

THE DVARAVATI GAP—LINKING PREHISTORY AND HISTORY IN EARLY THAILAND¹

Ian Glover

Institute of Archaeology, University College London; ian.glover@mac.com

ABSTRACT

The author's principal research has mainly been in the field of Southeast Asian prehistoric archaeology rather than art history but one topic that has preoccupied me since I first excavated between 1980–1985 at the site of Ban Don Ta Phet in west-central Thailand is the relationships between the late prehistoric Iron Age cultures of Southeast Asia and the Indian influenced Buddhist and Hindu civilizations of the early first millennium of the present era and especially the Dvaravati Civilization of Central Thailand which occupied the same region as the late prehistoric Iron Age communities—albeit after an interval of several hundred years.

INTRODUCTION

Connecting the Indian-influenced historic cultures of the early to mid-1st millennium CE in Southeast Asia to their prehistoric antecedents has, despite decades of research, proved a difficult task and I can think of no case more intractable than the Dvaravati Culture of Thailand, which is traditionally dated to c. 600 – 1000 CE.² My own research has been more in the field of Southeast Asian prehistoric archaeology rather than in historical archaeology, but one topic that has preoccupied me since I first excavated at the site of Ban Don Ta Phet in west-central Thailand in 1980 is the relationship, or more precisely, the lack of evidence for continuity between the late prehistoric Iron Age cultures of Thailand and the Indian-influenced Dvaravati tradition. Making connections between the two has proved to be very difficult for a number of reasons.

Sites of the late prehistoric, mainly iron-using, communities throughout most of Thailand are often marked by substantial cemeteries in which the dead were buried with a wide variety of grave goods, including pottery, iron and bronze weapons and ornaments, bronze containers and many personal ornaments made, for the most part, from glass and semi-precious stones. In some areas, especially in the northeast, settlements are identified by substantial mounds marking

centuries of settled occupation with surrounding ditches or moats; elsewhere settlements, in contrast to the burial grounds, are more difficult to recognize.

Dvaravati sites, on the other hand, are recognized by the remains of brick stupas and other religious buildings, and some may have substantial surrounding walls and moats covering many hectares, but settlement areas have seldom been investigated. In these sites inhumation burials are rare and the few mentioned in reports such as at P'ong Tuk (Clarke 2009) and at Dong Mae Nang Muang (Murphy and Pongkasetan 2010) are not yet linked with certainty to the period and culture of the Dvaravati monuments.

These problems come from the different research methodologies used by field archaeologists and art historians, the nature of the materials studied (pottery, metal finds, burials, stratified settlement refuse) and the reliance on radiometric dating methods on one hand, and standing monuments, sculpture, stuccos, painting, inscriptions, and stylistic comparisons on the other. This is, of course, to emphasize the differences rather than the methods and approaches shared by prehistoric and art historical archaeologists, and some, such as Phasook Indrawooth, have tried to combine the methods of both disciplines in their research into Dvaravati.

What is meant by Dvaravati has been discussed in some detail in a number of books (Dupont 1959; Quaritch-Wales 1969; Indrawooth 1985, 1999; Saraya 1999; Skilling 2003, 2009; Murphy and Pongkasetan 2010; Gallon et al. 2009) and in the catalogue of a recent exhibition at the Musée Guimet Paris (Baptiste and Zéphir 2009). Here, I will comment only that the name, as it is used today, refers more to an art-historical style than to a coherent culture, tradition or civilization known from abundant material remains and historical records such as the Han Civilization or even Angkorian Cambodia. Indrawooth (1985, 2004) has described in some detail with many illustrations what is known of Dvaravati and the preceding cultures, including the history—the little that is known—and Dvaravati's external links, religions, and social

organization; Recently, she takes a broader historical and field-archaeological approach to the nature of Dvaravati culture than do most Dvaravati scholars (Indrawooth 2009:31-45).

Even from the little that is known, it is clear from that the Dvaravati period, however dated, marked a period of cultural growth, social complexity and incipient urbanization ranging from locations such as Thung Sethi in the upper peninsula, north to Nakhon Pathom, U-Thong and then across the central plains into the Korat Plateau in the northeast. In these areas substantial sites with concentrations of urban dwellers, more advanced technologies and industries emerged. These developments had been stimulated by a long period of late prehistoric internal trade networks and the arrival of new concepts and materials through the Thai peninsula sites such as Tha Chana and Khao Sam Khao on the eastern coast, and Khuan Lukpad and Phu Khao Tong among many others on the Andaman coast, where they were linked across the Bay of Bengal to the emerging early historic polities and the intellectual world of South Asia.

