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Residential Burial and the Metal Age of Thailand

Joyce C. White University of Pennsylvania Museum and Chureekamol Onsuwan Eyre University of Pennsylvania Museum

ABSTRACT

Mortuary programs have great potential to provide insights into ritually-integrated social systems of house societies. Metal age house societies of prehistoric Thailand, such as the Ban Chiang Cultural Tradition, are argued to have practiced residential burial, with interment of corpses in close physical proximity to spaces occupied by the living in daily life. It is suggested that this mortuary practice contributed to sustaining long-lived socio-settlement systems that were characterized by low levels of inter-community conflict. The mortuary ceramics interred in metal age burials reveal sub-regional stylistic and technological groupings that appear to imply territorial subdivisions in these apparently acephalous and decentralized societies. [Ban Chiang, burials, Southeast Asia, house society, heterarchy]

Societies differ greatly as to the actual physical separation of the living and the dead. (Silverman 2002:4)

Where a society places its deceased individuals is an important variable for archaeologists studying mortuary remains to determine, as spatial location of mortuary behaviors has important implications for reconstructing past social systems (Goldstein 2002). Characterization of the social organization of metal age Thailand (ca. 2000 B.C.E.-C.E. 500) has long been rooted in interpretation of metal age mortuary remains as interments in cemeteries (e.g., Higham 2008; Sørensen 1967).¹ We argue that this taphonomic interpretation is in most cases incorrect and that the prevalent mortuary program in metal age Thailand was residential burial, that is, burial in, under, and/or around houses. Some implications for this revised view of mortuary taphonomy for interpreting the metal age societies of Thailand are reviewed in this chapter. We propose that the practice of residential burial was one means by which metal age societies

of Thailand sustained flexible social hierarchies (i.e., heterarchy) and decentralized settlement systems throughout the time period.

Following a background section, this essay reviews how and why burial taphonomy has been misinterpreted by regional archaeologists. The essay proceeds to outline the regional context for the practice of residential burial, particularly the tendencies for site occupations to be long term and for mortuary ceramics to show marked subregional variation. Several implications of residential burial for understanding the pre-state period are then noted, as well as what theoretical concepts, such as house societies and landscape approaches, hold particular promise for elucidating prehistoric middle range societies and their mortuary practices in this region.

In general, we hypothesize that the practice of residential burial in ceramic subregions reflects enduring supravillage affiliative social groupings that used stylistic and technological practices and ritual behaviors to signal,

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demarcate, and maintain group identities in a regional system of dynamically counterpoised and geographically situated "middle range societies" (Rousseau 2006). The practice of residential burial at enduring settlements may have fostered societal differentiation, integration, and hence "complexification" (Rousseau 2006) at the local and regional levels in a variety of ways. The particular example of residential burial during metal age Thailand may contribute to social theory of how past societies developed sustained systems of flexible social integration.

Background

The search for evidence of social, political, and economic hierarchies in mortuary evidence as part of an overarching investigation of the origins of states has stimulated much archaeological research in Thailand as it has elsewhere in the world (e.g., Bayard 1984, 1996–97; Higham 1996, 2007). Since the 1960s, several open-air, low mound sites have been excavated whose remains suggest occupation by societies that would fall into the general category of middle range societies (more complex than simple hunter-gatherers and less complex than states [vide Rousseau 2006; Saitta 1999; Scarry 1999; Spielmann 1998; Upham 1987, 1990]).

The low mound sites, generally only a few meters in height, have evidence of both occupation and mortuary activities from sedentary societies that were agricultural or maritime oriented. Excavations of these mixed mortuary/occupation sites reveal use of such sites spanning hundreds to more than 2,000 years. Occupations fall within the time range of just before 2000 B.C.E. (following chronology in White 2008) to about C.E. 500. Site surveys indicate that metal age low mound sites are found widely in northeast and central Thailand on flat and sloped arable lands (see Eyre 2006, 2010 for review of archaeological surveys in Thailand). Current evidence suggests that the settlement system emerged shortly before the appearance of bronze metallurgy, probably in the late third millennium B.C.E., and continued after the appearance of iron metallurgy, up to the point of the appearance of state-like entities in the midfirst millennium C.E. The origin of this settlement system is not precisely known due to the dearth of archaeological evidence in Thailand from the preceding time period (middle Holocene) (White et al. 2004:127). Some archaeologists, though, have suggested that the settlement system originated with migration to Thailand of rice-cultivating societies from southern China (Higham 2006; Rispoli 2008). However, this idea does not satisfactorily explain the occupation of non-rice-growing lands in some parts of Thailand at the beginning of the settlement system.

