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ARCHAEOLOGY AT THE UNIVERSITY OF NEW ENGLAND, 1975-6

An account of current research at the Department of Prehistory and Archaeology, University of New England, was published in *Australian Archaeology* 3, just a year ago (Connah, 1975). The purpose of the present account is to bring the reader up to date with archaeological activities at Armidale over the last year.

The Department continues to develop its teaching of a wide range of world prehistory, and student interest has been sufficient to justify the creation of a new lectureship for 1977. Although we recognize the priority that must be given to Australian archaeology, the members of the Department represent a broad spectrum of the subject: my own special interests being in African Iron Age archaeology (Connah, 1976), Iain Davidson's in the Spanish Palaeolithic (Davidson, 1976) and Mike Rowland (who took over during the year as Research Assistant) having a main interest in New Zealand (Rowland, 1976) and Pacific archaeology. It is our hope that the new lectureship will enable us to strengthen our contribution to Australian, S.E. Asian or Pacific archaeology.

We have continued our policy of inviting archaeologists from other institutions to give guest seminars in the Department. In the current year John Clegg of the University of Sydney, and Jack Golson and Wilfred Shawcross from the Australian National University, Canberra, have very kindly assisted us in this way. In addition our own Department was involved with the Division of Ecology, at the University of New England, in the organization of a series of seminars entitled 'Man and environment in Australia - the last 50,000 years'. Guest speakers at these seminars were J.M. Bowler and G.S. Hope from the Australian National University, David Horton from the Australian Institute of Aboriginal Studies and Harry Lourandos from the University of Sydney.

In spite of our own wide interests, that took Iain Davidson to Spain at the beginning of the year, Mike Rowland to Fiji just before he joined the Department, and myself to the Transvaal quite recently, we have continued to pursue a number of research projects in the field of Australian archaeology.

My own research programme in the lower River Macleay area, which has been under way since 1972, continues. In the last year no further fieldwork has been done but the analysis of the shell midden sites investigated is now well in hand. This analysis was commenced by Penelope Emmerson, formerly Research Assistant with the Department, and has been continued by Mike Rowland. A brief statement on the lower Macleay project was given in my 1975 account in *Australian Archaeology* 3 but it is now possible to add a few more details.

In 1974 excavations were conducted in a pipi midden at Maguire's Crossing on the present shoreline dune system. The stratification of this site consisted of bands of pipis (*Plebidonax deltoides*) within a grey/brown windblown sand. In the upper part of the section were two bands of densely packed shells separated by a layer of shell-free sand.

Within the lower of these was a hearth, designated Layer 4a, wood charcoal from which has now been dated by Sydney University Radiocarbon Laboratory as follows:

Cutting I, Layer 4a: SUA 485 925 ± 105 bp

Below the two upper bands was a thick layer of shell-free sand under which further thin bands of pipi shells occurred. Wood charcoal collected from throughout the zone of these lower bands (designated collectively Layer 6) has now been radiocarbon dated as follows:

Cutting I, Layer 6: SUA 486 915 ± 105 bp

A bone point was recovered from this layer. These dates may be compared with a date for wood charcoal collected in 1969, from a depth of 4-7 inches in an eroding section of this midden, by Valerie Campbell (Campbell, 1972):

GaK 2456 1210 ± 90 bp

As far as I can be certain, this date probably refers to the uppermost of the two upper bands of shell. There was little stone in this midden and very few stone artefacts. The banded nature of the archaeological deposit together with the rarity of cultural material and the exposed location of the site would suggest a 'dinner camp' situation. The two dates from excavated charcoal should perhaps be given more emphasis than the previous date from an eroding section. The new dates would suggest that the deposit formed in a relatively short time. Pipi shells from both of the upper shell bands have also been submitted for radiocarbon dating, as part of Richard Gillespie's investigation of the reliability of techniques for dating shell, but results are not yet available.