Dvaravati is properly regarded as the first historic culture of present-day Thailand and has been roughly dated, mainly by art historical comparisons with late and post-Gupta India, to c. 600 – 1000 CE. There is also some very limited dating evidence from palaeography and occasional references in Chinese sources to support this. However, it has been argued (Barram 2003; Barram and Glover 2008), on the basis of admittedly too few field excavations at early and pre-Indic-influenced sites in Cambodia, Vietnam, Indonesia and Burma, that a revision of the dates for the first appearance of the Dvaravati cultural tradition in Thailand, or even a re-appraisal of what comprises Dvaravati, is long overdue. Many of these recently excavated sites show that Indian cultural influences were established in many other regions of Southeast Asia well before the 7th century CE.

Despite our knowledge of the distribution of sites called “Dvaravati,” several writers such as Chihara (1996:66) have noted that “it is quite impossible to piece together a coherent diachronic cultural history for the region in the period prior to the political unification of present-day Thailand” and Brown (1996:xxi) has also pointed out that:

Dvaravati is a culture that lasted some 400 years, from the seventh through the tenth century C.E. It encompassed most of present-day Thailand and [while it] is associated with extensive artistic and architectural remains ... it is almost totally without a history. Not one monument or art object is dated. There are no indigenous texts associated with Dvaravati ... the only [other] written information regarding the culture comes from some brief references in Chinese histories.

In earlier articles (Barram 2003, Barram and Glover 2008), we observed that there have been too few systematic

attempts to investigate and to date Dvaravati culture from the results of careful sub-surface field archaeology, and, excepting the few radiocarbon dates published by Bronson (1976), Watson and Loofs (1967), Welch and McNeill (1989) and more recently at Keet-in, the dates obtained are generally earlier than indicated by the art historical dating.³

Thus, most of the published radiocarbon dates associated with Dvaravati cultural items tend to date to an earlier period. The results from dated samples from well excavated contexts obtained by Watson and Loofs in the course of their excavations at U-Thong strongly suggested to us that many elements of non-art and structures traditionally associated with Dvaravati, and especially the ceramics as described by Indrawooth (1985), are aspects of Dvaravati Culture that should be pushed back at least 200 years before the generally accepted beginning date of around 600 CE.⁴

RECENT EXCAVATIONS IN CAMBODIA, VIETNAM, MYANMAR AND JAVA

Dvaravati Culture, and especially its dating, given the paucity of direct evidence from sites in Thailand, must also be understood in the context of recent field investigations of early Indian-influenced polities in Cambodia, Vietnam, Myanmar and Indonesia, before considering the “new” evidence for dating Dvaravati Culture at U-Thong.

Cambodia

Excavations at Angkor Borei in southeastern Cambodia by a joint University of Hawai’i-Cambodian team show that occupation of a typical pre-Angkorian Khmer culture in the ancient settlement starts no later than the 5th or 4th centuries CE and overlies a cemetery with inhumation burials dated to between c. 200 BCE–200 CE (Stark 2004:99). The newly excavated late prehistoric site of Prohear in Pre Veng Province (Reinecke et al. 2009) shows how widespread were the external trade contacts of Cambodia at the beginning of Cambodia’s incorporation into pan-Asian trading networks around the beginning of the present era, in the same way the Kao Sam Kaeo and Ban Don Ta Phet do for present-day Thailand.

Vietnam

Just across the present-day border into Vietnam, renewed work by Vietnamese and a joint French-Viet expedition has expanded our understanding of the Funan Culture as set out in the classic reports by Malleret (1959–63). Excavations at the Oc Eo/Ba Thê complex have revealed a Phase I settlement dating to the mid-1st – mid-3rd centuries CE with many India-related materials such as kendis and roofing tiles with brick buildings appearing in Phase II during the 3rd century, marking the transition to history in the area (Manguin 2004:289-94). These flood-plain settlements at Oc Eo

