

EXTENDING THE ARCHAEOLOGICAL FRONTIER: A REVIEW OF WORK ON THE PREHISTORY OF NORTH QUEENSLAND

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INTRODUCTION

Work on the archaeological frontier of the vast region known as North Queensland is still very much in its infancy, though ten years ago it had hardly even been born. As with work on the prehistory of Australia in general (Mulvaney 1971, 1975; Horton 1981a), work on the prehistory of North Queensland has had a number of "false starts". During and after the Second World War there was at times a certain limited amount of amateur interest and even the odd amateur excavation (e.g. Stephens 1945). Professional archaeological work had a "false start" in the early 1960s (Wright 1964, 1971) and then a new, more permanent start in the mid-1970s. A review of work up till 1979 may be found in Coventry et al. (1980). The early 1980s have already seen the commencement of many additional research projects, at least compared with what had happened before, though North Queensland is certainly still quite a long way from being filled up with archaeological projects. In addition to mainstream research, since about 1980 there has also been, at long last, a reasonable increase in the number of environmental impact surveys being carried out which have actually included an archaeological component, though this has sometimes been added as an afterthought. I will not attempt to review the environmental impact work, as much of it is still inaccessible and most of it only reports surface occurrences.

For the purposes of this review the region of North Queensland is taken as that lying between Mackay in the south and Torres Strait in the north, plus the area running west to the border with the Northern Territory. This is the total area normally considered both administratively and geographically as North Queensland. It represents about half of the state of Queensland, or an area almost as large as all of South Australia. Roads and many other services are still generally quite poor in North Queensland, and even archaeology has suffered from the tyranny of distance from Brisbane. Townsville is the regional capital and the second largest city in the state, yet it still has neither a state relics ranger nor a state field archaeologist, both of which it certainly should have given the enormous amount of economic development in the area. There are at present only three relics rangers stationed in North Queensland: one at Bamaga (for Torres Strait), one at Laura (also responsible for the Cairns area) and one at Mt. Isa.

From an official point of view I am perhaps the only archaeologist in permanent residence in North Queensland, as I am on the permanent staff of James Cook University at Townsville. However, my wife, Mireille Mardaga-Campbell, and two of my PhD students, Nicky Horsfall and Shelley Greer, are all archaeologists. Further, we all have a long-term commitment to work in the region. Of course the nature of one's commitment might change over time. When I first arrived in North Queensland in 1975, I naively thought that I could attempt to carry out a systematic survey of the whole region, just as I had managed to do a comprehensive study of a particular period in Britain (Campbell 1977). A couple of field trips in 1975 and 1976 and a more careful examination of available maps soon convinced me that I was being incredibly silly. After developing a tighter research design, I set about investigating selected environments which would still provide a cross-section of variation in North Queensland but which were within a more reasonable distance (i.e. less than 500 km) from Townsville. The Townsville, or Herbert/Burdekin, area itself had just been studied by Helen Brayshaw (1977). After some initial ethnoarchaeological work along the Tully River, I began investigating the heart of the tropical rainforest in 1979. In 1981 I happily turned this potentially rich area over to Nicky Horsfall for her work (see Horsfall, this volume).

The following review is problem oriented in its coverage of what work has occurred so far and what still needs to be done to answer urgent questions. Mainly the results of excavations are considered and the sequence followed is chronological from late Pleistocene to late Holocene.

LATE PLEISTOCENE ARCHAEOLOGY OF NORTH QUEENSLAND

We do not yet know when North Queensland was first colonised. Most of the known early archaeological sites are still in southern regions of Australia, which is doubtless an artificially skewed distribution. In the less explored northern regions early sites are still rare and few exceed 20,000 BP in age so far (Jones 1979; Coventry et al. 1980; Campbell 1982a). There are no sites yet known which are as old as some of those at Lake Mungo in New South Wales, or at Upper Swan in southern Western Australia (Pearce and Barbetti 1981). The southern evidence clearly shows that the first colonisation of Australia began sometime before 40,000 BP, though how much before is still uncertain, although all of the available evidence would also suggest that it was after Homo sapiens first appeared in South-east Asia. Homo erectus was definitely present in Java by sometime between 1.9 and 0.7 million years ago (Semah et al. 1982), but the eventual significance of this for Australia is a matter for some debate (compare views of Thorne and Wolpoff 1981 with those of Brown 1981). As the initial colonists had to cross open stretches of sea in order to get to Australia (and New Guinea) from the Sunda Shelf region of South-east Asia, it is normally assumed that they had some form of watercraft, whether raft or canoe (Jones 1979).

