

KHOK PHANOM DI: MORTUARY DATA AND SOCIAL INFORMATION

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INTRODUCTION

The archaeological site of Khok Phanom Di, which lies in the Bang Pakong valley about 22 km inland from the head of the Gulf of Thailand to the east of Bangkok (see also Higham, this volume), covers about 5 hectares and rises to a maximum height of 12 meters above the surrounding plain (Higham *et al.* 1986-7; Higham and Bannanurag 1990a; 1990b). The plain comprises marine clays laid down when the sea level was higher by 2-5 meters than at present (Geyh *et al.* 1979; Tjia 1980). Bernard Maloney has extracted a series of pollen cores from the vicinity of the site. His pollen diagrams reveal that the dominant vegetation during the formation of the plain was a *Rhizophora*-dominated mangrove shore. A series of nine AMS dates from Oxford University has shown that these clays were formed during a period of Holocene high sea level between 6000 and 1500 BC (Maloney *et al.* 1989). These dates confirm other dates which had been obtained previously from the clays of the Bangkok Plain (Van de Kevie 1971).

There are two or three episodes within this period when sharp reductions in mangrove species and rises in grass pollen took place. These are associated with increases in the quantities of charcoal fragments, which are thought to reflect burning through human interference. If this were the case, then some form of modification of the habitat around Khok Phanom Di was already underway during the 5th millennium BC.

The site of Khok Phanom Di itself was formed on top of these marine clays, commencing during a marine still-stand which began about 2000 B.C. The excavation revealed a 6.80 m deep cultural deposit. The lowest layers, about 30 cm thick, contained thick ash spreads, shell middens, caches of stone adzes, stones used to burnish pots and clay potters' anvils. It is evident that there was much forest reduction associated with the making and firing of pottery vessels at this time.

Above these lowest layers, a series of layers totalling about 5.30 m thick produced 153 excavated burials, discrete shell middens, pottery, biological remains, postholes, charcoal and ash lenses. The burials from these layers, to be discussed below, have been dated between 2000 and 1500 B.C. The uppermost meter of deposits in the site contained no

burials. At this time the sea receded from the site and the excavated area was used for pottery making.

THE MORTUARY SEQUENCE

The 1985 excavation resulted in the recovery of 153 inhumation burials of all ages, from neonates to adults of both sexes. The deepest grave, B153, was found cut at a depth of 6.51 m below datum, and the latest (B1) at 1.20 m. Therefore, the mortuary sequence was encompassed within a stratigraphic build-up of 5.31 m. After the plotting of stratigraphic discontinuities it was divided into 7 phases. Mortuary phase 1 contained six burials. Each was isolated and devoid of grave furniture except for B152, which contained 12 shell beads. The transition from mortuary phases 1 to 2 was signalled by the commencement of the tradition of clustering graves together; the resulting clusters have been labelled A to I.

These clusters formed a chequer-board pattern with regular intervening spaces and comprised the remains of men, women, children and infants. Detailed examination of their layout has revealed the presences of family groups being buried together through time. On several occasions infants were buried with adult females, and children in the same graves as adults.

Mortuary phases 2, 3 and 4 are distinguished because of apparent hiatuses in the sequence of interments. Mortuary phases 4, 5, 6 and 7, however, are distinguished from each other more by distinct changes in behavior. Mortuary phase 5 comprised four outstandingly rich burials. Mortuary phase 6 saw two groups of burials, one rich and the other poor in terms of the artefacts buried with the dead. Mortuary phase 7 followed mortuary phase 6 after an interval in another part of the site.

MORTUARY BEHAVIOUR

From the beginning to the end of the mortuary sequence, the mortuary rite generally remained the same. Basically, a grave was excavated, of a size sufficient to receive the corpse, and oriented with the head pointing to the east. Within the grave the body lay on its back with the hands usually by the side and the legs straight. In some cases traces of a wooden bier under the body have survived. In the majority of cases the body was prepared first by covering it with red ochre and was then wrapped with a shroud made of a beaten fabric. Grave goods were placed in several graves but there is no uniformity to the quantity and type of grave goods interred with the dead. From the earliest to the latest burials shell beads were present. Other grave goods included pottery vessels, shell jewellery items, bangles, turtle carapace ornaments, burnishing pebbles and clay anvils. Some items, for example pottery vessels and turtle carapace ornaments, were often found deliberately smashed and placed with the dead.

An unusual feature of the stratigraphy at this site is the rapidity of accumulation. This reflects the intensity of the ritual activities associated with burial. We find, for example, evidence for the digging of pits and the filling of them with food remains. There were also numerous ash and shell middens which are seen as the result of funerary feasting. The result of this rapid build-up was that bodies were often interred directly over ancestors.

SOCIAL IMPLICATIONS

In her analysis of the Khok Phanom Di human bones, Choosiri (1988) has demonstrated that hereditary genetic abnormalities occur through generations in particular family lines. The two most enduring clusters, C and F, also show consistent, slightly different, patterns of ritual tooth evulsion. Furthermore, the relationship between pelvic pregnancy scarring in the women is always consistent with the number of infants interred alongside them. If it is accepted that these grave clusters represent the burial activities of individual descent groups through time, then the possibility of examining social organization in a particularly detailed manner exists. This possibility is enhanced by the variable quantities of grave goods found within the 153 burials recovered.

