty, he was in an Indian cultural sphere and could read directly in Sanskrit the texts of his culture on the walls of Angkor. However, it is amusing to note that for the period from the 8th century to the 15th century, not one, I repeat, *not one* single Indian object has been found on the grounds of the capital.

But tens of thousands of Chinese sherds have been unearthed and a whole branch, if not of the art, then at least of the Khmer technology, came from China with glazed stoneware. And this is not the only case. First of all, there are the channelled and welted tiles whose simultaneous appearance was noted earlier. For builders, as clever and as prolific as were the Khmers, this was not a modest borrowing. Similarly, the Khmers received silk from China and quite a lot of other textiles; thus the inscriptions speak of "mosquito nets from China" in the temple treasuries. Some Chinese textile motifs were so popular that they are found in the decoration, notably in the door side panels of Angkor Wat and the Bayon, although Khmer monumental art hardly borrowed after the 9th century. It is quite clear that bronze technique came also from the north and this, as early as prehistory. Generally speaking, a large part of the Angkorian technological domain draws heavily from the Chinese. One single example can easily prove this; in the 12th century the principal war machine of Jayarvarman VII—a wheel-mounted cross-bow—came from China.[73]

There is here a whole domain to study. For example, how did the intense stream of exchange function, which implied such bulk imports and with what did the Khmers pay? It happens that we have a rather remarkable illustration. On the reliefs of the exterior galleries

of Bayon (around 1200) we know of the famous "Chinese junk" and also "the house of the Chinese man", which occupies an entire panel. The presence of these "foreign" themes alone, in a composition that relates the life of the King, is strange enough.[74] We must presume that the Chinese had already by that time, "put out their signboard", so that the role had been accorded them.

Let's look at this "house of the Chinese man" (photo D). The two top registers—in the conventional Khmer perspective, the back yard of the building—show the mistress of the house with her servants, all Khmer. We can see the preparation of the women's meal by women, on stoves and in Khmer cooking pots. The lower register, the front yard, shows male servants who are Chinese, as is proved by their hairknots and jackets, preparing the meal, also with Khmer pottery. Others drink through bamboo reeds from a small jar, and the alcohol must have been strong because one of them, taken by drink, begins to fool around to surprise of his companions.

In the same gallery, a relief shows Chinese abandoning themselves to pleasure in a sampan, where they drink energetically from reeds. And a similar drunken scene, of the same date, is found in Banteay Chmar. To the Khmer artist, always prompt to seize the human characteristic, it is clear that intemperance, right or wrong, of the Chinese in Cambodia, was well known . . . .

The second register from the bottom shows two Chinese, masters of the house. One of them in the centre is talking with his servants—all Chinese who are carrying poultry, as if they were coming back from the market. The other is seated on a very low armchair— Chinese style furniture. Only the King, in Cambodia, could claim a chair, or more exactly a low reclining bed, to sit on. In front of him, on a small low table—here again Chinese style —is a ceramic . . . a small covered box, obviously precious. In front of him, a man carrying a *mei-ping,* two others, some cups. On the beams of the house, hang Chinese umbrellas (no doubt in oiled paper) and gourds. They are obviously the principal merchandise that the Chinese offered the Khmers. And it is not by chance that Khmer sculptors, always exact, based their expressive art on the characteristic detail, gave such a place to ceramics. Without exageration, one can say that we have here the house of a Chinese "importer" in Angkor of the year 1200 and whose principal trade was . . . ceramics.

However, in spite of the lessons of these masters, the Khmer potter remained very modest. His materials are sometimes seductive, and towards the middle of the 11th century he came close to perfection. But we are still far from Chinese ceramics, or even Sawankhalok celadons. The decoration is discreet, not to say poor. The Khmer artist was satisfied with a sober ornamental moulding and some bands of incised lines. Why, for instance, are there no examples of painted or figured decoration?[75] When we compare Khmer bronzes we have to admit a clear case of contempt for clay. Only in the 12th century, the subtle play of reliefs under translucent glaze holds the attention, but first is the purity of forms.

Throughout history the Khmer potter has only created some forms, but invented nothing technically. It is only in the provinces of the Northeast that he tried to render, in ceramic, objects normally in metal, and thus initiated an original track. The zoomorphic vessels, with a great economy of means, but an evident strength, are charming pieces. They are no surprise from people who have always been incomparable animalists.

When all is said and done, even though a minor art, Khmer ceramics certainly merit our attentive interest.

Bernard P. Groslier

Notes

I have illustrated my introduction with references to the vessels exhibited here. For further specimens, I have referred to the most recent and well illustrated publications in the field, using the following abbreviations.

I would also like to point out that I have seen these exhibits only in colour photographs, with excellent descriptive forms established by the competent Exhibition Committee of the Society. Nothing can substitute for direct handling; my opinion, therefore, is only tentative.

ABBREVIATIONS

Celadons: *Chinese Celadons and Other Related Wares in Southeast Asia,* Southeast Asian Ceramic Society, Singapore: Arts Orientalis, 1979.
Ceramics: R.M. Brown, *The Ceramics of South-East Asia,* Kuala Lumpur: O.U.P., 1977.
Export: W. Sorsby, ed., *South-East Asian and Early Chinese Export Ceramics,* London: Sorsby, 1974.
Legend: R.M. Brown et al., *Legend and Reality: Early Ceramics from Southe-East Asia.* Cologne: Catalogue, Museum fur Ostasiatische Kunst, 1977.
Southeast: Dean Frasche, *South-East Asian Ceramics, Ninth through Seventeenth Centuries,* New York: The Asia Society, 1976.
Trade: J. Addis, et al., *South-East Asian & Chinese Trade Pottery.* Hong Kong: Oriental Ceramic Society of Hong Kong, 1979.

[1]I have emphasized these problems in a recent paper: B.P. Groslier, *La Ceramique chinoise en Asie du Sud-Est: quelques points de methode.* to be published in *Archipel,* Paris, 1981, n. 20.

[2]Mr. Roland Mourer, who has already published interesting papers on modern Khmer pottery, is actually working on a thesis on this subject which should be significant. See: R. Mourer: *Note sur des procedes traditionnels de fabrication de la poterie au Cambodge. Proc. VIIIth Int. Congress of Anthropolog and Ethnolog Sciences.* Tokyo-Kyoto, 1970, vol. III, pp. 5-10; J. Biagini et R. Mourer: *La Poterie au Cambodge. Objets et Mondes.* Paris, 1971, t. XI, fasc. 2, pp. 197-220.

[3]The bulk of these ceramics is related to the Southern Sanctuaries of Sambor Prei Kuk, built by Isanavarman 1st (616-627). One, however, could suppose that it illustrates the style of the last years of the 6th century.

[4]Indian texts, for instance *the Mahavamsa,* prescribe the use of "new" pots for important ceremonies.

[5]As long as one uses the vernacular term, I personally object to *kendi* which is but the Malay form of the original Sanskrit: *kundi.*

[6]*L. Malleret, L'Archeologie du Delta du Mekong: La Civilisation materielle.* Paris: EFEO, 1960, 2 vol.

[7]B.P. Groslier, "La Cite hydraulique angkorienne: exploitation ou surexploitation du sol?" *Bulletin de l'Ecole francaise d'Extreme-Orient,* Paris; 1978, vol LXV, pp. 161-202.

[8]Indian texts again—eg. the *Asvalayana Grha-sutra*—prescribe this mode of cremation. For instance, for the ashes of a woman, one should use a ewer. Khmer inscriptions, as early as the 7th century, describe the burial nearby—or even within—a temple of ashes in pots (metal or ceramic?).

[9]See one of these burials in B.P. Groslier, *Indochina: Archaeologia Mundi.* (Geneva & Paris, Nagel, 1966) p. 143.

[10]Jacques Dumarcay, *Charpentes et Tuiles khmeres.* Paris, EFEO, 1973, p. 8.

[11]Hariharalaya is, in my opinion, the first "Angkorian" capital, and not Yasodharapura. See B.P. Groslier, *La Cite hydraulique angkorienne . . . op. cit.*

[12]Ms. R.M. Brown, *Ceramics,* p. 31, fig. 9, proposed the Indian *ghata* as a model. But this vase, very well known in Sambor Prei Kuk, is different and always larger. The lotuses stemming out of its mouth are proof enough. Moreover, she uses a figure from Borobudur, and it happens that this motif is practically unknown in Khmer art. Here the model is the small *hu.* Miniature *hu* are common since the Han period, particularly in North Vietnam. For a Chinese prototype of this piece, see *Celadons,* pl. 24 (with a bulbous neck however) or *Trade,* p. 65, no. 20.

[13]J. Dumarcay, *Charpentes . . . , op. cit.,* p. 8.

[14]J. Dumarcay, *Charpentes . . . , op. cit.,* pp. 9-73.

[15]J. Dumarcay, *Charpentes . . . , op. cit.*

[16]B.P. Groslier, "Prospection des sites Khmers du Siam," in B.P. Groslier, ed., *Couts et Profits en Archeologie.* C.R.A., Paris, CNRS, 1980, pp. 33-57.

[17]*Legend,* no. 59, published a mid-11th century box, with an "undeciphered inscription" on the base. It is not a Khmer or even a Mon 'inscription', only a sequence of mere strokes. At Angkor, we found only one case of an inscription on a ceramic piece; the word *tejas* in sanskrit: 'sharp edge, glow', hence "fiery energy, magical power." This was on the back of a glazed Preah Patima from the mid 11th century (a very rare case).

[18]K 212, N, 15 and K 263, D, 47: G. Coedes: *Inscriptions du Cambodge*, vol IV, p. 108. (Paris, EFEO, 1952).

[19]H.L. Shorto, A Dictionary of the Mon Inscriptions. (London: Oxford University Press, 1971) p. 215. The names of vessels quoted above are to be found in the sanskrit inscriptions of Cambodia and sometimes in the Khmer texts. But, of course, we translate them from the Indian acceptance and that does not imply that they were exactly made in the same fashion in Cambodia. We have also a few ancient Khmer names for ceramics, but they have disappeared in modern Khmer. A systematic and comparative study of Mon, other Mon-Khmer languages and mediaeval Khmer could lead to an understanding of them. But, again it is almost impossible to apply them directly to this or that Khmer vessel. Furthermore, unless specified, we do not know if the vessels quoted by the inscriptions were of metal or of clay, and if the terms applied without differentiating to both materials.

[20]Chinese model in *Trade*, p. 65, no. 20.

[21]Ms. R.M. Brown in *Ceramics*, p. 38, perhaps misled by myself . . . seems to think that the gloss of "lie-de-vin" wares is only due to firing. The slip, as a matter of fact, is almost always present. She was more to the point in her paper, "Khmer Ceramics", *Arts of Asia*, May-June, 1973, (Hong Kong), p. 33.

[22]See *Ceramics*, pl. 21, no. 70.

[23]See *Ceramics*, pl. J, no. 1.

[24]For instance *Trade*, p. 217, no. 235.

[25]Example in *Trade*, p. 217, no. 234.

[26]For instance *Legend*, no. 65.

[27]Example in *Southeast*, p. 33, no. 3

[28]*Ceramics*, p. 39.

[29]Other very good examples, *Southeast*, p. 33, no. 5; *Legend*, nos. 36, 39, 58.

[30]Good pieces in *Legend*, nos. 88, 89.

[31]See also *Legend*, no. 92.

[32]Also *Ceramics*, pl. J, no. 4; *Export*, p. 112, no. 210.

[33]*Legend*, no. 59; *Trade*, p. 217, no. 234.

[34]*Southeast*, p. 33, no. 2; *Legend*, no. 58.

[35]*Legend*, no. 64; *Trade*, p. 217, no. 233.

[36]Other good example of this period in *Legend*, no. 84.

[37]*Legend*, nos. 29, 31; *Southeast*, p. 34, no. 6.

[38]*Legend*, nos. 32, 33.

[39]*Legend*, no. 36; *Southeast*, p. 33, no. 5.

[40]*Legend*, no. 34.

[41]See *Southeast*, p. 35, no. 7, and *Ceramics*, pl. J, no. 2.

[42]*Trade*, p. 223, no. 244.

[43]*Ceramics*, pl. K, no. 2.

[44]*Trade*, p. 223, no. 245.

[45]*Ceramics*, pl. K, no. 1.

[46]*Ceramics*, p. 41, fig. 13.

[47]Other examples in *Trade*, p. 223, no. 243; *Legend*, nos. 37, 38. This bowl is often labelled "oil lamp", probably by reference to Chinese oil lamps. But these had a long central stem with a cup for the wick. I fail to see how the Khmer piece could be a "lamp", especially since we most likely have real lamps (see note 61). This might be an incense – or a perfume – burner, but I have yet to find burn marks on the central button. And we know of a much more likely perfume burner of the same epoch; W. Willetts, ed., *Ceramic Art of Southeast Asia* (Singapore: Southeast Asian Ceramic Society, 1971), p. 89, no. 8. This bowl might have been used to melt a cosmetic kept in a small vial, placed on the central button then surrounded by hot water. (In French, we call it a "bain-marie"). But this is mere guesswork.

[48]B.P. Groslier, *Indochina, op. cit.*, pl. 138.

[49]For instance *Legend*, no. 62; *Ceramics*, pl. 23, no. 79; *Trade*, p. 219, no. 238.

[50]Other good examples in *Southeast*, p. 37; *Ceramics*, pl. L, nos. 1, 4; *Legend*, nos. 81, 82, 83.

[51]Others in *Ceramics*, pl. 22, no. 75; *Legend*, no. 69.

[52]B.P. Groslier, *Indochina, op. cit.*, pl. 144.

[53]On a bas-relief of the inside gallery of the Bayon—therefore of the late 13th century—a man, in a boat, is drinking with a bamboo straw from a vessel of the same shape as that of no. 154, (see photo in *Southeast*, p. 23).

[54]For instance *Legend*, no. 57. In this exhibition nos. 89, 91, 119 could be from the beginning of this period. The sherds excavated from the foundation layers of the Bayon have been published in J. Dumarcay and B.P. Groslier: "Le Bayon". Mem. *Arch. 111-2*. Paris EFEO, 1973, pp. 19-21 and pl. XX.

[55]*Ceramics*, pl. M, no. 3 and pl. 23, no. 80; *Legend*, no. 93.

[56]Another one in *Ceramics*, pl. M, no. 4.

[57]It might be interesting to note that Sawankhalok wares appeared in Angkor only during the second half of 13th century. They are rather few. I excavated about 150 pieces of Sawankhalok celadons and some 50 Sukothai wares. It is at the same period that we collected a few Yuan blue-and-white and a few Vietnamese blue-and-white with chocolate brown bases.

[58]B.P. Groslier, *Prospection des sites khmers du Siam . . . , op. cit.*

[59]*Legend*, nos. 100 to 103.

[60]I call "lamps", small round cups with one or three pinched beaks sprouting outward, quite obviously for the wicks which can thus burn outside, while the rest of the wick is inside, drawing oil. Several of these pieces in 11th century light green glaze have been found in Northeast Thailand.

[61]*Legend*, no. 104.

[62]*Ceramics*, pl. 24, no. 84.

[63]The beautiful elephant in *Legend*, no. 51, is not, in my opinion, Khmer. Let me first point out that it represents an elephant hunt. Young wild elephants are caught with a lasso, then tied with a rope to the flanks of old trained female elephants who beat them until they obey, which is exactly the case here. But this composition of an animal with small animals on the flanks (or, for that matter, riders) has never been found in Cambodia. Compare the many Sawankhalok pieces of the same spirit; *Ceramics*, pl. 35, no. 121, properly classified Sawankhalok, for instance.

[64]*Legend*, no. 53.

[65]*Legend*, nos. 101, 103.

[66]*Legend*, nos. 41, 54, 55, and *Southeast*, p. 38, no. 11.

[67]*Legend*, no. 52, and *Southeast*, p. 36, no. 12.

[68]*Legend*, nos. 46, 47, 48, 94, and *Trade*, p. 217, no. 236.

[69]*Legend*, no. 56.

[70]For instance, *Ceramics*, pl. 33, no. 116; pl. 35, no. 121; pl. R, no. 1: *Legend*, nos. 177, 179 to 184; *Trade*, p. 237, no. 264; p. 287, no. 250: *Export*, p. 103, no. 193, etc. . . See also Aalderink. *Ceramic Wares of Siam*, (Aalderink, Amsterdam, 1978), *passim*.

[71]For instance *Ceramics*, pl. M, no. 2, where the "tail" is a stopper and the head so obviously out of proportion . . . Again, *Export*, p. 114, no. 216 which is rather a "monster".

[72]I am, in this matter, entirely of the opinion of Mr. W. Willetts and his writing about the Chinese impact on Sawankhalok: *Celadons*, pp. 36-37.

[73]P. Mus, "Les Balistes du Bayon". *Bulletin de l'Ecole francaise d'Extreme-Orient*, Hanoi, 1929, t. XXIX, pp. 135-145.

[74]B.P. Groslier, *Le Bayon . . . , op. cit.*, pp. 167-168.

[75]*Legend*, no. 91, shows a jar with a beautifully engraved fish on the shoulder, under the glaze. But, with its shape, its glaze, its decoration, I do not think it is a Khmer jar.

KHMER CERAMICS OF THE KORAT PLATEAU

Unravelling the Mysteries

At times the amount of literature on old Asian ceramics seems enormous, and the great number of words written on Southeast Asian wares, especially since the Southeast Asian Ceramic Society's inaugural exhibition in 1971,[1] certainly awes the initiate. Surely, one new to the subject would think the major questions have been answered, even though so many commentaries begin with the tiresome but customary lament about so little research being done thus far in this or that deserving area.

Yet for those who have taken the plunge into fascination with Southeast Asian ceramics, private debate over their history is an exciting, unending discourse. There have been so many surprises too, even in the last dozen years, that almost any speculation should be given a fair hearing. In 1971 few would have guessed the breadth of ceramic production north of the Sukhothai dominions in Thailand,[2] or that a major source of trade wares found in insular Southeast Asia would be found in southern Vietnam.[3] And the existence of old Khmer kilns in Northeastern Thailand was still only a rumour.

The documentation of the pottery of old Cambodia, indeed, is so nascent that even the most well-informed were not always certain what was Khmer and what was brown-glazed and unglazed Thai wares until only the past several years.[4] A great number of collectors in the Philippines, for instance, still argue a Khmer origin for a type of unglazed stoneware jar found there[5] although one of their leading archaeologists, Dr. Robert B. Fox, was already convinced by 1972 when I visited him that these were definitely Thai; he had seen too many similar sherds at the Sukhothai and Sawankhalok sites during a recent visit to think otherwise.

Khmer kilns had already been discovered in Northeastern Thailand at the time of the Society's first exhibition, but their existence and whereabouts were known only to a very few persons. Lying undisturbed for hundreds of years in deep forest just north of the Dangrek Mountains near the old Angkor-Phimai road, the kilns suddenly came to light in about 1969 or 1970 when logging operations in Buriram province tore through to the ceramic debris.

A good many Khmer ceramics shortly appeared for sale in Bangkok, but most persons had only a vague idea of their provenance until a lecturer at Silpakorn University, Srisakra Vallibhotama, confirmed their existence with an article in the Thai journal, *Our Future,* in early 1974.[6] Even then, however, there were few visitors other than local residents digging for saleable artefacts. Far from any roads except rough logging trails, they were not easily accessible, and the few inhabitants of Ban Kruat, the nearest town and district capital, who did know the way were generally loath to guide strangers.

In 1975 the Fine Arts Department did organize an exploratory excavation that uncovered one kiln in a group of three mounds, but the excavator, Pot Kuekul, left the Department soon afterwards without having submitted a report on the work. Fortunately, however, Mr. Srisakra did visit the site and question Mr. Pot on his findings before the kiln and remaining mounds were levelled to make new paddy fields.

The kiln, according to Mr. Srisakra, was made entirely of baked clay and comprised four consecutive chambers, the first of them appearing to be the firing box, and the last presumably formed into a chimney although its structure or outline could not be distinguished. There was evidence that kilns had been built overlapping, one atop the other,

and that different shapes had been fired in each of the middle chambers although the sherds associated with this particular kiln were all dark glazed.[7] In size, the kiln was approximately the same as those at Sukhothai.

Based on reports from villagers and his own visits, Mr. Srisakra believes that the remains of ancient kilns extend well beyond the district, or *ampur*, of Ban Kruat—probably, he says, all across southern Buriram along the present Cambodian border from Nong Rang near Phanom Rung temple in the west to as far east as Ampur Prasat in Surin, the next province. And he would not be surprised if more sites were found in other provinces of the northeast as well. Examples of the ceramics have been found continually all over the area: from the Laotian border on the east to Phimai near the upper reaches of the Mun River on the west, and from the Cambodian border in the south, throughout the Mun River valley to as far north as the prehistoric Ban Chiang site in Udorn province where Khmer pots are even reported in the later deposits above the famous red-painted earthenwares.

Since that first abortive exploration no further excavations have been planned for Buriram because of the uncertain military situation along the border. Besides talk of landmines being a danger in the forests nearby, many officials in Bangkok believe it is not possible to travel even as far as the town of Ban Kruat without military permission.