Also in 1974 a single-phase pipi midden, Inner Barrier 4, was excavated on the inner sand barrier which lies behind the ocean swamp enclosed by the present shoreline dune system. This midden was about 1 kilometre inland of the Maguire's Crossing midden. Inner Barrier 4 had a shallow stratification with only one band of shells. Wood charcoal from this band (Layer 2) has now been radiocarbon dated as follows:

Cutting 1-4, Layer 2: SUA 483 1060 ± 100 bp

The band of shells was extensively infiltrated by humus from the topsoil which overlay it; and roots, although they occurred throughout the whole section, were particularly concentrated in the shell band and the topsoil above it. Black sand, drying to grey, lay beneath the shell band and above the natural sand. Wood charcoal from the upper half of this deposit (Layer 3a) has been radiocarbon dated as follows:

Cutting 1-4, Layer 3a: SUA 487 2550 ± 105 bp

A few stone artefacts were found in Layer 3a and it is always possible that this date refers to an earlier occupation than that associated with the midden. However, from its location, Inner Barrier 4 was expected to considerably pre-date Maguire's Crossing, and it could be that the

Layer 2 sample was contaminated by later material. The base of Layer 2 was 20-25 cm below the modern ground surface, and the top of the layer 7-15 cm below the modern ground surface. Pipi shells from the shell band have also been submitted for radiocarbon dating but results are not yet available.

In 1974 and again in 1975 excavations were conducted at Stuarts Point 1, a very large oyster and cockle midden (*Crassostrea commercialis* and *Anadara trapezia*), on the inner barrier north of the present estuary of the Macleay. This midden consists of a stratified series of shell-rich bands containing hearths, stone artefacts, bone points, fish and animal bones and plant remains (Connah, Emmerson and Stanley, 1976: Fig 2). A fourth year student, Len Cubis, is presently studying the plant material. A column sample collected in 1974 has now been analysed by Mike Rowland and shows changes in shell species with time. At first the cockles predominated but these are gradually replaced by oysters. This might be interpreted as a possible indication of environmental change and of changing exploitation patterns. Wood charcoal from near the base of the cockle deposits has been radiocarbon dated as follows:

1975, Cutting I, Layer 2, Spit 13: SUA 484 9320 ± 160 bp

This date indicates human settlement of the mid north coast of New South Wales at an earlier time than has been assumed in recent years. The earliest date until now has been that of V27 6444 ± 74 bp for the basal levels of Seelands (McBryde 1974). Wood charcoal from a hearth in the lower part of the oyster deposits, but definitely above the transition from a preponderance of cockles to one of oysters, has been radiocarbon dated as

1975, Cutting I, Layer 2, Spite 8 & 9, Feature 1:
SUA 482 3750 ± 280 bp

It is possible that the substantial difference between these two dates might be explained as representing a long halt in shell deposition. It may be significant that the two dates represent exploitation of different species. Cockle shells from the same spit as the earlier date, and oyster and cockle shells from a spit adjacent to the hearth which yielded the later date, have been submitted for radiocarbon dating but results are not yet available.

The word 'archaeology' was included in the title of the New England Department, when it was created three years ago, *partly* out of deference to the strong Australian history element in the University of New England's History Department. It was recognized that eventually the new Department should encourage study and research in both pre-historic and historic topics. To this end, an archaeological survey has been carried out at Saumarez Station, thought to be the earliest sheep run in the immediate Armidale area (Connah, in press). This survey indicates that there has been a change in the location of wool production facilities owing to changing requirements for, and availability of water. It also indicates that a number of dwelling houses

and ploughlands formerly existed in areas now purely pastoral. This defunct settlement pattern probably reflects former labour requirements within the wool industry and also the non-viability of small blocks of land during the nineteenth century.

