Art & Archaeology of Fu Nan

Pre-Khmer Kingdom of the Lower Mekong Valley

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Chapter III

ANGKOR BOREI AND THE ARCHAEOLOGY OF CAMBODIA'S MEKONG DELTA

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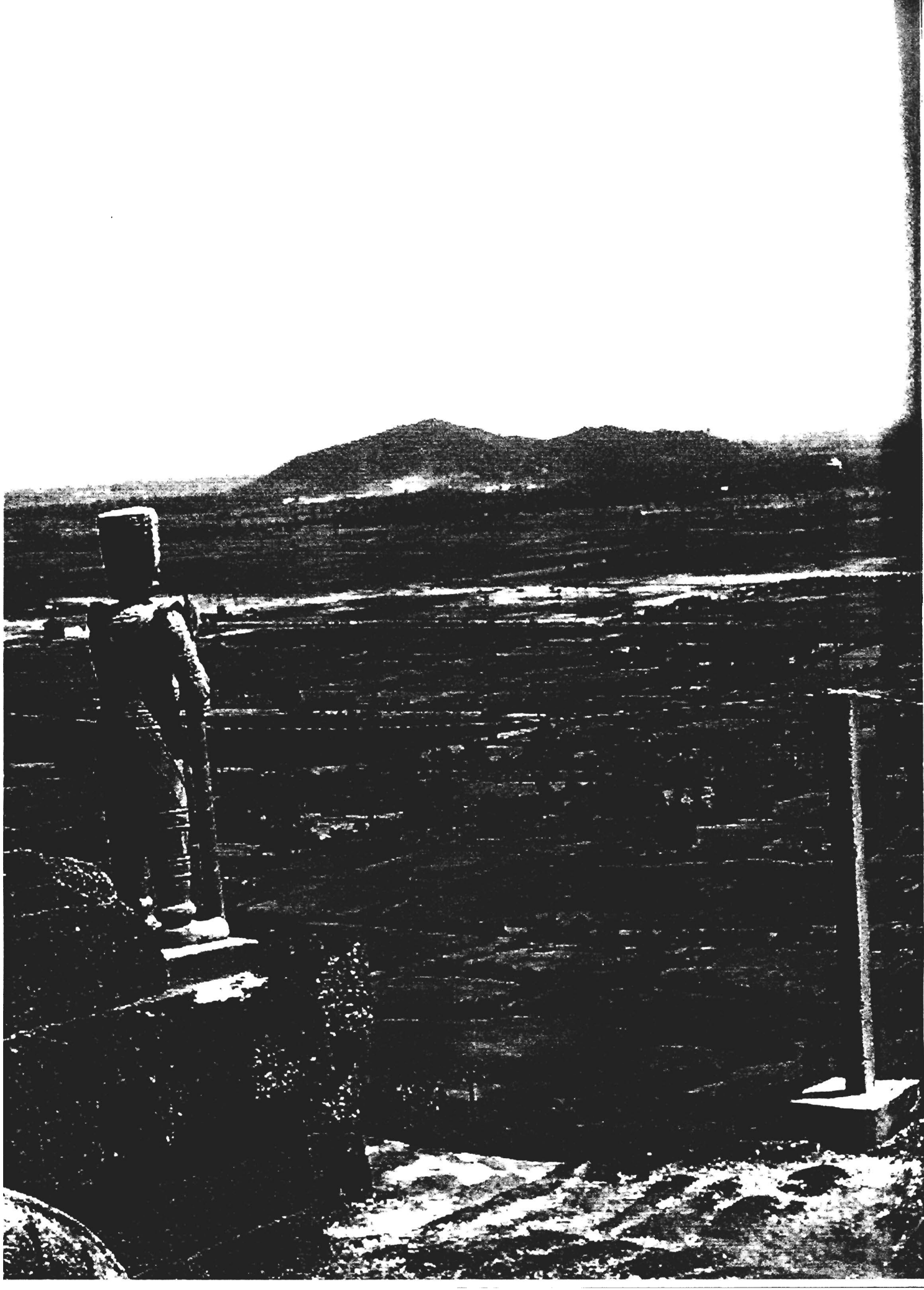
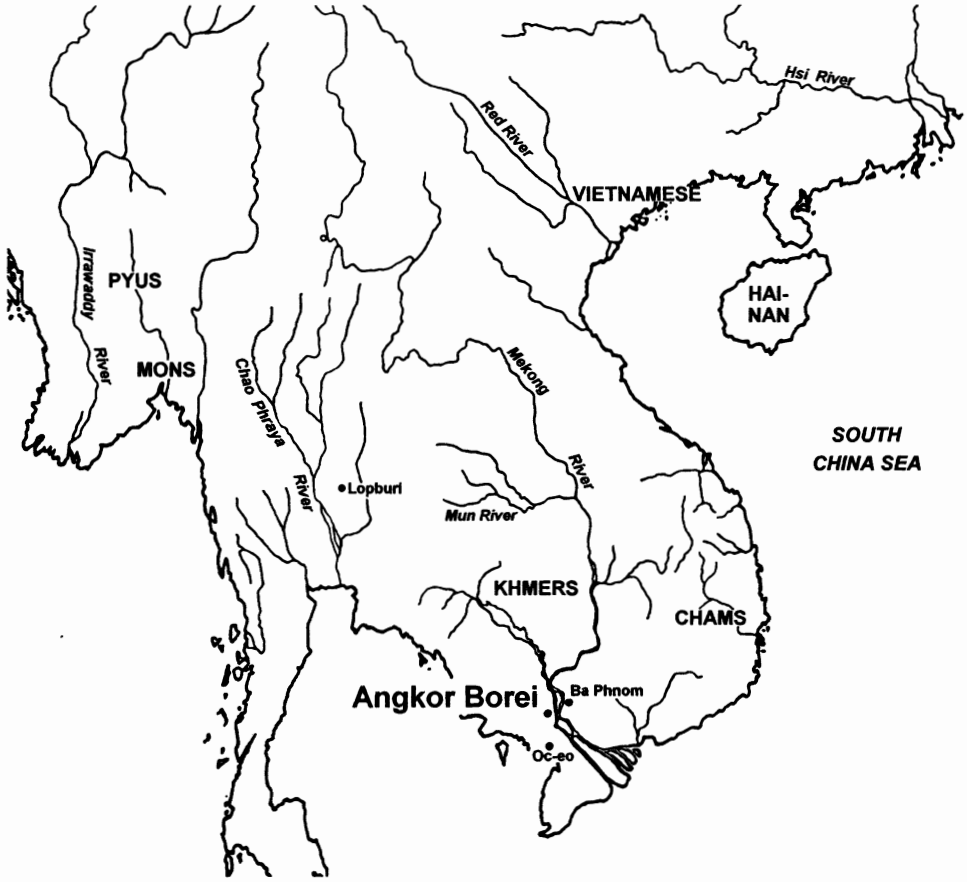


