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A historical perspective on the Australian contribution to the practice of archaeology in Southeast Asia

David Bulbeck

Archaeology in Southeast Asia is still at the stage of completing the basic outline of human evolution and culture history in the region. As yet it is unclear whether *Homo* arrived in Southeast Asia closer to one million or two million years ago (Antón 1997). The region's archaeological and palaeoanthropological record is sporadically documented until the last 40,000 years, for which period we do find suitable rock shelter deposits virtually across the whole of Southeast Asia. Of course, the quantity of information exponentially increases as we move towards the present, but even an issue as fundamental as the capital site of the celebrated state of Srivijaya (seventh to fourteenth centuries AD) has been resolved only within the last decade (Manguin 1992). The relative paucity of data in the region has produced a situation far from ideal for the development of archaeological theory which, to the degree that it has been explicitly formulated, tends to follow an idealist conception of culture history, within the constraints of cultural ecology. Similarly, in human evolution, theoretical debate is largely focused on the number of species which should be recognised and their likely relationships by descent.

Australia's proximity to Southeast Asia has facilitated two schools of interest in Southeast Asian archaeology. One school recognises Southeast Asia as the source of the first human colonists of Australia and New Guinea, and the likely homeland of later colonising thrusts into the Pacific. This "Australasian school", whose roots go back to the 1930s (McCarthy 1940), has focused on drawing comparisons between Southeast Asian and Pacific prehistory. The second interest group, which may be called the "Southeast Asianist" school, addresses cultural and economic development in Southeast Asia as an independent field of study. These archaeologists team up with other Australian-based scholars who have participated in the post-World War II advent of Australia as a world leader in Southeast Asian studies. Several players of course have a place in both schools, either as the generators of grand syntheses (notably Peter Bellwood) or from addressing issues where Southeast Asian historical developments have influenced Pacific prehistory (e.g., the Macassans who collected sea-cucumbers from Australia's northern shores).

The interests of Southeast Asian and Australian archaeologists can best be described as complementary. Southeast Asian archaeologists show little tendency to generalise across Southeast Asia, let alone to be drawn into comparisons with the Pacific, and prefer to leave these esoteric pursuits to their western colleagues. A reason for this phenomenon is the diversity of national languages in Southeast Asia, and the status of English as the *lingua franca* by default. More important, however, is the common interest among Southeast Asian scholars to focus on their own national heritage in these post-colonial times. The national boundaries

in Southeast Asia essentially follow borders established by western colonial governments; even Thailand, never a colony, is defined on all sides by European-imposed borders. Owing to the recency of the colonial withdrawal (1950s to 1970s), Southeast Asians have devoted much of their archaeological research to re-appropriating their colonial heritage. Historical archaeology has sought material evidence to shore up the textual evidence for the pre-colonial establishment of national unity, at least in the sense of continuous interaction between the communities within present-day borders. Prehistoric archaeology has endorsed a similarly historical agenda, but one that follows the evidence for these unifying interactions back beyond the written word. This mutual nationalism has left the gate open for western archaeologists to develop initiatives that either lie within, straddle, or transcend political boundaries in Southeast Asia.

A perspective on the history of archaeology in Southeast Asia

The earliest European colony of any extent in Southeast Asia was run by a private company rather than a government. Between the late seventeenth and late eighteenth centuries, the Netherlands East India Company controlled an increasingly large area across Java and Madura (Hall 1968). Java's Hindu-Buddhist temples such as Borobodur and Prambanan soon came to scholarly attention, and helped stimulate the foundation of the Batavian Society of Arts and Sciences in 1778. The Society supported nineteenth century attempts to record, excavate and even restore Java's major temples, and to document Java's more spectacular prehistoric remains including megaliths, bronze kettledrums and polished stone adzes (Soejono 1977).

The nineteenth century witnessed the transition from colonial outposts in a sea of Southeast Asian kingdoms, to colonial regimes interspersed by remnant native states (Pluvier 1995:30-43). The unprecedented growth of infrastructure in the region, and the expanding blanket of protection that sheltered Europe's emissaries, allowed scientific explorers to chart Southeast Asia's archaeological record. Middle to late nineteenth century expeditions in Indochina described the ancient Khmer and Cham monuments, and the largest prehistoric sites such as Samrong Sen, prior to the establishment of the École Française d'Extrême Orient in 1898 (Higham 1989:19-21). G.W. Earl, a government official in one of England's nineteenth century possessions in the Malay Peninsula, excavated a shell midden at Guar Kepah in 1860, and had the human bones described by F.W. Huxley (Matthews 1961:5). Before Sarawak became a British protectorate, the botanist Odoardo Beccari excavated shells and human remains in Lubang Angin and Gua Busau during the 1860s, followed by the naturalist Alfred Hart Everett who, in the 1870s, continued Beccari's excavations and probably visited Niah Cave (Price 1997). In 1902-3 the Swiss naturalists Fritz and Paul Sarasin (1905) excavated "Toalean" rock shelters in a remote location in South Sulawesi beyond the area then under Dutch colonial

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control. Even Eugene Dubois, though officially employed as a government doctor when he carried out his famous excavations in Java in 1890-2, undertook his fieldwork as an extracurricular activity (Schwartz 1999:102).