Nevertheless, as a prelude to writing the present essay, I decided in late August 1980 to attempt an excursion to the kilns, hoping it would at least be possible to visit the Buddhist wat near Ban Kruat which has had for many years a large collection of wares, wasters and sherds from the area. This place, Wat Nikom-Santonaeng, is located at the southern end of the village Ban Prasat immediately south of Ban Kruat town. Turning south at Prakonchai from the main east-west highway through Buriram, it is 22 kilometres to Ban Kruat. Following the same road another two kilometres to the end of the Ban Prasat marketplace, there is a wide dirt road that turns off to the left; the wat is about 500 metres along this road on the right-hand side.

To our pleasant surprise, my companions and I reached the wat having passed only a police checkpoint at Ban Kruat, where we merely stated our destination. But then there was a great disappointment: the wat no longer had a single sherd, not even the large twelfth century jar fitted with a small faucet that was in use dispensing drinking water when I photographed it in 1973.[8] Everything had been "sold" a couple years ago, explained two young monks. There was another wat further down the road though, said one of them, which might have some pieces.

So on down the wide dirt road, made muddy and slippery from rain the night before and used mainly by logging trucks, we drove. After about six kilometres it ended at another dirt crossroad; here we turned right and found Wat Sai To-ha (Tambon Sai Taku, Ampur Ban Kruat), actually no more than a village house, a half kilometre down on the left-hand side.

The building would not have been recognizable at all as a wat or village monastery except for the large, extraordinary image of Sangatjai, or the "fat Buddha",[9] under a roof shelter at its side—an image made in the tradition of Wat Arun (Temple of the Dawn), across the river from Bangkok, with broken pottery stuck into a cement plaster ground. Only in this case, the image was decorated with Khmer sherds from the district! (See fig. 1). Made in 1972, the sculpture included only one non-Khmer fragment, a section of a Chinese white glazed covered box, a type of ware often associated with Khmer pottery in the Northeast.[10]

"Where had the sherds been found?" we asked. "Everywhere", came the answer. Though in pressing for more precise directions, we were sent back to the crossroad where we continued on straight (rather than turn back the way we had come) for two kilometres to another small monastery set back from the road on the left-hand side. Here several broken pots held incense sticks, flowers and other offerings at a small altar, and a village woman

visiting the monks offered to lead us to some nearby kilns.

Leaving the car at the wat, we walked past a small irrigation reservoir and into an area where newly planted paddy fields with ripening rice were beginning to push back what was left of the once heavy forest that loggers have been steadily removing from the province. The change in the last seven years, since I last sought (unsuccessfully) the kilns was astonishing; then the roads we had just travelled were only cart tracks among trees that towered twenty metres and more. The nearby village, said our guide, began to be settled fifteen years ago.

Within ten minutes we began seeing pottery fragments protruding from the muddy embankments and lying in the water of the paddy fields, and in another five minutes we were in high bushes among mounds where we met several other village women busy with shovels. The rainy season, they explained, was the best time to search for pottery.

Every shovelful of soft mud brought up more sherds. Everywhere round about us the ground was littered with them: green, brown, and black glazed pieces of jars, bowls, lamps, urns, lime pots and bottles. The kilns themselves were indistinguishable, but they must have been beneath the half dozen or so, five to six-foot high, roughly oval-shaped mounds under bushes around us. There were no signs of any bricks, nor of any kind of kiln furniture such as saggars or firing supports. Seemingly constructed with no more than fired clay, the kilns are easily levelled in the relentless process of clearing ground for agriculture. We can only hope that more excavations are conducted before all have perished. This destruction is what brought the many bits of pottery seen in the rice fields to the surface.

Many of the fragments, including all those we afterwards examined in many of the villagers' homes, showed signs of warpage or cracking, and there were several examples of baluster-type jars that had sagged, falling in on themselves in the firing. One family had sections of nine small celadon covered boxes, with lightly lobed walls and a fruit stem depicted on the covers' centre. All seemed to have been discarded because the lids had stuck to the bases, demonstrating that these had been fired closed. This would be the reason that almost every box cover among Khmer ceramics has a tiny perforation near its centre. Thus hot air from inside could escape without the container exploding. In contrast to the Sukhothai and Sawankhalok sites, however, there were relatively few examples of separate vessels stuck together; and the perennial problem of the Thai potters—that of pots adhering to kiln supports—does not seem to have burdened the Khmers.

Thus far visitors to the Ban Kruat sites have yet to discern any kind of kiln supports. Wasters of stacked celadon bowls such as exhibit no. 16 have been collected. In these stacks, the bowls are separated by a ring of balls of a light weight friable material that has not been identified. These balls leave round scars at the lower interior and exterior walls of the bowls. The same scars can also occasionally be observed on other green glazed shapes, such as on the tops of covers, although they are rare on dark glazed wares.

Exactly how the Khmer potters stacked their kilns is still unknown. Hopefully further excavations and a study of wasters comprising separate pieces fallen together in firing will one day tell us. I have personally yet to see, for instance, a waster showing green and dark glazed wares together, although in the Suan Pakkad Palace Museum, Bangkok, there is an example of a two-glaze jar that has slumped into a heap along with two monochrome dark glazed jars of similar shape. However, one must approach even wasters, with caution. Some dealers have become adept at making broken pots saleable by transforming them with adhesive into artfully grouped wasters.

I have commented elsewhere[11] on the many differences in technical detail generally between the green and the dark glazed wares. They are enough to cause one to wonder if certain potters possibly specialized in only one ware or the other. It is not due to chance that the shapes in this exhibition usually do not have exact counterparts in the opposite glaze.

Firstly, the green or light glazed pieces are less common on the whole; they accounted

for perhaps only a fourth or a fifth of the production at Ban Kruat. Then, while a small number of their shapes, for instance owl limepots (see nos. 10 and 11) and jarlets (nos. 7 and 39, 40), are fairly similar to dark glazed pieces, the great majority are never identical. Bowls, for example, are common in both glazes. However, those with dark glaze, which usually have a button-like foot (see no. 60), never duplicate the conical shape of the most common of the green glazed bowls (see no. 14).

Common dark glazed shapes for which no green glazed examples have so far been reported include the large water or wine jars (e.g. nos. 73, 85); the wide, squat bottles sometimes known as "oil pots" (e.g. nos. 50, 92); and the footed urn (e.g. no. 58). An exceptional piece shown in this exhibition is no. 9, the green glazed "lamp" which would be called a "holy water bowl" by some Bangkok dealers. While it is among the most numerous Khmer shapes in dark glaze, it is extremely rare in green.

An important, almost crucial, question concerning Khmer ceramics that I have unsuccessfully addressed in the past[12] concerns the character of the glazes used. With the fortuitous find of one "two-glaze" sherd in particular, and the comments and well-informed opinion of Patricia Cheesman, a long-time potter in the region who has been working in potteries in Laos for the past eight years, an effective argument can now be made that the Khmer potters worked with four basic glazes, and one of them was definitely celadon. In conjunction with the glazes, two basic clays, at least at the Ban Kruat kilns, were in use.

After careful examination of the various sherds gathered from the kiln site, Ms. Cheesman was convinced that the wares had been fired in a reduction atmosphere and that iron was a primary colouring element in the glazes. The two clays comprise one that is iron-rich and a dark blackish-grey, and another that is lighter in colour, pale grey to buff or cream toned. The first was used for most large size dark glazed vessels and the second was used for smaller dark glazed wares and for all the light glazed pieces. (There are also examples where mixtures of the two clays seem to have been used).

The two most commonly used glazes (accounting for perhaps 80% or more of the glazed wares) at Ban Kruat were a temmoku glaze and a somewhat primitive celadon glaze, but celadon none the less. The temmoku-type could vary from brownish to brownish-black to blackish-brown to black depending on variations in the iron content, (as low as 2% more or less) and on firing conditions (e.g. temperature at which reduction atmosphere was introduced, or in the way the kiln was cooled).

The first of the two remaining glazes was one that fired dark olive-green; usually applied thickly, it has a silky, smooth feel. The other was an ash/lime glaze that could give either a slightly matt, pale yellowish colour or a mottled brownish black, depending on the clay over which it was applied.

The latter of these two last preparations is the most interesting, for on an unbroken vessel it would be difficult to distinguish whether it or two separate glazes had been applied. It was most useful for two-glaze wares (which in this case would more accurately be called "two-clay, one glaze" wares), as can be seen by looking at the sherd from Ban Kruat shown in fig. 3a. Where the pale colour was desired, the cover represented by this fragment was built with light coloured clay, both at the handle and with applied button-like floral decorations around the shoulder. The remainder of the cover is built with the dark clay that provided the slightly increased iron content necessary for the resultant dark glaze colour.

Comparing the above fragment with another two-glaze sherd, also from Ban Kruat, fig. 3b, one can observe that a two-glaze ware could also be obtained by literally applying two glazes. In this case celadon has been combined with the last of the four basic mixtures, the dark olive-green glaze, on a single light colour clay body.

Differences between the ash/lime glaze and celadon are that the latter would require less clay and more silica in its making, while the former would require some lime, added either

in its pure form or by using the lime-rich ash of certain trees. The celadon will always have a greenish glassy look, while the pale ash/lime glaze is less lustrous and yellowish. It is less green on Khmer wares than other known celadons because it was applied thinly.

Fragments of shapes known only to have been celadon glazed (e.g. sherds of conical bowls) found at Ban Kruat already fired but not yet glazed, incidentally, may indicate that the celadons were fired twice. Double firing (once without glaze, then again after it was applied) was often employed with early celadons due to problems with the glaze not adhering well to raw clay. Interesting, too, is the fact that one villager near the kiln site had several greyish quartz pebbles he had found among the sherds there. Ms. Cheesman later explained that these, heated and ground up, would have been an excellent source of the extra silica required for celadon glazes.

The dark olive-green glaze, thought Ms. Cheesman, is perhaps a felspathic glaze. It certainly would have included less clay in its make-up than the mottled brownish and blackish variations that she unhesitatingly groups together as basically temmoku; a glaze that by definition is blackish verging on brown or vice versa. As already mentioned, the tone differences could result from only minute alterations in the amount of iron. Five to 7% iron in the mixture could produce browns; 8% – 10% would give blackish tones; and at 12% the glaze would return to brownish. Use of the category temmoku, which Ms. Cheesman affirms would be a potter's logical choice for a technical description, would certainly give us a compact terminology for referring to all the Khmer brownish and blackish variants as a whole.

What remains to be decided definitely is whether the Khmer potters could, on the whole, obtain whichever tone variation of the temmoku glaze they wanted at will. Or were the tones mostly due to chance? Some of them, it seems, however, were more common in some periods than others. Certain rich brown tones, for instance, do seem more often than not to be combined with shapes and a finesse in potting that have been associated with the Angkor Wat period of the early twelfth century, while a blackish dribbly glaze seems to typify later wares.[13]

One further glazing technique that needs mention is the use of slip. Occasionally a thin white slip is detectable beneath the glaze on celadon wares, and this would have made the body more smooth, but whether it was used as a rule is uncertain. More relevant to glaze colour, though, is the application of brown slip. Often seen at the lower body and foot of small size temmoku glazed wares where the glaze has not reached, it was in fact brushed over the entire body before the glaze. When the light colour clay was used, as it often was for small thinly potted pieces, the slip (which was probably made in part from the dark clay) added just enough extra iron to obtain a good rich colour. When the dark iron-rich clay was used, there was no need for the additional iron in the brown slip.

Apart from the glazed stonewares at Ban Kruat, I also encountered sherds representing unglazed stonewares generally like those excavated at Prasat Ban Phluang in nearby Surin province[14] that are fairly smooth surfaced, have incised decoration much like that on glazed wares, and range in colour from greyish to dull reddish brown. There were sherds too, although fewer in number, of thickly potted orange bodied earthenwares.

Unbroken examples of these unglazed wares are rarely seen, and only a few sherds from the kiln site are shown here (fig. 4). Primarily utilitarian, they were easily broken with daily use, and not likely to be preserved by burial or any special care. It is not surprising that whole specimens are scarce.

Absent among the sherds seen by the author at Ban Kruat were fragments of *lie de vin*, a particular variety of unglazed stoneware made about 900–1050. So-named by Bernard Groslier because of the dull reddish-violet colouring of the clay body,[15] the group is notable for having shapes strikingly similar to ones later seen among the temmoku glazed wares.

Yet my investigation was limited to only one small area and necessarily confined to the

1 Image of a Sangatjai with Khmer sherds set in plaster from Wat Sai To-ha, Ban Kruat.

2 Storage Jar, possibly Khmer, late 12th to early 14th centuries. Height: 35 cm. Korat Museum.

3 Sherds from Ban Kruat.
- **a** two body one glaze ware
- **b** one body two glaze ware

4 Unglazed but fired fragments from Ban Kruat.

5 Glazed sherds from Ban Kruat.

inspection of surface finds only. Future investigations across the entire geographical area of the kilns will certainly uncover evidence for a wider range of wares. Examples of *lie de vin* were once contained in the collection of Wat Nikom-Santonaeng at Ban Kruat, and several fragments (including a section of a conch, part of a basin, and the body of a covered urn which in fact had dribbly black glaze over it) were discovered at Prasat Ban Phluang near what Mr. Srisakra believes to be the eastern boundary of the true Ban Kruat kiln area. So, it would seem likely that they did originate from these kilns.

The Ban Kruat kiln site is by no means the only source of modern-day finds of Khmer ceramics from Northeast Thailand. The region was famous for finds of Khmer artefacts long before the kilns themselves were discovered. The great number of ceramics there caused comment in the *Journal of the Siam Society* even as early as the 1920s.[16]

Many of the ceramics have been isolated finds, dug up here and there in the course of agricultural activities or construction projects. But occasionally sites are located that continue to be a steady source of perfect or near perfect ceramics, in addition to various other artefacts, over several months or years. The latest major surge of good pieces on the Bangkok market, about two to three years ago, was said by dealers to have been provided by villagers coming from Na-doon in Maha Sarakham province, some 150 kilometres north of Ban Kruat. Other sites over the years have been reported especially in Surin, Sisakhet, Ubon and Roi Et provinces.

A site that produced a great number of wares in early 1973 was Ban Sawai, a small village near Surin city.[17] At the time some observers guessed that another old kiln centre had been found. But sherds there were not nearly as abundant as at Ban Kruat, nor did any of them show definite firing faults. Moreover, the finds, many of which were in excellent condition, soon petered out. It seems more probable that sites such as this were either burial grounds, like that excavated at Angkor by Bernard Groslier,[18] or perhaps habitation sites.

Groslier has told me in the past that evidence at Angkor indicates that the dark, or temmoku glazed wares were introduced about the mid-eleventh century or slightly earlier. This is also the time when the majority of Khmer temples began to be constructed on the Korat Plateau north of the Angkor plains. And it may be supposed that with the temples came other aspects of Khmer culture and probably immigrations of people. It must have been during this period, perhaps by the second quarter of the eleventh century, that potters came from the kilns of Phnom Kulen. And if the old potters did not actually remove themselves, then they certainly trained the artisans who would later found the new kilns. For there is no break in the already established tradition, only an evolution of wares at Ban Kruat. One of the important tasks of the new centre, as it was at Kulen, was to provide the curved, celadon roof tiles and roof-ridge finials that graced non-secular buildings. These are practically identical at the two sites.

At Kulen, which was first visited by Etienne Aymonier in 1883,[19] only green glazed wares have so far been reported. Thus, unless another Angkorian kiln site still lies hidden, the temmoku glaze may well have been an innovation of Ban Kruat. If so, it probably came accidentally. The iron content of the dark clay available to the potters there was simply too high to fire any colour but brown or black. Not until the potters learned to reduce the amount of iron in their materials could they have duplicated the greenish glaze of Kulen.[20]

But if the kilns at Ban Kruat were established between 1025 and 1050, when did they cease production? And why? Did the Khmers in their time clear the land of southern Buriram to the extent it has been cleared in the last decade? Then why did they abandon it to thick forest again? For the moment there are no answers.

It would be most helpful to know exactly when the Khmer temples of brick and stone throughout the Mun River valley of the plateau fell into disuse, since large numbers of sherds are almost always associated with them. Groslier, who personally handled the sherds from Ban

Phluang, dated them largely from the mid-eleventh to early twelfth centuries;[21] aside from one or two pieces that could be earlier products imported from Phnom Kulen. Moreover, they seemed representative of the range of Ban Kruat wares so far known and to closely correspond to finds at other northeastern temples such as Phanom Rung and Muang Tam. Yet if there seems to be no evidence elsewhere for dating any of the Khmer pottery beyond the mid-twelfth century, then it would be revealing to excavate carefully for sherds at Phimai. It is the most important temple in the northeast and one to which there is a reference as late as 1243 in regard to prayers being offered there at the death of King Indravarman III.[22]

At any rate, if the kilns were still in use after 1150, they probably produced only a fraction of their earlier output. Whenever there have been major finds of Khmer ceramics, the only Chinese wares with them have been the same types of Ying-qing and Ying-qing type white glazed covered boxes as excavated at Prasat Ban Phluang at the same levels as the indigenous pieces.

At northeastern sites in general there is a dearth of Chinese ceramics. The wares imported into Angkor, which gradually replaced the local pottery there, do not seem to have travelled northwards. There is no sign of the celadons that Chou Ta-Koun reported in 1296[23] were being sent in great numbers from China.

Judging by the lack of artefacts definitely datable to the second half of the twelfth and thirteenth centuries, indeed, there would seem to have been a drastic population decline at that time. A removal of the population southwards would help explain why the largest temple built near the Angkor-Phimai route in the twelfth century, Banteay Chmar, was located south of the passes through the Dangrek Mountains. There have been occasional finds of Sawankhalok celadons and brown glazed wares in the northeast, but these could not possibly date before the fourteenth century.

In the search for later products of the Ban Kruat kilns, however, there is one particular group that should be considered and investigated. The group consists of very distinctive, large storage jars that have surfaced from time to time in the region without there being any documentation or details on the circumstances of their finding. Their body structure and decoration, except for being slightly more bulbous at the shoulder than known Khmer jars, is very 'Khmer', while the strap-like handles placed horizontally at the shoulders on many of them look like those on Sawankhalok jars. The glaze is usually a murky olive green (see fig. 2). The only collection of examples (a dozen or so of them) known to me is at the provincial museum in the town of Nakorn Ratchasima (sometimes known as Korat), where the only recorded provenances are various Buddhist wat collections. They do not seem to be found in any other part of the country.

In the particular field of the ceramic art of Angkorian times, the troubles within present-day Cambodia need have no major effect on the rate of research. In Northeast Thailand there are innumerable sites to be surveyed and excavated, the most important being the kilns in Buriram before they have disappeared. Presently, we do not even know for certain exactly how extensive the site there actually is, or whether there are other kiln centres north of the Dangrek Mountains.

Let us hope that this exhibition is only a beginning, a catalyst that will spur further research into the shapes, dating, technical aspects and historical background of the wares. The purposes for which many of the forms were designed are mostly mere conjecture, some of them being too puzzling even for guesses. There are many mysteries of these highly individual wares yet to be solved.

Roxanna M. Brown

Notes

[1] William Willetts, *Ceramic Art of Southeast Asia*, Singapore: Southeast Asian Ceramic Society, 1971.

[2] A book with recent research on these sites by John Shaw should be published by Oxford University Press, Kuala Lumpur, later this year (1981).

[3] See Chapter 2 "The Go-Sanh Kilns" in Roxanna M. Brown, *The Ceramics of Southeast Asia*, Kuala Lumpur: Oxford University Press, 1977 & 1979.

[4] Sawankhalok wares misidentified as Khmer in the Southeast Asian Ceramic Society's first exhibition, op. cit. Willetts, for instance, were exhibits nos. 15–17. Much more misleading are several identifications in Roxanna M. Brown et al, *Legend and Reality*, Kuala Lumpur: Oxford University Press, 1977. In the section "VIII Thai Ceramics, Supplement", added (see page 12) after the author had catalogued the previous wares, there are neither Sawankhalok nor Khmer pieces, and nos. 209–212 are doubtful altogether.

[5] See The Ceramics of South-East Asia, no. 95, Plate 27, Roxanna M. Brown, op. cit.

[6] Srisakra Vallibhotama, 'The Khmer Ceramic Kilns of Ban Kruat and Their Preservation', *Our Future (Anakhot)*, II/7 (January-February, 1974), pages 30–33. In English.

[7] The description here corrects that given in *The Ceramics of South-East Asia*, which unfortunately was obtained second-hand while the book was in press.

[8] Roxanna M. Brown, 'Khmer Ceramics', *Arts of Asia*, III/2 (May-June 1973), page 33. Later photographs of material at Wat Nikom-Santonaeng, taken by a friend in 1976, were published in Roxanna M. Brown and Vance R. Childress, 'Khmer Ceramics at Prasat Ban Phluang', *Arts of Asia*, VIII/1 (January-February 1978), page 69.

[9] Sangatjai was not actually a buddha, but a cousin of the historical Buddha, who was loved by children because of his jolly nature. He later became a symbol of wealth.

[10] For an illustration of the type of box in the Sangatjai image, see the Southeast Asian Ceramic Society's second exhibition catalogue, *Chinese White Wares*, Singapore 1973, no. 46, a Ying-qing ware dated to the Southern Song period. For drawings of five various covered boxes found at Prasat Ban Phluang, see Brown and Childress, op. cit., page 68.