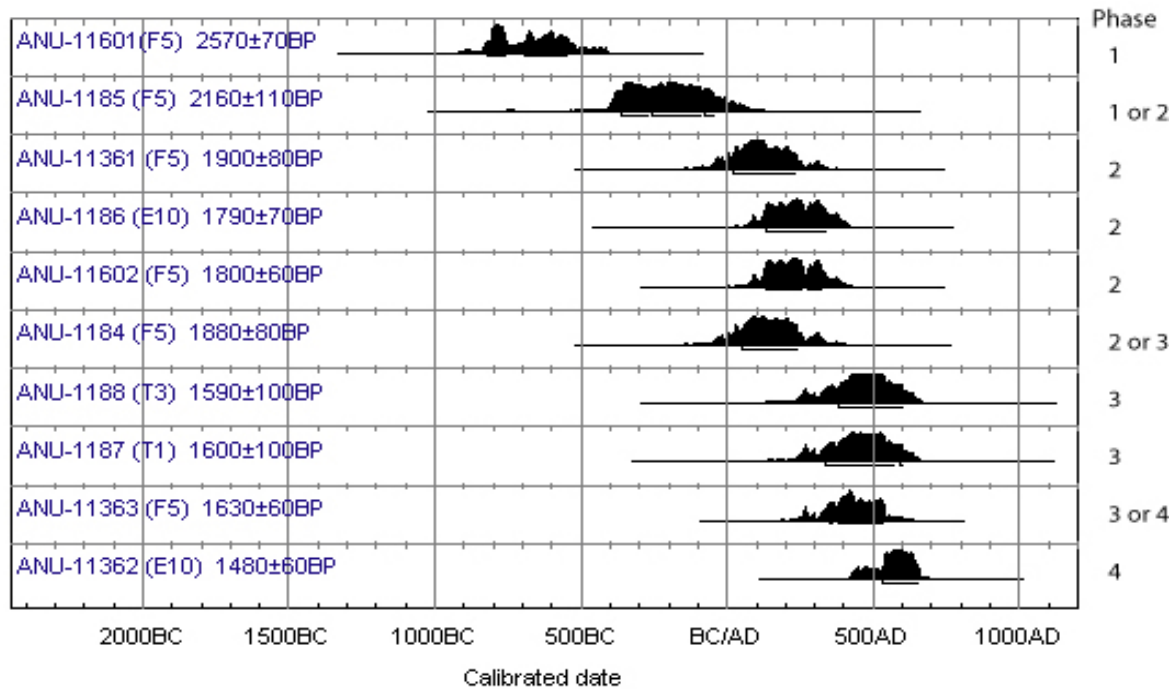


Figure 1: Radiocarbon dates from U-Thong (from Barram 2003)

seemed to have flourished in succeeding years only to be abandoned by the mid-7th century (Manguin 2004:298–300) soon after the traditional date for the establishment of Dvaravati Culture in Thailand.

Likewise, in central Vietnam, excavations at and around Tra Kieu between 1993 and 2003 show that occupation at this large Cham urban site started no later than the 1st–2nd century CE (Nguyen et al. 2006:218), with distinctive Indic-style ceramics and brick structures following soon after. We ascribe the slightly earlier and nearby site of Go Cam to the polity known from Chinese sources as Lin Yi, a transitional phase between the late prehistoric Iron Age Sa Huynh Culture and the emergence of Champa (Southworth 2004: 211–16; Yamagata 2007). The emergence of the historic Champa kingdoms is generally dated to the mid-5th century CE as marked by the Sanskrit inscriptions of Bhadravarman (Southworth 2004:221–230). Field archaeology at Tra Kieu extends the life of this urban site back several hundred years. Taking into account the new dating from Tra Kieu, we cannot rule out that the earlier, although often disputed, 3rd century date for the Vo Canh inscription may be correct (Southworth 2004:219). In central Vietnam field archaeology has, for the moment, come closer to bridging the gap between prehistory and history than elsewhere in Southeast Asia.

Myanmar (Burma)

Like Dvaravati in Thailand, the Pyu or Tircul culture of the

central Irrawaddy Valley is seen to mark the start of Indianized, urban civilization; and this is known best from brick temple remains, cemetery material, a few un-translated inscriptions and some statuary. As with Dvaravati a reliable internal chronology is mostly lacking and this despite the fact that there is now the beginning of a reasonable chronology for Bronze and Iron Age sites between c. 700 BCE – 100 CE (Pautreau 2007).

The best reported early historic site, Beikthano, was first excavated long ago (Aung Thaw 1968:61–62) and the few radiocarbon dates which seemed to place the occupation between the 1st and 5th century CE (Gutman and Hudson 2004: 158) have been regarded as unreliable when the evidence for coinage is taken into account (Cribb 1981). Another important Pyu urban site, Halin, was re-excavated in 1995 and four calibrated radiocarbon dates range from 60 to 870 CE (Gutman and Hudson 2004:160), but there is no indication as to whether they relate to a stratified sequence of occupation.

More recently Hudson and Lustig (2008:273–274) point to the long continuity of occupation at Sriksetra where, on the basis of comparisons of the “warrior stelae” with images from Sanchi and Amaravati, Indian religious cults may have been incorporated in the early centuries of the present era.