The colonial archaeologist in Southeast Asia was essentially a product of the first half of the twentieth century. Although a Commission for the Discovery, Collection and Conservation of Ancient Objects had been founded in Java in 1822, followed by the Commission for Archaeological Research in Java and Madura in 1901, little progress was effected until the establishment of the *Oudheidkundige Dienst* (Archaeological Service) in 1913. The focus remained on Java's classical archaeology, but P.V. van Stein Callenfels (trained as a Javanist rather than an archaeologist) dabbled in prehistory, while V.I. van der Wall recorded early colonial buildings across Netherlands East India (Soejono 1977). As of the 1930s, work of a high professional standard was undertaken by H.R. van Heekeren, A.N.J. van der Hoop, J.G. de Casparis, A.J. Bernet-Kempers, and others. In Indochina, Henri Parmentier, appointed to the *École Française d'Extrême Orient* in 1900, was one among several renowned French archaeologists who included Georges Coedès, Madeleine Colani, Henri Mansuy and, during the 1940s, O.R. Janse and Louis Malleret. The investigations of these scholars and their colleagues laid the foundations of our understanding of Indochina's Holocene chronology (Higham 1989). In West Malaysia several government ethnologists and archaeologists were extraordinarily active, notably Igor Evans, H.D. Collins and M.W.F. Tweedie (Matthews 1961).

The quality of the work of these colonial archaeologists should of course be assessed by the standards then current in the discipline. Large excavations, including total removal of rock-shelter deposits, were the order of the day. The meticulous excavations and detailed reports by Madeleine Colani on Hoabinhian sites of North Vietnam, and the Plain of Jars in Laos, stand as showcases of the quality of archaeological work achievable in the early twentieth century. At the other end of the scale, van Stein Callenfels generated a veritable industry for other archaeologists to attempt to fathom what he had dug up, even in his own day (see van der Hoop 1938; Tweedie 1953:69; van Heekeren 1972). This point has particular relevance to the first involvement by an Australian archaeologist in fieldwork within the region, namely, Fred McCarthy's trip to South Sulawesi in 1937. The three sites which McCarthy helped excavate — Panisi Ta'butt, Leang Codong and Sabbang — resulted in the grand total of seven printed pages of primary reports and commentary, plus four pages of illustrations (van Stein Callenfels 1938; Willems 1938).

Archaeological investigations were comparatively delayed in those Southeast Asian countries which were not twentieth-century colonies, but the spirit of joint research developed early, and remains strong. The Philippines, which had essentially been a protectorate of the United States of America since 1898, was granted independence on terms favourable to the USA in 1946 (Stockwell 1992). Robert Fox, after taking over from Otley Beyer as head of archaeology at the National Museum, began inducting Filipinos in museum duties. Bill Solheim, Harold Conklin and their students activated the academic study of Philippine archaeology at Hawai'i and other USA universities. In Thailand the official interest of the government lay in the monuments of Siam, whereas the country's other relics were open slather for western scholars (Higham 1989:25-27). The Siam Society (an NGO) facilitated

various projects, notably the middle twentieth century investigations by H.G. Quaritch-Wales into early historical sites, and the pioneering studies by C.N. Spinks (e.g. 1959, 1965) on Thai ceramics. The 1960-62 Thai-Danish Expedition to Kanchanaburi Province (Bellwood 1978:69), and the 1966-68 Non Nok Tha excavation co-ordinated between the University of Hawai'i and the Thai Fine Arts Department, were early examples of joint programs between Thailand and its western allies.

Malaysia still needed its colonial props, in education as well as security, after gaining independence in 1948 (Hall 1968). The legendary Tom Harrisson and the indefatigable Barbara Harrisson were active across north Borneo during the 1950s and 1960s, while a succession of British archaeologists (Gale Sieveking, B.A.V. Peacock, F.L. Dunn) continued excavations in West Malaysia during the same period (Bellwood 1978). Indonesia's more troubled path to independence (formally ratified in 1949) led more quickly to native administrative control over the country's archaeology (1953), although Dutch archaeologists continued their activities until 1959-60 (Soejono 1977). Indonesia's deteriorating political and economic situation throughout the 1960s minimised the scope for archaeological research. In Indochina, the protracted conflicts involving "communist" regimes and western-propped governments constitute one of the bloodiest chapters in post-World War II history. Nonetheless, French archaeologists continued to work in southern Vietnam and Cambodia during the 1960s, and North Vietnamese archaeologists maintained their programs even at the high tide of US bombing (Higham 1989).

