RECORDS OF THE SOUTH AUSTRALIAN MUSEUM

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ANTHROPOLOGY IN SOUTH AUSTRALIA

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AND
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INTRODUCTON : ANTHROPOLOGY IN SOUTH AUSTRALIA

BY C. ANDERSON & P. SUTTON

Summary

This volume marks what we hope is a regeneration of anthropology in the Records of the South Australian Museum. The Records began in 1919 and early volumes contained significant anthropological contributions, including major ethnographic works by scholars such as Tindale, Mountford, Birdsell, McConnel and Berndt. From the late 1950s, however, the anthropological content of the journal declined considerably, to a point whereby between 1968 and 1984 there were only two anthropology articles. Further, neither of these dealt with Australian Aboriginal culture. This is especially ironic given that the South Australian Museum has the largest and most comprehensive collection of Aboriginal material in the world.

INTRODUCTION: ANTHROPOLOGY IN SOUTH AUSTRALIA

C. ANDERSON & P. SUTTON

This volume marks what we hope is a regeneration of anthropology in the *Records of the South Australian Museum*. The *Records* began in 1919 and early volumes contained significant anthropological contributions, including major ethnographic works by scholars such as Tindale, Mountford, Birdsell, McConnel and Berndt. From the late 1950s, however, the anthropological content of the journal declined considerably, to a point whereby between 1968 and 1984 there were only two anthropology articles. Further, neither of these dealt with Australian Aboriginal culture. This is especially ironic given that the South Australian Museum has the largest and most comprehensive collection of Aboriginal material in the world.

From the present volume on, the *Records* will be publishing two numbers a year, and up to half of each will contain contributions which are anthropological in nature. Articles will deal with topics in all sub-disciplines of anthropology and all ethnographic areas. Obviously, however, our major concentration will be on areas best represented in the Museum collection (Aboriginal Australia and Melanesia). We are also interested in providing a venue for the publication of good ethnographic and other data. In recent decades, articles of this nature seem to have become unfashionable and as a consequence, scholars, particularly those with recent doctorates, are not encouraged to write articles which are primarily data-oriented. We believe there is a considerable amount of important material out there which should be written up and given wider scholarly access.

With respect to Aboriginal Australia at least, we want to encourage papers which have *land*, in all its forms, as a primary focus, whether this be through studies of land tenure, ethnoscientific investigations, or oral histories and texts relating mythological systems to landforms. There are two reasons for this. Such a focus fosters a multi-disciplinary approach which allows different views of similar problems. Secondly, there is a certain historical continuity in it which pleases us. As the paper by Philip Jones demonstrates, Adelaide-style anthropology from at least the 1920s was very much multi-disciplinary and data-oriented. There are certain of their assumptions (those relating to culture change, for instance), and methods (for example, exclusively short-term fieldtrips), which we may not share today. However, our own fieldwork (Anderson's and Sutton's) in Cape York Peninsula involving multi-disciplinary, land-based studies of Aboriginal systems, means that we have a fundamental affinity with the earlier work done out of Adelaide. It is interesting that the kinds of anthropology in Adelaide from the 1920s to the 1940s, and in Queensland in the 1970s, are more closely related to each other than they are to the work which was centred on Sydney and later Canberra over a similar period.

For this inaugural issue, we decided to focus on anthropology in South Australia, and exclusively on work done with or about Aboriginal people in the state. We have tried to include examples of research in most of the major sub-disciplines of anthropology (linguistics, prehistory and socio-cultural anthropology), excluding only physical anthropology (although this is discussed by Jones). Temporally too, we have attempted to be representative — going from 22 000 BP (Lampert & Hughes), through the immediately pre-European period (e.g. Tindale), to the recent past (Hamilton). As for geographic coverage, we have included papers dealing with most of the major regions of South Australia: the Adelaide area and the south-east, the Flinders Ranges and mid-north, the west coast, the remote north-west and the far north-east.

Norman Tindale and Ronald Berndt in their papers present mythological accounts from the south-east and Adelaide area up to the mid-north and over to Broken Hill respectively. Tindale gives a comprehensive account of the Kaurna myth of Tjirbruke, a culture hero whose travels and actions provided a central focus for Kaurna culture. (In 1986, markers were put at some of the sites in this myth in a joint government-Aboriginal project — termed the 'Tjilbruke Trail'.) Aboriginal site names, although mentioned throughout Tindale's paper, are not shown on his map as these are included in a larger work on the south-east which he is presently completing. Figure 1 is a general map showing the location of the main place names cited in the articles.

Berndt's paper concerns the so-called 'crocodile head' from Panaramittee on South Australia's eastern border. This object, now in the South Australian Museum collection, was thought to have demonstrated the existence of prehistoric crocodiles in southern Australia. Berndt convincingly argues that at least for the Ngadjuri around the turn of the century, the object was instead an important sorcery and healing object. Both this paper and that of Tindale, use mythological data to describe and elucidate aspects of the way of life of Aborigines

FIGURE 1. Map of South Australia showing place names mentioned in following articles.

in the southeastern portion of the state. It must certainly be rare to present new cultural material in such detail for southern Australia. Thus both articles are important ones.

One matter remains to be discussed with regard to Berndt's paper. Elkin (1950: 12) states that Berndt told him that the Panaramittee rock engravings were secret. Professor Berndt denies this, commenting thus:

> What I did say (as noted toward the end of page 8 of the article), is that I was told that these engravings were of the Dreaming and that traditionally they had mythological associations and songs concerning them. I think that was probably quite correct, but I have no evidence to suggest that any of them were 'secret' — and certainly not at the time I worked with Barney.
>
> On the other hand, in so far as the *yarida* ('crocodile head') stone is concerned, this could well have been a tabu-ed site . . . the *yarida* was dangerous for those persons who did not know its power or how to handle it. I believe we can assume that the actual engraving was not religiously 'secret' but magically dangerous to the uninitiated; and that it served to substantiate the use of *yarida* sorcery and as a 'prototype' indicating how this object should be made (Berndt pers. comm.)

The paper by Luise Hercus deals with one site, *MaRaru*, in the Simpson Desert in the far north of the state and the mythological associations which the site has with one toa. Toas are Aboriginal sculptures from the Lake Eyre Basin and are dealt with in the 1986–7 SAM exhibition 'Art and Land' and the related publication (Jones & Sutton 1986). Hercus concludes that this toa, as with the others, reflected the situation of Aborigines in the area in the early twentieth century, rather than some timeless 'traditional' period.

Ronald Lampert and Phillip Hughes present preliminary findings suggesting population movements between the Flinders Ranges and the Lake Eyre Basin, taking place at least as long ago as 22 000 BP. They argue that, in addition, these movements were major and recurring phenomena dependent on changes in aridity. These two papers illustrate some of the issues to be pursued in the major research programme which the South Australian Museum has under way in the Lake Eyre Basin (with the participation of two of these authors).

Maggie Brady's paper concerns moves by Pitjantjatjara people out of their original country in the north-west, south onto the west coast of South Australia, during the first half of this century. She discusses the various factors involved in these moves, including the attraction of rations, and the atomic testing in the west of the state. Some of the material in this paper was collected during the course of work which Brady was undertaking during the Royal Commission into British Nuclear Tests in Australia. We hope that in future we will be able to publish more of the valuable material that is produced during the many and varied consulting projects which anthropologists are so involved with these days. Too often significant work remains as inaccessible and uncited reports.

The Pitjantjatjara- and Yankunytjatjara-speaking peoples of the north-west are also the subject of Annette Hamilton's paper. Like Brady, she deals with population movements, but describes and analyses them on a far more micro-scale. Hamilton presents important data on camp composition and mobility from the period of her major fieldwork in the area (1970–1971). She questions the assumption that Aboriginal mobility patterns are the result merely of cultural continuities, demonstrating that even in an area of relative isolation where traditional values still dominate, mobility and population composition shifts can have just as much to do with the involvement of Aborigines in the wider, Australian economy (in this case, pastoralism).

In a fascinating piece of intellectual history, Philip Jones in his paper outlines the history of early ethnological research in South Australia, leading to the establishment of the Board for Anthropological Research in 1926. He describes the Board's expeditions up to 1939, its methods and assumptions, and, most importantly, the information resulting from each trip. Jones lists the films, still photograph collections, artefacts, genealogies, publications and many other records of Aboriginal life in Central Australia, South Australia, and elsewhere. He demonstrates that apart from perhaps the work of Spencer and Gillen, there is no better and more comprehensive overall documentation of Aboriginal life than that which emerged from the research of the Board and its members. Much of this material has never been used by anthropologists working later in the same areas. This paper is part of a larger work which Jones is undertaking on the history of the Board and its activities.

Like geological strata, the papers in this volume can be read as examples of different phases of Australian anthropological history. The age difference between the youngest and the oldest of the authors exceeds fifty years. The complementary good qualities of the various papers show that anthropologists of different backgrounds have much to gain from sharing their work.

Almost all the authors in this volume either worked at the South Australian Museum at some stage in their careers or have done research on some part of the Museum's collections. We are pleased that we have been able to bring papers by them together in this journal, as part of its anthropological 'rebirth', to present a picture of aspects of studies in the anthropology of Aboriginal South Australia.

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THE WANDERINGS OF TJIRBRUKI : A TALE OF THE KAURNA PEOPLE OF ADELAIDE

NORMAN B. TINDALE

Summary

This is the story of the legendary activities and difficulties of an Australian Aboriginal ancestor of the Kaurna tribespeople of the Fleurieu Peninsuka and the vicinity of Adelaide in South Australia, as brought together from the recollections of several aged informants. The problems faced by Tjirbruki, a renowned hunter of kangaroos, afford glimpses of early problems of conservation, and the consequences of transgressions of rules established to protect vital food resources. In the discussion some data are given on intertribal trade and the ways in which continuities of exchange were fostered from one generation to the next.

THE WANDERINGS OF TJIRBRUKI: A TALE OF THE KAURNA PEOPLE OF ADELAIDE

NORMAN B. TINDALE

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This is the story of the legendary activities and difficulties of an Australian Aboriginal ancestor of the Kaurna tribespeople of the Fleurieu Peninsula and the vicinity of Adelaide in South Australia, as brought together from the recollections of several aged informants. The problems faced by Tjirbruki, a renowned hunter of kangaroos, afford glimpses of early problems of conservation, and the consequences of transgressions of rules established to protect vital food resources. In the discussion some data are given on intertribal trade and the ways in which continuities of exchange were fostered from one generation to the next.

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The story of [Tjirbruki][1], an ancestor of the Kaurna tribespeople of Aborigines on the eastern shore of St Vincent Gulf in South Australia (see Fig. 1), is a record of some events in the life of one of the heroic beings remembered in their traditions. In a 'remote' past Tjirbruki[2] was one of their ancestors. Although only a common man Tjirbruki was a wonderful person, a great hunter of kangaroos. He was neither as powerful as [Ṇu'runduri] nor as awe-inspiring. Ngurunduri was the great being who had formed the Murray River and its end-lakes during his attempts to spear the gigantic Murray cod fish which he pursued, reach by reach, down the stream from the heart of the riverine areas west of the Great Dividing Range in eastern Australia. Nevertheless Tjirbruki was a great man. He was of the ['Patpanga] band or clan, the southernmost one of the Kaurna tribe, having their ['pagkara] or territory along the shore of Rapid Bay and its ['wita] (peppermint gum tree) forested hills inland.

The setting of the story seems to show a people already established in their country. Already they were loosely divided into groups which seem to have had the same general distribution as the several present day tribes among which the story was told: the Kaurna, Ramindjeri, Peramangk, the Lake Alexandrina-dwelling Jarildekald, and the Tangane (of the Coorong shores which extend away to the south). Each of these tribes had links with Fleurieu Peninsula much as when the 'white people' first appeared early in the nineteenth century.

Our record of the activities of the man Tjirbruki is not complete but gives some insight into the ways of the earlier inhabitants as remembered by present day Aborigines. The account is based, not on direct text material, but has been brought together from conversations with men of four of the tribes over a long period between 1928 and 1964. At first the full import of the Tjirbruki story was not evident to this writer; thus the notes are widely scattered in his journals and in part therefore have been linked together from personal recollections. A firm basis for the story, as given here, is the one told to the late H. Kenneth Fry and me on the evening of 14 February 1934 during an extensive field trip on which we had been taken by Milerum of the Karagari clan of the Tanganekald tribe in a survey of his country along the Coorong. Having worked with me for several years, Milerum was a skilled informant. Our camp had been set near the coast opposite Tilley Swamp. It was a long story which he had heard at Yankalilla when he was quite young in the early 1880s. The narrators then were using Rapid Bay talk and Milerum attempted to use terms he had heard at that time. There were supplementary discussions thereafter on more than one occasion.

A summary of that part of the story which concerned the use of caves as burial places was published in an account of the archaeological excavation of Kongarati Cave on the coast of St Vincent Gulf (Tindale & Mountford 1936). A rather romantic version of part of the story, written in the florid style of some Grecian mythology, was published by William Ramsay Smith (1930) but is not used in this account.

The help of several informants is acknowledged. In addition to Milerum, Karlowan (Jarildekald tribe) supplied much data, and Reuben Walker spoke for the Ramindjeri and the people of Rapid Bay. Sustie Wilson, whose mother had been a Kaurna, also had some Ramindjeri details, while Robert Mason of the Mannum area recalled some details of the Peramangk he had learned from his mother who was of that tribe. In 1929 Ivaritji, a Kaurna woman, supplied the information about her father's and her own totem, the emu.

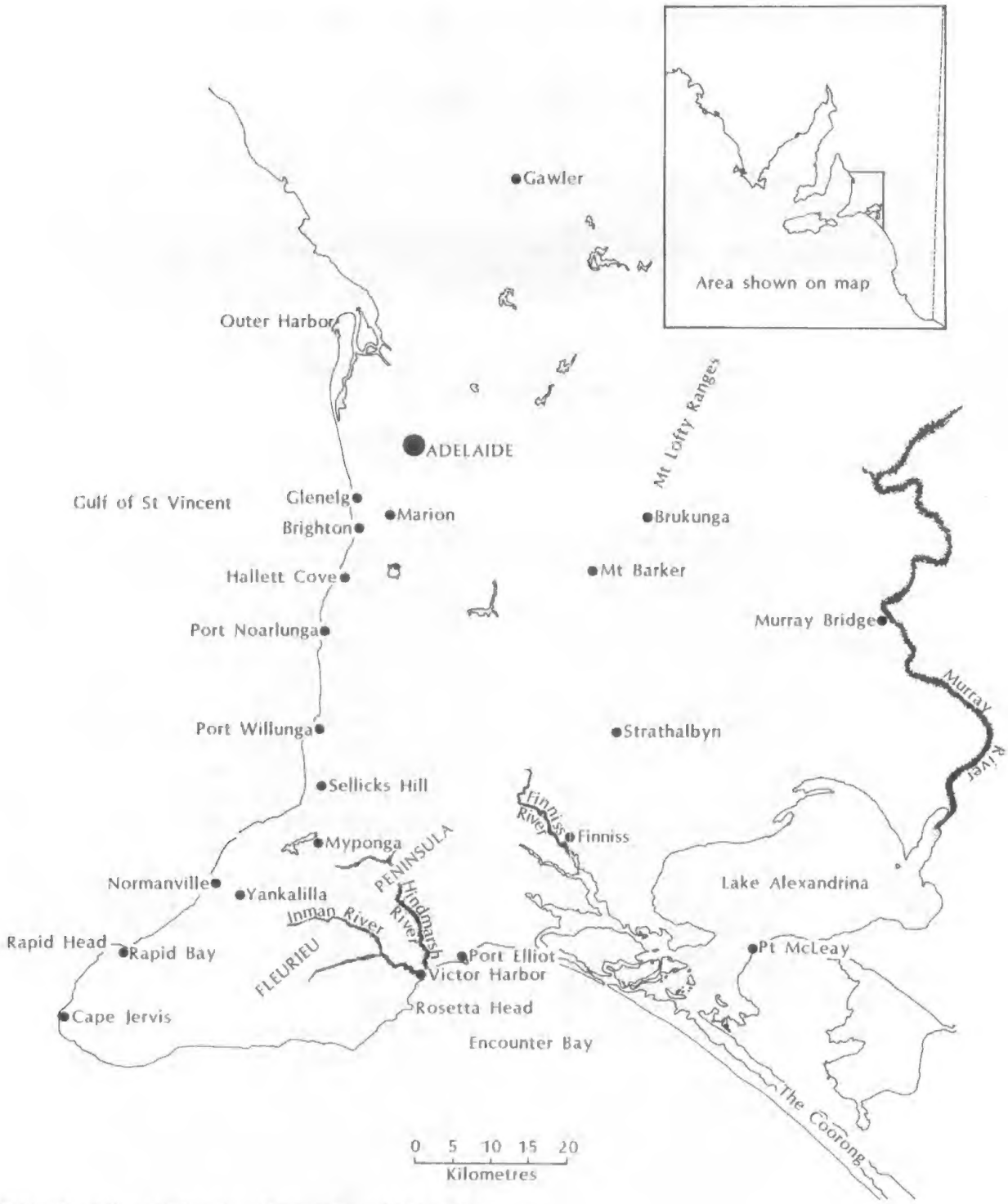

FIGURE 1. Map of Fleurieu Peninsula and Adelaide area.

THE WANDERINGS OF TJIRBRUKI

Tjirbruki and his fellow Patpangga clansfolk were living at ['Tankul'rawun] near Rapid Bay. Tankulrawun (its name has the meaning of the 'Granite place') was one of their summer camping places near 'Wita'watəŋ]. Today Witawatang is known as Rapid Head.

There came an urge among some of the members of the band assembled there, including some young visitors, to go north and arrange a hunt for ['kari] or emus. Many *kari* were to be seen in the ['ru:we], clan lands of the Tandanja people at Adelaide because that big bird was their ['ŋaitji], or totem. They did not kill them although they feasted on their eggs.

Tjirbruki, who was a hunter skilled in kangaroo spearing, did not wish to go, but his much loved ['na:ŋari] or sister's son, named ['Kulultuwi], who was visiting with him along with several companions, did so wish. Kulultuwi called his mother's brother ['wan:u] or ['kawanu] as did two other younger lads whom he persuaded to go along with him. Both ['Jurawi] and ['Tetjawi] bore the same relationship to Tjirbruki

although they were by different mothers. They departed hastily. (It may be assumed that their families accompanied them although the story, as told, often omits such details.)

Tjirbruki, not wishing to take part, shifted his camp more leisurely, moving through the *ruwe* of the ['Witjarlug] clan which began near ['Karika:lingga], a name still on the map as Carrickalinga. He arrived at ['Wituwa'ta:ngk] now known as Brighton. He and his family were welcome visitors in the clan lands of the ['Jatabiling] at Wituwatangk, whose ['pagkara] (hunting territory) extended northward along the coast beyond the place now known as Outer Harbour. Tjirbruki spent much of his time at Wituwatangk fishing for ['kurari], also called ['dar:awe] (beaked salmon, *Gonorhynchus greyi*). He used a special ['ge:re] or net, termed a ['dar:awenjeri 'ge:re], with which several persons helped in the haul.

Meanwhile Kulultuwi and his companions, travelling ahead, had sought out, and quietly were driving several emus ahead of them without revealing their presence, masking their moves by holding up shields of branches of eucalyptus leaves. They moved across the middle of the ['Mikawomma], the Adelaide plain, because they needed to keep the birds close to the coast so as to corner them at ['Muldag] on the northern tip of the Outer Harbour Peninsula. Ancestors had made the Port River for them so that this could be done. Four male *kari* and four females, known as ['tartja], were caught up in their drive. By keeping on the coastward side of the plain, the hunters were avoiding trespass on Tandanja hunting grounds because they had not received permission to take emus there. The hunt was going well.

However there was a disturbance. Near ['Patawilgangk], now called Glenelg, some Jatabiling women were cooking herbs in their hot stone ovens. This caused the emus to turn away inland. Kulultuwi had to race around, going far into the Tandanja *ruwe* by way of ['Medaindi], now known as Medindie, to prevent the birds escaping from the trap. During this trespass Kulultuwi had killed a female bird. Some *kari* had escaped but others were successfully held over several days at Muldang while the men and their families fed on the body of the *tartja*.

While this was going on Tjirbruki and other people with him had shifted camp to ['Tulukudangk],[3] now called Kingston Park. From there he made short excursions inland. He saw the old tracks of emus and their hunters going north but also the fresh tracks of one male bird. He decided that this would be his bird to hunt, since according to custom the first to sight the presence of game had the right to take it. For a while he continued to fish, taking several further hauls of *kurari* for his journey.

Then Tjirbruki left, following the track of his *kari* along the coast to [Ka'raildug] (Hallett Cove) and on to ['Thinba'rag], now Port Noarlunga, to ['Ruwaruig] (Port Willunga), and to ['Witawali] where the tracks turned inland. There, near Sellicks Hill, the old name of which has been forgotten, the tracks were lost.

Meanwhile the hunters decided to go back to the rest of their people. They arrived at Wituwatangk during a very heavy morning fog, found the camp empty and that Tjirbruki had left.

Tjirbruki, having lost all traces of tracks, and judging that the male bird would continue its movements southward along the coast, turned inland on a path which took him through the valley at ['Mairpanj'ga] (which still bears the name as Myponga), travelling to ['Muta'parigga], a place where there are many blackwood trees, continuing down the Hindmarsh Valley ['Jaladula], and passing ['Jerlto'worri], to Victor Harbor at ['Lat:arg]. He still thought the emu might come around by the coast so he hid in ambush and watched for several days. No tracks appeared so he went back on his own trail and found a place where the old tracks had been covered by newer ones. There was good food for the bird here in the forest, far inland from his Witawatang camp at Rapid Head. In the distance he saw the smoke of a small fire and, heading in that direction, he heard the voice of Kulultuwi singing while one of the younger men was preparing a cooking fire for an emu Kulultuwi had killed.

This was the bird which Tjirbruki had been following and expecting to spear. He confronted Kulultuwi, claiming that his *nongari* had been wrong in killing his male bird. His own footprints should have indicated this to the younger man.

Kulultuwi said, 'Sorry, I did not know it was your *kari*. You saw the bird first. Cook it and take it home to your children'.

Tjirbruki replied, 'No! You killed it. You cook it and give us some of the meat'. He had some kangaroo meat and did not need the emu. Tjirbruki then departed.

Kulultuwi made ready the ['wintjimi] oven, making the bed of hot stones, placing the green herbs over them, putting the bird on and covering it with further herbs and earth, and pouring on water to make much steam. After waiting for it to cook Kulultuwi, as was customary, dug in and took out the head of the bird to see if it was ready when a sudden burst of steam blinded him. Thereupon his part brothers, Ietjawi and Jurawi, taking advantage, rushed in, speared, and killed him.

The boys reasoned they had killed their ['jugalja], an elder brother, because he had transgressed, having really known from reading the tracks that the bird belonged to their *wannu*. The youths cut off the meat from the bones of the bird and carried it to their own people of the Jatabiling clan. They left the body of Kulultuwi. They told their folk that Kulultuwi had done wrong. ['Nailjau/'peindjali] (in front of us/the emu). They used a northern word for emu, implying that the bird meat was evidence that Kulultuwi transgressed. Their people carried the body of Kulultuwi to ['Waripari] (Sturt Creek) on the Adelaide plains near Marion where they continued the drying of the flexed body on a rack over a fire.

The youths made up a story that Kulultuwi, in fear of the anger of Tjirbruki, had gone away elsewhere to hunt further for emus. When this false story reached him at Rapid Bay, Tjirbruki asked several members of the Witjarlung clan living north of his country give a message of forgiveness to Kulultuwi. Although they knew of the death of Kulultuwi they, with malice, did not tell him the truth.

Searching for Kulultuwi, Tjirbruki went first to ['Logkowar] (Rosetta Head), the great bluff on Encounter Bay, then up ['Mu:lapari] the Inman River

to ['Iowara'nk], near Moon Hill, and on to [Maikaba nagk] near the coast at Normanville. His family had gone with him. Then he began to wander about by himself, going as far as ['Nutarangk] (Lands End), at that time still in Kaurna country according to informant Kurlowani.

Heading north again, he came to the place near where he had seen Kulultuwi last and chanced to see some sugar ants on the track. He picked up some ants carrying human hair and others with blood and red ochre. Further on, he found more and knew in his thoughts that *nangari* was dead. He saw where the body had been, and where people had made a smoke fire. They had made a ['Iirukati], or drying rack of poles tied together like a raft such as a man uses when fishing. On the third day they had, as was customary, covered the body with red ochre ['taituwe] from ['Potartaŋ]. They had carried the bier towards Adelaide.

Having made these discoveries Tjirbruki said, 'I have only one spear properly fixed. I am off!' He left the place in the *wita* (peppermint tree forest) and went towards ['Rawara gal] (Port Elliot). At Rawarangal he had opportunities, through his ['giagi ampe] trading partners, to obtain good spears which had come from the Tanganekald people on the Coorong. On the way, while walking along the ['Mu:lapari] (Inman River), he met ['Iorlu] the red-backed kingfisher (*Halcyon pyrrhopygius*) man. On hearing his story Jorlu gave him a spear, as did another man, ['Joldi] of the black cormorant (*Phalacrocorax carbo*) totem at the Finniss. Tjirbruki, with his new weapons, chose to follow tracks along the eastern side of the Mount Lofty Ranges through Peramangk tribal country, keeping to their eastern boundary to avoid serious trespass. On the way he camped at ['Wiljau'an] near Strathalbyn, then at ['Peiera] (Woodchester Waterfall), then at ['Motongegal] (Mount Barker), and at [Ba'rukungal], now the mining township of Brukunga. Travelling on through places not now remembered, he came to ['Kalia] (Gawler) which was the begining of Tandanja clan country. Keeping near the coast he travelled south. He had learned where a big camp ['tuhlamari] was gathering at Marion on Sturt Creek. He arrived, very weary, at Wirawatangk.

Children saw him and cried out, 'Here is old ['inuĭari]'. Old father's mother's brother-in-law was the centre of a gathering and he told them he would stay to rest only the one night. He saw that the two men, Jurawi and Tetjawi, were present. Acknowledging that Kulultuwi was dead, they deceived Tjirbruki about the real killers, blaming his death on strange people who might have been Peramangk tribes-folk who had come along the Mount Lofty Range.

Tjirbruki ignored their implications, knowing that they were lying. He practised deception also, saying, 'Yes! I know! Strange men came from the ['wira] (forest) country in the north'. He thus made out that he thought the young men were innocent. On the following day Jurawi and Tetjawi with their families made a part day's journey to Wartpari (the Sturt Creek at Marion) where they settled in at the big *taldamari* hut. The body of Kulultuwi was still being smoke-dried there on a rack. In the evening they began ['kurli] dancing for the old man and he initiated others. Then he sang the whole camp to sleep. He tested them by calling out, 'Come! Give help with a haul of *kunari* fish'. There was no response and the old man said, 'Ah! I've got you!'

Tjirbruki was a master at fire-making. He took powdered stringybark tree bark ['morth] as tinder and set it around the *taldamari* with much grass, leaving only a small gap at the entrance. Then, using a [bo ruke] (iron pyrites) stone and a piece of flintstone ['paldari], he started fires at each pile of *morthi* or tinder, telling the fire to blaze up quickly. He cried out loudly: 'Raŋkaŋ 'gagand hagand dol. You are getting burned! Camp on fire'.

The top of the *taldamari* began to fall in as it burned and all the people attempted to rush out. As children came out he kicked them with his foot and hit them with his club. Out came Jurawi whom he speared with a ['wimdi] or dread-spear, one set with quartz chips in resin on its head. The spear entered Jurawi right up to the ['ŭngi] or swelling of resin set on the spear to prevent its too ready removal from the wound.

Out came Tetjawi whom he speared also and held in the fire. Only when he felt no further kicking did he accept that 'they were done'. He pulled out the spears and waited until morning as the *taldamari* burned to the ground.

Tjirbruki took the dried body of his *nangari* to [Tulukudagk], a spring of good water on the beach of Kingston Park Reserve at Marino. There he completed the smoking of the body of Kulultuwi and an inquest was held. Many people gathered for the ceremony. The names of the two killers were confirmed. Tjirbruki learned that his *nangari* had indeed been struck down while raking the head of the emu from the fire, looking for the steam coming from its bill, indicating the bird was cooked.

Carrying his burden, now a dry compact parcel, Tjirbruki said, 'I go back now!' He departed, walking along the coast to [Ka'reiĭdug], now called Hallett Cove, where he rested. As he reclined he began to think about his nephew and burst into crying [ka'reiĭdug]. Tears ran down his face and where they fell to the ground a spring of water welled up (thus the spot become a camping place). Tjirbruki then journeyed to [Tainba'rang] (Port Noarlunga) where he burst into fresh tears. He went on to ['Potartaŋ] (Red Ochre Cove). Section 362, Hundred of Willunga, where he cried again, yet another spring of water came up. He then walked to ['Ruwarug] (several hundred metres south of Port Willunga Jetty). The tide was out. He sat down on the beach and cried once more. The ['lu:ki] (tears) dropped on the sand, causing a spring to appear. At high tide the sea covered it, but when the tide fell again the fresh water could be obtained by scraping in the sand. It remains so today.

The old man then carried the body to ['Wirawali] on the beach north of Sellicks Hill. He noticed that there was a fine bay which would serve at night as a good netting place for sea salmon. His tears were still flowing and brought a spring into being there (vicinity of Section 639, Hundred of Willunga).

While there, Tjirbruki began to think of further grudges and as he was passing through the *pangkara* of the Wirjarlung families it disturbed him that they had failed to pass on his message of forgiveness to Kulultuwi and his other nephews. Instead of continuing

along the beach he turned inland and climbed over Sellicks Hill. He kept Maitpanga on his left and climbed another high hill (it may have been Mount Jeffcott or Black Hill). There he made a smoke signal. White smoke went straight up. People who were camped at a place called ['Warabari] saw the smoke and began to interpret its meaning:

'Turtil garwand 'werati. (Smoke plenty/going upwards.)
Korn 'loro 'kutu 'malbur 'undul'. (Men/straight up/good news of killing.) (In this loosely translated remark ['malpuri] given as 'guilty of murder' in Jaralde.)
'Itji nel lond'. (He is coming home.) (In 'Iangane ['gerei'luna] has been translated as 'quickly; wasting no time'.)

Tjirbruki made other fires as he picked up the answering smoke, and continued to do so until he was close enough to hear the people shouting. It was the camp of the men ['Lami] and ['Ngarak'ani].

'Naltj purntuhunul.' (He is coming.)

Those who were still in their huts asking:

'Iangaleitj?' (How far away?)
'Nitj teipuland.' (He is close.)

Tjirbruki heard their questioning. He untied his bundle of spears, taking as many as he could hold, and walked directly into the camp. A first spear he drove into Ngarakkani, another into ['Ngegara'iawi], a third into Lami, and the last one into ['Tulaki]. (Even in those days it was proper to spear people in the legs unless murder was the direct intention). The men saw that Tjirbruki meant mischief and all took headers into the water and turned into fish. Thus, in the sea off ['Naldenga] today you will find ['garakiam] (the gummy shark, *Mustelus antarcticus*), ['limi] (the cobbler carpet shark, *Sutorectus tentaculatus*), also ['gegara'iawi] (the southern fiddler, *Trygonorrhina guanerius*), and [tulaki], 'the long thin shark with the flag on it' (which we have not identified, although it perhaps is the cocktail shark, *Carcharhinus brachyurus*). These fish became the *ngatjt* or totems of members of the Wirjarlung clan of the Kaurna tribe. Any other people who were present when Tjirbruki took his revenge fled and turned into birds, leaving only the old man there, alone. Satisfied, Tjirbruki stayed there a while, and when his nephew's body was again dry enough to carry, he rolled it in a kangaroo skin and continued on his journey.

Tjirbruki came to ['Karikalig'ga] (Section 1018, Hundred of Yankalilla), just south of the place known to Europeans as Carrickalinga Head. Here there was (and is, for informant Karlowan had seen it himself) a little swamp flat where ['guri] grows, very green like a reed. Rafts, called ['kundi] (not ['kandi] as misprinted in an earlier publication) were made of the dried stems of this plant (probably a *Typha*). Tied up in bundles, they were still used along the Murray River.

Continuing his journey along the coast Tjirbruki went to ['Kogarati'gga] where there is a ['perki] or cave. Just before he arrived at the *perki* he again sat down and cried: a small spring flowed there. He did not go into the cave but walked further on, a few hundred metres to the mouth of a small creek that is a camping place. He continued walking, sometimes on the shore and at other times above the cliffs, all the way to ['Parewar'agk] (now Cape Jervis). From Parewaraugk he returned northwards along the foreshore below the cliffs and came to another *perki* (called [Ia'narwig] by another informant). It is close to the place from which you *janarwing* (turn back) because the water is too deep for one to pass along the shore.

Tjirbruki left his nephew's body outside and, walking into the darkness, found a place where there was a suitable ledge of rock. He put sticks up, just as was done when the body was being smoked, carried the body in, placed it on the platform, and left it. He did not emerge from the cave but went on into the depths of the hill for a long way. He made the way wide enough for him to continue inside right up on top of the range at [Waieira ngegal] (now Mount Hayfield). Emerging there he shut the 'air hole' where he came out. He 'fixed it up with gravel' to appear he had 'never come out there'. Going down to the foot of the hill he shook his body and dust came off him. This became the ['mulkah] (yellow paint or ochre) which is used for decorating or 'making spears flash'. (A further comment from the informant: 'Gold has been found there: it may be from off him').

Tjirbruki arrived at ['Tjutju'gawi] (west of Mount Robinson), the camp of the Ramindjeri tribesman ['Ken'gori] of the ['wanma rai] totem (ring-tail possum, *Pseudocheirus peregrinus*). Kengori was a member of the Polumpindjeri clan and Tjirbruki received permission from him to take *wanmarai* so that he could make a skin rug for the coming winter. He was feeling old. He looked out and saw a swampy lagoon and said to himself, 'There is no use in my living like a man anymore'. However, he left the camp of Kengori (whose adventures, which became a separate story, took place after Tjirbruki departed). The old man walked along the southern shore of the Heinrich Peninsula on land well above the sea until he came to the ['koigkanja] or 'high hill' called ['Loigkowar] (Rosetta Head).

'This place will do for me', Tjirbruki thought. 'How will I do it?' The answer came. On a tree nearby there was a bird, a ['kelendi] (the grey currawong, *Strepera versicolor*). He stalked the bird, killed it, plucked the feathers, and then rubbed the bird's fat over his own body. He recalled that [Kelendi], when he was still a man, was a great messenger who travelled around the country singing songs and telling people of the coming meetings for initiation of their young men. Tjirbruki tied the bird's tail feathers on his arms with hairstring. Then he split the flesh between his big toes, and the third and fourth ones, made a run, and 'straight away started to fly'. As a ['Tjirbruki], which white people today called the glossy ibis (*Plegadis falcinellus*), his spirit still appears in bird form where there are swampy areas. His body became a ['martawalan] (a memorial), a rocky outcrop at Batukunga (on Section 1887, Hundred of Kanmantoo), the place of 'hidden fire'

DISCUSSION

It can be inferred that at the time of the actions in the story the people of Fleurieu Peninsula and the Murray Lakes region had already settled into patterns of life similar to those of recent date. They moved to the shores in summer, and inland seeking shelter and firewood in winter. Autumn was the season for hunting furred animals to use for rugs and cloaks against the coming cold and wet season. It was then that elders who claimed such furred animals as their *ngaitji* or totems permitted hunting for them by others.

The custom of giving of the navel-string emblem at birth, the so-called [ngiangiampe], passing it to a family in some clan distant from a clan of one's own tribe, or even, in more than a few instances, to one as far away as beyond bounds of the adjoining tribe, was already in operation. It involved, when the child moved to maturity, linking with a continuing silent trading system which helped to give him protection in the receipt of materials essential to his welfare, but not obtainable in his own living area. Special rules which prevented his meeting his trading partner, or even speaking to him, afforded protection.

Details in the story imply that the actions took place before the disruptions which eventuated when the Kaurna folk accepted the new male initiatory rite of circumcision, presumptively many centuries old. This rite came to them from the north. The incidental references to initiation seem to hint only at ways practised until the present time by the people of Lake Alexandrina, the Coorong, and at Encounter Bay. However, as none of the Kaurna tribesmen furnished details for the tale, we may not have a clear picture.

A reference to Peiera in the country near the present day town of Woodchester may become a little more significant if a brief outline is given of initiation and trade happenings there which, in the Woodchester area, seem to have continued up to the historical present. It appears that even in the time of the Tjirbruki story, important messengers circulated among the kindred tribes of the Peninsula carrying news of impending events, whereupon in due course many clans or families would begin to drift, particularly along tribal boundary lines, to the announced gathering place, quite often to well-wooded country in the general area of Peiera, a place at the point of confluence of several tribes even in more recent times. Such calls for initiation gatherings were made at intervals of several years. As the weather began to ameliorate in spring there were closer associations and gatherings with dances, enactments of incidents of stories, and the singing of songs. Also there were confrontations for the settling of disputes and even combat and killings. The passing of articles of trade took place at such times, always indirectly, since persons linked by their *ngiangiampe* bond did not speak to each other.

These occasions were the times of arrangement of future marriages, brides being sought for youths about to be initiated. Such youths had been for some time in casual isolation losing some childhood associations with their family and learning to forage for foods on their own in association with other boys of like age. This became increasingly so as the youth began to show signs of manhood and was ritually driven from the women's camping area. After being subject to such ceremonial events as depilation and being placed in a state called [na'rambi] or sacredness, he was coated in red ochre, subjected to special rules of behaviour, including avoidance of any contact with the opposite sex, and ritual avoidance of water, carried to extreme in that he might only imbibe it through a hollow reed and be carried over any streams that stood in his way. The cicatrisation of his body was an important event, as also, in some tribes, the ritual removal of an incisor tooth.

It was at initiation time that some older men might lead parties of younger men and youths on tours of country which they would not see at any other time. One known excursion from Peiera took such a party across the Mount Lofty Ranges west to Potartang, or Ochre Cove. With the assent of navel-string-partners they would be allowed to carry away parcels of the red ochre which was important for their decorative needs. For the implementation of such a trade, Tangane youths, for example, would have carried from their own home areas bundles of spearshafts of the special mallee woods which could best be obtained in the country inland from the Coorong. Flint pieces in packages also could be carried. Such flint would originate from as far away as Kingston in the south-east, having been traded from the Meintangki, but such trade-pieces were rare enough that the Tangane seldom received sufficient to have any surplus to pass on. Special needs of the Coorong people included good quality red ochre, stony pieces of iron pyrites and parcels of shredded stringybark tree bark, *morthi*, a powder valued as tinder needed for the lighting of fires using the percussion method.

On these excursions they could receive permission to hunt for some kinds of meat which were reserved normally for their elders. In the Tjirbruki story it is seen that emu meat was forbidden for young men. The settings of the hunting activities described are linked with the Tandanja clanspeople of Adelaide and vicinity on the eastern side of the Adelaide Plain. The Tandanja folk had the emu as their *ngaitji*. In fact, both Ivaritji, a member of the Kaurna, and her father, Parnadeitja, claimed this bird as their totem. Thus Tandanja elders of the emu totem, who did not kill emus, were reluctant that

others should do so because the birds in season provided them with eggs as food. Similarly, men of the Ngarkat tribe in the mallee desert east of the Murray River avoided the killing of ['lawan], their mallee fowl (*Leipoa ocellata*), the mound-building bird. It seems evident that these Aborigines had pragmatic ideas for conservation of resources.

Tjirbruki, whose ancestors came down the Murray River with the great being, Ngurunduri, was born at ['Watira'ngengul], also known to more eastern people, the Tangane, as ['Wataranalang]. It was an important living area in the vicinity of Mount Hayfield, close to a spring on Section 115, Hundred of Yankalilla. From ancient times it has been one of the southernmost living places of the Kaurna tribespeople; their local clan was called the Patpangga and their summer living area was around Rapid Bay. Other clans with their separate ['ru:we] (lands) and ['pankara] (hunting areas) extended north along the shores of the St Vincent Gulf to Port Wakefield and even further north, inland to the vicinity of Crystal Brook where their northernmost clan, the ['Padnaindi], had its living space. The names of the several clans between Gawler and Rapid Bay are mentioned as being involved in the story of the wanderings of Tjirbruki. For further detail of the several tribes mentioned in the story see this author's book on Australian tribes (Tindale 1974).

Tjirbruki is remembered as the 'creator' (perhaps better translated as 'finder' or 'explorer') of springs of water, a vital necessity for all people. He also had a link with the making of fire, equally important in the cold and wet winters on the southern shores, directly exposed as they are to the chilly southwesterly gales coming from the icefields of Antarctica.

The totemic mantle which Tjirbruki assumed also linked him with fire when his spirit became that of the glossy ibis (*Plegadis falcinellus*). His body was turned into stone as a memorial when it became the hill of iron pyrites near Nairne on the eastern slopes of the Mount Lofty Ranges and the place which supplied the hidden fire held in its rock. We learn that his very name has the literal meaning of fire, ['tjirangabruke] or 'hidden fire' which, according to informant Karlowan, was one of the terms used by the Juralde for trade pieces of that stone. The Tangane term linked with the stone, as given by Milerum, is [ba'ruke] meaning 'fire'. His mother, who was of the Potaruwutj tribe, called it [pa'ruki] but at times said ['wanap], a word used further north by the Ngarkat tribespeople.