Although the origins of the metal age settlement system still require much research, once established by the early second millennium B.C.E. in northeast and central Thailand the settlement system shows considerable continuity to roughly C.E. 500. Some scholars have argued that the appearance of iron technology in Thailand by circa 500 B.C.E. rapidly resulted in marked overall regional trends towards hierarchical forms of social integration, such as centralization, intensified wet rice agriculture, social hierarchy, warfare, the appearance of public works, and other "chiefdom" attributes (Higham 1989, 2002; O'Reilly 2007b, 2008; Pigott et al. 1997:119). This argument for a rapid "package" of change has been undermined as more evidence has accrued, and a more protracted process playing out over a millennium is now seen (Eyre 2010). In particular, it is now recognized that the development of what had been termed "moats" (channels encircling many sites in northeast Thailand) had more to do with efficiently managing water resources in a drying environment during the latter part of the iron age than defense (Boyd 2008). Although during the iron age settlement expanded into northern Thailand (Pautreau et al. 2001) and other upland areas (Welch and McNeill 1991), overall greater continuity between the bronze age and iron age occupation of many parts of Thailand is now recognized (Higham 2009a:256). A more multifaceted, more regionally variable, more contextually specific picture is emerging for iron age social complexity in Thailand (Boyd 2008; Eyre 2006; Källén 2004; McGrath and Boyd 2001; Talbot 2007). However, around C.E. 500, 1,000 or more years after the appearance of iron, abrupt changes in the settlement system do coincide with the appearance of clear site hierarchies and state-like manifestations in major river basins (Eyre 2006; Mudar 1993; Stark 2006). At least in parts of northeast Thailand, these first millennium C.E. settlement shifts and abandonment of late iron age sites appear to be related to both changes in hydrology and human degradation of the vegetation cover (Boyd 2007).

Much of the post-excavation analysis and publication of the low mound sites of Thailand has focused on the mortuary evidence. The mortuary remains from most of these low mound sites (Figure 5.1), including Ban Kao (Sørensen 1967), Non Nok Tha (Bayard 1984, 1996–97), Ban Na Di (Higham and Kijngam 1984a, 1984b, 1984c), Khok Phanom Di (Higham and Thosarat 1994:23), Nong Nor (Higham and Thosarat 1998), Ban Wang Hai (Pautreau et al. 2001), Ban Lum Khao (Higham and O'Reilly 2004:301), Noen U-Loke (Talbot 2007:305), and Ban Non Wat (Higham 2008, 2009a; Higham and Thosarat 2006), have all been discussed explicitly in terms of being "cemeteries"—implying that the ancient societies designated spatially discrete, formal areas for disposal of corpses separate from living areas. Although



Figure 5.1. Location of sites mentioned in the text.

aspects of the non-mortuary evidence of these sites, especially fauna and artifacts, have been addressed sometimes in detail (e.g., Higham 1993), the overall site formation processes that relate and integrate the occupation and mortuary deposits tend to be glossed over and described as "fugitive" (Higham n.d.:18).

Framing the mortuary remains in cemetery terms has facilitated discussion of social differentiation among graves via the Saxe-Binford approach and other neo-evolutionary models, which in turn has facilitated the use of Thailand's metal age sites primarily as vehicles to investigate the origins of states in Southeast Asia (Higham 2007:608). Drawing from the Saxe-Binford approach and Goldstein's (1980) modifications, clustered burials in such cemeteries are inferred to be lineages with corporate rights in scarce resources such as land and prestige goods (e.g., Higham 2007:607; see review of theory in Rakita and Buikstra 2005). Differences in energy expenditure in grave interments, particularly variation in numbers of grave goods, are used to infer the socially, economically, or politically more powerful from less powerful groups and individuals (e.g., Higham n.d.).

Assessment of variation in grave wealth in mortuary remains recovered from the low mound sites has revealed undoubted social differentiation. Graves range from "poor" (no grave objects) to "rich" (dozens of pots, hundreds of ornaments). Outstandingly rich graves include males and females, and children's interments can be extremely well furnished. While variation in grave wealth shows that these societies were not egalitarian, unequivocal evidence for a discrete, apical, and enduring elite class or politically dominant lineage has not emerged. With a few exceptions, wealth at individual sites tends to be arrayed on a continuum. Unusual wealth is episodic and short lived; phases with very wealthy graves at maritime-oriented Khok Phanom Di, bronze age Ban Non Wat, and iron age Noen U-Loke are superseded by poorer graves (e.g., Talbot 2007).

Are wealthy burials evidence for lineages of aristocrats (Higham 2009b)? Individual aggrandizers (Higham n.d.)? A starburst of "hierarchical state-forming activity" (Higham and Higham 2008:1)? While this variation in grave wealth is noteworthy, interpretation of the larger social, economic, and political meaning of the wealth variation among burials from these sites is not straightforward, once the data are reviewed in detail (e.g., Bacus 2006; Higham n.d.; Talbot 2007; Theunissen 2003). Study of the distribution of special artifacts like agate and carnelian has found these do not cluster in simple ways to suggest elite control over exotic trade goods (Theunissen 2003). Wealthy burials were spatially distributed among less well-to-do ones and waxed and waned in frequency. There is no evidence that production of special artifacts was controlled by elites or occurred in attached contexts. Rather, household and community specialization appears to have been the common production context (White and Pigott 1996). In short, the expectations of "top down" models for the development of social stratification have not been met in the mortuary assemblages of the low mound sites of Thailand. Evidence for sustained exclusionary and centralizing trends has not emerged in the mortuary data. Variation in relative wealth and variation in individual grave treatments suggestive of individual identities have been observed in metal age burials, indicating considerable flexibility in social structure in both bronze (Bacus 2006; O'Reilly 2003; White 1995a) and iron (Talbot 2007) ages.