In Indonesia, re-appropriation of the perspectives and advances achieved by the Dutch archaeologists is the most obvious post-colonial development. Most of the sites first investigated by the Dutch have been re-excavated by Indonesian and joint Indonesian-western teams. Examples in Java include Anyar Lor (Sukendar et al. 1982); the Cianjur (Sukendar 1985), Bondowoso (Prasetyo 2000) and other megalithic fields; Borobudur and numerous other Hindu-Buddhist temples (Soekmono 1990); the Sangiran complex (Driwantoro 1998); and Sampung (Driwantoro pers. comm.). In South Sulawesi we can list Leang Burung 1, Batu Ejaya (Mulvaney and Soejono 1970a, b), Leang Pattae (Gunadi pers. comm.), Kamassi, Minanga Sipakko (Simanjuntak 1994-5) and Sabbang (Bulbeck and Prasetyo 1999), not to mention Melolo in Sumba and Lewoleba in Flores (Bintarti 2000). To a remarkable degree, Indonesian archaeologists keep to the ideas and the methodology developed by the Dutch, seemingly to preserve an Indonesian archaeological identity in the face of the threat of western intellectual imperialism. The typical Indonesian archaeological report will run through the contributions and findings by Dutch archaeologists, then move onto the Indonesian archaeologists' results with, at most, token attention to the efforts of Bellwood, Glover and other western archaeologists active in Indonesia over the last decades.

Parallel developments are evident in Vietnam and Malaysia. Even though North Vietnamese archaeologists initially had to turn to the Soviet Union for their training, the level of overt Marxist theory in Vietnamese archaeological scholarship is negligible. Instead, we find that the Musée Louis Finot in Hanoi became the National Museum, and Vietnam's Institute of Archaeology (a development from the wartime "excavation brigades") assumed the central organisational role of the *École Française d'Extrême Orient*. Most research has been directed towards tracing the origins

and efflorescence of the Vietnamese people (Loofs-Wissowa 1980; Higham 1989:26-27). In Malaysia, "nationalised British sites" include Gua Cha (Adi 1985), Tembeling (Adi 1989), Niah Cave (Zuraina 1982), Gua Sireh (Ipoi 1993), Kota Tampan, Gua Harimau, Gua Kajang, Gua Sagu (Zuraina 1998), Pengkalan Bujang (Shuhaimi and Othman 1990), Kuala Selinsing (Shuhaimi 1991), and recently Gua Kecil (Mahfuz Nordin pers. comm.). The Bukit Tengkorak and Tingkayu sites excavated in Sabah by Peter Bellwood during the 1980s have similarly been re-excavated by Stephen Chia (1998) and Saidin (1998). Malaysian archaeologists are now sufficiently confident of their professional standards as to effectively forbid excavations by foreign archaeologists.

Australia-based archaeologists have been active in every country in Southeast Asia. This has usually occurred at the level of joint research projects, quite often in the examination of a particular class of Southeast Asian remains, and very occasionally in the management of cultural resources. Other involvement includes the supervision of Southeast Asian postgraduate students, and supplying chronometric dates and other specialist analyses. Australian archaeologists have usually operated as lone individuals or, maximally, as loose coalitions gathered together for a similar purpose. As Australia has the largest economy and one of the most sophisticated technological bases in the region, but also one of the smallest populations, it is understandable that a small portion of the economic surplus should be available to assist the development of Southeast Asian archaeology. On the other hand, archaeology is of miniscule political importance, and so the Australian initiatives have been opportunistic rather than in conformity with national political strategies.

Regional prehistories of the 1960s to 1990s

Australia's earliest formal involvement in Southeast Asian archaeology piggybacked on the Thai-British Archaeological Expedition, founded in 1965 in the wake of the Thai-Danish and Thai-University of Hawai'i initiatives. During the course of fieldwork between 1966 and 1970, Australian sources increasingly funded the excavations, as organised through Helmut Loofs who was teaching Southeast Asian archaeology at the Faculty of Asian Studies, Australian National University. The four excavated sites, spread across central and north Thailand, were selected to document the transition between the late Neolithic and the period of early states (Loofs-Wissowa 1997). These excavations were soon overtaken by the hype associated with the claims for spectacularly early bronze at Non Nok Tha and Ban Chiang, and the hints of early Holocene agriculture at Spirit Cave. Although a more sober appreciation of Thailand's Holocene prehistory has now come into general acceptance (e.g.