The Tjirbruki mining area, called by the Aborigines [Ba'ruk:ugga] was on Section 1887, Hundred of Kanmantoo, and is now part of the township of Brukunga. It was on a hill about fifty metres above the north/south flowing Dawsley Creek. According to my son, Anthony J. Tindale, an engineer, the vicinity has been much altered in appearance by the extensive commercial mining of the iron pyrites for the production of sulphur, beginning about the year 1954. However, the whole mining area at present is in disuse.

The percussive method of fire-making was old in the area covered by this story and was in use when the first Europeans arrived in the early nineteenth century. According to Milerum and his demonstrations it is clear that the rather battered pieces of flint ['menpi] still to be picked up on their old camping sites are unquestionably the so-called 'fabricators', named thus by some archaeologists who have not, in the past, been in communication with the living. This has, incidently, been a dire failing with archaeologists the world over who are so myopic that they still call a wide array of stone implements 'scrapers', even though their functions as chisels, adzes, and knives are 'writ large' in the wear and abuses that have led to their abandonment. As a newcomer to the archaeology of the American Indian in 1959, I was shocked to learn how often the stain-marks on age-old stone implements were cleaned off before study, thus removing the evidence for the resin haftings which have for as many as ten millennia helped in the hafting of the tools so casually termed 'scrapers'.

The idea of the transmutation of ancestral beings at the end of their earthly wanderings into prominent features of the landscape, or in the case of others into astral beings still wandering about the heavens and guiding earthly activities, is a very widely held one in Aboriginal Australia. The concept is well-documented and noted in such Western Desert tribes as the Pitjandjara, Ngadadjara, Nakako, and many others.

An ancestral being, after travelling about his domain, contending, discovering, and 'magically' preparing the land for his totemic descendants, could pass into or attain a state for which the Pitjandjara, for example, use the term ['tjuruga'raka]. The spirit enters into a new form. Often it enters directly into the earth at some particular place, usually one of special import to the members of the tribe. To account for stories common to more than one tribe the beings, at times, could emerge again in the territory of another people and have further adventures before again becoming *tjurungaraka* elsewhere.

Often a being of a specific totem becomes a prominent topographical feature. Thus a being with the brown hawk name may become a place useful as a lookout upon which present-day brown hawks, its descendants, may perch and watch over present-day men of that totem.

Places noted for particular products are often so

denoted. Thus, in a story of two ancestral dog beings who appeared among the Ngadjuri people north of the Kaurna (Tindale 1937), the blood of a reddish-colored one became a reef of red ochre, and the black one's blood also was spilled to become a deposit of black wad, or manganese. Both are minerals important as pigments for the bodies of men while dancing, and for the decoration of young men being prepared for their initiation into manhood.

Among the Tangane of the Coorong such beings could become [ma:towals], taking the form of some unusual feature in that country, or could even be marked by such a feature as a clump of trees from which a being had made his spears or other weapons. The same term applied to memorials represented in the heavens as wandering planets, or stars as beings seated around their campfires. Meyer (1843) recorded a similar word used by the Ramindjeri of Encounter Bay, *marto-wallin*, translating it as 'becoming stone or being transformed into stone'.

In the same work Meyer noted that a similar term, *mutenggauwe*, signified a 'song used by the Adelaide Aborigines'. It is possible that this was a term applied by them to songs about ancestral beings.

One song linked with Tjirbruki has come down to us. It was recalled by Milerum and sung for me in November 1937 when it was electrically recorded on Disc No. 1 *Clarence Long Series* of phonograph records, now in the South Australian Museum collection.

Called the 'Song of Njengari' it was published (Tindale 1941) but should be recalled here since its subject may give a useful lead as to the possible time when the pattern of the present day Tjirbruki tale was first laid down. Also it may well be the only *mutenggauwe* song of the Kaurna that has survived.

Njengari was a kinsman of Tjirbruki. He was of a happy disposition and given to dancing. With his companions he made a dancing place on the coast at [Watbardok] on the shore of the Peninsula between Sections 60 and 207, Hundred of Yankalilla, close to the cave in which Tjirbruki left his nephew's body. That cave is said to open on the cliff a little to the north of it and near the place where people have to detour, *janaawing*, because of the cliffs entering the sea.

[illegible] [illegible]
glad (start dancing) dance
[illegible] [illegible]
make a level place dust rises set the nets
[illegible] [illegible]
around Watbardok tide rising go up
[illegible]
go up go back

Rejoice, clear the place for dancing; make it level place — see the dust fly!

We set the nets around at Watbardok; tide rises — we climb the cliff again.

The coastal land which Njengari used for dancing is now under the sea and today the place is a renowned beach for netting. The smooth sand enabled the nets to be successfully drawn during the first hour of the rising tide. To engage in fishing one climbed down the cliffs. The fish were taken and as the tide rose men climbed the cliffs again or risked being cut off by the rising waters.

Unlike Tjirbruki, whose body became a rocky memorial at Brukunga, the Kaurna saw the transformation of Njengari as taking him into the heavens where he happily remains as the star Njengari, of whose identity we have no clues.

The archaeological details of the places mentioned in this paper have not been as yet fully developed. An account by Robert Edwards (1964) is of particular interest as indicating long occupation of the camping place at Marion on the Sturt River which he calls 'Warriparri'. A part of the area is still preserved as a park, but a shopping centre now dominates the scene. Indications are of the permanent presence of water supplies and large red-gum trees margining the winding stream bed. There are signs of very recent occupation, and on the eroded area there are some stone implements of the Kartan phase of occupation, indicating the presence of people well before the last cold phase of the Wisconsinan or Last Ice Age. It is more than unlikely that the period recalled by the Tjirbruki story goes very far back but it does suggest that the Adelaide plains had already been subject to man's attention long before the days of Tjirbruki.

Studies of some other places mentioned in our story are being developed under the auspices of the Anthropological Society of South Australia. Recent work has been summarized in a work under the editorship of Betty Ross (1984). It indicates some of the fascinating details which can be gleaned on the ecology and prehistory of the First Australians in their adjustment to the often harsh, but sometimes rich, environment in which they lived.

Endnotes

1. In this paper when individual Aboriginal words and names are mentioned for the first time they are transcribed in International Phonetics as set out in my book on Australian tribes (Tindale 1974: 2) and placed within square brackets. When used thereafter they are given in close conventional form, with place names in particular following the mandates of Geographic II spelling.

2. The spelling [tjirbruki] was used in my first published account of this legend (Tindale & Mountford 1936). It is now clear that [Tjirbruki] is more acceptable in view of the semantics involved. Thus Tjirbruki is the best available conventional spelling.

FIGURE 2. An Aboriginal encampment, probably near the Adelaide foothills, 1854. Alexander Schramm, courtesy Art Gallery of South Australia, Adelaide (Accession No. 761HP1).

3. The v mark set over some T, t and d consonants indicates that that part of the word should be spoken with the tip of the tongue between the teeth. It may be of interest to readers that the interdental series of sounds were first drawn to the attention of two anthropologists who were attempting to attain a satisfactory pronunciation, when the Jarildekald Aboriginal Karlowan, who was one of the main informants for the story of Tjirbruki, at a critical moment exclaimed 'Stick your tongue out, man!'

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PANARAMITTEE MAGIC

BY R. M. BERNDT

Summary

This contribution concerns the well-known rock-engraving identified by C. P. Mountford as the Panaramittee 'crocodile head', and often cited as evidence of the existence of that creature in southern Australia during prehistoric times. On the basis of Aboriginal information obtained in the early 1940s, its interpretation as a yarida magical object provides a different view of what Aborigines believed it to be. Discussion places this engraved design and what it signifies within its socio-cultural context, along with the mythological accounts that substantiate the relevance of this object. The major focus is on a description of two Aboriginal drawings of the 'crocodile head' as a yarida, and the meaning of its various designs. In order to understand how the object was used, the theory and technique of relevant sorcery, particularly in so far as dead person's fat is concerned, are outlined. While this paper does not refute any speculation on what the original intention of the engraving may have been, it makes clear that the Ngadjuri, in whose territory the engraving was previously located, it was a representation of a magical object that has a history of human use and significance.

PANARAMITTEE MAGIC

R. M. BERNDT

BERNDT, R. M. 1987. Panaramittee magic. *Rec. S. Aust. Mus.* **20**: 15–28.

This contribution concerns the well-known rock-engraving identified by C. P. Mountford as the Panaramittee 'crocodile head', and often cited as evidence of the existence of that creature in southern Australia during prehistoric times. On the basis of Aboriginal information obtained in the early 1940s, its interpretation as a *yarida* magical object provides a different view of what Aborigines believed it to be. Discussion places this engraved design and what it signifies within its socio-cultural context, along with mythological accounts that substantiate the relevance of this object. The major focus is on a description of two Aboriginal drawings of the 'crocodile head' as a *yarida*, and the meaning of its various designs. In order to understand how the object was used, the theory and technique of relevant sorcery, particularly in so far as dead person's fat is concerned, are outlined. While this paper does not refute any speculation on what the original intention of the engraving may have been, it makes clear that for the Ngadjuri, in whose territory the engraving was previously located, it was a representation of a magical object that has a history of human use and significance.

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I began working with Barney Waria in 1939, and continued from time to time after that until 1944. Mostly we talked together in Light Square, occasionally at my father's home in Rose Park, and in 1942 at Murray Bridge when he was staying with his old Yaraldi friend, Albert Karloan. My wife and I had been banned from entering Point Pearce Aboriginal settlement when Barney was living there. (We had criticized the actions of a United Aborigines' Mission (UAM) missionary, including his showing of secret-sacred objects to school children at Ooldea. After that we were officially barred from a number of Aboriginal reserves, including Point McLeay, although these were not under UAM control.) However, he and his relatives came outside the 'gates' to talk with us. But Light Square was our usual meeting place, as it was for many 'West End' Aborigines and Aboriginal visitors to Adelaide.

One day in April 1944, after spending some time sitting talking in the Square, Barney and I walked together down North Terrace to visit the South Australian Museum. On our way through the Aboriginal gallery, we paused to look at the engraved Panaramittee 'crocodile' stone (see Fig. 1 which is of the original engraving that was then on display). Barney told me that this was 'the magic spirit stick'. Opening his arms wide as if to embrace the gallery of objects, he added, 'It's wonderful that we can look at all these things and know their meanings, wonderful to think of the power and the songs and the ritual associated with them, to think about all that has gone. But what they were, lives only in the minds of few of us!'.

I had discussed this 'magic stick' with Barney earlier on, at Murray Bridge. He had raised the matter himself. He told me this engraving was not a 'crocodile' head at all. Having been intrigued by C. P. Mountford's trip to Yunta and by his discovery, not least because of the publicity it received in the local press of 1938, as elsewhere (see Mountford 1929: 243–248 and Mountford & Edwards 1962: 97–99), I was interested in what Barney had to say. He first drew for me a rough sketch of this object in chalk on brown paper. As a result, I wrote to Mr H. M. Hale, the Director of the Museum (since I was at that time an Honorary Ethnologist); and he kindly sent me, not only the photograph already noted (Fig. 1), but also some sketches of the so-called 'crocodile head'. Figures 2 and 3 reproduce two of these, the first 'the present rock surface' and the second 'the newer engravings'. My intention was not to detract from Mountford's speculation about what the engraving might mean. My interest was in obtaining an Aboriginal explanation. I should perhaps note that I mentioned this to Mountford, who was upset about my intention to do this. In the circumstances, and because he was then a friend of mine, I agreed not to publish at that time any information I might obtain on the object. After all those years, however, it seems important that the material should now be made available, and I feel that I owe it to Barney's memory to put it on record. I doubt whether any other living person, Aboriginal or non-Aboriginal, would know about what I propose to write here, and certainly not from his point of view.

FIGURE 1. Rock-engraving of the Panaramittee 'crocodile head'. (Photo courtesy South Australian Museum, 1942.)

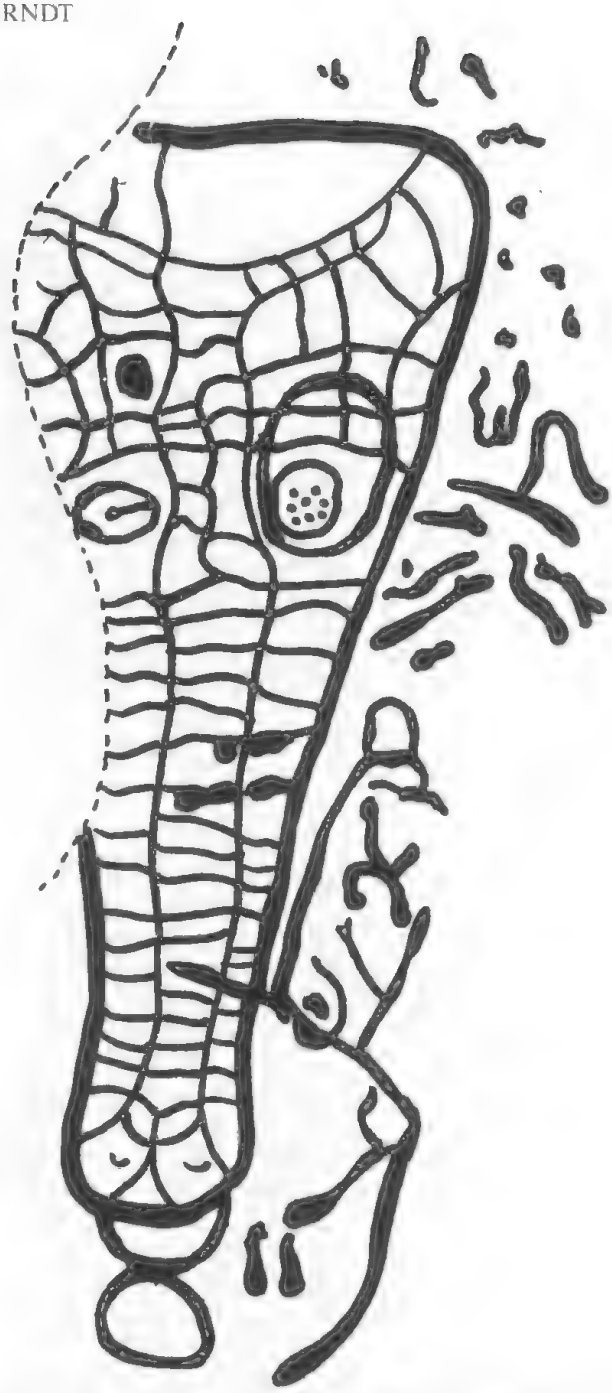

FIGURE 2. Sketch of the Panaramittee design, part of which has disappeared. (Courtesy South Australian Museum, 1942.)

Barney Waria and Ngadjuri Country

Barney Waria (*waria* is a term meaning 'second child' of his parents; sometimes now spelt 'Warrior'), after he was circumcised (became a *vadnaba*), was named Ngadjibuna (or Ngadjelibuna), which means 'give nothing away' (referring to the secrecy of the Law). He was born at Orroroo in Ngadjuri country in 1873, and in 1943 was 70 years of age — a birthday that we celebrated with a Chinese lunch in Hindley Street. Barney (Fig. 4) was a *gararu* matri-moiety man whose 'meat' (or 'totemic' affiliation) was curlew, *wudlaru* and *wada* rat. The first served to aid him in times of need, as well as acting as a spirit-familiar. His father, Ned Edwards, was part-Aboriginal, part-Afghan, born at the Boli Aboriginal camp near Gladstone: he was killed in a dray accident at the age of 60 years, when Barney was six or seven years old. Barney's mother was Emily Lamb, also part-Aboriginal, born at 'Yonggala' station out from Jamestown and Terowie. She died 'naturally', aged

FIGURE 3. Sketch of the Panaramittee design, depicting what were regarded as being later engravings. (Courtesy South Australian Museum, 1942.)

60 years, when Barney was about 30 years old. Barney travelled widely in the middle-north of South Australia, went north as far as Oodnadatta, and up the Birdsville track into Queensland several times. He had been living at Point Pearce for 10 to 12 years prior to 1943: he died in 1948. Tindale (1937: 149) reported having worked with Barney who was on a brief visit to Adelaide: at that time, Tindale said, Barney was 'a middle-aged man'. In 1937 Barney would have been 64 years old, although of course Tindale could have spoken with him earlier. Barney was a perceptive and thoughtful man with a large repertoire of traditional knowledge that I could only sample. One difficulty was that while I was engrossed with the Yaraldi, my wife and I were also working with a wide range of Adelaide Aboriginal people of differing socio-cultural antecedents who were either resident in or visiting Adelaide. Barney's interest in his own traditional background did not deflect him from a lively concern about world affairs (at that time dominated by World War II), and he also played an active part in supporting claims for recognition of Aboriginal rights.

Originally, according to Barney, the Ngadjuri (*ngadlu*, we; *yuri*, person) occupied more or less the same span of country as noted by Tindale (1940: 180). It stretched south to Angaston and Gawler; and along with the Adelaide people, they were probably the first groups to suffer the full impact of alien intrusion. Their territory to the north included Panaramittee and Yunta. The Balaklava area was not part of the Ngadjuri country but was settled by the Widninga. Tindale said this was a Ngadjuri term for the Kauna (or Kona, as I call them), the Adelaide people. However, my information suggests that the Widninga did not identify themselves as Kona. The Wetara family, along with some others, were Widninga; their country adjoined that of the Ngadjuri as it did that of the Nukana, ranging along the gulf coast with its main base at Port Germein. There were rich fishing grounds within that area, and the Ngadjuri would join the Nukuna, seasonally, to exploit their resources. On the north too, the Ngadjuri interacted closely with people belonging to territories called by Tindale (1940) Jadliaura and Wailpi. As far as the Ngadjuri were concerned, the territories and people of those two groups were Adnyamatana (Adnyamathanha or Anyamatha) or, alternatively, Gunyumata (*adnya* or *gunya* or *ganya* meant stone; *mata*, people [belonging to]), referring to people who lived in the hilly and stony country. Barney said that, with the reduction of Ngadjuri numbers after European settlement of the region, those remaining either scattered across the country, living in the main townships, or joined the Adnyamatana. He added that culturally they were similar, with a common language but different dialects. On the north-east of the Ngadjuri were (as Tindale called them) the Wiljakali. The Ngadjuri called them Yandagali, again referring to stony country: most of their territory was on the New South Wales side and included Broken Hill. In general terms, Barney saw little difference between the Adnyamatana and the Wailpi (Wailpimathana) and his own group. The name Jadliaura was not mentioned.

FIGURE 4. Barney Waria (or Warrior), 1943. (WU/P17182 Photo: R. M. Berndt.)

A Land Full of Myths

The mytho-topographical perspective of the Ngadjuri was extensive. However, I mention this only briefly, mainly to provide some background to our discussion of 'the magic stick'. For instance, there were a number of spirit beings. The *wundawinyu* were fond of teasing people by throwing pebbles at them as they sat quietly in the sun or rested by their fires at night; they lived in the creeks and in the thick clumps of ti-tree. *Mungiura* were to be found in the hilly country: occasionally they would peer over the top of a windbreak, and if their faces were seen, that would indicate an impending storm. Small human-like creatures called *muripapa* danced around in circles on misty mornings; and after a couple of days, round grassy patches could be seen, made by their dancing feet. They were believed to lead people astray, even to make them mad, or to abduct their children. At night, when they usually came, people would build up their camp fires and throw sap from the *wuara* yacca bush into the flames to keep them away. *Epa-tura*, on the other hand, although they could be seen on hot hazy days, would do no harm: they were engrossed in cooking *bulkara* sandalwood grubs, and it was the smoke from their fires that caused the haze.

Generally, these spirits were said to have been in Ngadjuri country prior to the 'arrival' of the Dreaming characters: the actual sites they frequented were not specifically noted. In contrast to them was the mythic Mirlki giant who left a large footprint in a creek at a place named Mundjapi (or Mandjapi), near Mt Jibbi (or Yibbi, Mt Bryan) out from Hallett, north of Burra. In the creative era of the Dreaming, there were a large number of people living in this area. In fear of Mirlki, they fled north and entered a cave about six miles south-east of Orroroo (Ar-ru), and walked underground northward to Bukalavi (Bindalbe), near Carrieton.

Ngadjuri country, like all the Lake Eyre Basin, was criss-crossed with mythic tracks. The large Akaru (Rainbow Snake) came south from Wilpena Pound (Wilpinundu) which he/she made. Akaru was also manifested as a willy-willy (*ngadladara*).

On seeing him/her emerging from a waterhole, in this form, people would call out '*Bungari muta*!' (country/belonging to [*mata*]): and Akaru would turn away — he/she would do harm only to strangers. Like Akaru, Inawala, Perentie, came south from Lake Frome.

There were a number of myths concerning Akaru, who was invariably associated with waterholes and lakes, as well as water courses. One of these was said to have a head like a dog, with a hairy mane, and a body coloured in red and black. This monstrous Snake had a companion, a small *babulara* red snake that served to warn him/her of approaching strangers. Another, Wiperu (Whip Snake), was a well-known mythic figure who was originally in human form. He came from Tea Tree (on Lake Frome) to Tooth's Knob, where he camped. Then he went on to a waterhole, and then to a small hill (about five kilometres south of Tooth's Knob). This hill is streaked with the colours of the rainbow (*guringi*, ordinary term), and it was here that Wiperu man painted himself with ochres and turned into a *wiperu* snake. In that form he continued to Coffin Spring, where he bored a hole in the limestone cliff. This was said to be a perfectly round depression that always contained water. Wiperu had come along a salt-water creek, and the waterhole is on a raised mound: he went into that place. I was told that Wiperu was a monstrous snake, and that he lived there peacefully until a bullock came up the mound to drink. Wiperu, disturbed, emerged and attempted to swallow the animal. However, the bullock's horns stuck in this throat and he choked to death. He died alongside the waterhole. Later, his bones were collected by local Aborigines. For a time, Barney himself had the immense jaw-bone of this Snake, but this was eventually lost. Some of the bones were believed to remain in the waterhole.

Jim Mooney (see below) explained to me how all the country and rocks within the vicinity of Yunta-Panaramittee were nearly not there. Yuru (Euro) and Wudlu (or Kulu as Mooney called this creature), red kangaroo, both of the same *materi* moiety, and their respective groups, were living in the hilly country. Yuru, however, was there first and 'owned' the country; Wudlu had come later. They quarrelled. Wudlu said the country was far too rocky. 'I'm going to make it different!' So he sang all the hills and stones away. Yuru didn't know what to do; all the hills had disappeared; there were only plains. So Yuru got hold of a stray stone and blew on it — and all the hills and rocks came up again, just as they were before. That is why there are plain and hill kangaroos and euros who like the rocks. And the rocks were there for the Budla-bila spirits to engrave.

The following myth, told by Barney in February 1940, was said by him to substantiate the *vadnaba* ritual. However, it had much wider implications, one of which concerned magic.

> Two fully-initiated young men who were also *mindaba* (Aboriginal doctors) were of the *warumata*, Dreaming. One belonged to the Dieri language group, the other to the Yandruwanda; and they travelled down from their respective countries in order to introduce circumcision to the Ngadjuri. But that intention was really a secondary one. They had really left their countries to go in search of Kintjura, the spirit world, said to be located in the sky. They eventually reached Port Germein. Then they went on. It was a very windy day, and they heard a noise that frightened them. They discovered it was made by the limbs of a tree rubbing together in the wind. They named the place Inderi (referring to the sound). Continuing on, they came to Windamurlku ('white flower', so named because an 'old man's beard' creeper was growing over a black stump). When they saw this, they thought at first that it was an old man standing there: *'Y!' Yuru nakuka-idla!'* (exclamation/person/look!); *'kakati windamurlku!'* (black stump/white flower!). Going on, they came to a place where they heard the sound of someone beating on the ground. Creeping up, they saw an old man digging *yalka*, wild onions. They sang:
>
> *yalka narinyenara kunmarindma dandura*
> onions picking up shaking earth from digging
>
> They went on through scrub country, eventually coming on to a flat *bitana* plain. It was very hot, and a species of bee or wasp, *mitji-mitji*, annoyed them. At last they came to the foothills of the Mt Lofty Ranges, to a high hill called Lingyura. They had travelled the full length, from north to south, of Ngadjuri territory and beyond. They climbed the hill, and from it looked southward. They saw many people, the Lingyura spirit people. They came down, and began to walk toward them. But the Lingyura called out to them to go back. And they sang:
>
> *lingyura lingyura wunmamara wunmamara . . .*
> spirit people go back

The two *mindaba* were told they were not ready, not suitably prepared to enter Kintjura. So they turned back, but not before they received from the Lingyura certain magical objects, among them the 'magic stick'. The Lingyura, Barney said, were Dreaming spirits, not *wonggabi* (or *wungyapi*), spirits of dead persons. Eventually, the latter would find their way to Kintjura, but would, from time to time, return to their grave sites. Only *mindaba* could see these spirits, both the Lingyura and the *wonggabi*. The *wonggabi*'s association with a dead person's fat is mentioned below.

THE YARIDA

After his *vadnaba* and *wilyaru* (cicatrization), Barney had some preliminary training in activities

that usually concerned a *mindaba*, mainly in healing and in sorcery, although he never considered himself in any sense proficient in the latter. The knowledge he assimilated on sorcery came from his *damuti*, mother's father (pater), a Ngadjuri man named Gudjari who died in about 1900. He was the last of the old men who knew the meaning and ritual of the 'magic stick'. Traditionally, several years after a young man's *wilyuru*, and if he had shown considerable interest in magical matters, a *mindaba* with some of his colleagues would take him out into the bush (see R. Berndt 1941: 376–377). Here the postulant was red-ochred and smeared all over with dead person's fat; *windamalka* wood shavings would be placed round his head, held fast by an *ungari*, or *manga* fur twine cord, and *wilka-adlu* dog tails arranged so that they hung from each side of his face. The *mindaba* taught him how to bring on a situation of trance and, in that context, to talk with spirits. He was also informed about various forms of magical healing and sorcery and, especially, how to control his own spirit, how to make it leave his body during a trance. Further, he would be instructed in the art of divination during an inquest that took place after a person's death to discover who was magically responsible. It was only *mindaba* with this sort of knowledge who were in a position to handle the 'magic stick'. If anyone else were to attempt to touch it, let alone manipulate it, that would cause madness.

The two young spirit *mindaba*, as we have seen, were credited with first obtaining the 'magic stick' from the Lingyura. However, Barney said that it was really introduced into Ngadjuri country from the north-east a 'long time ago' (*widmakara*, in contrast to *warumata* that specifically refers to the Dreaming), from 'the snow country' called Bulayata. It is probable that this is the place referred to by Tindale (1937: 150, note 1) as Buthajerta (Mt Patawerta) in the Flinders Range, which he said meant in Ngadjuri 'snow country' since occasionally snow lies on this mountain during winter. On the other hand, the country around Yunta, Panaramittee, Manna Hill, as far as Bimbowrie (Bombowie), was rocky and contains many rock engravings. Among these lived two spirits named Budla-bila. They could be seen on sunny mornings, and were responsible for causing mirages (*murra-gubi*, fresh water, because they looked like that). These rock engravings were said to have been made in the creative era of the Dreaming, and traditionally there were songs associated with many of the figures depicted. The famous Panaramittee stone, identified by Mountford as a crocodile head, was said to be really a *yarida* that had been engraved by the Budla-bila. To accomplish that task they used quartz chisels from stone obtained from Warum hill, where Eaglehawk's leg injury had festered and finally burst, and the matter from it formed the quartz deposit (see the first Eaglehawk and Crow myth below).

The *yarida* was made from a shaped piece of wood, or *wurtwiti* cane was bent into the appropriate shape. In either case, specially treated human hair and possum fur twine were used. The first drawing, Fig. 5, is reproduced from the original one in white chalk on brown paper and is 30 cm in length. It was drawn at Murray Bridge in 1942, before I had obtained the original photograph and outline sketches of the engravings from the South Australian Museum. The object, if it had been made by a *mindaba*, would have measured, so I was told, 60–80 cm in length. *In toto*, it represented the spirit body of a human person, although 'within it' were many other things.

The annotation of the drawing, by Barney, is as follows. The *yarida* has a handle (1). One end of a length of human hair twine is attached firmly at (2) with *bukara-pitji*, a sandalwood gum, to the

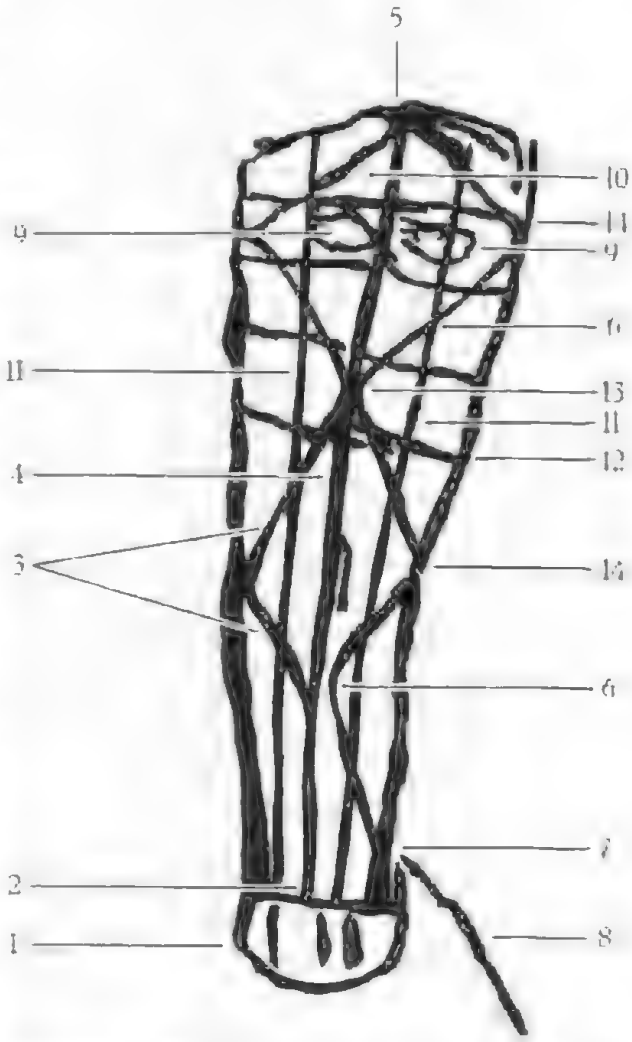

FIGURE 5. Sketch of the first drawing of the *yarida* magic object by Barney Waria, 1942. Numbered features are explained in text

backbone of the *yarida*'s body. The twine then runs up the main trunk, turns to the left, then to the right (3), on to the left and right, linking with the *yadna-walpu*, the backbone (4), where it is again fastened with gum at (5). The twine is looped and is then taken down the right-hand side, zig-zagging (6) until it reaches (7) where it is gummed down, leaving one *akuri* hair (8). The spirit's eyes (*mena*) are (9); its *ngarada-walpu*, forehead is (10); and within the space between the two vertical lines (11), at each side of the backbone, is the *yadna-bandji*, the fleshy part of the backbone. Horizontal bands (12) are *bilda-manga*, cross-pieces of possum fur twine. The spirit's heart, *yulku*, is at (13). The human hair twine can be moved to various parts of the symbolized body, at (14), for instance: these are 'corners', located around the object, as on the left-hand side, and in the drawing they are attached to the arms (top) and legs (bottom) of the designated victim.

The second drawing by Barney (Fig. 6) is also reproduced from the original of white chalk on brown paper, and is approximately 32 cm in length. It too was drawn at Murray Bridge, but after the sketches of the engraving had been received. As will be noted, it resembles closely Figs 2 and 3. Barney took care in reproducing this, since he wanted to explain the meaning of its various sections. It too is a *yarida*.

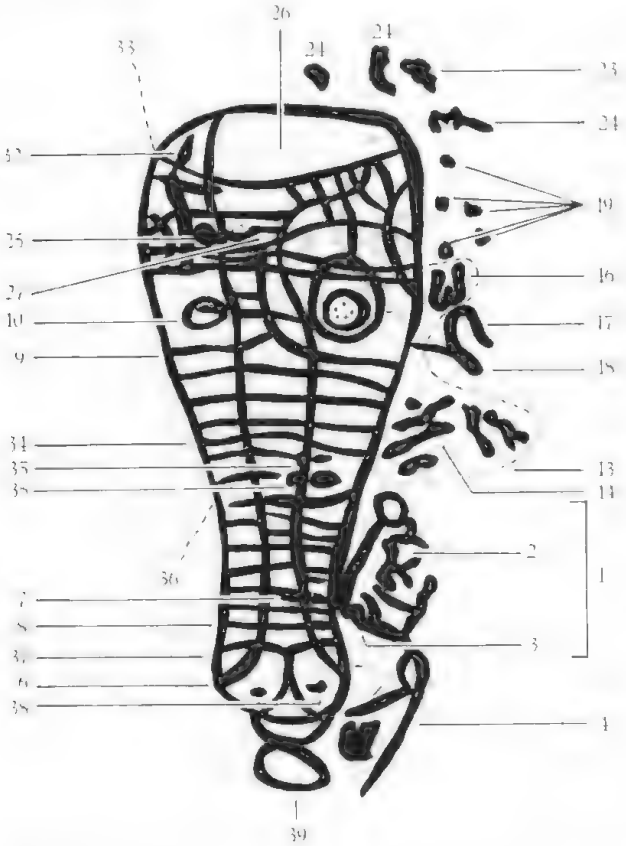

FIGURE 6. Sketch of the second drawing of the *yarida* magic object by Barney Waria, 1942. Numbered features are explained in text.

As in Fig. 5, the whole object represents the body of a spirit. Basically, there is the head (at top) and the 'handle' (at bottom). A miniature representation of a *wonggabi* spirit (manifested from a dead person's fat: see below) has been drawn in skeletal form at (1); (2) is its chest (or rib bones) and (3) its *miti*, buttocks. This *wonggabi* sits on a loose thread of human hair twine (4), while (5) represents the internal organs of a prospective victim. The length of human hair (4) joins the main twine (6) at (7) on the right-hand side and extends upward to the central body of the *yarida*, as does its companion main twine (6) on the left-hand side: these main strings are *iti-malka* (or *yiti-malka*). Horizontal lines (*malka*, marks), from (8) to (9), represent the long streaks of debris (leaves, twigs and earth etc.) that have been formed on the ground after heavy rain: they are called *wonda-malka*. The same term and meaning are associated with the long wind-blown streaks of cloud that were said to be relevant to the *yarida* — although it is not clear in what way.

Two eyes are located at the head of the *yarida*; on the left-hand side is a normal eye (10), while (11) is an outline of the hollow eye of a victim through which a *wonggabi* spirit peers after having entered the victim's body. The inner circle (12) with its dots is called 'the face' — *wonda-kunyu-mangu* (spirit-white-face) — referring to that of the *wonggabi* of the *yarida*: the dots refer to two eyes, *mena*; the nose, *mudla*; cheek bones, *ngulkana*; and mouth, *yaga*. The area between the rim of (12) and (11) is the *mena-batu*, swollen eye, when a victim becomes hollow-eyed during illness.

The area marked (13) is associated specifically with female victims. A leg, *yalku-atuni* (leg/woman) is depicted at (14), with *waltjeri* (15), intestines and/or entrails; and *aka*, vagina (16). A length of hair twine is placed on a woman's leg, to cripple her temporarily — if she has been running about after men. A *biri*, a fibre or twine hook is placed at (17), and immediately beneath it a *karawalpu* club (18) that is used to kill a person by striking a heavy blow at the back of the head. Like all aspects mentioned, they are anointed with dead person's fat. Five marks indicated (19) are *gudna*, excreta of a victim, mixed with human hair, red-ochre and dead person's fat. This really symbolizes excreta (faeces) of the mythic Crow, and also has relevance to the Milky Way (see below). However, these same marks are also said to be the tracks of *iti-iti* (or *yiti-yiti*), a small lizard that has this design (*iti-malka*) on its body. In early mythic times, Iti-iti was a man, a great climber of trees; he is associated with this form of sorcery. But the marks can refer to a man stepping along lightly, like a child. Its basic meaning is said to concern Crow.

Above the hollow eye (11), an area (20) divided

vertically by a piece of twine represents a 'club' foot, an *idnabatu* (or *yidnabatu*) that has been eaten away by disease magic; the calf is at (21), and the heel, *maku*, at (22). The penis, *wari*, is shown at (23), and (24) represents three different bones from a human skeleton. The temple, *winggu*, of the spirit's forehead, *ngarada-walpu*, is drawn at (25) as a circle. From (25) running right is a representation of a *mindi* cat's-cradle (27) that is under (that is, within) the top of the spirit's head (26) — from (28) to (29), across; from (30) to (31) downward, across and including the *winggu*. This *mindi* is really a net in which a victim may be caught. The *winggu*, however, is also located in the Milky Way as a black area, while in the same constellation the *winda-gudnu* is Crow's faeces: this takes two positions in the Milky Way. It is on the eastern side during winter, on the western side during summer. A large black patch is the spirit that comes to a *mindaba* 'when the Milky Way turns' and helps him in his act of sorcery. The main strings (6) of the *yarida* represent tracks of mythic beings — for instance, the Budla-bila as well as Crow and Yulu, Kingfisher — who travelled in Ngadjuri country. The myths associated with them were re-told from one *yarida* twine-join to another — that is, from (8) to (9), from one horizontal band to the next, until reaching below the eyes, (10) and (11).

On the top left-hand side, 'a kind of creature' is shown (32); this is a slate-grey small *bull* bird regarded as being important in magic. It was also suggested that this could be Yulu as a human being: he was the mythic patron of the *vadnaba* or *malgara* circumcision rituals and responsible for introducing them.

At (33) is what Barney called the loose end of the main body of the *yarida*. In Fig. 6 this is drawn in with broken lines, and represents a hair from the twine. The horizontal and vertical strings form the backbone and the ribs (34) of the spirit. *Manga* fur twine is fastened and tied at (35), and is represented by two pairs of ovals: these may easily be untied and moved to any part of a victim's body. A further loose end (36) was indicated by Barney, as in the case of (33). The *akuri (or akudi*, head) human hair twine (37) runs through (or is threaded through or tied to) all the other strings, holding them together (that is, the string that surrounds the whole of the *yarida*). There are two holes (38) through the wood or *yarida* frame, called *wadju*, nostrils, through which the string(s) is/are threaded in order to be brought up the backbone of the *yarida*. At the bottom (or handle) are *ngaldja*, bubbles of saliva or froth (39) coming from the victim's mouth as he lies dying: or, on some occasions, spittle that can be collected for use in sorcery.

As will be appreciated, although this description of the significance of the *yarida* is reasonably detailed, it could no doubt have been considerably elaborated if Barney had been brought up in a living-traditional context. As it is, there is sufficient information to substantiate his contention that Mountford's 'crocodile' was in fact a *yarida* — at least to him, whatever it may have been to his early ancestors or to the Budla-bila! In a way, the *yarida* is a small graphic 'handbook' on sorcery: but not entirely so, since it also provides clues to the wider frame of Ngadjuri religious belief, referring as it does to mythic characters and, especially, to the re-telling of their adventures by way of the object's strings.

How the Yarida was Used

While use of the *yarida* is already noted in its description, Barney's grandparent, after having made it, would hold it up by the 'handle' and speak to it, *'Yura nakuga anawatin mangguga!'* (man [name]/you see/that one/catch him). Talking to it, and repeating *'Yura mangguga!'* (Catch a man!) he felt the strings trembling in his hand: 'They seemed to tell him, "Yes" '. The *yarida* knew what man to get! Then he put the stick away, hiding it. Later, on a pleasant sunny morning, he took out the *yarida* and put it in the sun (*dendu yundunga wondakulu* [in sun/on ground/he puts it]) to warm it: 'The spirit of the *yarida* is looking for the victim' (that is, searching for him or her). Already the string has been placed on a particular part of the victim's symbolic body; the spirit finds the victim and enters him, and his/her illness commences. He/she becomes increasingly ill (*mingga*) and dies (*yindatha*).

After a successful undertaking, the sorcerer smears ('paints') the strings of the *yarida* with dead person's fat and red-ochre: *Wudlu yakuda mangkukal ngudla kalu yarida wondakalu* (kangaroo skin/bag/he got/put/into/magic stick/put away). When not in use, it is wrapped up in possum fur and tied up with red-ochred twine. Elaborating, Barney said that when his grandparent used the words *'mangguga anawalthuna yura mangguga!'* (catch him/that one there/man/catch) he felt a shock run down his hand from the string he held: this indicated that the *yarida* spirit had left the object and had hit the victim. His grandfather promised to give Barney his *yarida*; he knew where it was hidden in a cave, but did not tell me at what place. He told me he would get it and give it to me. However, soon afterward he returned to Point Pearce and I went north to carry out further anthropological research.