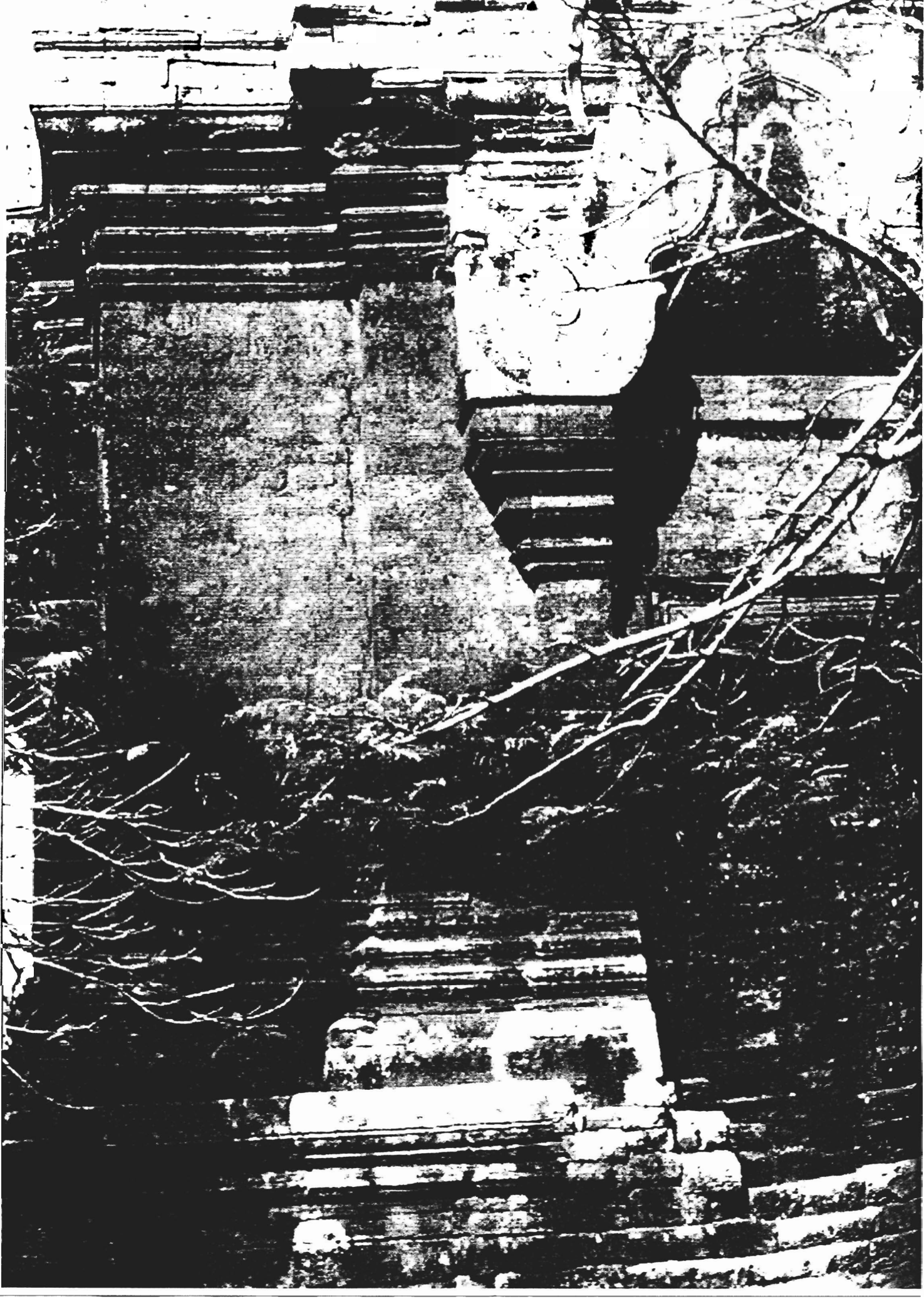
III-1
(opposite page)
View looking south into the Mekong delta, from the summit of Phnom Chisor (Takeo province).



Locational map of Angkor Borei and other possible centers during the early historic period (adapted with permission from Hall 1995: Map 3).

The public's perception of Southeast Asian civilizations generally focuses on images from the classical states of Angkor, Pagan, and Sukothai. Archaeological and historical research in recent decades, however, point to deeper roots for the origins of sociopolitical complexity in mainland Southeast Asia. The development of the Khmer empire likely had its roots in the Mekong delta, where Khmer historical and ideological traditions began. At some point after ca. 500 BCE, an early civilization that Chinese emissaries called Fu Nan emerged in the Mekong delta. This notion of Fu Nan, as an early "state" that thrived between the second and the sixth centuries CE, has been built largely by historians using documentary and art historical evidence. Until recently, archaeological research has played a minor role in our understanding of the nature and scale of this ancient polity.

State formation came relatively late to Southeast Asia in comparison with other regions of the Old World. By the end of the mid first millennium CE, however, several coasts and river valleys of mainland Southeast Asia contained nucleated, hierarchical communities and regional systems. Populations in these communities engaged in international commerce that linked Southeast Asians to China, India, and by extension, the Mediterranean. Strong interest in the Mekong delta by Southeast Asian scholars is due, in part, to the impressive epigraphic information and sculptural traditions from this region. Archaeological, epigraphic, and art historical research illustrate that the delta was the center of the region's first cultural system with trappings of statehood: (1) high populations and urban centers; (2) the production of surplus food through intensive rice cultivation; (3) sociopolitical stratifica-



tion, legitimated by Indic religious ideologies; (4) a system of writing by the end of the early historic period; and (5) a vigorous network of longdistance trade (see also Higham 1989: 239-307).

Archaeological research in Vietnam's Mekong delta at "Oc Eo Culture" sites provides impressive insights on settlement traditions and material culture of the early historic period (ca. 500 BCE–500 CE). Chinese documentary accounts and indigenous inscriptions, however, suggest that the political centers of Fu Nan lay in the delta's northern reaches, rather than in the swampy lowlands of parts of southern Vietnam. For historical reasons, many scholars believe that the archaeological site of Angkor Borei (Takeo province) was one capital of this Fu Nan polity, and that other Fu Nan capitals were also located in what is now the Kingdom of Cambodia (fig. III-1).

Although the Vietnamese resumed work in the Mekong delta nearly twenty-five years ago, geopolitics prevented foreign archaeologists from undertaking field research in Cambodia's delta for over forty years. This article first provides a background to the archaeology of the Mekong delta, and uses archaeological findings from the archaeological site of Angkor Borei to explore aspects of emergent complexity in the delta that occurred after ca. 500 BCE. Research by the Lower Mekong Archaeological Project (LOMAP) at Angkor Borei is presented first. Findings and implications from this research are then discussed with respect to early state formation in mainland Southeast Asia.