At Halin, excavations reported by Hudson (2010) also show a long continuity, although not yet dated, of prehistoric occupation in and around the enormous walled urban site through sequences of Neolithic, Bronze Age and Iron Age

Phase 1	layers 11 – 9	Coarse cord-marked, round base vessels, small, thin, organic temper with black cores, some red-slipped, no carinated vessels
Phase 2	layers 8 – 7	Similar vessels but increasingly less organic temper, spouted vessels (kendis) and clay lamps, carinated vessels, and some with wave and line motifs, buff ware with incised and punctate marks
Phase 3	layers 6 – 4	Continuation of Phase 2 pottery, use of wheel, trend towards higher fired red wares
Phase 4	layers 3 – 2B	Higher quality pottery, more consistent firing, vessels more standardized, more flat bases and use of fast wheel evident, bigger range of decoration, painting with red and white and more footed vessels
Phase 5	layers 2A – 51	A thin (30-35 cm) layer with Phase 4 ceramics mixed with modern glazed wares

Table 1. Phases, layers and main material finds at U-Thong (from Barram 2003).

burials—some within the walled historic city. At some stage the tradition of inhumation burial changes to cremations, as at Beikthano, with ashes deposited in elaborately shaped pottery urns. Whether this change marks the arrival of Hindu-Buddhist ideologies and rituals and the construction of the brick temples is not yet clear, and there are no absolute dates for these phases of occupation.

In an assessment of all the relevant data on Burma, Hudson (2004:129) emphasized “the need for caution in interpreting Beikthano where the recording and publication of the stratigraphic location of excavated items has not been as high a priority as the uncovering and identification of structures and works of art.” However, Hudson comments that “The radiocarbon dates for Beikthano and Halin taken as a group look convincing from the 2nd century CE onward...’ and that ‘the 2nd to 4th century CE might provide a point at which to consider the first phase of the urban system [in Burma] became active” (Hudson 2004:148).

Indonesia – Java and Sumatra

Excavations at Batujaya near the north coast of Java and east of Jakarta, by a joint French-Indonesian team (Manguin and Indrajaya 2006), show that the construction of a number of small brick Buddhist stupas followed a late prehistoric Buni Complex occupation of the early centuries CE. This complex already showed links with eastern India in the form of rouletted ware bowls and other ceramics accompanying inhumation burials. Although the first, Phase A building (a stupa base) at Batujaya cannot at present be dated more precisely than between the 5th and 8th century (Manguin and Indrajaya 2006:255). The evidence fits well with the historical records of a 5th century polity called Tarumanegara known from nearby inscriptions and can perhaps be correlated with the polity of Holotan known from Chinese histories (Manguin and Indrajaya 2006: 255). The balance of evidence from this new project indicates that an Indianized Buddhist community was

well established there by the mid-1st millennium CE following earlier trade connections with India.

Working in southeastern Sumatra in 1994, with a principle interest in clarifying the existence of Srivijaya at and around Palembang, Manguin also excavated on Bangka Island and revealed a pre-Srivijayan Vaisnavite temple at Kota Kapur, already known from inscriptions and statuary, which showed close links to the Oc Eo Culture sites in southeastern Vietnam and which was dated to the late 6th or early 7th century (Lucas, Manguin and Soeroso 1998).

DATING EVIDENCE FROM U-THONG, SUPHANBURI PROVINCE, THAILAND

The presence of a substantial (about 73 ha), moated, early historic occupation mound at U-Thong was first identified by Prince Damrong about 1903. There have been numerous clearances and limited excavations at brick stupas in and around the ancient walled and moated settlement, notably by Jean Boisselier (1965 and 1968) on behalf of the EFEO. Boisselier had some sondages made close to what he referred to as Stupa 1 and reported a long sequence of occupational deposits which he felt could be dated from early in the 1st millennium CE, and perhaps from a much earlier Neolithic settlement. Noting that there were many similarities between the ceramics, spouted jars (kendis), terracotta stamps, gold jewelry, stone jewelry moulds and other small finds, such as the lead *anneaux alourdis*, and the material culture revealed by Malleret around Oc Eo in southeastern Vietnam, he referred to this as “Funan Culture or Funan-related material.”⁵ Later, Bronson also used the Funan label for what he recognized as pre-Dvaravati 7th century levels in his excavations at Chansen (Bronson 1976, 1979:322–324). Following the accepted convention at the time, both Bronson and Boisselier reserved the term Dvaravati for the period commencing in the 7th century, and principally for the brick monuments and art objects which had not been dated other than by comparison