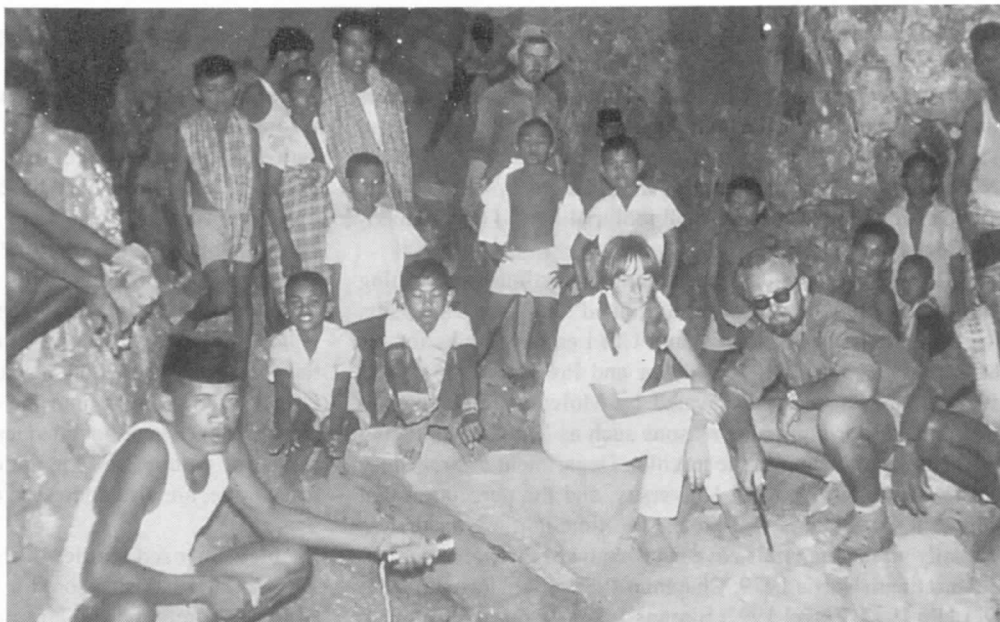


Figure 1 Campbell Macknight (centre rear), Emily Glover (towards centre) and Ian Glover (far right) collecting materials from the mortuary disposal cave of Leang Paja, Maros, during the 1969 Australian-Indonesian Expedition to South Sulawesi. Photo: John Mulvaney

Higham 1989), there have been so many spectacular sites excavated in Thailand (mainly with USA and New Zealand involvement) that the full reporting of the Thai-British Expedition sites has taken on a secondary priority.

Ironically, the first fully Australian-sponsored project in Southeast Asia took place in the region's last colony, Portuguese Timor (now East Timor). Equally ironically, this has been the first and the last professional archaeological study in that troubled land. Ian Glover's 1966-7 fieldwork served as a model for subsequent Australian projects that attempted to identify the main prehistoric issues in a particular region in Southeast Asia, and to synthesise a general prehistory for that region. From his excavations in rock shelters, Glover dated the introduction of exotic fauna, the development of agriculture and husbandry, and the arrival of pottery and bronze. His PhD thesis at the Australian National University Department of Prehistory (Glover 1972), and the subsequent *Terra Australis* monograph (Glover 1986), outlined a radiocarbon-based chronology and culture history, cast in a cultural ecology paradigm, from the terminal Pleistocene to the present.

Ian Glover delayed completion of his PhD thesis to participate in another project with a rather different orientation. This was the 1969 Australian-Indonesian expedition to South Sulawesi (Fig. 1), jointly led by John Mulvaney who was then a senior fellow in the Department of Prehistory, and R.P. Soejono who had been a visiting fellow in the department in 1968. Other participants included Emily Glover, an expert malacologist, and Campbell Macknight who had just completed his PhD on the Macassan trepang fishermen from South Sulawesi (Macknight 1969). South Sulawesi had only recently become a secure area following the rout of the Kahar Muzakkar separatist rebellion. Mulvaney was drawn to South Sulawesi by the same intriguing parallels between its "mesolithic" Toalean industry, and the Australian small tool tradition, that had brought Fred McCarthy there more than 30 years earlier. Mulvaney specifically targeted Toalean sites previously excavated or at least reported by the Dutch colonial archaeologists, to obtain radiocarbon dates which could be compared with those becoming available in Australia (Mulvaney and Soejono 1970a, 1970b). Glover on the other

hand argued for excavating adjacent sites that appeared less disturbed and, after obtaining a lectureship at London's Institute for Archaeology in 1970, produced his classic studies on the pre-Late Glacial Maximum and Holocene sequences at Leang Burung 2 and Ulu Leang 1 (Glover 1976, 1981). Needless to say, the question of the relationship between the Toalean and the Australian small tool tradition, if any, remains completely unresolved.