Historical Perspectives From The Mekong Delta

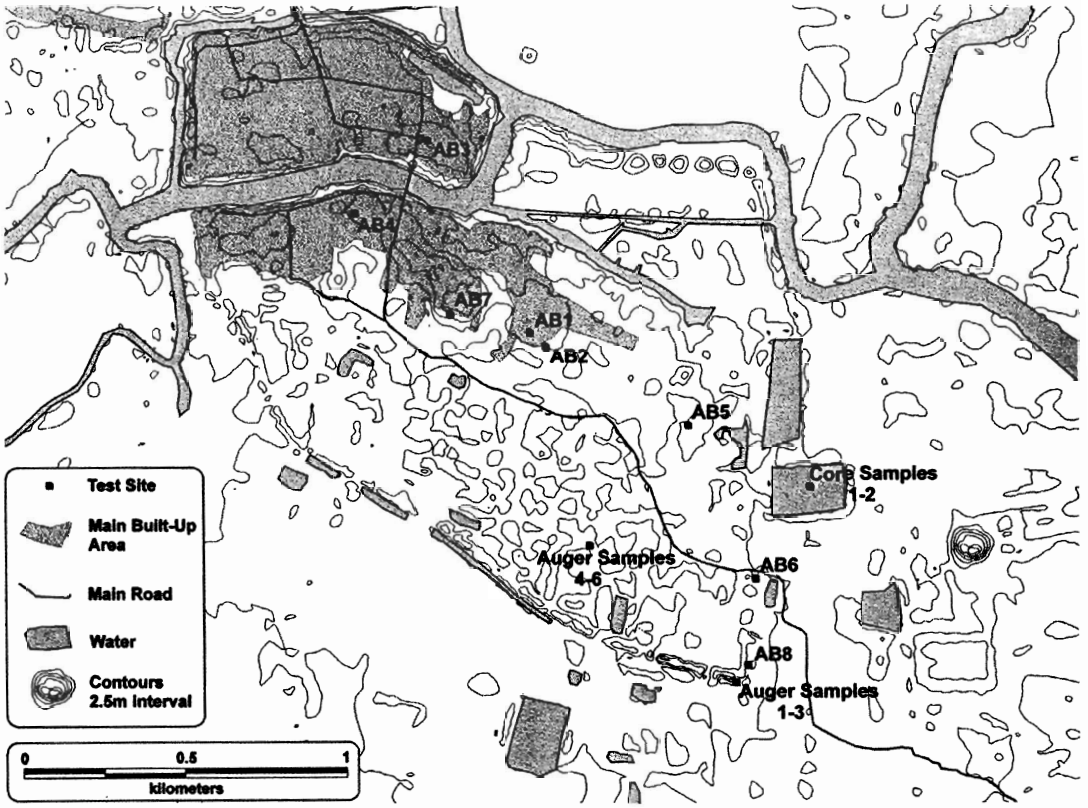
Today's Mekong delta is divided into two countries (i.e., Cambodia and Vietnam), and contains populations who speak different languages (i.e., Khmer and Vietnamese). This split is neither clean nor absolute, as many Vietnamese live along the border in Cambodia, and a Khmer population (called the Kampuchea Krom) still dwells in southern Vietnam. Undoubtedly, moreover, early historic communities participated in a vast regional system that stretched across the delta, and were linked by a complex network of rivers and canals (see map, p. 89). In the 1930s and 1940s, Pierre Paris analyzed aerial photographs to identify what he believed were canals that linked Oc Eo to Angkor Borei. Artifactual similarities in archaeological materials from Angkor Borei and Oc Eo suggest a pattern of interaction, and future research may demonstrate that communities throughout the delta were integrated into diverse economic and political networks.

III-2. View of brick and stonework adjacent to false doorway, Phnom Da Temple.

The View from Cambodia

Little is known about the millennium that began ca. 500 BCE in Cambodia's Mekong delta, and seeing the stratigraphy for the monuments in ancient Cambodia is difficult. The sheer scale of public architecture and wealth of epigraphic materials from the Angkorian period (i.e., ninth to fourteenth centuries CE) dominates Cambodian archaeology. Scholars have also expended more effort on studying and preserving statuary, monumental architecture, and epigraphy than on undertaking systematic archaeological research. Research involving field investigations has rarely been undertaken until recently, and the early historic period (ca. 500 BCE–500 CE) is a largely overlooked time period.

For these and other reasons, Chinese documentary accounts form the basis of our understanding of the Fu Nan polity before the sixth century CE. Some of the most important Chinese documentary sources for ancient Southeast Asia are found in the *Nan Qi Shu* and the *Liang Shu*.[1] Emissaries Kang Tai and Zhu Ying visited Fu Nan in the mid third century CE; Kang Tai published a book

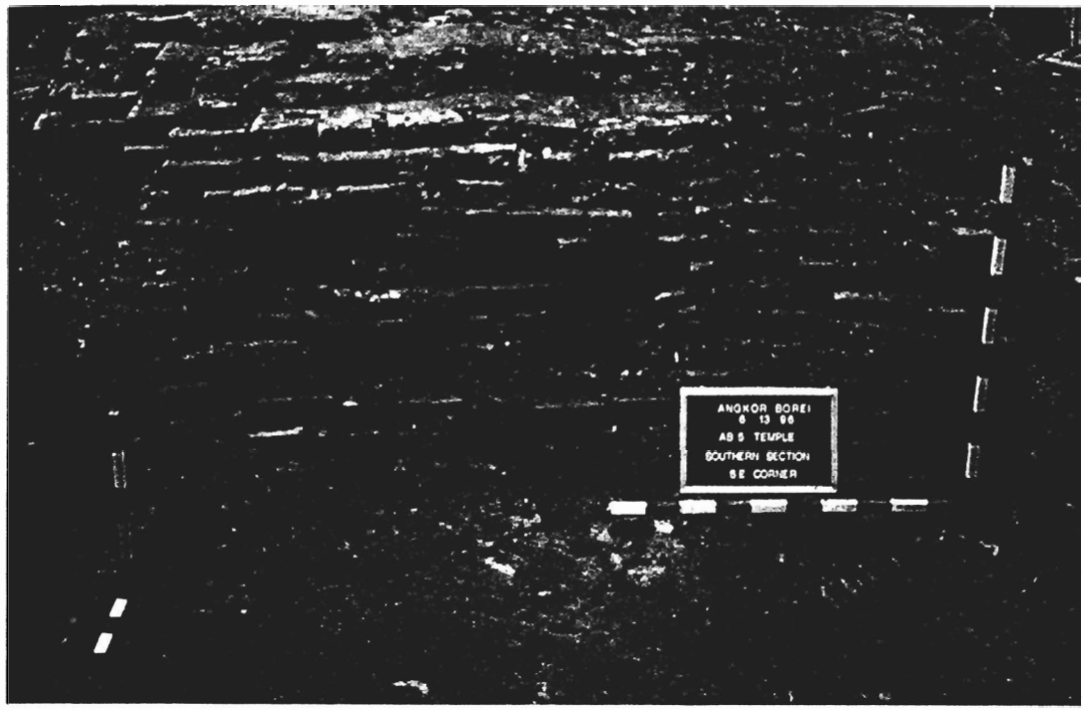


Contour map of Angkor Borei produced in 1999 indicating excavation and coring loci from the LOMAP field seasons are indicated by squares. "AB" labels denote excavation units, while "Core samples" and "Auger samples" denote loci for geoarchaeological testing.
Courtesy of John Shearer, Anne Dunlap, and Dr Jane Drummond, Dept of Geography and Topographic Sciences, University of Glasgow.

containing information on Fu Nan in his report on more than 100 kingdoms south of China, and Zhu Ying published a work on the "Kingdom of Fu Nan". These original accounts have been lost, but historians recopied fragments of these texts in nearly all Chinese dynastic histories. Chinese accounts describe the goods and people of Fu Nan, their customs, subsistence and economic systems, and also the origins of this 'kingdom'. From indigenous inscriptions, we learn primarily of dynastic sequences and dedicatory events, and only secondarily about economy and political organization. As previous scholars note, however, these documentary materials must be used judiciously, since they were frequently political instruments of the group in power (e.g., Jacques 1979; Mabbett 1977b; Stark 1998; Vickery 1998; Wheatley 1983).