[11] Roxanna M. Brown and Vance R. Childress, op. cit., page 70.

[12] Roxanna M. Brown, Vance Childress and Michael Gluckman, 'Khmer Kiln Site—Surin', *Journal of the Siam Society*, LXII/2 (July 1974), pages 239–252. According to potters with whom I have been able to discuss this question since the article was published, the chemical analysis contained in Appendix 2 is probably incorrect in some of its findings. Because these kinds of analyses can often be wrong, working potteries usually send new clays for analysis to at least two separate laboratories as a matter of course to check results. Moreover, the reasoning based on the analysis—that the Khmer greenish glaze is probably not celadon—is mistaken, as will be evident in the following paragraphs.

[13] See Brown, *The Ceramics of South-East Asia*, op. cit., page 34.

[14] Brown and Childress, 'Khmer Ceramics at Prasat Ban Phluang', op. cit., page 68.

[15] For further description and illustrations, see Brown, *The Ceramics of South-East Asia*, op. cit., page 38, Figure 11; no. 1, Plate J; and no. 70, Plate 21; and Brown and Childress op. cit., page 69 for pieces once at Wat Nikom-Santonaeng, Ban Kruat.

[16] W.A. Graham, 'Pottery in Siam', *Journal of the Siam Society*, XVI/1 (October 1922), pages 5–6.

[17] Brown, Childress and Gluckman, op. cit., pages 249–251.

[18] Brown, *The Ceramics of South-East Asia*, op. cit., pages 40–41.

[19] Etienne Aymonier, *Le Cambodge*, II, Paris: Ernest Leroux, 1901. For other early descriptions of the Kulen site, see Victor Goloubew, *Le Phnom Kulen*, Hanoi, 1924; and H. Parmentier, "Complement a L'Art Khmer Primitif", *Bulletin de l'Ecole Francaise d'Extreme-Orient*, XXXV (1935), pages 67–69.

[20] Not having recently examined enough wares or fragments known definitely to originate from the Kulen kilns, I am hesitant to say definitely whether one or both of the pale glazes were used there. From memory of handling pieces at Phnom Penh, however, seven and eight years ago, I would suggest they were, at least mostly, celadons.

[21] Brown and Childress, 'Khmer Ceramics at Prasat Ban Phluang', op. cit., page 68.

[22] Lawrence Palmer Briggs, 'The Ancient Khmer Empire,' *Transactions of the American Philosophical Society*, XLI/1 (1951), p. 238. This publication offers the fullest account in English of the history of the Khmer empire, and a sense of the importance of the Korat Plateau to the Khmers may be gained from reading the sections on the eleventh and twelfth centuries. One of the kings of this period, Jayavarman VI, for instance, who came from the Phimai region, may never even have moved to Angkor.

[23] Paul Pelliot, *Memories sur les Coutumes du Cambodge de Tcheou Ta-Kouan*, Paris: Librairie d'Amerique et d'Orient, 1951, page 27. A member of a Chinese embassy that stayed one year at Angkor, Chou Ta-Kuan wrote the longest and most detailed contemporary account known on Cambodia during its Angkorian era. After gold, silver and silks, he writes in one passage, the next most important products imported from China into Cambodia were pewter, lacquer and celadons.

USES OF KHMER CERAMICS

This exhibition brings together a wide range of Khmer ceramics. One hundred and twenty selected pieces trace the chronological development of a unique pottery that belonged to the Khmer empire. The simple glazes, angular shapes, and restrained decoration bring forth an appeal that seems to have eluded the more technically developed ceramics. The conjecture of probable uses is one of the more interesting aspects of the study of Khmer ceramics.

The small number of wares that has been found outside the boundaries of the former empire indicates that they were not made for export or used as items of trade. Excavations in Kampuchea and Northeast Thailand show that they were produced both as ceremonial vessels for offerings to deities and spirits and for the utilitarian needs of the ancient Khmer.

Religious vessels include a broad range of urns, bottles, bowls and modelled conches and fish. Funerary urns may have been used in the cremation ceremony. Reliefs at Bayon depict a cremation scene with ashes of the dead and small offerings being placed into a jar similar to a green glazed covered urn in the exhibition (no. 1). A parallel shape made of unglazed clay is used in the same way by modern Khmer villagers. The form has tall cylindrical walls with the lid and body forming a continuous line. The handle varies from a small pointed knob (no. 1) to a more defined handle such as a lotus bud (no. 30) and a tiered form (no. 40). In the firing process, the lids and bodies of covered urns sometimes fused together and could not be separated (no. 59).

A large number of brown glazed footed urns have been excavated in Northeast Thailand. Because they were found in close proximity to temples, they may have been used as containers for flowers to be placed on altars or shrines or at entrance steps of temples; or they may have served as storage vessels for ritual objects. Indian influence is evident in the shape of the footed urns in this exhibition. As the shape is seen on reliefs at Borobudur, the influence may have come to the Khmers from Java. The characteristics of one of the most common urn forms are a flanged mouth, tubular neck, rounded body, and a pedestal foot (nos. 41, 57, 58, 83). The symmetry and balanced proportions of these footed urns illustrate the skill of the Khmer potter. This shape has been identified with religious ceremonies in reliefs and excavations so frequently that it may have been used solely as a ceremonial vessel.

Elaborate religious ceremonies were held in the temples and music was an important part of the ritual. Musical instruments that may have been used were drums, trumpets, cymbals, gongs, bells, and conches. Musicians, singers, and dancers accompanied the priests during the ceremonies. Brahmins announced the arrival of the king by blowing through a conch shell. Two ceramic conches, similar to bronze forms found at Angkor, are exhibited (nos. 36, 37). They are fine examples of the Khmer potter's artistic ability in hand-modelled work. The conch shape is derived from India and is an attribute of Vishnu, the creator and preserver of the universe.

Objects for sprinkling lustral water are used in modern Buddhist ceremonies and may have been necessary for ancient rituals also. A water sprinkler is held with two hands in a horizontal position and moved gently back and forth to sprinkle lustral water. A second ceramic conch form has been found in Northeast Thailand and may have been used as receptacle for holy water. It is a half conch shell with a rounded bottom and a narrow groove in one end for water to flow out. Other examples that appear to be water sprinklers are two

unusual brown glazed modelled fish figures with incised decoration (nos. 94, 97). The fish form is hollow with an open mouth and small apertures on the tail that may have been used for hanging. It is interesting to compare the stylistic similarity of the Khmer fish with a fish from Kalong, a fourteenth century kiln site in Northern Thailand (*Arts of Asia,* May-June, 1980).

Candles were used extensively at religious ceremonies. Elaborate candelabra provided overhead lighting, rows of candles lit the entrances to temples, and candles were placed on altars and shrines. It is possible that ceramic oil lamps may have been used to supplement the requirements for candles.

A shape suggested for this use is a bowl with a glazed knob in the centre of the interior that looks like a mushroom, a foliate or scalloped mouth flange, and a pedestal foot (nos. 8, 9, 82). Oil could be placed in the well and a wick on the central knob. One example has a hollow base that may have been made to insert a bamboo pole which could have been driven into the ground to provide elevated lighting, possibly for dancers performing at ritualistic ceremonies (no. 82). Optionally, this bowl may have served a functional purpose as a cover for protecting water storage jars from dust and insects. The bowl could be placed into the centre of the jar resting on the mouthrim and the interior knob used as a handle to remove the bowl. Also, it has been suggested that the bowl may have been used for heating foods or liquids. Hot water could be placed in the centre; then another vessel, containing the food or liquid to be heated, could be placed on the knob. The shape is fairly common and must have been made for a specific purpose to meet the needs of the ancient Khmer.

One of the most frequently found forms in Northeast Thailand is a jar that may have been used as an oil lamp or as a storage jar, possibly for oil. It is brown glazed with a flattened globular body and a small raised mouth. The foot is flat or slightly concave and usually unglazed. Often, it is incised with well-defined and carefully drawn decoration (nos. 49, 50, 69 a,b, 71). Oil could have been placed in the well and a wick on the shoulder. The flattened globular body with a broad base is a somewhat unwieldy form and must be held with two hands. Because this shape is uniquely Khmer and void of any Chinese influence it is not possible to relate the use to a similar Chinese function.

An identically shaped jar with modelled zoomorphic appendages is a distinctive piece in the exhibition (no. 48). Two eye-like shapes and a spout with a hole in the centre are applied on the shoulder and a handle that appears to be non-functional on the opposite side. It has been called a honey pot, based on the function of a similar modern form. However, the careful workmanship with attention to detail on the appendages, and the seemingly non-utilitarian shape indicate that it may have been intended for religious purposes.

Small ceramic jars and bottles in varied shapes and sizes may have been used as offertory vessels to place on altars and shrines. They probably contained liquids because of the small mouth. An exceptional piece in the exhibition is a brown glazed, globular shaped jar (no. 63). Two rows of petal-like projections rise from the shoulder. They may be nagas (mythological snakes), a prominent motif in Khmer architecture and also known in ceramics. Alternatively, the form could be a vegetal shape that may have been used to hold medicinal herbs or cosmetics.

A bottle that may have contained liquids or incense for offertories is a double gourd shape, in imitation of its natural form (no. 27b). In modern rural Southeast Asia the gourd is dried and used as a container. The gourd symbolizes longevity and immortality. The shape has a narrow mouth and, generally, the upper gourd is smaller than the lower one. A variation of the gourd form is an anthropomorphic bottle that may have been used as a funerary urn. Human facial features are applied on the upper gourd and arms are incised on the body of the bottle (no. 46).

From the number of utilitarian shapes found it seems apparent that the Khmer people

used ceramics in their daily lives. Some functional forms represented in the exhibition are roof tiles, bowls, storage jars, and jarlets as well as a large and varied group of lime pots.

One of the first practical uses of Khmer wares was the production of roof tiles and architectural ornaments to supply the large scale building programmes of the Angkor period. The ceramic kilns may have been established to fulfill these domestic needs. One of the earliest pieces in the exhibition is a green glazed, rectangular shaped roof tile (no. 4). It was most likely used to cover the roof of a wooden residence for royalty rather than a stone temple. Chou Ta-kuan, a Chinese diplomat who visited Angkor in 1296-97, noted that tiles were never used on brick or stone buildings and were reserved for use by the king and his court.

There must be similarities between rural life in Kampuchea today and ancient Angkor in terms of environment, types of food, and methods of storing and preserving foods. The containers used most likely share a similar function even though ceramic vessels have been replaced today by aluminium, plastic, and tin. Bowls are needed for serving and eating food in households and for offering rice to monks.

The Khmers made two distinctly different types of bowls and both are shown in the exhibition. The most common shape is green glazed with conical walls, giving it an angular appearance (no. 14). The carved ring around the lower section may have been cut to collect the thin watery glaze which tended to run. A similar technique was used by the Chinese in the Tang dynasty. Often, a fabrication mark consisting of a series of lines was incised on the base. It may have served to identify the wares of an individual potter in a shared kiln.

Based on wasters found in Northeast Thailand, the method of stacking wares for kiln firing indicates that the green glazed bowls were mass produced, possibly to meet the needs of the general populace. The exhibited waster is a stack of six green glazed bowls, each with conical walls, a carved line around the lower section, and a flat glazed base. Clay balls are evenly spaced around the lower interior walls to separate the bowls in the firing process and result in small oval scars on the lower portion of the interior and exterior (no. 16).

The other type of bowl is brown glazed in lotus-pod shape (no. 60). This form is less common and smaller than the green glazed one. It may have been used for religious purposes. The example clearly shows the unglazed foot in the shape of a button with concentric rings on the base that look like a thumb print. They are the result of pulling a cord underneath the bowl to separate if from the potter's wheel.

Storage jars were an important utilitarian need, especially for conserving water during the dry season. Also, they may have been used for fermenting wine and storing oil or rice. Generally, the jars are large and heavily potted with a short neck, narrow mouth, and sloping shoulders that taper to a flat base (nos. 73, 85, 86). The tasteful form, rich brown glaze, and restrained decoration make these storage jars some of the most attractive pieces in the exhibition.

Medium sized storage jars most likely contained wine. A relief at Bayon depicts men drinking through reeds from a similar jar. The Khmers made several kinds of wine using honey, sugar and rice. Mountain people today in Northeast Kampuchea and the mountain areas of Vietnam make a local wine using the same ingredients as the ancient Khmers.

Small utilitarian jarlets may have been needed for containing salt (which was plentiful and a necessary ingredient for preserving fish), sauces, condiments, medicinal herbs and cosmetics. Brown glazed jarlets with a narrow neck and mouth, a bulbous or elongated body may have served these purposes (nos. 32, 35).

Drum-shaped jars may have contained perfume, musk oil, or beeswax (nos. 28, 29). An indigenous perfume was made from dried flowers and yellow cane sugar. Both men and women used musk oil. Beeswax was a popular hair dressing for women. Alternatively, the jars may have held perfumed water or incense for offerings to religious images.

Reference to royal betel nut bearers at Angkor and glazed pots with traces of lime

inside found in Northeast Thailand indicate that the Indian tradition of chewing betel nut spread to the Khmer civilization.

A pot that contained lime is readily identified by a white or pink residue on the interior and is often heavily corroded. Lime paste is used to spread on a green betel vine leaf; then shredded areca nut of the betel palm and small quantities of anise and clove are added and the leaf is folded to form a quid and fastened with a fresh clove.

Today offering a betel nut tray to guests is a mark of hospitality. Contents of the tray are shared, except for the lime paste. It is stored in a separate container because of its association with aphrodisiac powers. Individual lime pots are the only betel nut form that has been found among the Khmer wares. Other shapes such as the tray, leaf holder, nut cracker, and small containers that are known in Malaysia and Indonesia are absent from the Khmer finds.

The exhibition presents a wide range of lime pots. The animal-like forms with symbolic meaning and utilitarian function demonstrate the ability of the Khmer to amalgamate Indian, Buddhist and animistic influences. The pieces represent what must have been preferred forms and show the Khmer's affinity with nature and fondness for animals.

The most common lime pot is globular shaped with zoomorphic features that look like an owl. It is characterised by an applied beak, eyes, and tail, incising on the body (sometimes in the form of wings), and an unglazed base with a button shaped foot (nos. 11, 53a,b). A less common but noteworthy lime pot has an owl-like face applied in one piece, giving it a three dimensional look (no. 80a,b). Although the symbolic meaning of the owl in unknown in Khmer art, it is the guardian of Lakshmi, goddess of fortune, in Indian mythology.

Some of the finest Khmer lime pots are those in the shape of a caparisoned elephant (nos. 87, 89). A spherical body is supported by four short unglazed legs; the applied head and tail are decorated with jabbed and incised decoration; heavy lug handles are applied horizontally on each side of the mouth.

Hand modelled elephant figures were also used as lime pots (no. 93). The heavy features, crude potting, and limited decoration of this elephant are characteristic of later Khmer ceramics which were generally inferior to earlier wares. The elephant played an important part in Khmer life. It was used for domestic and military transport as well as elephant fights for entertainment.

The rabbit and cat are less common lime pot forms and seem to have been restricted to a shorter period of production. The rabbit is depicted in a lively, individualistic style with attention to decorative detail (nos. 43, 96). One appealing example rests contentedly on clearly defined unglazed feet (no. 44).

A Khmer shape also represented in the exhibition is the covered box. Circular, flattened, green glazed boxes with fluting on the cover resemble a fruit shape and show strong Chinese influence. A similar form was produced in brown glaze, (no. 25).

In general, Khmer ceramics are tasteful, restrained, and fundamental in shape and decoration. They are rarely found in perfect condition. Many people have been misled by complex shapes seen in the market. Over-elaborate wares may be the result of the joining together of unrelated pieces using fibre-glass or other material. As a result, such wares should be carefully examined.

Each new discovery increases knowledge of the life and culture of the Khmers. However, the exact uses of the Khmer ceramics are limited primarily to conjecture until further archaeological research is conducted. Through this exhibition it is possible to see an evolution of the Khmer wares in terms of shapes, glazes, decoration, and firing methods. Even though the ancient civilization no longer exists, these splendid examples of Khmer ceramics live on to remind us of a unique and distinctive ware.

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Selected Bibliography

Briggs, L.P. 'The Ancient Khmer Empire'. *Transactions of the American Philosophical Society* 41, pt. 1, 1951.

Brown, R. *The Ceramics of South-East Asia: Their Dating and Identification*. Kuala Lumpur: Oxford University Press, 1977.

_____ . 'Khmer Ceramics'. *Arts of Asia* 3, no. 3, May-June, 1973.

Brown R. et al., *Legend and Reality, Early Ceramics From South-East Asia*. Kuala Lumpur, Oxford University Press, 1977.

Brown, R., Childress, V. & Gluckman, M. 'A Khmer Kiln Site—Surin Province'. *Journal of the Siam Society*, July, 1973.

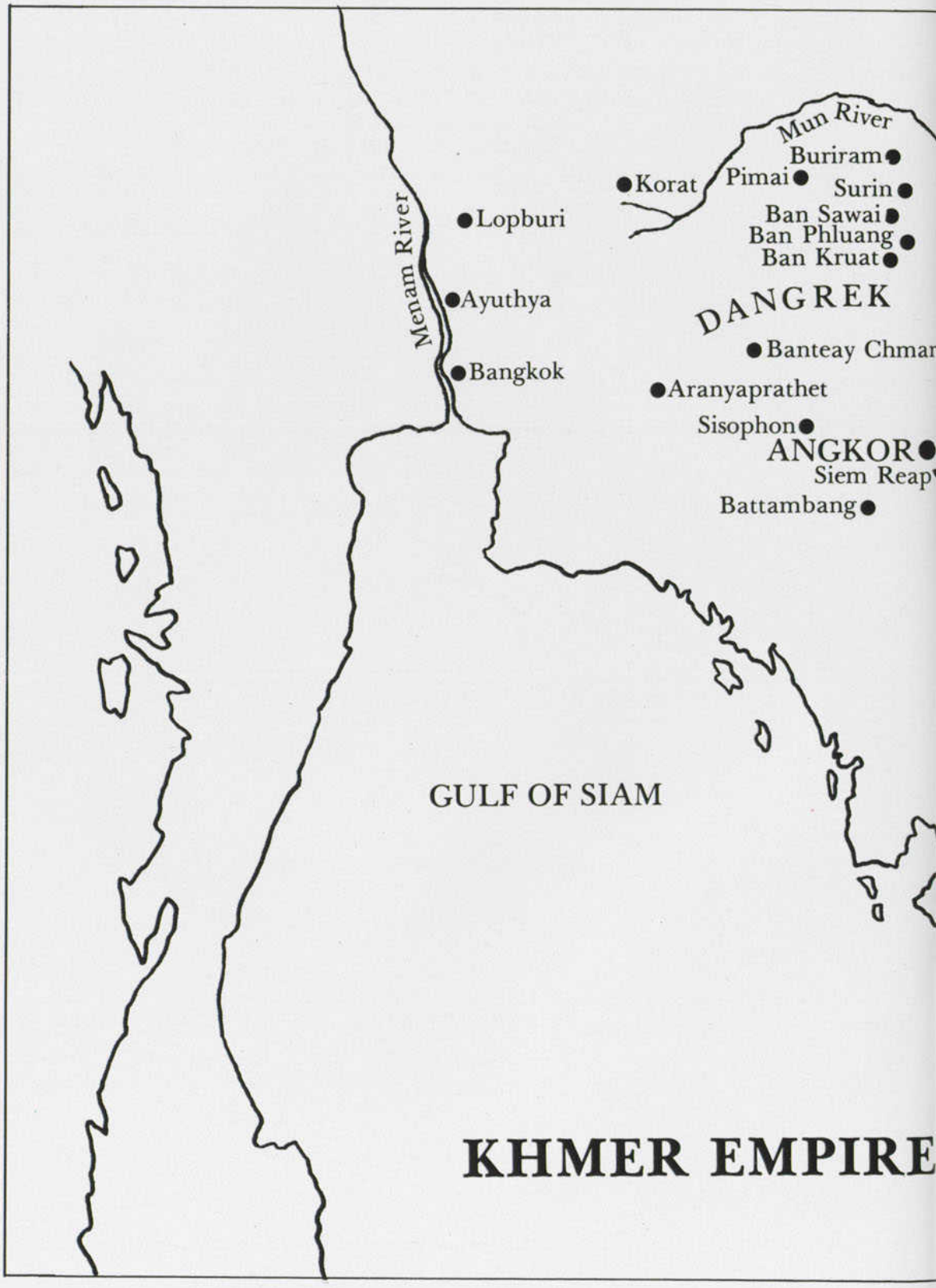
Brown, R., Childress, V. 'Khmer Ceramics at Prasat Ban Phluang'. *Arts of Asia* 8, no. 1, Jan.-Feb., 1978.