Glover maintained an Australian connection by recruiting Gary Presland, who subsequently joined La Trobe University, to study the Leang Burung 2 and Ulu Leang 1 lithics for his MA thesis (Presland 1979; Glover and Presland 1985). The study of the materials excavated by Mulvaney and Soejono was delayed for numerous reasons such as Mulvaney's taking up the inaugural chair in the teaching Department of Prehistory at the Australian National University, and the perception that Glover's excavations had stolen the limelight. Nonetheless virtually all the materials have been analysed through students' dissertations (Harris 1979; Chapman 1981, 1986; Pasqua 1995; Di Lello 1997; Flavel 1997; Simons 1997; Pasqua and Bulbeck 1998). The human remains have also been recorded (Bulbeck unpublished data) while the carbonised plant remains are currently under study by Victor Paz, a Filipino, as part of his PhD studies at the George Pitt-Rivers Laboratory at Cambridge. Together, Ulu Leang 1 and the Mulvaney and Soejono sites have the potential to be synthesised into a pan-Holocene culture history as impressive as that developed by Glover for East Timor.

After moving to the Australian National University in 1972, Peter Bellwood continued the tradition of adumbrating regional prehistories, with one major project per decade between the 1970s and the 1990s. In 1974, Bellwood teamed up with the Indonesian archaeologist I.M. Sutayasa to conduct a series of excavations in North Sulawesi, including the Talaud and Sangihe island arcs which jut towards the Philippines (Bellwood 1976). From the end of 1979 until 1987, Bellwood excavated a series of sites in southeastern Sabah, along with Peter Koon of the Sabah Museum as co-director (Bellwood 1988; Bellwood and Koon 1989). From 1990 to 1996, Bellwood led the "Archaeological Survey and Excavation in the Halmahera Island Group, Maluku Utara, Indonesia" project, in the company of Geoff Irwin (Auckland) and a suite of Indonesian collaborators (Bellwood et al. 1998). In all cases Bellwood succeeded in excavating late Pleistocene sites, documenting early Holocene assemblages, and dating the introduction of pottery and metals. All the excavated materials have been admirably reported in theses, reports and publications, with the partial exception of the North Maluku remains, which are still under analysis (see Bellwood 1997 for an introduction to the references).

Peter Bellwood's encyclopaedic scholarship has placed him in the position of the recognised world expert on Southeast Asian prehistory (e.g. Bellwood 1992). His interest in language families has enshrined the current paradigm in East Asian archaeology which associates the region's extant language families with the spread of agricultural populations. As well as documenting his three regional prehistories along the "Austronesian trail", and acting as secretary of the highly successful Indo-Pacific Prehistory Association since 1978, Bellwood has been the dominant figure in the supervision of postgraduate archaeology students from Southeast Asia, to be discussed below.

Two other Australian projects have wedded cultural ecology and culture history on a localised scale. In 1975 the

Victoria Archaeological Survey offered to assist the National Museum of the Philippines in the implementation of a nationwide program to manage the Philippines' cultural resources. The upshot was a survey of Panay Island and a series of excavations during the late 1970s. The project sketched out a prehistory of Panay since the Pleistocene, but only the last 1000 years were considered to be understood in detail (Coutts 1983). In 1995 Peter Veth (James Cook University), Matthew Spriggs and Sue O'Connor (Australian National University) commenced their survey of the Aru Islands and excavation of the major sites, in a project projected to extend well after 2000. A major drawback of the Aru Islands is their incorporation into the continent of Sahul-land during the Pleistocene, although questions of the middle Holocene arrival of pottery, and the antiquity of the eastern Indonesian spice trade, are also addressed (Veth et al. 1998).

Problem-focused studies of the 1970s to 1990s

Australia has sponsored a large number of studies which address some particular problem in Southeast Asian archaeology, and which eschew the distraction of long-term change over time. These tend to be historical, with a focus on the last two millennia, or else Pleistocene, even Plio-Pleistocene. We could include here the archaeometallurgical analyses focused on single artifacts (e.g. Heffernan 1996-97) or group of related artifacts (e.g. Barnard 1978), although most of these technologically specialised studies have occurred as part of a larger project. The Vietnamese-English dictionary of archaeology prepared by Helmut Loofs-Wissowa (1970) could also be mentioned in this context.

In 1976, while at the University of Sydney, Michael Walker gave his attention to the "Buni pottery complex" which I.M. Sutayasa (1972) had recognised in the vicinity of Jakarta. Walker identified some examples of Romano-Indian rouletted ware in the assemblages (Walker and Santoso 1977), although subsequent chemical analysis suggested these pieces could be local imitations rather than genuine imports (Summerhayes and Walker 1982). Summerhayes' (1979) analyses pointed to an overarching similarity in the chemistry of the pottery right across Java in assemblages approximately 2000-1000 years old.