Chinese accounts suggest the location of Fu Nan in the Mekong delta; these accounts also suggest the scale of this polity. Chinese sources report that the Fu Nan territory was found 500 li (200km) from the sea, and that a great river, which came from the west or northwest, ran through it and emptied into the sea (Pelliot 1903: 256-263). The territory of Fu Nan stretched approximately 3,000 li (600km) along its eastwest axis, until its peak in the third century CE. At this point, the History of the Liang reports the Fu Nan ruler named Fan Shi Man had expanded his territory to encompass 5,000–6,000 li (2000–2400km).

At least one dozen urban centers were found in the Fu Nan core area and no fewer than 200km of canals connected these settlements. Distributions of 7th–8th century inscriptions reveal that this early historic polity encompassed much of southern Cambodia (the modern provinces of Takeo, Prey Veng, Kompong Speu, and Kampot), and also sections of the Mekong through



III-3. Example of brick construction techniques from AB-5, which was investigated during the 1996 field season.

Kompong Cham province. The density and content of inscriptions in southern Cambodia contrasts markedly with inscriptions from what is now Vietnam (Jacob 1975:425; Vickery 1998:97, Map 3). Far more inscriptions are located in the north, suggesting that the center of political power lay in the northern part of the Mekong delta (in modern-day Cambodia) during the early historic period.

In what is now southern Cambodia, then, these documentary sources and oral traditions suggest that Fu Nan contained multiple urban centers, including the settlement of Angkor Borei.[2] Thus far, we know the origins, culture, and dynastic sequence of Fu Nan primarily through Chinese descriptions and oral traditions of the area, rather than through systematic archaeological research. We can learn more about this ancient polity—and about the role of Angkor Borei—by examining archaeological and documentary evidence than by relying on one source of information.

The Archaeological Site of Angkor Borei

The archaeological site of Angkor Borei is found at the western edge of the Mekong Delta, at 10'59'N latitude and 104'58'E longitude. Angkor Borei is located on the southeastern edge of an elevated escarpment that is surrounded by low-lying delta in all directions except the northwest. Today, a community of approximately 6,000 inhabitants sits atop the ancient site of Angkor Borei; during the rainy season, floodwaters inundate most of the surrounding fields and travel is best done by water craft. Most of the Mekong delta has an altitude of ca. 2 meters above sea level, and the altitude around Angkor Borei varies from approximately 2–10m above sea level. To the south of the town, the hills of Phnom Da contain ancient temples that many Cambodians today visit (fig. III-3). Slightly west of Phnom Da is Phnom Angkor Borei, approximately 170 meters above sea level.

Angkor Borei has stimulated substantial scholarly interest since the turn of the twentieth century for several reasons. The first is because Angkor Borei contains some of the earliest dated Khmer inscriptions, brick architecture, and statuary found in Cambodia. The second is the site's proximity to Phnom

III-4. Examples of the buffware earthenware vessel (kendi) which characterizes the 3rd- century CE occupation at Angkor Borei. These vessels, photographed at the Angkor Borei museum in 1997, were donated by villagers.

Da; in former times, the Phnom Da temples contained statuary associated with the earliest Khmer art style. These facts suggest to historians that Angkor Borei may have been an inland capital of the Fu Nan "kingdom" that Chinese emissaries described in the third century CE.[3]

Several French art historians, archaeologists, and geographers visited Angkor Borei to acquire collections for the National Museum during the first half of the twentieth century. Of the five names that French geographer Étienne Aymonier (1900:197) associated with Angkor Borei (including one reference in a seventeenth century Khmer inscription), four suggest a royal function. Interviews with current villagers suggest that some French scholars took several pieces of statuary from temples at Angkor Borei during the 1930s. As part of his research on the Vietnamese side of the Mekong Delta, Louis Malleret drew limited comparisons between the material culture of Oc Eo and Angkor Borei. More recently, van Liere (1980) and Lind (1981) employed aerial photography to make inferences regarding settlement and economy during the early historic period. Angkor Borei is clearly important for historical reasons, and archaeological field investigations have begun to reveal its complex stratigraphy and history.

Research by the Lower Mekong Archaeological Project (LOMAP)

The Lower Mekong Archaeological Project (or LOMAP) was initiated in 1996, as part of the University of Hawai'i/East West Center/Royal University of Fine Arts project (Griffin et al. 1996). The UH/EWC/RUFA project seeks to combine field research and student training. Each field season involves collaborative research by archaeologists (faculty, students, and recent graduates) from the Anthropology program at the University of Hawai'i (UH) and the Archaeology faculty from the Royal University of Fine Arts (Phnom Penh).

LOMAP's primary goal is to explore dimensions of emergent complexity between ca. 500 BCE and 500 CE on Cambodia's share of the Mekong Delta. Four objectives guided LOMAP fieldwork around the site of Angkor Borei in 1996, 1997, and 1999: (1) documentation of the site's layout; (2) description of the site's stratigraphy; (3) collection of samples for dating the site, and (4) reconstructing its hydrology and natural environment from ca. 500 BCE–500 CE. Collecting these data illuminates aspects of community organization, ancient subsistence and land-use patterns, and political economy in the area. Since technical details of the 1996–1999

III-5. Excavations at Wat Komnou during the 1999 season. Lower Mekong Archaeological Project members Un Moninita (left), Lath Poch (standing), and In Sokritya (crouching) work with local laborers.

field investigations are reported elsewhere (Stark et al 1999, Stark 1998b, Stark and Bong 2001), only preliminary findings from the project are described here.

LOMAP has undertaken three archaeological field seasons at Angkor Borei: 1996, 1997, and 1999. Field research involves several methods, including site reconnaissance, surface survey and mapping, test excavations, auger sampling and coring, and trenching with a mechanical backhoe. Most of the 1996 fieldwork focused on systematic test excavations to illuminate aspects of site stratigraphy and chronology. The brief 1997 field season concentrated on site survey and reconnaissance, and the longer 1999 field season investigated an early cemetery and began a paleoenvironmental research program. General findings from each field season are summarized below.

The first season's work in 1996 concentrated on documenting the morphology and stratigraphy of Angkor Borei. This contour map (see p. 92) indicates that the ancient site of Angkor Borei is no fewer than 300 hectares in area, the city's wall encircles a D-shaped elevated area, and the wall's perimeter is approximately 6km.[4] More than 151 possibly archaeological features were identified inside the walled area of Angkor Borei, including more than 100 water control features (e.g., reservoirs, small pools, and natural ponds of various sizes). Contemporary residents of Angkor Borei have constructed homes in the northern and central portions of the settlement, and use water features for various purposes.

We cannot assign construction dates to these water features, but the association of some water features and mounds of collapsed brick architecture suggests that they may have functioned as complexes in the past. Similar configurations of brick features and water control devices have been reported on the Vietnamese side of the delta (e.g., Trinh Thi Hoà 1996:118). Sections of the wall and some internal and external moats (averaging 22 meters in width) were also mapped.

