THE SIGNIFICANCE OF THE FOSSILISED TREE WHICH STANDS OUTSIDE THE SOUTH AUSTRALIAN MUSEUM

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In 1893 it was intended that the west and north wings of the South Australian Museum, together with the planned East wing, would form a U-shaped enclosure which would open onto North Terrace (Hale 1956: 69). This area was to be developed as a public space, landscaped with palm trees and suitable monuments selected for the edification of the public. The Egyptian Ahnas Column was erected in 1898. Carved from stone and decorated with hieroglyphics, it is an ideal centre-piece that attracts the attention of visitors to the area.

Among the monuments on the lawns, the fossilised tree which now stands outside the East Wing of the South Australian Museum is of unusual interest. Standing approximately four metres high and set in a cement plinth between two palm trees it is easily overlooked. The tree was in separate parts when it arrived in 1909, and was cemented together in an upright position on the lawn in front of the North Wing of the Museum. A sign at the entrance

Original sketch of re-assembled tree by H.J. Hillier
Ruther Collection
S A Museum.


Photo: C. Nobbs, 1989
to the North Wing states that it came from the region to the east of Lake Eyre, and that the tree lived in a remote age when the physical conditions in central Australia were very different to those of the present. The fossil remains of this tree trunk are thought to be that of a species of Eucalyptus and could be millions of years old.

It was collected by Rev. J. G. Reuther around the turn of the century while he was in charge of the Lutheran Mission Station at Lake Kilalparinna on Cooper Creek. An Aboriginal person at the mission informed him of the whereabouts of the stone tree and Reuther made arrangements to bring it into the station, taking Jack Ruediger as a teamster, some Aboriginal men and an eight horse wagon to negotiate the sand (Bonython 1971:30).

John Ingam, a stockman, recalled the event saying,

that it came from the top of a sandhill on the edge of a salt lake some thirty miles west of the mission between Coopers Creek and the Warburton. (Tindale 1964)

The tree was found lying on the sandhill in three separate pieces. These were lifted with great difficulty and carefully transported back to the mission station. It was then erected as a whole in front of Reuther's house as a unique monument - a relic of the distant past and an object of significance to the Diyari Aboriginal.

**THE DIYARI PEOPLE AND THEIR BELIEFS**

The Diyari people were dependent upon the system of creeks and waterholes which filled after local rains and the floods that occasionally flowed down the Cooper Creek from Queensland and the Diamantina in the north and finally into Lake Eyre. The fluctuations in rainfall and temperature were extreme and the availability of scarce resources necessitated movement in search of food, water and materials. Their journeys often assumed epic proportions; up and down the Cooper Creek to Lake Eyre, out into the deserts, even south to the Flinders Ranges. These travels were enshrined in the legends about their ancestral Muramuras.

Pastor R. B. Reuther, who was born on the Kilalparinna Mission and spoke the Diyari language, remembered that "the natives called the fossilised tree, 'Murra Murra', a heathen god" (Bonython 1971: 30). This is the Diyari name given to an ancestral being or demi-god, and is rather like a title ascribed to individual ancestral beings of which there are many. The singular form Mura, is the Diyari term for the 'Dreaming' (Jones and Sutton 1986:23).

The legends of these people take the form of 'song poetry' telling the history of the Muramuras. Reuther recorded many of these histories and beliefs associated with the ancestral beings. He writes that these characters originated in the ground from clods of earth and wound or spiralled their way to the surface amid the chanting of ceremonials songs. They emerged already adorned with ceremonial decorations and, accompanied by their wives and servants, were prepared to begin their wanderings about the land. The Muramuras left traces of themselves and their activities as features in the landscape. Their travels determined tribal boundaries and the Aboriginal people were descendants of their followers or adherents. Invocatory songs belonged to the Muramuras, and were recited with ritual actions in ceremonies performed in response to their particular needs (Reuther 1981: Vol. 29, 31).

The legends or 'histories', as they are called in this area, we inherited by the Aboriginal people and passed down from generation to generation in the form of songs and ceremonies. In their ceremonies they sang the Muramuras' songs and re-enacted the events that occurred in the Muramuras' lives. This portrayal of the character and life of a Muramura is intimately connected to places in the landscape, whether real or imagined. These 'histories' determined the relationship between groups of people, or individuals, and particular locations, objects or other phenomena.

