

14th September, 1964.

Mr. Rhys Jones,
Institute of Aboriginal Studies,
Box 553, City P.O.,
CANBERRA.....A.C.T.

Dear Mr. Jones,

Thank you for the copy of document 64/185. I have read it twice with great interest. You seem to be the only competent and energetic person anxious to work upon the Tasmanian Aborigines. Your opinion that much good archeology can be done here agrees with my understanding of the situation. I suspect that Tasmanian sites are rich enough to keep many good men profitably occupied for a long time.

The pit you saw at Rocky Cape (south) was first made by Bryden and Both during June 1962. They dug to 5 or 6 feet and gave up. On 15/3/63 Bennett and I stopped there after a trip to Woolnorth. We sunk the pit further. At about 7 feet the east edge encountered a natural sloping stone wall. At 10 feet this wall covered entire bottom of pit and continued to slope downward in a northwesterly direction. I suspect the midden extends several more feet before flat bottom is reached. We took substantial amounts of charcoal from 10 ft. level. I can provide you with some - if you can make use of it. The refuse was thrown to outside of the cave entrance at north. A few pounders and small chips were secured but no good finished tools or bones. This part of the midden seems to be a dump where empty shells were thrown against a rock wall, now covered. I believe the main occupation was at north side of entrance. This region has not been disturbed. If you decide to do a thorough job at Rocky Cape I will be pleased to assist in a small way. Better bring several men and some wheelbarrows.

Best regards,

GR:MER

Grote Reber.

AUSTRALIAN INSTITUTE OF ABORIGINAL STUDIES

Interim Council Meeting
4th-5th September 1964

Agenda Item

Mr. Rhys Jones : Archaeological Reconnaissance
in Tasmania, Summer 1963/1964

General Account

The expedition was carried out under the auspices of the Australian Institute of Aboriginal Studies and the Department of Anthropology at the University of Sydney. I was accompanied by Messrs. F. J. Allen, I. C. Glover, and R. A. Wild of the University of Sydney, C. McKnight of the University of Melbourne, and R. Reece formerly of the Australian National University. We left Sydney on the 17th December, 1963, and returned on the 7th March, 1964, having spent from 20th December to 3rd March in the field in Tasmania.

The object of the work was to carry out a reconnaissance of archaeological sites in Tasmania, and to excavate some of those which seemed the most promising. My particular interest was to try and isolate total industries for the purpose of setting up definitions which might be compared with mainland sites, and also to investigate any ecological or geographical variations and adaptations within the island.

The project was much aided by the information given to me by Mr. J. Mulvaney¹ concerning a coastal cave site at Sisters' Creek near Wynyard, so that after having met Mr. F. Ellis and Dr. W. Bryden at Launceston and Hobart respectively, excavations were commenced on January 1st and were continued for the next five weeks. (See detailed account). While we were working on this cave, we also made a survey of other sites in the neighbourhood, and mention might be made of a seaward facing cave with a cemented conglomerate adhering to its ceiling, which I interpret as an old raised beach, associated perhaps with a 100 foot high sea level, and thus of interest to Pleistocene geologists. The full excavations at Sisters' Creek gave us a large industry associated with animal, bird and fish bones, and I now felt that we should extend our researches to other parts of the island in order to try and get comparative material, so that the Sisters' Creek site could be viewed in some sort of archaeological perspective. I was particularly interested in some of the ideas put forward by Mrs. T. B. Kemp (1963) concerning a possible dichotomy between east coast and west coast industries.

1. Dr. Phil Dart of Wynyard showed the cave to the geologists, Dr. Lundelius and Dr. Turnbull, who informed Mr. Mulvaney,

After having deposited the material from Sisters' Creek with Mr. Ellis at the Launceston Museum, we spent two weeks on a reconnaissance of sites on the east coast. Local reports of a midden at St. Helens, proved fruitless due to its causal relationship to an adjacent abandoned oyster cannery. However we were told² of an interesting area about 20 miles to the north at Anson's Bay, on the northern end of the Bay of Fires. These sites consisted of shallow middens in sand dunes, now in the process of erosion, due to the active shift of the dunes; small scale excavations were carried out in order to get an idea of the industry. This proved to be quite rich, but as it consists almost entirely of crystalline quartz its value to the typologist is much diminished.