Maybe 750,000 years earlier, the *Homo erectus* individual who left us the Sangiran 17 specimen walked the forests of Java. This unusually complete *H. erectus* cranium was reconstructed and measured by the Michigan palaeoanthropologist Milford Wolpoff in the late 1970s, and reported in a joint paper with Alan Thorne of the Australian National University (Thorne and Wolpoff 1981). Prior to then, and subsequently, Thorne has inspected the Java fossil hominids and sites as part of his agenda to demonstrate ancient Java's contribution to the ancestry of the Australian Aborigines.

The Western Australian Maritime Museum (WAMM) joined in the early development of maritime archaeology in Southeast Asia when a joint Thai-Australian team excavated the Ko Kradat wreck, in the Gulf of Thailand, in 1979 and 1980. WAMM subsequently joined forces with the Fine Arts Department of Thailand to excavate the Pattaya wreck, Wreck Site G and Ko Si Chang 1 wreck near Bangkok between 1982 and 1985. Apart from the Pattaya wreck, which may be fourteenth century, the cargo of the wrecks included Sawankhalok high-fired stonewares associated with late Ming porcelain, indicative of a circa AD 1600 dating (Green and Harper 1983; Green 1990). WAMM has continued to develop

its research into pre-colonial shipbuilding techniques across the Indian Ocean and South China Sea, including the Butuan site in Mindanao, Philippines, where nine *balangay* craft have been discovered (Clark et al. 1993).

Contemporary with the WAMM initiatives in Thailand, Don Hein of the Art Gallery of South Australia began to investigate the kilns that produced the Sawankhalok wares. In 1980 he formed the Thai Ceramics Dating Project, which became the Thai Ceramics Archaeological Project when the Art Gallery joined forces with the University of Adelaide, and in 1984 these two bodies established the Research Centre for Southeast Asian Ceramics. More than 50 of the estimated 1000 ceramic kilns in the Si Satchanalai complex, central Thailand, have been excavated, and the hundreds of thousands of ceramic wasters and other finds collected and catalogued. Features of the project include a magnetometer survey to locate buried kilns (Stanley 1982), and the attempt to date the kilns precisely through the thermoluminescence (Robertson and Prescott 1988), radiocarbon and palaeomagnetic techniques (Barbetti and Hein 1989). Only the Ban Tao Hai kilns have been reported in any detail (Hein and Sangkhanukit 1984), all other reports being impressionistic overviews (e.g. Richards et al. 1984; Hein 1985a, 1985b; Harper n.d.; Burns 1987; Burns et al. 1987), or postgraduate theses in the 1990s (by Ric Fordham-Edwards and Peter Grave). By the late 1980s the project members had moved in different directions. One upshot was the 1989 excavation of a kiln site in Laos, promptly reported by Hein et al. (1992), in one of the very few Australian-sponsored projects on Lao archaeology.

In 1985 I commenced my South Sulawesi Prehistoric and Historical Archaeology Project, which involved surveys intended to illuminate the origins and pre-colonial development of the local Bugis and Makasar kingdoms. A joint monograph on the Soppeng kingdom (Kallupa et al. 1989) is, to my knowledge, the first archaeological report to contain parallel Indonesian and English texts. My PhD thesis on the rise of the Macassar empire (Bulbeck 1992; see also Macknight 1993) involved analysis of the genealogical records (Bulbeck 1996), the area's central places (Bulbeck 1994) and fortifications (Bulbeck 1998), and the sites' decorated earthenwares (Clune and Bulbeck 1999). The "Prehistoric" component of the project was realised in a subsequent overview of South Sulawesi Holocene archaeology (Bulbeck 1996-97).

In the early 1990s my colleague, the English historian Ian Caldwell, devised the Origins of Complex Society in South Sulawesi project, to employ archaeology in casting light on Luwu and Cina, supposedly the two oldest Bugis kingdoms. Our 1997-8 excavations in Luwu produced a continuous chronology of long-distance exchange covering the last two millennia, and ironworking throughout the last millennium, well before the establishment of the Luwu royal line at circa 1300 (Bulbeck and Prasetyo 1999). Caldwell's 1999 excavations on Cina revisited the issue of a former "inland sea" in the South Sulawesi peninsula, to be addressed through palynological and phytolith analysis (courtesy of Geoff Hope and Doreen Bowdery, Australian National University).

Australian studies specifically directed at illuminating human-environmental interactions in Southeast Asia (west of Irian Jaya) have been rare. Examples include Geoff Hope's pollen cores in Luwu, South Sulawesi, drilled in 1985-6, and the cores taken by Dan Penny (Monash University) in the Khorat Plateau where the controversy over very early bronze metallurgy in Thailand had erupted (Penny et al. 1996; Penny

1999). Both operations have produced late Pleistocene to Holocene sequences. In addition Doreen Bowdery (1999) has studied the Holocene sequences of phytoliths in one of Penny's cores, and in the Gua Chawas, Plain of Jars, Lao Pako and Pacung sites excavated by doctoral students from Southeast Asia under Peter Bellwood's supervision (see below).