The people of the Lake Eyre Basin, unlike Western Desert people, were divided into two matrilineal moieties, each subdivided into six or more matrilineal descent lines (Hersch 1989:102). In this system a totem was inherited through the female line and known in Diyari as mardu - matrilineal 'clan' mythic representatives (Berndt; pers comm).
Hercus (1989:102) states:

a person inherits from his mother what he (or she) is, what he has as his essential ‘flavour’, his mardu, or as they say his ‘meat’ among the Majangapa and people further to the east. It is the female descent line that is important. Senior men and senior women belonging to a mardu are thinda- marduka, “look favor bosses”: they, both men and women alike, represent the embodiment of the ancestors involved.

The patrilineal totem was passed down from father to children of both sexes and known in Diyari as one’s pinthara - patrilineal ‘clan’ representations (Bemdt pers. comm.). Hercus (1989:103) states:

this is what is often called ‘Dreaming’ or ‘totemic myth’ and that the English word used by the people in the area is ‘History’. A man would inherit his main pinthara from his father and would learn the songs and ceremonies associated with it from his father and his father’s side male relatives at the time of his initiation and subsequently. A woman would likewise, but she would not, in traditional times, learn from her father, she would learn from her father’s side female relatives. Depending on what the ‘History’ was she would learn the whole or only parts of the song cycle involved, or a woman’s secret version. It is the association with ‘History’ that determines a person’s right to country.

George Aiston, at various times a mounted police trooper, storekeeper and ethnographer, lived in this area for twenty six years and recorded aspects of Diyari culture and beliefs. In a paper entitled "Moora Stones and Traditions", Aiston describes the nature and form of the mardu totem. Each Aboriginal family was associated with an emblem representing their mardu or totem. The origin of the mardu and the emblems which signify them are attributable to the ‘moora’. These emblems took the form of pairs of stones, one differing from the other and usually made out of sandstone. Aiston refers to examples such as the ‘red kiramurakoc mardu – the boomerang makers’, or the ‘red ochre mardu’. In correspondence with W.H. Gill (1927) he writes that:

The stones were smeared with fat and red ochre when anything was wanted, supposing there was a scarcity of food, the smearing of the ‘moora’ would ensure a plentiful supply, or if anyone of that mardu was sick, the smearing of the ‘moora’ would ensure their getting well.

The emblems and songs of a ‘moora’ were passed on to the oldest descendant, male or female, of the original holder, unless there were circumstances which prevented this (Aiston 1929:15-16).

This belief that the manifestation of a Muramura was an emblematic form and object of totemic significance, was shared by J. G. Reuther. He (1981: vol. 3, 30.2) stated that:

On the death of a muramura his body is usually turned into stone which was often smeared with red ochre and always venerated by his particular descendants.

Under the heading, "The Muramura are accorded Divine Homage", Reuther (1981: vol. 3, 30) notes:

If for example, the body of a muramura is recognised in a pteritized tree it must not be desecrated. From time to time it is smeared with red ochre by descendants of the tribe, during which time his ceremonial songs are recited to the accompaniment of various movements of the body.
Reuther observed that particular trees were often identified as Muramura and enshrined in legend. They were regarded by the Diyari people as extremely sacred objects through which prescribed actions could influence the Muramura. If, for example, a particular Muramura was well disposed towards their supplications, then it might intercede on their behalf and cause rain to fall or increase the supply of food. Anyone who tampered with these sacred trees or cut them down would suffer a terrible fate (Reuther 1981: vol. 10, 45).

Reuther’s son recalled a spectacle occurring at the mission station involving the fossilised tree, in which

his father (J.G. Reuther) persuaded the Aboriginal people to act as they would have done before Christianity and they danced around it in a most excited manner, sweat poured from them and their blood dripped from torn flesh. (Bonython 1971:30)

This description suggests that the fossilised tree was an object of ritual significance, and it accords with Reuther’s view of the tree as an object of divine homage although he does not record any specific mythological associations.

THE FOSSILISED TREE AND KARDIMARKARA

Berndt worked in Adelaide with Andreas Dibana, a Diyari man, between 1939 and 1943. The fossilised tree was a subject of interest to both. In 1942, while Dibana was convalescing at the Magill Old Folks Home, Berndt recorded a conversation with him. Dibana was 58 years old at the time and Berndt noted that he was born at a waterhole called Ngalibalina in the Diyari country. It is not far from Killalpaninna and is associated with the Muramura Kardimarkara which Dibana referred to as a ‘mythical crocodile’. In a footnote to this record Berndt (1953: 194) states:

the muramura Gadimargara (a mythical animal of crocodile shape who was associated with the magara a yellow bellied fish) came to Gilawalbaninawitli (Killalpaninna), where he lived in a hole under a gum tree, which was near the channel of Coopers Creek entering the lake. (This tree was subsequently removed and deposited in the grounds at the side of the South Australian Museum.)