There are two enduring burial clusters in the site, namely clusters C and F. Other groups were, it seems, less successful, and presumably failed to reproduce sufficiently actively to ensure their continued existence. Infant mortality in mortuary phases 2-4 was in fact very high, with over half of the excavated graves belonging to infants. Moreover, the inhabitants of this site also suffered from debilitating ill health (Tayles and Houghton, pers. comm.).

The calculation of grave wealth by a method of scoring points assigned to each artefact type (Winters 1968) has shown that the wealth of individual lineages fluctuated markedly during these earlier generations. There was no continuous upward progress in wealth, and neither did any group attain evident dominance over others. Rather, the situation oscillated. Infants were sometimes interred with a relatively rich set of goods, but on such occasions so were their presumed parents. The ensuing generation, however, may well have been relatively poor, while a contemporary family in another cluster achieved wealth in turn. Graves at the end of mortuary phase 4 were certainly no richer, and were likely to have been poorer, than graves from the beginning of phase 2.

The situation changed dramatically with mortuary phase 5. Set alongside the burial of a headless male in a narrow grave was the interment of a woman with outstanding wealth (burial 15). Her grave was 3 metres in length, and she was interred under a mound of clay cylinders thought to represent stored potting clay. Her grave goods included 120,000 shell beads, two horned shell discs, a shell bangle, eight pottery vessels and a shell headdress. Significantly, a shell beside her right ankle contained two burnishing stones, alongside a clay anvil. A couple of paces to the north lay another grave containing a 15 month-old infant. This burial shares many of the features just described: a mound of clay cylinders, thousands of shell beads, a shell bangle and a miniature anvil beside the right ankle. It has been concluded that this was probably the daughter of the rich female and that both belonged to the lineage of cluster F.

Mortuary phase 6 also brought major changes. A rectangular structure was raised over burial 19, that of an adult woman belonging to the lineage of cluster C. While relatively wealthy, she was far poorer than the woman of burial 15. Alongside her lay a second woman and a child, the latter interred with a large disc of *Tridacna* shell beside the head. In front of the rectangular structure there was a row of burials belonging to the lineage of cluster F, that is, to the descendents of the rich woman in burial 15. Yet they were

accompanied by very sparse mortuary furniture. This phase is the last in which we can trace these descent lines, although there were some later burials of mortuary phase 7 which belonged to the period just before the cemetery was abandoned as the sea receded and as estuarine resources became no longer locally available.

The superpositions and clustering of graves have allowed the reconstruction of possible genealogies for each cluster. These reveal a close numerical balance between men and women in the first half of the sequence. This was followed, particularly in cluster C, by a marked predominance of women. Indeed, so marked is this change that we have argued elsewhere for a bias towards matrilineality in the social structure of the site (Higham and Bannanurag 1990b). We also find a distinction between grave goods associated with men and women after late mortuary phase 3. Men alone were buried with turtle carapace ornaments. Women and children, however, were accompanied by clay anvils.

It is felt that this distinction holds a key to an understanding of the changing social organization at Khok Phanom Di. We know that the occupants participated in a far-flung exchange network (Pisnupong 1988). Khok Phanom Di, with its nodal estuarine coastal position, could have dominated this network. It is argued that the fine pottery vessels made by the women of Khok Phom Di played a major role in this exchange. The skills necessary to manufacture such ceramic masterpieces would have allowed the women to attain high status, but the skill was a personal attribute. While steps may have been taken to tutor daughters in these skills, not all succeeded. Death often intervened, for example, at which point we find daughters provided with an endowment of grave goods indicative of the parents' personal status. Because of their important productive role, it seems highly unlikely that skilled young women would have been allowed to leave the community as marriage partners. Compatible with this interpretation is the potential for women to gain prestige within what we have called a "Big Woman" social system. Of course, men may have attempted to control or channel the energies of their successful sisters or spouses, and there is a tantalizing glimpse of this in a very rich male grave in mortuary phase 5. However, our evidence at present stresses female success in overall terms of grave wealth and placement.

This system should be considered in conjunction with other aspects of community activity, not the least of which is subsistence. We find that much food was collected, trapped or netted. Apart from the dog, there were no domestic animals (and no pigs). We are still uncertain as to the status of rice. Yet there is no clear-cut dominantly male role in the subsistence economy.

In conclusion, Khok Phanom Di has produced evidence for a rich marine adaptation on the mainland of Southeast Asia, but it is only a beginning. Further research is planned which, it is hoped, will provide a contrast between the rich cemetery of Khok Phanom Di and contemporary settlements in its hinterland. We also face the riddle of why such a central exchange center fails to reveal any knowledge of copper or bronze when mining was evidently underway in the Khao Wong Prachan Valley to the north by the third millennium BC (Natapintu 1988). Already, shell jewellery items similar to those from

Khok Phanom Di have been reported from several sites in the Khao Wong Prachan region. These include I-shaped shell beads from Tha Kae, H-shaped beads from Huai Yai, and a shell headdress from Khok Charoen (Hanwong 1985; Natapintu 1988; Ho 1984).

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