



# Archaeology in Cambodia: An appraisal for future research

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## INTRODUCTION

Although Angkor has been the centre of archaeological enquiry in Cambodia since the Doudart de Lagrée expedition of 1866, research has been focused almost exclusively on the surviving monumental architecture rather than on the daily life of the city. In the early years of the École Française d'Extrême-Orient (EFEO), activity was necessarily centered on the clearance and gradual consolidation of the temples at Angkor, with little opportunity for archaeological excavation or for study of the domestic material culture of the city itself. Domestic housing – even that of the royal palace and royal enclosure – remained unknown except from depictions or imitations in sandstone relief sculpture, while the demographic nature, extent and development of the city could only be conjectured.

The research conducted by Bernard-Philippe Groslier in the 1960's on the agricultural and hydrological foundations of the urban center (1979) were accompanied by extensive archaeological excavation, but this work was interrupted by political events in the early 1970's, and the results were never adequately published. The field-notes and excavated material became widely scattered during the subsequent political turmoil, and although some of the notes have survived in Paris and Phnom Penh, most of the artefacts have now been lost or exist only as partial collections.

Since the Paris Agreement of 1991, international concern has naturally focused on the conservation of the architectural heritage of Angkor, with archaeology being used primarily as a research aid for investigating the architectural history of specific monuments prior to restoration. This emphasis, however, has recently begun to change,

most notably with the archaeological training and research project, 'From Yaśodharapura to Angkor Thom' – led by Professor Jacques Gaucher of the EFEO and involving field survey of the southeast sector of Angkor Thom, with selective excavation inside the royal enclosure (1995-1997). The archaeological survey of the southern sector of Angkor to the Tonlé Sap, conducted by Christophe Pottier of the EFEO as part of his Ph.D. research, has also more than doubled the number of known sites from this region, and will be complemented by additional survey in the northern sector to the Kulen mountains. This survey re-emphasizes the huge archaeological potential of the Angkor region, with over six hundred sites identified in the southern sector alone.

Despite the wealth of archaeological material, however, huge gaps remain in our basic understanding of the city and its development. There is as yet no typology, for example, of architectural ceramics, despite the former existence of tiled and timber-framed buildings at almost every monument site at Angkor. The most important omission, however, is the lack of even a provisional ceramic sequence. Despite the study of important ceramic collections by Roxanna Brown (1976), Dawn Rooney (1984), and John Guy (1989) among others, there is as yet no standard typology for Khmer ceramics, let alone a dated sequence by which occupational areas and layers of activity could be identified.

The study of domestic earthenwares is particularly important for the formulation of a ceramic chronology, as these are under-represented in the established art collections.

Indeed, the sheer volume of ceramic sherds uncovered in excavations at Angkor would seem to hamper their scientific evaluation. Standard forms of petrological analysis using thin-section or polished-edge laboratory techniques should be applied to a selective cross-section of the stratified archaeological material, but these techniques are specialised and labor-intensive and will need time to establish a standard database of clay types and related pottery forms.

The discovery, survey and archaeological investigation of the Tani kiln complex (situated between the Phnom Bok and the Roluos group, southeast of Angkor) by archaeologists from Sophia University, Tokyo and from the Nara National Cultural Properties Research Institute, is the first full investigation of a kiln site at Angkor, and should provide valuable information on ceramic firing techniques, and of the pottery forms and clay types used at the site (Aoyagi et al. 1998). These could eventually be used to chart the distribution pattern of pottery produced at the site, revealing possible trade networks both within the Angkor region and throughout the Khmer empire.

The looting and sale of ceramics from Angkor has recently become a major problem, with an increase both in the scale of tourism and the appreciation of Khmer ceramics as art objects. Recent activity by the Apsara authority at Angkor to raise awareness of the need to conserve kiln sites and protect the ceramic legacy of the city will be essential in helping to stem the trade in looted ceramics and the corresponding destruction of the archaeological deposits. This trade remains small, however, in comparison to the well-organised and large-scale looting and defacement of sculpture, in particular from outlying sites such as Banteay Chhmar and the Preah Khan of Kompong Svay. The need for a comprehensive policy for the protection and study of archaeological sites throughout Cambodia is now pressing, and affects all periods and areas of research.