This was based upon Dibana’s account of the Kardimarkara myth in which he implied that the gum tree, near the hole into which the Muramura went, was the fossilised tree. Berndt says that, without any prompting, Dibana pointed out the Museum tree as the one he had told him about (Berndt, pers. comm.).

Vogelsang’s account of the Kardimarkara myth was recorded by Berndt on 22 February 1940. Vogelsang, brought up on the Mission, was a young man of 17 when he heard the story from Kintalakali, a Wangkangurru man who came to the Mission and lived among the Diyari. Kintalakali died in about 1895. Vogelsang’s story differs somewhat from Dibana’s, however it reveals the possible location of the original fossilised tree. Berndt (pers. comm.) writes:

Gadimargara was living in a hole at Gilawalbaninawitli (Killalpaninna) under a gum tree, near the channel of the Coopers Creek that enters the lake. Children were warned by the old people not to go near the channel when water was flowing, because foam would rise to the surface - and that resulted from the snorting of the Gadimargara, who was within his hole. Gadimargara also travelled up and down Coopers Creek. At Ngangunigina, west of Killalpaninna station, he was in the habit of watching girls bathing in the waterhole of the creek. He tried to catch them - but they escaped
Berndt explains that this tree was said to be associated with a Muramura whose name was unknown to Vogelsang - but could have been the Kardimarkara in his benedictive guise. (In the text, it was said that the unnamed Muramura was the protector of the girls.) This is the tree that stands by the steps of the South Australian Museum.

Vogelsang stated that two elders led a European teamster to its site in the sandhills, probably about 35 miles north-west of the mission. The two Aborigines were too afraid to go near the tree believing they would be punished by the spirit of the petrified Muramura (Berndt: pers. comm.). The directions given for the location where the fossilised tree was found are ambiguous and map references only reveal possible sites. For example, there is a location called Kadminda or 'lizard-stone', marked on a map by Hillier in 1905. His map of the topography is satisfactory but the location of the place names is not always specific. Kadminda is approximately 10 miles to the west of Kitalpaninna Mission, just below Lake Katarnutu (see map fig.1). Reuther (1981: vol. 7139; 341) gives a meaning for the place and name:

The location was marked by a lizard-shaped stone which the Aboriginal people claimed to be a petrified lizard. It was prodded by feeble women to the accompaniment of ceremonial singing and intended to cause the increase of lizards. When the lizards are being chased they are supposed to run slowly, because the women the pursuing them are only feeble. The Mura-mura Pajalina named this place because of the stone.

THE KARDIMARKARA PERSONIFIED

The Diyari people believed that the fossil remains of animals and trees were the manifestation of Muramura as in the case of the Kardimakara. There were different personalizations of this Muramura, assuming different characters. Hercus has stated that the term kardimarkara and the corresponding word in neighbouring languages, Yawarawanka punku, Arabana-Wanganguru kamin, Maljangga puna, simply meant a "mythological serpent". (Hercus 1969, Pers. Comm.)

She also mentions a site called Kanimarri-walpu, 'snake bones', in Wangkangurru where fossils were associated with the Muramura Kardimakara. Ekin also gives an account of a carpet snake myth and increase ritual associated with Kanimarri told to him by informants of the Wangkangurru and Yawarawanka tribes. The myth refers to the Minkani Muramura who was a Kardimakara:

The fossil bones of extinct marsupials, like the diprotodon, in the Lake Eyre region are frequently referred to as cardimarkara, a mythical serpant, which is identified with Kamin, the mythical water-serpent. The remains are believed to date from ularaka, the long-past mythical age, and to be endowed with life potency. A cave in a sandhill in which such remains are found at Kadiplie (Cultrapisia), near Kuruwana, is associated with a muramura here, Minkani, who after wandering in the Cooper's Creek country, buried himself in this sandhill. His remains, transformed into stone in this cave, form a sanctuary for the increase of the large carpet snake, wodranangani, referred to as worna. (Ekin 1934:176-77)
Elkin describes the increase ritual in which,