In short, then, to operate the *yarida*, a sorcerer held it in his hand or placed it before him on the

ground; or, sometimes, put it on hot ashes protected by a bed of green boughs. The heat intensified its magical potency. A *yarida* string had to be placed on the appropriate limb or part of a victim's body represented in the object's design. As the *yarida* was manipulated and special songs were sung (songs that Barney, unfortunately, did not remember), the *wonggabi* spirit left the *yarida* by way of the relevant length of string and went directly to its quarry. If a string indicated the victim's heart, death would be instantaneous. Alternatively, if a string indicated a gradual illness, it was said, that would 'wear you down to skin and bones, you just couldn't recover!'.

The Arena of Sorcery

An essential element in the performance of this form of sorcery was dead person's fat. Unless the strings were anointed with this substance, the magic would not be effective. Moreover, without the anointing of the strings and the object, the *wonggabi* spirit could not be present to carry out its allotted task. That spirit entered through the fat. In other words, it was the spirit of the dead person himself or herself, seeking to avenge his/her own death or injury, under the control of a *mindaba*.

In ordinary circumstances, Barney said, Ngadjuri removed a little fat from a deceased person's stomach and it was eaten by his/her close relatives, especially by grandchildren. Belief had it, that the deceased's spirit would enter the eater's body and protect him or her where need be. However, the human fat used in sorcery was not of this kind. It had to be removed from a person killed by sorcery and/or in the course of a revenge expedition. This meant that the fat was obtained through a magical operation before the victim died. The fat was then left to dry, wrapped in bark or grass and kept hidden away in a cave to become putrefied, when it could be used.

Barney mentioned a case that had occurred at Burra when he was a young man. Bita people (as he called them; probably Tindale's Ngaiaweng) from Morgan on the River Murray came to attend ceremonies (generally called *kuri*) arranged by the Ngadjuri. Instead, there was a lot of talk concerning suspected deaths through sorcery, accusations were made, and fighting broke out between the two groups. Some Ngadjuri men went over to the Bita 'mob' and killed and injured several of them without giving any reason for doing so. A further meeting was arranged later to find out why they were killed. In retaliation, the Bita sorcerers attempted to preform *mildina* (called 'bruising' and referring to the form of sorcery that involved pounding a victim's chest with a club). After much ill-feeling, the matter was resolved by holding a *kopara* (a widespread term in the Lake Eyre Basin also used by the Ngadjuri, for a ritual resolution of conflict: see R. Berndt 1965: 183–186). Fat that could be used in *yarida* sorcery was removed from the persons killed in this fighting.

In another example, said Barney, a man named Old Graham was sorcerized by *mildina*. Apparently, this happened at Port Germein in Nukuna country. On returning to Clare where he lived, he became ill and lay down in his camp. He was so obviously sick that his relatives took him to the Clare hospital. I was told that the European doctors who attended to him were at a loss to know what was the matter with him. After a few days he died. However, they asked a *mindaba* (I believe this was Barney's grandfather) to diagnose the cause of death. With the permission of the European doctors, the *mindaba* cut open the dead man's stomach and reported that his intestines were tied up with grass fibre and that among them were fragments of crystal and broken bottles. The *mindaba* also observed that a hole had been made on the left-hand side of the stomach, a bone having been inserted to extract kidney fat (*wirumani* or *wangamani*). That fat was later used in sorcery.

In general terms, the fat could be drawn from either side of a victim's stomach by using a *baya* kangaroo bone, or from the *mindati*, navel. The *baya* was inserted and twisted to remove the fat and, in the case of a navel, the aperture was tied up with *andu-ildja*, wallaby sinew (*gandu*, rock wallaby); in other cases, the hole was simply smeared over with earth or red-ochre. It was also said that the entrails of a victim under the influence of sorcery could be removed through the *adna-wadju* (or *mundu-wadlju*), anus, when foreign substances were placed with it and then put back after tying up the entrails. In these circumstances, needless to say, the victim could not defecate (*gudna*), and would soon die.

The fat was usually removed, so I was told, at night under special conditions (see below) and in some cases a bone needle called *walpu* was used. The victim was first rendered unconscious by a blow on the head with a *tandanaka* club previously 'soaked' (anointed) with dead person's fat. The club was spoken of as 'a magic stick', so that the blow need not be hard. As Barney said, ' it is the spirit of the fat in the "stick" (club) that does the trick'. The victim was then placed on his back, and his tongue pulled out and a pointed stick or needle pressed into it. The two or three *mindaba* who might be present spoke to the unconscious man: *'utna wongguga'* (don't/tell anyone). 'That victim knows who has caught him, but is unable to tell anyone.' The kidney fat was then removed.

Such acts of sorcery should be carried out only when the Milky Way, *walibari*, is propitiously placed (see Fig. 6): that is, before it is 'about to turn',

when all people (except sorcerers) were said to be asleep. The same belief was also current among Wuradjeri and contiguous groups. (See R. Berndt 1947: 69.) The time would be after 1 a.m., 'because then a person is not himself or herself, his/her spirit has temporarily left its body; or, if not then, after 4 to 5 a.m., again, when everyone is sleeping soundly. Between 11 and 12 p.m. and a little before 4 a.m., it was the habit of old men to keep watch for sorcerers — 'when the Milky Way was beginning to *wailiku*, turn'. There was also a reference to a person 'turning' in his sleep, which the old men prevented him from doing. However, I don't understand the allusion. It was when all the people were asleep that sorcerers were said to be on the prowl, to approach their victim, and by using a long human hair cord, to loop it round his arm and steadily draw him away from the camp. It was the spirit within the cord that carried out this task. Once away from the camp, a *mindaba* would knock the victim on a small bone called *nundi-walpu* located at the back of the head and render him unconscious. After the kidney fat had been removed and the aperture sealed, the victim's ears would be pulled and blown into, to prevent him from hearing anything. The *mindaba* would hold him from the back and tell him, *'anggurukakal'* ('Go home!'), pointing in the direction he should take and the victim would return, unsuspectingly, to his own camp. Within three days he would be dead.

Barney had had (he said) a narrow escape while camping as a young man in the Orroroo district. He was with an old man named Bunlipari and some young boys. They had made a *walanga* windbreak. Bunlipari slept at one end and Barney at the other, with the boys in the middle in front of a fire. At the turning of the Milky Way, a sorcerer came sneaking, looking over the windbreak at the sleeping group. He threw a stone into the fire (*watugali adnya manggugala wiakalu*: looking over/stone/picked up/threw) to make sure no one was awake. Bunlipari and Barney awakened and saw the sorcerer peering at them. They lay quietly, without moving. The sorcerer came round to Barney's side and bent over him, ready to place his hair cord over Barney's arm. At that moment, both Barney and his companion jumped up; Barney was not quick enough and Bunlipari was too fat, the sorcerer escaped — *nakun yuru iwana angutikai yudlina batili-bariku anggura* (saw him/man/standing/jumped up/chased [him]/quickly got out of sight [*bati* referring to an insect that scuttles away]/went home).

Some Points of Relevance

In the course of our discussions, Barney said that the Adnyamatana were associated with the Guyani and often held meetings at Beltana. It was from them that he heard of another 'magic stick', a crystal one that was called *maimu* and had the same properties as did the *yarida*. It too was smeared with dead person's fat, and through it the *wonggubi* entered the object. When it was held by a sorcerer and thrown outward in the direction of a named victim, its magic would pierce him or her 'like a bullet'.

I was also told that, although the Ngadjuri *yarida* was primarily 'death-dealing', it could be used for curative purposes as well. For instance, in cases where death to a victim was not intended, its power could be negated by removing the string from the part of the victim's body represented on the *yarida*. Further, more direct cures for sickness not attributed to sorcery could be effected, by placing a string on the relevant part of the body represented on the *yarida*. However, the string had to be free from any dead person's fat and, instead, smeared with emu fat — and that fat was also rubbed all over the afflicted person's body. This procedure was said to cure severe sores, smallpox and leprosy.

In spite of this positive side of the *yarida*'s power, it was its malignant aspect that was emphasized. One day while I was sitting talking with Barney in Light Square the matter of Lasseter's reef was raised. Barney had visited Oodnadatta and someone had told him about Ion Idriess's book, 'Lasseter's Last Ride'. 'You know, Mr Berndt, those prospectors went out to find Lasseter's reef. They never found it, because that *yarida* made them mad, confused; they couldn't find their way to it'. At the time I had not read that book and, in fact, it was only when writing this paper that I thought I should do so. The references to 'the stick' appear in Idriess (1948: between pages 69–93). However, it seems fairly clear that 'the stick' noted there is not a *yarida* but a long secret-sacred board; although it was certainly interpreted by Barney as the *yarida*. (I should mention that Barney was not literate and was told about the Idriess book by a friend.)

Further Mythological Background

Mythic Eaglehawk was associated with the Panaramittee engravings; and, as far as the *yarida* was concerned, so was Crow. It seems relevant therefore to give two versions of the Eaglehawk and Crow myth. Moreover, Tindale (1937: 151–152) also recorded the Ngadjuri one I present here from Barney. It is, therefore, of some interest to compare this version with Tindale's, both from the same man. The second Eaglehawk and Crow myth I give here is related to Broken Hill and was recorded from Jim Mooney.

In the Ngadjuri one I wrote down, all creatures were human beings in the Dreaming. Wakala, Crow, a *garari*

moiety man went out hunting near Orroroo with Wildu, black Eaglehawk man who was of the *materi* moiety. They obtained meat, but Eaglehawk was greedy and refused to give any to Crow. Crow was jealous of Eaglehawk because he was strong and able to crush the twig and stick 'nests' of the *wada* (*gararu* moiety) 'house-building' rats. He therefore obtained a kangaroo leg bone and, sharpening it at one end, placed it carefully among the twigs of a rat's nest with its point upward. Crow spoke to the bone, telling it that when Eaglehawk came along it was to move about in order to make him think that many rats were hidden in the nest.

Crow called out to Eaglehawk to look at the nest he had found. He came along, and seeing movements within it, jumped on the nest. The sharpened bone (*baya*) pierced one of his feet, causing a severe wound. Seeing this, Crow laughed and ran away to Malkara (near Minburra, north-west of Yunta). Eaglehawk struggled back to his camp. His wound began to fester. Nevertheless, he was able to hobble on, following Crow's tracks. (Crow was, apparently, accompanied by his family.) He followed Crow to Yunta and from there, finding Crow had moved on, went westward to Waruni (Waroonee, a little north of Yunta railway station). A light rain began to fall, and looking round for shelter Eaglehawk saw a cave. However, this was occupied by Crow and his family, and when they saw Eaglehawk coming Crow shouted out to him, 'Go away, your foot smells!'. So Eaglehawk went some little distance away and gathered *nala*, spinifex or porcupine grass, and carried it back to the mouth of the cave. The rain had stopped, and Eaglehawk piled it up all around and set fire to it, throwing on green grass to make a dense white smoke. He smoked the Crow and his family, and they turned into birds; that is why they are now called *wakala or mena-balkara* (*mena-nalkara*), 'eye-white', and they are black from the fire Eaglehawk made.

Eaglehawk, however, hobbled over and sat at the side of Waruni Cliff. His sore leg was itching, so he scratched it. The pus, *gaba*, burst out and ran down the side of the cliff. Today, it is metamorphosed as white quartz (*yudla-gadna*). It was this material that was made into chisels and used to engrave the rocks of this area. Eaglehawk then turned into a bird.

Eaglehawk's father, Mura, Red Hawk of the *gararu* moiety, had in the meantime been hunting rats, cutting up the meat and cooking it — because he knew what would happen. His son came swooping down from Waruni, calling out, 'Where are all the people? I want to eat them!'. His father replied, 'Don't eat people, eat rats!'. And he threw up a piece of rat's flesh that his son refused to eat. Eaglehawk swooped down three times, crying that he wanted human flesh. Each time, his father offered him rat meat; at last he ate some. 'That is why Eaglehawk swoops down for his food!'

While the two versions, Tindale's and mine, are reasonably close in their renderings, there are some interesting differences, and one of these concerns using the quartz for rock engraving. Crow, too, was said to be a cunning creature. He preferred to injure Eaglehawk by means of a ruse instead of by direct confrontation and, although this is not mentioned in the myth, used sorcery to achieve his goal.

The other Eaglehawk and Crow myth was given to me by Jim (James) Mooney with whom I worked, mainly on genealogies, in March 1944. He was born at Bimbowrie station, north-east of Manna Hill, in 1864. His father was Bob Mooney, a European who worked on that station; and his mother was Jane or Jinny Yalta-yalta or Yalta, meaning 'many stones or a stone', since she had been born in the stony country of the Wilyakali (Wiljakali). However, Barney said she was a Ngadjuri and had been born at Black Rock in Yamba-muta country near Broken Hill, named Wilyama Hill, 'where all the silver came from!'. The story Jim Mooney told is as follows:

A quarrel had begun between two mythic beings and members of their respective groups. A large meeting had been called, and all the creatures who attended were human beings in the Dreaming. One group were all of the same matri-moiety, *materi* or *makwara* (the eastern term) to which Wariku, Eaglehawk belonged; and the other moiety group was *gararu* or *kilpara* (the eastern term) to which Wokala, Crow, belonged. The two groups were arguing. Eaglehawk accused Crow that he and his group were not following 'the old Law'.

(Mooney told me that Wokala, also called Ku-eiyara, the light-eyed crow of the *kilpara* moiety was different from Waaku, or Wagu, the dark-eyed crow of the *makwara* moiety.)

It all arose from a large number of people dying; at first, more men than women; then more male children were being born, and more female children were dying. More women died, and many men were left without wives; many women were left without husbands. At this time, too, people married within and not outside their moiety categorization; no one could marry a person of the opposite moiety — that was Eaglehawk's Law. Eaglehawk did not want people to die.

One person got up and spoke to Eaglehawk. 'Why shouldn't these people die? If they have to die now, they can come back later after a certain time!' [That is, be reborn.] 'No,' replied Eaglehawk, 'They must come back!' [That is, in the same form as when they died.] So they continued to argue. At last Crow got up and said, 'There are more men than women in one of our groups, why shouldn't we marry them? [That is, from outside our group.] If one of our "religion" [that is Law, moiety group] dies, let him or her die and his "tribal" brother can take his widow as wife; or the husband find another wife!' Eaglehawk, however, would not agree: he wanted a man on dying to return after three days to his own wife; or a wife on dying to return to her own husband. The quarrel continued; nothing definite was decided and the meeting broke up.

Sometime afterward, Crow came on Eaglehawk's camp in the course of his travels. Eaglehawk had gone out hunting and left his son behind: he was preparing the meat his father had caught. Crow said to the son, 'I'm very hungry, will you give me some of that meat?' 'No,' the son replied. 'How will he know some has gone? I only want a little bit!' Crow asked. 'Yes, he will know,' the son answered. 'If you eat some of that meat he will know. He uses a spear in hunting for his meat and if you were to eat some his spear will break!' But Crow took no notice, he grabbed some and ate; then he took

more and finished it all up. He told Eaglehawk's son to go down to the creek for water. While he was away, Crow picked up a stone which he made red-hot in the oven's ashes. On his return, the boy looked round for Crow, but couldn't see him. 'Where are you?' he called. 'Here I am,' answered Crow. 'Where?' the boy called again, holding his head well back, calling out and looking around. Crow began to sing and the boy danced toward him. 'Look up!' Crow said. As he did so, Crow threw the red-hot stone into the boy's open mouth, choking him. He died.

Eaglehawk's spear had broken, just as the boy had said it would. He knew that something had gone wrong at his camp and hurried back. In the meantime, Crow had re-arranged the camp, putting the boy's body by the fire, making track marks to indicate that fighting had taken place and breaking up some clubs and spears. It was all ready for Eaglehawk's return. Crow met him and in a sad voice said that this was how he found the camp on his arrival: 'Some stranger group must have come along and killed your son'. He showed Eaglehawk the tracks and pointed out that all the meat had gone. Eaglehawk thought to himself, 'Ah! what a liar he is. *He* did this. I'll bide my time. How can I get him? I must make a plan!' That night it began to rain. Eaglehawk made a brush and bark hut for 'poor old' Crow to sleep in. Then he prepared one for himself, nearby. In the night, when the rain had stopped, he made a fire brand and threw it into Crow's hut. The flames burnt the hut and Crow to ashes. In the morning, Eaglehawk looked and saw that he had made a thorough job of getting rid of Crow.

Some little time afterward, Eaglehawk went out hunting and caught a rat. He brought it back to his camp, near the ashes of Crow, and cooked the meat, thinking in sorrow of his dead son. He took the meat out of the oven, ate it and threw away the bone. He looked over to where it had fallen: it had disappeared. Then he threw another bone, and it too disappeared. Next time, he threw a bone with some meat attached; again it disappeared. He went on throwing these. Crow's spirit was eating all these pieces of meat and bones: his spirit had not died, 'you can't burn or destroy the spirit!' His spirit had remained at the place where his body died. Crow's spirit was absorbing all that meat and those bones and gradually, unseen by Eaglehawk, he was regaining his material form.

After Eaglehawk had finished eating and Crow had absorbed all the left-overs, a whirlwind came running in the direction of the camp. Crow stepped into it, and as it came to the place where he was burnt, it gathered up all the ashes which Crow absorbed. In his true form, he jumped out of the whirlwind, calling 'Ha! I'll have you now!' But Eaglehawk had run away.

Some little time later, Crow came to Eaglehawk, having tracked him to another camp. In a plausible manner, he told him of a large rat in a grass nest. The usual way of obtaining these creatures was to place a foot on the nest while a spear was thrust within it. Crow said, 'My foot is too small; yours is large enough!' Eaglehawk went with Crow to where the nest was. Crow had already prepared a pit trap, placing upright spear-pointed shafts within it, hidden by grass. Eaglehawk put his foot on the 'nest', but it collapsed, causing him to fall in to be pierced in the legs and body by the spear-points. This happened at Wilyama Hill. Eaglehawk died there, his blood flowed, spreading in streaks across this area to form the silver deposits at Broken Hill. That country is Crow country and the people there follow his Law. They have inter-marrying moieties; and men and women, once they are dead, do not return to their wives and husbands, as Eaglehawk would have wished. Crow was eventually killed about twelve miles north-west of Broken Hill at an outcrop called Black Rock, Pernumuta, where he was burnt in his hut.

Unfortunately, Jim Mooney did not remember the place names associated with these mythic events — except for Black Rock and Broken Hill. He added that Eaglehawk's variegated feathers explained the reason why there were differently coloured stones and rocks at Broken Hill and in the vicinity.

Although in this myth the *yarida*, or for that matter sorcery, is not mentioned, both Barney and Mooney saw it as being integral to understanding the overall mythological background of the area. Crow was associated with sorcery, although not in this case. Rather, interpretation was at a different level. In this early Dreaming period, people could have made the choice between death and returning in the same form as before; in short, between dying or not dying. If Eaglehawk had not been killed, then there would have been no sorcery, and no death. Since both were killed, a choice could no longer be made; the way was open to sorcery!

This is not the place to embark on an analysis of the content of each myth, except to say that each mirrors interpersonal conflict that cannot necessarily be resolved — except through physical aggression or through the devious practice of sorcery. As will be known, the classic conflict between these two mythical personages is widespread and manifested in many Eaglehawk and Crow stories. In passing, it is worth mentioning that Tindale (1939: 243–261) presented an Eaglehawk and Crow myth from the 'Maraura' people of the lower River Darling. There are few resemblances between his and the one I give, except that in Tindale's the death of Crow's sister's son is mentioned (pp. 253–254). What is of particular interest is that there is an echo of the original dispute between Eaglehawk and Crow concerning matrilineal or patrilineal descent and its implications in marriage (p. 258).

Conclusion

In conclusion, I should say that this paper is intended to present an Aboriginal interpretation as an alternative to what has come to be known as the 'Panaramittee crocodile' rock engraving. It does not dispute the assertion that the design on the relevant piece of rock could originally have been something

different. There is no doubt that it 'looks like' a crocodile's head. But equally persuasive is the assertion that it is something entirely different. The evidence that was given to me by Barney Waria, in some considerable detail, leaves little doubt in my mind that the engraving did represent, or was identified by Aborigines as representing, what was called by them a magical *yarida*, a powerful object that could be death-dealing as well as possessing the potentiality of curing a sick person. However, it is the 'dark' side of the *yarida* that has been emphasized.

As far as I know, there is no reference in the literature of Aboriginal magic and sorcery to a similar object being used. Nevertheless, the context in which it was discussed and the rationale of its method of use are entirely consistent with what we know of Aboriginal magic. The *yarida* is in fact unique, and the recognition of its being a 'magic stick' is important. It has a substantiating mythological basis, a typical and established technique of operation, and it is set within a matrix of magical knowledge, especially in regard to the use of dead person's fat. All that gives it a ring of authenticity.

Acknowledgments

I take the opportunity to dedicate this paper to the memory of my old friend, Barney Waria. Perhaps, if Eaglehawk had not been killed by Crow, we would have had a different story to tell!

I wish to acknowledge also the help of the South Australian Museum in supplying me with a photograph of the Panaramittee engraving and sketches of its design, during my early fieldwork in South Australia.

Dr John Stanton, Curator, Anthropology Museum of the University of Western Australia, kindly prepared Figs 1, 4, 5 and 6 as well as the original sketches (Figs 2 and 3) of the Panaramittee 'crocodile'.

I should like to acknowledge the helpful comments made by Dr Luise Hercus on reading my contribution. They concern linguistic matters and I have been able to accommodate to some of them. However, it is necessary for the reader to note that the orthography I used in the 1940s was based on G. Noël-Armfield's 'General Phonetics' (Heffer & Sons, Cambridge, 1931: 21–24). Moreover, I have not appreciably changed the spelling of words I wrote down as Barney spoke them. To do so now, in the 1980s, would be in my view unethical. In such circumstances, I have retained both voiced and unvoiced consonants (p, t, k and b, d, g) as I heard them. In a couple of instances I have used 'th' as in *th*in (see Berndt & Vogelsang 1941). It is possible, as Dr Hercus pointed out to me, that Barney mixed Ngadjuri with Adnyamatana. Indirectly he implied this, since by the time he was a young man the number of Ngadjuri speakers was drastically depleted and they were inevitably interacting with Adnyamatana people. I did not, in the 1940s, distinguish between the three 'r' sounds. Further, it would appear that I have occasionally used the symbols 'a' and 'u' interchangeably. I can only repeat that I recorded what I heard. In regard to my use of hyphens: I have used that device mostly to separate parts of a compound word or phrase, as in *yadna-walpu* and *yadna-bandji*, etc. I have no explanation to offer as to why the hyphenated term *Epa-tura* was used for a particular kind of spirit. As Dr Hercus notes, *tura* is a Banggala-Guyani term equivalent to *yura* or *epa* in Ngadjuri and means 'human being'. The implication could be that this spirit has *no* human qualities, that it is *not* human. As far as the use of *baya* (or, as I spelt it earlier, *baija*) is concerned, it was not translated as 'bird' but referred to *any* sharpened bone, whether it was a bird or kangaroo bone.

I am indebted to Dr Hercus for having pointed out that the term *yarida* is/was widely used in the Lake Eyre Basin. For instance, she noted that the Arabana-Wangkangurru used it to refer to 'evil magic' or 'poison', and not specifically to a sorcery object. The influenza epidemic of 1919 was referred to as being *yarida*. However, I did not record that word as being used in a general sense. But Barney did mention that *yarida* was used for a crystal throwing or pointing object that he called *maimu*: he drew this in chalk for me on brown paper. I would like to have followed up that point in other published material for the Lake Eyre Basin: for instance, to have gone through my bundles of Dieri texts. But all of that would have expanded this paper far beyond the space permitted. My cases of sorcery are restricted to what Barney told me. Nor was this the place, for example, to follow up 'birth-order names' (of which Barney's own is an example) and Ngadjuri social organization.

Finally, I have purposely refrained from including any of my interlinear texts, because I was not sufficiently proficient in Ngadjuri to have any control over the language — and, especially, after more than 40 years! In the renderings of some of Barney's statements, and his and Mooney's myths, I have used ordinary English. Barney spoke reasonably good English and *not* what is now called Aboriginal-English. Although he was non-literate, that by no means impaired his English expression; Mooney was literate. In my note books concerning their information, I recorded the gist of what they said, with many actual quotations. The statement by Barney on the first page of this article originally read, 'It's wonderful. Here we can look at all these things stacked up all around! People come and look at them — but they don't know what they are. We do! It's wonderful to think of their power, of all the songs and corroborees they had. Now all that's gone! All that's left is only in the thoughts of some of us'. And that just about sums it up for the majority of us.

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THE FLINDERS RANGES : A PLEISTOCENE OUTPOST IN THE ARID ZONE?

BY R. J. LAMPERT & P. J. HUGHES

Summary

This paper presents preliminary results of recent archaeological survey research in the Cooper Basin, Strzeckli Desert and the northern Flinders Ranges of South Australia. The results suggest a pattern of late Pleistocene occupation of the Ranges followed by movement onto the surrounding plains as climatic change allowed, leading to late Holocene occupation of the entire Lake Eyre Basin. It is hypothesised that movement such as this may also have occurred prior to 22 000 BP with increasing aridity forcing moves back into the better-watered Ranges.

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R. J. LAMPERT & P. J. HUGHES

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This paper presents preliminary results of recent archaeological survey research in the Cooper Basin, Strzelecki Desert and the northern Flinders Ranges of South Australia. The results suggest a pattern of late Pleistocene occupation of the Ranges followed by movement onto the surrounding plains as climatic change allowed, leading to late Holocene occupation of the entire Lake Eyre Basin. It is hypothesised that movement such as this may also have occurred prior to 22 000 BP with increasing aridity forcing moves back into the better-watered Ranges.

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The Flinders Ranges are a series of mainly quartzite ridges running north–south, extending northward from the Mount Lofty Range and eventually petering out in the dunefields of the Strzelecki Desert. The northern sector of the Ranges contains some of Australia's more spectacular landscapes, with jagged peaks, razor-back ridges and deep gorges. Here, the sharp relief of the Ranges contrasts markedly with the surrounding sandy and gravelly plains. Across these plains to the east lies Lake Frome, and to the west Lake Torrens. Both lakes are large saline playas, containing water only rarely. Northward lies the vast expanse of the Lake Eyre Basin, where drainage flows from more than a million square kilometres of arid country to evaporate from the saline flats of Lake Eyre.

The northern Flinders Ranges have an annual rainfall of slightly less than 300 mm, which decreases from south to north, and is 50% greater than the nearby plains which receive only 200 mm. This diminishes to a mere 125 mm in the heart of the Strzelecki Desert and at Lake Frome. Within this parched region the northern Ranges are thus a reasonably well-watered strip of land.

As well as having a higher rainfall, the Ranges have deep shady chasms with a rocky substrate that retains surface water in pools after the streams themselves have ceased flowing. The plains by contrast have only highly ephemeral streams and salt pans, plus a few widely-spaced artesian springs with water that is not always drinkable. The streams flowing from the Ranges after rain often begin at a high discharge, but on reaching the plain, peter out rapidly, only rarely reaching the lakes, Frome and Torrens. Under this regime, the streams drop their bedload sediments within a short distance, forming alluvial fans on the piedmont.

Perceived research potential

In 1979 we made a wide-ranging field reconnaissance of the Cooper Basin, Strzelecki Desert and the northern Flinders Ranges (Hughes & Lampert 1980, Lampert & Hughes 1980). At that time there was much speculation, but little information about the antiquity of Aboriginal occupation of deserts in and around the central core of the continent (cf. Bowdler 1977). We saw potential rewards in seeking stratified archaeological materials in sediments for which suitable antiquity was either known or could be expected: linear dunes with Pleistocene cores but mantled with recent sand in the Strzelecki Desert; alluvial fans in the northern Ranges; lunettes around lake margins throughout the region. Our interest was directed to the region also by reports of Kartan assemblages in the Ranges (Cooper 1943). Following Lampert's earlier research on Kartan sites on Kangaroo Island and mainland areas nearby (Lampert 1981), a reconnaissance of the Ranges promised to establish the northern limits of the Kartan industry, which had been identified as a regional variant of Australia's early stone tool tradition. There was a possibility also of locating the industry in a stratified context, particularly in the northern Ranges where numerous exposures had been cut through the Pleistocene fan deposits by streams (Lampert & Hughes 1980).

Research Results

1. Cooper Basin — Strzelecki Desert

At least one hundred archaeological sites were found around lakes and claypans, and along ephemeral water courses. All are late Holocene judging

from the ubiquitous presence of such typical small tools as tulas and microliths, and of seed grinders, all associated with surface sediments. Core tools and largish flake tools are rare, and no artefact was located unequivocally in the compact lower dune sediments, for which dates of around 15 000 BP have been deduced (Hughes & Lampert 1980).

However, Wasson (1983 and pers. comm. 1986) obtained a date of c. 13 000 BP for charred wood from a small Aboriginal fireplace, containing mussel shell and burnt clay but no stone artefact, found near the centre of the Strzelecki Desert (Site JSN, Fig. 1).

Only at Lake Murteree (Fig. 1) did stone tools seem to be eroding from old dune sands. Our expectation of this being a Pleistocene site was strengthened by its location: beside a reliable water hole and an extensively quarried outcrop of silcrete. This seemed an ideal spot for long term activity. However, excavation during a subsequent field season showed that the artefacts lay only in a slope-washed skin of sediment on the eroded sub-dune surface and not in the dune core itself. The absence of early, stratified material at this promising location supports the hypothesis of late occupation of the area, the fireplace found by Wasson denoting a fleeting visit towards the end of the Pleistocene.

2. Mound Springs

These natural outlets for water from the Great Artesian Basin lie in an arc several hundred kilometres in length stretching from Lake Frome to Dalhousie just north of Oodnadatta. During reconnaissances to investigate their archaeological potential (Hughes & Lampert 1985, Lampert 1985), each major spring complex was found to have at least one large camp site associated with it. Like the site described above, they are late Holocene in age on the evidence of both stratigraphy and the predominance of typical small tools in assemblages. Artefacts had been deflated from recent sediments and let down on earlier, more compact horizons such as carbonate palaeosols or the late Pleistocene cores of dunes. However, at three sites, West Finniss, Welcome and Dalhousie, a few artefacts were seen emerging from a carbonate palaeosol horizon just below the surface, suggesting the possibility of occupation earlier than the late Holocene.

3. Lake Frome

The lake is a saline playa some 100 km long and 45 km wide. With an annual rainfall ranging between 100 and 125 mm and an evaporation rate exceeding 2200 mm, it is one of Australia's driest places. Surface drainage from the Flinders Ranges to the west and the Olary Ranges to the south brings water as far as the lake only rarely. Occasionally, the overflow channel from Lake Callabonna to the north brings water derived ultimately from Strzelecki Creek, but only when there is major flooding in south-western Queensland.

A few surface sites are located along the western shore of the lake, all characterised by largish flake and core tools and either an extreme paucity or a total absence of typical small tools. Compared with sites in the Ranges, those at Lake Frome are small and sparse. The richest site, Balcoracana Creek, dates to early–mid-Holocene times (Lampert & Hughes in prep.), and it seems probable that the other sites along this shore, with typologically similar tools, had their main phase of occupation during those years.

From the bed of the lake a pollen core obtained by Singh (1981) indicates wetter conditions in early–mid-Holocene times, mainly between 7000 and 4000 BP, a period that coincides not only with that of human occupation there, but also with a moist phase evidenced by several lakes in south-eastern South Australia (Dodson 1974, 1975; Lampert 1981).

A full excavation report on both Balcoracana Creek and Hawker Lagoon (Lampert & Hughes in prep.) is in preparation. Our comments here are a provisional report which can be evaluated further when the final report is available.

4. Hawker Lagoon

This is a small, ephemeral lake less than one kilometre in diameter, located in a narrow synclinal valley in the northern Flinders Ranges. Fed by local run off from a small catchment, the lake has been actually full only three times in the last 40 years, but it is partly full more frequently. According to local residents, when it does fill, water persists there for several months.

Over about 50 ha of the deeply eroded lake-shore lunette and adjoining dunefield, there is an enormous, rich surface site. Scattered profusely are large core tools, flake scrapers, microliths, pirris, tulas and seed grinders. At first glance these might seem to be components of one industry let down on to the eroded surface from a single stratum, but this view is dispelled by closer inspection.

Core tools and some flake scrapers are scattered widely across the entire 50 ha of the site, but most of the small tools and seed grinders are concentrated in much smaller areas near two overflow channels from the lake. More significantly, stone tools can be seen eroding from three superimposed strata in dunes adjacent to the eroded areas. Excavation over several seasons produced core tools and scrapers in the earliest level, dated to c. 15 000 BP, a few small tools in the middle level dated to c. 5000 BP, and a very rich small tool industry in the top level which was laid down in the last few centuries.

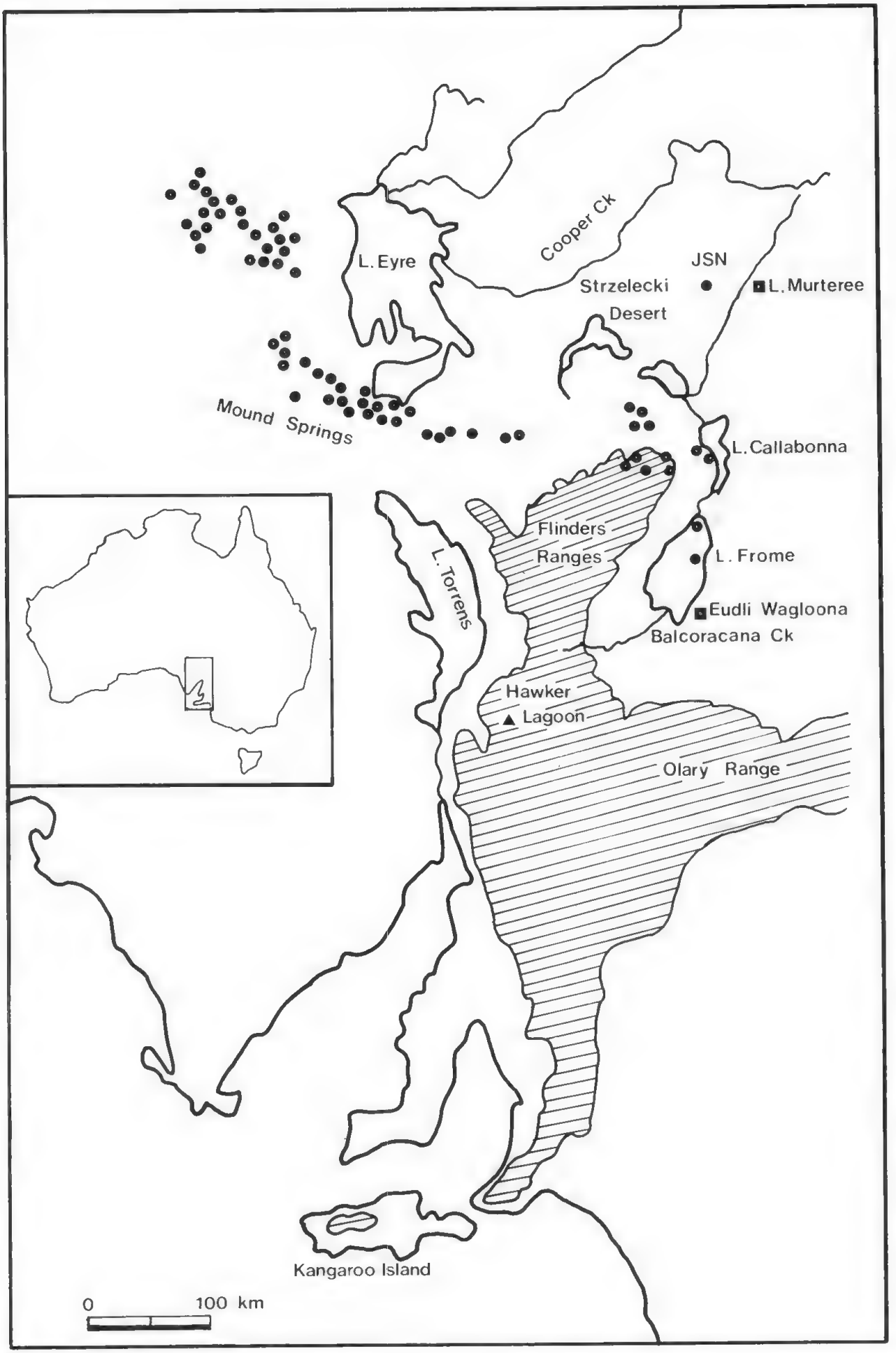

FIGURE 1. Map showing place-names mentioned in the text.

The tools recovered from the lowest level appear identical to those in a larger sample collected from a part of the site's surface where only core tools and scrapers are present. A metrical–statistical comparison (cf. Lampert 1981) of this larger sample with surface collections from the Kangaroo Island region shows the industry to be typically Kartan. At Hawker Lagoon then, Kartan tools were used across the entire area of a large site some 15 000 years ago, whereas small tools and seed grinders were used in more localised areas during the past few thousand years.

Excavations in the lunette at the lake margin revealed, below typical aeolian sediments, a layer of clean white sand that wedges out towards the lake. This we interpret as a beach, indicating a long term stand of high water in the past. Stratigraphically these sands lie between the 15 000 year old Kartan level and the earliest small tool level, some 5000 years old.

Over the rest of the site, these levels meet each other disconformably where beach sands are absent, the weathered surface of the lowest level indicating a phase of erosion between 15 000 BP and small tool times. Because this weathered surface continues below the beach sands, high lake levels must have occurred around the end of the phase of erosion and not long before the first small tools were used at the site.

Almost certainly, the high water levels reflect the same early–mid-Holocene moist phase evidenced, not only at Lake Frome some 160 km to the north-east, but also at lakes in south-eastern South Australia, 500 km and more away.

Also of significance is the absence of any concentration of artefacts as a lag deposit on the eroded surface of the lowest level, and the extreme paucity of artefacts in the middle level that lies immediately above. Thus, human activity was at its sparsest at Hawker Lagoon, not only during the phase of erosion (when we might expect it), but also (and paradoxically) during the phase of high lake levels.

The Regional Picture

However, this seeming paradox can be resolved simply by looking at the regional picture. The shore of Lake Frome was occupied most intensively at this very time, in the early–mid-Holocene, suggesting that moister conditions generally allowed people to extend their activities more broadly across the landscape, reaching places like Lake Frome, which today are inhospitable, and having less need to concentrate on places like Hawker Lagoon where water is more reliable.

Recent Aboriginal land use in the region offers support for this explanation of events that occurred thousands of years ago. John McKenzie, an elder of the local Adnyamathanha people, took Lampert to the eastern shore of Lake Frome, which is even more arid than the western shore already referred to. He indicated a small spring, known to his people as Eudli Wagloona, the only source of water for scores of kilometres. Stories handed down to John by his father say that the 'old people' in his group visited this spring, but only infrequently, when 'seasons were particularly good', spending most of their time in the better-watered Ranges. A sparse scatter of stone flakes around the spring, in an otherwise archaeologically barren landscape, accords with John McKenzie's story of occasional visits. Although the time scale is different, the pattern of movement and the underlying motives, are exactly those deduced from archaeological evidence for the early–mid-Holocene.

Conclusions

Because the Flinders Ranges are better-watered than their surroundings, human occupation there was more intensive and of longer duration, dating back some 15 000 years. Lake Frome, one of the most arid places in the study region, was visited only when wetter conditions prevailed, whether over the long term as in the early–mid-Holocene or occasionally during good seasons as in the recent past. While this movement in recent times was one of environmental opportunism — taking advantage of unusually good conditions to visit a remote site — the fact that this site has a name indicates that such visits were part of a cycle and not isolated incidents.

On present evidence, the Lake Eyre Basin to the north seems to have been first occupied in the late Holocene. We gain a picture of people, based in the Ranges during the late Pleistocene, making occasional forays to the surrounding plains as stressful arid conditions of the last glacial maximum ameliorated. On one of these visits, made some 13 000 years ago, they reached the heart of the Strzelecki Desert (Wasson 1983). During the early–mid-Holocene they made visits of longer duration to the shore of Lake Frome. Possibly they also reached some of the mound springs at this time, but more field research is needed to test this hypothesis.

The evidence viewed so far suggests that people were able to reside in the central arid core of Australia only well after the harsh, desiccating conditions of the last glacial maximum had ameliorated (cf. Bowdler 1977). But was this the initial human occupation of the region? An alternative view is that occupation took place before this, before say 22 000 BP, but the onset of aridity caused depopulation, people perhaps falling back on the

better-watered Ranges. Widespread aeolian movements of sediments at the time of the glacial maximum then obliterated the evidence of their former visits. This seems a reasonably valid alternative given occupation at Lake Mungo under fairly moist conditions more than 30 000 years ago.

Identifying this possible early occupation in the Lake Eyre Basin is the aim of our current research project. We are encouraged in this by the recognition by Wasson (1983) of source bordering dunes and other sedimentary features that denote drainage patterns ancestral to the present system. These predate the linear dunes which form the major part of today's land surface. Whereas our earlier survey largely followed modern drainage systems, we are concentrating now on the early sediments that have been identified.