## PREHISTORY

The prehistory of Cambodia has been little studied since the discovery of Samrong Sen in the late 19<sup>th</sup> century (Mansuy 1902) and the excavation of the cave site of Laang Spean by Roland and Cécile Mourer in the 1960's (1970 & 1977). The earliest occupational deposits at Laang Spean in Battambang province have been dated to c. 4,200

BC with periodic use of the site continuing until the 9<sup>th</sup> century AD. The traditional adaptation of many cave sites for Buddhist veneration may in fact conceal a more widespread pattern of prehistoric use and occupation.

Interest is now being focused on the study of moated settlements first recorded in Northeast Thailand from aerial surveys in the 1940's, and connected to a similar pattern of moated mounds to the northwest of Angkor (cf. Higham and Thosarat 1999 and Moore, Freeman & Hensley 1999). Research has also been conducted by Professor Yasushi Kojo of Waseda University and by Michael Dega of the University of Hawaii (1999) on a second group of circular earthworks in Kampong Cham province, first recorded by Louis Malleret in 1959. These in turn have been related to neighbouring settlements in southern Vietnam (Nguyễn Trung Do 1999).

Survey and excavation by students of the Royal University of Fine Arts (RUFA) under Gerd and Barbara Albrecht, in particular at the site of Krek 62/52, have revealed a ceramic and stone-tool assemblage dating back to the first or possibly late second millennium BC. A research centre is now being established at Memot to continue investigation of these sites, and an international conference on circular earthworks was held at RUFA in November (Albrecht, Haidle et al. 1999). Future research will need to investigate the possible connection between these early circular earthworks and the formative urban centers of the pre-Angkorian period.

## PROTOHISTORY AND PRE-ANGKORIAN CAMBODIA

Since the early work of Paul Pelliot on Funan (1903), Chinese sources have dominated our understanding of proto-historic Cambodia and of the Mekong delta region. Archaeological research at Oc Eo and related sites by Louis Malleret in the 1940's revealed a rich cultural assemblage including Roman medallions of the 2<sup>nd</sup> century AD and a wide range of precious stone and glass beads relating to the Indo-Roman trade of the early 1<sup>st</sup> millennium AD. Our knowledge of the Oc Eo culture has since been greatly expanded by Vietnamese archaeologists such as Võ Sĩ Khai and Pham Đức Manh, and a new project has recently been initiated at Oc Eo itself under Pierre-Yves Manguin from the EFEO.

Field training and research by Dr. Miriam Stark of the University of Hawaii at Angkor Borei has also revealed an extensive settlement area dating from the 3<sup>rd</sup> century AD to the late 6<sup>th</sup> or early 7<sup>th</sup> centuries. A genuine need now exists for good cross-border co-operation and analysis between Khmer, Vietnamese and foreign archaeologists to compare artefacts and ceramic assemblages from sites sometimes only a few miles apart. Joint research on related prehistoric and early historic sites should be undertaken to compare ceramic traditions, identify imported wares, and to reconstruct trade patterns not only within Cambodia but across Southeast Asia as a whole.

Political stability and the work of the demining teams within Cambodia have allowed renewed access to Pre-Angkorian sites such as Phnom Da, Sambor Prei Kuk and the Phnom Kulen. The general inventory of the architectural remains at Sambor Prei Kuk, financed by the Toyota Foundation and led by Michel Tranet and Uong Von (1997), has revealed the extent and archaeological potential of the site, while the recent re-examination of Pre-Angkorian society through Khmer epigraphy by Michael Vickery (1998) has also emphasized the quality of social information available in the inscriptions from this period.

As yet, however, no attempt has been made to integrate the epigraphic evidence with the related architectural and sculptural heritage – let alone with the domestic material culture of the Pre-Angkorian communities themselves. The history of the immediate Pre-Angkorian era from the late 8<sup>th</sup> century to c. 875 AD remains especially neglected, and in need of major re-evaluation.