Scholars are at the early stages of exploring alternative interpretations involving bottom-up, flexible, and networking metaphors for pre-state social development in Thailand. Heterarchy has been applied by several (Eyre 2006, 2010; O'Reilly 2003; Talbot 2007; Theunissen 2003; White 1995a) and transegalitarian concepts have seen recent attention (Higham n.d.). These concepts bring agency and alliance perspectives to the data (Higham n.d.) that are more compatible with the fluctuating and contextual hierarchies strongly suggested in the data.

Mortuary and Occupation Taphonomy: A Revised Assessment

We propose a revised taphonomic interpretation for mixed mortuary/occupation sites of metal age Thailand, namely that corpses were interred in domestic contexts. Furthermore, we propose that understanding this practice of residential burial in prehistoric Thailand is critical to understanding the development of social complexity in this region.

The possibility of residential burial practice has not been widely appreciated by prehistorians working in Southeast Asia for several reasons, but most importantly because of the nature of domestic architecture in the region. The predominant practice of living in dwellings made of perishable organic materials raised above ground level on wooden posts has left behind for the archaeologist little besides postholes and unstructured debris. Definable living surfaces are rare, as is clear evidence for perimeters of buildings. Occupation features have been identified that were deposited between superimposed burials during usage of a locale as a purported "cemetery." One example comes from Ban Na Di, where a small bronze-working facility was positioned stratigraphically between two burials interred during mortuary phase 1 (Higham and Kijngam 1984a:27).

In contrast to the confusing occupation deposits, burials from many excavations of metal age sites in Thailand provide archaeologists with abundant well-preserved evidence from virtual time capsules with unassailably contemporaneous contents. Human biology, ritual behaviors, and relatively intact material remains all contribute to rich, accessible, and visually compelling evidence of the sociocultural past. Small wonder that the mortuary remains from metal age sites in Thailand receive the initial focus and bulk of the attention from archaeologists (e.g., Higham and Thosarat, eds. 2004; Sørensen 1967:15), even when laborious studies of fauna (e.g., McCaw 2007), the paleoenvironment (e.g., Boyd 2008), and material culture from occupation contexts (e.g., Higham 1993) have been undertaken.

However, research designs focused on locating and excavating burial sites have distorted regional understandings of site taphonomy and settlement systems. Relatively little methodological attention has been paid to fundamental questions such as site formation processes and relating mortuary data to occupation evidence in cultural and taphonomic terms. The larger taphonomic relationship between occupation and mortuary deposition at individual sites has been avoided, presumably because at prehistoric sites in Thailand the taphonomic relationship between the two kinds of deposits is not obvious. Gravecuts may or may not have been identified by excavators, and determining from what "level" or surface interments derive is often based on deduction and guesswork. Many burials appear to "float" in deposits of occupation debris, which are essentially large middens. Layouts of graves are often illustrated without including the features from the surrounding occupation deposits (e.g., Higham and Thosarat 2004a). The fact that such plans show that the burials are often densely spaced, aligned, superimposed, clustered, and otherwise indicative of



Figure 5.2. Lower Early Period Ban Chiang square D5 showing intercutting of occupation and mortuary depositions.

deliberate placement with respect to each other has fostered the view over the past four decades that they were interred in "cemeteries," that is, formal bounded areas used exclusively for the disposal of the dead (e.g., Bayard 1984; Higham 2008; Higham and Kijngam 1984a:28; Higham and Thosarat 1994; Sørensen 1967:15).

An "Ah Ha" Moment

An "Ah Ha" moment occurred to the senior author some years ago while analyzing the stratigraphy of Ban Chiang when she recognized that the Ban Chiang burial deposition made more taphonomic and stratigraphic sense if the corpses were deposited not in a cemetery segregated from the living but rather under and/or around houses in an ongoing occupation. Ban Chiang's excavation records carefully document mortuary and occupation features at two separate excavation locales each deposited over the course of more than two millennia and each spanning the bronze and iron ages (White 1986, 1997, 2008). Occupation features such as small dumps and postholes were among and around the graves (Figures 5.2 and 5.3). Separating out periods of mortuary deposition that were stratigraphically discrete from periods of occupation deposition proved to be impossible. It became clear that occupation features with the same ceramics as the burials were found at levels above, at, and below the burials themselves. In addition, comparing the two Ban Chiang excavation locales, called "BC" and "BCES," showed that while both were used over the bronze and iron ages, intensity of usage shifted at the two locales, which were about 100 meters apart. For example, both sites have Middle Period Phase VII burials, but whereas the BC locale has evidence for interment of two individuals in that phase, the BCES locale has evidence for interment of 19 individuals. Interments from other phases may only be present in one





locale and not the other, demonstrating intra-site shifting of settlement use.