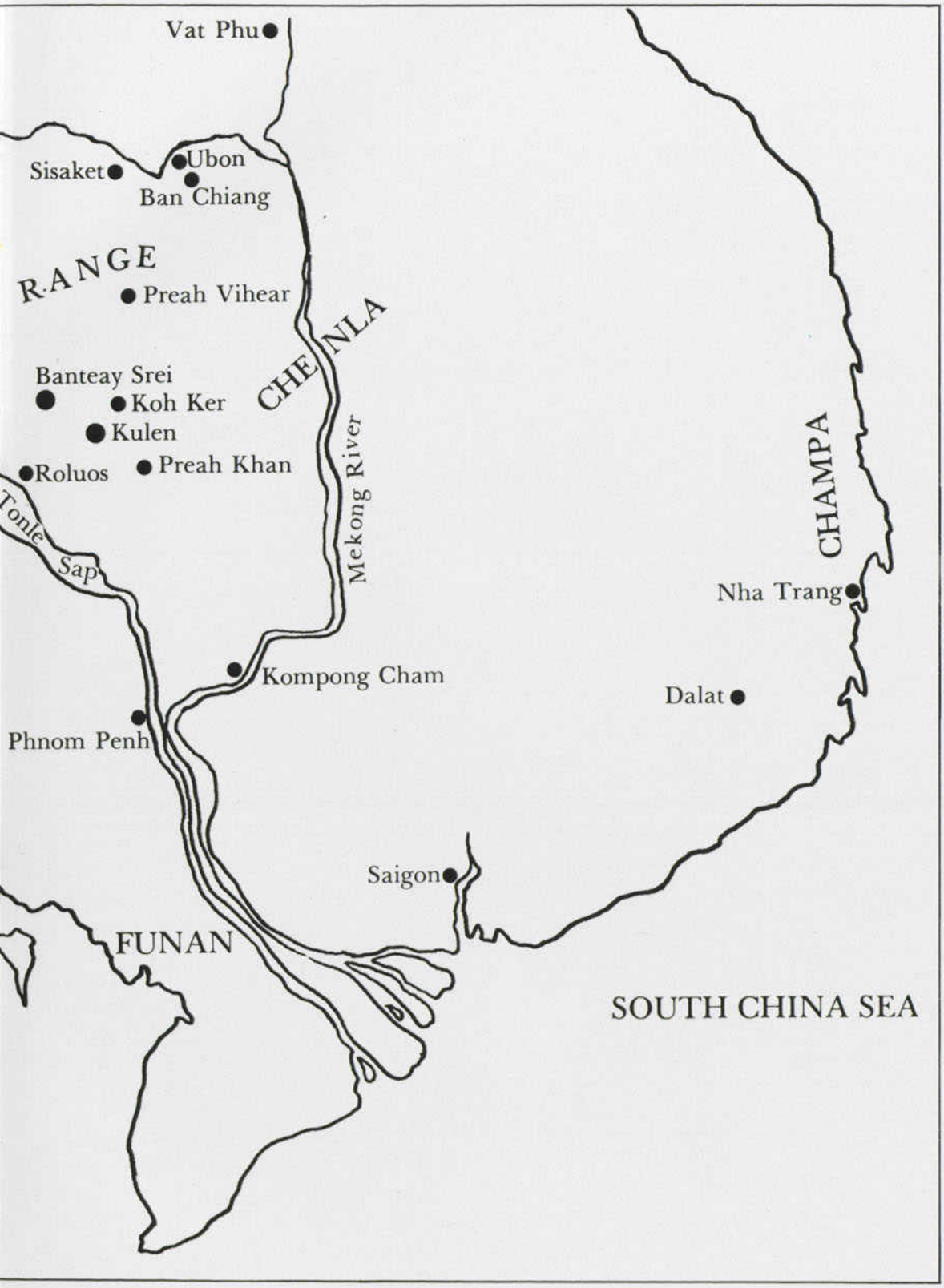
Frasche, D. *Southeast Asian Ceramics, Ninth Through Seventeenth Centuries*. New York: The Asia Society, 1976.

Groslier, B. *Angkor, Art and Civilization*. London: Thames and Hudson, 1957.

Medley, M. *The Chinese Potter: A Practical History of Chinese Ceramics*. Oxford: Phaidon Press Ltd., 1976.

South-East Asian and Chinese Trade Pottery. Hong Kong: The Oriental Ceramic Society, 1979.


Mun River
Buriram
Korat
Pimai
Surin
Ban Sawai
Ban Phluang
Ban Kruat
Lopburi
Menam River
DANGREK
Ayuthya
Banteay Chmar
Bangkok
Aranyaprathet
Sisophon
ANGKOR
Siem Reap
Battambang
GULF OF SIAM
KHMER EMPIRE


Vat Phu
Ubon
Sisaket
Ban Chiang
RANGE
Preah Vihear
CHENLA
Banteay Srei
Koh Ker
Kulen
Roluos
Preah Khan
Tonle Sap
Mekong River
CHAMPA
Nha Trang
Kompong Cham
Dalat
Phnom Penh
Saigon
FUNAN
SOUTH CHINA SEA

THE HISTORY OF THE KHMERS

Sometime in the dimly perceived centuries before the Christian era, Indian merchant-adventurers started sailing across the ocean to the shores of South-East Asia. India then became a country exerting an immense influence over neighbouring lands. Its people's voyages in those ancient times were the opening of a glorious period in mankind's history which was marked during the next thousand years by the appearance of several states of Greater India with half Indian, half-native civilizations that are amongst the noblest expressions of human genius. Their broken remains now stand in many places. Particularly beautiful are the 'buried cities' of Ceylon, the long-deserted Burmese capital of Pagan, and the famous Borobudur sanctuary in Java. Greatest of them all are the ruins of Angkor.

The Empire of the Khmers grew from earlier kingdoms in the region: first the state called Funan, then the realm of Chenla, and finally Kambuja, when the Khmers attained their glory. Each in turn succeeded its forerunner by a process of dynastic usurpation or conquest, yet all are stages in a coherent, unbroken, evolutionary political and cultural development leading to that final climax at Angkor.

The origin of Funan is related in a tale in which legend and history engagingly mingle. One night sometime in the first century A.D., it is related, a divine spirit visited an Indian youth named Kaundinya in his sleep, advising him to fetch a bow, board a ship and sail eastwards. Next morning Kaundinya remembered the dream and visited the temple where his midnight counsellor was supposed to reside. Sure enough, he found a bow and a quiver of arrows lying in its courtyard. Encouraged, he took the weapon, embarked on a merchant junk and set forth upon the ocean. The wind blew his vessel across the Bay of Bengal, through the Straits of Malacca, round the island now called Singapore, and up the South China Sea to Indo-China's coast. He sighted land at a place where a native queen named Willowleaf ruled a tiny country. A lady of enterprise and vigour, she launched her war canoe with intent to pillage the foreign merchant-man. Kaundinya raised his magic bow and shot an arrow which pierced her craft from side to side. Taking fright, she submitted to this impressive representative of the stronger sex. His capture of her was soon followed by her captivation of him, and they married. As king and queen they consolidated their dominion, which became the historic state of Funan.

During the next five centuries it expanded into an empire ruling extensive vassal territories and as it grew in physical strength it developed also in artistic attainment. From the humblest citizens to the kings, its people lived in wooden dwellings of which no trace remains today, but sometimes religious shrines were built of brick, and occasionally perhaps a temple was raised partly in stone. A few relics survive. We learn, too, that the population was skilled at working gold, silver, bronze, ivory and coral. Their styles of art and architecture were borrowed from India, for the most potent stimulus to their progress was the continuous arrival of Indian lordlings, priests and craftsmen amongst crowds of other colonists from the motherland. Many social customs and the two faiths of Hinduism and Buddhism were also imports from India.

Chinese visitors came periodically to Funan, but their concern was trade, not settlement, so their influence was largely confined to commercial matters.

The indigenous, popular Funanese way of life, as recorded by Chinese travellers' writings, was preserved in the people's homely habits and amusements; but these made little

contribution to the higher forms of culture. They were a less creative race than the Khmers, who at that time lived further north. In the Funanese centuries the predominant influence was Indian, and during that period were laid the Indian foundations on which rose afterwards the grand edifice of the Khmer civilization.

Sometime in the mid-sixth century power slipped from Funan's grasp and passed into the hands of one of its hitherto vassal states—Chenla. This exchange of imperial greatness seems to have occurred through a disputed succession to a throne. An ambitious minor son of the royal house of Funan called Bhavavarman married the female heir to the crown of Chenla, and on the death of her father he became king of the land. Some years later, when his superior monarch in Funan died, he laid claim to that crown also. His credentials were doubtful on grounds of hereditary right, but he made them indisputable by military might. Seizing Funan by armed force, he subdued it to Chenla.

Chenla was the next-door territory to Funan lying farther north. More important, its fertile plains and valleys were the home of the Khmer people, a race of exceptional vigour. Bhavavarman, his successor Mahendravarman, and the next ruler Isanavarman appear as memorable military and political leaders who organized, expanded, and gradually consolidated Chenla until it exerted widespread authority. At first it was a loose-knit confederacy in which subordinate states still enjoyed a degree of autonomy. Funan continued in that position for some time after its light was dimmed; but eventually Isanavarman, a masterful administrator, subdued it completely and incorporated it with other previously independent regions into a tighly unified, highly centralized Empire.

That the Khmers already displayed remarkable creative genius is shown by the architectural monuments still standing on their deserted town sites of that time. Widely scattered, they are not numerous. Fewer than a hundred primitive Khmer temples dating from the mid-sixth to the mid-eighth centuries survive, and many of them are in a sadly ruined state. They are for the most part small, solitary brick sanctuaries with certain stone features, but they begin to be decorated with delicately designed, strongly carved floral groups and figures of monsters and deities. The statues of the gods who inhabited them have been discovered in fair numbers, and they show an artistry never surpassed—and perhaps never really equalled—in later Classical Khmer times. They are simple and even austere, but are supple and vivid sculptures of human and divine beings, with that fresh, unspoilt purity of form which characterizes flowers just bursting from their buds, not yet revealing the rich flamboyance of full blooms.

The Chenla Empire represented only the prelude, the springtime of Khmer greatness. It thrived through a comparatively brief period, lasting little more than two centuries. During the reign of Jayavarman I the Empire was marked partly by proud conquests and partly by humiliating civil strife which ended, about the time of his death, in the division of the kingdom into two parts; Upper and Lower Chenla.

This fracture happened at a moment when another memorable offshoot of India, an Indianized Empire farther south which covered all the territories of present-day Sumatra, Java and Peninsular Malaysia, reached the apex of its power. It was governed by a dynasty of tremendous rulers called the 'Saliendra' or Kings of the Mountain, and their Malay subjects went on buccaneering raids against foreign lands. They ravaged the kingdoms of Champa and Annam neighbouring Chenla. Chenla remained independent, but during one episode it was invaded and temporarily conquered by a King of the Mountain. For a while afterwards it may have acknowledged the suzerainty of the Saliendra.

In about 790, a very enterprising and able young man aged around twenty succeeded to the throne of divided Chenla as King Jayavarman II. He was to reign for sixty years, and during these years the weak Chenla kingdom was transformed into a strong Khmer Empire. He established that Empire firmly in the capital and territories, with a constitution and

religion which were to continue thriving for the next six centuries. The word 'Kambuja' began to be employed to describe the country over which he ruled.

In the first decade of his reign the problem of a site for his capital troubled him. He changed the place no fewer than four times. He was determined to find a spot where he could develop a strong administration without interference from the King of the Mountain. Possibly he had also to provide against the rivalry of lesser kings in Upper and Lower Chenla, whom he hoped—with justification, as it proved—to subdue as his feudatories.

His first choice fell on an island site not far from present-day Phnom Penh. Dissatisfied with that, he left the valley of the great Mekong River, migrated up its tributary the Tonle Sap, crossed the Great Lake and decided on the region where Angkor now stands. So began Angkor's extraordinary career. First he selected a spot a few miles from present-day Angkor Thom and built a city there. Then he moved to a place farther away beside what became later the West Baray and built another city. Finally he shifted north to Phnom Kulen and raised a fortress-capital on that solitary mountain. There at last he felt secure, and celebrated the fact in the year 802 by a momentous act of statesmanship which shaped the thoughts and actions of the Khmer nation ever afterwards.

He summoned to his palace a renowned Brahman 'skilled in magic science' and ordered him to perform a rare ceremony which would break any Kambujan subservience to the Saliendra Empire and establish it firmly as an independent state. The celebration did more than that. The priest performed a certain religious rite which created a personal situation for Jayavarman of great importance in the history and culture of the Khmers. It established that the king not only ruled by divine consent, but actually acquired the nature of a deity. He was the representative of Heaven on Earth; a sacred being to be worshipped as well as obeyed. Thus was established in Kambuja the cult of the king-god or 'Devaraja', a new religion—or a development of an old religion—which Jayavarman perhaps borrowed from Java, where a similar conception of royalty prevailed.

The symbol of the king's divine authority was the royal 'lingam'—that extraordinary anatomical representation of masculine creative power which stands sculptured in stone in the place of honour in the cult's temples. It was no new conception; for ages the lingam had appeared as a phallic image representing the creative energy of Siva, and was called the Sivalingam. The official religion of Funan and Chenla proclaimed the worship of this Sivalingam; and Jayavarman's chief innovation seems to have been to identify the king with Siva, involving a sort of apotheosis of the earthly ruler during his lifetime. 'The King-god was conceived to be the eternal abstract essence of the king confounded with the divine essence and worshipped in the form of a lingam.'[1]

From Jayavarman's day onwards the kings of Kambuja were all regarded as demi-gods, and the worship of the royal lingam was the official state religion. To house this sacred symbol each king in turn built a new supremely holy temple, and several of these shrines survive, some of the mightiest and loveliest monuments of Khmer civilization.

Few contemporary records of Jayavarman's reign have been unearthed, and later inscriptions do not relate in detail the manner or extent of the expansion of his rule over feudatory kinglets. Reliable records made within fifty years of his death indicate that at that time the Khmer Empire's boundaries were almost as wide as they ever became, and it is safe to assume that much of this growth occurred during his long, forceful rule.

Towards the end of his life he felt his regime so secure that residence in a fortress on a mountain top was no longer necessary. He changed the site of his capital once more, returning to a former city in the lowlands called Hariharalaya. The Great Lake nearby teemed with fish, and all around stretched a fertile plain ideal for growing rice. These advantages caused Hariharalaya to remain the chief city during the next two reigns, and determined that subsequent shifts of the capital should never stray more than a few miles away. Thus the

neighbourhood is now a scene where the ruins of a series of capitals of the Classic Khmer age crowd together.

In Hariharalaya Jayavarman built his last royal palace, sacred temple and ruling city, and there, in 850, he died. None of his buildings remain today except in a badly ruined state. His most durable monument was more impressive. It was the Khmer Empire itself, of which he was the founder.

He was succeeded by his son, Jayavarman III. Though the new king reigned for more than a quarter-century, little is known about him except that he loved to hunt wild elephants and that he probably met his death whilst engaged in that exciting sport. He in turn was succeeded by a cousin, Indravarman I. If we are to believe contemporary inscriptions written about him, Indravarman was an active and able man; but in these matters the scratched words are not necessarily reliable evidence. The Khmer monarchs were not noted for modesty, and some of the praise showered on them by the royal engravers is flattery so outrageous as to be rather nauseating.

Perhaps the worst examples of these extravagances are those written about Indravarman's successor, Yasovarman I. A typical passage stated that "in seeing him the Creator was astonished, and seemed to say to himself, 'Why did I create a rival for myself in this King?"

For many years historians were taken in by this and many other boastings about Yasovarman. Partly for that reason they attributed some of the finest of Angkor's buildings—the wonderfully walled and moated city of Angkor Thom, the brilliantly bizarre temple of the Bayon, and the supremely beautiful Angkor Vat—to the latter years of the ninth century, when he happened to sit on the throne. When further research revealed that even the oldest of them was not made until two centuries later his reputation as the greatest conqueror and builder, statesman and ruler in all the long line of Khmer kings suffered a decline. He came to be regarded as a fraud.

He was, however, a ruler of considerable attainment. At first he maintained his capital at Hariharalaya, but then he moved it, and constructed by the labour of a myriad slaves, an impressive new city. Called Yasodharapura after him, it was an astonishing place, although less splendid in architecture than its successors. Its extent was actually larger than that of later Angkor Thom, stretching over sixteen square kilometres, some of which included modest hamlets scattered amongst rice paddies. To build and sustain the city the King altered the course of the Siem Reap River. He dug a huge reservoir now called the East Baray, formed in addition some eight hundred artificial ponds within the municipal precincts, and raised some splendid buildings, including the Bakheng temple.

During the next half-century five monarchs governed the Empire. The first two were sons of Yasovarman, and they maintained his new capital. Their reigns were undistinguished. The successor to the younger son was probably a usurper, and he founded a new capital a hundred miles away. There he erected worthy buildings which hold a place in the evolution of Khmer architecture, and there his son ruled after him; but not for long. Whether he died a natural death or was forcibly removed from his pleasant surroundings is unknown. What is known is that after a few years a scion of a more direct line of the royal house came to the throne with the title of Rajendravaman II.

Among his first acts was a return to the earlier capital, where a contemporary chronicler records that 'he restored the holy city of Yasodharapura, long deserted, and rendered it superb and charming by erecting there houses ornamented with shining gold and palaces with precious stones'. He did not, however, renew Bakheng as its principal temple. It was now an established custom for each successive king to build a new sanctuary to house his lingam during his lifetime and to be his mausoleum after his death, and the Bakheng had performed both those functions for Yasovarman. Rajendravarman therefore dedicated a new

temple, now generally believed to have been on the site of the present Phimeanakas, slightly farther north. Since this must be the central point of his capital, the whole reconstructed city was also shifted in that direction, partly overlapping the site of its predecessor. Such moves were not difficult owing to the circumstance that all the dwellings and most of the important buildings were made of light timber. Only temples and other sacred structures were fashioned of brick and stone and survived the constant flittings.

Rajendravarman's reign was apparently one of peace and prosperity, for it was a period of remarkable building activity. His religious foundations form important links in the chain of Khmer art. They spread far and wide. A recent attempt to assess the magnitude of the Khmer Empire at that time—in the year 960—allots to it all present-day Cambodia, Laos, nearly all of Thailand and sections of what are now Vietnam, Burma and Southern China.

Rajendravarman died in 986 and was succeeded by his son, Jayavarman V. The tranquility inherited by the newcomer was maintained, and peace during these two reigns lasted for almost sixty years, enabling the period to be one of fruitful cultural development. Jayavarman's court was filled with illustrious ministers, scholars, poets, ecclesiastics and other dignitaries, among them many distinguished royal ladies who held high positions in political and religious as well as social life. It was an age of tolerance and learning, of philosophic questing and artistic achievement. Contemplating it, as it is reflected in plentiful contemporary inscriptions, we gain an impression of a society unusually gifted and creative progressing steadily towards a climax of intellectual, aesthetic and spiritual flowering. The gracious little temple of Banteai Srei, one of the most precious gems of Khmer architecture, is a typical expression of the time.

Jayavarman died in 1001 and was succeeded by King Udayadityavarman I. He wore his crown for a few months, and then disappeared. No one bothered to note when, where or how. His successor is recorded by the title of Jayaviravarman but, again, considerable mystery surrounds this personage. Udayadityavarman and he were mere shadows flitting across the Kambujan stage. The substantial figure was Suryavarman, a foreign invader who, immediately after Jayavarman's death, landed with an army from Malaya, and announced that he was the rightful heir through his mother. She was alleged to have descended by the maternal line from Indravarman I, a tale which could scarcely bear examination. But what Suryavarman lacked in legal title he more than made up for in strong character. Advancing slowly but steadily across Kambuja from his original base, he first proclaimed himself ruler in the outer edges of the kingdom and then progressively extended his area of authority. He apparently enjoyed support from various dissident elements in the country, and by 1006 reached and captured the capital, Angkor.

Suryavarman reigned for half a century. He was one of those formidable kings who, after the initial bloody struggle to secure a throne, gives his subjects uninterrupted peace based on undisputed strength. None dared to oppose the conqueror's power, and so his people enjoyed another long period of prosperous serenity. Throughout it the creative urge of the Khmers was active. Their civilization was now gathering its strength, perfecting its genius and approaching its noblest expressions.

Under Suryavarman's energetic impulse splendid monuments were constructed in many parts of the country. In particular he developed further the grandeur of his capital. Above all, he did some admirable town planning and new construction in the heart of the city, giving Angkor the remarkably spacious, dignified and beautiful appearance which can still be perceived in spite of its ruined state. Under the inspiration of his presiding mind, and by the skilled hands of his architects and builders, the Angkor which we know began to take shape. The Palace and the Royal Enclosure, the Grand Plaza with its ceremonial towers, the splendid avenues and marvellous new system of waterways were all designed then. Outside the city important public works were constructed, the most notable being the huge reservoir

called the West Baray, which provided irrigation for the peasants' rice fields on the wide plain adjoining the capital. No one can tell how much of the responsibility for all this belonged to the King himself, but there seems good evidence that he and some of the foreigners who had followed in the wake of his victorious invasion of Kambuja provided a valuable new stimulus to architectural creativeness.

He was succeeded by Udayadityarvarman II, a 'prince of great energy' who, the scribe adds charmingly, 'excelled in seducing women to his will by his beauty, warriors by his heroism, sages by his good qualities, the people by his power, and Brahmans by his charity'. Adding to this magnetic reputation, he induced builders to create various fresh edifices, including yet another central sanctuary to contain his lingam in his lifetime and his corpse after his death. This was the Baphuon, the largest building of its kind yet raised by the Khmers. It still remains second to the Bayon in size amongst the monuments of Angkor Thom.