About two miles south of Anson's Bay we found a row of flat stones arranged like a pathway on the surface of a coastal midden. Excavation showed the presence of a second arrangement stratified about a foot below the first. (See detailed account). The reconnaissance was continued, moving southward along the coast in order to try and find an area where the primary chipping material was good enough to enable a typological study to be made. After looking at middens at Piccaninny Point, Oyster Bay, Little Swanport River, Dunalley and Eaglehawk Neck, such an area was found at Roaring Beach near Nubeena, on the tip of Tasman's Peninsula. Here we put a sounding into a small sandstone rock shelter, and found an industry made of indurated mudstone.

So far all our work had been done on the coast, and in crossing over to the west coast via Hobart, I decided to have a look at some of the sandstone country around Melton Mowbray and Oatlands. We investigated a small valley called Murderer's Gully, which contained upwards of thirty rock shelters. Most of these showed signs of recent erosion on their roofs however; and examination did not reveal any signs of occupation. Around the lake at Oatlands there were some dozens of rock shelters, most of whose floors were hidden by water, but there were several which were dry. We put a sounding into one of the latter and although the deposit was only 18 inches deep it was very rich and yielded some fine bone tools. (see detailed report).

We moved to the west coast and investigated some middens at Trial Harbour, and Granville Harbour. At Trial Harbour artefacts dating from the early mining days, for example, some dozens of clay pipes, were found mixed up with Aboriginal implements, in a dune beneath several feet of sand, and can only serve to emphasize some of the dangers inherent in surface collecting on unstable dunes. Following detailed reports³, I wanted to look at the area between Marrawah and the Arthur River. Near the West Point lighthouse we found a very large grass stabilised midden. A sounding put into this site proved very interesting. (See detailed report). A further survey was carried out some miles south of the Arthur River and many middens were seen. A general impression given of this area is that there is a complex of practically continuous midden along the coast. Due to the recent attrition of the vegetation cover, the dunes are shifting inland and have thus exposed tens of thousands of eroding artefacts. We also found three rock shelters with small middens in them.

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2. Mr. W. E. Tucker of St. Helens told me of this interesting area near Anson's Bay, and suggested that I look at the configuration of stones.
 3. Dr. Grote Reber and Mr. Max Bennett of the C.S.I.R.O. in Hobart had carried out small sample soundings in some of the middens at West Point, and they very kindly told me of their finds, gave precise field instructions and invited me to investigate further.

On the way back to Launceston, the caves at Rocky Cape were visited in order to assess the value of attempting detailed rescue excavations there. In the southern cave large unfilled pits could be seen, one of which is four and a half feet deep. The vandalism in these caves still continues, for one small hole had been dug between late January and early March. The presence of stratified hearths to be seen in the wall of the largest pit showed that at least some of the midden is still undisturbed. In the northern cave there is also a large cave, but here again undisturbed midden can be seen.

We went to Launceston, and returned to Sydney via Melbourne and Canberra.

DETAILED REPORTS

A. "BLACKMAN'S CAVE", SISTERS' CREEK

Excavation

The cave is situated some 150 feet above sea level on the side of a Pre-Cambrian quartzite cliff. The entrance is 35 feet long and the height of the lip is about six feet above the surface of the talus. The cave goes into the rock obliquely to the line of the entrance lip, and it opens out into a chamber 15 feet high, 30 feet long and 20 feet broad. There is a small stream at the back which disappears into the talus. Beyond this chamber a narrow crack enters the rock to a further distance of 20 feet. Upon inspection it can be seen that the top of the midden at the entrance is about seven feet higher than the floor at the back of the cave, and allowing for a downward gradient for the drainage of the stream the total depth of about ten feet might be expected. However we only found a maximum depth of five feet of midden resting on four or five feet of sand, itself resting on the bedrock. We get a picture of the cave filling up with sand, with no occupation, and then the midden is built up on the talus of sand. The midden itself is continuous and the junction between sand and shell is very marked.

We excavated three adjacent pits, each five feet by five feet, in the area where the midden seemed to be deepest, and the roof of the cave was only two or three feet above the surface of the deposit. We obtained a maximum depth of five feet of midden, and although we found large quantities of bone, the yield of worked stones was rather low. I then moved my attentions to the area just under the lip of the shelter where there is plenty of light and a headroom of six feet. Almost immediately our efforts were rewarded, and we found ourselves excavating very rich occupational material. There was one hearth complex which yielded up to 100 pieces of chipped stone per cubic foot. After having extended the trench, there remained a problem to be solved, namely were the differences to be seen between the two groups of excavations a function of time (i.e. representing some kind of cultural "sequence"), or were they a function of their position within the cave? The nature of the stratigraphy, consisting as it did of scores of limited and interleaving lenses of hearth material and shell, meant that one had to obtain at least one complete section joining up the two areas of excavation. When this had been done, resulting in a section 30 feet long, it could be seen that the deposits excavated in the two sets of pits were synchronous, and the conclusion is that the differences in the assemblages must be interpreted as being due to their position in the cave. Obvious trivial as this may be, it is worth noting that when working in an unknown area, a single pit dug into a cave can sometimes produce misleading results. Perhaps there is the more