There are also debates about which parts of Australia might have been colonised first (Bowdler 1977; Horton 1981b; White and O'Connell 1982; Flood 1983a). As Figure 1 demonstrates, the few Pleistocene sites now available in North Queensland support the view that the coastal colonisation hypothesis (Bowdler 1977) is basically incorrect. As these sites were occupied between 15,000 and 12,000 BP, they also do not support that part of the well-watered woodland hypothesis (Horton 1981b)

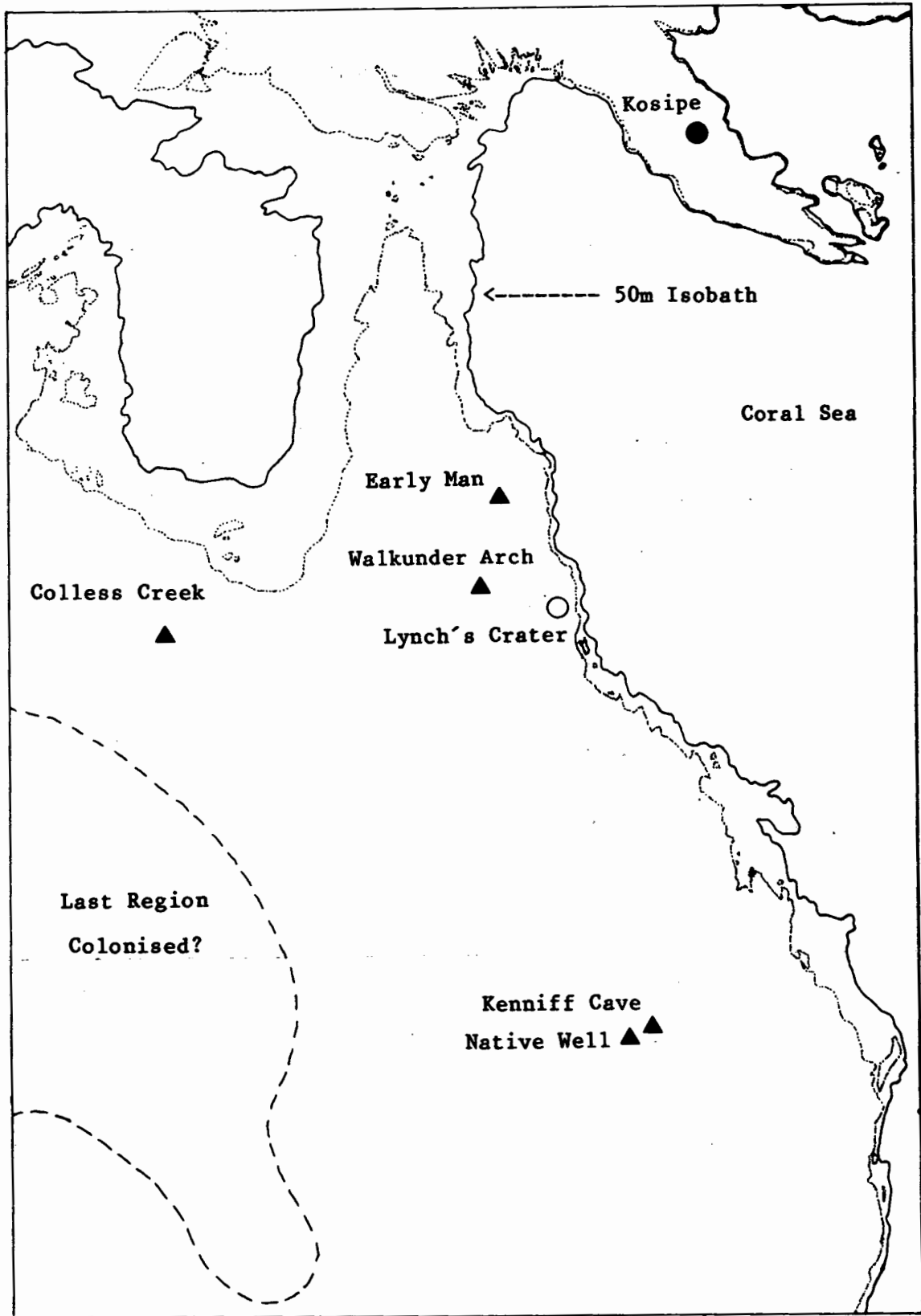


Figure 1. Pleistocene sites in north-eastern Australia and southern New Guinea.