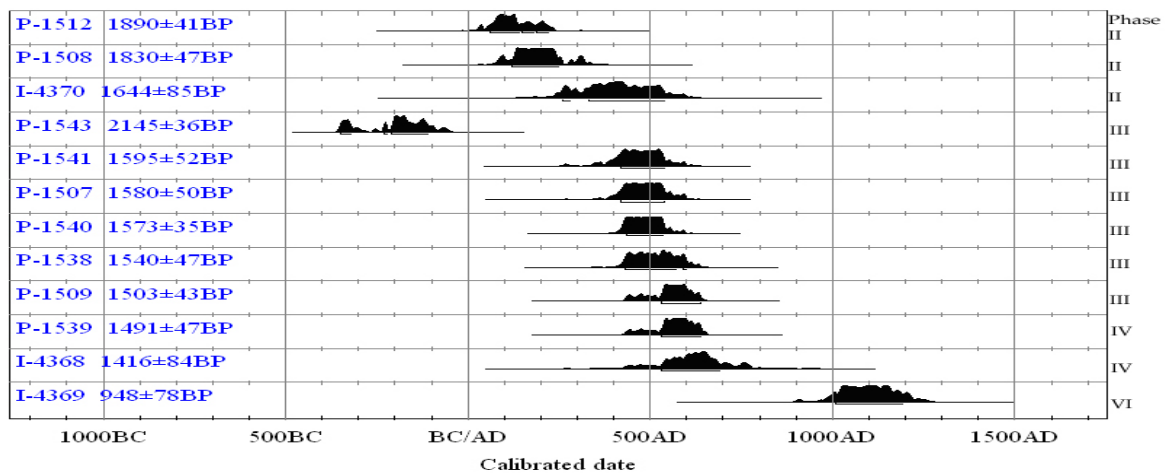


Figure 2. Radiocarbon dates from Bronson’s excavations at Chansen. Sample I-1369 Phase VI is from the Khmer occupation at the site (from Barram 2003).

with Indian sculpture.

Since Boisselier and Bronson wrote, however, much more work has been done at and around Oc Eo and at other Funan sites in Vietnam such as Go Thap (Le Thi Lien 2006). We can now see many differences, as well as parallels, between the material culture of Funan and western Thailand as well as with the ceramics and other small finds from early Champa sites in central Vietnam such as Tra Kieu (Glover et al. 1996; Prior and Glover 2003). In light of this, we do not believe that the label “Funan” is appropriate for Thailand in the early to mid-1st millennium and a new cultural term has to be found that more properly reflects the development of urbanisation and early Indic cultural influences in Thailand. Most importantly, it is clear that the material described as Funanese by Bronson and Boisselier is not distinctively different from the later ceramics and minor finds they attribute to Dvaravati.

Subsequently, a large literature has built up on the monuments, stuccos and statuary of Dvaravati which is too extensive to cite here; but to my knowledge the only systematic attempt to investigate U-Thong from the point of view of field archaeology was the Thai-British Archaeological Expedition of 1966-70 led by William Watson and Helmut Loofs, who excavated at a location referred to as Tha Muang.

Loofs (1979:346–348) published five radiocarbon dates from the excavations at the Tha Muang mound and these, when calibrated and taken together with a further five dated samples from the excavations undertaken by Barram (2003), form a fairly clear sequence from early Phase 1 as shown at the top of Figure 1.

The first two dates relate to Phase 1, which does not contain any Dvaravati-type objects or ceramics. The next three dates, clustered around the period between the 1st and 4th centuries CE, are associated with Phase 2. In this phase, the first simple clay lamps, spouted vessels and sherds from carinated

ware, items typically associated with Dvaravati, appear (Table 1). Vessel forms and decorative techniques such as wave and line decoration, associated with Dvaravati ceramics, make their first appearance in Phase 2 and continue to the surface.

We can compare these dates with the eleven calibrated dates from Phases II – IV at Chansen (Figure 2), originally published by Bronson (1976:640-641; see also Barram 2003:34-35). Bronson noted these phases contained very similar material to that found at U-Thong in supposedly similar contexts. We now know that this material is also broadly similar to material found at other sites in Southeast Asia dated to a similar period. The calibrated dates range from about 200–600 CE, albeit with long “tails” on each side, and are strikingly similar to the calibrated dates recorded for similar phases at U-Thong.

Galleon et al (2009:22) make the point that “the date range [for Dvaravati] has primarily been arrived at by relative dating methods but over the past decade or so absolute dates have also been utilized and *in the majority of cases correspond to the accepted date range.*” (Present author’s emphasis). But this is not the case.