general point noted by Cook and Treganza (1947), for Californian sites, that there are great local variations to be found in the shell and artefact content of shell middens. A large number of pits and disturbances, both recent and prehistoric, were noted, in particular one circular pit one and a half feet in diameter and two feet deep, which was sealed by undisturbed hearths and had been filled in with large mutton fish shells. Two latex impressions of excavated sections were made, and carbon, shell, and pollen samples were taken. The discovery of pebble "choppers" in the furthest, and completely unlit recess of the narrow crack at the back of the cave helps to dispel the rumour so often quoted, that the Aborigines did not go into dark caves.

Other excavations were then back filled and disguised as much as possible.

Finds

(a) Stone

The artefacts were made mostly from siliceous quartzites, but basalt, chert, quartz and metamorphic rocks were also used. These have been washed and marked, but no detailed work has been done yet. However, the following types can be abstracted:-

1. Flakes with plane platforms; or sometimes with two or three facets on the striking platform. Many flakes have three, four, five or more primary negative scars on their dorsal surfaces.
2. Cores - some showing alternate negative flake scars, others with flakes having been taken off around a central pivot, at right angles to a single face.
3. Unidirectionally and bidirectionally flaked pebbles commonly called "choppers". In two cases the sharp edge had been very badly bruised, showing that they at least had been used for a chopping or smashing purpose.
4. Pieces with a steep step flake retouch, sometimes the side is straight, and other times the retouch forms a steep concave edge, thus resembling the "Spokeshave" of the literature.
5. Small circular or semi-circular retouched pieces; one example smaller than a threepenny bit has over 35 tiny flake scars on it.
6. Pieces with several primary scars arranged concentrically around a central pivot, the concave edges thus formed show secondary retouch or use fracture.
7. Retouched flakes - a large range of flakes showed secondary retouch around the margins.
8. A piece of soft micaceous shale (1.9 inches by 0.7 inches), with a small circular hole drilled or cut into it. The shale had split in prehistoric times across part of the hole. This is to my knowledge a unique implement from Tasmania and when complete could have been used as a pendant. Morphological comparisons with similar objects from some late Palaeolithic sites in East Europe might be interesting.

(b) Bone

Two bone tools were found, and as far as I know they are typologically unique for Tasmania.

1. A stout piece of bone (1.8 inches by 0.8 inches), with one end having been rubbed, so that it was shaped into a completely smooth convex curve.
2. A portion of a macropod longbone (2.4 inches by 0.5 inches), which had been split down the middle giving it a U-shaped cross section. Then the two margins have been extensively chipped so as to make them into sharp edges. This type of flaked bone tool is quite common in Palaeolithic assemblages and, for example, it is figured by Semenov (1964) p. 148, and p. 174.

These bone tools add to the list quoted by Meston (1956), and Bill and Banks (1956).

(c) Other

Other finds include several kinds of haematite ore, symmetrical prismatic crystals of quartz, and one tiny red crystal of semi-precious stone zircon.

Dietary Evidence

The P.h. value of the soil was seven, and thus there was abundant bone in the site. The following animals were represented: seal, small and large macropods, wombats, possums, several types of large bird, marsupial rodents etc. Of particular interest was the discovery of hundreds of fish bones. Vertebrae and jaws were found of more than one fish, and although the identification is not final, many bones of parrot fish are believed to be present. The extremely abundant remains of fish bones confirm the finds of Meston (1956) and Gill and Banks (1956) at Rocky Cape, and do not agree with the general ethnographic conclusions which were gathered together in H. Ling Roth's authoritative monograph, and re-used so often by later authors.

Large shell samples were taken from the midden, but no study has yet been made. The majority of the shells are gastropods, with many mutton fish and a few oysters.

Carbon Sample

One sample has been sent to Professor Green at the University of New South Wales, and the result is expected in a few weeks. The sample came from a hearth immediately above the sand and it is associated with the rich stone industry noted in the description of the excavation.