Several Australian archaeologists have recently addressed the issue of early hominids in Southeast Asia. Walters (1996) has added his voice to the persistent minority opinion that the Pleistocene (and possibly Plio-Pleistocene) fossils from Sangiran, Central Java, are too variable for them all to be lumped under *Homo erectus*. In a similar analysis of the coefficient of variation of tooth measurements, Walters et al. (1998) argue that the Middle to Late Pleistocene hominid assemblages in Vietnam also contain the remains of more than one species. Perhaps the most daring venture along these lines is the assertion of a Middle Pleistocene presence of stone artifacts in Flores which, if correct, would imply the ability of *Homo erectus* to have made short sea crossings to reach Lombok and Flores. Mike Morwood (University of New England) joined the project in 1995 after a Dutch-Indonesian team had confirmed earlier claims by Father Verhoeven of an association between stone artifacts and *Stegodon* fossils in Flores. Although the Flores sites have their detractors, there would probably be wider acceptance of the sites' credentials than the extended claim for any connection with the initial colonisation of Australia (see Groves 1996; Morwood et al. 1997; Mulvaney and Kamminga 1999).

The projects described above are merely a fraction of the range of initiatives undertaken by Australian archaeologists in Southeast Asia since the 1970s. The ever-increasing variety can be illustrated by listing current studies that have not been published or have been only cursorily reported. Sandra Bowdler (University of Western Australia) has been systematically examining Late Pleistocene lithic assemblages across Southeast Asia, as well as the somewhat more recent pebble-based industries attributed to the Hoabinhian of the Southeast Asian mainland (Bowdler and Smith 1999). Judith Cameron (Australian National University) has been examining prehistoric textile remains and spindle whorls from Vietnam, Thailand and elsewhere in Southeast Asia for her PhD thesis. Another PhD student, Rob Theunissen (University of New England), has been examining the origins and social role of the agate and carnelian ornaments recovered from proto-historic Southeast Asian sites (Theunissen 1998-9). Roland Fletcher (Sydney University) has commenced studying the medieval mega-city of Angkor Wat, Cambodia. The Australian involvement in Southeast Asian maritime archaeology, environmental reconstruction, human evolution and every aspect of terrestrial archaeology reflects the kaleidoscope of archaeological sub-disciplines currently practised in the Antipodes.

Training Southeast Asian archaeologists in Australia

The first case of a Southeast Asian archaeologist to receive advanced training in Australia was actually an Englishman, named J.M. Matthews, who had been part of the posse of British archaeologists in post-independence Malaysia. He completed his PhD on the Hoabinhian at the Australian National University's Department of Prehistory (Matthews 1964). Matthews' PhD enrolment is also emblematic of the close relationship between Britain and Australia in the early development of academic archaeology in Australia. The Thai-British Archaeological Expedition (as discussed earlier), and

the fact that both Ian Glover and Peter Bellwood are largely identified with the British archaeological tradition, suggest that Australia's early academic ventures into Southeast Asian archaeology could be dubbed "Cambridge on a tropical holiday".

Matussin bin Omar arrived from Brunei in the middle 1970s to begin the procession of Southeast Asian archaeologists who studied under Peter Bellwood at the Australian National University's teaching Department of Prehistory. Matussin's interest was naturally the pre-Islamic period of the Brunei sultanate, and the evidence for ethnic Malay associations, as reflected in Brunei's early historical sites (Matussin 1978, 1981; Bellwood and Matussin 1980). Shortly after, the Malaysian government sent Adi Taha to receive a similar program of training with Peter Bellwood. Adi's project was to re-excavate the famous prehistoric site of Gua Cha (Adi 1981, 1985). The third museum archaeologist to study his Masters under Peter Bellwood (and to publish his MA thesis through the local museum) was Ipoi Datan, from Sarawak. Ipoi (1990, 1993) excavated two sites in Sarawak with preceramic to Metal Phase sequences. These Gua Cha and Sarawak excavations have been important constituents in Bellwood's overall reconstruction of the culture history of the Indo-Malaysian Archipelago, including the proposed association between the spread of farming cultures and the region's extant language families. In the 1990s, Adi Taha proceeded to a PhD program under Bellwood's supervision, with the excavation of further Hoabinhian sites (including Gua Chawas) in the vicinity of Gua Cha.