Review of the stratigraphic descriptions for other excavated low mound sites in northeast and central Thailand indicates that residential burial was the likely scenario in most sites with prominent mortuary remains such as Khok Phanom Di (Higham and Bannanurag 1990), Ban Na Di (Higham and Kijngam 1984a), and Ban Non Wat (Higham 2008, 2009a). The clusters and rows of graves recognized at many metal age sites (e.g., Ban Chiang, Figures 5.2, 5.3) would in the case of residential burial taphonomy reflect spatial relationships to occupation localities such as dwelling structures made from organic materials. Only at a few low mound sites such as Ban Don Ta Phet (Glover et al. 1984) do contemporaneous occupation materials seem to be absent.

The inference that many metal age mortuary deposits represent burial under or next to houses in villages or other occupation contexts in prehistoric Thailand is not a new idea. Over the years others have occasionally proposed that burials were interred in domestic and production contexts at prehistoric sites in Thailand and elsewhere in Southeast Asia. MacDonald (1980a, 1980b) in particular advocated that the burials at Non Nok Tha and Ban Kao were interred in residential contexts and not cemeteries, although his view was never widely adopted (Bayard 1984). Källén (2004:194) argues that burials at Lao Pako, especially infants buried in jars, are part of a larger ritual space that incorporated metal artifact production. At other sites, interment close to domestic contexts was noted as a possibility but rejected as the basis for interpretation. For example, the middens and remains of structures surrounding the burials at Khok Phanom Di were interpreted as evidence of feasting and mortuary structures for the deceased rather than occupation evidence (Higham 2002:56-78; Higham and Thosarat 1994:107).

A few taphonomically less ambiguous examples of prehistoric burials interred within occupation contexts have been identified in Thailand. Henriksen (1982) excavated the remains of a single well-defined pile-built house within the bounds of which he recovered two skeletons. A group of ceramics also located under the house had forms similar to those from the Ban Kao site, indicating a second millennium B.C.E. date. At the other end of the metal age, the large (50 hectare) terminal iron age site of Non Muang Kao has evidence for burials interred through clay floors that could have been domestic or production spaces (O'Reilly 2007a:559, 2007b:585).

These few proposals for burial deposition in occupation and production contexts have not impacted the general interpretations of mortuary data from prehistoric Thailand, which generally reflect the Saxe-Binford approach (e.g., Higham and Thosarat 2004b, 2006; Talbot 2007). However, we note that archaeologists working in other parts of the world are revisiting taphonomic interpretation of interments originally published as cemeteries and finding that the interments instead occurred within villages of perishable houses (e.g., Joyce 2001:13). The taphonomic reinterpretations greatly broaden the theoretical perspectives that can be brought to bear on the archaeological remains, and the contribution mortuary evidence can have to understanding past societies. This revised taphonomic interpretation may help explain a variety of social puzzles with which archaeologists of Southeast Asia have long dealt.

Regional Context for Residential Burial in Thailand

Long-Term Mortuary/Occupation Sites

In addition to recognizing that corpses likely were interred within domestic contexts, the apparent longevity of this practice at individual sites is a noteworthy characteristic of metal age settlements in Thailand. At Ban Chiang, the practice seems to have begun by 2100 B.C.E. and continued into the early centuries C.E. Other sites, such as Khok Phanom Di and Ban Na Di, demonstrate the practice over at least hundreds of years. Over the sequences recovered from individual sites, there appear to have been intra-site shifts in intensity of usage of particular localities for mortuary and non-mortuary activities, resulting in localized hiatuses or intensification of depositional events within sites, as can be demonstrated for example at Ban Chiang, Ban Mai Chaimongkol (Onsuwan 2000:64), Ban Non Wat (Higham 2008), and other sites. These shifts are best interpreted as palimpsest or horizontal stratigraphy that formed as usually small intra-site adjustments were made by the occupants.

That long-term occupations practicing residential burial may have been the norm in metal age Thailand is strongly suggested by the intensive survey recently conducted by Eyre (2006, 2010) in central Thailand. Of the 25 open-air sites Eyre found, ranging in size from less than 1 to 91.5 hectares, 19 sites had evidence of occupation spanning most of the bronze and iron ages. Among the many intriguing findings of the survey was the absence of any site used only for mortuary deposition; mortuary evidence always cooccurred with habitation evidence although not necessarily the reverse. The 12 sites that had evidence for mortuary deposition were all multiphase, multicomponent bronze and iron age sites. Ceramic evidence showed that most were established during the early second millennium B.C.E. and most lasted until about C.E. 400. The lack of discrete mortuary sites found by Eyre's intensive pedestrian survey helps to undermine the prevalent interpretation that cemeteries, formal bounded burial grounds separated from domestic space, characterized the mortuary program for metal age Thailand.

Eyre's data furthermore suggest that the longevity of sites like Ban Chiang or Ban Non Wat occupied for over 2,000 years was not anomalous in metal age Thailand. Her data suggest, rather, that an extraordinary societal commitment to specific localities on the landscape over hundreds of years may have been the norm in this time period.