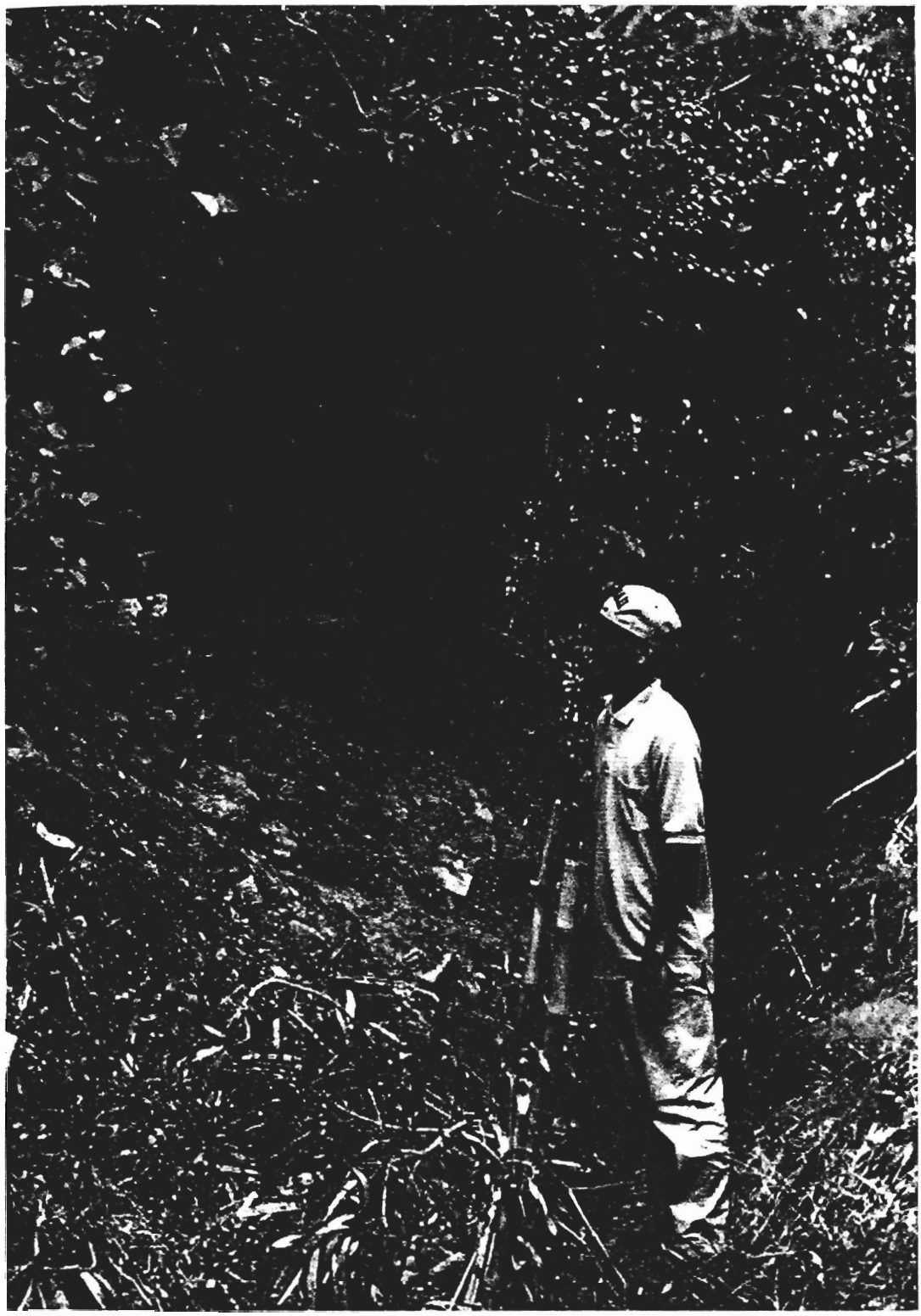
III-6. Example of inhumation recovered during the 1999 Wat Komnou excavations.

Mapping work also identified monumental architecture in the form of more than thirty brick masonry rubble mounds. The size and configuration of these monuments varies across Angkor Borei. In 1997, the largest monument had dimensions of 70 meters (east-west) and 32 meters (north-south); in 1999, this feature had been leveled to make room for house construction. Villagers have sunk deep shafts into the middle of most brick rubble mounds at Angkor Borei in search of antiquities, and in so doing have exposed architectural detail that resembles techniques from the Vietnamese sites. We conducted preliminary investigations of one collapsed brick structure in 1996 (fig. III-3). Despite its fragmentary nature, our work revealed a rectangular brick platform that is at least 10m wide (SW-NE) and 19m long (NW-SE).

Unfortunately, chronometric analysis of this brick structure produced inconclusive thermoluminescence dates. However, Vietnamese archaeologists have dated brick structures associated with the "Oc Eo Culture" to a period from the first to the tenth centuries CE. Most of these "Oc Eo Culture" sites date to the fourth to the sixth centuries CE. Ongoing field research by Dr Pierre-Yves Manguin (École Française d'Extrême Orient [EFEO]) and Mr. Vo Si Khai (Center for Archaeology/Institute of Social Sciences, Ho Chi Minh City [CAISS]) focuses on architectural features in and around Oc Eo. Findings from this EFEO/CAISS research should refine our understanding of the construction chronology of these monuments in the Mekong delta (see also Manguin 1998).

We also excavated two test units in 1996 to study the stratigraphy and occupational history of Angkor Borei. Results of our radiocarbon dating suggest that populations settled Angkor Borei ca. 400 BCE, or 500–600 years earlier than the Chinese documentary accounts of the area (Stark et al. 1999). These dates also suggest that populations moved into the northern Mekong delta several centuries before the Chinese described them in the third and sixth centuries CE.

The 1996 excavations recovered more than 37,000 sherds for our ongoing analysis.



III-7. Lower Mekong Archaeological Project member Chheang Serei Vuthy stands (as scale) in wall cut during 1997 fieldwork; this wall cut served as the focus of 1999 testing.

Earthenware ceramics predominate the ceramic assemblage, but villagers also have recovered small collections of stoneware and glazed wares from the site. Ceramic forms recovered from LOMAP surface collections and excavations include fragmentary pieces of culinary ware, serving ware, industrial ceramics, and possibly ritual vessels. Collections of complete vessels, donated by villagers to the Angkor Borei museum (fig. III-4), indicate the range of shapes that our excavated sherds once represented. Non-ceramic artifacts recovered through surface surveys and excavations include glass beads,

III-8. University of Hawai'i art historian Dr Nancy Dowling sits at the base of the "Vishnu" temple in 1996, so named for the three fragmentary statues that were recovered through its destruction.

flaked stone, metal artifacts and ancient industrial byproducts, such as slag.

The June–July 1997 field season concentrated on site survey and reconnaissance and documentation of unprovenienced museum collections of whole ceramic earthenware vessels. We used aerial photographs of Angkor Borei and its environs to identify other settlements and possible moated features connected to Angkor Borei today by canal. Visits to these locations and subsequent reconnaissance suggested that several linked communities contain archaeological sites. Comparison of surface ceramic collections from these sites with the Angkor Borei deposits tentatively suggests that these linked settlements were occupied no later than the fourth century CE, and established several hypotheses for future regional survey.

During March–April 1999, LOMAP resumed its excavations at Angkor Borei and initiated a paleoenvironmental research program. Research focused on three important loci: 1) the centrally located mound upon which Wat Komnou sits today; 2) the ancient city wall; and 3) the ancient water features, which are primarily moats and reservoirs. Preliminary results of the cemetery excavations are discussed first.