which would have inland Australia abandoned. The adaptability of late Pleistocene Australians should not be underestimated, as is clearly shown by the periglacial occupation of Tasmania (Kiernan et al. 1983). But what we do not know yet is whether the so-called "dead heart" of Australia was colonised at all before 10,000 BP. The assumption that it was not could also be a product of lack of field-work, as is hinted at by Bordes et al. (1983) and Davidson (1983).

What relationship people might have had with the so-called "mega-fauna" is still unclear in North Queensland, as indeed it is in most parts of Australia (Horton 1980; Flood 1983a). An extinct form of Sarcophilus (or Tasmanian devil) which was not particularly big occurs at Early Man near Laura, but it may have had nothing to do with the human occupation (Rosenfeld et al. 1981). At Walkunder Arch Cave near Chillagoe the fauna is basically modern, though we initially thought that we had an association with Palorchestes (a diprotodontid) in the lowest archaeological layer (Campbell et al. in prep.).

Local human populations might have helped to cause some changes in the vegetation, but the evidence for this is only very indirect. At Lynch's Crater (shown in Figure 1) in the Atherton Tableland a long, radiocarbon-dated pollen and charcoal profile suggests, for example, extra clearing of the tropical rainforest between about 38,000 and 10,000 BP at a time when the rainforest was already naturally reduced by drier conditions (Kershaw 1978; Coventry et al. 1980; Singh et al. 1981). A similar but even more extraordinary pattern of extra clearing of forests by apparently controlled use of fire is thought to be represented at a much earlier date in the south in the pollen and charcoal profile from Lake George near Canberra where a controlled burning regime may have been introduced by about 120,000 BP and maintained virtually till the present day (Singh et al. 1981). The earlier interglacials and glacials represented in the Lake George sequence are quite different and considered to have totally natural floras. However, this palaeo-ecological evidence for the beginnings of human activity in Australia by 120,000 BP is not yet supported by any direct archaeological evidence. Such an early start would suit some of the biological-anthropological hypotheses favoured by Thorne and Wolpoff (1981).

The sorts of artefact assemblages turning up in late Pleistocene contexts in North Queensland are not identical to those found in southern parts of Australia, nor to those found in New Guinea, which are different again. One could argue that the Australian Core Tool and Scraper Tradition (CTST) is present, but it contains many smaller elements as well, as at Colless Creek (see Hiscock, this volume). At Walkunder Arch Cave although the total number of formal tools is not great in comparison with the vast quantities of unretouched stone artefacts, there is a regular occurrence of small, bidirectionally backed pieces along side steep scrapers in the layers dated to between 13,500 and 11,900 BP (Campbell et al. in prep.). Despite the fact that the overlying Holocene layers are archaeologically very rich, they contain no backed implements at all. A selection of the Pleistocene formal tools from Walkunder Arch is shown in Figure 2. At first glance the top row of stone tools would normally be considered more likely for the Holocene, but if one stops for a moment and considers the fact that edge-ground hatchets have been found and dated to the late Pleistocene in Arnhem Land (White 1971) even though they have never been found in any context earlier than the Holocene in southern parts of Australia (Dickson 1981), then the occurrence of another demonstration of a basic difference between tropical and temperate/periglacial Australia in the