### SCULPTURE, ART AND EPIGRAPHY

Renewed study and differentiation of the sculptural heritage of Pre-Angkorian Cambodia is also vital for our understanding of this period. The general categorization of a single, chronological sequence of Pre-Angkorian art styles inevitably ignores local variation and imposes an essentially arbitrary classification – for example the ‘Prei Kmeng style’ – on a plethora of local sculptural traditions. It is also important to study the surviving sculptures in regard to their original site context, and to relate the reli-

gious foundations themselves to the local communities and societies by whom, and for whom, they were constructed and designed to serve.

Although revised by Philippe Stern (1927 & 1965) and by Mme Gilberte de Coral Remusat (1940) since the 1920’s, the art historical chronology of Angkor remains circumscribed by the study of Sanskrit epigraphy and the dynastic chronology devised by George Cœdès (1937-66 & 1968) and others. Even inscriptions directly associated with existing temples, however, are rarely concerned with the actual foundation of the buildings themselves, which may have been constructed in several phases over a long period of time. The seemingly precise dates quoted for temple construction, but in fact referring merely to the foundation of the temple or to the dedication of sacred images, may therefore be highly inaccurate.

Most monuments of the high Angkorian period, from the 11<sup>th</sup> to the late 12<sup>th</sup> centuries AD, have no precise dating at all - and no related epigraphy - but have merely been placed in a rough stylistic sequence of art styles based on exterior decoration. Technological aspects of architectural construction have largely been ignored in relation to the chronology of the monuments - although in fact these technological developments are far more fundamental to the date of the buildings themselves (see for example the interesting study on laterite by Etsuo Uchida and Noriyuki Maeda, 1998).

### THE ARCHITECTURAL LEGACY

The monuments themselves have so far only been roughly dated on the basis of epigraphy and art historical analysis. There is a growing realization, however, of the complexity of the monument chronology, with many temples being enlarged, rebuilt or adapted over several time periods – see for example the restoration work of Christophe Pottier on the Elephant Terrace (1999) and the JSA excavations at the Prasat Suor Prat (Shimizu, Kosawa et al. 1998).

There is also the problematic legacy of curtailed renovation, especially at the Baphuon, where much of the original documentation has been lost. A program of selective research excavation is particularly essential at the Bayon, where earlier studies have shown a highly complex sequence

of construction phases (see the paper by Eleanor Mannikka for the First Bayon Symposium, 1996). Many of the temples continued to be used and restored up to the 16<sup>th</sup> century, but there remains a lack of interest and understanding of the periods following the reign of Jayavarman VII, and the 13<sup>th</sup> and 14<sup>th</sup> centuries have been especially neglected (cf. Jacques 1995).

While the surviving Khmer chronicles on the period from 1340 to 1560 are essentially mythological and literary in style, and have been considered extremely unreliable as historical evidence (cf. Vickery 1977), the buddhist legacy at Angkor has been greatly undervalued – as many surviving vihāras and monastic bases have been dated to this period (cf. the analysis of a newly rediscovered vihāra base at Preah Khan by Chhan Chamroeun, 1998).

## EXTERNAL CONTACTS

A similar need exists for coordination and cooperation of archaeological research throughout Cambodia and across mainland Southeast Asia as a whole. Prehistory is already studied within a Southeast Asian or mainland Southeast Asian perspective (Higham 1989), while temple groups such as Lopburi in central Thailand, Phimai, Prasat Phnom Rung and Prasat Muang Tam in Northeast Thailand, and Vat Phu in southern Laos have been classified according to Angkorian art styles, and have moreover been instrumental in establishing the chronology of Angkor itself.

Nevertheless, there is as yet little understanding of the nature of social contacts in the prehistoric period, or of the later political and economic connections between Angkor and the outlying areas of the ‘Angkorian Empire’. What do we really know, for example, about the political structure of society in Northeast Thailand between the late 6<sup>th</sup> and early 7<sup>th</sup> century inscriptions of Citrasena Mahendravarman and those of Sūryavarman I in the early 11<sup>th</sup> century AD? The development of social, economic and diplomatic relations with neighbouring powers such as 7<sup>th</sup> century Campā, the independent state of Pānduranga in the early 9<sup>th</sup> century, the nascent Dai Viêt from 939 AD, or the rising power of Sukhothai in the late 13<sup>th</sup> century, remains little understood, and requires far greater research.

