

DATING "DVARAVATI"

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ABSTRACT

Dating is fundamental to archaeology. It provides a basis for comparing sites, making analogies and developing theories about the past. Yet adequate dating of so-called Dvaravati sites of central Thailand is uncommon. Typical artefacts of the Dvaravati period may be assignable to a period varying over an incredibly long period of time – from the last centuries BC to as late as the early centuries of the 2nd millennium AD. This paper highlights some of the difficulties with dating Dvaravati archaeological assemblages. It provides some recent radiocarbon dates for the site of U-thong in central Thailand and considers in brief the implications of these dates for studies of the Dvaravati period.

Compared to some other regions of the world, Southeast Asia's archaeological past is not well known, despite recent advances. There are far fewer archaeological sites that are well-documented and well-dated in Southeast Asia than in Europe or North America. In one sense, this makes the study of Southeast Asian archaeology quite exciting. However, it can obviously also be a source of frustration. Obtaining reliable chronologies for Southeast Asian sites assigned to the period between 200 BC and AD 1000 is particularly difficult. Often, when radiocarbon dates are available, they tend to be single uncorroborated dates or have error ranges that are too high to be particularly useful when calibrated. Even relative chronologies with good chronological diagnostic markers are difficult to find.

Sawang Lertrit recently highlighted this point in his PhD dissertation on a ceramic chronology for central Thailand (Lertrit 2001). At the core of his thesis was the concern that, although there have been significant and ambitious studies over the last two decades into a range of theoretical issues in Thai archaeology, the careful reconstruction of chronologies seems to have been treated as being of secondary

significance. This is unfortunate, because the development of fine-grained chronologies is essential for archaeological research. It is difficult to draw precise conclusions and to make reasonable comparisons between sites and assemblages if they can only be assigned to a fairly general period of the past.

There are a number of reasons that precise chronologies have not yet been developed for Thailand (and indeed much of Southeast Asia) for the period between 200 BC and AD 1000. One important factor is that this period has not attracted significant attention amongst archaeologists until relatively recently. Limited access to radiocarbon dating facilities is undoubtedly another significant problem.

In my current research, I am examining material from the site of U-thong in central Thailand. It is a site that appears to fall within this "missing" period. U-thong is often referred to as a so-called Dvaravati site, "so-called" because the use of the term *Dvaravati* to describe archaeological sites and assemblages in central Thailand poses its own particular difficulties in relation to our understanding of the chronology for this part of the world.

THE PROBLEM WITH DATING "DVARAVATI"

There are a number of sites in central Thailand characterised by similar material cultures that are generically referred to as "Dvaravati". Finds include sherds of open-fired, locally made, earthenware, typically taking the form of carinated pots, water jars, clay lamps and spouted vessels. Phasook Indrawooth has described and illustrated the typical ceramic inventory of Dvaravati sites in some detail in her *Index of Dvaravati Pottery* (Phasook 1985). The Dvaravati sites are often moated and sometimes show evidence for the practice of Buddhism and Hinduism, at least in later phases of their occupation. They are characterised by the presence of iron implements, glass and semi-precious stone beads, coins bearing Indian-derived images and, in some cases, heavily weathered brick monuments.

There are therefore a set of general markers that are usually associated with a Dvaravati archaeological culture, and there are quite a number of these sites throughout central Thailand. Anyone who has compared so-called Dvaravati assemblages from different sites in central Thailand will immediately see the common connections. However, it should be noted that many of the typical artefacts and characteristics associated with the "Dvaravati" culture are generally similar to other sites of the first millennium AD in Southeast Asia¹.

In terms of chronology, Dvaravati sites are commonly assigned to the period from the 7th through to the 11th century AD. However, the chronological period to which the term should be applied is rather problematic. Not only is the period from the 7th to the 11th centuries rather arbitrarily decided, but the term "Dvaravati" tends to be used interchangeably to describe an art style, or an actual historical kingdom, or an archaeological culture, without any real proof that any of these actually correlated with each other.