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LEAVING THE SPINIFEX : THE IMPACT OF RATIONS, MISSIONS, AND THE ATOMIC TESTS ON THE SOUTHERN PITJANTJATJARA

BY M. BRADY

Summary

This paper desribes the circumstances whereby Aboriginal people of the Great Victoria Desert came into contact with the United Aborigines' Mission at Ooldea Soak on the Transcontinental Railway line in the early part of this century.The influence of rations is found to be of acute significance to these incoming movements. Rations were utilised by the missionaries, the railway authorities, and later by the Woomera and Maralinga authorities, as a means whereby they might enforce control on the movements of Aborigines in the region. The access by these people to their country was finally blocked in the 1950s when the area north of the railway line was alienated to become the proving ground for atomic weapons by the British Government at sites near Emu and Maralinga. Nevertheless, as the paper shows, the ceremonial life and social organisation of the ex-Ooldea people, who became the Yalata people, has been retained. In this process, earlier inter-group designations have become subsumed under the all-encompassing identity of the Pitjanjatjara.

LEAVING THE SPINIFEX: THE IMPACT OF RATIONS, MISSIONS, AND THE ATOMIC TESTS ON THE SOUTHERN PITJANTJATJARA

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The paper describes the circumstances whereby Aboriginal people of the Great Victoria Desert came into contact with the United Aborigines' Mission at Ooldea Soak on the Transcontinental Railway line in the early part of this century. The influence of rations is found to be of acute significance to these incoming movements. Rations were utilised by the missionaries, the railway authorities, and later by the Woomera and Maralinga authorities, as a means whereby they might enforce control on the movements of Aborigines in the region. The access by these people to their country was finally blocked in the 1950s when the area north of the railway line was alienated to become the proving ground for atomic weapons by the British Government at sites near Emu and Maralinga. Nevertheless, as the paper shows, the ceremonial life and social organisation of the ex-Ooldea people, who became the Yalata people, has been retained. In this process, earlier inter-group designations have become subsumed under the all-encompassing identity of the Pitjantjatjara.

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The antecedents of the people who now live at Yalata were people with affiliations to the desert and spinifex country in the far north and north-west of South Australia, stretching over into Western Australia. Of central importance to their history is Ooldea Soak, known by Yalata people today as *Yuuldul*, a natural and permanent source of potable water, lying a few feet below the surface on a clay bed. R. and C. Berndt noted in 1942 that Aborigines called the place *'Juldi'gabi* (Ooldea water) (1942a: 323). The place-name may be Wirangu, as the soak lay on their land. The United Aborigines' Mission at Ooldea was, for many desert dwellers, their first stable source of European rations, and the Mission acted as a powerful attraction to Aborigines, drawing them out of the spinifex, and bringing about a cumulative state of entrapment and dependency. In this paper, I examine the circumstances which caused these groups of Western Desert people to leave their country and the means whereby they were prevented from returning to it.

Migrations and Movements

Ooldea Soak lies 6 km north of the Ooldea siding on the Transcontinental Railway line, on the north-eastern edge of the Nullarbor Plain, and on the southern edge of the spinifex, mulga and sandhill ranges which stretch north and west (see Fig. 1, p. 2). Bolam, a railwayman posted to Ooldea from 1918 to 1925, reported that heavy rains north or north-east from Ooldea would benefit the Soak within a week; he hypothesised that there was an underground flow originating in the Musgrave or Everard Ranges (Bolam 1923: 18). He also stated that there were several different wells of water: fresh, brackish and bitter, and that the bitter spring had healing properties known to the Aborigines (1923: 15). The Soak, because of its permanency, was evidently known to Aboriginal people of many different language groups, not only the desert or 'spinifex' people from the north, but the coastal people as far west as Eucla, and east to Fowler's Bay and beyond. In the early part of the century people from the Mann, Musgrave, Everard and MacDonnell ranges in Central Australia, Tarcoola (on the Transcontinental Railway to the east), Kalgoorlie in Western Australia, and coastal groups were known to frequent the Soak (Berndt 1959: 84). The Aboriginal owners of the Soak were probably Wirangu people (R. & C. Berndt 1942a: 323), although it lay within the range of Kokatha people whose territory extended north and east. Tindale placed the Soak as a four-way meeting point for the Kokatha and Ngalea language groups to the north-east and north-west, and the Wirangu and Mirning people to the south-east and south-west (Tindale 1974). Because Ooldea hosted numbers of visiting people from different regions, it was the location of considerable trading exchanges. Wombat-fur twine, ochre, bush tobacco, pearl-shell and pipeclay were traded items mentioned by R. & C. Berndt (1942c: 168). Bolam mentions the trading of 'initiation stones' which were 'small flints with a knife edge . . . carefully preserved in

FIGURE 1. H. E. Green distributing rations at Ooldea in the 1940s. (South Australian Museum Archives.)

wrappings (generally of skin)' (1923: 85). Johnston reported that the quartzite flakes common at Ooldea (still to be seen today in profusion there) were said to come from the *apu* (stoney) country (the Everard Ranges), and some originated from Tertiary deposits near Eucla (Johnston 1941: 40).

Considerable population movement had probably been in process before Europeans arrived in the region (R. & C. Berndt 1942a: 326). In 1941 R. Berndt noted the expansion of the 'culture of the Western Desert peoples' which had 'spread fanwise from the north-west, driving back or incorporating the different elements of the more southern region' (Berndt 1941: 4). The Pitjantjatjara and other north-western groups moved eastwards, and the Yankunytjatjara and Antakirinja moved south. Daisy Bates documents that the people she called the Koogurda were subjected to the pressure of incoming migrations of northern groups. In 1930 Elkin noted a population of two hundred, mostly Kokatha people of mixed European-Aboriginal descent at Koonibba, and some forty Wirangu living in the Iron Knob ration depot area (the top of the Eyre Peninsula) (Elkin 1931: 62-63). It seems likely that the Wirangu and Kokatha were the groups to take the brunt of first sustained contact with Europeans — workers constructing the Transcontinental railway line between 1909 and 1917. Many mixed descent children were born as a result of this contact.

Despite, or even as a result of, these patterns of movement, several researchers have noted the remarkable unity of language and social organisation of Aboriginal groups from as far west as Kalgoorlie and across the area north of the Nullarbor as far as the Northern Territory border (Elkin 1931, Berndt 1959: 44).

R. & C. Berndt, who undertook fieldwork at Ooldea Soak in 1941, noted the presence of Antakirinja people (originally from the Everard Ranges). Pitjandjara, Murunitja, Nangatadjara, [from Western Australia], Mandjindja, and Wirangu' who all spoke Pitjantjatjara, but with localised dialects (Berndt & Johnston 1942: 189-190).

Europeans Find the Soak

The first Europeans to be taken to Ooldea Soak were two well-sinkers who were working at Fowler's Bay in the early 1870s; in 1875 Ernest Giles used Ooldea as the starting-point for his inland crossing of the Nullarbor (Bolam 1927: 11, Johnston 1941: 38). His guide was a Wirangu man called Jimmy (Giles 1880: 6). Leaving Fowler's Bay, the party travelled west to Colona, which was then an 'out station' of the Yalata homestead at Fowler's Bay. From Colona heading north, they passed Ifould Lake, a site known to Yalata people and believed to have been created by *wanampi* (Pitj.) a

mythological snake. Giles's Wirangu guide informed them that it was:

> the footmark (or track) of a monstrous animal or snake that used to haunt the neighbourhood of the big plain, and which had once been driven by the Cockata blacks out of the mountains to the north (the Musgrave Ranges of my last expedition) . . . Another thing was rather strange, and that was how these coast natives should know there were any mountains to the north of them . . . (Giles 1880: 6; see also R. Berndt 1941: 17).

The party also passed Pidinga and camped at the rockholes there. Giles traversed the last thirty-three miles to Ooldea, where they found a 'shallow native well in the sandy ground of a small hollow' (Giles 1880: 7). The party slabbed up the sand at the Soak to obtain access to water for men, horses and camels. Giles' impression of the Soak was initially marred by the intense heat and he described it as a 'fearful place' (Giles 1880: 10). He does not report evidence of Aboriginal visitation in the region of the Soak.

Some years later other Europeans recognised the potential for the Soak's water supply: in 1897 the South Australian Government Geologist H. Y. L. Brown noted that it was the only permanent and reliable water source in the region, and in 1901 the Soak was earmarked to supply water during the construction of the railway. R.T. Maurice, reconnoitering the possible exploitation of resources in the region in 1901 suggested that although the land had little value from a pastoral point of view it 'surely must contain some minerals or metals of value' (Murray 1901: 39). The Transcontinental Railway construction teams commenced work from each end, and the tracks from east and west came together at a point between the sidings of Ooldea and Watson. Construction took five years and the line was completed in 1917. The Soak was bored for water and up to 70 000 gallons (320 000 litres) per week were drawn from it (Berkery 1944: 33); a pumper was stationed there to supervise the water supply, and a siding was built a few kilometres south of it. Construction and maintenance workers lived in camps along the line, and a growing number of Aboriginal people, attracted by the activity, camped in the vicinity so that when Mrs Daisy Bates arrived at Ooldea in 1919, hundreds of Aborigines were in contact with Europeans.

Daisy Bates: Telling of Their Being and Their Ending

Mrs Bates had travelled to Australia in 1899 in order to investigate allegations of cruelty to Aborigines for a London newspaper (White 1985a: 5). After considerable periods of time spent among Western Australian Aborigines, she wrote to the Railways Commissioner: 'I am desirous of resuming work among the sick natives in South Australia and . . . I think the Ooldea area offers a good field for my labours' (Bates 1919). She requested unused huts for her use and for access to a water supply, and justified her presence to the South Australian government and the railway authorities in terms of her caring role for natives. In addition, she argued that the presence of a European woman acted as a deterrent to the 'moral degradation' that ensued from contact between Aboriginal women and railway workers. Using an adroit piece of reasoning, she suggested that a mission at the siding would *promote* prostitution:

> I would not advise any concessions to any aboriginal 'mission' on the line. It would merely be a 'jumping off' place for prostitution . . . In the first place it is a risk to let the natives enter a white person's house . . . the native children have infectious sores that the white children at the Siding have caught more than once . . . (Bates 1924).

It is more likely that Mrs Bates was concerned that a mission would usurp her role at the Soak. In fact she had the field to herself for another nine years before the United Aborigines' Mission (UAM) became established at Ooldea in 1933. For the extent of her stay, Mrs Bates received little official assistance. She gave out small amounts of tea and other foodstuffs from her own supplies, and administered simple medical aid to those who came to her. 'My methods were my own, grandmotherly cough mixtures, massaging with oil, nourishing foods and much cheeriness' she wrote in one of her chapters on Ooldea in 'The Passing of the Aborigines' (1938: 173). Her many courteous letters requesting assistance from the Railways Commissioner, the Protector of Aborigines, and even the Prime Minister, brought little result. For the duration of her sixteen years there, she lived between the Soak and the railway line in a tent. Her correspondence reveals that she endured considerable privations.

Bates documented the mythology of the region (including that for Ooldea Soak), details of daily life, social organisation, language, and often noted when large groups of Aboriginal visitors arrived. For example she described a group of twenty-six men, women and children who arrived from the Mann Ranges, sixteen hundred kilometres to the north-west (1938: 172). She noted that journeys from the northern ranges often took two years, 'zigzagging in the desert for food and water' (1938: 191), that people drank from water-bearing tree roots, and that once encamped along the line they utilised the trains *en masse* as transport to attend ceremonies (1938: 191, 195). Trains provided the

Aborigines living along the line with a fast collective means of transport. The Commonwealth Railways fought a losing battle in their attempts to deter Aborigines from travelling in open cattle trucks, free of charge on most occasions, or on the 'Tea and Sugar' train which called at all the sidings along the line with provisions for railway employees. The railway authorities disliked the impression given by a motley group of Aborigines, and the Commissioner of Railways described the people as 'the poorest type in Australia . . . it would be better if tourists did not see them' (Adelaide *Argus*, 4 April 1934). Even Mrs Bates, who was aware of the advantages to the ceremonial life provided by railway transport, wrote to the Railways Commissioner:

> I have had so much trouble over the visits of these Kalgoorlie mobs that I would ask you to take drastic action to prevent the conveyance to and fro of any and all natives. The so-called Kalgoorlie mobs — dregs of the once numerous Border ranges mobs — are the most undesirable of all natives . . . (Bates, Correspondence, 29 May 1923).

The 'Kalgoorlie mobs' were the kin and ceremonial associates of the spinifex people at Ooldea, and their visits east on the trains (and visits west by Ooldea people) were and still are, part of a network of ceremonial exchanges linking Western Desert people in central areas of Western Australia, across the Nullarbor and north into Central Australia (Tonkinson 1974: 94–98).

The United Aborigines' Mission: Regular Rations

In 1933 the UAM sent Miss Annie Lock to establish a mission at Ooldea Soak, and within two months of her arrival the office of the Chief Protector began to issue her with rations and medicines for distribution:

> I have suggested to the UAM that they should consider opening a small store at Miss Lock's camp where the natives could purchase food and other necessary articles (Correspondence, Chief Protector to Railways Commissioner, October 1933).

Koonibba missionaries who had dealings with both Lock and Bates, report that — not surprisingly — relations between the two were strained (Hans Gaden pers. comm.). Two years after Miss Lock's arrival Mrs Bates left Ooldea.

It is clear from correspondence between the Railways Commissioner and the Protector that the withholding (and conversely, the provision) of rations was utilised as a means whereby these authorities might control the movement and presence of Aborigines along the line. It had been a deliberate policy by the Protector's office not to provide rations for Aborigines at sidings, in an attempt to discourage them from gathering at wayside stations. However, a system of bartering developed between Aborigines and passengers on the trains, whereby artefacts were exchanged for goods and cash. The Protector believed this to be 'detrimental to the aboriginals themselves inasmuch as it encourages them to shiftless habits' (Correspondence, 24 July 1930). With the construction of the railway having itself acted as an attraction for Aboriginal people, and the siding built only a few kilometres from a significant location, the authorities found themselves in an untenable situation, and experiencing an increasingly bad press. They resorted to forcible removal, collaborating with the police to transport Aborigines away from sidings, and urged the Protector to consider relocating the people some distance from the line. The arrival of the UAM was perceived as a last attempt to keep Aborigines from frequenting the line. The provision of rations by Miss Lock, therefore, was a considered technique to persuade the Aborigines to stay in the Soak area and not stray to the line. She reportedly encouraged 'the able-bodied to hunt for wild dogs, foxes and rabbits and intends trading the skins and scalps so as to provide them with money to maintain themselves' (Correspondence between Chief Protector and Commonwealth Railways, 31 October 1933). In addition, she cooked damper for her charges, and evidently 'fed' people rather than just distributing 'raw rations'. At this time (November 1933) there were seventy adults and thirty children at Ooldea. Some of the groups coming into Ooldea had already tried European food, as a result of encounters with doggers and other itinerant whites (cf. White 1985b: 217). Those who arrived a few years later would have received rations from Ernabella, the Presbyterian mission in the north-west of South Australia, which was established in 1937. Dingo scalps were legal tender, being traded in exchange for money and goods, tea, flour and sugar at Ernabella store (Hilliard 1968: 81). Aboriginal reports of this period (from older Yalata people) are remarkable in that they emphasise the considerable traffic in and out of Ooldea (rather than the formation of a stable population), and the deliberate dissemination by Aborigines, of information about the availability of food at Ooldea. Although later missionaries of the UAM sent 'mission' Aborigines short distances out with tobacco and clothing (cf. Turner 1950: 114), this was only once incoming groups were within sight of Ooldea. There is no evidence that those who decided to walk into Ooldea from outlying locations in the spinifex, did so other than voluntarily. However, introduced animals had penetrated as far as the spinifex country and were devastating native fauna: there were rabbits in the Musgrave Ranges

by the turn of the century (Hilliard 1968: 79). There was also drought, recorded for example by Dr Charles Duguid in 1939 west of the Mann Ranges. People remember Mrs Bates ('Mrs Biddy') and Annie Lock ('Miss Locks'), and the food. Yalata people who remember these years reported:

> We heard about meat, sheep and good tucker at Ooldea and so we went [to] Cook and jump on the train to Ooldea . . . went back out spinifex and brought in my wife and her mob. (TQ)

> We never travel in the hot times. We went back out with that yarn about tucker and spread the word . . . we came in again and went back out . . . (KQ)

> My husband and my sister L.S. came in. She was a child, not a woman. My sister told me 'lot of flour at Ooldea' . . . we all met up and came in [lists rockholes *en route*] Mrs Bates was there . . . she gave me dress 'cos I came long way from Iltur [Coffin Hill]. (RS)

Yalata people also recall carrying rations back out to the spinifex so that others could 'taste' them. One elderly man carried rations from Ooldea to 'echo place' (probably Echo Hill, north of the Everard Ranges); despite eating a portion of them *en route*, he was able to distribute half a bag of flour, together with tea and sugar.

Although people have described that they walked in and out of Ooldea on several occasions at intervals of months, or even years, after several such trips, many people made Ooldea a semi-permanent base:

> We sat down there with Miss Lock and Miss Tyler and Mr Simmonds. I didn't go back spinifex but went to Makuru [rockhole north of Cook]. (RS)

> No-one said '*wanti*' [leave it i.e. Ooldea] we are going to stay here' [i.e. spinifex]. (SY)

The mission had expanded over the years, and a boys' and girls' 'home' (dormitory) constructed (cf. Turner 1950). Aboriginal parents were encouraged to place their children in the homes where they were subjected to a vigorous regime of Christian indoctrination, physical drill, boys' brigade and daily prayers. Rations for the camp dwellers were distributed after morning service, and R. & C. Berndt (who wrote critically of the practices of the UAM) observed:

> The natives have heard much about God and Christ, but their conception of them is confused so that they have in part become identified with the distribution of rations . . . the church is an interesting and diverting social occasion (Berndt 1942b: 56).

There is no doubt that European rations were strongly desired and the Berndts remarked on the 'great reliance' placed by Aborigines on their Government rations (1942b: 59) (see Fig. 1). Undoubtedly the explanation for the extraordinary movement towards a stable source of foodstuffs lies, in part, in the hardships and difficulty of the food quest, as opposed to the consistency and volume of rations distributed. As Hamilton suggested, 'put in ecological terms, it was a question of maintaining an energy input/output balance favourable to human survival' (1972: 41). Seed-grinding by women was probably one of the most arduous tasks, and Yalata women told me that grinding seeds with *tjungari* (top stone) and making *nyuma* (seed cake) 'finish altogether, finish at Ooldea, finish — flour!' A dental researcher who visited Ooldea in 1926 (before full-scale ration distribution had commenced) noted 'a fair amount' of attrition to adults' teeth from the 'vigorous use of teeth and roughness of food'. However, he also observed even then that Aborigines at Ooldea ate 'white bread and cake when obtainable, and use white flour, while their craving for free sugar is marked'. He described this diet as 'pappy' (Campbell & Lewis 1926: 375).

Anderson (1983) has argued against an overly simplistic 'ecological imperative' explanation for Aboriginal people moving towards European food sources, suggesting that food, goods and services were obtained in the context of a social relationship with *particular*, permanent whites. This facilitated the development of a 'proper' relationship between Aborigines and Europeans, from an Aboriginal point of view (1983: 489). This special social relationship with individual whites was certainly developed with Mrs Bates and with Harrie Green of the UAM. The presence of these particular Europeans is used as time-markers by older Yalata people now, so that people describe a period as 'Mis' Bates' time' or 'Mr Green time'.

Hamilton discusses the reciprocal nature of the relationship between Aborigines and Europeans suggesting that the distribution of rations by Europeans was an act bearing reciprocal connotations of which most Europeans were largely unaware. The Aborigines who walked in to Ooldea, and more specifically, those who stayed, had discovered an apparently unfailing source of food which the UAM missionaries were willing to distribute with virtually no strings attached — apart from attendance at Christian service already mentioned. A few Europeans, including Daisy Bates, were not only aware of the reciprocal exchanges expected by Aborigines, but endeavoured to engage in such exchanges; they made *use* of them. For example, because Bates' circumstances were so straightened, she often went without sufficient food herself: 'when times were lean, and the natives had only a small damper, they could be sure that I had an even smaller piece of toast' (Bates 1938: 194).

She accepted offers of bush food on such occasions: 'I made a meal of an iguana that two friends . . . caught and cooked for me' (1938: 170), and was provided with other gifts of food. 'One day Gilindgi misunderstood me, thought I was hungry, and brought me a billy-can of broken bread he had begged from the train-passengers' (1938: 194). Another European graced with some understanding of Aboriginal practices, Woomera Native Patrol Officer Walter MacDougall, wrote of reciprocal exchanges:

> When contacts are first made the aborigine likes to give presents in appreciation of gifts he may receive. It is perhaps natural that the white refuses the gift of some half-cooked kangaroo or mangey-looking rabbit (even though he is not obliged to eat it) but the result is that very quickly the aborigine believes that the white will provide free and continuing food from his inexhaustable supply for nothing in return . . . (MacDougall 1956).

R. & C. Berndt commented that the Ooldea Aborigines thought 'the rations are less than they should be and that the government . . . is bound to support them' (1942b: 59). Catherine Berndt wrote that although she wore almost the same clothes every day, the women demanded that she give them what she wore: 'you plenty blouse, me nothing' (R. & C. Berndt 1944a: 220). For at least some years, the UAM *sold* the rations (half a bag of flour was ten shillings, a double handful of sugar four shillings). On one occasion, a local police sergeant passed on the complaint from an Aboriginal man that although the Mission received the rations free of charge, they made the Aborigines pay for them. This undoubtedly contributed to Aboriginal resentment against the whites, who were perceived to have a plenitude of supplies. R. & C. Berndt report hearing a narrative which supports this view:

> One such descriptive story, told by a young man, narrates a hunting exploit and tells of cooking and distributing the meat among relatives and friends, certain parts being given to the hunter's dogs. After describing various incidents, the narrative ends with a harangue against the white man, a distributor of rations, who although having much food refused to give any to the teller of the story (R. & C. Berndt 1942c: 161).

In other words, the distributor of rations (or any other desired object) was compared with the individual who, being the possessor of meat, gives it to his relatives. Merely to be in possession of an object desired by another, then, entails the requirement that it be given, unless the possessor can improvise a strategy whereby he might avoid such a demand. It is clear that although the European view may have been that Aborigines were more demanding than they 'should' have been, from the Aboriginal perspective, Europeans never came up with an acceptable reason why they should not acquiesce to Aboriginal demands.

By the mid-1940s, those who had 'sat down' in the vicinity of the mission were 'hooked' — in a sense, psychologically addicted to European food, caught up in a particular rhythm of life, and involved in a new social relationship. One Yalata man, who was born not in the spinifex but at Kingoonya (on the railway line) explained why he stayed on at Ooldea:

> My father (JW) went back bush and came back later on. He took boys out spinifex. I grew up on the flour and sugar and got hungry for that. Old people didn't know it. Because I grew up on that I stayed around. I never tried to run away. I was in the *mavi* [vegetable food, i.e. white man's food] too long. (JJW)

Although many groups still lived in the spinifex, the population at Ooldea grew; in 1941 R. & C. Berndt reported two hundred people there, most of whom walked back into the spinifex after good rains. Eleven years later, at the closure of the mission, the population was around three hundred. At ceremonies between four and five hundred people gathered at Ooldea (R. & C. Berndt 1942a: 312).

Although there is no doubt that these southern spinifex people initially left their country voluntarily (or at least free of overt persuasion by Europeans) there can also be no doubt that they had no intimation that a later return would not be possible, and certainly it was inconceivable that they could 'lose' the country. Yalata people made it clear that it was kin who drew others in to Ooldea: husbands went back to the spinifex to bring in wives; daughters brought in their mothers. People were determinedly keeping their families together. Additionally, once senior people with responsibility for particular places had gone to Ooldea, others felt uneasy at those sites without them. Whether this was so for a large number of sites I was unable to discover. It may have been the case only for sites which were believed to be mildly dangerous, as in the following instance. The story concerns the location Wantunya, a well which lies north of Cook and south-west of Wyola Lakes. The site is associated with the mythological snake who is believed to live submerged in the well. Other snakes (throughout the desert) are believed to be highly dangerous and their *ngura* (camps) are avoided: this one is known to be 'quiet'. The account which follows was provided by a Yalata woman, recalling the time when she travelled into Ooldea

> *Wanampi* [snake] go right through underground, when hungry, he ask for meat, food, he ask — like thunder he make noise — he like rabbit. Everybody, *anangu* put rabbit there for him all around, leave them whole and

> he can have them. He come out at night after you go away. Then he [snake] give them [people] water . . . My mother and me, we camp here. After that, Ooldea, came back, then, never came back. When A. [woman's name] and eldest daughter went to Ooldea, we got frightened — boss *muka* all gone to Ooldea, [lists names] . . . because they went, boss, we can't come. Then *wanampi* lonely, he get wild, *wanampi* get wild. He get sulky if no meat [is given to him]. Stranger *muka* they won't give a feed [to him] and he won't give them water. (AC)

The narrator thus explains her unwillingness to stay at Wantunya for two reasons: the absence of those she calls 'bosses' for the place, and the influence of this absence on the potentially dangerous snake. The story is also interesting in its attention to the correct procedures of exchange. The strangers (possibly white men) are unaware of the requirement to feed rabbits to the snake, and in return the snake will not make water available to them.

The UAM: Spiritual Assault and Spiritual Resistance

The UAM missionaries wavered between despair at having more mouths to feed, and elation at the prospect of having more souls to save, on the occasions when large contingents arrived for ceremonial purposes. The UAM believed that they were making headway in the spiritual battle. Harrie Green, in correspondence with me before he died in 1979 wrote:

> . . . native customs gradually ceased as the people became desirous of a civilised way of life . . . there seemed to be little clash of cultures . . . we taught them our Christian ways and left them to choose or decide for themselves.

The Berndts however, wrote that Aborigines were:

> subjected to more or less constant pressure to renounce all their primary aboriginal associations and become 'Christians' after the emotionally evangelical style favoured by this sect. (R. & C. Berndt 1951: 134).

The Mission regime was harsh with respect to Aboriginal children in their care. Those who used swear words or who attempted to run away from their dormitories (as many did) were punished by being made to wear dresses of flour bags, or had their heads shaved.

The specific practices utilised by the missionaries are documented in the UAM's journal *The Messenger* . Visits were made to the 'native camp' three kilometres from the Mission itself, in order to preach, and missionaries zealously intervened in traditional mortuary practices in attempts to persuade the ceremonial parties that the deceased should be buried as a Christian. The camps were depicted as a region of sinister and Satanic influences, and the old men were perceived to be particularly evil for they 'compelled' the young to learn 'vile heathen practices'. For this reason, the missionaries focused much attention on the initiation of boys. Mr Green gained access to the secret boards normally accessible only to mature and initiated men. He photographed them and deliberately showed the photographs to young boys (R. & C. Berndt 1951: 137, cf. Young 1951). The Berndts observed that the UAM made no attempt to 'fuse the old with the new', and that the schooling meted out to Aboriginal children ignored Aboriginal culture altogether (1942b: 57).

Despite this assault on Aboriginal belief systems, ceremonies continued to be performed undisturbed (R. & C. Berndt 1942b: 56). Indeed, the Berndts' voluminous ethnography of Ooldea provides compelling evidence of the ability of the Ooldea Aborigines to withstand the missionaries' message. Despite the fact that large numbers of desert people remained at Ooldea during the 1940s, R. & C. Berndt discovered that there was no loss of knowledge of rockhole and other water sources (1942b: 68), and that the mythology and ceremonial enactments of the Ooldea people revealed both adaptation and resilience. Stressing the fluidity and flexibility of Aboriginal religious life, the Berndts wrote:

> They have the right to interpret for themselves their mythological dogma and blend it with the changing conditions of life. When they are detribalized, a myth may be extended; alien myths incorporated; new sites sacralised and modifications in certain rites because of white contact, obtained. But its structure and original intent is unaltered (R. & C. Berndt 1942a: 329).

Precisely this process occurred among the inmigrations of people from the desert and *apu* (stoney) country north and north-west of Ooldea — the intervening regions are now firmly incorporated into the country of those now living at Yalata, and their kin in the north. Even the country south of the railway line, previously Wirangu country, was incorporated, according to R. & C. Berndt (1942b: 65).

Informants living at Yalata today say that by the late 1940s all their known relatives had 'come in' from the spinifex, although the patrol reports compiled by Native Patrol Officers MacDougall and McAuley show that small groups of Western Desert people were still there throughout the late 1950s and early 1960s — for the duration of the atomic tests at Emu and Maralinga. After the Ooldea Mission closed down in 1952, Aborigines who were unaware of its closure made sporadic visits from the north.

Visits of this nature are documented for 1953, 1954 and 1955. Finding the Mission closed, they simply walked back out again. In 1957 a party of four people (an elderly man, his wife and two children) who had set off approximately twelve months earlier to walk to Ooldea from Ernabella were discovered by military personnel camped within a contaminated area near the Marcoo test site. (McClelland *et al.* 1985: 319–323). Survivors of the family who now live at Yalata, report that they were walking down 'for rations' and that they did not know the mission had closed five years previously. Some groups were taken into Cundeelee W.A., as late as 1963, and it was established that they too, had traversed the Maralinga prohibited zones during the years of the atomic testing programme (*ibid.*: 368). There is, then, evidence that the spinifex was not entirely depopulated in the regions north and north-west of Ooldea, until the early 1960s.

The Demise of the Mission

There is no doubt that conditions at Ooldea were primitive and uncomfortable for the missionaries, and became increasingly difficult for the Aborigines camped there. As far back as 1938 there had been plans to move the Mission — at that stage, to Pidinga; then in 1941 Lake Phillipson, near Coober Pedy, was proposed. In 1948 the UAM *Messenger* told of the possibility of the Mission moving to the siding a short distance away. In 1949 the Aborigines' Protection Board Annual Report declared that Ooldea was unsuitable as a Mission site, and a new site was promised. There were additional pressures for a move, though, which were unknown to the missionaries. Walter MacDougall, employed by the Long Range Weapons Establishment at Woomera, was becoming concerned that the presence of Ooldea as a rations centre was continuing to promote movement by Aborigines between the centres of population in the north-east, and the railway line. This meant that they placed themselves in the vicinity of the Woomera Range. When the Aborigines' Protection Board noted in their Annual Report of 1950 that a pastoral property to the south was under consideration as a new location for the Ooldea people, he strenuously supported the proposal.

The negotiations for the new Yalata property on the west coast were protracted, and complicated by the rivalry that emerged between the Lutheran Church and the UAM over which denomination would control the new establishment. The Lutherans were opposed to another denomination becoming established in an area where they held sway (they had a mission at Koonibba, east of the new station). The leasehold property was purchased by the South Australian Government in 1951 (Hampel 1977: 6). However, an internal dispute split the UAM: the South Australian branch formed a breakaway mission, and staff were forced to declare their loyalties. The Greens and others at Ooldea decided to remain allied with the Federal body, in Melbourne. At the last minute, five days before the Ooldea missionaries were to leave, the South Australian branch announced that it had insufficient missionaries to take over the Ooldea people — and so it eventuated that the Lutherans were asked at short notice to intercede. It all happened very suddenly, as the Aborigines there recall:

> When Ooldea finished, too sudden. People were all mixed up, don't know where to go that time. People were very sad when Mission finished . . . crying. (HW)

> Sad day, *mayi wiyaringu* [food became finished] when Ooldea closed. (TQ)

On 24 June 1952 amid some confusion, the UAM missionaries left by train, and Lutherans from Koonibba arrived to transport people south to the new, and as yet undeveloped, property. The children were to be placed in the Koonibba school as an interim measure, for the Aborigines Protection Board had expressed concern should the home children 'fall into the hands of the camp natives' (Hampel 1977: 7). The 'camp natives' were, of course, the parents and kin of the children. Initially, the Aborigines were given the choice as to which way they could go:

> Mr Green tried to draft us out, which way we wanted to go. We didn't want to go bush way, too hard. (KQ)

> South mob, west mob, all the groups were ready to go each way. I went with Tarcoola mob and by truck up to Bulgunnia. We stopped there for one week, then they sent two trucks up [to get us]. We never said nothing. We wanted to go north really, but thinking of rations. (SY)

> *Anangu ngurpa* [Aborigines were ignorant; i.e. did not know what was happening]. (SM)

Isobel White collected accounts of the move in which the women could not recall being given a choice of destination (pers. comm.). The variety of views highlighted the confusion of the whole experience. The Lutherans succeeded in taking only sixty-seven people down to Colona on the Yalata property, and these were all Kokatha people (Hans Gaden pers. comm., Hampel 1977: 8). The Cundeelee mob opted to wait for the next train going west; and the north group decided to join kin at Ernabella. As described above (and also by White 1985b: 222), they set off on this journey, disembarking from the train at Tarcoola and reaching

Bulgunnia Station (already known to some of the men). Here Walter MacDougall turned them back, and arranged for their transport back to Ooldea and thence to Colona on the Yalata property. MacDougall had in fact stumbled upon the closure of the Mission as he undertook a patrol along the line. MacDougall's subsequent Patrol Report reveals that he was unaware that the UAM were pulling out:

> From conversation [with Aborigines at 416 camp, east of Ooldea] I gathered that the movement of all aborigines from Ooldea to Yalata was imminent. I also gathered that the people concerned did not clearly understand what was to happen. They were under the impression that they were to return to the area in which they were born . . . On arrival at Ooldea the next day I found that in fact preparations for the move to Yalata had commenced (MacDougall 1952).

He described the scene as a 'muddle'. Having allowed the north-bound group to leave, he then chased after them by road, evidently having thought better of it. His report states 'I decided to take charge of those who had gone to Tarcoola'. It is tempting to assume that MacDougall had specific knowledge at that time of the impending decision to test atomic weapons somewhere north of the railway line. There is, however, only indirect evidence that MacDougall had been alerted to this development. His patrol along the East-West Line which was interrupted by the Ooldea move was in order to check the area as far west as Cook for a possible extension of (what was euphemistically called) 'range activity'. His Patrol Report leaves no doubt but that his task was to keep Aborigines well away from the range, and that his decision to intercept the north-bound group was a part of this task:

> All Ooldea Aborigines who originally came from the north and who would, therefore, be likely to periodically occupy areas required *or likely to be required* by LRWE range as far west as Cook, have now been transported to Colona on their way to the new depot at Yalata . . . Tribal natives from the Central Reserve will not be so likely to travel south when they know that there is now no ration depot at Ooldea (MacDougall 1952, emphasis added).

It is hard to imagine that he had not considered that the desert area west of Woomera was an obvious choice for an atomic testing site. The public announcement that there were to be atomic tests *somewhere* in Australia had already been made four months earlier, in February 1952. Dr Charles Duguid, among others, had long surmised that the Woomera region was a likely location (Duguid 1947: 14). Whatever his true reasons, MacDougall persuaded a large group (he counted one hundred and five people) to abandon their planned journey north, and to travel south, to Yalata station, to new country. Once MacDougall reported that the move had been finalised, his employers at Woomera were extremely pleased; his performance was deemed 'highly satisfactory'. Exactly a year later on 24 June 1953 it was publicly announced that atomic weapons were to be tested in the long-range weapons area. In October 1953, after the first test (Totem 1) had occurred at Emu Field, another location was discovered which was to be a permanent proving ground. This was at a site which came to be named Maralinga, 53 km north of Ooldea, directly in line with the Aboriginal routes which followed rockholes north. It was just as well the Mission had moved.

Blocking off the Country

The fact that the area earmarked for atomic tests encroached on an Aboriginal Reserve (proclaimed at Ooldea in 1936) was of little import. Moves were made for its immediate revocation. It was described as 'abandoned'. MacDougall visited the Soak and several sites of significance with ex-Ooldea men in 1954; he intended to 'clean up' the area by removing ritual paraphernalia hidden there (MacDougall 1954). He was then able to report to his superiors that 'all active tribal interest is now at an end'. The Ooldea Reserve was abolished on 9 December 1954.

Looking back on this period, Yalata people believe that MacDougall 'blocked' them from their country. They were right. Aborigines were discouraged from walking north even to the railway line, unless it was for an approved purpose. Military personnel were stationed at Watson siding (the supply point to the Maralinga village), and the Lutheran missionaries reported planned Aboriginal movements to the Maralinga authorities. In 1955 a large group of Yalata people were gathered in the Coober Pedy area after ceremonies (probably Kurangura). MacDougall found them there and decided to:

> . . . cut out all rations and start[ed] them on their way. I arranged for most of the women to travel in passing trucks . . . thus ensuring that their men would not attempt to travel overland via Lake Phillopson [*sic*] Panthanna and Tietkins Well (MacDougall 1955).

An initiation party of Yalata people headed for Cundeelee was intercepted at Ooldea in September 1956, by security officials from Maralinga. The novice and two other Aborigines were allowed to travel by train to Zanthus, Western Australia, while the rest of the party, numbering one hundred and twenty people, was instructed to wait until permission was granted for them to travel west. This was exected to take two months (Lawrence 1956).

Notwithstanding this extraordinary history of competing interests whereby the Ooldea people suffered the effects of a series of invasive and exploitative actions on the part of Europeans, they

tenaciously maintained crucial elements of social organisation and their ritual responsibilities to kinsmen and kinswomen elsewhere. Visits to other communities, and the reception of visitors from elsewhere, were maintained over the early years of their relocation to Yalata, and are still in place today. There is documentation of visits to Coober Pedy, and to Cundeelee, in 1954, 1955 and 1956 in order to attend ceremonies. In 1956 two hundred people from Yalata planned to travel west by train, and then walk to Warburton; Yalata hosted ceremonial parties from the north and west (see McClelland *et al.* 1985: 301–302.

Identity and Ethnicity

Yalata people, with only a few exceptions, now describe themselves as being Pitjantjatjara. The exceptions are those who identify themselves as Yankunytjatjara. As with their kin in the north, they now use the term *anangu* to describe themselves, as opposed to *piranpa* [whites].

In view of the fact that their predecessors at Ooldea Soak were drawn from many different groups, it is remarkable that Yalata people now identify *en bloc* as being Pitjantjatjara. When R. & C. Berndt worked at Ooldea Soak in 1941 they noted the variety of different groups, of whom the Pitjantjatjara were but one. In fact, they observed that the Antakarinja, originally from the Everard Ranges, formed the greater part of the camp population. These were described as people who had travelled south, and in the 1940s 'wandered' in the country north of Ooldea (Berndt 1941: 1). White noted in 1977 that the designation 'Andagarinja' or 'Antingari' seemed to have disappeared at Yalata, and hypothesised that the group may have moved elsewhere when Ooldea closed down in 1952 (White 1977: 105). However, reports from Aborigines present at the time of dispersal state that there were three groups: the west (Cundeelee) group; the south group (sixty-seven Kokatha people), and the north group (the 'Pitjantjatjara', who departed for Tarcoola).

It is likely that in recent years the designation Antakarinja has become blurred into the group with the greatest currency, the Pitjantjatjara. Distinctions between groups were not always made, even in the 1940s. Berndt gives an example of an Antakirinja man who 'might at times identify himself as Bidjandjara' (Berndt 1959: 90). It is likely that inter-group dialect affiliations have gradually been relinquished as a result of the social environment and shared experiences of the ex-Ooldea people. This process had begun at Ooldea by the time of the Berndts' fieldwork, and they observed intense contact between different dialect groups which led to 'fluidity and carelessness' of speech (R. & C. Berndt 1944b: 49). The people have been together, in various permutations, for fifty years. Nevertheless, the present-day 'community' is rarely communal, and is in fact composed of numerous autonomous family or hearth groups.

In more recent years, the incorporation of the Western Desert Aborigines of South Australia into groupings with some political leverage, as well as their recognition by European law, has meant that 'the Pitjantjatjara' have become an entity over and above the original designation of those who spoke a particular dialect or identified with a particular area of land. Yalata people became politicised during the negotiations for freehold title to the 'Maralinga Lands' (now legislated under the *Maralinga Tjarutja Land Rights Act 1984*, and had watched the earlier developments in the north culminating in the *Pitjantjatjara Land Rights Act 1981*. As a result of these developments, as well as those factors already mentioned, the ex-Ooldea people living at Yalata, and at their outstation established on the Maralinga lands, now understand themselves to be a part of the larger collectivity, 'the Pitjantjatjara'.

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COMING AND GOING : ABORIGINAL MOBILITY IN NORTH-WEST SOUTH AUSTRALIA, 1970-71

BY A. HAMILTON

Summary

This paper has examined a body of data on population mobility in an isolated region of northern South Australia to show that mobility was embedded in the social and economic adjustments essential to Aboriginal society at that time. Rather than seeing these patterns as an example of cultural continuity, I have suggested that they can be understood as adjustments to the conditions provided on the frontiers of European settlement, whereby the maintenance of social relationships and access to a network of significant resources provided the basis for economic and cultural survival.

COMING AND GOING: ABORIGINAL MOBILITY IN NORTH-WEST SOUTH AUSTRALIA, 1970–71

A. HAMILTON

HAMILTON, A. 1987. Coming and going: Aboriginal mobility in north-west South Australia, 1970–71. *Rec. S. Aust. Mus.* **20**: 47–57.