There seem to have been religious disputations and political revolts during his reign. The times became troubled, and in their midst a new king, Hashavarman, came to the throne in 1066. Strife continued for the next fifty years. Through the reigns of three rulers rival claimants to the throne quarrelled, warfare became chronic, and the kingdom was sometimes partitioned. Finally, in 1113, another formidable personality named Suryavarman II restored unity and peace to Kambuja.

So powerful did he become that he engaged in foreign adventures, his most ambitious effort being the military conquest of the famous neighbouring kingdom of the Chams. After an initial victory, however, his armies suffered a series of defeats and he turned to building instead of fighting. His battles are commemorated on the massive bas-reliefs of his great temple, Angkor Vat—for he was the author of that supreme masterpiece of Khmer creation.

Even through the destructive strife of recent reigns the Kambujans' genius for constructive art had continued to express itself in several new buildings. Architecture was evolving toward its grand climax, and in size, magnificence and beauty Suryavarman's funerary temple has no peer among all the unforgettably powerful and lovely remains of Khmer civilization.

Suryavarman maintained the several times renewed Yasodharapura as his capital, but he does not appear to have added appreciably to the distinction of the city itself. Angkor Vat stands outside it. Possibly he extended its area to include the temple; yet this seems unlikely. In that case he broke with tradition by building his mausoleum not only away from the centre of his capital, but actually at a small distance beyond the city walls. In religious matters he was a reformer, and this departure from hallowed custom would be in keeping with his unorthodoxy.

The date of Suryavarman's death is uncertain, but sometime about 1150 he was succeeded by a cousin. No local inscriptions of the period have survived, but later inscriptions in Kambuja or contemporary evidence in Champa and other neighbouring lands indicate that the generation was one of renewed internal revolt and external wars, with much interruption and destruction of building.

The new king ruled for only a few years. The legitimate heir to the throne was his son Jayavarman, but a relative named Yasovarman made a rival claim. Prince Jayavarman was a devout Buddhist and a man of strong character. Faithful to his religious principles—he abhorred the thought of spilling blood—he refused to engage in fratricidal strife, renounced the crown and retired to voluntary exile in Champa.

Political unrest followed for five years, and then Yasovarman was slain by rebels fighting for an ambitious upstart, Tribhuvanandityarvarman. War broke out between Kambuja and Champa, and the Chams invaded Kambuja, defeated its army, sacked Angkor and slew the king. The disaster was followed by a short period of anarchy, but salvation was at

hand in the person of Prince Jayavarman. He returned to his country and was crowned as its leader in 1181.

Forsaking his earlier Buddhist gentleness, he resorted to martial power. He drove out the foreign invaders and then set forth on a campaign of revenge against Champa. His army swept through the country, sacked its capital and dethroned its king. For the next twenty years Champa remained a mere province of Kambuja, ruled by a princeling who was Jayavarman's stooge.

Jayavarman VII extended his masterful influence east, south and west, and the Empire became wider and mightier than at any time before. His energy was insatiable. The zealous mystic and vigorous warrior was also a tireless builder. His creative urge was tremendous. The destruction of his capital by the Chams had been fearful; its wooden houses were burnt, its gilded temples robbed and its spacious palace ruined. Jayavarman set to work to reconstruct the place on Suryavarman's plan. The task would take long to complete, and in the meantime he lived and held court in a smaller settlement which was built on the site of his decisive battle against the Chams and named 'Fortunate City of Victory'—Preah Khan. Its remains today are amongst the most enchanting ruins in Cambodia.

The great ruler built several other famous places. In close proximity to Preah Khan he raised the beautiful Banteai Kdei and the lovely Ta Prohm, with smaller gems of architecture like the little shrine of Neak Pean and the vast bathing pool called Sra Srang. Farther afield he made such grand centres as Banteai Chmar and Preah Khan of Kampong Svai. It may be that parts of this astonishing series of constructions were started before he ascended the throne, but the greater portions of them all are attributed to his reign.

Jayavarman's greatest undertaking was the recreation of his main capital, now famous as Angkor Thom. Its central temple is the Bayon, the most celebrated Khmer monument after Angkor Vat. Close by are the sweeping stone terraces of Jayavarman's palace, and the whole city is enclosed by the high walls, magnificient gateways and broad moat which still survive. In addition to splendid temples, palaces and cities the King constructed a widespread system of roads throughout his Empire, and built hospitals for the sick, rest houses for travellers, and wayside shrines for the devout. As his creative energy thus expended itself in various fields, Jayavarman's sense of his own pre-eminent significance grew. Before long he regarded himself as not only wholly royal but also wholly divine. Himself a Buddhist, he believed that he was a living Buddha. The massive stone faces which gaze down from all the sides of all the towers of his city's gateways, and from every facet of every pinnacle on his fabulous temple, the Bayon, are probably idealized images of the king-god himself.

His historical reputation has undergone a strange transformation. At the beginning of the 20th century, he was considered one of the minor rulers of Kambuja, for his architectural masterpieces at Angkor were then credited to Yasovarman I, a predecessor by three centuries. Gradually as subsequent research exposed his manifold works, and as poor Yasovarman's reputation suffered a decline, Jayavarman's fame grew—until he was rightly hailed as the most gifted of Khmer princes.

Yet if he was the greatest ruler that his people ever knew, he was also the most potent cause of their eventual downfall. If his court was the richest in the history of the Khmers, his extravagance was the origin of their later poverty, and if his Empire spread wider than it ever reached before, its very outsize was a reason for its subsequent crumbling. Jayavarman's conquests in war and constructions in peace called for an expenditure of money, energy and labour by his countrymen which, in a supreme effort, they maintained faithfully and gloriously during his potent rule, but which left them exhausted afterwards. He overworked, overtaxed and overstrained them, with the result that within a few generations the Empire collapsed.

In about the year 1220, Jayavarman died, and this marked the death knell of Khmer

power. Almost immediately the Empire began to shrink. Champa was the first vassal state to go, regaining its independence within a year or two of the tyrannical king's death. After that the decline was gradual but steady.

The process was stimulated by the appearance on the scene of a new people, the Thais. The period was the mid-thirteenth century, when the Mongols had conquered China and Kublai Khan sought to bring the whole Orient under his Imperial sway. The pressure of Mongol advance in the north drove the Thais south into Indo-China, where they established a centre of power at Sukothai. Before the end of the century they extended their rule over almost all of what is now Thailand and substantial parts of northern peninsular Malaysia. That was at the expense of Khmer provinces though Kambuja proper still remained intact.

At the same time an even more fatal incursion than that of Thai warriors penetrated Kambuja itself. This was the arrival of priests preaching the Hinayanist creed of Buddhism. In contrast to the Mahayanist Buddhism to which Jayavarman VII and other earlier devotees adhered, and to Sivaism which was generally the religion of the Khmer upper classes, it was a simple, democratic, poverty-loving faith with a wide appeal to humble citizens. In many ways it was a contradiction to the highly ceremonious, institutional and hierarchical creed which had required the building of magnificent temples and the support of pompous ecclesiastics. As it spread, currents of criticism and discontent began to grow among the ordinary population in the ancient capital.

In 1350 the Thais moved their capital from Sukothai to Ayuthia, much nearer to Angkor. Thence they could raid Kambuja more easily and frequently, and from 1350 to 1430 wars between the Thais and the Khmers were almost incessant. At the same period another people, the Laotians, became restive in the north-east, and they carved from one-time Kambujan dependencies a new kingdom called Laos. In the south the Chams launched some devasting raids in the Mekong delta.

At length, in 1430, the Thais made a mass invasion and attacked Angkor Thom. After a seven month siege the capital surrendered. It was sacked, and much of its rich booty was carried off to Thailand. The invasion was, however, not a sustained campaign of conquest, and Kambuja as a country was never conquered by the Thais. Even the grand old city Angkor Thom was not long occupied by the enemy. But the place was never re-established as Kambuja's capital. It lay too near the aggressive Thais' border, too exposed—untenable. After a preliminary move elsewhere, in 1434 King Ponha Yat established his capital on the site of Phnom Penh on the banks of the Mekong, much further west. With that sole change the Kambujan kingdom, already stripped by earlier wars of its outer dominions, maintained its national existence.

Yet that change was supremely symbolic. It marked the very end of the great, historic period of Khmer grandeur. Angkor was the chief expression of a distinct culture—originally inspired from India, but long since grown native—which flourished for centuries and now finally succumbed. It was a culture embodied in handsome cities, magnificent temples, wonderful sculptures and poetic inscriptions.

As one student has written 'The Khmers left the world no systems of administration, education or ethics like those of China; no literatures, religions or systems of philosophy like those of India; but here Oriental architecture and decoration reached its culminating point'[1]. That was what came to an end when Angkor fell, and that is why the ruins of Angkor are amongst humanity's most precious heritages.

Extracted from a chapter in the book *Angkor* by the Rt. Hon. Malcolm MacDonald O. M., and printed here by kind permission of the author.

[1] Briggs, Lawrence Palmer. 'The Ancient Khmer Empire'. *Transactions of the American Philosophical Society*. n.s. 41, part 1 (1951).

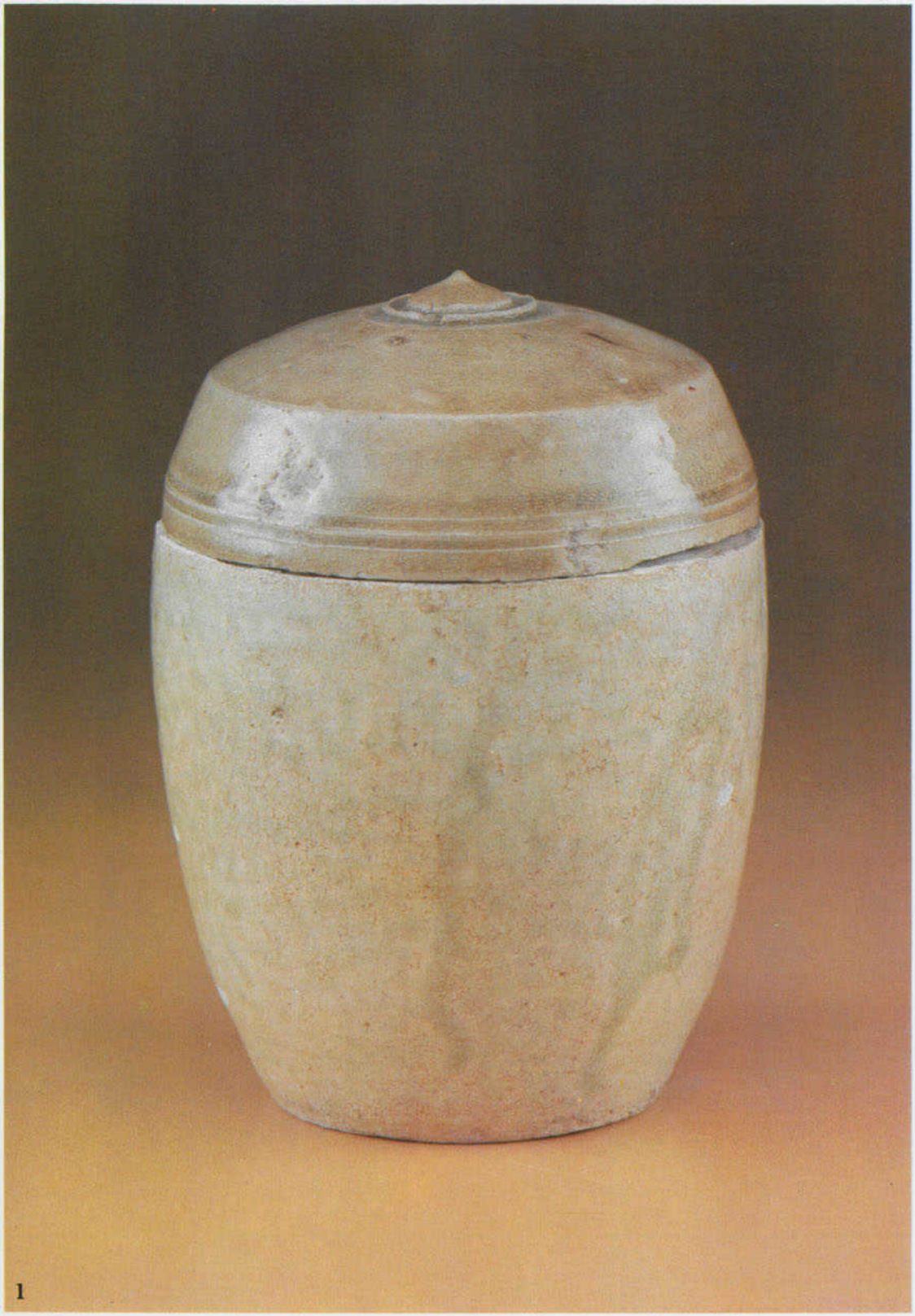
ILLUSTRATED CATALOGUE OF EXHIBITS

1 **COVERED JAR**

Of cylindrical form. Cover with a stylised lotus bud within carved circles. Small perforation on upper shoulder. Two carved rings above mouthrim. Crackled pale green glaze. Lower section covered with a thin, streaked glaze. Fine grained buff-grey body, thin film of glaze brushed around interior.

Height: 16.5 cm
Diameter: 10 cm
Late 9th century, Preah Ko style

Note: Although they fit, the cover and lower section are not the original match, as can be seen by the difference in glaze tone.



1

2 **BOTTLE**

Bulbous, with narrow neck, sloping shoulder and splayed foot. Low carved flange at shoulder and at upper foot. Traces of pale green glaze on the walls and base. Pale grey body. Five incised vertical lines around the mid-section. Slightly concave base with fabrication mark of three lines. Mouth repaired with metal band.

Height: 7 cm
Second half 10th century

Compare with R. Brown, *The Ceramics of South-East Asia*: Kuala Lumpur: O.U.P., 1977, fig. 10, p. 37.

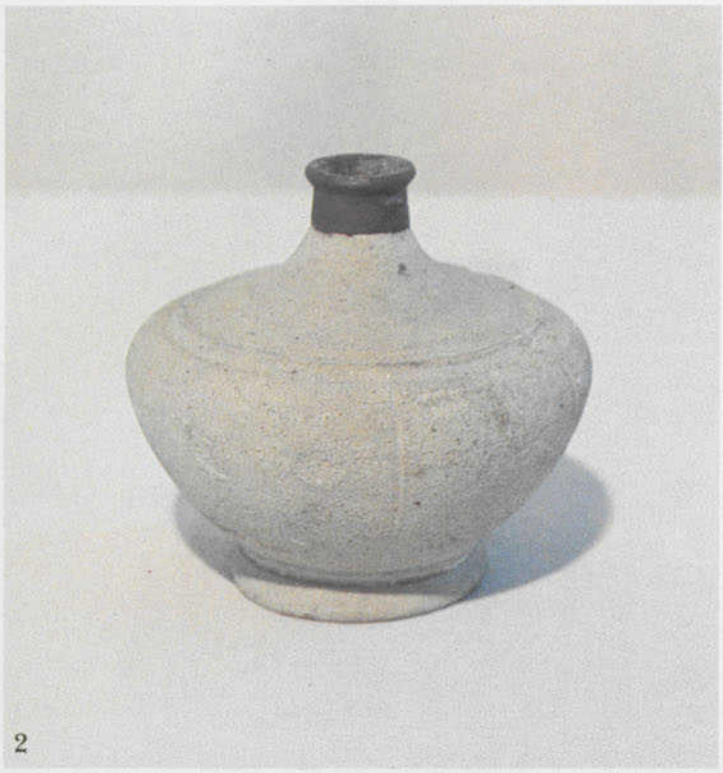
3 **BOTTLE**

With bulbous body, constricted neck, flanged mouth, and broad flat foot. Carved bands at shoulder and lower walls. Covered with mottled pale olive-green glaze to foot. Incised with five triple-line lotus panels around walls. The body is fine grained and pale grey. Fabrication mark of three lines on base.

Height: 13 cm
First half 10th century

Note: The fabrication marks could perhaps have identified specific potter's works in group firings. They seem to be found on green glazed wares originating both from the Phnom Kulen and Ban Kruat kiln sites and are relatively unknown on dark glazed wares.

Compare similar pieces R. Brown, *The Ceramics of South-East Asia*: Kuala Lumpur: O.U.P., 1977, no. 68; and Vance Childress, and R. Brown, 'Khmer Ceramics at Prasat Ban Phluang'. *Arts of Asia* (January-February 1978), p. 68.



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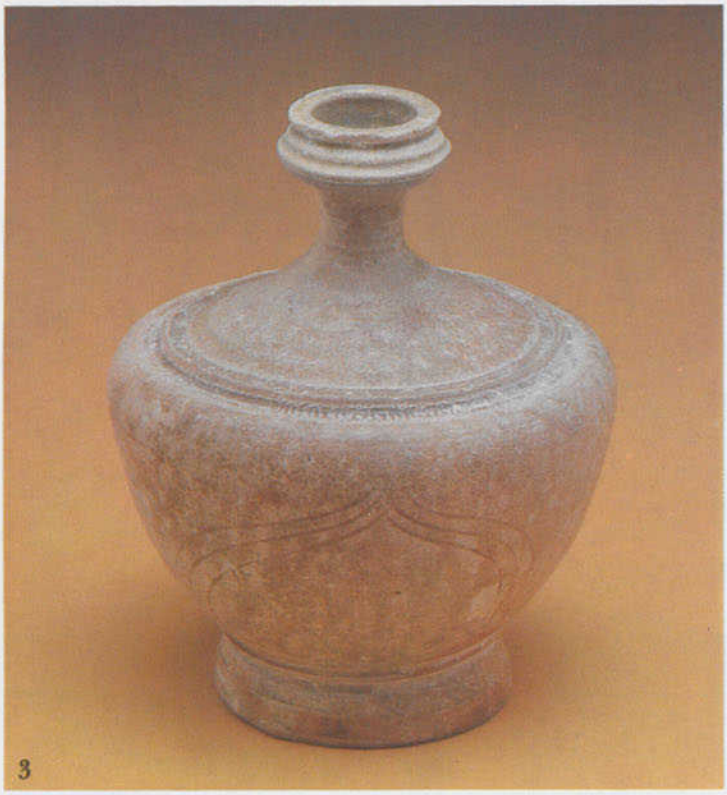


3

4 **ROOF TILE**

Covered with thin pale green glaze, white-grey body where exposed. A clay knob has been applied to the centre of the underside.

Length: 22 cm
Width: 11.5 cm narrow end, 14 cm widest end
Late 9th—early 10th century

5 **BOTTLE**

Ovoid, with carved tiers at the upper shoulder and above the slightly splayed foot. Covered to the base in pale olive-green glaze. Buff body and flat base showing potter's cutting mark. Carved band with incised crosshatch decoration on the upper shoulder. Broken at neck.

Height: 9.3 cm
Second half 10th century

Note: Potter's cutting mark has sometimes been referred to as a thumbprint-like mark.

Previously exhibited in '*Ceramic Art of Southeast Asia*', (Singapore: S.E.A.C.S., June-July, 1971) no. 18.

6 **BOTTLE**

Spherical, with carved tiers at upper shoulder and low angular flange at short pedestal foot. Olive-brown glaze. Flat base and dark red-brown body. Decorated around mid-section with seven sets of double lines. Broken at neck.

Height: 8 cm
Second half 10th century

7 **JARLET WITH COVER**

Bulbous, with stylised lotus bud within a carved flange on the wide conical cover. Short button foot. Traces of pale green glaze on the cover and lower walls. Buff-grey body. Wide band of double incised lines on cover. Lower section and foot with single vertical lines. Fabrication mark on the flat base.

Height: 8 cm
Second half 10th century

4

5

6

7

8 BOWL WITH PEDESTAL FOOT

With everted mouthrim curving to a carved flange on the interior wall. A raised disc in central well. Stylised eyes and beak-like spout of an owl applied on exterior. The bowl has been broken at the base and mounted on a flared hollow foot exposing grey-white body. Upper section covered in crackled pale green glaze collecting thickly in recessed areas. Foot mount covered in brown-olive glaze and decorated with two tiered bands of short vertical striations.

Height: 12 cm
Diameter: 16 cm
Mid 11th century

Note: The pedestal foot is attributable to the late 11th—early 12th century.

9 PEDESTAL BOWL

With mouthrim everted at the outer edge and carved double scalloped flange at its inner edge. A raised disc above an unglazed ring in central well. Tiered and flanged pedestal foot. Thick glassy crackled green glaze to base; hollow foot exposes white-grey body. Cavetto decorated with sixteen incised lines and bands of carved vertical grooves which are repeated on the pedestal foot.

Height: 13 cm
Diameter: 20 cm
Mid 11th century

8

9

10 LIME POT

Of spherical shape with applied eyes, beak and tail of an owl. Small button foot. Thin pale green glaze to base. Grey body. Three incised rings at the mouth and long sweeping carved lines that begin at the owl face. Short incised lines on tail.

Height: 8 cm
Mid 11th century

11 LIME POT

Spherical, with eyes, beak and tail of an owl. Conical cover with lotus bud. Finely crackled pale green glaze falls short of button foot. Pale buff-grey body. Carved rings on the cover and below mouthrim. Stylised wings with jabbed decoration. Potter's cutting mark on flat base.