Other historical sites have also been examined in the New England area, but a fairly extensive field project was undertaken during May 1976 on the ruins of a stone house at Winterbourne, north east of Walcha. This house was built probably in the 1840s by Captain William Richards, who took up the 'Winterbourne' sheep run in 1836 after selling his ship the 'Roslyn Castle'. He was only four years behind the earliest squatter on the Tablelands. Traditionally said to have been built by convict labour, the house was an imposing building of one storey, containing ten rooms, with a verandah at the front and another at the back. It was built of the local 'trap rock' and of lumps of white granite. The stones were mortared together with a gritty clay dug nearby and the exterior of the building was rendered over with material similar to the mortar and then whitewashed. The lintels over doors and windows were slabs of timber and the building was roofed with a hipped roof of wooden shingles. Behind the house there was a separate stone building in which were kitchen and store rooms. About 1922 the house had the roof demolished and was stripped of its wooden fittings. Subsequently the south east corner of the building was demolished and the front verandah disappeared. The kitchen building was razed to the ground. The weather got into the clay-bonded walls of the remaining parts of the house and the building was very soon reduced to a ruin.

Mike Rowland and myself, with 30 of our students, spent most of May this year compiling a full record of the site. This involved the drawing of plans and elevations, the making of a detailed photographic record, and the excavation of five cuttings at various points around the building to fill in various details of the plan and to find corroborative dating material. This research produced a wealth of data which it is planned to publish as a separate study. The site also proved to be an excellent training ground in both survey and excavation work.

I have continued my aerial photographic programme, piloted by Frank Choate of the Department of Physical Chemistry, University of New England. Four more sorties have been flown during the present year, on both prehistoric and historic sites. We have experimented in different lighting conditions and using various types of equipment and film. Our interest is in low level oblique photography working normally in the height range 150-300 metres. Experience has demonstrated that pilot/photographer co-ordination is of vital importance for successful aerial recording. On the archaeological side, I think we are slowly, demonstrating how much more of an 'archaeological landscape' Australia has than is sometimes assumed. Our work, of course, has been confined to northern New South Wales but we are beginning to develop a 'have skills will travel' mentality.

A surface field survey was carried out during August 1976 in some difficult, heavily timbered, granite country north of Emmaville. Earlier this year a new art site in this area came to our notice. This consists of red ochre paintings within a rock shelter. Mike Rowland led a group of ten students on a systematic four day search of the area. This produced no extra sites but a number of good leads from local people which are still being followed up. What did emerge from the work was the suggestion that most prehistoric Australians probably had more sense than to try to exploit such a region.

Iain Davidson's bone collection of indigenous fauna continues to grow. One of the main aims of this collection is to enable us to identify bones from excavated sites. We now have a collection of about 70 specimens and another 30 are in process of maceration. The collection has both research and teaching value. Mike Rowland and Carolyn Watts, a second year student, have been able to identify the very varied collection of fauna excavated from the nineteenth century site at Winterbourne.

Iain Davidson has also been continuing his research on Mediterranean Spain and computing the data on bones that he collected there. It is hoped that the programmes which are being developed by Professor J. Burr of the Computing Centre in the University of New England will be of general application. Analysis has also been done on the statistics of radiocarbon dates with Dr. E. Bofinger of the Mathematics Department, U.N.E.

Concerning field research by Iain Davidson in the gorge systems of the River Macleay catchment (Connah, 1975), radiocarbon dates have now been received from the Sydney University Radiocarbon Laboratory which confirm the presence of Aboriginal Man in the gorges of the Macleay before the advent of Europeans.

Mike Rowland is writing up the results of his research on material from the early New Zealand site of Tairua and from two sites on the adjacent Slipper Island. He also has in preparation a report on his survey and test excavations on the hillfort of Kedekede, Lakemba Island, Lau Group, Fiji, completed prior to taking up the Research Assistantship with the Department. The results of his research into the use of the limpet *Cellana denticulata* as a temporal indicator for sites along the north east coast of the North Island, New Zealand, were published in March (Rowland, 1976).

Finally, all three of us have collaborated in the compilation of four maps (with explanatory text) of prehistoric settlement in New England. These will form part of a regional atlas which is being published by the Geography Department of the University of New England (Connah, Davidson and Rowland, in press).

Acknowledgement is due to the University of New England for research funds to support our work. The kind cooperation of the National Parks and Wildlife Service and of the Sydney University Radiocarbon Laboratory is also acknowledged. We have to thank many people in the New England area for their continued help. We also have to thank our students, whose enthusiasm provides the fuel.

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