In 1998, Angkor Borei villagers began removing earth from the southern slope of the Wat Komnou mound to flatten this area for additional house lots. During the process, workmen accidentally uncovered human bones and associated artifacts. District officials halted these efforts, but not before the workmen had exposed at least eleven skeletons (and quite possibly more). Workmen described extended and flexed burials; some agglomerations of ash and bone fragments that might represent cremations were also recovered. It was immediately upslope of this area that LOMAP crew members began to excavate a 2 x 3 meter unit in January 1999. By early March, they reached a depth of ca. 4 meters below the mound's surface, and recovered partial remains of at least 18 individuals (fig. III-5). Because this collection awaits technical study at the University of Hawai'i, their interpretation is provisional at present.

Most burials recovered through the 1999 excavations were inhumations (fig. III-6), with some possible secondary burials that comprised discrete bundles of human bones. Mortuary goods generally included either pig crania, globular red earthenware jars, or both. Radiocarbon samples from the cemetery have not yet been submitted, but this cemetery includes at least two of the four Fu Nan mortuary practices that the Chinese described in the fifth and sixth centuries CE: "burial by fire" (presumably cremation) and "burial by earth" (presumably inhumation) (Pelliot 1903:270). The remaining two techniques (disposal in the river and disposal in the fields) are not easily archaeologically visible. We recovered small numbers of glass beads directly with the burials, and the overlying matrix contained hundreds of stray beads. The cemetery at Wat Komnou serves as a central focus for fieldwork in the year 2000. It is likely that Angkor Borei has now yielded the first early historic period cemetery for archaeological research in Cambodia.

Another portion of the 1999 fieldwork involved geoarchaeological investigations of the ancient city wall and of associated water control features, under the direction of Dr Paul Bishop (University of Glasgow). Crew members documented and excavated a section of Angkor Borei's earthen and brick masonry-capped wall (fig. III-7). To reduce additional damage to the wall, work concentrated in the southeastern portion of the site, where a farmer had previously cut a trench to drain his fields. We expanded the existing wall cut and excavated a 1m x 2m trench below the surface of the cut to study the wall construction sequence. Additional work (and chronometric samples) is necessary to clarify the nature of wall construction, but our investigations suggest a multistaged wall construction sequence that may have originated, first, with an earthen embankment that surrounded the settlement.

Dr Paul Bishop also initiated a series of geomorphological studies of hydraulic features in and around Angkor Borei. Research focused on interpreting paleochannels and possible ancient canal remnants around Angkor Borei to evaluate Paris' (1931, 1941) claims that various canals radiated southward from Angkor Borei and that one terminated at Oc Eo. Another major task involved coring the large rectangular baray (or reservoir) along the site's eastern border, to obtain samples for paleoenvironmental analysis. Obtaining basal ages from the core should provide the initial construction date for the baray, and will fill yet another gap in our understanding of Angkor Borei's occupational history.

Occupational History Of Angkor Borei

One question that archaeologists must answer for any particular site concerns its founding date. Radiocarbon dates from the 1996 test excavations suggest a starting point in the fourth century BCE (Stark et al. 1999; Stark 1998b). Angkor Borei was evidently a contemporary of other excavated sites in central Thailand (such as Chansen and Ban Don Ta Phet) and the Oc Eo and "Oc Eo Culture" sites of southern Vietnam. The settlement of Angkor Borei, in the mid first millennium BCE also corresponds to the inception of Southeast Asia's contact with South Asia (e.g., Bellina 1998; Glover 1998).

Although archaeological research is tangential to the origin legend of Cambodia, generally known as the *Nagi Soma, Preah Thaong*, or *Kaundinya* story (e.g., Coedès 1968:3738; Gaudes 1993; Ledgerwood 1990; Mabbett 1977a; Pelliot 1903:254), the site of Angkor Borei may not be. This story concerns the conquest of a female ruler by an outsider from the west (often viewed as a Brahman), who then marries the woman and founds the delta's first kingdom at the settlement of *Khok Thlok*. Some villagers in

Angkor Borei today associate their settlement—and even the area around Wat Komnou—with the settlement of *Khok Thlok*. Currently, an administrative district called *Khok Thlok* lies southwest of Angkor Borei.

Other forms of dating support continued occupation of Angkor Borei at least into the eighth century CE. Stone sculptures were recovered during the 1996 bulldozing of one of Angkor Borei's brick monuments, which supplement a sizeable extant collection of pre-Angkorian images from the site now housed at the National Museum in Phnom Penh. Art historians working on pre-Angkor statuary now date these works of art (and particularly mitred Vishnu figures) to various points during the six and seven centuries CE (e.g., Brown, personal communication, 1999; Dowling 1999). Similarly, Coedès (1931, 1954) previously dated two inscriptions from Angkor Borei (K. 557 and K. 600 [Jenner 1980]) to the early seventh century. Our thermoluminescence (TL) dating of a low-fired brick from one brick monument at Angkor Borei produced a tenth century date (Feathers 1997). Some of these brick monuments likely housed sculptural images; if construction of the monuments and sculptures coincided, then population at Angkor Borei may have peaked in the sixth and seventh centuries CE and subsided—but did not cease—for several centuries after that.

Why Angkor Borei was founded in this location is unclear, but the location is ideal for rice cultivation (Fox and Ledgerwood 1999; Ng 1979). The Mekong delta receives an average of 100 inches (39 cm) of rain each year, and its mean annual temperature is above 80° Fahrenheit (27°C). Throughout this region of Cambodia today, settlements are found along watercourses at the edge of the flood plain to avoid inundation during the Southwest monsoon (May–October) and to use the waterways for transportation. Availability of drinking water, located in shallow sand lenses at various points in the delta, also dictates settlement location today and may have in the past as well.

Environment And Subsistence Around Angkor Borei

The Mekong delta is the southernmost region of the Indochinese peninsula; although it is situated in the center of monsoonal Asia, it is spared the typhoons that devastate areas to its north and east. The delta's high heat, humidity, and rich alluvial soils generate abundant tropical vegetation; the early historic environment was likely richer in vegetation than it is today. Southern reaches of the region contained dense mangrove forests, which housed diverse mammals (e.g., wild pigs, monkeys), reptiles (e.g., lizards, snakes), and a host of aquatic life (e.g., fish, shrimp, crabs, oysters). Areas in the central delta with waterlogged aluminous soils were rarely settled. Visiting Chinese emissaries, however, observed bamboos and palms that lined the banks of the delta's rivers, and populations drained parts of the delta through canalization to cultivate rice fields and orchards.

Studying the economic organization of the early historic Mekong delta requires, first, an investigation of its subsistence economy. A third century chronicle noted that the people "sow for one year and harvest for three" (Pelliot 1903:254). Many scholars interpret this statement as evidence of agricultural intensification. If populations were familiar with irrigation techniques, then they could have cultivated three crops a year according to the seasons: floating rice, recession agriculture, and rainfed agriculture. Van Liere (1980) suggested that recession might produce similar yields to intensive wet-field cultivation (see also Fox and Ledgerwood 1999).