This paper has examined a body of data on population mobility in an isolated region of northern South Australia to show that mobility was embedded in the social and economic adjustments essential to Aboriginal society at that time. Rather than seeing these patterns as an example of cultural continuity, I have suggested that they can best be understood as adjustments to the conditions provided on the frontiers of European settlement, whereby the maintenance of social relationships and access to a network of significant resources provided the basis for economic and cultural survival.

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To early European observers the most remarkable aspect of Aboriginal life was the absence of agriculture, and the consequences which flowed from that, particularly nomadism. The white Australian consciousness has elaborated on this theme, particularly in the popular concept of 'walkabout' as an innate Aboriginal characteristic, used particularly to explain Aboriginal behaviour which fails to conform to non-Aboriginal expectations about work patterns and predictability of residence. Attempts to integrate Aboriginal people into non-Aboriginal Australian society have been informed by a set of expectations which link together stability of residence, 'civilization', productive labour, and a life-style focused on the maintenance of a certain kind of domestic environment.

The difficulties of achieving this aim were noted by Barron Field in 1825. He remarked:

> We have now lived among [the Aborigines] for more than thirty years; and the most persevering attempts have always been made, ... to induce them to settle, and avail themselves of the arts of life; but they cannot be fixed, nor is it possible by any kindness or cherishing to attach them (Field 1825: 244).

Various explanations were offered for this. The poet Richard Howitt attributed it to the lack of suitable crops:

> Had they been in a more civilised state it would have been singular; for no country on the face of the earth... has been so destitute of the means of fixed residence, corn and fruits, for the localisation of a people. It is easy to call a native a fool for not providing himself with a house, but it is not so easy to furnish him with a fixed maintenance (Howitt 1845: 197).

However, even where a 'fixed maintenance' in the form of paid labour or rations was provided, the propensity of Aboriginal people to move from place to place was not diminished. A simple economic explanation was inadequate. Not suprisingly, as scientific racism grew throughout the nineteenth and early twentieth centuries, Aboriginal mobility was attributed to uncontrollable impulses preventing them from being 'settled'; this in turn implied that they were not able to live within 'normal' Australian society and provided a justification for the various policies of segregation and 'protection' which were devised by successive administrations.

In spite of the historical and political importance which has been attached to mobility, singularly little attention has been paid to understanding the nature of and reasons for patterns of movement in contemporary Aboriginal populations. It has been assumed that, with the demise of 'nomadism' in the pre-colonial form, Aborigines are now 'settled', or should be. Being 'unsettled' contains a host of negative implications in European symbolic systems: homelessness, rootlessness, vagrancy (which derives from Old French, 'to wander') all are marks of inadequacy and failure in life.

Nevertheless, Aborigines in some areas at least attach positive value to mobility, and strive to maximise their access to transport and locations between which frequent unhindered movement can take place. The present paper examines data on patterns of mobility in a remote cattle-station community in 1970–1971, and discusses some of the social and economic factors associated with it.

Studies of mobility among other previously 'hunting and gathering' peoples show that the Aboriginal commitment to mobility is far from unique, and that technological changes which contribute to freedom of movement are enthusiastically taken up. Many peoples who had lived primarily as hunters and gatherers up until quite recent times adopted herding as an economic

strategy under changes brought about by external factors, thus 'building in' mobility to their economic adjustments. More recent changes, largely connected with the availability of motorised transport, have further embedded mobility as a social and cultural value, while sometimes bringing about significant and negative economic consequences.

Pelto's study of the Skolt Lapps of Finland describes the way in which the snowmobile entered the life of the Lapps in the 1960s, displacing items such as reindeer-sleds and skis, and totally transforming the economic base as well as systems of prestige. Transportation of supplies, firewood and people had always been a major adaptational challenge in the Arctic; and the snowmobile offered what seemed to be a miraculous solution. However, the care and maintenance of vehicles created problems, and the reliance on imported fuels had profound effects on economic choices. Unexpectedly, however, the snowmobile also resulted in drastic changes to traditional herding practices; reindeer hated the machines, and rapidly became de-domesticated, so that total herd numbers dropped dramatically and many herdsmen were forced to seek other livelihoods, particularly wage labour (Pelto 1973).

The Navaho, who like the Skolt Lapps had been largely hunters prior to the mid-nineteenth century and then became herders, also have maintained a commitment to mobility. Homestead groups shift location several times a year, in a complex pattern which emerges from 'consideration of grazing, water, wood supply, ritual beliefs, and the dynamics of the homestead group itself' (Downs 1977: 358). Where previously they had relied on horses, cars and trucks rapidly became much more important, and the number of vehicles owned doubled during the time of the study (1960–61) (*ibid*: 376). The need to maintain access to more than one area is not merely the result of the imperatives of a herding economy, but also means that 'individual members can move back and forth to avoid conflict within the group' (*ibid.*: 376).

Aborigines and Mobility

Unlike the Lapps and the Navaho, Aborigines of Central Australia have not made an 'intermediate' economic adjustment requiring the maintenance of mobility, yet they have embraced with enthusiasm all the means available to enhance it, notably the camel for a short period of time, and then the motor vehicle. And far from this shift being a marker of 'modernisation' and the abandonment of traditional practices, Aborigines have used their increased mobility to reinforce and extend some aspects of their pre-European social and economic system. This paper will argue, however, that adaptations brought about during the earlier phases of adjustment to the new economic order were of equal or greater significance for the emergence of present mobility patterns.

Motor vehicles have become an essential aspect of contemporary Aboriginal life in the Centre (and outboard motors in the coastal and riverine regions of the north) for a number of reasons. The importance of access to hunted meat (and to some extent gathered foods) is one; with permanent or semi-permanent settlements there is virtually no game within walking distance. However, the increasing and in some areas now almost complete reliance on purchased food has made the economic aspects of hunting much less significant, although ritual presentations of game animals seem to have remained important.

The 'outstation movement', resulting in the proliferation of extended family settlements, at great distances from reliable supplies, medical facilities and schools, has meant that access to vehicles has become a virtual necessity. Only people living at centralised settlements can survive without them, while prestige and full access to the most important forms of Aboriginal sociality are seriously impeded without a 'Toyota'.

One of the major reasons for mobility is the maintenance of ritual connections. As Kolig has noted, 'Two of the most striking features of present-day Aboriginal religious life are its high mobility and the far-reaching communications network' (Kolig 1981: 109). Access to vehicles (and other forms of transport such as aeroplanes) has increased the intensity and speed of ritual transmission, whole 'Laws' being passed on from one area to another across vast spaces, accompanied by the people who are transmitting them. The present paper is not the place to analyse these proliferating ritual connections, the reasons for them and their implications; however the vital necessity of mobility for the preservation of these practices is one of the strongest factors in the Aboriginal willingness to make significant economic investments in the means of their maintenance.

It is necessary to pause a moment and consider just what is meant by the term 'mobility'. A high level of movement from place to place is characteristic of developed societies because of work practices which separate the domestic environment from the workplace (in contrast with 'peasant' economies where the site of production is also largely the site of consumption). Daily journeys of 30 km are not uncommon for those working in large cities. Yet this movement from home to work does not seem to connote 'mobility'. Rather, the commuter's journey, be it short or long, is a mark of his/her insertion into the structures of contem-

porary society, where the two destinations are part of a single, comprehensible and rational adaptation. Mobility beyond this is generally classifiable into two major types: 'holidays', defined as periods outside the spaces of both 'work' and 'home', and visits to relatives on specified ritual occasions, such as Christmas, weddings and funerals. The only other 'rational' explanations for mobility are those brought about as a result of work-patterns which depend on it, such as fruit-picking, shearing, etc. (occupations often seen as inferior by mainstream society).

Mobility as a consequence of a pastoral economy (as in the case of the Lapps or Navaho) can be similarly understood (although there is evidence to suggest that much more at the cultural/symbolic level is implied in these cases). However, the mobility of Aborigines fails to conform to expectations based on this Eurocentric economic rationality. Aboriginal people will, at no notice, join a vehicle travelling hundreds of kilometres away, taking with them no money and few provisions, and will have no idea of when or how they will return. They may thereby forfeit some opportunity such as employment or may miss receipt of some benefit, such as a pension cheque. They may leave behind medicines which they have been told are absolutely necessary to their well-being, as well as valued goods which they know are likely to be damaged or to disappear altogether during their absence. Although mothers will not leave behind young children, single people, married people (with or without their spouse) as well as couples with older children, or no children, are equally likely to undertake such journeys. Even older children may attach themselves to a passing vehicle and not be seen for weeks or even months.

This behaviour, however, requires at least two conditions: firstly, that the vehicle is in the charge of a relative, and secondly that relatives can be found at the end-destination and intermediate stops along the way. Travelling from place to place can only be undertaken in this apparently haphazard way precisely because an elaborate network of reciprocal exchanges underpins it, whereby relatives accept unannounced visits from one another and provide the wherewithal for the visitor's survival if necessary. And an important purpose of such journeys, even in the absence of ritual, marital or other commitments, is to maintain this structure of reciprocal interdependence by calling upon it.

This could be considered as a continuation of mobility patterns of 'the past' — by which is denoted the autonomous Aboriginal societies prior to European colonisation. This is precisely the viewpoint adopted by those observers who wrote with annoyance or despair of the Aborigines' ingrained habit of 'walkabout'. While an analysis could proceed showing how the economic, ritual and marital patterns of autonomous Aboriginal societies depended on mobility, this would merely be to state the obvious. However, this view overlooks the existence of patterns of mobility which were called into play precisely during the decades when the early structures of European-Aboriginal interactions took place — the periods of cattle-station and mission living in the Northern Territory, northern South Australia and inland Western Australia.

Patterns developed during these phases, far from inhibiting or restricting Aboriginal mobility, in fact fostered it. The movement of individuals and groups was required as a means of ensuring social and economic survival in the absence of fully-articulated mechanisms of social and economic incorporation into the developing frontier society. Because Aborigines were not provided with the means which would have made a more 'localised' existence possible, because the cattle-station economies required workers at unpredictable intervals and in unpredictable numbers, because few other forms of employment were available and cash incomes rested on unpredictable sources (until the introduction of cash payments for welfare benefits), and because housing, education and health services were not provided, none of the pre-requisites for a 'settled' life on the Anglo-Australian model existed.

The fact that Aboriginal social and ritual requirements were relatively well-suited to this pattern meant that a unique adjustment was able to develop, which preserved elements of 'traditional' behaviour, while meeting the minimal requirements of the European economy which were both unavoidable and indeed desirable from an Aboriginal viewpoint. Thus the patterns of mobility which are still evident in much of Central Australia today are based not on a direct preservation of 'the past', but on the reproduction of an Aboriginal social and political economy which has its roots in 'the early days' of European settlement.

Further, given the realities of present-day existence, these patterns have a continuing utility. For as long as Aboriginal people live in the remote regions in areas where there are extremely limited commercial possibilities in mainstream Australian terms, and for as long as they have limited or no access to sources of funding other than those derived from Government welfare programmes, and few or no prospects of social mobility into better employment in urban areas, the Aboriginal economy as it has developed over the past few decades will remain the only option. Two essential elements of this economy are the maintenance of networks of communication across a variety of living-spaces, with associated access to resources at those sites, and the ability to resolve the inevitable structural and interpersonal conflicts thrown up by

contemporary social realities by moving away from them.

Patterns of Mobility in North-western South Australia

Here, then, a body of data is presented for a particular small Aboriginal camp in north-western South Australia in order to elucidate the patterns of mobility and the reasons for it evident at that time. This analysis shows how the presence of a particular set of economic and bureaucratic factors enhanced Aboriginal mobility, and how this meshed with Aboriginal prerogatives in maintaining links to land and access to subsistence resources, resulting in continuous population movement which nonetheless had a definite 'rationality'. Not the least of this was the ability to move away from conflicts when they arose, to assert the independence of the individual and his/her ability to survive elsewhere, and to re-organise population structures at different locations in such a way as to ensure available labour for the sustenance of old people and the redistribution of what cash income was available.

Collection of these data was one aspect of an eighteen-month study of an isolated community living on a cattle-station, Everard Park. This was one of the last stations taken up in the area, being developed only in the early 1950s, while it was one of the first to be purchased for the Aboriginal residents under the dramatic policy changes of the early 1970s. The Aboriginal inhabitants, a mixture of Yankunytjatjara and Pitjantjatjara speaking people, had had long-term contact with other European settlements in the area, notably Ernabella Mission to the north, the cattle-stations to the east and south-east (DeRose Hill, Lambina, Todmorden, Wallatinna) and with towns in the area, notably Oodnadatta and Coober Pedy (see Fig. 1, page 2). Some men and women had undertaken wage labour for brief periods, but these contacts had been far from intensive, and most of the people had largely lived on the area of the cattle-station or nearby for two decades. They had worked for the various Europeans who had developed the station, sinking bores and building roads, and had had frequent contact with residents of Fregon and Indulkana when these settlements were established in the 1960s, the former as an outstation of Ernabella Mission, and the latter as a Government settlement. Most of their relatives lived in 1970–71 at one or other of these places, although some who had come from the West had relatives at Amata, Warburton or other settlements in Western Australia, and some older people had relatives at Finke, Oodnadatta, Coober Pedy or Port Augusta. Decades previously, other relatives had travelled south across the desert and now lived at Yalata, although few contacts were maintained at the time of the study (see Hoyne & Vachon 1985, Hilliard 1968).

The community studied was relatively isolated at the beginning of 1970. Although people frequently made their main camp near the station homestead, to be close to medical attention and to stores (largely flour, tea, sugar, jam and a restricted range of fresh foods), this depended on the approval of the station owners, and when cattle operations required it they were told to move elsewhere to live near one of the many other bores on the property. Thus at the beginning of 1970 the camp was located about 50 km from the homestead, not far from the main track to Fregon, another 90 km away.

Population and mobility

For reasons which will become obvious later, it is somewhat arbitrary to describe the composition of the camp population, since it changed so often (cf. Denham 1975). However, there was a core of stable residents, mostly pensioners, and a group of families who were children of the older residents; some among these families might move away, but others would generally return to take their place. In addition, there was a fluctuating group of segregated youths, sometimes numbering as many as twenty, and some childless pensioner couples. Because there was no school or medical facilities, and no store, the camp was not typical of living sites in the area at that time, although it was probably quite typical of the populations on the cattle stations in the period prior to the 1960s when the government programmes of settlement were established.

The population fluctuated in numbers on an almost daily basis, as will be shown below. However there were generally 40–60 people, divided by age and sex as follows (based on camp populations at the end of 1970).

TABLE 1. Population composition by age and sex.

Age	Female	Male
0–10	7	6
11–20	5	11*
21–30	2	2
31–40	4	5
41–50	4	1
51–60	3	4
60 +	3	2
TOTAL	28	31

* includes segregated boys

This population was divided into a number of groupings. There were fifteen family groups. Eight

of these were core residents, who were absent from the camp on infrequent occasions only. Two others were children of core residents, who divided their time more or less equally between the cattle station community and an adjacent settlement where another parent was resident. One family was that of a permanently employed station worker, and usually lived at the station rather than in the camp. Three families joined the camp between March and June 1971 and remained there; one had previously been resident but had moved after a child had died, another had left after a fight and moved to a nearby settlement, the third came from Amata after a fight there. All had siblings or parents in the camp at the time they joined it.

There were six married pensioner couples, and three widows and three widowers, one of whom was continually on the move on ritual business, and the other two of whom were highly mobile. There were six boys in segregation, not all of whom were children of camp residents; some had been sent from elsewhere to live in the boys' camp because it was known for tight social control of youths. However, on occasion the segregated boys' camp numbered as many as thirty.

Under-represented in the population were young families with young children (parents in the 21–30 age bracket). Because of the unavailability of school and medical services, people with young families either preferred to or were told to live at Indulkana or Fregon, although they frequently visited their parents and siblings and with the passage of time may well have taken up residence at Everard Park once again.

Any such description, however, is static and disguises the intense level of mobility which occurred from day to day in the Everard camp. Because of the small size of the camp and the fact that I lived in it, it was possible to collect information on all movements in and out of the camp, of visitors and permanent residents. I collected such data for the whole of the period September 1970 to September 1971, but the records of the period between September 1970 and May 1971 were lost when my caravan burnt down. Hence the full range of annual movement cannot now be re-constructed. However, figures for 100 days in 1971 are available, and although not comprehensive enough for a complete analysis, nonetheless provide a 'window' into the patterns of mobility and the many and complex reasons for it during 1971. Since data of this kind are seldom available, I considered it worth analysing in some detail, recognising fully the limitations of the restricted time period involved. Interestingly enough, examples of all the major events involving mobility nonetheless occurred in this period and demonstrate the multiple factors involved in Aboriginal residence patterns at a time of transition in Aboriginal life in the region.

At the beginning of 1970, there were no motor vehicles available to the camp. However, the community as a whole began to save money for a truck, and by August 1970 had become the proud owners of the 'Red Truck', which had been purchased on their behalf by the station proprietor. Shortly afterwards a group of brothers acquired a 'Land Rover' and an old sedan. However, some men also owned a number of horses, and, more importantly, three camels complete with camel gear, acquired years before from the last camel-transporters in the area (perhaps in the early 1950s). Thus this period in 1970 was a bridge between the use of camels, which had been enthusiastically taken up by many Pitjantjatjara people in the region in the 1940s and 50s, and the adoption of motor vehicles.

Europeans and the cash economy

This period was also a time of greatly accelerated non-Aboriginal activity in the area. Where for decades there had been only missionaries, station-owners, patrol officers, doggers and some other itinerant workers, changes in government policies at both State and Federal level began to result in frequent visits from representatives of the various relevant bureaucracies, usually gentlemen in shorts and long socks who came and went with astonishing rapidity and carried out cursory 'consultations', mostly with whites in the area. Nonetheless, welfare policies which had begun in the 1960s with the assimilation policy began to intensify and change direction again in the build up to the accession of the Whitlam government in 1972. South Australia was in the vanguard of Land Rights policies for Aborigines, and various State government agencies became increasingly concerned with the welfare of the large and still very 'traditionalist' Aboriginal populations in the far north.

In practice, this meant a much greater level of contact between Aborigines and those delivering welfare services. The disastrous state of infant mortality became an issue at this time, and resulted in much more vigorous attempts to monitor the welfare of mothers and babies. At Fregon and Indulkana, health services were delivered by agents of the South Australian Health Department in the form of nursing sisters linked by radio phone to the Alice Springs Flying Doctor Service. These services were extended to the cattle station community in the form of a fortnightly visit from the Indulkana staff, known as 'the Patrol', which brought a nursing sister with scales and equipment for assessing health status, the pension cheques for pensioners and families, and a limited range of

fresh foods such as eggs, oranges, tinned milk and baby foods, designed to improve the nutrition of the target groups. Other goods sold included sandshoes, camp-sheets, and fly-nets to be worn over hats. The visits became weekly shortly thereafter, and parents with young children were expected to be in camp every Tuesday so that their health could be monitored.

Not far behind the pension-week patrol came the station stores truck, bringing what were still called 'rations'. The station management, like all those in the centre and north maintained a store from which the Aboriginal residents could purchase basic food needs. Items were sold for a fixed price, such as 50 cents, one dollar or five dollars, ostensibly to simplify the giving of change. Until the late 1960s, Aborigines had not received their welfare entitlements in cash at all; instead station managers had received a *per capita* sum from Government sources out of which they were to feed and provide necessities such as blankets for the unemployed Aborigines resident on their stations. This created a certain set of expectations among Aboriginal people about the obligations existing between management and residents, which accorded well with Aboriginal ideas of reciprocal responsibility: they provided workers for the management, and the management fed the camp. (For a more detailed analysis, see Hamilton 1972, and cf. Peterson 1977, 1985.) However, the introduction of payments in the form of welfare cheques which then were cashed, from which necessities were purchased, had to some extent materially advantaged the Aborigines but also created resentment and confusion among the older people who still expected to be fed and clothed by the station management as before. Hence the arrival of the station stores truck close behind the Indulkana patrol, and the taking back of large sums of money for rations, was regarded as theft, especially by the old people who lost no opportunity to complain about it to other Europeans, most of whom misinterpreted it as a complaint about the high prices being charged.

Reliable figures for cash income and expenditure were obtained over several sample periods. Prior to September 1971 single pensioners received $32 per fortnight and married couples $28.50 per fortnight each. An $8.00 mother's allowance was paid to widows, and child endowment of $2.50 for the first child and $3.50 for subsequent children. These rates were raised somewhat after September 1971. Child endowment was paid to all families with children, while unemployment benefits were paid sporadically. Men of four households received unemployment benefit for part of the year, while other male visitors receiving benefit were often resident in the community. Eight single men and women were at times employed by the station for generally very low wages.

An estimated total income for the year 1971 from these sources was as follows:

Pensions (age and widows)	$13 879
Child endowment	$ 1 844
Unemployment benefits	$ 5 876
Cash paid to station workers	$ 600
TOTAL	$22 199

While some other cash income was derived from four men who went fruit-picking for two months at the beginning of 1971, very little of this returned to their families. Some other minor sources of income may have not been recorded.

In any case, this figure provides an average *per capita* income of about $444 per annum (cf. Peterson 1985: 91, 92)

While this is a low income by non-Aboriginal standards (at a time when Australia-wide disposable income per capita was $1739, Peterson *Ibid.*) it nonetheless provided a significant immediate surplus after staples were procured, in the sense that individuals and family groups were able to retain a considerable portion of this cash income and use it for other consumption purposes. Most prominent among these was the purchase of motor vehicles.

Sample records were kept of expenditures on staple items from the station stores and the medical patrol. For example, during one fortnight in January 1971 when $543.00 was received in cash, a total of only $217.00 was spent on goods, including such things as aspirin, cough mixture, hats, sandshoes and bullets. The balance was not all saved, since part of all cash payments received by many pensioners was sent on to married children living at Indulkana as part of the obligation of parents to support their children. One woman regularly sent between $15 and $20 a fortnight. This practice itself constituted an important part of the local economic system, maintaining exchange relationships with relatives who could later be called on to provide shelter, resources and hospitality in return.

However, during one six month period over $1200 was saved towards the purchase of vehicles. The fact that people could afford to spend relatively little on food was itself related to the availability of vehicles, since a significant proportion of food was procured by hunting with rifles on day or overnight trips. A monthly average of 348 kg of meat-weight from large game animals (kangaroo, emu and euro) was obtained over a twelve month period (range 204–627 kg per month) which averages at around 0.23 kg of meat per person per day. Since this does not include food from other bush sources (goannas, eggs, grubs, fruits) it is apparent that the dietary contribution of subsistence food was significant.

Thus a circle of interdependence existed such that the limited access to cash resources was itself sustained by a fairly heavy commitment of what cash was available to investment in vehicles which permitted an adequate level of consumption from non-purchased foods. (Also important was the purchase of rifles and bullets, although this was a much less expensive investment.)

However, as was the case among the Skolt Lapps, motorised transport also involved other costs, notably fuel and repairs. Although some repairs could be carried out at the station, and also at nearby settlements, in the main repairs were made on-the-spot, using parts salvaged from other vehicles and some brilliant improvisations, such as melted plastic from combs to stop up holes in radiators. The ingenuity of these repairs could only be marvelled at, although the long-term result was a vehicle held together by string and hope; this, combined with the poor conditions of local 'roads' and the general over-loading, meant that the useful life of any vehicle was severely limited. Over the observation period no vehicle lasted longer than four months.

Movement and camp composition: a case study

However, the levels of mobility observable were not due solely to the availability of Aboriginal-owned transport. The insertion of even this remote desert community into a complex network of external relations, largely with bureaucracies located in towns or cities outside the local region (notably Adelaide and to a lesser extent Canberra and Alice Springs), together with the local presence of missionaries, government settlement officers, and the station itself, meant that frequent and regular 'rides' were available on which people could often obtain lifts from place to place.

In addition, some individuals went on foraging expeditions on foot away from the base camp, even using camels, and others set off on foot to visit distant settlements hoping to encounter a car on which to obtain a ride somewhere along the way.

To give a detailed account of these movements over a specific period of time permits us a glimpse of Aboriginal life in the region, and illustrates the complex network of considerations which affected population size and composition, as well as individual choices and the many social factors which accounted for them. Appendix 1 sets out the composition of the camp population, indicating usual residents and temporary visitors, together with the vehicle movements in and out of the camp, and the effects these had on the local population. For brevity I include here only figures for the two months July and August, although figures for four full months were collected. Data for the sample months are typical of the overall period. Even though this was the coldest time of the year, when ritual activity as well as hunting was generally less vigorously pursued, examples of all major activities were encountered in this period.

It is apparent from this brief sample of time that multiple events affected this small community. Most noticeable were the 'patrols' from Indulkana (6/7; 12/7; 19/7; 27/7; 4/8; 14/8; 23/8) which often removed children for the purposes of supervised medical care; in the case of young children their mothers would accompany them, and they would find shelter with relatives until they were considered ready to return.

The requirements of the station management for workers resulted in frequent calls into the camp; young girls would be asked to go to the station to assist in domestic chores, men and boys would be called on to assist with stock work and so on. These tasks would often last only a short time; domestic workers might be called in for extra assistance when the station had a number of visitors, and then returned to the camp a few days later. For example, on 10/7 two men were taken to cut firewood and one woman and one young girl to assist when visitors came to the station. On some occasions a man and his family would be asked to camp out at a bore to carry out necessary repairs. For example on 11/8 two adult male workers returned from carrying out bore repairs, one of whom had been accompanied by his wife, while four single youths were taken back to maintain stockyards.

Visits from Europeans other than station personnel or sisters occurred relatively frequently also. Some of these were officers of various departments. On 12/7, for example, an officer from the South Australian Department of Aboriginal Affairs came with the Indulkana patrol to 'have a look'. On other occasions 'locals' would call in to the camp to renew acquaintance with people there. These included Patrol Officer MacDougall (well known to all Aboriginal people in the area after his decades of service) from Woomera (19/7), the Reverend Bill Edwards from Ernabella mission, who arrived with a researcher Mr Noel Wallace for a brief visit on 1/8, and Jim Downing, from the Uniting Church in Alice Springs, who was visiting the area from 28/7 to 4/8.

The Oodnadatta police also made frequent calls (17/7; 22/8; 31/8). Usually they were on their way through to other destinations in the north-west, but they would call in to the camp to discuss matters such as registration of dogs. People feared the police visits, even though they were on all occasions of my field-work quite innocuous: old ladies would run for the hills accompanied by hordes of dogs, and on one occasion all the children were sent to hide because a rumour had gone around that they were going to be rounded up and taken away to school.

The earlier phases of Aboriginal relations with the police were still strong in the minds of people.

Again, the presence of an anthropologist in the camp created its own consequences. The anthropologist would be asked to take a party of people out camping (7/7; 16/8) and return them later after a period of intense hunting and gathering. Unidentified vehicles occasionally drove through, and the anthropologist would be asked to go and find out who they were, especially since people were extremely alarmed about the prospectors who were searching for opal. (This occurred on 15/7.) The anthropologist's supervisor, Dr L. R. Hiatt, came for a brief visit during the period discussed above (9/8–12/8) and was taken around the countryside on hunting trips.

Other vehicle movement was Aboriginal: on 3/7; 11/7; 12/7; 14/7; 20/7; 23/7; 24/7; 25/7; 26/7; 30/7; 31/7; 6/8; 17/8; 21/8; 24/8; 30/8. Many of these were 'passing through' visits, either from Indulkana towards Ernabella or in reverse. On virtually each occasion the population of the camp changed, with some people being dropped off and others joining the vehicle. The actual figure totals cannot reflect this change, since they give only raw numbers, but even so they indicate the extent of mobility.

The spate of movement towards the end of July was the result of the holding of a very important ceremony at the camp. This meant not only that people came and went through the camp, but that within the camp itself people had to make adjustments. All women with young children had to shift their camps about a kilometre away from the main camp so as to be out of the way of the 'business' (ceremony), which required some major transportation of food, bedding, utensils and so on.

On 29/7 ten adults and eleven children left the main camp for a site about 7 km away. The anthropologist's vehicle was used to transport swags and staple foods and three of the smallest children, while the rest of the group walked, gathering food on the way, resting at a 'dinner camp', and arriving in the late afternoon. People remained at this camp for varying lengths of time, some of the older children walking back after a couple of days. The last family returned on 8/8, in time for the arrival of the Indulkana patrol and the station stores. The expectation of arrival of these vehicles, with associated cheques, money, stores and medicines, punctuated the flow of time and clearly affected people's decisions about the patterning of their activities. On the day these visits were expected, women went early to the bore for water, washed clothes and children, and generally prepared to put on their best 'face' for the arrival of the European authority figures.

These frequent movements both of camp residents (and their visitors) and of other Aboriginal and non-Aboriginal people in and out clearly reflected the multiple available choices for that time and place. However, 'movement' was not limited to this. The camp itself shifted quite regularly. Individuals would move their camp-sites with the associated shelters about every three weeks or so depending on how dirty the area was becoming. People re-oriented the openings of the shelters according to the prevailing winds; in winter this was particularly important with the southerlies sweeping up from the Antarctic. Finally, social relations within the camp determined people's living sites: after an argument or disagreement, shelters would be conspicuously re-located down towards the creek-bed or back towards the hills, which meant close relatives would also move their shelters over time. Thus the camp itself was in a constant state of fluctuation in normal times. When a death of a relative occurred, even a long way away, the whole camp was required to move to a completely new location, shelters to be rebuilt, and new alignments worked out. Sometimes these removals were to places many kilometres away, and required frequent vehicle trips to transport all the camp impedimenta, the old people, the small children and of course the dogs. Many dogs would be left behind to find their own way to the new site, although on one occasion a party of old ladies took two days to walk to the new area so as not to leave their dogs behind.

While from this perspective Aboriginal life seemed a constant process of movement from one camp to another, one settlement to another, one set of relatives to another, there nonetheless was a continuity to the process which only became apparent over time. The people involved in this process were not a random group. They were part of a distinct network which did not include everybody at the adjacent settlements, let alone people from further afield.

When unidentified vehicles arrived at the boundaries of the camp there would be rapid speculation about the identity of the visitors. Aboriginal people who were not close relatives of someone in the camp (for example, someone travelling from Coober Pedy to some point further north), would wait at the camp boundaries in their vehicles until somebody (usually a senior man) arrived to 'sponsor' them in. When a vehicle was driven by a close relative, but contained someone less closely related who had not been seen for some time, the vehicle would drive into the close relative's camping area but the 'stranger' would wait in the car until someone came and spoke to him/her directly.

Over time, the same people would be seen coming and going; sometimes they would stop off and join the camp for a period if they had close relatives

there. This might be said to be *unyilju* (temporary), but sometimes stretched into months or even longer, at which point their residence would be focused on this camp rather than somewhere else and they would have their welfare entitlements transferred there. This created problems for those who were previously in the Northern Territory or Western Australia, and people sometimes missed their cheques for months and then received a hefty windfall. In which case, they would, of course, try to buy a car.

One final point of critical importance is the way in which the readiness to move camp from one settlement to another was a fundamental mechanism by which intra-family and intra-community conflicts were 'resolved'. This is a topic which requires a much more detailed analysis than there is space for here. However, there is a fascinating connection between 'conflict' and camp composition, which was apparent on many occasions during the period of field-work.

In the circumstances of life in an Aboriginal camp with no facilities such as reticulated water, electricity, garbage disposal, heating and cooking facilities, the level of physical support necessary to sustain non-able members is considerable. Old people, often with rheumatism and emphysema, people suffering acute or chronic illnesses, mothers with small children, all require a minimum daily quota of firewood, water, and prepared food. When camps include few younger, able-bodied people, the work-load increases dramatically, especially if some form of hunting and gathering is also necessary to maintain satisfactory nutrition. The shortage of able-bodied people becomes even more acute when it is younger people who are always in demand for the pastoral economy.

As population shifts occur such that old people have few younger relatives to call on for support, the level of tension rises, quarrels break out, and the 'morning discourse', when people state their concerns to the camp in general, becomes increasingly heated. The complaints made are general, rather than specific; no names are mentioned, no particular individuals are singled out as not doing enough. Rather, general statements to do with 'laziness', 'not caring for relatives' and so on are made. Inevitably, after time passes without any resolution, someone loses their temper and a full-scale fight breaks out. Often, other matters too are raised, which exacerbates the problem. Old women will raise digging sticks to one another, or old men will stalk about brandishing spears.

News of this state of affairs inevitably travels along to the other settlements; and, with no apparent organisation or specific requests for assistance, one or two young families will arrive in the camp and take up residence for a time, or some adult single men will join the camp on a temporary basis and go hunting every day.

Conflicts arising from other causes will be resolved similarly by one or other of the disputants (and their immediate families) simply moving away for a period of time until the cause of the conflict is resolved or forgotten.

Thus the ability to move from place to place, the lack of investment in items which 'lock' people into one residential area rather than another, and the maintenance of webs of obligation and communication to other settlements and communities all ensure that resources can be re-distributed as the need arises, and that situations which could result in dramatic confrontation are avoided by the simple expedient of going somewhere else.

Without doubt these were important mechanisms in pre-colonial desert society too. However, the insertion of Aboriginal people into a particular form of connection with non-Aboriginal society *via* the pastoral economy enhanced the value of such adaptations, while no alternatives which would have accorded with a more 'settled' mode of adjustment were created. Thus the maintenance of a commitment to mobility came to be embedded within the adjustments of 'the early days' and continued on into the period when white Australia began its most active penetrations into the Aboriginal society of the Central Desert. It would be of interest to compare mobility patterns among people whose past did not include a period of adjustment to the pastoral presence, that is, those who went from a relatively autonomous Aboriginal existence into the large settlements of the 1960s. It may be that mobility remains an important mechanism there too, insofar as few, if any settlements in the remote regions provide the kind of infrastructure which would render unnecessary the maintenance of some level of mobility. The relationship between necessity and desire, however, remains to be explored.

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APPENDIX 1. POPULATION COMPOSITION AND VEHICLE MOVEMENT, JULY–AUGUST 1970.

Date	Men + Vis.	Women + Vis.	Chn + Vis.	Total	Vehicle Movement
JULY					
1/7	7 + 0	12 + 0	5 + 0	24	Nil
2/7	7 + 0	12 + 0	5 + 0	24	Nil
3/7	7 + 3	12 + 3	5 + 6	36	Fregon car with visitors.
4/7	7 + 0	12 + 0	5 + 0	24	Car returns to Fregon.
5/7	7 + 0	12 + 0	5 + 0	24	Nil
6/7	8 + 0	13 + 0	9 + 0	30	Ind. patrol — one family returns.
7/7	6 + 0	11 + 0	7 + 0	24	Overnight camping trip — own vehicle.
8/7	8 + 0	13 + 0	13 + 0	34	Return four single men.
9/7	8 + 0	13 + 0	13 + 0	34	Station truck.
10/7	6 + 0	12 + 0	12 + 0	30	Workers to station.
11/7	6 + 1	12 + 1	12 + 0	32	Fregon car. One couple stay.
12/7	7 + 1	12 + 1	9 + 3	33	Ind. patrol, DAA officer. Car from Ernabella.
13/7	6 + 2	12 + 1	9 + 3	33	Car to Ind. with one woman. Worker returns.
14/7	6 + 1	10 + 2	2 + 5	26	Car from Ernabella. One family stays. Workers and chn to station.
15/7	6 + 1	10 + 2	2 + 5	26	Unidentified car.
16/7	6 + 1	10 + 2	2 + 5	26	Station truck to Fregon.
17/7	6 + 1	10 + 1	2 + 5	26	Police. Truck rets. from Fregon.
18/7	6 + 1	10 + 1	2 + 5	26	Nil
19/7	8 + 1	8 + 1	5 + 3	26	Ind. patrol. Patrol Officer MacDougall.
20/7	8 + 4	4 + 7	0 + 3	26	Fregon car — 'business'. Wom. and Chn to separate camp.
21/7	8 + 6	4 + 1	0 + 4	23	Cars return Fregon.
22/7	8 + 6	7 + 4	5 + 4	34	Wom. and chn return main camp.
23/7	9 + 6	9 + 5	9 + 4	42	'Business' — Cars from Ind.
24/7	9 + 3	9 + 3	12 + 7	43	Cars to Fregon. Car from Ind. with chn.
25/7	9 + 3	9 + 3	10 + 7	41	Ind. car to Fregon.
26/7	9 + 2	9 + 3	10 + 8	41	Male worker to station. Boy dropped off from Ind. car returning.
27/7	8 + 3	9 + 3	10 + 7	40	Ind. patrol.
28/7	7 + 2	9 + 3	10 + 7	38	Station stores. J.D. visits.
29/7	4 + 1	5 + 1	2 + 4	17	Party leaves to camp nearby.
30/7	5 + 1	6 + 1	2 + 0	13	Car from Ind. going to Fregon.
31/7	6 + 0	7 + 0	6 + 0	19	Station truck. One family returns from DeRose Hill.

APPENDIX 1. POPULATION COMPOSITION AND VEHICLE MOVEMENT, JULY–AUGUST.

Date	Men + Vis.	Women + Vis.	Chn + Vis	Total	Vehicle Movement
AUGUST					
1/8	6 + 0	7 + 0	6 + 0	19	B.E. and N.W. visit from Ernabella.
2/8	6 + 0	7 + 0	6 + 0	19	Visitors leave.
3/8	6 + 0	8 + 0	9 + 0	23	Woman and chn return on foot from out-camp.
4/8	8 + 4	10 + 1	21 + 4	48	J.D. returns. Ind. patrol. Stores truck. Some return from outcamp.
5/8					No data available
6/8	9 + 0	11 + 0	22 + 0	42	1 family returns from Fregon.
7/8	10 + 0	13 + 0	23 + 0	46	More camping party returns. Station truck. Ind. sister.
8/8	11 + 0	14 + 0	24 + 0	49	Last camping family returns.
9/8	11 + 0	14 + 0	24 + 0	49	L.H. visits.
10/8	11 + 0	14 + 0	24 + 0	49	Nil
11/8	13 + 0	15 + 0	20 + 0	48	Station workers return from station by station truck.
12/8	13 + 0	15 + 0	20 + 0	48	L.H. leaves.
13/8	13 + 0	15 + 0	20 + 0	48	Nil
14/8	13 + 2	15 + 1	22 + 3	56	Ind. patrol — people return.
15/8	13 + 1	15 + 1	22 + 3	55	Station truck.
16/8	11 + 0	12 + 0	16 + 0	39	Small party to camp out (A.H.'s car).
17/8	12 + 0	13 + 0	20 + 0	45	Ind. car — one family arrives.
18/8	12 + 1	14 + 1	23 + 3	54	Station workers return.
19/8	12 + 0	14 + 1	23 + 3	53	1 worker to station.
20/8	10 + 0	14 + 1	22 + 3	50	Men to stock camp.
21/8	11 + 0	16 + 1	23 + 3	54	3 return from Ind.
22/8	11 + 0	16 + 1	23 + 3	54	Police visit.
23/8	11 + 0	16 + 1	23 + 3	54	Ind. patrol.
24/8	12 + 0	15 + 0	22 + 3	52	Ernabella car passes through.
25/8	12 + 0	15 + 1	22 + 3	53	Nil
26/8	12 + 0	15 + 1	22 + 3	53	Nil
27/8	12 + 0	15 + 1	22 + 3	53	Nil
28/8	12 + 1	15 + 2	22 + 5	57	Family returns from station.
29/8	12 + 1	15 + 2	22 + 5	57	Nil
30/8	11 + 1	14 + 2	20 + 5	53	Ernabella car returns.
31/8	11 + 1	14 + 2	20 + 5	53	Police call *en route* for Docker River.

Ind. = Indulkana.

NOTE: The category 'visitors' refers to people living for shorter or longer periods in the camp, but who were still described as 'temporary'; in some cases their sojourn might be overnight only, in others their residence might stretch into months. Hence it is a relatively fluid category; yet there seemed to be an analytic need to distinguish between those primarily identified with this camp and others.

JUST ONE TOA

BY L. A. HERCUS

Summary

This paper gives details of what has been learnt from Wangkangurru people of the background of just one toa, relating to a claypan named MaRaru in the Simpson Desrt. The evidence confirms the view that the toas reflect the situation and the thoughts of Aboriginal people at Killalpaninna Mission in the first decade of this century.

JUST ONE TOA

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This paper gives details of what has been learnt from Wangkangurru people of the background of just one toa, that relating to a claypan named *MaRaru* in the Simpson Desert. The evidence confirms the view that the toas reflect the situation and the thoughts of Aboriginal people at Killalpaninna Mission in the first decade of this century.

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The toas are well-known as beautiful and colourful artefacts from the Lake Eyre Basin. The book by Jones & Sutton (1986) gives the historical background as well as handsome illustrations of the toas. Their function has been described as follows:

> The purport of the toas may be described as topographical in the sense that each represents, and serves as an indicator or sign-post to, some particular locality. Their shape, colours, patterns or appendages depict realistically or ideographically, either certain conspicuous or peculiar natural features of the localities represented, or very frequently these details have reference to episodes which are believed to have occurred during the frequent legendary wanderings of the Muramuras.[1] (Stirling & Waite 1919: 111).