It is clear that neither of the dated sequences from Chansen and the Tha Muang mound at U-Thong support the traditional dating for Dvaravati culture to between 600–1000 CE. But they strongly support the notion that communities heavily influenced by Indian ceramic and other traditions of material culture, and which were not significantly different from the pottery and small finds of the Dvaravati Culture, were occupying these sites from early in the first millennium of the Christian era. Thus, the dating of what we might call “Early Dvaravati” culture is well established in the region. Such a revision brings Thailand more into line with the picture now being revealed by excavations at “Indianized” sites in Cambodia, Vietnam and Java and Burma.

SUMMARY

To summarize the above data, it seems clear that many coastal or riverine urban polities throughout Southeast Asia, which incorporated elements of Indic civilization, had appeared between the 3rd and 6th centuries (Manguin 2004). Was the Dvaravati Culture of Thailand an exception? I think not. Barram and Glover (2008) argued that research in several regions of Southeast Asia show that the Indian influenced materials, which are generally associated with Dvaravati Culture, were already present in western Thailand well before the 5th century. The evidence for Dvaravati's absence earlier than this seems to depend mainly on the lack of the name of the kingdom in the Tang dynastic histories (Jiu Tang Shu) as mentioned by Jacques (2009:27). More controlled excavation of Dvaravati sites backed by numerous dated samples would surely provide a secure foundation for dating the beginning of the culture.

As an alternative scenario, if art historians prefer to retain the traditional dating for "their Dvaravati" and to disassociate the monuments and art materials which are not independently dated from the earlier levels revealed by field archaeology, Barram and Glover (2008) suggested "Early" or "Proto-Dvaravati" as terms for this phase of protohistory in Thailand.

Whether or not the suggested revisions for the beginning of Dvaravati are accepted—and we do not deny that the cultural tradition flourished through most of the 1st millennium CE—there is still a considerable gap, as pointed out by Loofs (1979), between the disappearance of the late prehistoric Iron Age settlements and burials and the emergence of the Indian influenced cultures of the 1st millennium BC. What developments took place over the several hundred years separating these two archaeological traditions? Basically we do not know. The evidence as it stands at present almost looks as if much of modern-day Thailand was abandoned—a most improbable scenario—and we look to a new generation of field archaeologists to close the gap.

NOTES

1 - This paper is, to a large extent, based on Barram and Glover (2008) but here the focus is more on the lack of continuity between the late prehistoric, Iron Age, and Dvaravati Culture.

2 - This problem was highlighted over 25 years ago by Loofs (1979) drawing on the experience of his excavations at U-Thong. After a meeting with Helmut Loofs in March 2010 in Canberra, I re-read his article of over 30 years ago and this convinced me that his insight was still valid.

3 - Gallon et al. (2009) comment that the results of absolute dating obtained at Keet-in 'usually correspond to those given by relative dating,' but the details of these are not available to me at the time of writing.

4 - The eleven published radiocarbon dates from Dvaravati levels at Chansen (Phases II–IV) as published by Bronson (1976:640–641) do not, especially when calibrated, fit the art-historical chronology and are earlier by several hundred years. But such dates have generally been discounted on account of their rarity and the lack of understanding, of, if not actual prejudice against, radiometric dating shown by most art-historians. I know of only one date from Non Bam Khan in northeastern Thailand (Welch and McNeill 1989) with a calibrated range of 600 – 905 CE that fits the usual chronology for Dvaravati. More recent excavations at Keet-in (Silpakorn 2008; Gallon et al. 2009) have produced some C14 and TL dates which are said to fit the accepted art historical chronology but I do not have details of these.

5 - Here as in Barram and Glover (2008) I reject the use of the term 'Funan' to describe the early Historic (pre-Dvaravati in art-historical terminology) archaeological finds from western and central Thailand.