In addition, Eyre's data show that enduring mixed mortuary/occupation sites were situated on land with obviously differing agricultural potential, including both lowland flat alluvial areas conducive to wet rice cultivation and upland areas with slope and soil porosity not conducive to wet rice cultivation that must have been cropped by dry-land, probably swidden, techniques. Including Khok Phanom Di with its maritime orientation as among the examples of mixed mortuary/occupation sites likely practicing residential burial, this practice does not appear to simply have been a byproduct or correlate of one particular subsistence strategy, such as wet rice agriculture. Instead, residential burial may have been the common mortuary program for sedentary societies with varying subsistence bases in Thailand during the time period circa 2000 B.C.E.–C.E. 500.

Conclusive demonstration that residential burial was the normative burial program in metal age Thailand may require additional decades of excavations of mixed mortuary/occupation sites and will likely require methodological changes in excavating, analyzing, and reporting these sites to better understand the non-mortuary deposits. However, for the purposes of this essay, we postulate that residential burial was the predominant metal age mortuary program in Thailand in order to begin to explore its potential meaning for mortuary analyses as they go forward.

Ceramic Subregions

The burials that we argue were interred in residential areas at the low mound sites commonly contain grave goods, including ceramic vessels. As more of these mixed mortuary/occupation sites have been excavated, the accumulating mortuary ceramic evidence is revealing intriguing and distinctive subregional variation in ceramic morphology and style suggesting supravillage groupings of some sort (Eyre 2006; Ho 1992; McNeill 1997; White 1995a). At the time of writing this essay, at least 13 ceramic subregions have been recognized and more are likely to be defined (Figure 5.4).

White (1995a) has proposed ceramic subregions and possible co-occurring variation in mortuary ritual as a reflection of heterarchical social dynamics—flexible lateral differentiation-in metal age Thailand. The pottery was locally made, probably in all or most villages in a subregion, for much of the metal age. Within the Ban Mai Chaimongkol subregion, subtle site-to-site variability in stylistic motifs within a single ceramic form and manufacturing tradition argues against one or two pot-making villages supplying the subregion as a whole (Eyre 2006:258-259, 316). Voelker (2007) has provided evidence for some consolidation of pottery production in the Upper Mun subregion during the late iron age, but continued variability in vessel fabric supports an overall continuation of decentralized pottery production. Limited technical analyses of metal age ceramics indicate that subregional distinctiveness is found not only in morphology and style but also in technological attributes such as vessel formation techniques and clay fabric (Glanzman and Fleming 1985; White 1986:235-236; White et al. 1991).

Variations in mortuary ritual may co-occur with the ceramic subregions (White 1986:236-237) and this topic needs much more research. As one example, White (1986:236) pointed out that not only did Ban Chiang and Ban Na Di, only 20 kilometers apart, have distinctly different ceramics at contemporaneous time periods, but also they had distinct grave treatments in terms of what fauna and which body parts of fauna were interred with corpses, what range of vessels comprised a grave assemblage, and how those vessels were placed in graves (i.e., deliberately broken at Ban Chiang but not at contemporaneous phases at Ban Na Di). Yet, there is ample evidence that metal age communities in different subregions traded with each other, exchanging metals, metal technology, and other craft items such as shell and stone bangles, as well as the occasional pot, showing that subregions were not isolated from each other technologically, economically, or socially.

The stylistic and ritual distinctiveness that is shared among groups of sites but is differentiated from the styles and rituals of sets of neighboring sites suggests the presence of social group "signaling" at the regional level (Wobst 1977, 1999), much as jewelry and fabric signal ethnic groups in uplands of Southeast Asia in the ethnographic present (Lewis and Lewis 1998). Regional archaeologists are at the earliest stages of defining these localized ceramic technological traditions, but the subregionally distinct vessel fabrication practices already evident suggest the presence of supravillage communities of potting practitioners who shared potting technologies. One example of a highly localized ceramic tradition is the "Elephant hide" pottery made by pressing clay into a large coarse basket. This pot-forming tradition appears at the earliest stage of the Khao Wong Prachan Valley subregion (Rispoli 1997).

The marked stylistic distinctions between contemporaneous Ban Chiang and Ban Na Di pottery are mirrored



Figure 5.4. Locations and names of the 13 ceramic subregions thus far recognized for metal age Thailand. Selected examples of distinctive mortuary pottery vessels illustrate regionality of stylistic variation. Note that the example vessels are not all contemporaneous, because detailed ceramic sequences of Thailand are mostly unpublished. However, each vessel depicted is distinctive to the area from which it comes. As ceramic data are published in the future, new versions of this map can be constructed for specific time periods.

in distinct vessel fabrication techniques, even though the sites are only 20 kilometers apart. Ban Na Di potters used lump and mold fabrication and nonorganic temper (Vincent 1984), while contemporaneous Ban Chiang dwellers used lump and slab with plant temper (McGovern et al. 1985; White 1986:235–236). This subregional variability is clearly evident in mortuary ceramics beginning at least in the second millennium B.C.E., suggesting the ceramic "signaling" of subregional group identity and/or their technological tradition occurred from the bronze age and was an important part of the residential burial program.

Subregions Over Time

Generally, the ceramic subregion phenomenon with its associated residential burial program appears to continue from the bronze through the iron age in both central and northeast Thailand. Much research is needed to investigate how individual ceramic subregions changed spatially, technologically, ritually, and economically over the course of the metal age. Current evidence suggests that many subregions maintained their distinctive ceramics over time, but shifts in their socio-settlement systems did not mirror one another.