Conclusion

There was nothing discovered in the excavations which could not be found within an hour's walking distance of the cave. The kind of picture which emerges therefore, is that of a self-sufficient hunting and gathering economy exploiting intensively a varied and rich environment.

B. THE STONE ARRANGEMENT AT THE BAY OF FIRES

This site can be found on the coast of the Bay of Fires about three miles south of Anson's Bay. We found a row 270 feet long of 138 flat stones arranged like a pathway on the surface of a long midden parallel to, and about 40 yards away from the sea shore. A trench three feet wide was dug across this alignment in order to try and investigate the relationship of the stones to the midden. A second row of stones roughly parallel to the first was found stratified one foot below the top feature, the base of the stones being embedded in the dune sand. A stratigraphical demonstration of the Aboriginal origin of the bottom feature is thus given, and by inference I would postulate a similar origin for the top one.

Bonwick (1870) mentions circles and piles of stones in the centre of Van Diemen's Land, but as no location nor reference is given, his claim cannot be substantiated. Mr. McCarthy in a personal communication suggested that clues might be sought in Bonwick's manuscripts, but I am not qualified for the task. On the Australian mainland, Radcliffe Brown (1926) mentions stone arrangements marking such ceremonial sites as totemic centres or initiation grounds, and in both cases he makes the point that these are usually geographically fixed. It is rather interesting that here we have evidence of the continuation of the traditions associated with stone arrangement building, being carried on for an archaeologically appreciable length of time. A carbon date for the bottom feature, although probably of no great antiquity, would be of interest to archaeologists and social anthropologists alike.

C. ROCK SHELTER AT OATLANDS

The shelter is a small one with a shallow floor, but it contains three bone tools worthy of note.

1. Double ended bone point (3.5 inches by 0.3 inches). One of the ends is broken but extensive oblique abrasion marks can be seen along the length of the tool, showing the way in which it had been fashioned.
2. Small burnt single ended bone point (0.9 inches by 0.3 inches), again with oblique abrasion marks.
3. Roughly triangular fragment of bone (dimension of the sides being 1.8 inches; 1.4 inches; and 0.7 inches), with several incised marks on its surface, forming two groups of lines crossing each other at roughly right angles. Whether this represents some form of mobiliary "decoration" or whether the lines are due to some utilitarian purpose, for example, the cutting of meat or sinews, can only be determined when other finds of a similar nature are made.

D. THE WEST POINT MIDDEN

A sounding five feet by five feet was put into this site, and seven feet of continuous midden resting on at least four feet of sand was found. There are several points to be made :

1. The depth was the greatest that I found during the reconnaissance.

2. The industry was quite rich, and a change of raw material could be seen. In the top three feet, out of a total of 1000 pieces of chipped stone; 94% were made of fine grained spongy chert; 5% of quartzites and 1% of basalt. Below three feet there was a marked change, and in the next three and a half feet, out of 400 artefacts, 40% were made of chert, 30% of quartzites and 30% of basalt. This change was associated with a band of sand about nine inches thick. The middens above and below the sand were quite different in lithology, the former being blacker, denser and less sandy than the latter. Below about four feet we only excavated half the trench, so that the apparent paucity of artefacts in the lower group is only illusory. If we measure the concentration indices of artefacts, we have roughly comparable figures for the two midden deposits. In both cases we were finding about 12 artefacts per cubic foot, and in the sand this figure was reduced to about five.

The sounding was excavated in 12 spits, and the change in raw material was sudden and could be correlated closely with the sandy band. The length of time represented by the stratigraphic break cannot be estimated, due to the ease with which sand is blown onto and off middens even now. Carbon samples were taken at the base of the sounding and also at the level of the sandy band.

3. There was a very large quantity of bone to be found. Out of our cutting we obtained about 2000 individual bones. The following animals were represented: seal (two varieties), wombat, wallaby, whale, possum, native cat, Tasmanian devil, mutton bird, several other types of large bird, cuttle fish and a few fish bones.

More species will probably emerge under detailed study.

4. The bones of migratory creatures such as mutton bird and perhaps seal, will enable seasonal occupation to be studied.
5. There was a marked variation in the frequencies of individual bones, especially in the case of the seal. In particular the lower jaws, and the portion of skull surrounding the ear-bones, were over-represented. This kind of data will give information concerning butchering techniques, food preferences etc., along the lines suggested by T.E. White (1953).
6. A second molar of the right lower jaw of a human was found. The tooth was heavily worn, and severe periodontal disease had caused marked erosion of the roots. This is the only human bone that I have found so far in my examination of the material, and as it is the first such specimen found in a recorded archaeological context in Tasmania, a full description is being prepared by Dr. Barker of the School of Anatomy at the University of Sydney.
7. The midden is very big and offers the opportunity of obtaining a large sample for statistical analysis.