REFERENCES

- Aung Thaw. 1968. *Excavations at Beikthano*. Rangoon: Ministry of Union Culture.
- Barram, A. 2003. Dating 'Dvaravati'. *Bulletin of the Indo-Pacific Prehistory Association* 23:59–63.
- Barram, A. and I. C. Glover. 2008. Rethinking Dvaravati. In: J.–P. S. Pautreau, A. Coupey, V. Zeitoun and E. Rambault, (eds.), *Archaeology in Southeast Asia: from Homo erectus to the Living Traditions*, pp. 175–82. Chiang Mai, European Association of Southeast Asian Archaeologists .
- Baptiste, P. and T. Zéphir (eds.). 2009. *Dvaravati aux Sources du Bouddhisme en Thaïlande*. Paris: Réunion des Musées nationaux.
- Boisselier, J. 1965. U T'ong et son importance pour l'histoire de Thaïlande. *Silpakorn* 9(1):27-30.
- _____. 1968 (B.E. 2511). *Nouvelles connaissances archéologique de la ville d'U-Thong*. Bangkok: Fine Arts Department (Silpakorn) (In Thai and French).
- Bronson, B. 1976. *Excavations at Chansen and the Cultural Chronology of Protohistoric Central Thailand*. Ph. D. Dissertation, University of Pennsylvania.
- _____. 1979. The later prehistory and early history of Central Thailand with special reference to Chansen. In R. B. Smith and W. Watson (eds.), *Early South East Asia: Essays in Archaeology, History and Historical Geography*, pp. 315-36. London: Oxford University Press.

- Brown, R. L. 1996. *The Dvaravati Wheels of Law and the Indianization of South East Asia*. Leiden, New York and Köln: E.J. Brill.
- Chihara, D. 1996. *Hindu-Buddhist Architecture in Southeast Asia*. Leiden: E. J. Brill.
- Clarke, W. 2009. *A preliminary consideration of human remains in Dvaravati ritual contexts*. Paper presented at the 19th Indo Pacific Prehistory Association Congress, Hanoi.
- Cribb, J. 1981. The date of the symbolic coins of Burma and Thailand—a re-examination of the evidence. *Seaby Coin and Medal Bulletin* 75:224-226.
- Dupont, P. 1959. *L'Archéologie Mône de Dvaravati*. Paris: Ecole Française d'Extrême-Orient.
- Gallon, M. D., S.A. Murphy and P. Pongkasetan. 2009. Defining Dvaravati. Unpublished paper prepared for the First International Symposium on Dvaravati, National Museum, Bangkok, September 3rd, 2009.
- Glover, I.C., M. Yamagata and W. Southworth. 1996. Excavations at Buu Chau Hill, Tra Kieu, Quangnam-Danang Province, Vietnam, 1993. *Bulletin of the Indo-Pacific Prehistory Association* 14: 166–176.
- Gutman, P. and B. Hudson. 2004. The archaeology of Burma (Myanmar) from the Neolithic to Pagan. In I. C. Glover and P. Bellwood (eds.), *Southeast Asia: from Prehistory to History*, pp. 147-176. London: Routledge/Curzon.
- Hudson, B. 2004. *The Origins of Bagan. The Archaeological Landscape of Upper Burma to AD 1300*. University of Sydney. URL: <http://hdl.handle.net/2123/638>.
- _____. 2010. Completing the sequence: excavations in 2009 confirm Neolithic, Bronze and Iron Age burials at Halin, Myanmar (Burma). *Bioarchaeology in Southeast Asia and the Pacific Newsletter* 6(April):18-23.
- Hudson, B. and T. Lustig. 2008. Communities of the past: a new view of the old walls and hydraulic system at Sriketsra, Myanmar (Burma). *Journal of Southeast Asian Studies* 39(2):269–296.
- Indrawooth, P. 1985. *Index Pottery of Dvaravati Period*. Bangkok: Silpakorn University. (In Thai with English summary).
- _____. 1999. *Dvaravati –a critical study based on archaeological evidence*. Bangkok: Silpakorn. (In Thai with English summary).
- _____. 2004. The archaeology of the early Buddhist kingdoms of Thailand. In I. C. Glover and P. Bellwood (eds.), *Southeast Asia: from Prehistory to History*, pp.120–148. London: Routledge/Curzon.
- _____. 2009. Un antique royaume urbanisé de Thailand. In P. Baptiste and T. Zéphir (eds.), *Dvaravati aux Sources du Bouddhisme en Thaïlande*, pp. 31–45. Paris: Réunion des Musées nationaux.
- Jacques, C. 2009. Dvaravati un royaume sans histoire. In P. Baptiste and T. Zéphir (eds.), *Dvaravati aux Sources du Bouddhisme en Thaïlande*, pp. 27–29. Paris: Réunion des Musées nationaux.
- Le Thi Lien. 2006. Excavations at Minh Su mound, Go Thap site, Dong Thap Province, South Vietnam, 2000–2003. In E. A. Bacus, I. C. Glover, and V. C. Pigott (eds.), *Uncovering Southeast Asia's Past*, pp. 232–244. Singapore: NUS.
- Loofs, H.H.E. 1979. Problems of continuity between pre-Buddhist and Buddhist periods in Central Thailand. In R. B. Smith, and W. Watson (eds.), *Early South East Asia: Essays in Archaeology, History and Historical Geography*, pp. 342–351. London: Oxford University Press.
- Lucas, K.P., P.-Y. Manguin and Soeroso. 1998. An ancient site re-ascertained: the 1994 campaigns at Kota Kapur (Bangka, South Sumatra). In P.-Y. Manguin (ed.), *Southeast Asian Archaeology 1994: proceedings of the 5th International Conference of the European Association of Southeast Asian Archaeologists, Paris 24th-28th October 1994*, vol. II, pp. 61–81. Centre for Southeast Asian Studies, University of Hull.
- Malleret, L. 1959–63. *L'Archéologie du Delta du Mékong*. Paris: Publications de l'Ecole d'Exême-Orient. 4 vols.
- Manguin, P.-Y. 2004. The archaeology of the early maritime polities of Southeast Asia. In I. C. Glover and P. Bellwood (eds.), *Southeast Asia: from Prehistory to History*, pp. 282–313. London: Routledge/Curzon.
- Manguin, P.-Y. and A. Indrajaya. 2006. The archaeology of Batujaya (West Java, Indonesia): an interim report, In E. A., I. C. Glover, and V. C. Pigott (eds.), *Uncovering Southeast Asia's Past*, pp. 245–57. Bacus, Singapore: National University Press.
- Murphy, S. A. and P. Pongkasetan. 2010. Fifty Years of Archaeological Research at Dong Mae Nang Muang: An Ancient Gateway to the Upper Chao Phraya Basin. *Journal of the Siam Society* 98:49-74.