Height: 10 cm (with cover)
Late 11th century

12 JAR

Short neck, carinated shoulder and rounded body tapering towards pedestal foot. Abraded olive-brown glaze falls short of footrim, red-brown body. Decorated with incised concentric circles, crosshatch and scallop patterns.

Height: 26.5
Mid 11th century

13 JARS

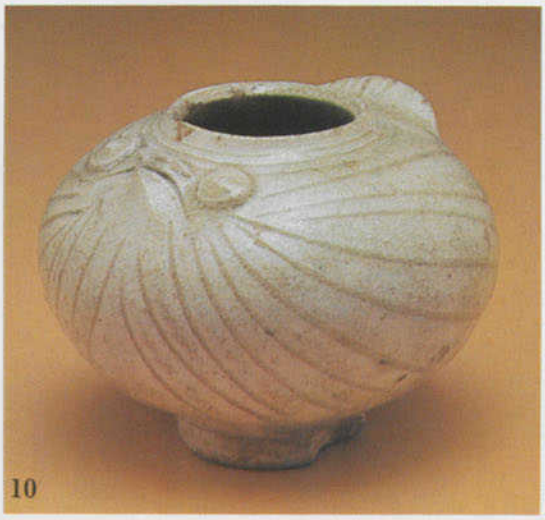
Of ovoid shape, narrow mouth and pedestal foot.

a Matt green-brown glaze to flat base exposing coarse red-brown body. Short carved band of vertical grooves between low flanges at the neck and a wider band of combed scallop decoration on the shoulder. Deeply carved rings graduating from the lower body to the base.

Height: 24 cm
Mid 11th century

b With deep interior funnel-shaped well. Crackled pale green glaze on neck forming a triangular pattern on shoulder. Matt brown-black glaze covers remainder of vessel. Carved tiers and bands of incised rhombs at neck and on pedestal foot.

Height: 22.5 cm
Mid 11th century



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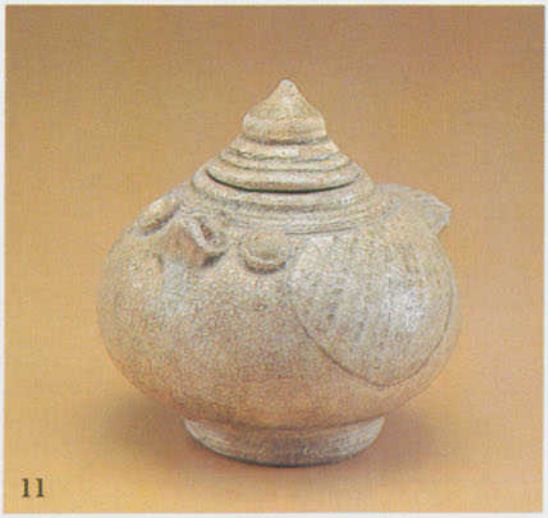


11

12

13 a,b

14 BOWL

Conical, with wide mouth, carved tier at the lower exterior walls, and slightly concave base. Covered in thin pale green glaze, streaked in places. Eight firing scars around the lower interior walls. Fine grained white body.

Height: 9 cm
Diameter: 18 cm
Late 11th century

Compare with R. Brown, et al., *Legend and Reality,* Kuala Lumpur: O.U.P., 1977, no. 31; and Vance Childress, and R. Brown, 'Khmer Ceramics at Prasat Ban Phluang'. *Arts of Asia* (January-February 1978), p. 70.

15 BOWL

Of slightly warped conical shape with eight firing scars. Pale green glaze.

Height: 9 cm
Late 11th century

16 WASTER

Seven conical bowls slumped and joined together in firing. All covered in finely crackled green glaze. Firing scars and stacking balls between bowls visible. Pale grey body.

Height: 21 cm
Late 11th century

14

15

16

17 JAR WITH COVER

With a wide flanged mouth, sloping neck, tiered flange at shoulder. Glassy green glaze over neat pedestal foot and parts of base. Incised crosshatch band on the shoulder flange and sawtooth design at the flared foot. White body. Deeply cut fabrication mark in the form of an 'X' on base.

Height: 16.5 cm (without cover)
Mid 11th century

18 JAR

Tiered jar with a rounded mouthrim, wide flange at mid-section, and flaring pedestal foot. Thin pale green glaze to foot. Pale grey body and traces of glaze on the flat base. Incised crosshatch pattern on the second tier. Thin film of glaze brushed around the interior.

Height: 8.5 cm
Mid 11th century

19 JAR WITH COVER

Tiered conical cover. Lower section has a wide mouth, tiered neck and wide flange at shoulder. Black-brown glaze falling short of pedestal foot. Flat unglazed base and dark brown body.

Height: 18 cm
Mid 11th century

See similar piece D. Richards, *Thai Ceramics*. Adelaide: Art Gallery of South Australia, 1977, no. 7.

20 JAR WITH COVER

Conical cover with lotus bud. Lower section has a wide mouth, tiered neck and wide flange at shoulder. Brown-black glaze falls irregularly over pedestal foot. Flat base, dark grey body.

Height: 16 cm
Mid 11th century

17

18

19

20

21 **BOTTLE**

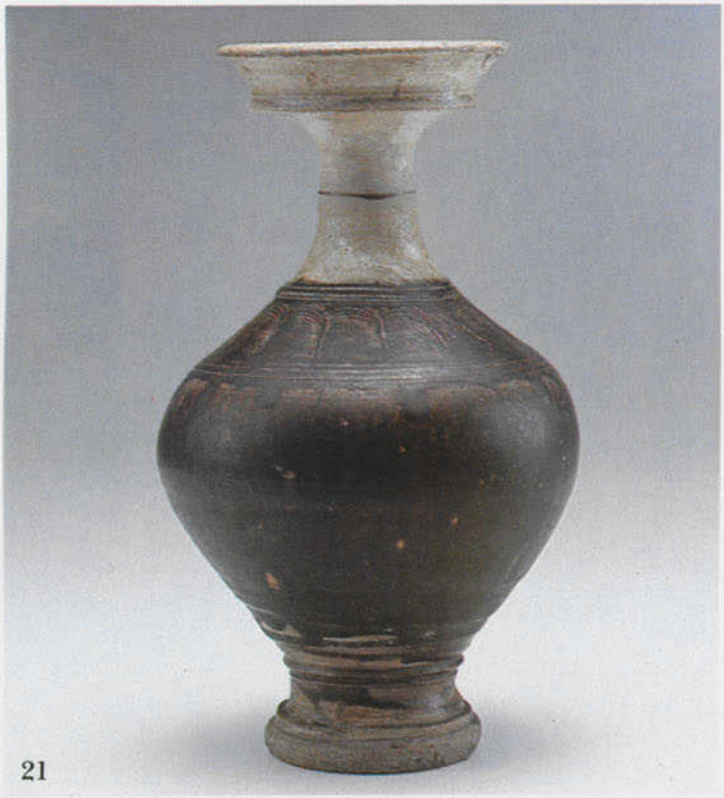
With a tall neck, flared cup-like mouth and rounded body which tapers to a pedestal foot. Covered to the lower neck with crackled glassy green glaze, matt black-brown glaze to the foot. Slightly concave base, light brown stoneware. Combed scallop pattern between carved rings on shoulder. Rejoined at neck.

Height: 26.5 cm
Mid 11th century

22 **JAR**

Of baluster shape, decorated with deep gouges around lower section. Covered with brown glaze, lustrous in parts, dark grey body where exposed. Repaired at neck and a broad footrim has been added.

Height: 53 cm
Mid 11th century



21

22

23 **BOTTLE**

With everted lip, small neck and bulbous body. Thin, finely crazed pale green glaze falling short of foot. Flat base, white-buff stoneware. Decorated with carved circles and an impressed 'arrow-like' band on shoulder: a double row of carved triangles and eight sets of vertical incisions on body.

Height: 10 cm
First half 11th century

24 **SMALL BOTTLE**

Of drum shape with small mouth, straight shoulders and slightly waisted mid-section. Covered with a shiny dark brown glaze which falls short of foot. Flat base, grey body. Decorated with pinched fluted edges at shoulder and above foot.

Height: 6.5 cm
Late 11th—early 12th century

25 **COVERED BOX**

With stylised floral knob. Dark matt brown glaze falling irregularly over foot, coarse grey body. Decorated with a band of incised rhombs on shoulder; body divided into four panels by carved vertical lines.

Height: 4.8 cm
Diameter: 6.4 cm
Late 11th—early 12th century

23

24

25

26 IMAGES OF BUDDHA

a A figure of the Buddha in the attitude of meditation. Carved in high relief with stylised foliage of a bodhi tree. Covered with a pale green glaze to solid foot. Compact pale grey body.

Height: 11.5 cm
Possibly 11th century

See similiar style J. Hirschen, ed. *Oriental Art, A Handbook of Styles and Forms.* London: Faber and Faber, 1979, nos. 108 & 109, p. 257.

b Figure of the Buddha seated on coils of the Naga whose seven heads form a fan over him. The modelled figure wears a necklace, two armbands and two bracelets. Covered with dark brown glaze to the base, chipped in places. Hollow foot, orange-grey body. Rejoined at neck.

Height: 10.5 cm
Possibly 12th century

Compare with J. Hirschen, ed. *Oriental Art, A Handbook of Styles and Forms*, London: Faber and Faber, 1979, nos. 131–134, p. 261.

27 BOTTLES

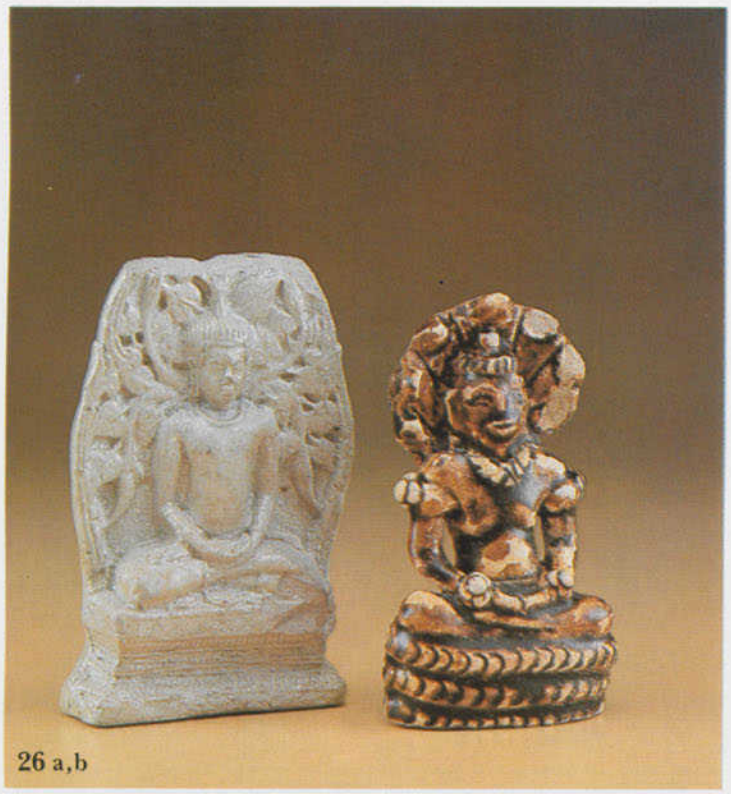
a Spherical, with a short narrow neck, flanged mouth and button foot. Covered to the mid-shoulder with creamy green glaze, and then onto the foot in olive-brown glaze. Flat base, pale grey body. A band of carved rhombs on the upper shoulder and four sets of vertical lines enclosing groups of oblique lines that cross at the lower walls.

Height: 9 cm
Mid 11th century

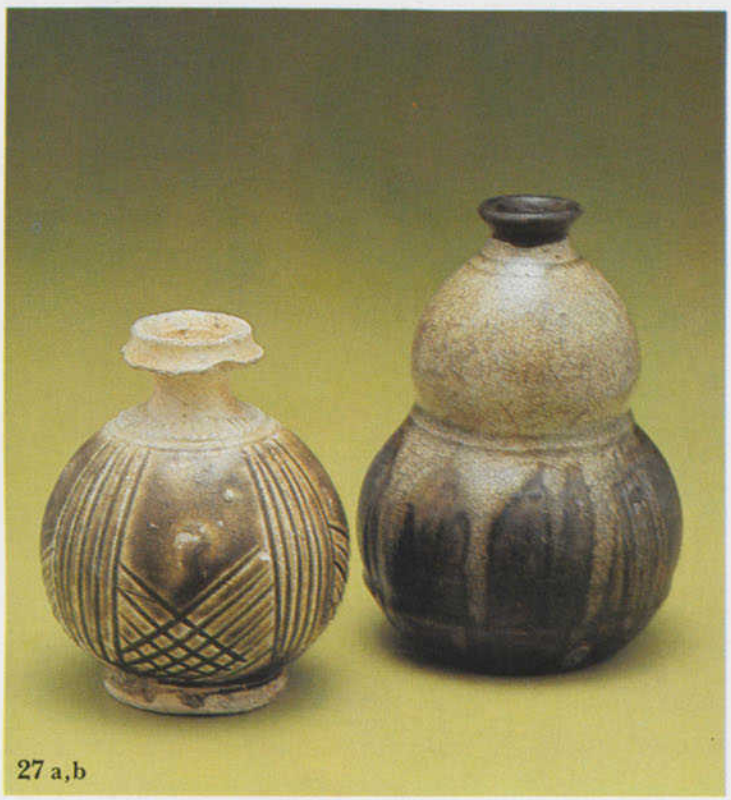
b Gourd shaped. Covered with a finely crackled light olive-green glaze on the upper section and flowing in places on to the matt dark-brown glaze of the lower section. Flat unglazed base, light brown body. Restored metal mouthrim.

Height: 11.5 cm
Mid 11th century

Compare with R. Brown, *The Ceramics of South-East Asia*: Kuala Lumpur: O.U.P., 1977, pl. J,no. 4.



26 a,b



27 a,b

28 JAR WITH COVER

In the shape of a drum with a conical cover. Olive-brown glaze falling short of a button foot. Flat base exposing buff body. Incised decoration at mouth and shoulder, carved rings on lower section. Glaze collects thickly in recessed areas.

Height: 10.5 cm
Mid 11th century

29 JAR

In the shape of a drum with broad sloping shoulder. Matt dark brown glaze falling irregularly short of a slightly concave base. Double bands of incised rhombs at mouth and on shoulder.

Height: 7.5 cm
Mid 12th century

Previously exhibited in 'Ceramic Art of Southeast Asia', (Singapore: S.E.A.C.S., June-July, 1971) no. 7.

Compare with R. Brown, *The Ceramics of South-East Asia,* Kuala Lumpur: O.U.P., 1977, pl. 24, no. 83.

30 COVERED URN

Cylindrical shape with a tiered lotus bud cover. Dark brown glaze falling unevenly short of rough flat base, coarse dark grey body. Two incised circles high on shoulder.

Height: 19.5 cm
Late 11th century

See similiar piece R. Brown, *The Ceramics of South-East Asia,* Kuala Lumpur: O.U.P., 1977, pl. 21, no. 73.

31 COVERED URN

Thin dark brown glaze falling short of foot. Rough flat base. Cover decorated with concentric circles and incised vertical lines.

Height: 20 cm
Late 11th century

28

29

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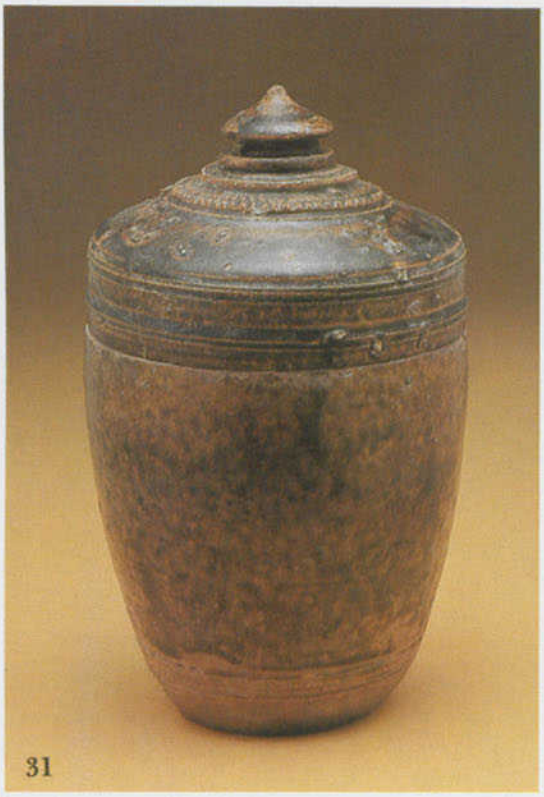


31

32 **SMALL BOTTLE**

Of globular form with narrow mouth. Covered with matt dark brown glaze stopping short of foot. Buff-grey stoneware, slightly concave base. Two incised circles at neck, body divided into panels by five sets of double vertical lines.

Height: 6.5 cm
Mid 11th century

33 **BOTTLES**

a Spherical shape. Dark brown glaze stops short of the button foot. Flat base, light grey body. Incised concentric circles at mouth. Severed at mouth.

Height: 8 cm
Late 11th century

b Ovoid shape. Covered with a matt dark brown glaze falling short of foot. Flat base, grey body. Incised concentric circles on shoulder. Severed at mouth.

Height: 7.5 cm
Late 11th century

34 **JAR**

Wide flanged mouth, tubular neck and ovoid body. Thin brown glaze, streaked in parts, stops short of broad flat foot. Grey stoneware. Decorated on the shoulder with carved concentric circles, combed scallop pattern and a band of incised rhombs.

Height: 27.5 cm
Mid 11th century

Note: The horse head and tail are not part of the original vessel. Brown adhesive at joins indicates recent restoration.

35 **JARLET**

Of pear shape with small everted mouth. Caramel-brown glaze stopping short of foot, coarse buff-grey stoneware. Slightly concave base. Five incised circles on shoulder and body divided into ten panels by vertical lines.

Height: 7.5 cm
Late 11th—mid 12th century

See similar piece in J. Addis, B. S. McElney, I. Yee, et al. *South-East Asian and Chinese Trade Pottery*. Hong Kong: O.C.S., 1979, no. 239.

32

33 a,b

34

35

36 CONCH

With a rounded aperture at the lower end. Covered with a crackled pale green glaze, abraded in parts exposing buff-grey body.

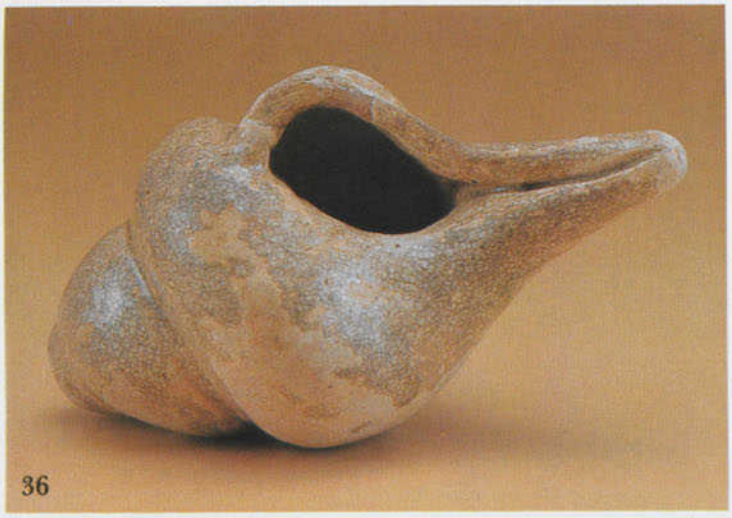
Length: 18 cm
Mid 11th century

Refer to R. Brown, *The Ceramics of South-East Asia*. Kuala Lumpur: O.U.P., 1977, pl. 21, no. 71.

37 CONCH

With a rounded aperture at the lower end. Thick olive-brown glaze. Grey body exposed on the underside.

Length: 18 cm
Late 11th century



36

37

38 JAR WITH LID

A broad lotus bud set on a double flange on lid. Three applied loop handles on tiered shoulder of jar. Pale green glaze to foot. Slightly concave base with traces of glaze. Pale buff body.

Height: 20 cm
Second half 11th century

39 COVERED URN

Cylindrical form. Cover with bands of incised vertical lines and crosshatched decoration. Degraded olive-green glaze, streaked in parts, falls short of flat base. Coarse pink-grey body.

Height: 18.5 cm
Early 12th century

40 COVERED URN

Of cylindrical form which tapers slightly towards base. Crazed pale yellow-green glaze falls short of base. Brittle, grey body. Cover decorated with a flanged and tiered knob (top broken); a band of carved vertical lines and concentric circles on shoulder. Fabrication mark on base.

Height: 16 cm
Late 12th—early 13th century

Compare with R. Brown, *The Ceramics of South-East Asia*. Kuala Lumpur: O.U.P., 1977, pl. 21. no. 72; and W. Sorsby, *South-East Asian and Early Chinese Export Ceramics*. London: William Sorsby Ltd., 1974, no. 206.

38

39

40

41 **JAR**

Baluster form with a wide flanged mouth, broad tubular neck, ovoid body tapering to a pedestal foot. Covered with dark brown glaze which falls short of flat base. Pink-grey stoneware. Decorated with impressed beading, combed scallop pattern, incised crosshatch band and concentric circles on shoulder; circles and combed waves on lower section; carved rhombs and incised sawtooth pattern on pedestal foot. Fabrication mark in the form of an "X" on base.