Some sites having what could be described as typical Dvaravati archaeological assemblages have been dated, using radiocarbon, to a much earlier period than the 7th century AD. For instance, most published dates for both Chansen and U-thong, two sites taken to be characteristic for Dvaravati-type assemblages, range from the last centuries BC to before the 7th century AD (Bronson 1976; Loofs 1979). In fact, it is quite difficult to find any radiocarbon dates for so-called Dvaravati sites that fit well between the 7th and 11th centuries AD. In addition, "Dvaravati" as a discrete polity or kingdom is not well established in the historical record. Some Chinese records indicate that there was a Dvaravati kingdom that existed during the 7th century. A number of coins found throughout central Thailand have the word "Dvaravati" inscribed on them, and these are dated epigraphically to around the 7th century. However, there does not appear to be strong historical evidence for a Dvaravati kingdom after the 7th century (Brown 1996), even though the term "Dvaravati" certainly appears to have retained an importance later than the 7th century, as it was included in the official names of the Thai capitals at both Ayutthya and Bangkok.

From an archaeological perspective, it is rare for the chronology of a Dvaravati site to be established in detail. Furthermore, typical Dvaravati-style ceramics are not particularly distinctive. The basic forms and styles that are assigned to the Dvaravati period may have persisted for very long periods. Consequently, the extent to which any particular so-called Dvaravati sites may have been contemporary, or members of a single polity, is always uncertain. All of this, of course, only serves to highlight the importance of obtaining (and publishing) chronological information about Dvaravati archaeological assemblages.

THE SITE OF U-THONG

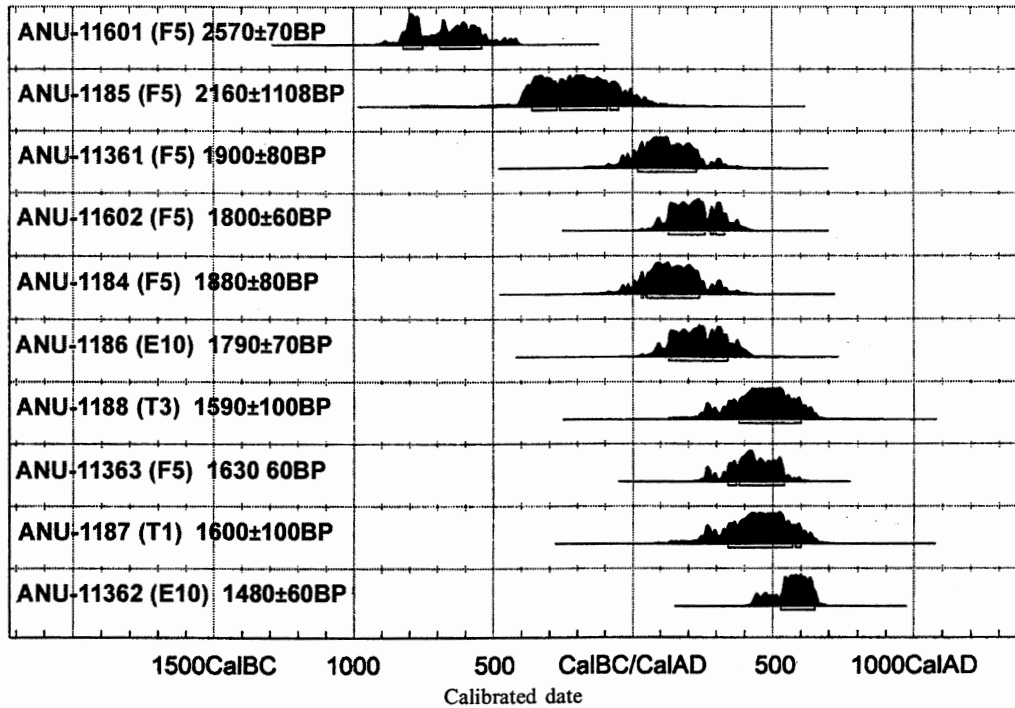
U-thong was one of the first Dvaravati sites to be excavated and studied archaeologically. The material that I have been examining comes from excavations carried out between 1967 and 1970 by the Thai-British archaeological expedition (Loofs 1970). For various reasons, the excavators were never able to analyse fully the excavated material from U-thong (as explained by Loofs-Wissowa 1997). It has remained in storage, partly in the United Kingdom, and partly at the Australian National University. I have been fortunate to have access to the material stored at the ANU in connection with my MA dissertation research.