## HISTORICAL SOURCES

Although Sanskrit and Khmer epigraphy is of primary importance for our modern understanding of politics and society in ancient Cambodia, the evidence of Chinese, Thai and Vietnamese written sources on international relations during the late Angkorian and post-Angkorian periods – particularly from the 12<sup>th</sup> to 15<sup>th</sup> centuries – has been undervalued, and deserves greater study. The Khmer chronicles have been used to good purpose by Mak Phoeun (1981) and more recently by Ashley Thompson (1999) for the study of the 16<sup>th</sup> and 17<sup>th</sup> centuries, but the history of the 18<sup>th</sup> century remains largely neglected. No comprehensive surveys have been made of the surviving monuments at Udong, Lovek, or even around Phnom Penh itself, while post-Angkorian sculpture remains unclassified since the general survey by Giteau (1975). The collection of Buddhist sculpture housed at the Conservation d’Angkor, including many wooden statues from the ‘Gallery of the Buddhas’ at Angkor Wat, must nevertheless rank among the finest artistic achievements of Cambodian culture.

The post-Angkorian period, and the corresponding material remains of that era, are essential in establishing a connection between the classical civilization of Angkor and the modern history of Cambodia as studied from the late 18<sup>th</sup> century to the present day (cf. David P. Chandler 1993). A genuine understanding of the processes of cultural change, and of the particular historic, cognitive and environmental factors involved, will be needed if the glories of the Angkorian civilization are to be linked realistically with the everyday life of the modern world.

## RESEARCH TECHNIQUES

A wide range of research techniques are now available for the enhancement of archaeological research in Cambodia. In addition to aerial photography, the application of additional forms of remote sensing, including radar and satellite imagery, was promoted by the Zemp project in 1993 with the establishment of a computerised GIS (geographic information system). This system is now located at the International Documentation Center on Angkor at Apsara, and will permit the constant updating of geo-

graphic and archaeological data using information from the various international research projects. The mapping program undertaken by the Japan International Co-operation Agency (JICA) for the Angkor region, for example, has already greatly enhanced our understanding of the topography of the area, and can be assimilated into the GIS database.

There is also great potential for extended use of subsurface detection methods for enhancing information and site mapping prior to excavation and as non-destructive means of archaeological analysis. Whether archaeological or otherwise, excavation is always destructive, and should only be applied selectively with precise research objectives in mind. The rapid publication of excavation reports with adequate plans, elevations, and drawings of the excavated material, is also vital if the work is to be of use to other teams and researchers. Specific conclusions – no matter how negative, provisional or ambiguous – should always be made in the excavation report, and qualified if necessary. The archaeologist acts as a unique witness to the cultural layers which, through excavation, are being actively destroyed, and it is therefore essential that these layers are not only recorded, but also interpreted in some way. These conclusions, however, must be honest – no matter how disappointing or possibly controversial the results may be – and should be based securely on the excavated data rather than on the preliminary research proposal.

Open visits or tours to excavation sites, and regulated examination of artefacts, should be encouraged, both to foster exchange of ideas and information between researchers and to present this research to the wider public. The role of the ICC (International Coordinating Committee for the Safeguarding and Development of the Historic Site of Angkor) is essential for setting standards of research and encouraging international communication between the different research teams. Although naturally concentrated on Angkor, the extension of advanced research techniques to other areas of Cambodia – in particular to pre-Angkorian sites should be encouraged.

## CONCLUSION

Archaeology as a subject has always been focused essentially on people, and on the study of developments or simple changes in the human condition. This focus legitimately includes the study of religious architecture and ideology and the political history of the elite, but is above all concerned with the wider society and the material conditions of everyday life. Rather than being finalized and complete, the study of the archaeology of Cambodia is therefore still in its infancy, and represents a genuine challenge and opportunity for future generations of scholars and students from both Cambodia and abroad. It is strongly to be hoped, however, that any future study of the archaeological heritage of Cambodia will actively seek to involve and learn from the local communities and society, and not try to exclude or alienate the people from the details of their own past.

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រូបថតនៃអគារសម្រាប់ធ្វើជារោងសន្និសីទរបស់មជ្ឈមណ្ឌល ។  
Photographie du bâtiment qui abritera la salle de conférence du Centre  
Photograph of the Center's future conference building