Height: 36.2 cm
Mid 12th century

41

42 LIME POTS

With applied zoomorphic features of an owl.

a Black-brown glaze to a button foot. Grey body. Decorated with incised circles and vertical lines.

Height: 7 cm
Late 11th century

b Olive-brown glaze which stops unevenly short of foot. Red-grey body.

Height: 5 cm
Late 11th century

43 LIME POT WITH COVER

Modelled in the shape of a crouching rabbit. Dark brown glaze, grey body.

Height: 7.5 cm
Late 11th century

44 LIME POT WITH COVER

Modelled in the form of a rabbit. Light brown glaze almost to foot. Pink-grey body. Incised zoomorphic features.

Height: 9.5 cm
Mid 12th century

Compare with D. Frasche, *Southeast Asian Ceramics; Ninth through Seventeeth Centuries.* New York: The Asia Society, 1976, no. 11.

45 ZOOMORPHIC FRAGMENT, BELL AND ANIMAL HEAD

a Modelled fragment of a bird's beak. Pale green glaze, olive-brown in carved outline areas.

Late 11th century

Compare decoration with R. Brown, et al. *Legend and Reality.* Kuala Lumpur: O.U.P., 1977, no. 99.

b Bell of rounded shape with a loop handle. A fired clay ball ringer inside. Narrow opening at base. Olive-brown glaze, pale grey body where exposed.

Late 11th century

c Head, modelled and carved in the form of a four-sided face of a monkey. Though not made together, the head has been mounted on a flanged 'stopper-type' cover. Pale green and olive-green glazes.

Late 11th century

42 a,b

43

44

45 a,b,c

46 BOTTLE

Gourd shaped with incised and modelled anthropomorphic features. Abraded and finely crackled thin pale green glaze falling short of foot. Flat base and pale grey porous body.

Height: 25 cm
Mid 12 century

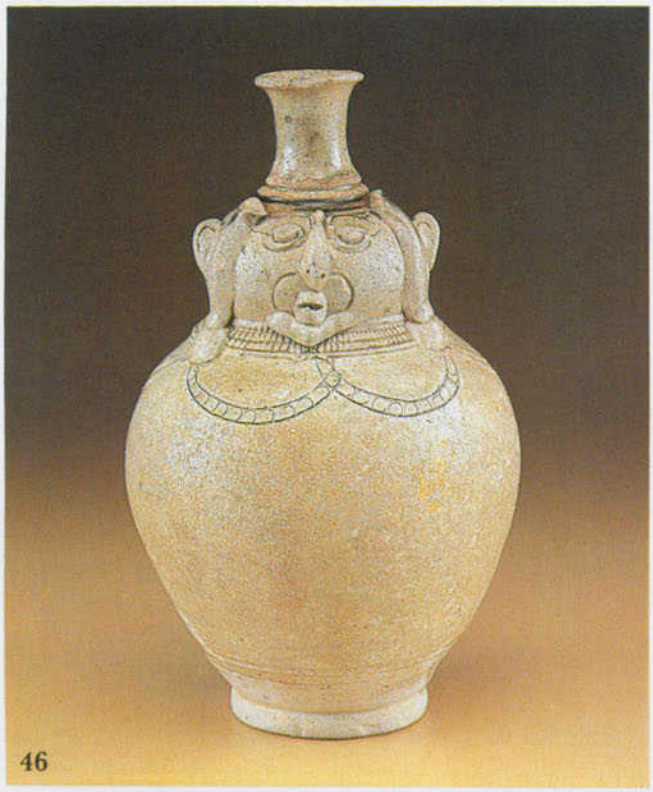
Compare with B. Groslier, *Indochine*. Paris and Geneva: Les Editions Nagel, 1966, pl. 144.

47 BOTTLE

Gourd shaped with anthropomorphic features. Heavily degraded dark olive-brown glaze falling short of foot. Flat unglazed base.

Height: 29.5 cm
Mid 12th century

See similar piece, R, Brown, et al. *Legend and Reality*. Kuala Lumpur: O.U.P., 1977, no. 69.



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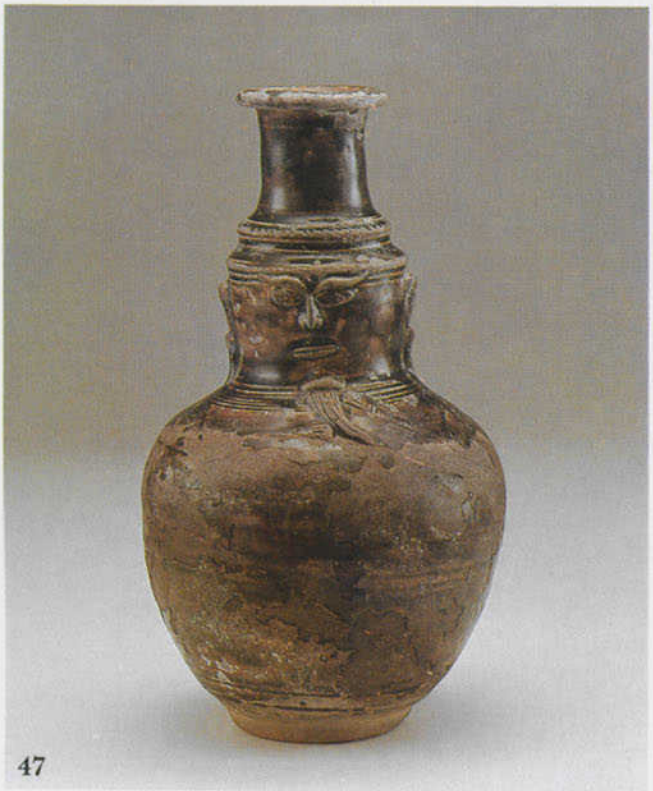


47

48 JAR

Globular form, with a zoomorphic handle and applied features of an owl. Dark brown glaze falls short of flat base. Red-grey body. Decorated with incised lines and scalloped bands on shoulder, carved lines between bands of concentric circles at mid-section.

Height: 10 cm
Late 11th century

See similar piece, R. Brown, *The Ceramics of South-East Asia*. Kuala Lumpur: O.U.P., 1977, pl. L, no. 1.

49 JAR

Covered with a dark brown glaze stopping short of foot. Flat base, grey body. Incised scallop pattern, concentric circles and a carved geometric band on shoulder.

Height: 9.7 cm
Late 11th century

50 JAR

Squat globular form with a small raised mouth-rim. Brown glaze falls short of a slightly recessed base exposing grey stoneware. Incised circles and combed scallop band on shoulder. Body is partitioned into five panels by incised lines.

Height: 8.5 cm
Mid 11th century

51 JAR

Globular form with applied eyes, beak of a bird and a zoomorphic handle. Black-brown glaze, degraded in areas, pink-grey body. Incised decoration of concentric circles and scalloped pattern. Groups of vertically incised lines divide body into panels.

Height: 15 cm to top of handle.
Mid 12th century

48

49

50

51

52 **LIME POT AND JARLET**

a Of miniature size. With applied eyes, beak and tail of an owl. Covered with a brown glaze which stops short of a button foot. Flat unglazed base. Grey stoneware. Decorated with an incised band at mouth and vertically incised lines on body.

Height: 3.1 cm
Late 11th—12th century

b Of globular form. Degraded brown glaze stops short of button foot. Flat base, exposing red-grey stoneware. Incised circular bands at mouth. Body divided into panels by sets of four vertical, parallel lines.

Height: 4.5 cm
Mid 12th century

53 **LIME POTS**

Four lime pots with stylised eyes, beak and tail of an owl.

a Of globular form with carved concentric circles at mouth and incised curving lines on sides. Matt brown glaze falls short of button foot. Flat base, grey body.

Height: 7.5 cm (with cover)
Late 11th century

b Of depressed globular shape. Pieces of clay adhering to sides under a matt dark brown Glaze.

Height: 8 cm (with cover)
Late 12th century

c Of rounded form with incised and jabbed decoration. Shiny brown glaze. Dark red-brown body.

Height: 11.5 cm (with cover)
Late 11th century

d Of oval shape. Dark brown glaze. Incised and jabbed decoration.

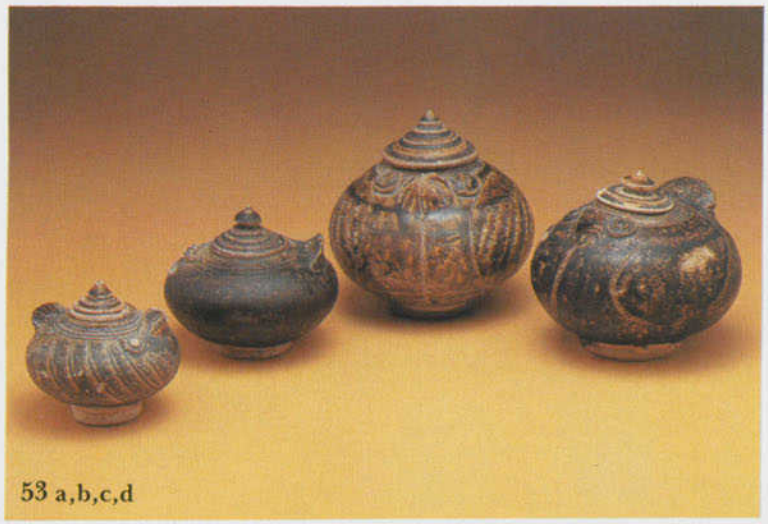
Height: 10 cm (with cover)
Late 11th century

54 **COVER**

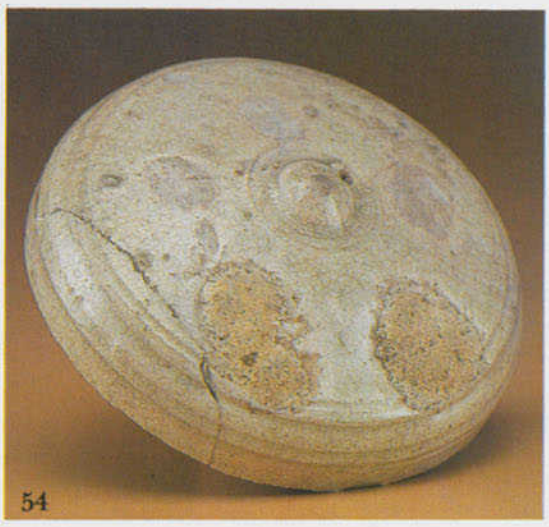
Five large stacking scars on shoulder. Crazed pale green glaze, buff-grey body.

Diameter: 10 cm
Late 11th century

52 a,b



53 a,b,c,d



54

55 **JAR**

Depressed globular form (section of neck and shoulder damaged in firing) with applied eyes, beak of an owl and a zoomorphic handle. Covered with a brown glaze which stops well short of foot. Orange body. Flat base with perimeter ring visible.

Height: 12.5 cm
Diameter: 24 cm
Mid 12th century

56 **JAR**

Globular form with raised mouth. Applied spout and a zoomorphic handle on shoulder. Black-brown glaze. Grey body where exposed. Decorated with incised circles at neck, bands of stamped rhombs and combed scallop pattern on shoulder.

Height: 13.5 cm
Diameter: 22 cm
Mid 12th century

Compare with R. Brown, et al. *Legend and Reality*. Kuala Lumpur: O.U.P., 1977, no. 82.

55

56

57 **JAR**

Baluster shape with a broad neck, wide flanged mouth. Carved tier at the upper shoulder and flared pedestal foot. Covered to the flat base in thick black-brown glaze. Dark red-brown body. Decorated with a band of applied beading and faint combed scallop pattern on shoulder.

Height: 32.7 cm
Early 11th century

58 **JAR**

Of baluster shape with a wide flanged mouth. Carved tiers at the upper shoulder and on pedestal foot. Covered to the flat base in mottled black-brown glaze. Red-brown body. Combed scallop decoration on shoulder.

Height: 34 cm
Mid 12 century

57

58

59 WASTER

A cylindrical urn with cover which has sealed in firing. Fluted lotus bud knob. Degraded brown glaze reveals light grey-brown body.

Height: 22 cm
Mid 11th century

60 BOWL

Of lotus pod shape. Dark brown glaze falling short of button foot. Flat base. Orange-grey body showing black specks. Clay particles adhering under the glaze.

Height: 6.5 cm
Diameter: 10 cm
Mid 12th century

Compare with R. Brown et al. *Legand and Reality.* Kuala Lumpur: O.U.P., 1977, no. 35, p. 228; and J. Addis, et al. *South-East Asian and Chinese Trade Pottery.* Hong Kong: O.C.S., no. 247, p. 220.

61 COVER

Upper section in the shape of a gourd. Flanged lower ridge. Thick black glaze. Red body.

Height: 8.2 cm
Mid 12th century

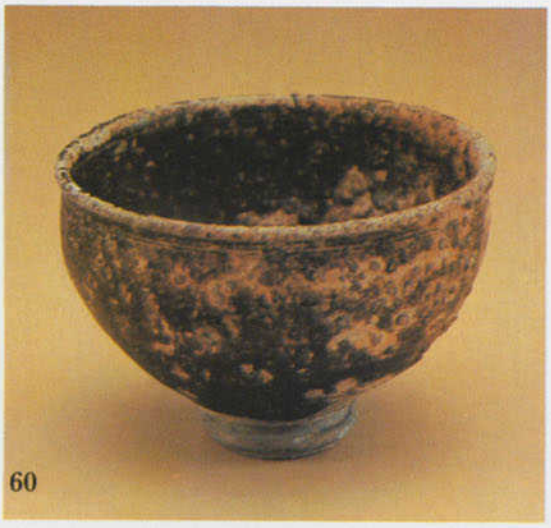
See line drawing, R. Brown, *The Ceramics of South-East Asia.* Kuala Lumpur: O.U.P., 1977, fig. 12, p. 40.

62 WASTER

In the form of a kendi with tall neck and elongated spout. Covered with dark brown glaze. Flat base, grey body.

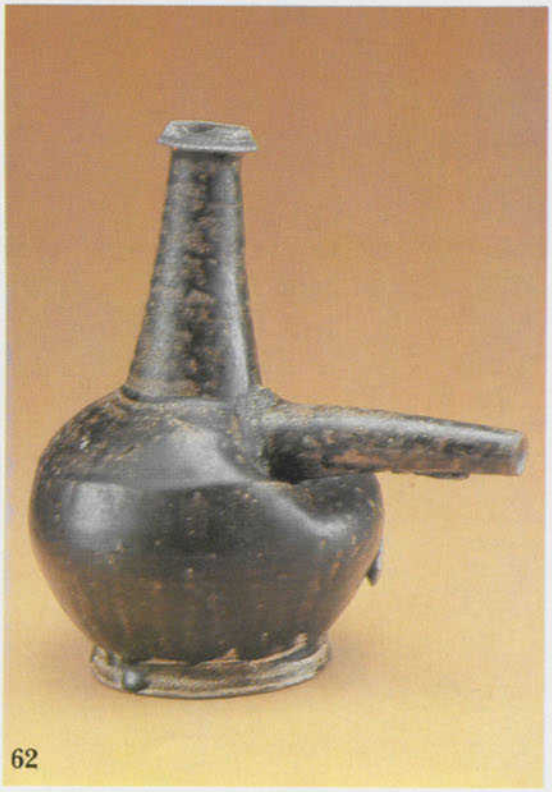
Height: 22 cm
Mid 12th century

59



60

61



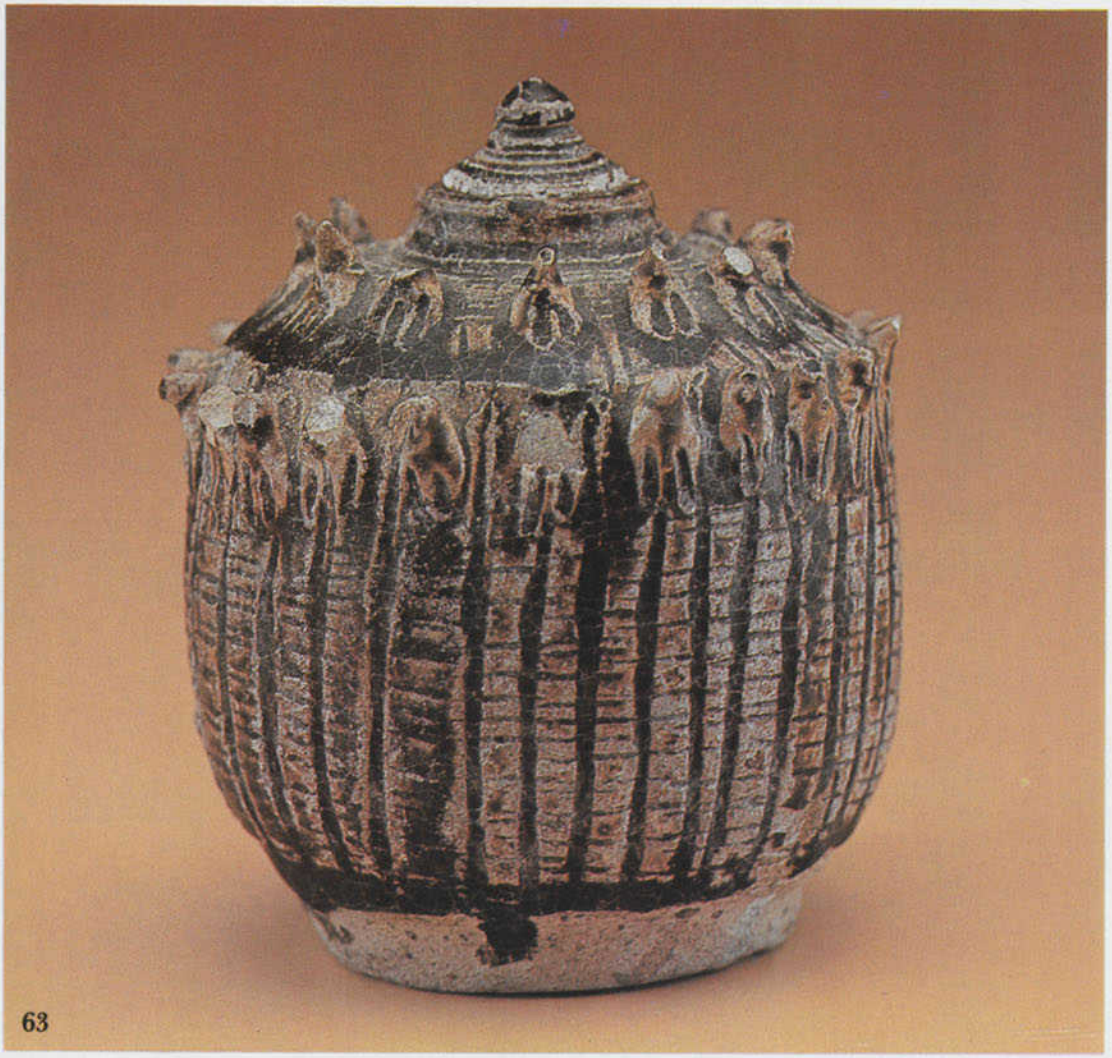
62

63 COVERED BOX

Of 'thistle-type' shape with small knob cover. Brown glaze which collects thickly in recessed areas, falls short of foot. Flat base, grey body showing black specks. Two rows of outwardly curved spikes modelled in relief on shoulder. Lightly incised circles on lower section which have been crossed with deeply carved vertical lines.

Height: 10 cm
Late 11th century

Note: The unusual decoration is echoed in the silver boxes from the 17th–18th century in National Museum of Phnom Penh.



63

64 LIME POT

Of rounded shape with applied zoomorphic features. Olive-brown glaze stops short of button foot. Flat base, grey body. Incised and jabbed decoration.

Height: 7 cm
Late 11th century

65 MINIATURE JARLETS

a Matt brown glaze falling short of foot revealing buff body. A band of incised rhombs at mouth. Potter's cutting mark on flat base.

Height: 2.5 cm

b Olive-brown glaze stops short of a broad foot. Grey body. Two carved circles at mouth. Potter's cutting mark on flat base.

Height: 3 cm

c Thin pale green glaze to button foot. White-grey body. A band of incised rhombs at mouth and five sets of vertical lines on sides. Traces of lime on interior recessed well.

Height: 3.5 cm

d Brown glaze falls short of foot exposing pink-grey body. A band of incised rhombs at mouth and three sets of vertical lines on sides. Interior recessed well with traces of lime.

Height: 3 cm

All late 11th century

66 LIME POTS

a Of oval shape with cover. Olive brown glaze stops short of button foot, exposing pink-buff body. Carved circular bands around neck and vertically incised lines on sides.