U-thong displays the typical features that have already been mentioned for "Dvaravati" sites. It was a moated site with earthen walls. There are decaying brick monuments in and around the moated area, and also numerous fragments of typical "Dvaravati" ceramics. Iron implements were recovered in nearly all levels of the excavations, including some bimetallic bronze coated iron fragments in one trench. The area excavated was a habitation site with evidence of slag from metal working, numerous spindle whorls, glass beads, bricks, plaster and worked stone.

RADIOCARBON DATES FOR U-THONG

It has been known for some time that the settlement at U-thong probably extended back in time well before the 7th century. Loofs-Wissowa published radiocarbon dates obtained soon after the Thai-British expedition had completed its excavations (Loofs 1979). To these can now be added further dates from my research. These are consistent with those previously published, providing both additional information and important corroboration for the existing series. Calibrated date ranges for all radiocarbon dates for the Thai-British excavations at U-thong are shown in Figure 1.

One point that becomes immediately obvious is that nearly all of the dates range from the 1st to 7th centuries AD, and potentially extend back further in time before the common era. This is not to say that the site was abandoned after the 7th century. The upper most level of the excavations did not produce secure carbon samples that could be submitted for dating. Furthermore, the excavations covered only one small part of the site. Significantly, however, the dates reinforce that caution needs to be exercised before assuming that "Dvaravati" archaeological assemblages should simply be assigned to a period between the 7th and 11th centuries AD. Ceramics of the same form, style and decoration as those illustrated in Phasook's *Index of Dvaravati Pottery* are associated with dates of the early centuries AD. The dates are very consistent with those from Chansen, associated with a similar material culture (Bronson



Atmospheric data from Shaw et al. (1998); Ox Cal v3.5 Bronk Ramsey (2000); cub r:4 sd:1prob usp[chron]

Figure 1: Calibrated dates for charcoal samples from U-thong²

1976). Typical items within “Dvaravati” assemblages may therefore have been in circulation over a very long period.

While it is beyond the scope of this paper to consider the context and nature of each dated sample, the charcoal submitted for dating was generally taken from amongst different layers of brick and plaster rubble that appeared to extend across the site. This will hopefully prove useful in providing chronological markers across the different trenches.

My preliminary observations on the ceramics that correspond to each of the dates is that, for the most part, there is often not a great deal to distinguish different layers in terms of form and decoration. Most are coarse kitchen wares from habitation contexts. Most of the carbon samples come from one trench (F5), but there are also some from trenches E10, T1 and T3, for cross site comparison. Most significantly, the dates shown in Figure 1 are all relatively consistent, having regard to the depths at which the samples were found.

NOTES

1. Bronson (1976) and Loofs (1979) have both noted the similarities in items found at the Dvaravati sites of Chansen and U-thong, and the site of Oc Eo in South Vietnam. Gutman and Zaw Min (2001) has noted the similarities in items of material culture of the early centuries AD between Arakan in Myanmar and other southeast Asian sites, including those of central Thailand. For a detailed

discussion of the archaeological assemblages found across different southeast Asian sites of the late iron age and protohistorical period see Higham (2002).

2. Samples ANU 1184-88 were submitted by Dr Loofs-Wissowa and have been previously published in Loofs (1979). I submitted samples ANU 11601-2 and 11361-3 for dating. Two samples that I submitted for dating returned ambiguous results and are not recorded in Figure 1. They are ANU 11603 (11,180±80 BP) and ANU 11604 (5610±80 BP), both clearly too old to refer to the excavated Iron Age material. Radiocarbon dates have also been published by Natapintu from excavations at U-thong, namely 2300±310, 1790±220 and 1550±220 BP (reprinted in Lertrit 2001:231). While those uncalibrated dates are consistent with the dates in Figure 1, the very large error ranges diminish their usefulness, particularly when those dates are calibrated.

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BARRAM: DATING "DVARAVATI"

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