One of the subregions, the Upper Mun valley, begins to have evidence for developing large-scale water management and increased range in burial wealth during the latter part of the iron age. In central Thailand, Mudar's (1993) intensive settlement research provides broad measures of increasing integration during the iron age, and Eyre's (2006, 2010) settlement data show the presence of variable site size and site use within one ceramic subregion. Most importantly, though, Eyre's data show continuity of settlement location (Eyre 2006:484-489) from the bronze age until the end of the iron age, including in the uplands. Development of water management systems is not attested in central Thailand at the same time period as these systems appear in the northeast. While additional supportive data are needed, provisionally Eyre's data show that variability in metal age site size probably began in the bronze age, but no evidence that the larger sites were centralized or dominant nodes in an economically or politically hierarchical landscape. Alternatively, we might consider that the large mixed mortuary/occupation sites dating from the bronze age may have been core affiliative settlements in a differentiated ritual landscape. The larger, long-lived mortuary/occupation settlements may have been founder or origin settlements (Waterson 2000) that served as ritual or group identity "attractors" (vide Kirch 2000). However, many questions remain, for example, whether there was fissioning and/or fusing of ceramic subregions over time and what such settlement collectivities might mean regarding societal dynamics.

New Perspectives for the Pre-State Period from Residential Burial

How might residential burial, long-term occupations, and ceramic subregions together shed new light on pre-state social dynamics in Thailand? Some may argue that there is no substantial difference for social interpretation if kin groups are interring family members in clusters in formal disposal areas like cemeteries, separate from settlements, or in clusters under and around houses in a village; assessment of presence of social hierarchy through assessment of differential effort in interments is sufficient for their objectives.

We propose that residential burial in villages should have important implications, not only for stratigraphic interpretation of Thailand's metal age sites but also for interpreting the societies that undertook this mortuary practice. The other chapters in this volume and the large body of literature from the past 20 years of mortuary studies around the world (e.g., Beck 1995; Chesson 2001; Rakita et al. 2005; Silverman and Small 2002) show that a much greater richness of understanding the past is available if archaeologists reassess their assumptions based on older cultural evolutionary stage models (e.g., O'Reilly 2008) and expand and fine tune their methodological and theoretical approaches to mortuary data. Spatial positioning of the dead relative to the living is highly variable and has significant consequences for the descendant communities (Silverman 2002). Alternative perspectives may help assuage the frustrated search in Southeast Asia for unambiguous evidence for top-down social, economic, or political structures (elite lineages in centers controlling access to scarce resources) and guide archaeologists in looking for other kinds of evidence that might inform on decentralized mechanisms (sodalities, distributed knowledge and power, and oscillating networks) characteristic of bottom-up corporate modes of complexity. We explore a few new perspectives below.

House Societies

The proposal that corpses were commonly interred in physical relationship to long-lived family dwellings or at least intravillage "family ritual loci" is perhaps best interpreted using the concept of "house societies" (Gillespie 2000a, 2000b, 2001; Joyce and Gillespie 2000; Lévi-Strauss 1982; see also Adams and King, chapter 1, this volume). Levi-Strauss developed the house society concept in part to describe social subgroupings in societies that are *not* based on unilineal descent groups (Gillespie 2000a) but nonetheless have enduring corporate collectivities.

Many of the ethnographic studies upon which the house society concept was developed are located in island Southeast Asia, a region long known for its ambilaterality, bilaterality, and cognatic forms of social organization. The house society concept may help archaeologists detach from the expectations implied in using the word *lineage* when discussing evidence of social units (such as grave clusters) for metal age sites. "Lineage" connotes that *descent* prescribed group membership, often implying that lineage relations were the primary factor in collective action and power relations. In house societies, household membership includes many blood relations but also fictive and distant kin who have elected, negotiated, or manipulated their affiliation with a house, perhaps only for a period of time. House societies are noted for their flexibility in group membership.

Not all house societies practice residential burial, but many do (Kirch 2000; Waterson 2000). The physical proximity and continuity of residence with the physical remains of ancestors suggests that an ongoing intimacy of the living with the dead was central to a residential mortuary program, whether that practice related to fear of or comfort from the spirit world—both are attested in the historical and ethnographic literature (Adams 2007; Barber 1988:140– 141). The house society concept has proved useful in examining archaeological cultures from many parts of the Old and New Worlds at many "stages" of complexity, from iron age Iberia (González-Ruibal 2006), to markedly stratified state societies such as the Maya (Gillespie 2000c, 2000d), to "neolithic" societies like Çatalhöyük (Hodder and Cessford 2004).

Burials, Houses, and Landscapes

One repeated theme in house society literature is that of "place-making," the imbuing of enduring meaning and cultural identity to specific locations on landscapes. Gillespie's statement that "a key function of houses is to anchor people in space and to link them to time" (Gillespie 2000a:3) is remarkably congruent with the picture emerging from the enduring metal age settlement system in Thailand. While burial within villages is found in many house societies, and the village is one key sociopolitical unit within such societies, the frame of reference for house societies is really the region.