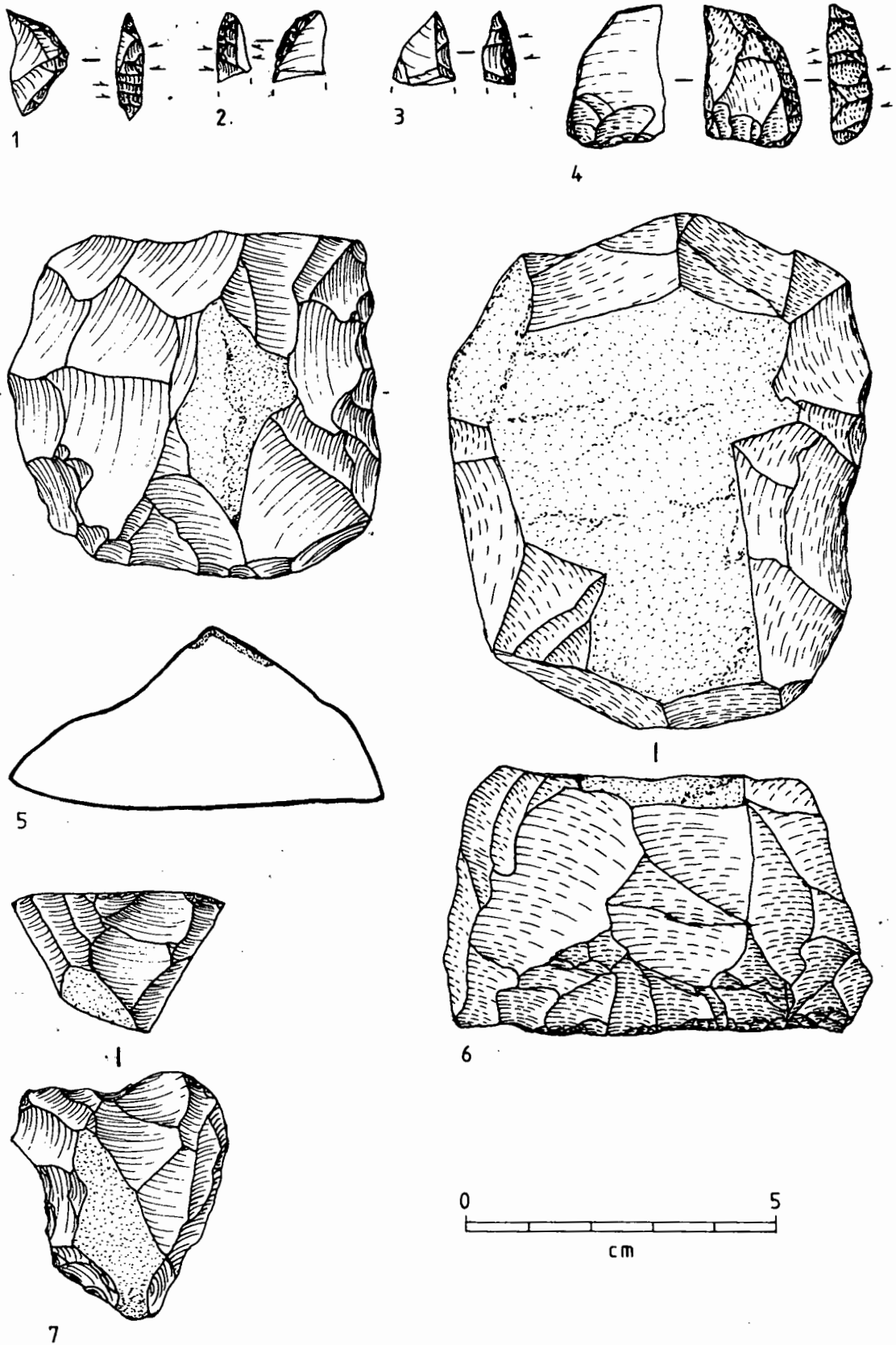


Figure 2. Selected stone artefacts from Walkunder Arch Cave Pleistocene layers 8 and 9. 1-4, backed pieces; 5,7, steep-edged scrapers; 6, block tool.

late Pleistocene should not be considered all that unusual. Whether one goes on to argue for a late Pleistocene commencement for the Australian Small Tool Tradition (STT) is, of course, another matter. Continuity would need to be demonstrated, and this is not the case at Walkunder Arch. Furthermore, the Holocene industry at Walkunder Arch is a better example of what I prefer to call the Australian Lesser Retouched Tradition (LRT, see below). It is perhaps of some relevance that the earliest occurrence of backed pieces in Indonesia is only early Holocene (Presland 1980).

The significant thing at Early Man is the undeniably late Pleistocene age of some of the rock engravings; however the occurrence of a proper CTST is not super clear, but then neither is that of the STT in the Holocene at this site (Rosenfeld et al. 1981). The fact that the Pleistocene sequence at Early Man starts very late might help to explain why it might have missed out on an earlier smaller phase of artefact production of the sort demonstrated by Hiscock (this volume) at Colless Creek. But then Colless Creek, Early Man and Walkunder Arch all show differences from each other, as well as from southern sites of late Pleistocene age. Given the size of Australia, I hardly think one can expect all of it to be uniformly the same at each point in time (compare for instance the great diversity in Upper Paleolithic Europe in areas which are often much smaller than what we are dealing with, e.g. see Kozlowski and Kozlowski 1979; Campbell 1980). Inter-site variability and adaptations to local environments are both themes that should be followed up in future research on the late Pleistocene occupation of North Queensland.