The original data on the toas come from the writings of the missionary Reuther, who worked for many years at Killalpaninna on the lower Cooper where not only Diyari people but also people from all other groups of the north-east of South Australia were assembled. Reuther explained as follows:

> When Aborigines travel from one campsite to another, but expect friends or acquaintances to visit them within the next few days, a toa is made relevant to the present camp (the one they have transferred to) informing the visitors that the (inhabitants) have moved for one reason or another to this or that spot (Reuther 1981, XIII: 1).

Whether the function of toas was really quite as practical or whether it was mainly artistic remains uncertain. Reuther's statements convey the view that the toas were ephemeral items, expected to give information to visitors who arrived 'within the next few days', and that some of these items were preserved thanks to the interest of the missionaries at Killalpaninna. The toas captured the imagination of many people and they have aroused interest particularly from the iconographic point of view, as in the work by Morphy (1977). There are however many problems that remain unanswered. The aim of the present paper is to examine the background of just one toa in an attempt to define more closely some of these problems — not necessarily to answer them, and to give some indication of the place of the toas in the mythology of the Lake Eyre Basin. The one toa is *Mararuni*, No. 14 of Stirling & Waite's collection, No. 121 of Reuther's list, No. 362 in Jones & Sutton's publication. The additional information used for this paper stems from work carried out from 1965 onwards with older people, now deceased, of Wangkangurru, Arabana, Yarluyandi and Diyari descent. They had extensive knowledge of the traditions of the Lake Eyre basin.

The Distribution of Toas

The attribution of the toas to various 'tribes' is itself of great interest, in that they are mostly Diyari and Wangkangurru, with a number of Yawarawarrka, Ngamani and Thirrari. There are only a couple each attributed to Pirlatapa, Yandruwantha, Wangkamadla and Yarluyandi people, only one each for Kuyani and Arabana, none at all for Karangura. The distribution of toas among the different people and the relative frequency or rarity of toas for particular areas does not appear to correspond to any other known lines of demarcation, linguistic or otherwise. The Lake Eyre Basin was an area of much cultural and linguistic diffusion: this is one of the most fascinating aspects of the region. Basically however, the languages of the Lake Eyre Basin and the adjoining area of far south-west Queensland belong to two different groups and four different subgroups (see Fig. 1).

The distribution of toas does not relate to any of the fields of similarity either genetically as in the diagram shown above or through lines of linguistic diffusion. Thus for instance Arabana and Wangkangurru are dialects of the same language, and the people had close ritual, social and cultural ties. It is difficult to imagine that there would be anything that the Wangkangurru language or the Wangkan-

FIGURE 1. Language relationships in the Lake Eyre Basin.

gurru cultural system would share with Diyari but not with Arabana. What then brought about the existence of numerous Wangkangurru toas as opposed to the one solitary Arabana toa? The answer seems to point in the direction of availability of these objects at Killalpaninna at the time that the missionaries became interested in toas.

Karangura people were closely associated with Ngamani people. There are plenty of Ngamani toas, but none are Karangura. The absence of Karangura toas may be due to the fact that there were very few Karangura people left by the turn of the century. The late Mary Dixon (Diyari) occasionally spoke of them: she was at Killalpaninna from the beginning of the century on as a young married woman and even learnt a Karangura song from these last people. It seems probable however that they had all gone by the time interest awakened in the toas a few years later.

The toa 'Mararuni' belongs to *MaRaru*, a Wangkangarru site in the Simpson desert. Wangkangurru people had gradually begun leaving the

FIGURE 2. Mick McLean Irinjili in the Peake Ranges 1968 (photo G. R. Hercus).

desert in the latter decades of last century and the last groups left in 1899 (Hercus 1986). The oldest of the people who were alive in the sixties, Mick McLean *Irinjili* (see Fig. 2) and Maudie Naylon *Akawiljika* had clear recollections of their childhood and youth, living in the desert without any direct white contact. Maudie had subsequently moved to Killalpaninna and lived there for some time. She knew the Rev. Reuther. Other slightly younger people had considerable indirect knowledge of the Simpson desert. Nevertheless even the oldest of the people who showed so much knowledge of language and traditions had no knowledge of toas. They did not know the word 'toa' in Diyari nor in any guise that it might have had in Wangkangurru. On the basis of:

Diyari 'noa' = Wangkangurru *nhupa* 'spouse'

I had tentatively tried to suggest a Wangkangurru word 'thupa' but without any success, as no one had heard of it. I tried to describe toas but again I drew a blank. There might have been such objects, they agreed, but none of the people really knew.

It is difficult to understand why, amid so much traditional knowledge, there should have been such ignorance about the toas. I was forced to the conclusion that toas were rarely used in traditional days and became of interest as artefacts only in the early years of this century.

The Site at *MaRaru*

On the very last major field-trip that Mick McLean undertook with us in August 1975 in the Simpson Desert he talked at length of the site at *MaRaru*. Speaking in Wangkangurru interspersed with some English phrases he said[2]:

Text

MaRaru ngura katjiwiRi. Malkara. ngura katjiwiRi puthu pirda-lhuku
MaRaru camp great. Malkara. Camp great dish beat-PURP

puthu. maRa-ru. puthu pirda-rna kaRu right round *thangka-rda*
dish. Hand-with dish beat-IMP there sit-PRES

irlanha pirda-lhuku maRa-ru, mudlu uka-nha nhanhi-lhiku. mudlu
thus beat-PURP hand-with sandhill it-ACC see-PURP sandhill

kaRu thangka-ngura warpi-nangka-ngura mudlu wantantara.
there sit-CONT lay-CONT S-CONT sandhill very high

L[3]: *mudlu nguru mudlu nguru?*
sandhill other snadhill other?

M: *mudlu wila-wila wadlhu parlu idni-ngura muthu*
sandhill many place flat lie-CONT like

like that plain right along, I don't know about now, might be grass over, I don't know,

waru-ki-thiya! yarndi malka anti-nganha! anth-irda
long, long ago of yore not now-from! me-LOC

thutirla-nga njarinjara-nga anha ngunta-ka wadlhu wathili anthunha-ru
boy-LOC small-LOC me show-PAST country own mine-by

anja-ru uka-kunha pula-kunha wadlhhu mathapurda nguru-ku mathapurda
father-by. He-of both-of country old man other-of old man

parkaya-kunha pick'm up there *thangka-thika-lhuku walta thika-lhuku' kaRu*
rat-kangaroo-of sit-return-PURP time return-PURP there

uka-kunha-ruku ngura-ruku.
he-of-to camp-to.

L: *thutirla karna-ma-lhuku?*
Boy man-make-PURP?

M: *katha-nangka-rda nhatji-rna-tharka-rna pula-ru nguyu-ngu ularaka*
Go-CONT S-PRES see-IMP-stand-IMP two-by one-LOC History

wangka-rda mathapurda Ngudluwaltu-ru all *witha* there *witha*
sing-PRES old man Wallaby-by boss boss

katjiwiRi Ngudluwaltu witha pirdayi-ngura uka-ru tharka-ngura
big Wallaby boss, Beat-CONT him-by stand-CONT

pita-pita marlka-marlka, mathapurda kidni kidni-pula mathapurda
chest stripe Old man great great-two old man

Ngudluwaltu two partners, *karna-pula mathapurda-pula yadningka*
Wallaby man-two old man-two young man

wila-wila-purru-thu, yadningka parkaya ngudluwaltu yadningka
many-having-indeed, young man kangaroo wallaby young man

wila-wila pula-kunha arluwa-thu, uka minka-hi pantu-pantu not *pantu*
many both-of child-indeed. It something small lake not lake

they reckon he been *wadlhu ngurku puthu idni-ka*
country good dish be-PAST

about 40 men sit round'm *pirda-lhuku maRa-ru.*
hit-PURP hand-with.

L: *wadni wangka-lhuku?*
ceremony sing-PURP?

M: *ularaka wangka-lhuku,* not *wadni. ularaka.*
History sing-PURP ceremony, History.

L: *ularaka, uljurla padni?*
History woman none?

M: *wangka-rda uljurla yaka-yaka-rinaru, kari thika-rnu nguru-ruku*
Sing-PRES woman chase-away-having, they return-PRES camp-to

thadlu mathapurda kari mapayi-lhiku pirda-lhuku.
Only man they sit-PURP beat-PURP.

wanti kanhangarda thangka-ngura kudnangkari-ku tjarlpa kari
corkwood there stand-CONT south-to tree they

tharka-arka-ngura wanti-thi wila-wila.
stand about-CONT corkwood many.

I don't know about now, might be like this! Many many years ago.

Translation

MaRaru was the main ground, the Malkara ground. It was the main camp for striking a large wooden dish. They used to strike it *maRaru*, 'with their hands'. They were looking at this sandhill. There was a sandhill there. A really high sandhill lay there.

L: There was sandhill upon sandhill?

M: There were many sandhills. But there was also some flat bare ground, like that plain here (i.e. the Makari air-strip), but I don't know about now, there might be grass on it. I don't know, it was so long ago, way back in the past, not recently! When I was a young boy my father showed me this, my own place. It was the place of both those two (the Two Men) including that other old man, The Rat-Kangaroo, he picked up *Ngudluwaltu* (probably the Crescent Nail-tailed Wallaby, *Onychogalea lunata*) to come back and stay in his own camp (at *MaRaru*).

L: To put boys through the rule?

M: They walked about. They stayed and watched and sang the History together, the Crescent Nail-tailed Wallaby did the singing. All the ritual leaders were there, and the biggest leader of them all was the Wallaby. He started beating a big wooden dish, he with the stripe on his chest. He was the main one, along with the Rat-Kangaroo. There were two of them, the Two Men, the Two Old Men. They were there together with a big group of young men, Rat Kangaroo men and Crescent Nail-

tailed Wallaby men. They were the children of those two. There was a bit of a lake, not really a lake (but a claypan). They reckon it was a good ground; about forty men sat in a circle beating wooden dishes, *maRaru* 'with their hands'.
L: To sing a ceremony?
M: To sing a History[4], not a ceremony, a History.
L: A History, with no women present?
M: They sang after they had got rid of the women. The women went back to camp. Only the men sat together beating their wooden dishes.
Corkwood trees grew there, there was a stand of them on the south side. I don't know about now, it might be (treeless) like this (i.e. the air-strip)! It was many many years ago (that I saw it). .

Unfortunately Mick McLean became seriously ill and we could not get to *MaRaru* on that final trip with him. There are only limited literary references as to the whereabouts of *MaRaru*. . It is shown on Hillier's map (Hillier MS), but the Simpson Desert sites are given more or less as a list on that map, without proper geographical reference, as none was available at the time, not even the saltlakes of the eastern Simpson are shown. Howitt & Siebert gave a vague indication of the whereabouts of *MaRaru*: 'The place *Mararu* is said by our Wonkanguru informants to be not far from Birdsville, in a southwesterly direction' (Howitt & Siebert 1904: 110).

MaRaru is in a south-westerly direction from Birdsville, but not close at all. We have much greater detail from Lindsay, who obviously heard the name on his journey across the Simpson Desert in January 1886. In his journal of the expedition, while describing how he travelled from the Beelpa native well to the Balcoora well he states: 'then good plain 1 to 3 miles north, Mourowrooinna plain'. Describing his return journey he says: 'keeping a bit to the north, crossing a main sandhill Tarrabulla and the Mawrowrooinna plain' (Lindsay MS). This is no doubt his way of transcribing *MaRarunha* (for the final *-nha* see below).

We have Mick McLean's account, quoted above, of what *MaRaru* was actually like. Both he and the other old people who had been in the Simpson Desert gave additional information. *MaRaru* was a small claypan at a point where several sandhills ran together either on or close to the *MaRaru* plain. There was no permanent water at *MaRaru*, and it was made clear that rituals at this site took place only when there was some surface water about after rains. The *MaRaru* plain is a favoured location, it is like a vast valley between sandridges. It is well vegetated mainly with salt-bush, but after rains it is beautiful with an abundance of flowering cassia bushes, clianthus, and all the usual desert wildflowers. I had travelled on a number of occasions through the *MaRaru* plain on the way to the Beelaka, i.e. the *Pirlakaya* native well, but I had never had a chance to search for the famous claypan on the ground: the late Mick McLean confirmed the general location of the site from the aircraft when we flew over with Robert Ellis in 1975. It was not till July 1986 that, with the help of the South Australian Aboriginal Heritage Unit and the assistance of Peter Clark with his light plane, we ultimately found *MaRaru* (see Fig. 3). The four fingers (the sandhills) were clearly visible from the air, and it was located at the north-western edge of the plain. The site had been narrowly missed by a seismic line, but as soon as we approached from the south it became obvious that here was a very special place indeed. The claypan is sheltered from view by the sandhills and forms a secluded arena where rituals could take place: nobody could have approached the site without being seen from afar from the top of one or other of the four sandhills. There are signs of occupation all around the area, including a few fragments of grinding stone. This confirms Mick McLean's statement that women were permitted at the site until the ritual actually started.

Reuther, when describing the toa, must have sensed some of the enthusiasm of Wangkangurru people about this site. His usual painstaking reporting gives way to what he himself implies are flights of fancy:

> On coming to this place Wutjukana found a gorge in the local hills with four minor gullies. . .In wetter years small streams trickle down from these gullies, these we find (illustrated) on the toa by way of row upon row of red dots. All these streams trickle together into a deep waterhole (red) at the bottom of the toa. No wonder that these dark ('black') inhabitants of the desert retreated to such a spot in times of drought! (Reuther 1981, XII: 121).

Ironically the fact is that the Wangkangurru did *not* visit *MaRaru* in times of drought: they stayed by their underground wells, the *mikiri*, which did have permanent water. It must be remembered that there is no permanent fresh surface water, there are no rocky hills in the central Simpson desert and no creeks anywhere in Wangkangurru country, apart from the lower Diamantina and the Kallakoopah — a look at any map will confirm this. Reuther had never visited the central Simpson Desert which in those days was inaccessible, and he therefore interpreted the sandhills as hills and the claypan as a waterhole. The landscape indicated by the toa is different from what Reuther could have imagined, but the basis of his information from Wangkangurru people was of course accurate, in wetter years there would indeed have been tiny streamlets ('Wæsserlein') dripping down in small gutters between the sandhills: these were the weather-conditions in which Wangkangurru people longed to see *MaRaru*.

FIGURE 3. The MaRaru claypan (photo L. A. Hercus).

MaRaru and the Two Men

The toa 'Mararuni' refers to what is probably the place with the greatest ritual significance in the whole of Wangkangurru country: *MaRaru* is the main Simpson Desert Two Men Initiation History site. In Wangkangurru mythology, as mentioned above by Mick McLean, the Two Men are identified with *Ngudluwaltu* (probably *Onychogalea lunata*, now extinct in the area), and *Parkaya* (*Caloprymnus campestris*, the now totally extinct desert rat-kangaroo). There is a song cycle about their activities at *MaRaru*, and there are also long lines of song radiating out from there, and connected with the journeys of the Two Men out from the desert to instruct other people to the east and the south-west. There is also another 'line' which was felt by Mick McLean to be the finest in Wangkangurru literature: the ascent of the Two Men into the sky, walking up to the clouds and beyond. It was his favourite song cycle.

Because of their ritual importance the Two Men from *MaRaru* came to be known by all the major authors who studied the mythology of the area: Elkin gave an outline of the story of *MaRaru* and the Two Men in his manuscript notes (see Hercus & Sutton 1985: 23). Howitt mentions the MaRaru site in his *Native Tribes* (1904: 783) in Siebert's appended legend of 'The Wanderings of the Yuriulu' i.e. the Two Men. The story of the Two Men from *MaRaru* is furthermore given in some detail by Howitt & Siebert (1904). This article even contains a footnote giving an explanation of the name which is grammatically and semantically acceptable and is in fact identical with that given by Mick McLean: '*Mararu* is to complete with the hand, to strike the *pirha*, that is to strike the upturned wooden bowl, in a dance. *Mara* is hand and "*ru*" is the Wonkanguru causative termination, which is in the Dieri "*li*" as *mararu, marali*' (Howitt & Siebert 1904: 110).

A variant of this explanation is given by Reuther (1981, VII: 1195) in his list of place names:

> *Mararuna*, Wkml.
> *Mara* = 'hand', runa = 'the back, the obverse side'.
> Meaning: 'to beat with the hand on the obverse side'.
> Whilst performing a sacred ceremony here *Pitikirina* beat time with his hands on the obverse side of a coolamon. This is still the practice to this day, and is the reason for this place being (so) named.

From this explanation it is clear that Reuther was fully aware that this was a ritual site, but the

Ancestor named here, *Pitikirina*, does not figure anywhere else in Reuther's work as a person, and is not one of the known names of the Two Men. There is however a Ngamani placename *Pitikiri* which is explained as meaning 'to show one's backside' (*piti-* 'backside', *kiri-* 'to show' VII: 1631). This leaves little doubt that here we have a case of Reuther giving a nickname instead of the standard name of an Ancestor. There are other well authenticated instances of this, *Wurru*, the important Crane Ancestor whose chants were sung by Mick McLean is referred to by several different names in Reuther's work, never by his main name, *Wurru*. One of these nicknames *Ngampali-Ngampali* 'burying' would be totally inexplicable and we would have no idea that it referred to the Crane were it not for Mick McLean's song-cycle: in this the wicked Crane having himself caused a great heatwave constantly asks to be buried in damp sand. Similarly *Pitikirina* seems very much like a nickname perhaps referring to one of the more humorous aspects of the story of the Two Men.

The story of the Two Men, central to Wangkangurru traditions, is not directly mentioned by Reuther in connection with the toa. He associates the site with a minor matter connected not with *Pitikirina* as in VII: 1198, but with an ancestor named 'Wutjuka'. 'The *muramura* Wutjukana had a servant (*mili*) whose index and middle fingers had grown together. Therefore the middle finger also appears thicker on the toa' (Reuther 1981).

'Wutjuka' in fact appears to be a joint name for the Two Men. The Two Men of Wangkangurru tradition always travel as a pair, and on the few occasions where 'Wutjuka' is mentioned elsewhere in Reuther's writings he is on his own with just the usual 'followers'. The name 'Wutjuka' is confirmed as a name for the Two Men by Horne & Aiston (1924: 162) who call him 'Wutraka', and speak of him in the singular, ascribing to him the introduction of circumcision by means of a knife at Karlamurina, an event that is a major episode in the song cycle of the Two Men. Reuther was familiar with the story of the Two Men and even knew about their ascent into the sky (1981, XI: 108). He calls them 'Malkumalku-wulu, the Two Young Men'. Whether he chose to call the Two Men, 'Wutjuka' or anything else, in discussing the toa Reuther did *not* connect the main myth with *MaRaru*, only the minor incident.

There are two problems connected with the actual site at *MaRaru*: why did Reuther say that the site is Wangkamadla (1981, VI: 1195) but list the toa as Wangkangurru? Why did Reuther give an explanation for the place-name (*ibid.*) that is different from the explanation for the toa (1981, XII: 121 and 1981, XIII: 121)?

The answer to the first question is not hard to find: the site at *MaRaru* was well known outside Wangkangurru country because of the extensive travels of the Two Men. Wangkamadla people had a very special association with the *MaRaru* myth as the Two Men figure in a long song cycle, partly Wangkangurru and partly Wangkamadla, called the *Wapiya*, sung to us by Mick McLean in May 1968. In this the Two Men have come in company with the old people and with their young brother *Thiwi* 'Spark' from *MaRaru* to Wangkamadla country to a place called *Kudnaru* 'With faeces' (for which we do not have a toa). The place is so called because the locals, who don't like outsiders, vent their ill-feeling on the younger brother and keep pelting him *kudnaru*. The Two Men clean up young *Thiwi* but when it happens again and again they get more and more angry and finally call over the ancestral Fire which is burning far away to the north. They ask their own old parents to dig a deep pit and get way down into the cool earth while they go up on a sandhill calling up the fire. 'What are you two looking at?' say the locals in Wangkamadla. 'We are just watching a distant excrement of fire (i.e smoke)' say the Two Men, answering in Wangkamadla with a pointed hint at what has been going on at *Kudnaru*. Finally the fire races up and destroys the whole camp and incidentally *Thiwi* as well, and it burns away along the Diamantina. Because this was a very major Wangkamadla myth Reuther could well have heard the name *MaRaru* from Wangkamadla people. As the geography of Wangkangurru and Wangkamadla country was of necessity a mystery to him he cannot be criticised for assuming that the site was Wangkamadla.

It is harder to explain why there should be divergent explanations for the place-name and for the toa, and why the Ancestor connected with the toa should be called 'Wutjuka' and the one connected with the site should be called 'Pitikirina'. The differences reflect Reuther's honesty in reporting: he did not make changes to avoid major discrepancies in his subject matter. It seems likely that over the many years that he was at Killalpaninna Reuther collected his data piecemeal. On account of the many nicknames used it seems likely that some of the Aboriginal people who spoke to the highly respectable Reuther, could not resist making a few jokes calling Ancestors by either rude or esoteric names.

Divergences between the explanation of a place-name and the corresponding toa are common in Reuther's work. Of all place-names the one he knew best was no doubt Killalpaninna: he lived there for eighteen years. The name was *Kirla-wilpa-ni-nha* in Diyari and meant 'vagina'. Reuther was so unhappy about this that he ended his brief comments to the mythological background of the place name (1981, VII: 643) with the exclamation 'O depraved heathendom!' Yet in the discussion of the toas we hear nothing of the myth about the place name and

nothing even of the old woman ancestress whose *kirla-wilpa* was involved, only the male *muramura* of the story, who admittedly is called Kirlawilina, is mentioned: 'The white part of the toa represents a hill. The two small dots are caves leading into the hill. It is believed that the *muramura* Kirlawilina emerged from the earth via these caves. Hence the place-name' (Reuther 1981, XIII: 63).

In XII: 63, in the description of the actual toa the explanation becomes positively romantic and the real meaning of *kirla-wilpa* is not mentioned; this is hardly surprising in view of the revulsion felt by Reuther. The legend that follows appears highly contrived. The emphasis as in the case of *MaRaru* is on the place, not on the original myth.

Reuther's derivation of the place-name *MaRaru* from the notion of hitting a coolamon with the hand during a ritual dance, fits in with Howitt & Siebert's account (1904: 110) and is confirmed by what we have learnt from Mick McLean, above all it gives at least a hint of the place being a major ritual centre. The explanation given for the toa on the other hand looks much more like an *ad hoc* creation: it fits the toa and it fits in with what we know of the appearance of the site, the sandhills running together. Amazingly, it gives no indication of the real importance of the site, and this in itself teaches us a lesson: toas were intended above all else to depict a *place*. The name of a place always had some mythological implications, and these are usually reflected in the toas. The toas however are not an inventory of myths, or else the most famed myth of all would have been mentioned.

Problems of Attribution

Mararuna (Reuther 1981, VII: 1195) is a rare instance of a *site* being attributed to one group whereas it belongs to another. It happens frequently however that toas are attributed to one group when the linguistic evidence and what we know of the location of the site belongs to another group. This makes sense: why should people only make toas for places in their own country? A group might well have gone off to a ritual at a site in other people's country and depict that place in a toa. Examples are shown in Table 1.

In the case of *MaRaru* there was a discrepancy in Reuther's work. In the instances just cited and in several others there is not necessarily internal discrepancy in Reuther's work; linguistic and ethnographic information however tells us that the attribution of the site is not accurate. The inconsistency over *MaRaru* and the other apparent mistakes in attribution can be explained by the fact that Reuther only gave the tribal affiliation of the people who were the *source* of a particular toa and of the relevant information. These people may or may not have been the traditional owners of the sites in question.

The Name Mararuni

There is some minor discrepancy in the spelling. The toa is called *Mararuna(ni)* in Scherer's translation of Reuther 1981, XII: 121. Sutling & Waite read it as *Mararuni* (14). It appears as *Mararunani* in Reuther 1981, XIII: 121. The site is called *Mararuna* in Reuther 1981, VII: 1192.

Reuther explains in the introduction to Volume XIII that 'the suffix *-ni* is appended to every place-name which a toa describes. The *-ni* (respectively *-ri*) denotes the correlative (i.e. demonstrative) pronominal adverb to some distant place yonder; in that direction (Lat. *eo, illic*).'

-ni, i.e. *-nhi* is in fact the allative, 'direction towards' marker in Diyari (Austin 1980), but is not normally used with place-names. These have the suffix *-ngu* instead: the use of *-nhi* with toas is therefore surprising. The use of *-nhi* with Wangkangurru toas is even more surprising: the Wangkangurru language simply does not have a suffix *-nhi* or anything remotely resembling it. In Wangkangurru the allative case is invariably expressed by the suffix *-riku*, which takes on the form *-riku* after nouns ending in *-i*. Reuther says that the ending *-ni* 'is appended', which we can only interpret to mean that *he* appended it to the name of every toa, regardless of what source it came from. Because he was dealing with an ethnological collection, he consciously imposed a uniformity which he himself (because of his mention of *-ri*) realised did not correspond to the original sources. This is out of keeping with his normal attention to detail, but the collection of toas was something special.

TABLE 1. Attribution of toas.

Toa	Group to whom toa is attributed	Group to whom site is attributed in Vol. VII	Group to whom the site belonged
Dakungarangarani	Wangkangurru	Wangkangurru, Ngamani	Ngamani
Katarungkangamani	Wangkangurru	—	Ngamani
Dakuworduni	Wangkangurru	Wangkangurru	Ngamani
Warukatiwalpini	Diyari	Diyari,Wangkangurru	Wangkangurru
Ngapangandrini	Diyari	Diyari	Pirlatapa

-na is the proper noun marking suffix *-nha* which is wide-spread in the Lake Eyre Basin and beyond. It was used in Wangkangurru optionally in the absolutive case of proper nouns, and particularly with place-names when they were quoted or referred to for the first time in a conversation. *-nha* is thus a case suffix in itself and can never be used with any other case marker following it. Therefore *Mararuna* is the correct way of naming the site at *Mararu* (*MaRaru*), *Mararuni* is Reuther's artificial way of referring to the toa. This is unacceptable for Wangkangurru, as he himself realised. *Mararunani* is doubly wrong as it not only contains the unacceptable *-ni* but adds it after the *-na* which can by its nature never be followed by another suffix. These variants arose simply from the need felt by Reuther to 'append' the suffix *-ni* to the name of all toas.

As regards the explanation of the name, the derivation given by Howitt & Siebert quoted above is completely in keeping with Wangkangurru grammar. *maRa* means 'hand' and *-ru* is the instrumental marker.

Reuther's derivation of the supposedly Wangkamadla place-name (1981, VII: 1195) from *mara* 'hand'; *runa* 'the back, the reverse side' must be based on a misunderstanding as there is no word '*runa*' in any of the languages of the area, and in any case *r-* is not found as an initial consonant in any of the languages of the Lake Eyre Basin.

The explanation given for the name of the toa at X: 121 is quite different: *mara* — 'hand' *-ru* derived from *nguru* = 'strong, immovable firm etc,' and *-na* = 'to, towards'. Reuther knew a great deal about Wangkangurru as is indicated by his grammar in Volume IV, but he had difficulties — just as I did for quite some time — in hearing the differences between the *three* different *r-* sounds in the language. The word for 'strong' as in the language name Wangkangurru is *ngurru*, with a trilled *r-* sound normally transcribed as *-rr-*, but the second *r-* sound of *MaRaru* was usually pronounced as a flap, transcribed as *-r-*. In any case, abbreviations of the kind *nguru* > *ru* are alien to Wangkangurru.

Work on the Wangkangurru language carried out over the last twenty years leaves me with no doubt that Howitt & Siebert have given the correct derivation of the place-name. Both of Reuther's derivations of the name are not grievous errors, but simply brave attempts that misfired. After all *MaRaru*, containing as it does an instrumental case-suffix, was a most unusual type of name.

Mick McLean *Irinjili* often maintained that many place-names were simply names, and did not need to be explained. 'Why shouldn't we have just names for places, the same as whitefellows?' This applied particularly also to personal names many of which were derived from songs and did not have an explanation in terms of everyday language. They did not have a 'meaning' in the ordinary sense of the word, though they could evoke mythological concepts. Naturally Mick McLean knew that *MaRaru* meant 'with a hand', but he preferred to think of it as a name, the name of the place that meant most to him in the whole of his country, apart possibly from his birthplace, the native well at *Pirlakaya*.

Why not 'Mararuni'?

One of the most puzzling questions is why there are toas for some places and not for others. There does not appear to be a ready answer. It is tempting to assume that it was a matter of accident and that it all depended on which toas happened to be around at the time the missionaries became interested. This is no doubt part of the answer, but certainly not all, there were reasons behind the accident.

As we have noted above, the toa 'Mararuni' refers to a major ritual site where there is no permanent water: the main camp-sites for Wangkangurru people in dry weather were the *mikiri*, the native wells. Different local groups moved between different sets of wells.

At least twenty-one *mikiri* wells are known to have existed. Eighteen of these appear among the place-names of Volume VII, though in most cases Reuther was not aware of the fact that they were wells. Because these *mikiri* were such a vitally important resource for Wangkangurru people, it is not surprising that they were also important sites from the point of view of the Ancestors. They are all not just camp-sites, but also major mythological sites (Hercus 1986). Some of them were naturally more important than others to the Wangkangurru of the Central Simpson Desert. There is however one that they never spoke of, it was evidently not one of the normal Wangkangurru camping sites, because it was far away to the east, close to the border of Yarluyandi country. This was *Puramani*. It is known from only one, though very reliable ethnographic source, a manuscript of N. B. Tindale (1934). There is said to be a reference in an MS of the surveyor L. A. Wells, but a check of this work revealed only a reference to a more westerly well *Yalkiri*, not to *Puramani* (Wells MS). Tindale had spoken to a part Wangkangurru, part Aranda man named *Ngaltja-kintarda* or 'throwing spit', the father of an elderly Wangkangurru man still living, Johnny Reese *Njanpika* who was born at the Koonakoo waterhole on Alton Downs about 1901–2. *Ngaltja-kintarda* gave an account of a route across the Simpson Desert from Pandie Pandie on the Diamantina to Dalhousie Springs. Via this route the 'Puramanei mikari' is reached after four and a half days' walk from Pandie Pandie. Tindale notes:

'This place is in Queensland over the border fence separating Queensland and the Northern Territory . . . It is a soak or one of several timbered by the surveyors who surveyed the border (Reese)' (Tindale 1934).

The name in brackets means presumably that the information about the surveyors came from one of the pioneers of the district, 'Lew' Louis von Roon Reese, who owned Minnie Downs and Miranda, and knew the whole area well for many years (Litchfield 1983: 155 and Horne & Aiston 1924: 144) The route described by *Ngaltja-kintarda* continues from *Puramani* to 'Jalkerie mikari', which is shown on maps (Series R 502, 1:250 000, SG 54.5, 653 797). This would put *Puramani* roughly around TS 5045 on the new SG 54.5.

Of the 21 native wells known and the 18 that Reuther lists among his place-names there is only one toa that refers to a native well and that well is *Puramani*. Reuther was obviously thinking of the landscape of the Cooper when he wrote about *Puramani*: 'In this creek the *muramura* Kurkalina once cleaned mud out of a hole with his hands' (1981, XIII: 63).

There is no creek, only a *mikiri*. It seems surprising that the well that nobody mentioned and no one showed any interest in should be precisely the one that merits a toa. Tindale's notes give us a clue: *Puramani* was the first well on *Ngaltja-kintarda*'s route, it was the well closest to Pandie Pandie and therefore the easiest of access for any homesick Wangkangurru at Killalpaninna who wanted to camp by a *mikiri* again.

There are a lot of Wangkangurru toas in Reuther's list, but practically all refer to sites that belong to the Wangkatjaka group of Wangkangurru, sites along the lower Diamantina and the Kallakoopah, and not sites in the real desert. Wangkangurru people were realists: when presumably in 1905 or thereabouts the missionaries at Killalpaninna expressed an interest in toas, they produced toas that suited the situation *of that time*. Wangkangurru people were homesick for their own country of the high sandhills and for the *mikiri*: we know that some of them, presumably those that were then living at Dalhousie, went back after 1900 to the westernmost *mikiri* at Murraburt, we know that from the vast amount of rabbit bones we found at that *mikiri* (Hercus & Clark 1986). They could well have gone on similar camp-outs to the easternmost of the wells *Puramani*, or at least think of such a trip sufficiently realistically to make a toa. They did not envisage returning to live at their main wells in the central Simpson Desert and in fact they never returned to live there again. This is corroborated by the absence of rabbit bones at those wells. It is quite likely however that they could have planned or even carried out an initiation ceremony at their main site at *MaRaru*. They might have called or thought of calling at the Beelpa well *en route*, but we do not know this as a toa only gives an indication of a destination, not a route. What we do know is that of all the central Simpson Desert sites only *MaRaru* has a toa, and of all the wells only *Puramani* the easternmost one has a toa. The distribution of the Simpson Desert toas of the ethnological collection therefore does *not* reflect the living and travelling patterns of ancient times but clearly points to the situation that existed towards the end of the first decade of this century.

ENDNOTES

1. *Muramura* is the Diyari word for an Ancestral Being.

2. In this paper a practical orthography has been used for Wangkangurru: plosive consonants other than the retroflex plosive have been written as unvoiced (*k, p, th, t*), but prestopped consonants have been written with voiced plosives as this corresponds most closely to the pronunciation, hence *bm, dn, dnh, dnj, dl, dlh*.

Retroflexes have been written as *r*+consonant, i.e.
rl is retroflex *l*
rn is retroflex *n*
rt is retroflex *t*

Interdentals have been written as consonant+*h*, hence *nh, th, lh*.

Palatals have been written as consonant+*j*, hence *tj, nj, lj*.

ng has been used for velar ŋ.

The three *r*-sounds have been transcribed as follows:
r=the alveolar flap
rr=the trilled r
R=retroflex r

3. 'L' is L. Hercus, 'M' is M. McLean.

4. The distinction between *wadni* 'ceremony' and *ularaka* 'History' is one of degree of traditional importance: *wadni* was a general term for a ceremony, *ularaka* referred to a man's patrilineal ritual tradition.

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SOUTH AUSTRALIAN ANTHROPOLOGICAL HISTORY : THE BOARD FOR ANTHROPOLOGICAL RESEARCH AND ITS EARLY EXPEDITIONS

BY P. G. JONES

Summary

This paper concerns the origins and early expeditions of the University of Adelaide-based Board for Anthropological Research. The work of the Board is almost unknown today, yet from its foundation in 1926 the group pioneered the first systematic physical anthropological studies in Australia. The Board undertook annual expeditions to Central Australia until the Second World War, publishing its results in more than a hundred scientific papers. Its members recorded detailed physical data from over 800 Aboriginal people and documented aspects of their lives in some of the earliest ethnographic sound recordings and films to be made in this country.

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This paper concerns the origins and early expeditions of the University of Adelaide-based Board for Anthropological Research. The work of the Board is almost unknown today, yet from its foundation in 1926 the group pioneered the first systematic physical anthropological studies in Australia. The Board undertook annual expeditions to Central Australia until the Second World War, publishing its results in more than a hundred scientific papers. Its members recorded detailed physical data from over 800 Aboriginal people and documented aspects of their lives in some of the earliest ethnographic sound recordings and films to be made in this country.[1]

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ANTHROPOLOGY IN SOUTH AUSTRALIA — HISTORICAL BACKGROUND

A comprehensive history of anthropology in Australia has yet to be written. Most accounts which have appeared (Elkin 1935, 1938, 1939, 1959, 1961, 1970; McCall 1982; R. & C. Berndt 1985; Mulvaney 1964), have concentrated on the beginnings of social anthropology on the eastern seaboard.[2] Fison and Howitt, Brough Smyth, Curr, Roth, Taplin, Mathews, Spencer, Radcliffe Brown and Elkin are some of the names most often quoted. Of this group only Taplin was South Australian-based and his work has been regarded as a provincial echo of Howitt's rather than an original contribution to an evolving local tradition (Taplin 1872, 1873, 1874, 1878, 1879).

While South Australian ethnographers working after 1870 undoubtedly received a good deal of their technique and inspiration from Howitt and his colleagues in Sydney and Melbourne, the growth of South Australian anthropology as a distinct local variant had occurred from the first years of European colonisation. Much of the credit for this should go to South Australia's third Governor, Sir George Grey, himself an ethnographer (Grey 1841a, b). In contrast to the informal studies of Adelaide and Lower Murray Aborigines by George French Angas (Angas 1847a, b), William Cawthorne (Cawthorne 1926) and William Wyatt (Wyatt 1879), the ethnographies prepared in the late 1830s by the Lutheran missionaries C. G. Teichelmann (Teichelmann 1840; Teichelmann & Schurmann 1840), C. W. Schurmann (Schurmann 1844, 1846, Teichelmann & Schurmann 1840) and H. A. E. Meyer (1846) were undertaken either in consultation with Grey or followed his guidelines for orthography (Tindale 1974: 3). Edward John Eyre's detailed account of Lower Murray Aborigines also took account of Grey's influence (Eyre 1845). These ethnographies were in turn used by Taplin in his studies of Ngarrindjeri society and influenced Stirling's contribution to the Horn Expedition report (Stirling 1896).

While this published output of South Australian work helped to promote the emergence of a local tradition of anthropology, a more significant but less measurable influence has been understandably overlooked: the informal discussion and transmission of ideas about ethnography among Adelaide's men of science who were among the immediate precursors of professional anthropologists. The development of the scientific professions in South Australia was particularly characterised by the interplay of linked interests and personalities.[3] With its main university, hospital, library, museum, art gallery, and zoological and botanical gardens sited in close proximity, Adelaide has produced several public figures noted for their eclecticism and involvement in a range of scientific interests.

Edward Stirling, parliamentarian and social reformer, zoologist, medical professor, ethnologist and museum director, is among the best known. His own variant of the prevailing strain of evolutionary anthropology was learnt at Cambridge (Francis Darwin was a close student friend) and was applied most notably during his time as ethnologist with the Horn expedition of 1892, in the company of Baldwin Spencer and Francis Gillen (Stirling 1896).

Anthropological discussion and activity in Adelaide was centred on the Museum and it was Stirling as its Director who set the tone of the South Australian approach to this subject from the 1880s until the end of the First World War. Stirling's professional base was in medicine and his primary ethnographic studies reflected this interest: his study of the Swanport burials became the first substantial Australian publication in physical anthropology

(Stirling 1911). Despite the wide opportunity which he had to develop expertise in social anthropology (his association with significant amateurs in the field such as Francis Gillen and Paul Foelsche preceded Baldwin Spencer's involvement), Stirling showed little interest in the prevailing anthropological issues of the day. Lang's 'Secret of the Totem' (1905), which aroused such controversy among Tylor, Spencer, Fraser, Howitt and their followers, had little impact in Adelaide.

Stirling's main legacy lay not so much in his original contributions to anthropological knowledge and debate as in the stimulus which he gave to interdisciplinary knowledge focusing on Aboriginal studies. Using the Museum as a base he involved other Adelaide medical specialists and practitioners with interests in Australian Aboriginal racial origins and physiology. These were men like Professor R. E. Rennie, Dr William Ramsay Smith [City Coroner and author of 'In Southern Seas' (1924) and 'Myths and Legends of the Australian Aborigines' (1930)], Professor Archibald Watson, Dr A. A. Lendon, Dr W. L. Cleland (father of J. B. Cleland; see Cleland, W. L. 1898, 1900[4]), and later Dr Robert Pulleine, Professor Frederick Wood Jones and Dr Thomas Draper Campbell. All shared an interest in the racial origins, physiology and behaviour of the Aborigines and most contributed significantly to the Museum collections.

After Stirling's death in 1919 his role as the focus for Adelaide anthropology was assumed by Frederic Wood Jones who became the Museum's Curator of Anthropology in that year. Jones showed more enthusiasm for field studies of Aborigines than Stirling and was more systematic in his attempts to obtain information. Between 1921 and 1925 he undertook three field trips to remote parts of South Australia, two in the company of Draper Campbell. These field expeditions foreshadowed the expeditions of the Board for Anthropological Research with their cross-disciplinary interests and the first application of rigorous anthropometric techniques (Jones & Campbell 1924).

The South Australian Museum itself sponsored two major field expeditions during this period. Both the Groote Eylandt expedition of 1921–22 and the Princess Charlotte Bay expedition of 1926 had primarily natural science research objectives but Norman Tindale's presence on each ensured that valuable anthropological data were secured (Tindale 1925–1926, 1928; Hale & Tindale 1933).[5] The Museum Director, Edgar Waite, had the foresight to send Tindale to Melbourne in 1921 to undergo informal training in anthropological techniques from Baldwin Spencer at the National Museum of Victoria.

The Rockefeller Foundation and the Sydney Chair of Anthropology

Both Jones and Campbell published extensively and participated energetically in the international scientific community. Together with J. B. Cleland, they were responsible for the revitalization of South Australian anthropology in the early twenties, leading to the formation in 1926 of the first Anthropological Society in Australia, two years before the New South Wales Society was founded in Sydney. In addition, both the *Transactions of the Royal Society of South Australia* and the *Records of the South Australian Museum* began to include significant ethnographic material at this time. This activity, together with the prestige associated with Stirling's work, helped to make Adelaide a serious contender for the first Australian university Chair of Anthropology in 1926.