House societies commonly have territorial dimensions (Adams 2007; González-Ruibal 2006). Supralocal organizations, flexible confederations of villages, and cross-cutting alliances among various subunits of the society provide flexible and overlapping integrative structures beyond individual villages. Noncentralized cross-cutting sodalities serve a variety of societal needs and are particularly important for the preservation of social memory or tradition in nonliterate societies (Kuijt 2001).

The existence of the ceramic subregions in metal age Thailand strongly suggests that supravillage territorial dimensions existed and endured over the time period, and the striking variability in ceramic style likely was one marker for recognized territories. Given the territorial dimension to house societies, "landscape" approaches to archaeology that seek to move beyond a site focus to understand past societies in their larger social and natural environments may assist in better understanding them (e.g., Anschuetz et al. 2001; Ashmore and Knapp 1999).

The commitment to place suggested by permanent occupation of sites and residential burial over hundreds and in many cases thousands of years at sites of metal age Thailand may at first seem unimaginable to an archaeologist born in the West. In addition to cultural discomfort with living in close proximity to decaying bodies, even of loved ones, Western scholars may question the likelihood of such a burial practice in long-lived permanent settlements, especially on lands that cannot sustain wet rice cultivation. However, ethnography of swiddening societies in southwest China (Yin 2001) demonstrates that they too can have deep commitment to ancestral village location, irrespective of shifting field systems.

The continuity of burial clusters, individual settlements, and ceramic subregions over hundreds of years, however, argues for importance placed on bottom-up affiliation with societal collectivities rather than top-down coercion by/control by/exclusion from dominant subgroups as the social "glue" (vide Salganik et al. 2006).

Ritual Integration

In house societies, rituals centered on house units are important integrative activities crafting identity and social memory over space and time (Chesson 2001; Kuijt 2001). There is as yet in metal age societies in Thailand no evidence for centralized ritual spaces or hierarchically managed ritual activities for a village or subregion as a whole. On the other hand, investment in mortuary ritual is clearly evident, whatever its taphonomic context. Burials may thus provide the main source of archaeological evidence for ritual integration in metal age societies in Thailand, as they have for many other middle range societies (e.g., Holliman 2001).

Situating mortuary activities including interment with residential units within villages, or at least primary or focal residential units, provides evidence that conduct of key integrating social rituals, in this case death rituals, occurred in a decentralized framework. A sustained mortuary program of interment in close association with ancestrally defined domestic/mortuary places suggests that family identification with place was an enduring and prioritized organizing principle for metal age societies in Thailand. Family claim to and preservation of place in the social and natural landscape in contradistinction to other residential/family units would be reiterated with each interment irrespective of numbers and kinds of grave goods placed with the deceased. Funerary activities can be viewed as integrative performance rituals for the descendants of the deceased, blood related or not, as well as for local residents generally even if primarily in counter-distinction. Mortuary activities provide periodic occasions when social structure and core values are restated in word and action. The variable grave accoutrements within clusters at sites like Ban Non Wat suggest that individualized identities were also important and recognized, but not necessarily cross-generationally enduring. Such outliers and cluster shifting are consistent with theories of collective social dynamics (Salganik et al. 2006).

Sustainability and Cycles

We suggest that societal investment in permanent settlements, and *houses* therein, could be ritually sustained at least in part through the practice of residential burial, which supported the success of this settlement system at the regional scale over more than two millennia. Houses practicing residential burial were likely one key element among several ongoing, counter-poised segmental integrative structures of the village societies, along with various co-existing nested and overlapping segments including the villages themselves and the ceramic subregions. However, the waxing and waning of burial clusters, and to a lesser extent sites, also suggests that at a local scale, such as individual houses or neighborhoods, cyclic phenomena occurred.

It is likely that sustainability of an enduring house society system is based on relative predictability in the subsistence, environmental, and social realms. Sustainable subsistence systems need to be able to respond to the degree and type of perturbations that occur in the environment at least within living memory. There are a variety of factors that promoted decentralized and hence flexibly adaptive subsistence strategies in Southeast Asia. Primary among these was the likelihood that numerous subsistence strategies, from variant dryland and wetland cropping techniques to hunting and gathering, were known and practiced within each village (White 1995b). As Yin (2001) documents for groups in Yunnan, the great range of known cultivation practices and resources can be contextually attuned to annual changes in rainfall and niche environments. Overall system sustainability may have been related to the low interannual variability in rainfall in Thailand in comparison to some other parts of monsoon Asia (Dewar 2003). Low interannual variability in rainfall is particularly important for rain-fed rice agriculture.

The late development of intercommunity conflict within Thailand also speaks to predictability in intervillage relations over most of the metal age until the late iron age about C.E. 400, when arrow points become more common in the Upper Mun valley. Other parts of Southeast Asia may have developed regular societal conflict earlier than Thailand, including northern Vietnam and Cambodia (Phum Snay; O'Reilly and Sytha 2001). This intra-regional variation is interesting in and of itself, but the earlier development of social conflict in some parts of Southeast Asia does not negate the significance of sustained low levels of conflict in metal age Thailand.