Chinese documentary accounts describe the presence of wild animals in the delta that either posed threats to human populations (i.e., tigers, rhinoceroses, and crocodiles) or

that served as food resources (e.g., fish, turtles). Pig and cock fighting were popular pastimes of Fu Nan people (Pelliot 1903:261), and archaeological excavations at Oc Eo recovered remains of pigs, chickens, and cat that were likely domesticates (Malleret 1962:346). Preliminary analysis of Angkor Borei archaeofauna also suggests that cattle and perhaps other ungulates were important domesticates during this time. Chinese descriptions of royal processions and elephant hunts (and the Chinese ruler's refusal to accept an elephant sent by emissaries from Fu Nan [Pelliot 1903:253]) suggests that elephants were domesticated, if not endemic, to the delta during this period. More recent excavation of shell middens and remains of domesticated pigs in the northern delta (Vietnam's Vam Co River basin) illustrate that populations relied on riverine and coastal economic resources (Bui Phat Diem et al. 1997).

Language And Community Organization At Angkor Borei

The archaeological record is mute regarding what language the founding populations of Angkor Borei used ca. 400 BCE. Some earlier scholars, like L. P. Briggs (1951:15), argued that pre seventh century populations used a pre-Khmer Austroasiatic language. What is possibly the earliest (but undated) inscription in the delta, from Vo Canh, contains only the non-local language of Sanskrit, and the earliest clear evidence for the Khmer language does not appear until the seventh century CE. The appearance of Khmer inscriptions supports the contention that seventh century residents of Angkor Borei spoke Khmer and used a Khmer alphabet derived from Indian sources.

Archaeological approaches can, however, help us investigate whether Angkor Borei was a capital of the Fu Nan polity by the mid first millennium CE. Doing so requires knowledge of the site's occupational history and its community organization, and how changes from the late centuries BCE led to Chinese descriptions of walled and possibly palisaded villages in the third century CE (Pelliot 1903:254). This suggestion of palisaded communities is tentatively supported by our findings in 1999 regarding the wall construction sequence at Angkor Borei. We currently hypothesize that the wall was initially an earthen embankment around the community, which was later elevated by the addition of brick masonry layers. Hypothetically, the earthen wall around Angkor Borei could have supported a wooden palisade at some point during its usage.

Chinese visitors in the late fifth century noted that people in this region built their houses of wood, and used bamboo leaves as roofing material (Pelliot 1903:261-262). Multiple households apparently shared common ponds (op. cit. 269), rather than wells. Vietnamese archaeologists' work at "Oc Eo culture" sites supplements our knowledge of vernacular architecture throughout the Mekong delta, including Angkor Borei (Dao Linh Un 1998; Pharn Duc Manh 1997; Trinh Thi Hoa 1996). For example, the sites of Go Thap (Dong Thap province) and Bung Bac (Ba Ria Vung Tau province) contained fragments of wooden house piles that support Chinese accounts. In addition, recent economic development projects in Takeo Province (where Angkor Borei is located) may corroborate early Chinese reports: shallow wells, of no more than 10 meters' depth, produce freshwater for ponds, whereas 30 meter deep wells tap a brackish water table of undrinkable water (R. Peer Groves, personal communication, 1999).

Few archaeological clues are available concerning the sociopolitical organization of the delta's early historic population (Jacob 1979; Vickery 1998). Documentary evidence suggests at least a three-tiered social hierarchy, with a ruler and associated elites at the top, free commoners in the mid-

dle, and "slaves" at the bottom. Although the precise meaning of the term "slave" continues to be debated in the literature, this category potentially included craft specialists, religious servants, musicians, artists, animal keepers, and field laborers (Jacob 1979:409). The tax system (paid in gold, silver, pearls, and perfumes) that the Chinese described (Pelliot 1903:254) could have supported public projects, including the construction of the settlement's wall and its water control features.

Understanding how this organizational structure developed through time is a critical first step to research at Angkor Borei and contemporary settlements in the delta. Most early historic sites in the Mekong delta contain some signature of habitation, but archaeological evidence of settlement morphology remains slim. Few excavations have opened large expanses of sites from this period, in part because extensive looting has damaged large tracts of land. In the Oc Eo area, Malleret (1959b:183-184) found it difficult (and sometimes impossible) to excavate large intact areas. Likewise, the site of Angkor Borei also experienced extensive looting and intrasite analyses are difficult. Large pits have damaged many areas of the site, and houses now obstruct access to many sectors. By 1999, at least two brick monuments had been entirely dismantled to use the bricks for road construction fill.

Our 1996 investigations of one brick monument at the site revealed a damaged feature, and we have not attempted further study of the form and function of Angkor Borei's brick monuments. Research at "Oc Eo culture" sites by Vietnamese archaeologists has identified at least two classes of sites that contain architectural remains (Dao Linh Côn 1998; Ha Van Tan 1986; Trinh Thi Hoà 1996; Vo Si Khai 1998). The first type contains either brick or stone foundations (subterranean or above-ground) and building fragments, and may have served public and/or ritual functions. Religious architecture of Fu Nan consisted of brick foundations with wooden superstructures, in which stone slabs occasionally were used for framed doors and windows (following Parmentier 1931:143). Support for this idea comes from Angkor Borei, where villagers reported the recovery of three fragmentary statues at one collapsed brick monument that was destroyed in 1996 (fig. III-8).

A second group of architectural sites is classified by their mortuary function; some of these sites contain jar burials. Others contain brick monuments whose bases contain cremated human remains; one example is the site of Go Thap, in Dông Thap province (Dao Linh Côn 1998). Although formal excavations have not been conducted at any of Angkor Borei's monuments, villagers report finds of crystals, gold leaf, and ashes and human bone from the central shafts of brick monuments.

Economic Organization

Understanding the establishment, fluorescence, and decline of a regional center like Angkor Borei requires knowledge of economics and of economic networks that linked the Mekong delta with areas beyond its boundaries. Studying the production and distribution patterns of utilitarian goods (like domestic items) and non-utilitarian (or luxury) goods provides one strategy for investigating regional levels of interaction. Most recent ceramic research has concentrated on developing regional chronologies in Vietnam (Vam Co River basin [Nishimura and Vuong Thu Hong 1997]) and in Cambodia (Stark and Bong 2001). The recovery of abundant earthenware ceramics at early historic period sites, however, prompted Malleret to suggest that major settlements like Oc Eo were also centers of craft specialization, including ceramic manufacture (Malleret 1960:92 et passim). Moreover, the recovery of Indian ceramics

from sites throughout Southeast Asia signals interactional networks between Southeast Asia and coastal settlements like Arikamedu on the coast of Tamil Nadu (e.g., Ardika and Bellwood 1990; Ardika et al. 1993; Ray 1989, 1994).

Ongoing technical studies of the Angkor Borei ceramic assemblage also suggest some level of specialized production for particular wares through time (Stark and Bentley 1999), although continued research is necessary to understand varying modes of production. No kilns have been recovered from the delta; Boisselier (1966:362) suggests that kiln technology may not ever have been associated with earthenware ceramic manufacturing in Cambodia. Populations in the delta likely manufactured utilitarian earthenware ceramics for culinary uses; Malleret (1960:93) suggests that they also made ceramic containers for exporting local products like fermented or pickled foods (1960:93).

Clear similarities in artifacts and architecture exist between materials recovered during excavations on the Vietnamese and the Cambodian sides of the delta, and systematic research is needed to compare these collections. Exotic materials recovered during Malleret's research (1959-63) and in more recent fieldwork exemplifies the delta's participation in the international maritime trade network. So, too, does work at contemporary sites in Thailand, Burma, and even Indonesia that has produced a similar suite of goods to those found at Oc Eo (Stark and Bong, 2001). To date, however, few provenance studies have been undertaken to study the range of trade goods that may have circulated within and beyond this region.