The Chair was established primarily as a result of initiatives from the American Rockefeller Foundation, as part of its world-wide effort to strengthen the scientific base of the social sciences. A thorough examination of this policy, its intent and its effects as they related to Britain is contained in Fisher (1980). The impact of the Rockefeller Foundation on Australian anthropology is outlined by Elkin (Elkin 1938, 1939, 1970) and is further discussed by Mulvaney in a forthcoming paper (Mulvaney in press). Contributions to the costs of the Chair came from the Federal government and the six Australian State governments according to their means, but the Foundation supplied the bulk of the funds required: L30,000 over the five-year period 1926–1931 followed by the same amount for 1932–1935 and by L15,000 for the 1936–38 period. While it is quite evident that Sydney was the favoured location both within and outside Australia, Adelaide's claims as a separate centre for anthropological research were considered seriously by the Anthropological Committee of the Rockefeller Foundation to the extent that the city was included in the itinerary of the visiting Rockefeller representatives in December 1925.

It is easy to overstate the significance of personal ties in the emerging history of Australian anthropology, but there is little doubt that Wood Jones' presence in Adelaide gave that city an apparent advantage. This occurred because the Rockefeller Foundation's official responsible for organising the Australian grant was himself a former colleague of Wood Jones. He was the Australian-born anatomist Grafton Elliot Smith with whom Wood Jones had worked in Cairo during 1907–8 on the archaeological survey of Nubia prior to the opening of the Aswan Dam. His contribution to that survey had won Elliot Smith's esteem.[6]

Offsetting this apparent advantage however, was the fact that one of the most influential anthro-

pologists in the world at that time, Bronislaw Malinowski (the evangelist for the Functionalist school and the chief recipient of Rockefeller anthropology money through the London School of Economics), was married to Elsie Masson, daughter of Sydney-based David Masson. Masson was a founding member of the Australian National Research Council which was to administer the Rockefeller grant and he played a large part in the establishment of the Sydney Chair. It is tantalising to reflect on the different complexion which Australian anthropology may have had if Malinowski had married Edward Stirling's daughter Nina as he had intended to do in 1914.

Wood Jones, Cleland and Campbell all apparently believed that Adelaide had a very good chance of securing the first Anthropology Chair in Australia. This was not only because of the current Adelaide work in physical anthropology, but because of the city's historic link with Central Australia and the Northern Territory — the obvious focus for future fieldwork. Moreover, their own experiences among Aboriginal communities had convinced the three men that urgent field work was required and that this was best conducted from Adelaide. They felt strongly that Sydney's geographical advantage lay with the Pacific, not with Central Australia:

> South Australia has been the main centre of the acquisition of knowledge on Central Australia . . . and it seems advisable that Adelaide should continue to hold this leading position, just as Sydney is the recognised centre for the Pacific islands etc.[7]

After visiting Sydney the two Rockefeller representatives — John Embree (a Rockefeller Foundation Director) and Clark Wissler (American Museum of Natural History anthropologist) — came to Adelaide to check on the work being done. By the time of this visit in December 1925 it is apparent that the decision had already been taken to establish the Anthropology Chair in Sydney. Nevertheless, Cleland remained convinced that Adelaide's work could continue independently of Sydney with direct funding from the Rockefeller Foundation:

> If it is decided to make the Adelaide University a base considerable kudos will necessarily attach to the University as a result, great advances will be made in the study of the aboriginal and considerable sums of money will be spent through Adelaide. Every effort should be made to show the advantages offered by this University.[8]

Cleland went to great lengths to ensure that Embree and Wissler were given every opportunity to appreciate Adelaide's resources and advantages. A special committee was established by the Adelaide University Vice-Chancellor to plan for the visit, comprising Cleland, Campbell, Wood Jones, Professor Brailsford Robertson (a son-in-law of Edward Stirling), Pulleine, Edgar Waite (Director of the Museum), Professor Kerr Grant, Professor Harold Davies, and Professor R. W. Chapman.

This committee prepared a whirlwind itinerary commencing immediately after Wissler and Embree's arrival in Adelaide on Sunday, 22 November 1925. In the morning the party visited archaeological camp-sites near Noarlunga and after a picnic lunch drove through the Adelaide Hills to visit Edward Stirling's widow at Mt Lofty. There the visitors inspected Stirling's anthropological library and his photograph collection. The next morning they were shown human biological material in the University Anatomy Museum, followed by a reception at the South Australian Museum and a tour of the collections there. After a tour of the Medical School the group visited three Aboriginal inmates of the Parkside Lunatic Asylum before taking afternoon tea at Stirling's old family home, Urrbrae. In the evening a formal dinner for the visitors was hosted by the University Vice-Chancellor and on Tuesday morning the party set off by rail for the twenty-four hour trip to Wilgena siding, near Tarcoola (see Fig. 1).

This trip was later listed as the Board's first expedition.[9] At a waterhole a few kilometres from the railway line the party met and observed a group of about eighty Aborigines who had recently come in from the north, attracted by the ration depot established at Wilgena. During Wednesday the party photographed the Aborigines, carried out blood grouping tests on 56 Aborigines and observed day and evening ceremonies. On the Thursday they visited the camp again and then drove sixty miles around the station to observe the type of country in which the Aborigines lived. The party returned to Adelaide on the Friday evening.

Following this Rockefeller visit Cleland wrote to Wood Jones (who was visiting England at this time) urging him to return via America and the Rockefeller headquarters in Washington. He believed that the Foundation could be swayed in favour of directly supporting the Adelaide work. Cleland wrote:

> The visit of Dr Clark Wissler and Mr Embree has just ended with an eminently successful result as far as we are concerned. Their views became completely altered after their arrival in Adelaide. Talking to Embree soon after he arrived the impression was clear that they thought that the Rockefeller support should be exercised through the Chair of Anthropology in Sydney. Before they left they admitted that their views had been profoundly modified and that they thought Adelaide was the most suitable centre for the study of the aboriginal, though in Sydney the Chair there might occupy itself with the Pacific problems . . .[10]

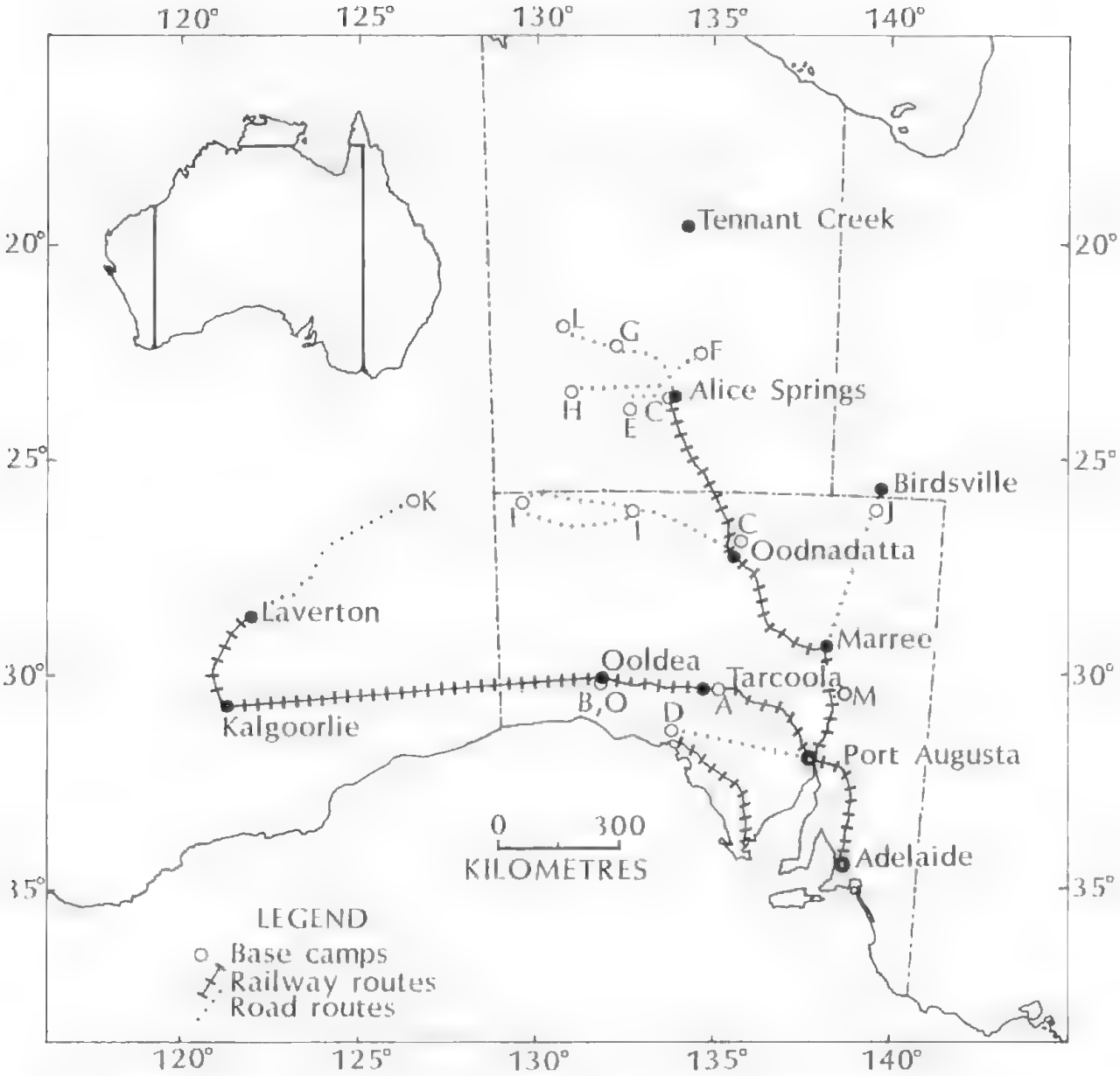

FIGURE 1. Map showing the early expeditions of the Board for Anthropological Research.

A Wilgena, 1925
B Wilgena, Ooldea, 1926
C Macumba, Alice Springs, 1927
D Koonibba, 1928
E Hermannsburg, 1929
F MacDonald Downs, 1930
G Cockatoo Creek, 1931
H Mt Liebig, 1932
I Mann Range, Ernabella, 1933
J Diamantina, 1934
K Warburton Range, 1935
L Granites, 1936
M Nepabunna, 1937
O Ooldea, 1939

Moreover, the Wilgena expedition had shown the Rockefeller representatives how ready the Adelaide workers were to enter the field and to gather important data. As Cleland expressed it:

> Within 24 hours of leaving Adelaide we were in the midst of over 70, probably nearly 90, aboriginals, who, Clark Wissler felt sure, had merely the veneer of civilization, and who were behaving essentially as the wild natives behave . . .[11]

The Establishment of the Board

Buoyed by apparent success, Cleland was keen to maintain the committee and to expand its work into a concerted programme of anthropological research funded by the Rockefeller Foundation. As he wrote to the University of Adelaide Vice-Chancellor:

> It remains now to follow up this big advantage, and Dr Clark Wissler and Mr Embree are very desirous that

> Professor Wood Jones should return to Adelaide via America and discuss more fully the questions at issue. It seems to me important that the work of your committee should not cease at this juncture, but that they should continue preparing plans so as to act, when, as is anticipated, the Rockefeller Foundation will approach the University of Adelaide . . .[11]

Cleland had already contacted members of this committee and other interested individuals in order to construct a research programme. He was prepared to cast the net widely to gain support within the University. Among the written replies came an unidentified response from the Department of Physics, reading in part:

> . . it is continually impressed upon me as a teacher and examiner in Physics that a very large proportion of the undergraduates of our own race and particularly of those of the female sex, are almost entirely devoid of the power of thinking in abstract or general terms. It would perhaps be of interest to determine whether any aborigines possess this faculty . . .[12]

Other responses were more realistic, emphasising the need for primary research in areas such as Aboriginal song and music (Harold Davies of the Elder Conservatorium) and physical anthropology (Campbell and Wood Jones). The news came in mid 1926 that the Rockefeller Foundation was prepared to support one research centre in Australia only, and that this was to be in Sydney, funded through the Australian National Research Council (ANRC). As Embree wrote:

> Our understanding has been that probably a special committee would be appointed of which possibly the new professor of anthropology at Sydney would be chairman, and that this committee will from time to time determine how funds for research will be expended. Responsibility for such decisions, we feel should rest squarely with the National Research Council or with the special committee. Although definite applications have been made to us for direct support to research at Adelaide, we feel even in that as in other cases that decisions should be made by the group in Australia rather than by us as an outside body.[14]

This attitude to local politics and decision-making characterised the Rockefeller Foundation's philanthropy in Britain and Australia and went some way towards insulating the Foundation against later charges of 'cultural imperialism'.

By the time this decision reached Adelaide, most of the Cleland committee had committed themselves to a research programme and were preparing to begin operations as a Board under the aegis of the University of Adelaide. With local support and the encouragement of Embree and Wissler in the United States, the Adelaide workers were confident that they could exert sufficient pressure on the ANRC for adequate funding of their operations. In addition, Cleland and Wood Jones (later to be replaced by Pulleine) were appointed as South Australian representatives on the ANRC Anthropology Committee. Cleland evidently hoped that this would counter the 'undue Melbourne and Sydney influence' which he considered characterised the ANRC's operations.

By November 1926 Wood Jones had resigned from the University and was due to take up the Rockefeller chair of physical anthropology at the University of Hawaii. One of his last official acts in Adelaide though, was to recommend successfully that the University Council establish the Board for Anthropological Research as a permanent committee of the University.[15] Dr William Ray, Dean of the Department of Medicine and a member of the University Council was nominated as the first Chairman of the new Board for Anthropological Research. The other inaugural members were Professors Wood Jones, Cleland, and Brailsford Robertson, Drs Campbell and Pulleine and Messrs E. W. Holden and E. R. Waite. The first meeting was held on 23 December 1926 with discussion concerning procedural matters and planning for the Board's expedition to Macumba and Alice Springs (Expedition C) which was to depart a week later under Campbell's leadership.[16]

The formation of an effective team of field workers in this short period was partly due to the success of the 1925 Wilgena visit and the resulting encouragement from the Rockefeller Foundation. Disappointment at Sydney's success in securing the Chair and associated funding, and the heightened rivalry which resulted undoubtedly also played a part.[17] A major factor though, was the sense of urgency about the work to be done, based on the assumption that 'traditional' Aboriginal life would disappear during the following decade.

FIGURE 2. Members of Expedition H (Mt Liebig) photographed en route. From left: Hicks, Moore, Holden, Eldridge, Stocker, Gray, Campbell, Tindale, Harvey Johnston, Hale, Fry, Cleland. (SAMA)

THE BOARD'S FUNDING AND ITS RELATIONS WITH THE ANRC

The Board was bound to apply annually for funds to the Anthropology Committee of the Australian National Research Council which itself received an annual grant from the Rockefeller Foundation.[18] This fact ought not to have disadvantaged the Board, particularly as the Rockefeller Foundation had been quite explicit about the style of anthropology which it wished to support:

> . . . the Foundation desires Anthropological research to be carried out in anatomy, archaeology, ethnology, geography, pathology, physiology, psychology and sociology.[19]

Significantly, a study of the Board's expeditions shows that work was carried out in each of these areas, sociology included. Nevertheless, the correspondence between the Board and the ANRC reveals a simmering disagreement over the Board's distinctive approach to fieldwork. Although Wood Jones, Cleland, and later Pulleine were represented on the ANRC's Anthropological Committee, they were rarely able to attend the Sydney meetings to argue their case.

Over the fourteen year period from 1926-40, when the ANRC received L52 500 from the Rockefeller Foundation, the Board was allotted less than L3500. This proportion seems even less generous when it is considered that at the first meeting of the ANRC Committee on Anthropological Research in October 1926, an important criterion for awarding grants was stated as the urgency of salvage research amongst vanishing communities.[20]

The Board's preoccupation with the decline in the Aboriginal population was a major element in its funding applications to the ANRC, and each year a new Board expedition report carried the same message — the urgency of further work 'among our fast disappearing natives'. The popular image of a stone-age culture doomed by contact with a superior civilization was clearly shared by Board members. The 1920s and 1930s saw the continuing rapid decline of the Aboriginal population and Campbell went so far as to construct an equation for it:

> . . . their disappearance is at the rate of 50% per decade of full contact with Europeans. In ten years time [from 1938] there will be few or no, free living natives, and all will be altered by contact with our culture. Free living natives may possess 80 children per 100 adults; in the zone of even spasmodic contact this population drops to 30 per 100, while in the region of continuing contact the proportion may be as low as 3 per 100 in the case of full bloods . . .[21]

There is little doubt that this rate of decline was accurate for the period under discussion and the Board case for special funding support was clearly merited according to the ANRC's own guidelines.

The Board became frustrated with even tighter funding controls after Elkin replaced Radcliffe Brown as Chairman of the ANRC Anthropology Committee in 1931. Elkin clearly took little account of the Rockefeller guidelines for allocating funds, preferring to ignore most of the physical anthropology carried out in Adelaide. His 1935 Presidential address to ANZAAS — 'Anthropology in Australia, past and present') summarised the Adelaide work in two lines.[22] Before granting the Board's funding for 1935, the ANRC demanded a social anthropological report after Expedition J and stipulated that copies of records, films and photographs be lodged with the ANRC.

For its part, the Board responded quickly to suggestions that its grant money from the ANRC was not being well spent, although it properly refrained from comment in July 1934 (after receiving only a quarter of the funding requested for Expedition J) on learning that the ANRC treasurer had misappropriated all of the Council's funds and destroyed the cash books, before committing suicide.[23] In its correspondence with the ANRC, the Board emphasised that its work was undertaken voluntarily and that expeditions sometimes involved considerable personal expense for the members. Herbert Hale (Director of the South Australian Museum) made the additional point that by 1936:

> . over fifty publications have already been produced from the fieldwork . . . Comparison may be justly made, for example, with the work carried out under Professor Whitridge Davies, whose expeditions have cost the ANRC almost half the amount allotted to Adelaide, whereas . . . only three publications have resulted so far.[24]

One reaction to the ANRC's parsimony was for the Board to pursue a more direct relationship with the Rockefeller Foundation itself and other American funding sources. Cleland's main contact in this regard was Clark Wissler who had supported the Adelaide work from the outset and suggested in 1931 that the Board might apply directly to the Rockefeller Foundation, thus bypassing the ANRC.[25] Wissler's donation of a motion picture camera after his 1925 visit had made possible the Board's unique series of ethnographic film. He also supported Cleland's scheme for a buffer zone around the central Reserves which might become (in Wissler's words) 'an important step in the establishment of what might be termed an ethnographical laboratory'.[26]

Apart from the blood grouping studies, Wissler was especially interested in the potential for studies

of Aboriginal sexuality and family life, then largely ignored in anthropological work undertaken in Australia.[27] Cleland incorporated these studies within the Board's work, and with special funding arranged by Wissler from Yale University, compiled survey material from a number of personal contacts across the country. These included George Aiston, Daisy Bates, Theodor Strehlow, Ursula McConnel and Reverend John Love as well as lesser known individuals.

The Adelaide work was also supported locally; Sir Joseph Verco, Sir George Murray and Sir Edward Holden (a founding Board member and Managing Director of Holden's Motor Body Works) each contributed substantial amounts. They followed an Adelaide tradition of philanthropy toward anthropology which had begun at the turn of the century with Sir Robert Barr Smith's support of Edward Stirling's work. As well, the Museum was able to fit out most of the expeditions and provided the record cards and other stationery. All of the Board members had keys to the Museum and came and went as staff members, with access to the collections and to secretarial assistance.

Cleland himself was always alert for ways to minimise costs of the Board expeditions. Apart from obtaining railway concessions for the group, he succeeded in arranging donations of soaps and disinfectants, quantities of reject dried fruit, and even cases of wine which were 'very much appreciated, as we were often fatigued by the day's work, which was frequently strenuous'.[28] A small but reliable source of Board income was derived from newspaper articles written about the expeditions by Board members, usually Cleland and Tindale.

The Board's Work — Its Ethos

From the first, the Board consisted predominantly of medical men, drawn mainly from the Anatomy and Pathology Departments of the University of Adelaide's Medical School. This composition reflected a bias which had been operating in Adelaide anthropological circles since Stirling's appointment as honorary Curator of Ethnology at the Museum in 1888, while he lectured at the same time in the Medical School. However there is no doubt that the inaugural members of 1926 saw the Board as much more than an opportunity for armchair anthropology and recreational fieldwork. The scale and intensity of their fieldwork and publishing programme confirms this. And while the Board was not regarded by Sydney and Melbourne anthropologists as contributing satisfactorily to the emerging discipline of social anthropology, it is clear that its members were on the international cutting edge of physical anthropology and were sustained and rewarded by their dialogue with overseas specialists.

Significantly, the pattern for the Board's future work had already been set by Wood Jones and Campbell on their expeditions from 1921 onwards, and particularly by the Wilgena expedition of 1925 [Expedition A] and Campbell's Wilgena and Ooldea trip of May 1926 [Expedition B]. The methods employed on these expeditions were already producing important results, particularly in the area of blood-grouping studies — a special research interest of Cleland. By 1926 it was becoming clear that the Australian Aborigine was distinct from most other populations in lacking blood group B, having only groups A and O.[29] The early expeditions confirmed this. The Board's conclusion, that the Aborigines were a 'pure race' fast disappearing in the face of European culture, reinforced popular opinion in Australia and overseas.

The written responses by University of Adelaide academics to Cleland's 1925 request for 'lines of investigation' (see above, p. 75) cast light on significant aspects of the Board's work. The issues and research questions which initially occupied Board members had little to do with investigating the social relationships, recent history or current views and beliefs of Aboriginal people. In rejecting or ignoring the sophistication of post-Malinowskian fieldwork Board members practised instead what has been termed the 'natural history approach' — recording with meticulous detail 'the more readily observable aspects of culture and biology' (Sutton 1986: 50).[30] Nor was it until Tindale, Fry and Strehlow began to exert an influence on the Board's activities that serious efforts were made to appreciate the complexity of Aboriginal social structure and belief systems. Cleland's own proposed 'lines of investigation' contained a minor exception in his final suggestion:

> 13. [The] Collection of [kinship] terms and their analysis and consideration.[31]

Generally, most of the responses indicated that Aborigines were perceived as the passive objects of scientific enquiry, providing a plethora of new data for diverse fields of research. Harold Davies' interest in ascertaining Aboriginal knowledge of the pentatonic scale in Aboriginal song, R. W. Chapman's (Department of Engineering) enquiry into whether Aborigines used the lever, wedge, roller or other simple machines, Campbell's investigations of habits and customs 'in vicinities where natives have suffered minimum contamination' revealed a similar outlook, founded in the same ethno-centrism which had characterised ethnography during the previous century. The process of measuring and recording

Aboriginal physical and social characteristics occurred within the overarching framework of evolutionary theory and should be seen against the contemporary background of debate over the heredity versus environment issue. Wood Jones himself was an active contributor to this debate and as a self-professsed Lamarckian evolutionist stressed the need to understand the total environment within which Aborigines lived.[32]

The Board produced no explicit published statement of its aims and objectives during its early years; its credo is best discerned from individual reports and correspondence. Campbell gave it cogent expression in a 1931 letter to the Honorary Secretary of the ANRC:

> The trend which the University is aiming at in these studies is not merely a compilation of statistics for assessing the Australian natives' comparative physical status, but rather an attack on the more practical problem of how he adapts himself to his environment . . .

and again in 1932:

> The aim now is to include as much, as is reasonably possible, data which will enlighten us not only on the native himself but his surroundings and his reactions to his biological, physiographical and meteorological environments.[33]

There is strong circumstantial evidence to suggest that this statement of aims was inspired by, if not derived directly from, the contact which the Adelaide workers had with their American benefactors, Clark Wissler in particular. Wissler, a pupil of Franz Boas, had developed his own model of culture/ecological areas for North America (Wissler 1926) based on similar principles. His colleague, Alfred Kroeber, developed this theme further in his classic 1939 study 'Cultural and natural areas of North America' proposing that:

> . . . no culture is wholly intelligible without reference to the noncultural or so-called environmental factors with which it is in relation and which condition it.[34]

The Board's activities and publications stressed this conjunction between Aborigines and their environment and so highlighted a major point of difference between Sydney and Adelaide anthropology. The social anthropology promoted by Radcliffe Brown and later by Elkin was concerned with the internal functioning of small-scale Aboriginal (and Pacific) societies, focusing primarily on social relations and local processes of acculturation. This approach left little room for analysing or even taking account of broad evolutionary changes, long term adaptations to the environment, or diffusion of culture traits throughout Australia by Aborigines — issues which preoccupied the Adelaide workers. The ANRC's refusal to fund an investigation by Cleland and Stanton Hicks into the pharmacological properties of the plants *Nicotiana* and *Duboisia* in 1932 illustrates this basic difference in outlook. The ANRC regarded such work as beyond the proper ambit of anthropological investigation, bringing a firm response from Cleland. Regional bias against Adelaide must have been apparent when, in the following year, the ANRC granted funds without demur to a Melbourne researcher for an investigation of the biochemical characters of Aboriginal foods.[35]

Despite the fact that most Board members made substantial contributions in their own University fields, the Board's anthropological work reflected a wide range of shared interests and knowledge. Cleland is probably the outstanding example of this type of worker. No dilettante, his significant publications in the fields of pathology, ornithology, botany, and Aboriginal studies represented a remarkable understanding of the Australian natural and social environment. It is likely that Cleland's own eclecticism inspired Board members to develop new interests and skills. Other Adelaide scientists were also influential. Norman Tindale recalls how Charles Fenner:

> encouraged all researchers to look at things from a geographer's point of view . . . he and Grenfell Price, who was another geographer . . . had a great influence here.[36]

It was probably the example of these two men which led Cleland and Professor Harvey Johnston to meticulously correlate geographical and botanical features during the expeditions. Tindale recalls travelling through desert country on several trips, making botanical and topographical observations for every mile of the journey from a railway carriage or the Board's vehicle.[37]

Other Board members displayed the same enthusiasm for new fields of knowledge. Tindale, who had already made the transition from entomology to ethnography, moved further into the field of social anthropology and embarked on his major work of mapping the distribution of Aboriginal tribal groups. His much-criticised 1940 study of the social and demographic issues surrounding the 'half-caste problem' was nevertheless the first survey of its kind. H. K. Fry — a Rhodes Scholar and the first Oxford-trained Australian anthropologist — married this training with his chosen profession of psychology to produce an original schema for analysing kinship relationships in Aboriginal societies. Thomas Draper Campbell, later the Foundation Professor of the Adelaide School of Dentistry, became widely known for his studies of stone tool typologies as well as his work on Aboriginal dentition and diet.

Cleland particularly, and the Board by extension, may be criticised for the stress which they laid on policies considered unpopular today — segregation and assimilation. Cleland's interest and participation in the amalgam of issues known collectively at the time as 'the native question' dated from his early interest in Aboriginal health and disease. His own experience of the rapid decline in 'full-blood' population led him to support the total assimilation of part-Aboriginal people into the European population. On the other hand, he urged the extension of the Central Australian reserves to shield the remaining 'bush' Aborigines from European influence. This later scheme became an *idée fixe* during the 1930s and Cleland even attempted to have the University of Adelaide Council purchase a lease on land abutting one of the reserves as a 'buffer zone'. The University's involvement would, according to Cleland, be:

> . . . in the interests of the native . . . afford better opportunities for the study of them . . . and [would] ensure their protection for many generations to come . . .[38]

Despite Wissler's support for this notion of an 'ethnographical laboratory' the Council considered that it could not 'appropriately be considered amongst the activities of the University'.[39]

This utopian scheme was in direct contrast to the Board's usual pragmatic approach to Aboriginal issues, and to health problems in particular. Their involvement with medical issues and problems on expeditions was routine but led to some outstanding successes. The Board's fortuitous arrival at Hermannsburg in August 1929 at the height of an outbreak of scurvy, and their prompt action in eradicating the illness, earnt the lasting gratitude of both Aborigines and missionaries. It also led to the Board's support of the public campaign to have fresh water piped to Hermannsburg and to the appointment of the first medical officer in Central Australia with responsibility for Aboriginal health.[40]

Finally, the Board considered that it had clear jurisdiction over anthropological work conducted within South Australia — and at least a consultative role regarding Central Australia. This was not only through its own research, but through its support of fieldworkers such as R. & C. Berndt, C. P. Mountford, Strehlow, Love, Daisy Bates, and Olive Pink. Cleland was particularly supportive of Strehlow's Central Australian fieldwork in his dealings with the ANRC and he consequently resented that body's practice of sending fieldworkers to South Australia without consulting the Board. Matters came to a head in 1943, when Cleland wrote to Elkin, saying:

> Dr Campbell and myself would recommend strongly that the Board for Anthropological Research of the University of Adelaide should be recognised officially by your Committee on Anthropology and consulted on all matters affecting anthropological research in South Australia.[41]

The Sydney and Melbourne versus Adelaide rivalry, which had affected the course of Australian anthropology since Stirling's time, had still to run its course.

The Board's Work — Its *Modus Operandi*

The *modus operandi* of the Board's fieldwork — the 'teamwork' approach — provided another point of difference with the Sydney anthropologists. This method involved several researchers with clearly defined specialties working intensively among an Aboriginal group for two to three weeks. The teamwork approach seems to have been pushed hardest by Wood Jones who saw it as the optimum method. He may have been influenced by the immense productivity and pioneering methods of the multidisciplinary expedition led by Alfred Cort Haddon to Torres Strait in 1898.

This approach to anthropological fieldwork was heavily resisted by the ANRC. It stressed the need for long-term 'participant observation' following the Malinowskian model, and regarded this method as a prerequisite for gathering social anthropological data of any value. The Council attempted to influence the Board on several occasions to conduct 'longer field trips with a smaller personnel'. Campbell's response to this suggestion (and to the insinuation that funding would consequently be easier to obtain) was unequivocal:

> . . . if the particular programme of work being carried out here were not carried out along the lines adopted, it is doubtful whether this type of research, which is urgently needed, would be carried out at all . . . The team of workers consists of men who, in most cases, are specialised in their own particular line of research
>
> This combination of special training and continuity of field experience in a particular line, applied in an intensive manner, counterbalances to a very large extent what might seem to be the disadvantages of short working periods . . . The larger team permits of a large group of natives being examined in a fairly short time. These large groups of natives cannot be held together for any lengthy period without serious difficulties and considerable expenditure on rations.[42]

The only exception to the early 'teamwork' expeditions was the first part of Expedition I (May–July, 1933), in which Tindale and Hackett travelled with a group of Pitjantjatjara Aborigines through the Musgrave Ranges for two months, carrying equipment and supplies by camel and

having only occasional contact with outside support. This was a markedly different experience for both men as for once they were entirely dependent on the Aborigines they had come to study. As Tindale comments:

> Cecil and I became just kind of hangers-on or parasites of the Aborigines, just wandering along, taking photographs and asking questions, recording . . .[43]

The expeditions required detailed planning and this was usually Campbell's task. Expedition destinations were discussed at the Board meetings (held irregularly as circumstances warranted) and the decision was usually dictated by the available finances and the accessibility of centres of Aboriginal population. Personal contacts also played a part — the Chalmers family of MacDonald Downs Station influenced the decision for the 1930 expedition, Strehlow arranged for a remote Pintupi group to be present at Mt Liebig (1933), Lew Reese assisted the 1934 Diamantina arrangements, and Cleland's cousin, W. L. Cleland, arranged the cooperation of Maitland Brockman of White Cliffs Station, north-east of Laverton, for the 1935 Warburton Range expedition. This 1935 trip took the Board to their most remote destination and Brockman's assistance was important in the organisation. He wrote to the Board:

> I am on the outskirts of settled pastoral country . . . & see a number of full blood blacks . . . there are no crosses, & as they are yet in their naked state they will be what you are looking for . . . [and in answer to Cleland's request for a budget estimate] Cost of feeding them for 10 days — 40 blacks, flour meat tea sugar tobacco @ 1/6 per hd. per day for bucks, 1/ — gins & 6 children . . . say 40 @ 1/ per day . . .[44]

The expeditions were generally organised during the University of Adelaide's August vacation which allowed sufficient time in the field and usually also meant favourable camping conditions in Central Australia. As the map shows (Fig. 1), the first part of each expedition was completed by rail. This was an expensive component (up to a third) of expedition costs and Campbell and Cleland worked hard at obtaining rail concessions and reserved carriages for the group.[45]

Once at the railhead, the party transferred to motor transport, arranged in advance, for the final leg. Throughout the period the trucks and cars used on the expeditions stood the strain of up to eight men, supplies and heavy medical equipment without any serious hitches. More importantly, on arrival at their destinations the parties always found the expected number of Aborigines. As Cleland confided to Elkin before the Warburton Range expedition of 1935:

> These expeditions are always somewhat of a lottery, as in spite of the best of plans the natives may not be where you want them . . .[46]

This was more likely to happen towards the end of an expedition, when the novelty had worn off and the food supplies brought by the party were getting low.[47] After the Mt Liebig expedition of 1933 (H), Cleland wrote: '. . . it seems quite impossible to hold for a longer period than about a fortnight any large congregation of natives . . .'[48]

A regular protocol for the Board's work was well established by the time of the 1933 Ernabella expedition (I) and was documented by Cleland in his expedition report (1934). Each Aborigine was first given a number, and Tindale entered his or her name, approximate age, genealogical and totemic data on a card, noting other relevant sociological information. With their numbers painted on their shoulders, the subjects moved on to the physical anthropologists (Hackett and Gray) who took 53 body measurements and noted features of skin and eye colour, scarification, pathological lesions, and condition of the teeth. Hale then took still photographs of each Aboriginal subject before passing them to Cleland and Harvey Johnston for blood-grouping tests, finger-printing and dermatoglyphs. The pair also obtained names of plants and animals and related data. Hicks and O'Connor carried out intensive metabolic tests and cardio-vascular examinations on a sample of twenty-four Aborigines and Hale and Tindale obtained plaster of paris face and bust casts of six individuals. After limited success with his Porteus maze and other psychological and sensory tests, Fry concentrated instead on obtaining vocabularies, and studying 'customs, beliefs, games and technology' as well as eliciting the kinship system. Apart from the number of photographs taken by expedition members, Stocker took a large amount of 16 mm film which was later edited to comprise 2575 feet, dealing with ceremony, sign language, hunting, games, artefact manufacture, walking and running gaits, and incidents from daily life.[49]

The basic procedure remained the same on all of the early Board expeditions, although details varied according to the personnel. The physical measurements were based initially on those recommended by the Geneva International Agreement of 1912 for observations on living subjects, and on Hrdlicka's work (1920). A full list of the tests carried out on Expediton F (MacDonald Downs) is contained in Appendix 1.

Aboriginal Perceptions of the Board

Initially at least, the spectacle of the university researchers arriving by motor lorry with their

FIGURE 3. Measuring and weighing Aboriginal people on Expedition C (Macumba-Alice Springs). (SAMA)

FIGURE 4. Jeffrey discussing photographic poses with an Aboriginal man on Expedition C (Macumba-Alice Springs). (SAMA)

outlandish equipment and even stranger behaviour appears to have been amply sufficient to keep large numbers of Aborigines diverted for several days. The pace of the work programme ensured this, if nothing else.

The question of how Aborigines regarded the bizarre activities of Board members on these expeditions merits a study in itself. Unfortunately little work has been done on eliciting memories of these expeditions from Aboriginal people. Linda

FIGURE 5. Measuring lung capacity on Expedition C (Macumba-Alice Springs). (SAMA)

FIGURE 6. Stocker filming Aboriginal men on Expedition H (Mt Liebig). (SAMA)

Crombie is one exception — she was seven at the time of the 1934 Diamantina expedition and recalls refusing to remove her shirt for a still photograph. The newspaper reporter who accompanied Expedition H (Mt Liebig) made his own enquiries through an interpreter and was told that:

> . . . they could not understand why the white men came all this way to ask them so many questions, smear white stuff over them, and stick prickles in their ears . . . The natives said they did not mind the indignities because they were good men, although 'quite silly' and what was important, they brought good tucker for the black men . . . They think the white man does a lot of things because he wants to help the black man. They think Prof. Hicks oxygen tests will help a man with weak wind to run up hills as easily as a strong man.[50]

Certainly, on the first expeditions, Cleland was apprehensive of the reaction from Aborigines when conducting blood grouping tests. On the 1927 Macumba-Alice Springs expedition he used an original strategy:

> We explained to them in pigeon [*sic*] English that we wanted to see whether the blackfellow's blood was more like the white man's than that of a Chinaman or an Afghan, and they all assented by nods to our request for obtaining samples of blood.[51]

Later, on the 1929 Hermannsburg expedition, Cleland and Johnston:

> . . . soon gained the sobriquet of 'the butchers' from the surrounding aborigines, and our mild form of operation was designated, in cattle terms, as 'ear-marking.' It soon became the fashion to be ear-marked, and those who had it not eagerly desired it. As we were not dealing with half-castes, some of these were bitterly disappointed at our refusal to bleed them.[52]

In their reports and personal reminiscences both Cleland and Tindale stress this aspect — that far from being intimidated or having to be bribed or cajoled into participating, most Aborigines actively entered into the spirit of the procedure. After the inevitable shyness of the first day:

> . . . the utmost willingness was always manifested and any individual accidentally left out temporarily from some part of the routine would either himself, or by one of his fellows, call attention to the omission.[53]

This certainly surprised some members of the expeditions, who expected resistance to blood sampling tests at the least. Cleland remarked several times on the stoicism displayed by Aborigines while undergoing face casting and metabolic testing under extreme conditions. A can of pineapple became the standard exchange for the gruelling face cast procedure and other small inducements were given, like cigarettes and boiled sweets. These were more in the nature of a reward than a bribe or payment.

Most of the Aboriginal people involved in these early expeditions had had very little experience of European technology and machinery. The Board's array of motor vehicles, electricity generators, x-ray equipment, vasometers, cardiometers, gramophones and motion picture cameras must surely have exceeded the impact of a full-scale circus on a country town. Tindale probably comes closest to explaining the Aboriginal view:

> . . . in a sense, we entertained them. Our activities were so strange to them . . . I don't think that the bush ones in the early days ever realised that we were making records of them. They had no idea why white men held boxes up to their eyes when they were talking or asking questions, or looking at ceremonies. That was their [the white men's] *inma*, their ceremonial way of doing it.[54]

This view may have been heightened by the expedition members' practice of beginning the day's routine by playing the Aboriginal song recordings made by Harold Davies at Koonibba in 1926 (Fig. 7), interspersed with popular songs and some Japanese gramophone records which Tindale had acquired from his childhood in that country:

> We'd play them first thing in the morning when we were ready to start work and the first Aborigine would appear and the rest of the day there would be Aborigines winding up the machine and putting the records on and keeping it going. Some of the records more or less wore down, almost through . . .[55]

FIGURE 7. Aboriginal men listening to the 'Radiola' on Expedition H (Mt Liebig). (SAMA)

FIGURE 8. Pulleine obtaining crayon drawings on Expedition I at Ernabella in August 1933. (SAMA)

Despite the brevity of these expeditions, the Aboriginal people classified the visitors within their kinship systems, assigning terms and personal names to each member of the expedition party. The coincidence of the number of members on Expedition E (Hermannsburg) with the eight Aranda subsections provides a striking example of this social incorporation:

FIGURE 9. Wilkinson obtaining dermatoglyphs on Expedition I (Ernabella). (SAMA)

> One of the natives made this discovery, with the result that we were immediately allocated in all seriousness each to one division and accepted as full members of the tribe. A plenitude of tribal relatives sprang up — parents, uncles and aunts, brothers and sisters were in embarrassing profusion, and most cordial relationships existed, facilitating greatly the enquiries on which we were engaged.[56]

Conclusion

The last of the 'teamwork' expeditions — to Ooldea in August 1939 — closed an era in Australian physical anthropology. Later Board expeditions concentrated more closely on discrete aspects of Aboriginal life and behaviour and did not attempt to duplicate the ambitious research programmes of the early years. Although physical anthropological studies remained as a basis for Adelaide anthropology until the University of Adelaide established its Department of Anthropology in 1974, the central relevance of these studies, and related issues of racial origins and characteristics, had greatly lessened in the meantime. Discussion and theory about Australian Aborigines increasingly centred on social and religious life; without a formal commitment to research of this kind, Adelaide's importance as a centre for anthropology after World War 11 was steadily overtaken by other Australian capitals.

A later paper will discuss the 1938–39 Australia-wide expedition mounted by the Harvard and Adelaide Universities, as well as the Board's post war activities, culminating in the establishment of the Adelaide Chair of Anthropology.

Endnotes

Abbreviations:

ANL — Australian National Library.
SAMA — South Australian Museum Archives.
UAA — University of Adelaide Archives.

1. Professor Norman Tindale, Dr Cecil Hackett and Professor John Mulvaney all gave me valuable assistance with this paper. I would also like to thank the staff of the Mitchell Library and the Barr Smith Library Special Collections for their assistance, and Kathy Bowshall for drawing the map.

2. In a paper to be published in 1988 (Mulvaney in press), Mulvaney goes some way toward correcting this bias by devoting a section of his discussion to Adelaide anthropology.

3. See Twidale *et al.* (1986).

4. Cleland stressed the requirements of physical anthropological research in his 1899 address to the Royal Society (Cleland 1899).