- Nguyen Kim Dung, I.C. Glover and M. Yamagata. 2006. Excavations at Tra Kieu and Go Cam, Quang Nam Province, Central Vietnam. In E. A. Bacus, I.C. Glover, and V.C. Pigott (eds.), *Uncovering Southeast Asia's Past*, pp. 216–231. Singapore: National University Press.
- Pautreau, J.-P. 2007. *Ywa Htin – Iron Age Burials in the Samon Valley, Upper Burma*. Chiang Mai: Mission Archéologique française au Myanmar.
- Prior, R. and Glover, I.C. 2003. The Late Prehistoric to Early Historic Earthenware of Central Vietnam. In J. Miksic (ed.), *Earthenware in Southeast Asia: Proceedings of the Singapore Symposium on Premodern Southeast Asian Earthenwares*, pp. 261–284. Singapore: Singapore University Press.
- Quaritch-Wales, B.G. 1969. *Dvaravati: the earliest Kingdom of Siam*. London: Bernard Quaritch.
- Reinecke, A., Vin Laychour and Seng Sonetra. 2009. *The First Golden Age of Cambodia: Excavation at Prohear*. Müller-Scheeßel, Frankfurt a. M.
- Saraya, D. 1999. *Sri Dvaravati: The Initial Phase of Siam's History*. Bangkok: Muang Boran Publishing House.
- Skilling, P. 2003. Dvaravati: Recent Revelations and Research. In C. Baker (ed.), *Dedications to Her Royal Highness Princess Galyani Vadhana Krom Luang Naradhiwas Rajanagarindra on her 80th birthday*, pp. 87–112. Bangkok: The Siam Society.
- _____. 2009. *L'enigme de Si Thep*. In P. Baptiste and Thierry Zéphir (eds.), *Dvaravati aux Sources du Bouddhisme en Thaïlande*, pp. 117–125. Paris: Réunion des Musées nationaux.
- Stark, M. 2004. Pre-Angkorian and Angkorian Cambodia. In I.C. Glover and P. Bellwood (eds.), *Southeast Asia – from Prehistory to History*, pp. 89–119. London: Routledge/Curzon.
- Southworth, W. 2004. The Coastal States of Champa. In I.C. Glover and P. Bellwood (eds.), *Southeast Asia: from Prehistory to History*, pp. 209–303. London: Routledge/Curzon.
- Watson, W. and H.H.E. Loofs. 1967. The Thai-British archaeological expedition: a preliminary report on the work of the first season, 1965–66. *Journal of the Siam Society* 55(2):237–262.
- Welch, D. and J. McNeill. 1989. Archaeological excavations at Ban Tamyae and Non Ban Kham, Phimai Region, Northeast Thailand. *Asian Perspectives* 28(2):99–123.
- Yamagata, M. 2007. The Early History of Lin-i viewed from archaeology. *Acta Asiatica* 92:1–30.