HOLOCENE ARCHAEOLOGY OF NORTH QUEENSLAND

Although I personally am very attracted to research on the Pleistocene, it is with the Holocene that one can often begin to ask the most interesting questions, as there is often much more evidence surviving and as it ultimately grades into the ethnographic present. For records of the latter relevant to archaeology, North Queensland has had its fair share of excellent early accounts (e.g. Thomson 1939 on a virtual cultural ecology of part of western Cape York Peninsula; Hale and Tindale 1934 on a very detailed account of Princess Charlotte Bay). In recent years there has been a lot of new ethnographic work carried out in Cape York Peninsula, but it is not my purpose to review this here, especially as much of the most useful information is still contained in unpublished theses. It is a sad fact that even more interdisciplinary work would have been done if the ill-fated "Cape York Ecology Project" had not collapsed into a number of bits and pieces. It was unfortunately perhaps both over-directed and over-financed, judging from the sorts of comments and criticisms which Vayda (1983) makes about this kind of human ecology project. It was in fact the prospect of the Cape York Ecology Project which originally attracted me to Townsville.

There is little well-dated early Holocene archaeological evidence yet known in North Queensland. The main sequence, such as it is, is at Early Man (Rosenfeld et al. 1981) and a neighbouring stone artefact sequence is known from Mushroom Rock, also at Laura (Wright 1971). A new sequence is in the process of being established at Mickey Springs near Hughenden (Morwood and Godwin 1982; Morwood pers. comm.) which extends just into the late Pleistocene and which may go further back. At Walkunder Arch Cave the early Holocene is missing (Campbell et al. in

prep.), whilst at Colless Creek it is very compressed (Hiscock, this volume). Whether backed pieces occur in the early Holocene at Colless Creek is therefore unclear, though they certainly occur in the middle Holocene at this site (Hiscock and Hughes 1980; Hiscock, this volume). What special early Holocene adaptations to a changing climate and a rising sea-level might have been taking place have not yet been brought into focus, though of course there is plenty of speculation. A thorough consideration of these and later coastal research problems will be included in the full report on the Princess Charlotte Bay Project (Beaton, pers. comm.).

There are now quite a few middle Holocene sites in North Queensland, at least compared with what is known of the earlier stages of North Queensland prehistory. New artefact sequences are being developed by Flood and Horsfall (Flood 1983b) in the Laura District in relation to art sites, though the detailed reports have yet to be written. As mentioned, Colless Creek has a middle Holocene occurrence of backed pieces, and broadly similar occurrences have been found at Turtle Rock (Hervey Range) near Townsville (Mardaga-Campbell and Campbell in prep.; dates in Campbell 1982a). Smaller numbers of backed pieces have turned up from time to time in other middle and/or late Holocene sites such as Jourama (Brayshaw 1977). As Hiscock and Hughes (1980) and more recently Davidson (1983) have pointed out, the distribution of manufacture and use of backed pieces now clearly extends well into tropical Australia, which is in marked contrast to earlier views (e.g. Mulvaney 1975; Kamminga 1980). However, for the moment there is still a northern and central Australian limit to the known distribution. They do not occur at Laura (Wright 1971; Rosenfeld et al. 1981), for example, and at present at Chillagoe they only occur in the late Pleistocene (see above and Figure 2). What the significance of all this is remains to be seen. Normally "isochrestic" (Sackett 1982:73), to use a broader term than stylistic, attributes might be expected to correlate with particular societies, if enough attributes are shared and if one has managed to pin down the more significant ones for the analysis. Of course, the formal variation that one observes in backed pieces, or other stone artefacts, has been produced partly by the function and style desire by the knappers who made them, partly by their technological skills and knowledge and partly by the subsequent taphonomic history of the artefacts.