FUTURE WORK

Apart from the analysis and publication of the result of last season's work, the following projects present themselves.

1. A large scale excavation at the West Point midden might give a definitive account of the protein diet, pattern of occupation and stone typology of the prehistoric peoples of the west coast of Tasmania, over a reasonable length of time, together with the hope of finding some more human remains.
2. A careful and thorough pilot excavation must be made at Rocky Cape, preferably in the southern site. This is now all the more desirable, because detailed comparison might be made with the industry and fauna found at Sisters' Creek, a cave ecologically similar and about six miles to the east. Points which must be especially tested are Meston's claim for a 15 foot depth, and Tindale's theory of a typological sequence (see Mulvaney 1961). Carbon dates taken under controlled archaeological conditions from the base of this site would be extremely interesting, otherwise they are useless or even misleading.

I would welcome cooperation from any other interested parties in this project.

3. Further work might be done on the Bay of Fires stone arrangements, especially a detailed survey and the stripping off of the midden to see the full shape and extent of the lower feature.
4. Mr. Ellis suggested to me the usefulness of doing a zoological survey in the area immediately adjacent to the Sisters' Creek site. This would not only yield information as to the ecological positions of the land fauna, fish and shell fish, but would also provide very valuable comparative osteological material. The same work would have to be done in the West Point area, if a detailed excavation is carried out there.
5. The sandstone area around Nubeena is worth investigating more fully in order to get a larger comparative industry from the East coast.
6. The sandstone areas around Melton Mowbray, Oatlands and Bothwell contain numerous shelters, some with occupational deposit. A large stratified assemblage is required from an inland area.

If one is to test the hypothesis put forward by Mrs. T.B. Kemp (1963) of the dichotomy between the west coast, and the midland/east coast industries, then the last two areas must be investigated thoroughly.

CONCLUSION

The chief immediate results of the field work can be summarised as follows:

1. There is no paucity of sites in Tasmania, neither on the coast nor in certain areas inland.
2. Due perhaps to climatic factors, there are some sites which have a degree of conservation of bone so far unrivalled in Australian archaeology. This gives an opportunity of applying the "economic approach" to prehistory.
3. The stone industries are complex enough to enable a typological study to be made.
4. The discipline of archaeology has a special contribution to make to Australian anthropology. In Tasmania some examples where archaeology can correct or supplement ethnology are in the discoveries of the stone arrangement, the multiplicity of bone tools, and the abundant fish bones.

The archaeological record in Tasmania is rich enough for extensive prehistoric research to be carried out there.

I hope to return to Tasmania next summer to carry out a second season in the field. The kind of general problems which I should like to tackle are outlined above.

ACKNOWLEDGEMENTS

I should like to thank the Institute for its grant which enabled me to carry out the work.

I should also like to thank Dr. Bryden and Mr. Ellis for their helpful advice and for the use of the Museum facilities at Hobart and Launceston.

My thanks are due to many people in Tasmania for their help and great hospitality. In particular I should like to express my appreciation to the following: Mr. and Mrs. P. Dart, Mr. and Mrs. Sadler, and Mr. Walker of Wynyard; Mr. and Mrs. Meredith of Rocky Cape; Mr. P. Broughton, Professor and Mrs. Firth and Dr. Grote Reber and Mr. Bennet of Hobart; Mr. W. E. Tucker of St. Helens, Mr. T. Stacey, and Mr. and Mrs. Noye of Nubeena; Mr. and Mrs. Beale of Deloraine; and Mr. and Mrs. Seager of Launceston.

I wish to acknowledge the loan of archaeological, camping and surveying equipment borrowed from the Departments of Agriculture, Anthropology, Archaeology and Geography at the University of Sydney. I should also like to thank Dr. J. Davis, Dr. E.D. Gill, Mr. J. Golson, Mrs. T.B. Kemp, Mr. F. McCarthy, Mr. J. Mulvaney and Mr. R. Wright for their professional discussions on the work.

My greatest thanks are to my colleagues who continued working unperturbed by fatigue, boredom, harsh living conditions, psychological irritations or the wet weather.

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