The relationship of variation in wealth to mortuary treatment in ritually integrated societies may differ from that in societies structured as entrenched hierarchies. Parker Pearson (1999:86–87) and others have noted that ostentatious mortuary displays may be a "cyclic phenomenon" related to shifting claims to legitimation. Such displays may occur during relatively unstable periods and alternate with phases of simpler mortuary treatments, as material manifestations of leadership shift over time. A cyclic patterning for the presence of unusually wealthy graves has been observed in metal age Thailand (e.g., Bacus 2006; Higham 2008). Periodicity of increases (and decreases) in material investment in the mortuary domain may be more significant for understanding variation in local and regional social dynamics than documenting individual wealthy burials as evidence for entrenched elites (vide Beck 2006).

Variation in the intensity of clustering of graves over time also has been noted at some sites in Thailand (Talbot 2007). This is an important area of investigation, and our data may be particularly rich for examination of oscillating and cyclic cultural phenomena. We may hypothesize, for example, that the clustering of graves relates to periods or situations in which individual identification to village subgroups was prioritized. Talbot (2007) suggests that intensification of clustering at Noen U-Loke in the late iron age was due to "stress," possibly drought and/or intercommunity conflict. But variation in clustering over time is noted at many sites from other time periods without association of conflict or food shortages (e.g., lower Early Period Ban Chiang; White 2008), raising the point that "stress" is likely a locally contingent variable, and possibly only one of many reasons to closely space interments. Social stress may take many forms from local changes in everything from demography to river courses, to region-wide changes in precipitation from El Niño years.

Moreover, extrapolating from Eyre's data, not every metal age site has evidence of mortuary usage, although larger sites generally do. This observation suggests that corpses were not buried merely in whatever house in which the individual happened to die, but that there was preferential interment in relationship to particular parts of the landscape, particular buildings, or particular family ancestors, perhaps along the lines of the "family homestead" or "family compound."

Over time and depending on circumstances ranging from drought to appearance of charismatic leaders, the segments at various scales (sodalities, villages) could ally or fission, much as Leach (1954) has described in the *gumsa/gumlao* oscillation of the Kachin in Burma or Yin (2001) describes for the Wa. The archaeological evidence indicates that rather than hierarchical relationships among lineages or sites becoming entrenched as predicted by origins of states models, entrenchment was situated in other, more spatial, landscape-based components of the social system (such as houses and settlements). This investment in multi-scalar place-making resisted structural change and apparently resisted entrenched hierarchization and centralization for over 2,000 years.

Conclusions

Among the various factors that promoted and sustained the ritually integrated socio-settlement system in metal age Thailand, we argue, was the practice of residential burial. The physical and ritual anchoring of descendants to ancestors at specific locations on the landscape via direct spatial association with interred remains of deceased forebears appears to be a primary key to understanding the social continuity of metal age Thailand.

Taphonomic reassessment of mortuary deposition in metal age Thailand supports this re-evaluation of the region's metal age societal dynamics. Recognition of the practice of residential burial opens the door to perceiving the integration of mortuary actions and deposits as part of sustaining living communities of the past. We propose that at least for Thailand, the study of multi-scalar collectivities, including house societies, will also provide fruitful insights for both the metal age and post-metal age states beyond conventional origins of states approaches that have dominated discussions to now.

Re-perceived archaeological evidence facilitates reprioritization of future research programs. First, excavations of metal age sites, particularly when large areas can be opened (e.g., Ban Non Wat; Higham 2008), provide opportunities to verify or disprove the taphonomic proposal that we postulate. Refined excavation methodologies for non-burial deposits (e.g., by applying insights from studies like Beck 2006) may identify discrete "houses" in multiphase, multicomponent sites, and burial clusters may be specifically related to discrete residential units. Second, the intra-site groupings of burials (clusters and rows) can be more systematically compared for biological relationships and for evidence of material distinctions in both grave goods and ritual expression to explore discrete house identities. Third, variation in grave clustering can be investigated locally within individual sites, and regionally and temporally. Does Talbot's (2007) suggestion for Noen U-Loke that stress resulted in intensification of grave clustering explain other examples of clustering at sites with earlier mortuary deposits, such as Khok Phanom Di or lower Early Period Ban Chiang? Is clustering an expression of strengthened identification with village subunits that waxes and wanes based on site-specific stresses or other processes?

Fourth, more materials research and intensive site surveys are needed to more concretely define the technological, stylistic, economic, chronological, and geographic attributes of all ceramic subregions, as well as their histories, including their emergence by the second millennium B.C.E. and disappearance in the first millennium C.E. Defining the relationships between ceramic subregions and metal techno-

logical provinces (White and Hamilton 2009) is also a key topic.

Using residential burial evidence to examine collective identities and culturally defined landscapes is a linchpin for exploring the prehistoric development of Thailand in its own right. Enhanced understanding of the sociopolitical, settlement, and ritual systems of metal age Thailand should also support a deeper grasp of the nature of subsequent states in the region.

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Notes

1. In this essay we follow White 2002 in the use of the lowercase in Southeast Asian applications of the Three Age System.

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