The second wave of Southeast Asian students under Bellwood's care involved academics, from Indonesian universities, who have proceeded to their PhD studies after completing their Masters. I. Wayan Ardika, from Udayana University, led the charge with his MA (1987) and PhD (1991) on early social complexification in Bali, including the evidence for Indian traders on north Bali's shores by 2000 years ago. Karina Arifin, from the University of Indonesia in Jakarta, actually studied Papua New Guinea ethnoarchaeology for her MA (1990), but has proceeded to the excavation of sites in eastern Indonesian Borneo for her PhD. Arifin's thesis will be of enormous importance to the debate on whether or not the equatorial rainforests could support hunter-gatherers unassisted by exchange relations with agricultural groups (cf. Bailey et al. 1989). Subsequent students have come mainly from the Gadjah Mada University in Yogyakarta. They include Daud Tanudirjo, who studied a stone adze workshop in Java for his MA (1991), and Mahirta who looked at ethnographic pottery manufacture in the Moluccas for her MA (1996). Both of them are currently finishing their PhD research on Late Pleistocene to Holocene cultural sequences on the small islands of eastern Indonesia. Their colleague, Anggraeni, is studying the Metal Age site of Gilimanuk in Bali for her Masters. Two final students are Widya Nayati, from the University of Indonesia, supervised by Campbell Macknight as well as Peter Bellwood for her MA study on late precolonial entrepôts in Indonesia (1994), and Djoko Witjaksono. Djoko, who received his MA thesis on early iron artifacts in Malaysia and Indonesia (1999), differs from his predecessors in being a government rather than an academic archaeologist. The richly variable array of thesis studies summarised above covers the full gamut from *Homo sapiens'* early colonisation of the Indonesian region, to the arrival of Indian and European traders.

Two PhD students from Mainland Southeast Asia, Somsuda Rutnin from Thailand and Thongsā

Sayavongkhamdy from Laos, have also studied under Bellwood's supervision. Somsuda (1988) carried out a "classical" regional prehistory for her area in north Thailand, while Thongsā (Thongsā and Bellwood 2000) is attempting the same through the excavation of several of the major sites known in Laos (including Lao Pako and the Plain of Jars). Only the Philippines, Vietnam and Cambodia are unrepresented among the Southeast Asian nations who have sent their archaeologists to Australia for training. (Singapore is represented in the sense that Danny Tan, of the Asian Civilisations Museum, completed his Honours degree in archaeology as a private student at the University of Western Australia.) Of course in the case of the Philippines, the long-term prior arrangement with academia in the United States has obviated the need to train archaeology students in Australia.

Prospects for the new millennium

There is no evidence at all that Australian and other western archaeologists who are interested in Southeast Asia are ruining their own research prospects through training up Southeast Asians. Despite the veritable explosion in Southeast Asian archaeology since the 1960s, there are still vast uncharted areas open to new investigations, including the appropriately transacted level of foreign participation. Archaeology of course has a way of producing new questions for more detailed analysis, ensuring projects for future generations of archaeologists, even in those regions where new sites start to run in short supply. The general trend in Southeast Asia would appear to be towards increasing national control of any excavation or other field project, and foreign involvement mainly at the level of specialist analysis or the facilitation of services. An example here would be Mike Barbetti's middleman role in dating the Ulu Bernam cist graves recently excavated in Malaysia (see Leong Sau Heng 2000). Australian archaeologists are fortunately inducted into a wide range of specialist sub-disciplines, and this augers well for our continuing involvement in Southeast Asia, especially our near neighbours Indonesia and Malaysia.

The other major opening for Australians is at the level of synthesis, given the reluctance among Southeast Asian archaeologists to pass judgment beyond their national borders, and their generally poor access to travel funds and library resources compared to their western colleagues. Singapore might be a nursery for a future grand synthesist, given Singapore's status as a developed nation, and the fact that its own archaeological record is too meagre to engulf the attention of would-be luminaries. On the other hand there are far more academic archaeologists in Southeast Asia's other nations and, as they become more confident within a maturing tradition, we might expect to see Southeast Asian scholars prepared to generalise right across the region.

A final consideration is political stability, a minimum requirement if Australian archaeologists are to forsake their home comforts. Recent developments in East Timor and Indonesia hardly lend any comfort to the hope that Southeast Asia is unswervingly evolving towards geopolitical stability. Indeed, every geographically extensive Southeast Asian country has its indigenous minorities who feel hardly done by, and their claims for appropriate recognition are likely to reach a higher pitch as more of their members obtain a reasonable education. I would predict a strobe effect of particular localities developing into temporary flashpoints, unsuitable for archaeological field trips, while a political resolution is hammered out. On the other hand, recognition of cultural

differences is a powerful tool in reconciliation, and this may well develop into the practice of archaeology specifically tied to ethnic minorities (the Karen, Cham, Acehnese, Sulunese and so on). Cultural resource management has generally received a very low profile in Southeast Asia compared to the ideology of economic progress (and the realities of money politics), but it may well receive a major boost in the interests of placating well-informed minorities. Of course, any such move towards multiculturalism can be expected to be kept under tight central control, but it would definitely be beneficial to the general praxis of archaeology in Southeast Asia, and some spinoff opportunities for an Australian involvement could reasonably be anticipated.

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