Looking at the latest stone industries in North Queensland, they often have fewer retouched pieces than earlier industries and the actual number of easily recognisable formal types is often reduced. This broad pattern also seems to cut across a range of different environments and to occur in some other parts of Australia, though certainly by no means everywhere (e.g. see Morwood 1981; Bordes et al. 1983). In keeping with the logic of the CTST and STT, I prefer to term this phenomenon the Australian Lesser Retouched Tradition (or LRT). The LRT at times seems to be a pauperisation and perhaps a mix of certain aspects of the two earlier traditions. At Turtle Rock (Hervey Range) it is barely represented, but at Walkunder Arch Cave it lasts from the middle to the late Holocene over a span of some 3,000 years. It is possible that it merely reflects different site functions, but then its wider distribution during the last 2,000 years would seem to indicate that something else is involved as well.

We should now return to the ecological theme with which we began this section, as that will allow us to consider a number of other projects in North Queensland as well as certain lingering problems concerning the Australian fauna and flora. First off, Beaton's (pers.

comm.) Princess Charlotte Bay multidisciplinary report is virtually finished and many of us are looking forward to seeing it in print, as it contains a very detailed assessment of Holocene use of resources in the study area in relation to the local environment, as well as in relation to the use of coastal resources right round Australia. Beaton (1978) started laying the foundations for this project many years ago, and at its height and subsequently it has produced some very useful "spin-offs" (e.g. Minnegal 1984 on dugong bones). Another coastal and/or island project with which I have been involved for some time now is that on Hinchinbrook Island (Campbell 1979, 1982b). Here we are trying to assess the relative significance and approximate productivity of an extensive series of tidal stone-built fishtraps. At Scraggy Point in particular it is quite clear the fishtraps yield far more than just fish, and so I have tried to argue that they should be considered "automatic seafood retrieval systems" (Campbell 1982b). They were still in use in the last century, but few recorded observations were made. Their full antiquity is still uncertain, though some seem to be associated with a slightly lower mean tidal range (I hesitate to say sea-level). Hinchinbrook itself is ecologically very diverse and very rich, and it apparently supported or was made to support an entire "tribe", the "Bandjin", though how permanent some of their larger settlements really were is still unclear (Campbell 1979, 1982b).

Moving back up the coast towards Cairns and running inland to the Atherton Tableland, Horsfall (this volume) is carrying out the first intensive transect survey of the tropical rainforest, both lowland and highland. She (pers. comm.) has a number of open-air sites, including both shell middens and nut-processing sites, and on the southern slopes of Mt. Bartle Frere just above the Russell River, she has been excavating what has proved to be a very rich rock shelter, Jiyeer Cave. Her she has evidence for the development of leaching technology and a sequence stretching back to the middle Holocene. All of this and related efforts will be written up in her PhD thesis in the very near future.

Hiscock's PhD work in the far north-west I have already referred to (see his papers, this volume). At the very northern tip of Cape York, Greer (pers. comm.) is just beginning her PhD investigation of the Holocene use of the Australian mainland side of Torres Strait. She has set a number of questions relating to the possible intensification of use of the area, and she will be attempting to test these. Finally, looking at the problem of dingo versus human agencies in the accumulation of bone debris at Walkunder Arch Cave, David (1984) has attempted to sort out the relative significance of each in the Holocene deposits and has done quite a good job of it, considering all of the problems with such material. He is now about to follow this study up with broadly related work in the Mungana area west of Chillagoe. Also at Walkunder Arch Cave, Birkett (this volume) has carried out one of the few site catchment analyses and concentrated his efforts on the potential of the plant resources for the site's Holocene inhabitants. The main faunal study at Walkunder is being carried out by Horton, who has begun principally with the Pleistocene material (in Campbell et al. in prep.).

CONCLUSIONS

North Queensland has been occupied for at least 20,000 years, and almost certainly for more than 40,000 years. The first colonists came from South-east Asia and brought with them the basis for the development of the CTST, though many aspects of this tradition became unique to Australia (see also White and O'Connell 1982; Flood 1983a). By about 14,000 years ago certain aspects of the STT, and in particular backed pieces, began to appear in North Queensland though continuity with the Holocene STT is not yet established. A fully developed STT appeared by the middle Holocene at the latest in the southern and central parts of North Queensland. This was followed by the LRT, or Lesser Retouched Tradition.

There are many problems which are still unresolved and some of these have been touched on above. There is certainly ample scope for a lot of new ecologically and economically oriented research in North Queensland.

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