5. Hale and Tindale's 1925 expedition to work among Aborigines of the Flinders Ranges should also be mentioned — see Hale & Tindale (1925).

6. Australian Dictionary of Biography **9**: 510. See Elkin & Macintosh (1974) for biographical essays on Elliot Smith and assessments of his contribution to theories of evolution and cultural diffusion.

7. Cleland to Gibson 31.7.36 — ANL Ms. 482, Box 32, Folder 498.

8. Cleland, J. B. 1925 (attributed) 'Memo re Visit of Representatives of the Rockefeller Institute, in reference to the Endowment of Research in the Anthropology of the Australian Aboriginal'. SAMA, AA 60, Acc 243.

9. The sequence of Board expeditions, their dates and destinations is provided in Fig. 1 and Appendix 2. Campbell and Wood Jones' 1924 expedition to Mt Eba and Streaky Bay has also been referred to as Expedition A in the Board's records, but it clearly did not come within the Board's own chronology (Jones & Campbell 1924).

10. Cleland to Wood Jones, 1.12.25, SAMA, AA 60, Acc 243.

11. *Ibid.*

12. Cleland to Vice-Chancellor, 2.12.25, SAMA, AA 60, Acc 243.

13. Copy of letter to Cleland dated 19.11.25. SAMA, AA 60, Acc 243.

14. Embree to Masson, 27.5.1926, ANL Ms. 482 Box 61, Folder 853b. Notice of this decision was sent to Wood Jones and the University of Adelaide. Details are contained in Docket 77/26, UAA.

15. University Council Minutes, 10.12.26, UAA.

16. Expedition B, under the leadership of Campbell, had visited Wilgena and Ooldea in May 1926. For the Minutes of Board meetings see Board Minute Books, UAA.

17. Philip Jones-Norman Tindale interview, 3.1.85.

18. See Mulvaney (in press) for a description of the funding relationship between the ANRC and the Rockefeller Foundation.

19. ANL Ms. 482 Box 61, Folder 853b and see Embree to Masson, 27.5.26 (two letters) — ANL Ms. 482, Box 61, Folder 853c.

20. ANL Ms. 482, Box 62, Folder 862.

21. Tindale to Keppel, 20.10.38. UAA, Cleland Papers, 572 SR Box 1, Folder 1.

22. Elkin 1935: 202. Elkin's dismissive attitude toward the Board's work is evident throughout his other surveys of Australian anthropology.

23. Elkin to Cleland, 8.6.34. SAMA, AA 60, Acc 247.

24. Hale to Gibson, 5.5.36. ANL Ms. 482 Box 32, Folder 498.

25. Wissler to Cleland, 6.2.31, SAMA, AA 60, Acc 244. American interest in the Adelaide work was enduring, as Tindale's success in obtaining backing for the later Harvard-Adelaide and UCLA-Adelaide expeditions shows.

26. Cleland to Gibson, 20.6.33, ANL Ms. 482, Box 32, Folder 498.

27. Wissler to Cleland, 11.6.28, SAMA, AA 60, Acc 244:

> The point of view in such studies would be to secure data on all the phases of primitive sex life that parallel those under investigation among ourselves . . .

28. Cleland to Fulton, 4.9.31, writing after Expedition G (Cockatoo Creek). SAMA, AA 60, Acc 240.

29. See for example, Cleland to Elkin, 9.11.1934, SAMA, AA 60, Acc 247:

> In blood grouping we again got only A's and O's. The importance of this work in showing that the Australian native is pure blooded is, I think, great.

30. At the same time, it is worth noting that this positivist faith in 'objective' data was also shared by social anthropologists of the period, particularly by Radcliffe-Brown. Urry (1984) discusses these issues. See also Chase & von Sturmer (1973).

31. Cleland 'Lines of investigation'. SAMA, AA 60, Acc 243.

32. Australian Dictionary of Biography 9: 513. It is worth noting that Elliot Smith was also a Lamarckian. Both he and Wood Jones were known for their eccentric belief that man had evolved from the tree-dwelling tarsioid, through its Lamarckian urge to self-betterment. See Wood Jones (1916) and Hooton's playful demolition in Hooton 1938: 63–67.

33. Campbell to Hon. Sec., ANRC, 2. 10.1931; Campbell to Hon. Sec., ANRC, 10.2.1932. ANL Ms. 482, Box 60, Folder 848a.

34. Kroeber (1939: 205).

35. Cleland to Firth, 24.10.1932; Cleland to Elkin, 31.5.1932, SAMA, AA 60, Acc 247.

36. Philip Jones-Norman Tindale interview, 3.1.85.

37. See for example Cleland 1936: 114.

38. Memorandum to the Council of the University of Adelaide, 24.10.32. SAMA, AA 60, Acc 240. See also Cleland to Minister for the Interior, 7.9.36, SAMA, AA 60, Acc 2440.

39. Eardley to Cleland, 12.12.32, SAMA, AA 60, Acc 240.

40. Albrecht wrote in his 1930 annual report:

> If it would not have been for the Doctors of the Adelaide University Expedition who came here engaged in Anthropological research work, the majority of our native community would probably have died out . . . (SAMA, AA 60, Acc 247).

41. Cleland to Elkin, 30.1.83. SAMA, AA 60, Acc 247.

42. Campbell to Hon. Sec., ANRC, 28.6.32, ANL Ms. 482, Box 60, Folder 848a.

43. Philip Jones-Norman Tindale interview, 3.1.85. Hackett also recalls how the experience:

> . . . of living among the stone-age, gatherer-hunter Pitjantjatjara in conditions where they were the majority and privileged, and we were the minority and under-privileged, made a lasting and humbling impression on me . . .

(Hackett 1978: 15).

44. Brockman to Cleland, 13.3.35, SAMA, AA 60, Acc 240. Campbell, who had the job of organising the trip, commented to Cleland on Brockman's reply:

> . . . similar to most of the replies from these outback chaps. Earnest, helpful, friendly, but failing to give answers to specific and (to me) important queries (Campbell to Cleland, 18.3.35, SAMA, AA 60, Acc 240).

45. 'We much appreciate the reserving of carriages and travelling most comfortably . . .' Cleland to Railways Dept, 29.8.33, and see Cleland to Minister for Railways, 24.1.34 for a record of the Board's x-ray equipment being transported without charge over South Australian railways. SAMA, AA 60, Acc 240

46. Cleland to Elkin, 31.7.35 SAMA, AA 60, Acc 247.

47. Cleland gives this description of the menu during the Mt Liebig expedition:

> They were fed abundantly morning and evening . . . on heavy damper, boiled wheat (which they liked very much), buck currants (also very much relished), tea and sugar. They soon noticed the absence of meat, and so from time to time sent out their young men or the women, the first to spear wallabies and the latter to dig out rabbits. On Sunday they were given a half holiday; being fed only in the morning . . .

(Cleland 1934: 849).

48. Cleland (1934: 849).

49. See Cleland (1934) for a fuller description of these activities.

50. *The Mail*, 13.8.32, SAMA, AA 298, Acc 2375. As to why Aborigines might have developed such a theory, see Hicks 1964: 405:

> . . . a very experienced white bushman advised us we should let it be known that what we were doing would strengthen the chests of the participants, 'make good wind'.

51. Cleland (1927: 78).

52. Cleland (1930: 80).

53. Cleland (1934: 849).

54. Philip Jones–Norman Tindale interview, 3.1.85. See also Hicks 1964: 405:

> . . . a very experienced white bushman . . . advised us to enhance the importance of ourselves and our experiments by restricting our measurements to the male. Thus, the early morning procedure became, as it were, a secret corroboree or totem affair.

55. *Ibid.*

56. Cleland (1930: 80). The coincidence also inspired Fry to work on developing his own method of kin term classification — the 'Fry Framework' (e.g. Fry: 1931).

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APPENDIX 1: CLELAND'S SUMMARY OF THE BOARD'S WORK ON EXPEDITION F (MACDONALD DOWNS)

In his expedition report to the ANRC (SAMA AA60, Acc.240), Cleland wrote:

'The work carried out may be grouped under the following headings:

1. Physical anthropology

(a) Forty-five measurements of the various parts of the body, including twenty-five of the head and face
(b) Profiles
(c) Dermatoglyphs and finger prints
(d) Hair tracts and characters and body distribution of hair
(e) Body pigmentation, including the oral cavity matched against standard
(f) Complete examination of the teeth
(g) Blood grouping (59 individuals) and cross testing of the native red cells in serum
(h) Casts of the hand, feet and face
(i) General bodily build and other characters of eye, ear, lips, nose, etc.
(j) Photographs of profile and full face, head and bust.

2. Physiological and psychological observations

(a) Pulse, temperature and blood-pressure observations
(b) Strength of grip, strength of pull, measurement of sustained grip
(c) Sense estimations, such as visual acuity, range of audition and hearing tests, olfactory senses, tactile sensation, and aesthesiometer
(d) Pressure, pain and temperature discrimination
(e) Discrimination of weights
(f) Discrimination of numbers and spatial perception
(g) Muscle co-ordination, such as peg-board, tapping test
(h) Reaction-times to sight and sound
(i) Mental tests, memory tests with blots and foot impressions. Porteous maze, Goddard and Henley puzzles
(j) Native drawings with crayons on paper comprising (i) portrayal of natural subjects such as kangaroo, emu, man, *Varanus*, etc. and (ii) totem representations.

3. Ethnology

(a) Individual data as to name, age, blood relations, marriage class and totem, and genealogy
(b) Phonographic records of native songs and 20 standard words
(c) Photographic records of ceremonies and daily life, including grain collecting, digging for lizards, and collecting and preparation of food.'

APPENDIX 2: DETAILS AND RESULTS OF BOARD EXPEDITIONS A-M, O

N.B. Expedition records and most photographs are in S.A. Museum unless otherwise specified. Master copies of 16 mm films are held in the Barr Smith Library, University of Adelaide. Publication numbers refer to the bibliography of Board expeditions in Appendix 3

Abbreviations: SLSA — State Library of South Australia.
AIAS — Australian Institute of Aboriginal Studies.

Expedition A: Wilgena, 24.11.25–27.11.25
Personnel: J. B. Cleland, T. D. Campbell, T. B. Robertson, R. H. Pulleine, E. Embree, C. Wissler
Investigative expedition only. Film records believed to exist in Rockefeller files.
Photographs: *c.* 90 general views
Publication: 2

Expedition B: Wilgena and Ooldea, 7.5.26–21.5.26
Personnel: T. D. Campbell (physical anthropology, blood grouping, dentistry) and F. Wood Jones (physical anthropology, blood grouping)
Record cards and photographs: 32 individuals
Other photographs: *c.* 100
Publications: 1, 3

Expedition C: Macumba, Alice Springs, 30.12.26–19.1.27
Personnel: T. D. Campbell, C. J. Hackett (physical anthropology), W. Ray (physiology and pathology), J. B. Cleland (blood grouping, pathology, botanical work), E. H. Davies (songs and music), F. Jeffrey (photographer), E. W. Holden (transport, climatological records, assistant to physical anthropology)
Record cards and photographs: 64 individuals
Other photographs: *c.* 300
Sound recordings: 17 wax cylinders–E. H. Davies (AIAS tapes 9567, 9569, 9570, 9580)
Publications: 4–10, 69, 76, 105

Expedition D: Koonibba, 13.8.28–25.8.28
Personnel: T. D. Campbell, C. S. Hicks (physiology, basal metabolism), E. Eldridge (Hicks' assistant, technician) R. F. Matters (basal metabolism), M. L. Mitchell (physiology), N. B. Tindale (ethnology, photography), R. H. Pulleine (physiology), H. H. Woollard (blood grouping), F. Jeffery
Record cards and photographs: 52 individuals
Other photographs: *c.* 250
Sound recordings: 22 wax cylinders–E. H. Davies (AIAS tapes 9564, 9565, 9580)
Artefacts: *c.* 45
Publications: 11–14, 69, 105, 118, 123

Expedition E: Hermannsburg, 4.8.29–23.8.29
Personnel: J. B. Cleland, C. S. Hicks, E. H. Davies, N. B. Tindale, C. J. Hackett, B. G. Maegraith (blood grouping), H. K. Fry (psychology, sociology), H. M. Hale (photography, plaster casts)
Record cards and photographs: 100 individuals
Other photographs: *c.* 200
Sound recordings: 34 wax cylinders–E. H. Davies (AIAS tapes 9570, 9571, 9572, 9580)
Artefacts: *c.* 60
Publications: 15–20, 48, 65, 69, 76, 82, 105, 115, 118, 123

Expedition F: MacDonald Downs, 17.8.30–11.9.30
Personnel: J. B. Cleland, T. D. Campbell, H. K. Fry, R. H. Pulleine, H. M. Hale, N. B. Tindale, T. Harvey Johnston (assisted Cleland, botany, zoology), H. J. Wilkinson (dermatoglyphs), J. H. Gray (physical anthropology, pathology)
Record cards and photographs: 62 individuals
Other photographs: *c.* 200
Face casts: 14
Sound recordings: 13 wax cylinders–N. B. Tindale (AIAS tapes 9566, 9567, 9574)
16 mm film: 2 reels (800 ft–T. D. Campbell and N. B. Tindale)
Crayon drawings: 20 sheets
Artefacts: *c.* 180
Publications: 22–27, 32, 47, 68, 79, 105, 123

Expedition G: Cockatoo Creek, 6.8.31–27.8.31
Personnel: J. B. Cleland, T. D. Campbell, H. J. Wilkinson, J. H. Gray, C. S. Hicks, T. Harvey Johnston, H. K. Fry, R. H. Pulleine, N. B. Tindale, E. O. Stocker (cinematography), A. Rau (Museum taxidermist)
Record cards and photographs: 91 individuals
Other photographs: *c.* 200
Face and bust casts: 20
Sound recordings: 13 wax cylinders–N. B. Tindale (AIAS tape 9572)
16 mm film: 6 reels (2150 ft–E. O. Stocker)
Crayon drawings: 19 sheets
Artefacts: *c.* 240

Publications: 28–31, 33–37, 47, 48, 50, 69, 91, 99, 100, 105, 117, 118, 123

Expedition H: Mt Liebig, 4.8.32–25.8.32
Personnel: J. B. Cleland, T. Harvey Johnston, C. S. Hicks, E.Eldridge, T.D. Campbell, J.H. Gray, H.K. Fry, H. M. Hale, N. B. Tindale, E. O. Stocker, E. W. Holden, H. Moore (gas analyses for physiological tests), T. G. Strehlow (linguistics), M. Lamshed ('Advertiser' reporter)
Record cards and photographs: 93 individuals
Other photographs: *c.* 400
Face and bust casts: 8
Sound recordings: 6 wax cylinders–T. D. Campbell and N. B. Tindale (AIAS tapes 9564, 9574)
16 mm film: 8 reels (3080 ft–E. O. Stocker)
Crayon drawings: 19 sheets
Artefacts: *c.* 320
Publications: 38–40, 42, 43, 45–47, 50, 52, 55–57, 69, 92, 99, 100, 105, 116, 118, 123

Expedition I: Mann Range, 25.5.33–6.8.33
Personnel: N. B. Tindale, C. J. Hackett and A. Brumbie (cameleer)
Record cards and photographs: 129 individuals
Other photographs: *c.* 300
Sound recordings: 14 wax cylinders–N. B. Tindale (AIAS tapes 9574, 9575)
16 mm film: 4 reels (1405 ft–N. B. Tindale)
Crayon drawings: 131 sheets
Artefacts: *c.* 140
Publications: 48, 51, 65, 76, 89, 122, 123

Expedition J: Ernabella, 7.8.33–24.8.33
Personnel: J. B. Cleland, T. Harvey Johnston, C. S. Hicks, N. B. Tindale, J. H. Gray, C. J. Hackett, H. M. Hale, H. K. Fry, M. Lamshed, J. O'Connor (Hicks' assistant)
Record cards and photographs: 60 individuals
Other photographs: *c.* 200
Face and bust casts: 21
Sound recordings: 14 wax cylinders–N. B. Tindale (AIAS tape 9575)
16 mm film: 9 reels (2475 ft–H. K. Fry and N. B. Tindale)
Crayon drawings: 134 sheets
Artefacts: *c.* 220
Publications: 51, 52, 56–61, 69, 70, 73, 76, 83, 96, 99, 100, 110, 114, 118, 122, 123

Expedition J: Diamantina, 10.8.34–28.8.34
Personnel: J. B. Cleland, T. H. Johnston, T. D. Campbell, H. K. Fry, N. B. Tindale, F. Fenner (anthropometry), T. Vogelsang (history, ethnology), L. Wilkie (Director, Art Gallery of S.A., artist)
Record cards and photographs: 49 individuals
Other photographs: *c.* 120
Oil portraits: 8
Sound recordings: 14 wax cylinders–N. B. Tindale (AIAS tape 9568)
16 mm film: 3 reels (1200 ft–N. B. Tindale)
Artefacts: *c.* 75
Publications: 72, 75, 84, 93, 94, 105, 120, 123
Expedition K: Warburton Range, 26.7.35–6.9.35
Personnel: N. B. Tindale, C. J. Hackett, E. O. Stocker, C. P. Mountford (photography, art records), E. Gutteridge (assistant)
Record cards and photographs: 54 individuals
Other photographs: *c.* 120. See also Mountford-Sheard Collection, SLSA
Sound recordings: 14 wax cylinders–N. B. Tindale (AIAS tapes 9578, 9579)
16 mm film: 8 reels (2825 ft–E. O. Stocker)
Crayon Drawings: 301 sheets. See also Mountford-Sheard Collection, SLSA
Artefacts: *c.* 45
Publications: 66, 77, 80, 81, 86, 88, 101–104, 108, 109, 123

Expedition L: The Granites, 6.8.36–27.8.36
Personnel: J. B. Cleland, T. H. Johnston, H. K. Fry, C. P. Mountford, H. M. Hale, E. Couper Black (anthropometry, blood tests), O. Pink (anthropologist at Granites)
Record cards and photographs: 49 individuals
Other photographs: See Mountford-Sheard Collection, SLSA
Sound recordings: 2 wax cylinders (AIAS tape 9579)
16 mm film: 5 reels (1585 ft–H. K. Fry and C. P. Mountford)
Crayon drawings: See Mountford-Sheard Collection, SLSA
Artefacts: *c.* 30
Publications: 85, 87, 90, 97, 106, 121

Expedition M: Nepabunna, 22.5.37–3.6.37
Personnel: J. B. Cleland, C. P. Mountford, H. M. Hale, T. H. Johnston, E. Couper Black, H. K. Fry, H. M. Hale, F. Fenner, F. Hall (assistant)
Record cards and photographs: 10 individuals
Other photographs: See Mountford-Sheard Collection, SLSA
Face casts: 12
Sound recordings: 7 wax cylinders (AIAS tape 9579). See also Mountford-Sheard Collection, SLSA
16 mm film: See Mountford-Sheard Collection, SLSA
Drawings: See Mountford-Sheard Collection, SLSA
Artefacts: *c.* 35
Publications: 90, 95, 107, 110

[Expedition N: Harvard-Adelaide Universities Australia-wide expedition, 1938–1939. This expedition will be discussed in a later paper.]

Expedition O: Oodeg, 15.8.39–26.8.39
Personnel: J. B. Cleland, T. H. Harvey Johnston, E. C. Black, F. Fenner, R. M. Berndt (social anthropology), A. Harvey (assistant)
Record cards and photographs: 101 individuals
Other photographs: *c.* 100
Artefacts: *c.* 20
Publications: 112, 113, 119

APPENDIX 3: BIBLIOGRAPHY OF PUBLICATIONS RELATING TO BOARD EXPEDITIONS A–M, O

Publications have been listed for each year and are numbered to refer to each expedition (Appendix 2).

1926

1. CAMPBELL, T. D. & LEWIS, A. J. 1926. The Aborigines of South Australia: Anthropometric,

descriptive, and other observations recorded at Ooldea. *Trans. R. Soc. S. Aust.* **50**: 183–191.

2. CLELAND, J. B. 1926. Blood grouping of Australian Aborigines. *Aust. J. Exp. Biol. Med. Res.* **3**: 33–35.
3. JONES, F. W. 1926. The claims of the Australian Aborigine. Presidential Address (Section F-Anthropology). *AAAS Report* **18**: 497–519.

1927

4. CAMPBELL, T. D. & HACKETT, C. J. 1927. Adelaide University Field Anthropology, Central Australia. No. 1 Introduction, descriptive and anthropometric observations. *Trans. R. Soc. S. Aust.* **51**: 65–75.
5. CLELAND, J. B. 1927. Adelaide University Field Anthropology, Central Australia. No. 3 Blood grouping of Australian Aboriginals at Oodnadatta and Alice Springs. *Trans. R. Soc. S. Aust.* **51**: 78–80.
6. DAVIES, E. H. 1927. Adelaide University Field Anthropology, Central Australia. No. 4 Aboriginal Songs. *Trans. R. Soc. S. Aust.* **51**: 81–92.
7. DAVIES, E. H. 1927. Palaeolithic music. *Musical Times* **68**: 691–695.
8. RAY, W. 1927. Adelaide University Field Anthropology, Central Australia No. 2. Physiological Observations. *Trans. R. Soc. S. Aust.* **51**: 76–77.

1928

9. CAMPBELL, T. D. 1928. Adelaide University Field Anthropology, Central Australia No. 5. Dental Notes. *Trans. R. Soc. S. Aust.* **52**: 28–30.
10. CLELAND, J. B. 1928. Notes on dreams of Australian Aborigines. *Trans. R. Soc. S. Aust.* **52**: 240.

1929

11. CLELAND, J. B. & WOOLLARD, H. H. 1929. Further results in the blood grouping of South Australian Aborigines. *Med. J. Aust.* **2**: 2–7.
12. FRY, H. K. 1929. Testing the intelligence of Aboriginals. *Med. J. Aust.* **16**: 866.
13. WOOLLARD, H. H. & CLELAND, J. B. 1929. Anthropology and blood grouping with special references to the Australian Aborigines. *Man* **29**: no. 145.

1930

14. CAMPBELL, T. D. & MOORE, A. P. R. 1930. Adelaide University Field Anthropology. Dental notes, Koonibba, South Australia. *Aust. J. Dentistry* **34**: 123–127.
15. CLELAND, J. B. 1930. A short history of scurvy in Australia. *Med. J. Aust.* **17**: 2–4.
16. CLELAND, J. B. 1930. Further results in blood grouping Central Australian Aborigines. *Aust. J. Exp. Biol. Med. Res.* **7**: 79–89.
17. CLELAND, J. B. & FRY, H. K. 1930. An outbreak of scurvy with joint lesions in Australian Aborigines in Central Australia. *Med. J. Aust.* **17**: 5–7.
18. CLELAND, J. B., FRY, H. K. & MAEGRAITH, B. G. 1930. Notes on the pathological lesions and vital statistics of Australian natives in Central Australia. *Med J. Aust* **17**: 80–83.
19. FRY, H. K. 1930. Adelaide University Field Anthropology: physiological and psychological observations on the Australian Aborigines. *Trans. R. Soc. S. Aust.* **54**: 76–104.
20. PULLEINE, R. & WOOLLARD, H. H. 1930. Adelaide University Field Anthropology No. 6. Physiological and mental observations on the Australian Aborigines. *Trans. R. Soc. S. Aust.* **54**: 62–75.

1931

21. CLELAND, J. B. 1931. Blood grouping of Central Australian Aborigines. 1930 series. *J. Trop. Med. Hyg.* **24**: 353–358.
22. CLELAND, J. B. 1931. Botanical notes on Central Australia. *S. Aust. Nat.* **12**: 64–67.
23. FRY, H. K. & PULLEINE, R. H. 1931. The mentality of the Australian Aborigine. *Aust. J. Exp. Biol. Med.* **8**: 153–167.
24. FRY, H. K. 1931. Adelaide University Field Anthropology, Central Australia. No. 8 — A table showing the class relations of the Aranda. *Trans. R. Soc. S. Aust.* **55**: 12–19.
25. FRY, H. K. 1931. Adelaide University Field Anthropology Central Australia. No. 9 — On the class system, kinship terminology, and marriage regulations of the Australian native tribes. *Trans. R. Soc. S. Aust.* **55**: 20–22.
26. HICKS, C. S., MATTERS, R. F. & MITCHELL, M. L. 1931. The standard metabolism of Australian Aboriginals. *Aust. J. Exp. Biol. Med.* **8**: 69–82; **9**: 177–183.
27. TINDALE, N. B. 1931. Geological notes on the Iliaura country north-east of the MacDonnell Range, Central Australia. *Trans. R. Soc. S. Aust.* **55**: 32–38.
28. TINDALE, N. B. 1931. Anthropological expedition to Central Australia. *Med. J. Aust.* **18**: 793–796.

1932

29. CLELAND, J. B. 1932. The blood grouping of Central Australian Aborigines, 1931 series. *J. Trop. Med. Hyg.* **35**: 369–371.
30. CLELAND, J. B. 1932. Botanical notes on Central Australia. Part 2. *S. Aust. Nat.* **13**. 112–114
31. CLELAND, J. B. 1932. Field anthropology in Australia. *Science* **75**: 50–52.
32. CLELAND, J. B. 1932. Adelaide University Field Anthropology, Central Australia. No. 12 — Botanical notes of anthropological interest from MacDonald Downs, Central Australia. *Trans. R. Soc. S. Aust.* **56**: 36–38.
33. DAVIES, E. H. 1932. Aboriginal songs of Central and Southern Australia. *Oceania* **3**: 454–467
34. FRY, H. K. 1932. Adelaide University Field Anthropology, Central Australia. No. 11 — Genealogical studies of Australian tribal systems. *Trans. R. Soc. S. Aust.* **56**: 27–35.
35. MAEGRAITH, B. G. 1932. Adelaide University Field Anthropology, Central Australia. No. 10 — The astronomy of the Aranda and Luritja tribes. *Trans. R. Soc. S. Aust.* **56**: 19–26.
36. TINDALE, N. B. 1932. Primitive art of the Australian Aborigines. *Manuscripts* **3**: 38–42.
37. TINDALE, N. B. 1932. Notes on the supposed primitive implements from the tableland regions of Central Australia. *Rec. S. Aust. Mus.* **4**: 483–488

1933

38. CLELAND, J. B. 1933. Blood grouping of Central Australian Aborigines, 1932 series. *J. Trop. Med. Hyg.* **36**: 1-2.
39. CLELAND, J. B. 1933. University expedition to study the natives of Central Australia. *Science* **77**: 260-261.
40. CLELAND, J. B. 1933. Studying the Australian Aboriginal. *Discovery*, Feb. 1933: 48.
41. CLELAND, J. B. 1933. Natives of South Australia. *Nature* **132**: 996.
42. CLELAND, J. B. 1933. The Natives of Central Australia. *Med. J. Aust.* **20**: 332-334.
43. CLELAND, J. B. & GRAY, J. H. 1933. Some pathological conditions seen in Central Australian Aborigines. *J. Trop. Med. Hyg.* **36**: 125-128.
44. CLELAND, J. B. & JOHNSTON, T. H. 1933. The history of the Aboriginal narcotic, Pituri. *Oceania* **4**: 201-223; 268-290.
45. CLELAND, J. B. & JOHNSTON, T. H. 1933. The ecology of the Aborigines of Central Australia; botanical notes. *Trans. R. Soc. S. Aust.* **57**: 113-134.
46. FRY, H. K. 1933. Body and soul. A study from western Central Australia. *Oceania* **3**: 247-256.
47. FRY, H. K. 1933. Australian marriage rules. *Sociological Review* **25**: 258-277.
48. HICKS, C. S. & MATTERS, R. F. 1933. The standard metabolism of the Australian Aborigines. *Aust. J. Exp. Biol. Med.* **11**: 177-183.
49. TINDALE, N. B. 1933. Preliminary report on fieldwork among the Aborigines of the north-west of South Australia. *Oceania* **4**: 99-105.
50. TINDALE, N. B. 1933. Geological notes on the Cockatoo Creek and Mount Liebig country, Central Australia. *Trans. R. Soc. S. Aust.* **57**: 206-217

1934

51. CLELAND, J. B. 1934. The natives of the north-west of South Australia. *Med. J. Aust.* **21**: 848-853.
52. CLELAND, J. B. & GRAY, J. H. 1934. Pathological lesions in Natives of Central Australia (Mount Liebig area). *J. Trop. Med. Hyg.* **37**: 305-311.
53. CLELAND, J. B. & GRAY, J. H. 1934. Pathological lesions met with amongst Aborigines in the Musgrave Ranges, South Australia. *J. Trop. Med. Hyg.* **37**: 305-311.
54. CLELAND, J. B. & JOHNSTON, T. H. 1934. The history of the Aboriginal narcotic, Pituri. *Oceania* **4**: 201-289.
55. FRY, H. K. 1934. Kinship in western Central Australia. *Oceania* **4**: 472-478.
56. FRY, H. K. 1934. Kinship and descent among the Australian Aborigines. *Trans. R. Soc. S. Aust.* **58**: 14-21.
57. HICKS, C. S., MOORE, H. O. & ELDRIDGE, E. 1934. The respiratory exhange of the Australian Aborigine. *Aust. J. Exp. Biol. Med.* **12**: 79-89.

1935

58. CLELAND, J. B. 1935. The native of Central Australia and his surroundings. *Proc. R. Geog. Soc. Aust., S. Aust. Branch* **35**: 66-81.
59. FRY, H. K. 1935. Native life in Central Australia. *Man* **35**: No.114.
60. FRY, H. K. 1935. Aboriginal mentality (resume). *Mankind* **1**: 267-268.
61. GRAY, J. H. 1935. Hair tracts of the Australian Aboriginal. *J. Anatomy* **59**: 206-225.
62. HICKS, C. S. & LEMESSURIER, H. 1935. Preliminary observations on the chemistry and pharmacology of the alkaloids of *Duboisia hopwoodii*. *Aust. J. Exp. Biol. Med.* **13**: 175-188.
63. HICKS, C. S., BRUCKE, F. TH. & HUEBER, E. F. 1935. Uber die Pharmakologie der *Duboisia hopwoodii* (D-Nornikotin). *Archives internationale de Pharmacodynamie et de Therapie* **40**: 335-353.
64. MAEGRAITH, B. G. 1935. 'Our Stone Age Contemporaries, the Aborigines of Central Australia'. London.
65. TINDALE, N. B. 1935. Initiation among the Pitjandjara natives of the Mann and Tomkinson Ranges in South Australia. *Oceania* **6**: 199-224.
66. TINDALE, N. B. 1935. The Australian Aboriginal: his arts and crafts. *Progress in Aust.* **5**(11): 18-20; (12) 9-11.
67. TINDALE, N. B. 1935. General report on the anthropological expedition to the Warburton Range, Western Australia, July-September, 1935. *Oceania* **6**: 481-85.

1936

68. CAMPBELL, T. D. & GRAY, J. H. 1936. Observations on the teeth of Australian Aborigines. *Aust. J. Dent.* **40**: 290-95.
69. CAMPBELL, T. D., GRAY, J. H. & HACKETT, C. J. 1936. Physical anthropology of the Aborigines of Central Australia. *Oceania* **6**: 106-139; 246-261
70. CLELAND, J. B. 1936. The botanical features between Oodnadatta and Ernabella in the Musgrave Ranges with a locality list of plants from the north-west of South Australia identified by Mr J. M. Black, A.L.S. *Trans. R. Soc. S. Aust.* **60**: 114-126.
71. CLELAND, J. B. 1936. Ethno-botany in relation to the Central Australian Aboriginal. *Mankind* **2**: 6-9.
72. CLELAND, J. B. & JOHNSTON, T. H. 1936. Blood grouping of the Aborigines of the Diamantina district in the north-east of South Australia. *J. Trop. Med. Hyg.* **39**: 104-105.
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REVIEW

Art and Land: Aboriginal Sculptures of the Lake Eyre Region by Philip Jones and Peter Sutton (with special assistance by Kaye Clark). South Australian Museum in association with Wakefield Press, Adelaide, 1986. 144 pp., 119 numbered figs (57 in colour), 431 additional black-and-white illustrations. Paperbound $A29.95.

It is some indication of the present state of Australian ethnographic studies in general and museum publication policies in particular, that the first thing which must be recorded about 'Art and Land' is just how welcome is a catalogue — any catalogue — in this field.

In contrast, throughout Europe the old tradition of the production of meticulously documented bodies of material supported by relevant commentary continues: in the context of Australasian ethnography consider, among others, the work of the Museums für Völkerkunde in Berlin (West) or Basel. Here in Australia itself in recent years one can only turn to special exhibition catalogues such as that of the ill-fated 'Aboriginal Australia' (Art Gallery Directors' Council, Sydney 1981), or the few of any scholarly weight emanating from the Art Gallery side of the Great Institutional Divide (amongst the exceptions see most recently, Maughan & Zimmer (Eds.) 'Dot and Circle: A Retrospective Survey of the Aboriginal Acrylic Paintings of Central Australia', R.M.I.T., Melbourne, 1986). As a true example of the basic working tool of the material culture specialist — a dying breed one must assume, despite the best efforts of Professor Barrie Reynolds and his colleagues at James Cook University — I can only think of David R. Moore's 'The Torres Strait Collection of A. C. Haddon' (British Museum Publications, London, 1983). This suggests two things: firstly, scholars indeed have no need of the 'traditional' *catalogue raisonné*. (If so, why do they continue to be produced in the related fields of archaeology and art history, in many cases with the aid of the 'new information technology' of microfiche, interactive videodisc, etc?) Secondly, it suggests that publication of works of scholarship no longer needs to have a high priority in our public museums, dedicated as they are to an ever-increasing public role. I believe neither of these to be true.

'Art and Land', like the exhibition to which it forms a necessary and seemingly necessarily high-cost adjunct, attempts two things: to record a discrete body of material and to present it in such a way as to attract general attention to a little-known aspect of South Australian Aboriginal material culture — suitably enough, in the State's sesquicentenary year and in the international forum of Adelaide's Festival of Arts.

'Art and Land' is the work of two members of the staff of the South Australian Museum. Philip Jones, an historian, has contributed Chapters 2–4, on the mission history of the area; on the main figure in that history, Pastor Reuther; and a detailed description culminating in a catalogue (prepared with Kaye Clark), of the 421 known extant toas and seven related dog figurines now in Australian, German and New Zealand collections. Peter Sutton, Head of the Division of Anthropology at the South Australian Museum and an anthropologist by training, has written the Introduction and Chapter 5, entitled 'From object into subject', as well as Chapter 1, 'The sculptors and their background'.

In addition to the small group of dog figurines in painted and modelled spinifex gum, the toas — a term whose origin, like much else about the material, is obscure and still largely a matter for speculation — are small sculptures of wood and gypsum painted in natural earth colours. Three sub-types are identified: Type I with a natural object or artefact attached to the head, type II with actual moulded or carved representations of artefacts or natural objects, and type III, toas decorated with painted designs only.

This is supposed to be a review of the publication and not of the exhibition — whose design by Ian Maidment is reflected in part by Peter Goeldi's over-fussy design of the book with its frustrating habit of over-reduction of relevant documentary material (Figs 75, 79, 102–107). The exhibition may be categorised as a good example of the 'object-as-individual-treasures' approach thoroughly established in the 1960s and early 1970s by such international successes, but largely academic failures, as 'The Treasures of Tutankhamun' (British Museum, London, 1972) or 'Sacred Circles: Two Thousand Years of North American Indian Art' (Arts Council of Great Britain, 1976-77). The design of the book seems to exhibit in its turn the difficulties of putting within one and the same covers an attractive visual package and a usable scholarly tool. Notwithstanding, one may comment that exhibition designers and booksellers alike know only too well that very often what's in a name is a difference between public success and failure. (The major 1986 Adelaide Festival presentation of the Art Gallery of South Australia, 'Wild Visionary Spectral', is a case in point as to how the very title may be sufficient to keep them away in droves.) 'Art and Land' offers its own direction markers as to where its devisers intend to take us. It is admittedly all too question-begging a title, but too much

printing ink has already been spilt and too many words have already been processed as to whether or not the authors are correct in claiming — or rather suggesting — that their chosen subject matter is in fact 'art', whether 'art' is to be regarded simply as 'cultural artefacts of high value', as a form of communication, or merely as whatever the viewer thinks it means. For those who are concerned to fight over this particular arid battle-ground again, it must suffice here to refer to Donald Brook's article 'Without wishing to tread on anyone's toas', *Artlink* **6**: 2/3 (June/July 1986), 4–5; Peter Sutton on 'The sculpted word: a reply to Donald Brook on toas', *Adelaide Review* **32** (November 1986), and the response in turn by Brook, 'Touching one's toas', *Adelaide Review* **33** (December 1986). All of which proves, as if one didn't already know, that philosophers are more cunning word-smiths than anthropologists and that, in the present context, neither can prove the truth of an argument, the settling of which must be regarded as a matter of supreme indifference to the culture which has sparked off yet another chapter in the old Euro-centric debate as to 'what is art?' The (only slightly) more important question as to whether this material was originally produced as 'art' by its makers is, however, not one fully addressed by the authors of 'Art and Land' in their book. And this, despite the (unattributed) reference to Rudyard Kipling's often quoted 'Conundrum' (p. 18), and their expressed aim to expose 'the layers of added meaning' acquired by the material since its manufacture; exposing 'the additive process to open view so that all the associations of the sculptures, not just the record of their "original meanings", may be understood' (p. 12).

But just what *is* this material which has here been so carefully illustrated and described? It is this question as to the original purpose served by the toas which certainly interests me as an archaeologist of art.

The original collector of the toas was Johann Georg Reuther (1861–1914), Pastor of the Lutheran Mission of Killalpaninna where, prior to his transfer to Hermannsburg in 1895, Carl Strehlow had worked. The evidence of Reuther's meticulously kept ethnographic accounts of the region supported by the illustrations prepared for him and the independent comments of H. J. Hillier, the then school master at the Mission (significantly the only contemporary sources of information on the toas), suggest the manufacture of the toas over a short period of time between 1890 and 1905. In what in many ways is the most interesting — and instructive — section of his historical commentary entitled 'The Great Toa Hoax?' (pp. 54–61), Jones makes it clear that much of the controversy which has subsequently surrounded the toas can be referred to the quest for a uniting and unifying explanation for their general production. The Melbourne collector A. S. Kenyon in 1920, and George Aiston in 1938 both expressed extreme doubts as to the authenticity of the toas. An alternative and much more complex hypothesis can be advanced in the light of several seemingly unrelated factors: the apparently extremely short-lived period of their production; the demonstration by Howard Morphy in his 1972 London M. Phil. thesis that a study of toa symbolism indicates in them the use of certain visual conventions, systematic but without the grammar and semantics of a natural language; Reuther and Hillier's own limited command of the Aboriginal languages spoken on the mission; Hillier's own training as an artist; and lastly and certainly not least, the fact that Reuther's collection which in 1903 had been offered to a visiting Russian ornithologist, A. L. Yashchenko for 10 English pounds finally passed to the South Australian Museum in 1907 for forty times that amount.

The answer to the conundrum is perhaps over-simply but honestly summarised in the free guide which now — though not at its opening, alas — accompanies the exhibition; the symbols and designs of the toas represent hundreds of places in the country east of Lake Eyre. The toas tell the stories of the *Muramuras* or creation ancestors moving throughout the region during their Dreaming wanderings. The guide continues: 'Although the toas have been described as direction markers or sign-posts, it has not been proven that they were used for this purpose. The evidence suggests that Aboriginal people made the toas in order to depict their country and their beliefs'. The foreword to the book (pp. 8–9) is written by Emeritus Professor Ronald Berndt, most recent in the line of distinguished German South Australians concerned with the study of Aboriginal culture. Largely on the strength of his own early contact with the Diyari, the main tribal group of the area, Berndt is much more definite as to the sign-post — and signing — role of the toas. He calls them 'public religious statements, available for all to see, although many of the designs of them were not unlike those on secret-sacred objects'. These are features which are of course shared by many other items of Aboriginal material culture even in most recent times, and to which the label 'art' has largely uncontentiously been applied. The acrylic paintings of the Centre are an example. Berndt's further comment in his foreword that the toas 'enshrined the Aboriginal empathy with the land' is, I feel, the key to the debate. Christopher Pearson in a lucid summary on 'Aboriginal toas — hoax or mystery?' *Adelaide Review* **23**, Festival 1986) suggests that the 'mystery' is to be explained by a lack of recognition of just how adaptable aspects of Aboriginal culture

are to change, something which Jones (p. 61) refers to as 'the continuing metamorphosis and transformation of Aboriginal artistic traditions'.

In the toas one may see confirmation of what indeed the Hermannsburg school water-colours and to a more immediately significant degree, the Central Australian acrylic paintings demonstrate: that multiple meanings can be enshrined in the one simple visual vocabulary and that, conversely, the same meaning may be given for different symbols. Also, the fact that an 'art' form is 'new' or European-inspired does not invalidate its essential Aboriginality, its power to make meaningful and complex statements about land-human relationships. In this, of course, the toas are no different from the contemporary explosion of differing forms of visual statements made by Aboriginals both in 'traditional' and urban communities.

But that, to quote Kipling again, is another story.

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