The people are gathered by the carpet-snake manu ("that is, the sister's sons of the owners of the site) just before summer sets in. The men with carpet-snake for their nari (pinhara, Dryari tribe) and manuka dig at the site and uncover the woma stone - a coil of an 'elbow' of the snake. Then the manuka men sing the murumina, sacred songs, while the nari men put arm-blood and bird-down on the snake-stone. (Elkin 1934: 176-177)

Further actions are performed overnight and on following days to ensue the increase of woma. Elkin notes that Howitt's account of the same ceremony is incomplete and mixed, but that he was correct in comparing the ceremony to the Intichiuma of the Aranda (Howitt and Siebert 1902: 124-125).

Reuther describes an increase ceremony associated with the Murumura Minkara as, "divine veneration of the earth and with blood sacrifice" (Reuther 1981). Large numbers of Aboriginal people congregated once a year at Tiwiti near Kanauna for this purpose and he recounts the ritual which occurred there.

Minkara is an alligator (probably means crocodile) which is to be found in its hole and is venerated by the Aborigines as a murumura. A large number of men - women are not allowed to be present - dig at various places above the hole, until one of them strikes damp soil and the 'tail' of the animal. Horror is on everyone. Two well proportioned men are grabbed, a vein severed on the lower arm of each and the blood allowed to flow onto the animal below. (Reuther 1981: Vol. 10/12,13)

The ceremony continues with further actions that result in the increase of woma and kapri (a species of goanna).

Reuther notes that it is puzzling to him whether or not the Murumura was an alligator or a man and that is struck him as extraordinary that whenever the Diyari dug down after the Murumura, they always saw the 'elbow'.

The identification of anatomical parts of a Murumura with fossilised remains was also documented by Otto Siebert while he lived and worked as a missionary at Killalpaninha between 1894 and 1902. He collected two pieces of fossilised wood which are now stored in the Frankfurt Museum fur Volkerkunde. In the accompanying documentation one piece is described as, "murumura uguuma = an arm of a murumura; it looks like a human upper arm." The other piece is described as "petrified wood that was considered to be a part of murumura."

The form or shape of the Kardimakara has often been construed as that of a crocodile, a reptile with a long tail that swims in waterholes and devours people, but this is a popular European interpretation, there being no Aboriginal record of what it actually looked like. Reuther noted:

It is difficult to say what one should visualise by the term Kardimakara. As yet no 'native' has seen one. Some claim a Kardimakara to be an enormously big snake, twenty to thirty feet long. Others say a Kardimakara has four feet: two short and long. In my opinion, they are crocodiles. At any rate, they are thought of as living in the water and are greatly feared by humans. One needs only to mention the word Kardimakara when a secret dread arises in the heart of the natives. (Reuther 1981: vol. 10/29)

The fossil remains of crocodiles have been found in the banks of waterholes along Cooper Creek and the jawbones and teeth would have been quite common. There is a record of their teeth being
accorded divine significance and used as a charm to protect a swimmer against the Kardimakara, however the connection between crocodile and Kardimakara is tenuous.

MYTH AS HISTORY

The missionaries' knowledge of the whereabouts of fossil remains along Cooper Creek and in the region of Lake Eyre was of assistance to the Gregory Expedition which arrived at the Mission Station from Melbourne in December 1901. Gregory was seeking the prehistoric bones of the mighty diprotodon and the extinct giant kangaroo which inhabited the Lake Eyre region when the geographical conditions were very different. The possibility that Aboriginal people were living here at the same time as these species of megafauna was also of interest to him and he sought proof of this in Aboriginal legends.

The role and function of mythology in Aboriginal society has been variously described. Howitt and Siebert also speculated about the mythology being a record of former events, perhaps a memory of the time when Aboriginal people lived contemporaneously with the now extinct species of megafauna such as the diprotodon (Howitt and Siebert 1902: 525). These records, in the form of legends, were then handed down from generation to generation and believed by them to refer to actual events.