That populations in the delta also participated in wider trade networks is also suggested by a fifth century Chinese description (Ishizawa 1995:16) of large foreign ships that carried several hundred passengers and stopped at port cities along the delta's coast. The integration of delta communities through canal networks seems plausible (e.g., Paris 1931, 1941), but more fieldwork is needed to understand the construction history of this canal network. Exploring the range of functions that canals served during the early historic period requires survey and surface collections from sites that are linked through these canals.

Religious And Ideological Organization

Economic ties form one sort of link between communities in a regional network, and shared religious beliefs provide an ideological structure that supports the system. Archaeological data thus far have provided limited data on religious and ideological organization during the early historic period. Art history and epigraphy fill important gaps in our knowledge, although whether inscriptions were intended as a means of communication with the gods remains a matter of some debate. Archaeologists have recovered material evidence of South Asian provenance as early as the fourth century BCE, but the nature and limited size of this evidence suggests that the earliest South Asia–Southeast Asia contact was sporadic until the third century CE (Bellina 1998; Glover 1990). Indic influences and religion likely reached Southeast Asia by the turn of the millennium and began to be noticed, since inscriptions that may date as early as the third century containing Sanskritic verses have been found in Vietnam (de Casparis 1979).

Mekong delta populations in the early historic period may have worshiped a variety of male and female deities, and perhaps through cults (e.g. Mus 1975; Vickery 1998:140-142). If paleographic dates for inscriptions are reliable (de Casparis 1979), then texts, relics, stupas, and linga may have been used in the practice of religions, as early as the third century CE. The Southeast Asian statuary tradition did not develop until the sixth or seventh century CE, when mitred Vishnus, Buddhas, and other Indic

images first appeared in the delta and elsewhere in the region. Both Hindu and Buddhist images have been recovered from the same sites (including Angkor Borei), suggesting that both religions were important by the sixth and seventh centuries CE (Brown 1996, 1999; Dalsheimer and Manguin 1998; Dowling 1999).

Epigraphic evidence also offers a window into the relationship between religion and economy. Epigraphic analysis of the earliest dated Khmer inscription (K. 600/611) from Angkor Borei indicates the significance of the temple economy during the early seventh century. This inscription describes offerings to several gods (two indigenous, two Shaivite) by three principal officials. Two of these officials made offerings of slaves (nine men, seven women and two children), livestock (60 head of cattle, 2 buffaloes, 10 goats), and agricultural resources (40 coconut trees and 2 rice fields). A third official made even greater offerings to a deity, of human (22 dancers, singers, and musicians, 22 religious servants, and 55 field labourers with two children), livestock (100 head of cattle, 20 buffaloes) and agricultural (39 rice fields) resources (Vickery 1998:277-278). How economic organization developed between ca. 500 BCE and 400 CE remains unclear, but local populations may have used community-level temples to produce and control surplus by the end of the early historic period.

Summary And Conclusions

Archaeological research on the period between 500 BCE–500 CE suggests that this transition to history was the endpoint of processes that began in the prehistoric period, rather than an abrupt development initiated through contact with South Asia. Settlement patterns and mortuary organization at sites throughout mainland Southeast Asia from the Bronze Age onward suggest that trends toward complexity—such as ritual elaboration, display, economic integration, and the emergence of ranking—were underway 1–2 millennia before Indian contact in the first centuries CE. Widespread similarities in material culture belie a series of historical contingencies, technological shifts, and the formation and dissolution of overarching political formations. The archaeological record offers insights on processes of indigenous political development and on the selective adoption of ideology from outsiders with whom Southeast Asian populations were in contact.

It seems likely, following Higham (1989) and others, that polities or mandalas emerged in river valleys from central Vietnam to Burma during this time. What were the catalysts for change that transformed this region by the early historic period? What forces stimulated the nucleation of human populations and the institutionalization of inequality in these polities? Scholars who seek to explain political and economic developments in the early historic Mekong delta offer competing interpretations. Some view this area as a commercial or ideological periphery (to China and India, respectively), while others emphasize the indigenous development and political and economic centrality of the region for understanding later developments. Archaeologists tend to align with the "indigenous" side of the debate, but archaeologists have devoted little attention to systematic research on sites that bridge the prehistoric–historic boundary until recently.

This article is written with several goals in mind. One is to review extant knowledge of early historic archaeology in Cambodia's Mekong delta, with a particular focus on the phenomenon that historians associate with the "kingdom of Fu Nan." Field investigations by the Lower Mekong Archaeological Project at Angkor Borei give us a window for peering into the early historic polity commonly associated with "Fu Nan" and for evaluating material correlates of political

centers in the Mekong delta. Archaeological research is especially useful for exploring questions concerning chronology, economy and settlement; complementary approaches from art history and epigraphy are necessary to explore dimensions of ancient religion, ideology, and political organization.

Regrettably, archaeological research in the Mekong delta is seriously impeded by the ongoing destruction of sites in both Vietnam and Cambodia. Looting and site destruction has been a problem for more than half a century. In the 1940s, Malleret's work was hampered by severe looting at Oc Eo (Malleret 1959b:183). In the 1990s, Vietnamese archaeologist estimates that not one "Oc Eo culture" site in southern Vietnam is now intact (Trinh Thi Hòa 1996:123). Economic development since the 1980s has improved the local economy, but the lack of cultural resources protection on either side of the delta has led to massive site destruction through canal cutting, the reclamation of fields, and the construction of reservoirs. These various forces are destroying the archaeology of the Mekong delta faster than archaeologists can document it.

Archaeological research at Angkor Borei offers a rare opportunity to investigate processes of emergent complexity in mainland Southeast Asia. While prehistoric archaeologists have done an impressive job of studying trends toward political complexity until the late first millennium CE, significant gaps remain in our knowledge of the early historic period. Studying the development of settlements like Angkor Borei increases our understanding of the region's earliest history, and helps us evaluate whether Fu Nan was a kingdom, a state, or a protostate. Expanding our focus to study emergent state formation throughout the Mekong delta is also crucial for understanding the roots of Classical civilizations in mainland Southeast Asia, and their emergence in the ninth through fourteenth centuries.

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Notes:

1. Ishizawa (1996) and Vickery (1998) provide recent and thorough summaries of Chinese and Khmer documentary sources concerning Fu Nan; also see Jacques (1979) and Christie (1979). For an earlier translation, see Coedès (1968: 40-50, 55-62).

2. See especially Coedès (1968); Colless (1972-73); Gaudes (1993); Hall (1982; 1985); Jacques (1979); Pelliot (1903); Reynolds (1995); and Wolters (1999).

3. See, for example, Aymonier (1900); Colless (1972-73), Hoshino (1996), Ishizawa (1996:14-15), Jacques (1979), LoofsWissowa (1968-69), Vickery (1998:42-46), and Wheatley (1983). Other historians (notably Coedès 1968:36-37) place at least one Fu Nan capital at the site of Ba Phnom (Prey Veng province), on the east side of the Mekong River.

4. This contour map was produced electronically by the Department of Topography and Geographic Sciences (University of Glasgow). Note that contour map elevations are relative, and assume that floodwaters in the 1992 Finnmap aerial photographs are uniformly 2m above sea level. Provision of surveyed control points in the Angkor Borei area, which do not yet exist, will be necessary to obtain absolute elevations for this map.