Height: 9.5 cm
Late 11th—12th century

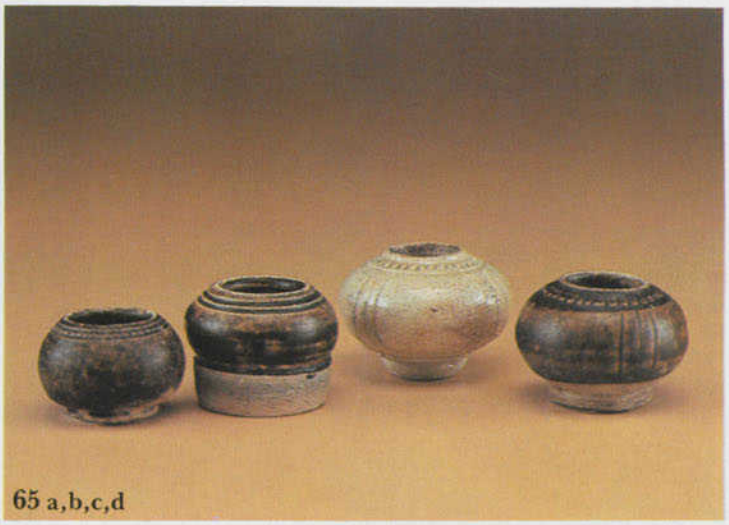
b Of rounded shape. Olive-brown glaze stops well short of button foot revealing grey body. A band of incised rhombs at mouth.

Height: 7 cm
Mid 12th century

c Of globular form. Olive-brown glaze stops short of foot. Flat base, buff body. Incised naturalistic details.

Height: 6 cm
Late 11th century

64



65 a,b,c,d

66 a,b,c

67 JARLETS AND BOTTLE

a Bottle, of globular form with a small mouth and neck. Black-brown glaze falling unevenly short of flat base, exposing dark-brown stone ware. Body divided into three panels by series of seven incised vertical lines.

Height: 8.2 cm
Late 11th century

b Of miniature size. Covered with an uneven brown glaze. Black body. Decorated with incised vertical lines. Potter's cutting mark on flat base.

Height: 3.1 cm
Late 11th century

c Of rounded shape with a tiered conical cover. Olive-brown glaze stopping short of small foot. Coarse grey body. Circular bands of incised rhombs on cover and carved lines on sides.

Height: 7 cm (with cover)
Mid 12th century

68 JAR

Flanged mouth, broad columnar neck, ovoid body which tapers towards foot. Abraded dark olive-brown glaze which stops irregularly at foot. Coarse grey body. Shoulder decorated with deeply carved flange and combed scallop pattern. Flat base with perimeter ring visible.

Height: 51 cm
Mid 12th century

67 a,b,c

68

69 JARS

a Of squat globular form with narrow mouth and everted lip. Thick crazed dark brown glaze falling short of base exposing fine white-grey body. Decorated with incised circles and bands of rhombs at neck and shoulder. Unglazed ring on shoulder and sets of vertical lines on body.

Height: 8 cm

b Of squat globular form with narrow mouth and rolled lip. Matt dark brown glaze falling short of base. Light grey body. Bands of incised rhombs and concentric circles at mouth and shoulder. Sets of vertical form panels on sides.

Height: 7 cm

Both mid 12th century

70 JARLET

Of compressed globular shape. Covered with caramel-brown glaze, degraded in parts, with sand adhering to mouth and shoulder. Unglazed flat base. Grey body. Two incised bands of vertical lines within concentric circles on shoulder.

Height: 6.5 cm
First half 11th century

71 JAR

Of globular form with narrow mouth and rolled lip. Thick dark brown glaze stopping short of slightly concave base. Red-grey body. Bands of incised circles at neck and shoulder.

Height: 9.5 cm
Mid 12th century

72 JAR AND WASTER

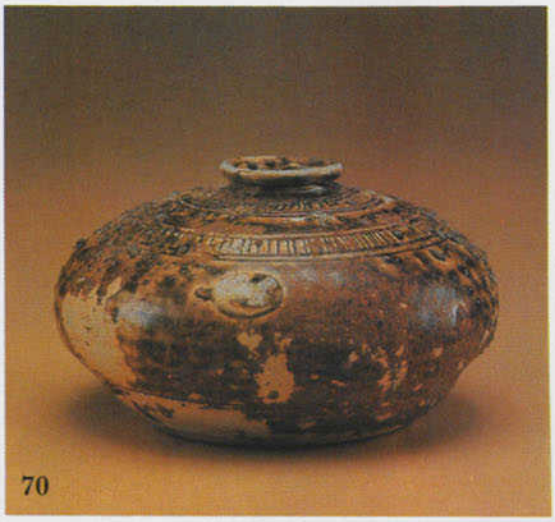
a Of squat globular form with narrow mouth and rolled lip. Dark brown glaze stopping short of foot, flat base, red-brown body. Incised circles at mouth, carved circles and a band of rhombs at shoulder. Sets of vertical lines form panels at mid-section.

Height: 8.2 cm
Second half 12th century

b Jar with three stacking scars on shoulder. Thick dark brown glaze stopping unevenly short of base. Fine grey body showing white specks. Incised circles and vertical lines at mid-section.

Height: 7 cm
Late 12th—early 13th century

69 a,b



70

71

72 a,b

73 STORAGE JAR

With rounded shoulder and body tapering slightly to base. Dark olive-brown glaze falling in long tears towards a flat base. Dark red-brown body. Decorated with two incised flanges at neck; three incised curved lines above a broad band of carved interlocking arches on shoulder. Bands of combed waves, incised rectangular and scalloped patterns on sides. Carved circles at lower section. Restored at mouth.

Height: 51 cm
Mid 12th century

73

74 JAR

Of globular form with rounded mouthrim and short neck. Covered with irregular olive-green glaze olive-brown in parts. Flat base is partially covered with glaze. Decorated with three bands of deeply carved lines.

Height: 11 cm
Late 11th century

Previously exhibited in 'Ceramic Art of Southeast Asia'. (Singapore: S.E.A.C.S., June-July, 1971) no. 19.

75 JARLET

With small mouth, sloping shoulder and rounded body. Dark brown glaze which stops short of foot. Grey stoneware. Decorated with incised circles at neck, concentric circles and a band of incised rhombs on shoulder. Flat base showing potter's cutting mark.

Height: 6 cm
Mid 12th century

76 JARLET

Of globular shape. Olive-brown glaze, degraded in parts, falling unevenly short of button foot. Buff-grey body. Incised circles at mouth, a band of carved triangles on shoulder; sets of vertical lines form five panels on sides.

Height: 6 cm
Late 12th—13th century

77 JAR

Everted mouth and sloping shoulder. Brown glaze falls short of foot exposing pink-grey body. Decorated with incised circles and a band of rhombs on shoulder; carved circles and incised vertical lines at mid-section.

Height: 9 cm
Mid 12th century

74

75

76

77

78 LIME POT

Of rounded form with applied bird head and tail. Dark brown glaze falls short of a button foot, flat base, grey body. Sets of incised parallel lines on sides.

Height: 9 cm (with cover)
Mid 12th century

79 LIME POTS

Of compressed globular form with applied eyes, beak and tail of an owl.

a With cover. Degraded brown glaze stopping short of a button foot. Flat base, grey body. Three incised concentric circles at mouth, incised lines on sides.

Height: 9.5 cm (with cover)
Mid 12th century

b Dark brown glaze almost to foot. Flat base, grey body. Decorated with incised lines.

Height: 5.3 cm
Late 11th century

80 LIME POTS WITH COVERS

Of compressed globular form.

a With bird head and tail applied in relief. Dark brown glaze stops short of a button foot, pink-grey body. Incised zoomorphic features.

Height: 8.5 cm (with cover)
Mid 11th century

b With applied eyes, beak and tail of an owl. Dark brown glaze falling short of a button foot. Dark grey body. Incised crosshatch decoration. Glazed interior.

Height: 7.5 cm (with cover)
Mid 12th century

78

79 a,b

80 a,b

81 JAR ON PEDESTAL DISH

Abraded dark brown glaze. Flat unglazed base exposing coarse light grey body. Two lightly incised scallop bands on shoulder.

Height: 9.8 cm
Late 11th century

Previously exhibited in 'Ceramic Art of Southeast Asia', (Singapore: S.E.A.C.S. June-July) no. 8.

82 BOWL

With everted lip divided into four lobes. Four stacking scars around a raised disc in central well. Dark brown glaze, coarse grey body. Foot missing, exposing a deeply recessed base.

Height: 8.5 cm
Diameter: 17.5 cm
Mid 12th century

83 BOTTLE

With wide flanged mouth, narrow tubular neck, globular body and pedestal foot. Degraded black glaze. Flat base, grey stoneware. Decorated with a band of applied rosettes on shoulder.

Height: 32 cm
Late 12th—early 13th century

84 JARS

a Of ovoid shape tapering to a pedestal foot. Black-brown glaze. Dark brown body. Rough flat base.

Height: 19 cm
12th century

b Of squat globular shape with narrow mouth and rolled lip. Mottled brown-black glaze which falls short of foot. Rough flat base. Dark red-brown body. Two carved circles on upper shoulder.

Height: 8 cm
12th century

Compare with W. Sorsby, *South-East Asian and Early Chinese Export Ceramics*, London: William Sorsby Ltd., 1974, no. 209.

81

82

83

84 a,b

85 STORAGE JAR

With flanged mouth and broad sloping shoulder tapering towards base. Uneven dark olive-brown glaze falls to carved ridges near base. Red-grey body. Decorated with carved circular bands and incised scallop patterns.

Height: 59 cm
Late 11th century

See R. Brown, 'Khmer Ceramics', *Arts of Asia,* (May-June 1973), p. 33.

86 STORAGE JAR

With flanged mouth and rounded shoulder. Body tapers slightly towards a flat base. Uneven dark brown glaze which stops short of carved ridges at foot. Carved, incised and combed decoration.

Height: 56.5 cm
Late 12th—13th century

See similar pieces D. Richards, *Thai Ceramics.* Adelaide: Art Gallery of South Australia, 1977, p. 83, no. 11, and R. Brown, et al. *Legend and Reality.* Kuala Lumpur: O.U.P., 1977, no. 90.

85

86

87 ZOOMORPHIC LIME POT WITH COVER

In the shape of an elephant with modelled head, tail and carriage. Brown glaze, flaking in parts. Pale grey body.

Height: 13.5 cm (with cover)
Late 12th—13th century

88 ZOOMORPHIC LIME POT

In the shape of an elephant with modelled head, tail and carriage. Brown-black glaze. Dark grey body. Repaired.

Height: 14.5 cm
Late 12th—13th century

89 ZOOMORPHIC LIME POT

In the shape of an elephant with modelled head, tail and carriage. Dark brown glaze. Grey body. Incised and jabbed decoration.

Height: 13.5 cm
Late 12th—13th century

90 ZOOMORPHIC LIME POT WITH COVER

Modelled in the shape of an elephant. Incised decoration; pin pricked circles around eyes.

Height: 12.7 cm (with cover)
Late 12th—13th century

87

88

89

90

91 BOTTLE

With flaring mouth, tubular neck and rounded body. An elephant head has been applied in relief on the shoulder. Dark brown glaze stops short of foot. Flat base, red-brown stoneware.

Height: 14.5 cm
Mid 12th century

92 JAR

Of compressed globular form. Mottled olive-brown glaze which stops well short of foot. Slightly concave base, buff body. Incised scallop pattern at neck, carved circles on shoulder.

Height: 9 cm
Mid 12th century

93 LIME POT

Modelled in the form of an elephant. Heavily potted. Traces of dark brown glaze over pitted dark grey body.

Height: 12 cm
Length: 18 cm
Pre-Sawankhalok, 13th—14th century

91

92

93

94 ZOOMORPHIC FIGURE

Modelled in the form of a fish. Crazed dark brown glaze, violet coloured body in abraded areas. Small unglazed section on underside exposes grey stoneware. Incised and cross-hatched zoomorphic features. Apertures at mouth and near tail.

Length: 18 cm
Girth: 24 cm
Pre-Sawankhalok, 13th—14th century

95 ZOOMORPHIC FIGURE

Modelled in the form of a horse with incised features. Dark brown glaze, red-brown body. Muzzle restored.

Height: 9 cm
Pre-Sawankhalok, 13th—14th century

96 ZOOMORPHIC LIME POT

Modelled in the form of a rabbit with incised zoomorphic features. Glossy brown glaze, grey body.

Height: 11 cm
Pre-Sawankhalok, 13th—14th century

97 ZOOMORPHIC FIGURE

Modelled in the shape of a fish. Covered with an uneven brown glaze. Dark red body exposed on a small unglazed section on underside. Incised zoomorphic features. Apertures at mouth and near tail. Repaired at tail.

Length: 18 cm
Girth: 25.2 cm
Pre-Sawankhalok, 13th—14th century

94

95

96

97

SELECTED BIBLIOGRAPHY

Addis, J., McElney, B. S., Yee, I. et al. *South-East Asian and Chinese Trade Pottery*. Hong Kong: Oriental Ceramic Society of Hong Kong, 1979.

Aymonier, Etienne. *Le Cambodge*. Vol. II. Paris: Ernest Leroux, 1901.

Biagini, Jean and Mourer, Roland. 'La Poterie au Cambodge'. *Objets et Mondes*, XI, 2 (Summer 1971), pp. 197–220.

Boisselier, Jean. *Le Cambodge*. Paris: Editions A. & J. Picard, 1966.

_____ . 'Travaux de la Mission Archeologique Francaise en Thailande'. *Arts Asiatiques* 25 (1972), pp. 27–90.

Briggs, Lawrence Palmer. 'The Ancient Khmer Empire'. *Transactions of the American Philosophical Society*. n.s. 41, part 1 (1951).

_____ . 'Siamese Attacks on Angkor before 1430'. *Far Eastern Quarterly*, VIII (1948), pp. 3–33.

Brown, Roxanna M. 'Ancient Pottery of the Khmer'. *Inn Asia*, Autumn 1977.

_____ . *The Ceramics of South-East Asia: Their Dating and Identification*. Kuala Lumpur: Oxford University Press, 1977.

_____ . 'Khmer Ceramics'. *Arts of Asia* (May-June 1973), pp. 30–5.

Brown, Roxanna M., Childress, Vance and Gluckman, Michael. 'Khmer Kiln Site—Surin Province.' *Journal of Siam Society*, LXII, 2 (July 1974), pp. 239–52.

Brown, Roxanna M., et al. *Legend and Reality: Early Ceramics from South-East Asia*. Kuala Lumpur: Oxford University Press, 1977.

Cheng Te-K'un. 'The Study of Ceramic Wares in Southeast Asia'. *Journal of the Institute of Chinese Studies*, 2 (December 1972), pp. 1–40.

Childress, Vance and Brown, Roxanna M., 'Khmer Ceramics at Prasat Ban Phluang'. *Arts of Asia* (January-February 1978), pp. 67–73.

Chou Ta-Kuan. *Notes on the Customs of Cambodia* translated from the French version of Paul Pelliot by J. Gilman d'Arcy. Bangkok: Social Science Association Press, 1967.

_____ . 'Recollections of the Customs of Cambodia (AD 1296)' in J. Mirsky ed., *The Great Chinese Travellers*, London: Allen & Unwin, 1965, pp. 203–33.

Coedes, George. *Angkor*. Hong Kong: Oxford University Press, 1963.

_____ . *The Making of South East Asia*. London: Routledge & Kegan Paul, 1966.

_____ . *Inscriptions du Cambodge*. Vol. 11. Hanoi: Imprimerie d'Extreme-Orient, 1942.

Cohen, Joan L. *Angkor: The Monuments of the God-Kings*. London: Thames and Hudson, 1975.

Dufour, Henry and Carpeaux, Charles. *Le Bayon d'Angkor Thom*. 2 Vols. Paris: Ernest Leroux, 1913.

Dupont, P. 'Art de Dvaravati et Art Khmer: Le buddha debout de l'epoque de Bayon'. *Revue des Arts Asiatiques* 9 (1935), pp. 63–75.

Dumarcay, Jacques. *Charpentes et Tuiles Khmeres*. Paris: Ecole Francaise d'Extreme-Orient, 1973.

Finot, Louis. 'Dharmacalas au Cambodge', *Bulletin de l'Ecole Francaise d'Extreme-Orient*, 1973.

Fisher, C. A. *South East Asia*. London: Methuen & Co., 1971.

Fitzgerald, C. P. *A Concise History of East Asia*. Middlesex: Pelican Books, 1974.

Fournereau, Lucien. *Les Ruines Khmeres*. Paris: Ernest Leroux, 1890.

Frasche, Dean F. *Southeast Asian Ceramics: Ninth through Seventeenth Centuries*. New York: The Asia Society, 1976.

Giteau, Madeleine. *Khmer Sculpture*. London: Thames & Hudson, 1965.

Goloubew, Victor. *Le Phnom Kulen*. Hanoi: Cahiers de la Societe de Geographie de Hanoi, 1924.

Groslier, Bernard Philippe. *The Ancient Civilization of Indo-China*. Geneva: Nagel, 1970.

_____ . 'Les Fouilles du Palais Royal d'Angkor Thom'. *Proceedings of the 23rd International Congress of Orientalists*. London: Royal Asiatic Society, 1957.

_____ . *Indochina*. Cleveland: The World Publishing Co., 1966.

_____ . *Indochina: Art in the Melting Pot of Races*. London: Methuen & Co., 1962.

_____ . 'Les Collections Khmeres du Musee Albert Sarraut a Phnom Penh', *Ars Asiatica* 16 (1927), pp. 123–126.

Groslier, Bernard P. and Arthaud, Jacques. *Angkor*. New York: Frederick A. Praeger, 1957.

_____ . *Angkor: Art and Civilization*. Washington: Frederick A. Praeger, 1966.

Groslier, George, ed. *Arts et Archeologies Khmeres*. Paris: Societe d'Editions Geographiques Maritimes et Coloniales, 1921–1923.

_____ . 'Objets Anciens Trouves au Cambodge'. *Revue Archeologique*, IV (1916). pp. 129–139.

_____ . *Recherches sur les Cambodgiens*. Paris: Librairie Maritime et Coloniale, 1921.

Hall, D. G. E. *A History of South-East Asia*. London: MacMillan, 1976.

Hirschen, Jean, ed. *Oriental Art: A Handbook of Styles and Forms*. London Faber and Faber, 1979.

Huet, Clement. 'Les Pots a Chaux; Les Pipes a Eau'. *Bulletin des Musees Royaux d'Art et d'Historie* 4 (July-August 1941), pp. 74–84.

MacDonald, Malcolm. *Angkor*. Great Britain: Jonathan Cape, Donald Moore, 1960.

Marchal, H. 'La Collection Khmere, Musee Louis Finot', *Bulletin de l'Ecole Francaise d'Extreme-Orient* (1939), pp. 145–160.

Medley, Margaret. *A Handbook of Chinese Art*. Singapore: Eastern Universities Press, 1973.

Parmentier, H. 'Complement a l'Art Khmer Primitif'. *Bulletin de l'Ecole Francaise d'Extreme Orient*. XXXV (1935), pp. 1–158.

Pelliot, Paul. *Memories sur les Coutumes du Cambodge de Tcheou Ta Kouan*. Paris: Librairie d'Amerique et d'Orient, 1951.

Rawson, Philip. *The Art of Southeast Asia*. New York: Frederick A. Praeger, 1967.

Richards, Dick. *Thai Ceramics*. Adelaide: Art Gallery of South Australia, 1977.

Silice, A. and Groslier, G. 'La Ceramique dans l'Ancien Cambodge', *Arts et Archeologie Khmers*. Vol. I. Paris: Societe d'Editions Geographiques, Maritimes et Coloniales, 1921–23, pp. 31–63.

Silice, A. and Stoekel, Jean. 'Materiaux pour Servir a l'Etude de la Ceramique au Cambodge', *Arts et Archeologie Khmers*, Vol. I. Paris: Societe d'Editions Geographiques, Maritimes et Coloniales, 1921–23, pp. 149–53.

Sorsby, William. *South-East Asian and Early Chinese Export Ceramics*. London: William Sorsby Ltd., 1974.

Spinks, Charles Nelson. *The Ceramic Wares of Siam*. Bangkok: The Siam Society, 1978.

Stern, P. 'Un nouveau style Khmer au Phnom Kulen', *Academie des Inscriptions et Belles Lettres: Comptes Rendus des Sceances* (1937), pp. 333–339.

Vallibhotama, Srisakra. 'The Khmer Ceramic Kilns of Ban Kruat and Their Preservation'. *Our Future* (January-February 1974), pp. 30–3.

Willetts, Williams. *The Ceramic Art of Southeast Asia*. Singapore: Southeast Asian Ceramic Society, 1971.

Southeast Asian Ceramic Society

Formed in 1969, the Southeast Asian Ceramic Society's purpose is "to widen appreciation and acquire knowledge of the ceramic art of China and countries adjacent to China, especially those of Southeast Asia". To pursue this aim, local members meet for periodic discussion, to hear talks by experts and to study and compare 'pots'.

Benefiting from the advantageous location of Singapore as a gateway to the countries of Southeast Asia, members are able to tour ancient kiln sites and visit excellent museum and private collections. They also have access to a variety of interesting antique markets.

The Society maintains correspondence with international museums, libraries and universities and through its ongoing programmes of talks, exhibitions, translations from Chinese archaeological journals and publications, it distributes information and promotes interest covering a broad range of ceramic studies.

PUBLICATIONS

1971 *Ceramic Art of Southeast Asia*
1974 *Chinese White Wares*
1978 *Chinese Blue and White Ceramics*
1979 *Chinese Celadons and Other Related Wares in Southeast Asia*
1981 *Khmer Ceramics 9th–14th Century*

New Discoveries in Chinese Ceramics — Chinese Translations, Nos. 1, 2, 3.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