Gregory was perhaps a little overzealous in giving credence to this theory in his book The Dead Heart of Australia (1906), nevertheless he reflected an academic interest in the value of folklore as local history. Siebert and Reuther provided Gregory with a valuable source of information on this subject. He recounts an Aboriginal legend which tells about the origin of the 'strange monsters' known as Kardimakara. They are said to have descended from the sky and to the earth by means of the huge eucalyptus trees which grew on the eastern shores of Lake Eyre and which supported the sky. He writes:

"Once while many Kadimakara were reveling in the rich foods of the lower world, their retreat was cut off by the destruction of the three gum trees that were the pillars of the sky. They were thus obliged to roam on the earth and dwell in the marshes of Lake Eyre till they died and to this day their bones lie where they fell. At times when the country is wasted by prolonged drought, or the floods from the Queensland hills lie too long upon the hunting grounds, the Aborigines make pilgrimage to the bones of kadimakara. These koromores are held, at which blood sacrifices are offered and dances performed, to appease the spirits of the dead Kardimakara and persuade them to intercede with those who still dwell in the sky and control the clouds and rain. (Gregory 1906:3-4)

Howitt notes that the Diyari and the Tirari both speak of these great gum trees that where the pillars of the sky. One of them stood at the Clayton River, the middle one at the Cooper about 25 miles west of Killalpaninna and the third at Salt Creek (Howitt 1904:300-801). It is significant that Howitt's reference to the location of a gum tree which was a pillar of the sky coincides with the approximate location in which the fossilised tree was found.

THE COLLECTION OF FOSSIL REMAINS

A major pre-occupation of the South Australian Museum at the turn of the century was in the area of palaeontology. Edward Stirling, Museum Director from 1895 to 1913, worked with Zeitz on the discovery and collection of vertebrate fossil remains at Lake Callabonna, to the north west of the Flinders Ranges. The reconstruction of a complete skeleton of a diprotodon occupied Zeitz for a considerable time, as did speculation about the pattern of life associated with Australian megafauna. Many finds of unique species of large vertebrates overshadowed any interest in fossilised wood, being regarded as commonplace and of little scientific value. A statement by Stirling to
the Board of the Museum at this time, heralded a new direction. He wrote:

It is also, not inappropriate that I should in this place offer the additional pleading on behalf of the museum that lies in the contemplation of the rapid decline of the native race, and in spite of the partial success of efforts for their preservation, of that of the indigenous fauna of Australia. (Hale 1956: 85)

In line with this statement Stirling soon established a policy of collecting ethnographic material, including artefacts and associated documentation, from a network of collectors throughout northern and central Australia (Jones 1988:151).

In 1907 when Reuther retired from the mission at Killalpanina he took with him a large collection of Aboriginal artefacts and detailed documentation of Aboriginal languages, beliefs and ceremonies. Included among his collection was the fossilised tree, which was carefully wrapped, sewn into canvas packages and transported to Hergott Springs (Marree). Bonynghen remarks:

It really should be recorded what the porters said when they had to load what they thought were light packages! (Bonynghen 1971: 34-35)

The tree was then taken to Gum Vale, near Eudunda, where Reuther settled. In 1907 the South Australian Museum purchased the collection of artefacts and the fossilised tree. Zeitl, assistant curator, acting under instructions from the South Australian Museum Board, visited Reuther's residence at Gumvale and packed the collection for transit to Adelaide. The fossilised tree was "believed to be a unique specimen of its kind in Australasian collections" (Hale 1956:76).

In 1909 Stirling selected a site on the lawn in front of the North wing of the South Australian Museum and the fossilised tree, cemented together in one piece, was erected. Today it remains an enigma for visitors to the cultural precinct along North Terrace, no mention being
made of its significance to Aboriginal people. Evidence suggests that for the Diyari people it was the embodiment of an ancestral being or Muramura, assuming the emblematic form of a *maru* totem. It was venerated by the owners of this totem, and the subject of increase ceremonies in which they smeared it with red ochre and recited the appropriate songs.

Most accounts of the Aboriginal history or Dreaming associated with the fossilised tree concern the *Kardimarkara* Muramura in its generic form. There is little reference to a particular personification as described in Ellis’s account of the *Minkani* ceremony. Dibana described the *Kardimarkara* as a mythical crocodile, and elsewhere it is considered to be a mythological serpent. The fossils of animals and fossilised pieces of wood or tree where quite common in the banks of creeks and waterholes in the area. These were believed by the Aboriginal people to be the manifestations of the *Kardimarkara*. Barndt was told by Dibana that the fossilised tree marked the dwelling place of a *Kardimarkara*. It might be one of the three gum trees described by Gregory as 'pillars of the sky', that enabled the Kardimarkara to move between the sky land and the earth.

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